



Board of Directors

Meeting Date

December 15, 2023



Board of Directors

Lonnie Reed Chair	Hank Webster Vice Chair Connecticut Department of Energy and Environmental Protection (DEEP)
Matthew Ranelli Secretary Partner Shipman & Goodwin	Bettina Bronisz State Treasurers Office State of Connecticut
Thomas Flynn Managing Member Coral Drive Partners	Robert Hotaling Deputy Director DECD
Adrienne Farrar Houel President and CEO Greater Bridgeport Community Enterprises, Inc.	Dominick Grant Director of Investments Dirt Capital Partners
John Harrity Chair CT Roundtable on Climate and Jobs	Brenda Watson Executive Director North Hartford Partnership
Joanne Wozniak-Brown Office of Policy and Management (OPM)	TBD

December 8, 2023

Dear Connecticut Green Bank Board of Directors:

We have our final **regular meeting** of the Board of Directors for 2023 scheduled for **Friday, December 15, 2023 from 9:00-11:00 a.m.**

Please take note, for those of you that want to be at the meeting in-person, we will have space at our offices for you to join. Otherwise, this will be an online meeting.

For the agenda, we have the following:

- **Consent Agenda** – we have several items on the consent agenda, including:

- Meeting Minutes of October 20, 2023
- C-PACE Project Approval – Extension
- Board of Directors Regular Meeting Schedule for 2024 (Revision)
- Joint Committee Regular Meeting Schedule for 2024 (Revision)

In addition to items requiring resolution, there are also documents that you might be interested in perusing that are report outs or updates, including:

- Budderfly Modification of Existing Credit Facility
- FY24 Q1 Financial Report
- IPC FY24 Q1 Report

- **Investment Updates and Recommendations** – we have several investment recommendations for the following transactions:

- **Commercial Solar Loan Program** – request for expansion from \$30 MM to \$50 MM;
- **DownEast SPVs' Project Pipeline** - MVCP LLVC seeking debt financing to fund the DownEast SPVs' Project Pipeline
- **US Bank – withdrawal from current facility for commercial solar leases;**
- **Cargill Falls** – proposed deferral of loan payment;
- **Environmental Market Assets** – request to update the guidelines and procedures for managing environmental market assets (e.g., RECs, FCMs, carbon offsets).

- **Environmental Infrastructure Updates and Recommendations** – we will provide an update on the “waste and recycling” primer planning.

- **Financing Programs Updates and Recommendations** – we have an update and several recommendations for the following:

- **Residential Renewable Energy Solutions** – update on the recent PURA annual review and decision;¹
 - **Solar Map for State Agencies** – we will provide an update on our State of Connecticut efforts, including some proposed extensions;
 - **Cheshire** – C-PACE project; and
 - **East Hartford** – C-PACE project.
- **Incentive Programs Updates and Recommendations** – update on the recent PURA annual review and decision.²
- **Executive Session** – we will go into extension on two matters, including:
- **Trade Secrets and Commercial Information** – update on the various proposals the Green Bank was involved in for the Greenhouse Gas Reduction Fund; and
 - **Personnel-Related Matters** – given the requirement for the Board of Directors to approve compensation adjustments to the Officers, I will present my recommendation for the officers. Within the materials, you will find the performance reviews for all of the Officers and **a memo outlining proposed office merit increases**.
- **Other Business** – if we have time, we will leave space for other business.

Please note, those items **underlined, italicized, and highlighted** above, are materials coming by the close of business on Tuesday, December 12, 2023.

Have a great weekend ahead.

Appreciatively,



Bryan Garcia
President and CEO

¹ For those interested in the annual review by PURA, we have included their decision in the materials.

² For those interested in the annual review by PURA, we have included their decision in the materials.



AGENDA

Board of Directors of the
Connecticut Green Bank
75 Charter Oak Avenue
Hartford, CT 06106

Friday, December 15, 2023
9:00 a.m.– 11:00 a.m.

Dial in: +1 860-924-7736
Phone Conference ID: 457 423 174#

Staff Invited: Sergio Carrillo, Mackey Dykes, Brian Farnen, Bryan Garcia, Bert Hunter, Jane Murphy, Eric Shrago, Leigh Whelpton, Priyank Bhakta and Louise Della Pesca (Consultant)

1. Call to Order
2. Public Comments – 5 minutes
3. Consent Agenda – 5 minutes
4. Investment Programs Updates and Recommendations – 40 minutes
 - a. Commercial Solar Program – Expansion
 - b. DownEast SPVs' Project Pipeline
 - c. Down East SPVs' Project Pipeline
 - d. US Bank Withdrawal from Solar Lease 3 Partnership
 - e. Cargill Falls – Loan Payment Deferral Request
 - f. Environmental Market Assets – Staff Approval Process (Revision)
5. Environmental Infrastructure Programs Updates and Recommendations – 15 minutes
 - a. Waste and Recycling – Primer Planning
6. Financing Programs Updates and Recommendations – 15 minutes
 - a. Residential Renewable Energy Solutions (Affordable Housing) – Annual Review (Update)
 - b. Solar MAP for State Agencies Authority
 - c. C-PACE Transaction – Cheshire
 - d. C-PACE Transaction Amendment – East Hartford

7. Incentive Programs Updates and Recommendations – 10 minutes
 - a. Energy Storage Solutions – Annual Review (Update)
8. Executive Session – Trade Secrets, Commercial Information Given in Confidence, and Personnel Related Matters – 30 minutes
9. Other Business – 5 minutes
10. Adjourn

[Click here to join the meeting](#)

Teams Meeting ID: 258 427 595 087

Passcode: dpwG3Z

Dial in:+1 860-924-7736

Phone Conference ID: 457 423 174#

***Next Regular Meeting: Friday, January 26, 2024 from 9:00-11:00 a.m.
Colonel Albert Pope Room at the
Connecticut Green Bank, 75 Charter Oak Avenue, Hartford***



RESOLUTIONS

Board of Directors of the
Connecticut Green Bank
75 Charter Oak Avenue
Hartford, CT 06106

Friday, December 15, 2023
9:00 a.m.– 11:00 a.m.

Dial in: +1 860-924-7736
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1. Call to Order
2. Public Comments – 5 minutes
3. Consent Agenda – 5 minutes

Resolution #1

Motion to approve the meeting minutes of the Board of Directors for October 20, 2023.

Resolution #2

Motion to approve the Regular Meeting Schedules for 2024 for the Board of Directors and Joint Committee revisions.

Resolution #3

WHEREAS, pursuant to Conn. Gen. Stat. 16a-40g (the “Act”) the Connecticut Green Bank (“Green Bank”) is directed to, amongst other things, establish a commercial sustainable energy program for Connecticut, known as Commercial Property Assessed Clean Energy (“C-PACE”);

WHEREAS, pursuant to the C-PACE program, the Connecticut Green Bank Board of Directors (the “Board”) or the Connecticut Green Bank Deployment Committee (“DC”), as may be applicable, approved and authorized the President of the Green Bank to execute financing

agreements for the C-PACE projects described in this Memo submitted to the Board on December 15, 2023 (the “Finance Agreements”);

WHEREAS, the Finance Agreements were authorized to be consistent with the terms, conditions, and memorandums submitted to the Board or DC, as may be applicable, and executed no later than 120 days from the date of such Board or DC approval; and,

WHEREAS, due to delays in fulfilling pre-closing requirements the Green Bank will need more time to execute the Finance Agreements.

NOW, therefore be it:

RESOLVED, that the Board extends authorization of the Finance Agreements to no later than 120 days from December 15, 2023 and consistent in every other manner with the original Board or DC authorization for the Finance Agreement.

Investment Programs Updates and Recommendations – 40 minutes

a. Commercial Solar Program – Expansion

Resolution #4

WHEREAS, when the Green Bank Board of Directors (the “Board of Directors”) passed resolutions at its October 26, 2018 meeting, as modified by resolutions passed at its July 18, 2019 meeting, approving funding in a total not-to-exceed amount of \$15 million in new money, subject to budget constraints, for the continued development of commercial-scale solar PV PPA projects, for development capital; construction financing; financing one or more 3rd-party ownership platforms, in the form of sponsor equity and/or debt; and selling solar PPA projects developed by CEFIA Holdings LLC (“Holdings”) to third parties, the resolutions restricted projects so financed to those developed by Holdings;

WHEREAS, the Connecticut Green Bank (“Green Bank”) is uniquely positioned to continue developing a commercial solar PPA pipeline through local contractors in response to continued demand from commercial-scale off-takers; and,

WHEREAS, the market for commercial solar PPA financing continues to evolve, as various financing providers are entering the small commercial solar financing space with the ability to provide long-term financing for projects originated by the Green Bank;

WHEREAS, there is still demonstrated need for flexible capital to continue expanding access to financing for commercial-scale customers looking to access solar via a PPA, while both bolstering project returns for investors and enhancing project savings profiles for customers; and,

WHEREAS, the Green Bank is implementing a Sustainability Plan that invests in various clean energy projects and products to generate a return to support its sustainability in the coming years.

NOW, therefore be it:

RESOLVED, that the Board of Directors approves funding, in a total not-to-exceed amount of \$30 million in new money (representing an increase of the previously approved not to exceed amount of \$15 million), subject to budget constraints, for the continued development by Green Bank, and financing of development by 3rd parties, of commercial-scale solar PV PPA projects, to be utilized for the following purposes pursuant to market conditions and opportunities:

- Development capital;
- Construction financing;
- Financing one or more 3rd-party ownership platforms, in the form of sponsor equity and/or debt; and
- Sell solar PPA projects developed by Holdings to third parties.

RESOLVED, that the President of Green Bank; and any other duly authorized officer of Green Bank, is authorized to execute and deliver, any contract or other legal instrument necessary to continue to develop and finance commercial PPA projects on such terms and conditions as are materially consistent with the memorandum submitted to the Green Bank Board on March 18, 2020 ; and,

RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents as they shall deem necessary and desirable to effect the above-mentioned legal instrument.

b. DownEast SPVs' Project Pipeline

Resolution #5

WHEREAS, the Connecticut Green Bank ("Green Bank") Board of Directors ("Board") passed resolutions at its January 2023 meeting to approve funding for the continued development by third parties, of commercial-scale solar PV projects;

WHEREAS, MVCP LLC, a Connecticut-based investment company and direct owner of special purpose vehicles that are currently involved in the development of commercial solar projects and, in the future, may develop energy storage solutions projects in Connecticut; and,

WHEREAS, MVCP is seeking \$10 million of debt financing to fund the DownEast SPVs' Project Pipeline (the "Debt Facility").

NOW, therefore be it:

RESOLVED, that the President of Green Bank; and any other duly authorized officer of Green Bank, is authorized to execute and deliver the Debt Facility, and any associated legal instrument, with terms and conditions as are materially consistent with this Board Memorandum dated December 8, 2023; and,

RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents as they shall deem necessary and desirable to effect the above-mentioned legal instrument.

c. US Bank Withdrawal from Solar Lease 3 Partnership

Resolution #6

WHEREAS, the Board of Directors (the “Board”) of Connecticut Green Bank (“Green Bank”) approved the establishment on August 2, 2017 of a tax equity partnership (“CT Solar Lease 3, LLC”) via its subsidiary CEFIA Solar Services, Inc., with Firststar Development, LLC, a subsidiary of U.S. Bancorp Community Development Corporation (“U.S. Bank”) to enable financing for commercial solar PV projects in Connecticut under a program referred to as the “CT Solar Lease 3 Program”; and

WHEREAS, the CT Solar Lease 3 Program has concluded with ongoing activities limited to servicing a portfolio of commercial solar PV projects and U.S. Bank has expressed an interest to exit CT Solar Lease 3, LLC following the completion of an independent valuation exercise to arrive at a buy-out price for U.S. Bank’s equity stake in CT Solar Lease 3, LLC.

NOW, therefore be it:

RESOLVED, that the Board approves staff’s request to permit the Green Bank or an eligible subsidiary to purchase U.S. Bank’s equity stake in CT Solar Lease 3, LLC consistent with the memorandum to the Board dated December 12, 2023 (the “Board Memo”);

RESOLVED, that the President of the Green Bank; and any other duly authorized officer of the Green Bank, is authorized to execute and deliver, any contract or other legal instrument necessary to effect the transaction on such terms and conditions as are materially consistent with the Board Memo; and,

RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents as they shall deem necessary and desirable to effect the above-mentioned legal instrument.

d. Cargill Falls – Loan Payment Deferral Request

Resolution #7

WHEREAS, pursuant to Conn. Gen. Stat. 16a-40g, the Connecticut Green Bank (“Green Bank”) has established a commercial sustainable energy program for Connecticut, known as Commercial Property Assessed Clean Energy (“C-PACE”);

WHEREAS, the Board of Directors (“Board”) of the Green Bank previously approved a construction and term financing, secured by a C-PACE benefit assessment lien, not-to-exceed amount of \$8,100,000 (the “Current Lien”) to Historic Cargill Falls Mill, LLC (“HCFM”), the property owner of 52 and 58 Pomfret Street, Putnam, Connecticut, to finance the construction of specified clean energy measures (the “Project”) in line with the State’s Comprehensive Energy Strategy and the Green Bank’s Strategic Plan;

WHEREAS, the Project includes numerous energy conservation measures that align with the goals and priorities of the Green Bank’s multifamily housing program; and,

WHEREAS, Green Bank staff now seeks approval to defer C-PACE loan payments from HCFM (“Loan Deferral”) until December 31, 2024 as explained in the memorandum in respect of this matter submitted to the Board on December 8, 2023 (the “Board Memo”).

NOW, therefore be it:

RESOLVED, that the President of the Green Bank and any other duly authorized officer of the Green Bank is authorized to execute and deliver the Loan Deferral consistent with the Board Memo and the Green Bank’s Loan Loss Decision Process last updated on March 25, 2022; and,

RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents and instruments as they shall deem necessary and desirable to effect the above-mentioned legal instrument.

- e. Environmental Market Assets – Staff Approval Process (Revision)

Resolution #8

WHEREAS, CGS Sec. 16-245n (as amended by Public Act 21-2115) empowers the Connecticut Green Bank to leverage the carbon offset markets to monetize environmental attributes that accelerate the deployment of clean energy;

WHEREAS, CGS 16-245a established a Renewable Portfolio standard requiring Connecticut Electric Suppliers and Electric Distribution Company Wholesale Suppliers to obtain a minimum percentage of their retail load by using renewable energy;

WHEREAS, in November 2013, the Green Bank Board of Directors (“Board”) approved Green Bank staff to execute and deliver any contract for immediate and/or long-term sale of RECs generated under the Residential Solar Incentive Program; and,

WHEREAS, in January 2023, the Green Bank Board approved Green Bank staff to sell credits generated as part of the Electric Vehicle Carbon Credit Pilot Program;

NOW, therefore be it:

RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents and instruments as they shall deem necessary and desirable to generate earned revenues from these assets while hedging portfolio risk over both the short and long term as specifically set forth in **Attachment C** of the memorandum to the Board dated December 8, 2023.

- 4. Environmental Infrastructure Programs Updates and Recommendations – 15 minutes

- a. Waste and Recycling – Primer Planning

- 5. Financing Programs Updates and Recommendations – 15 minutes

- a. Residential Renewable Energy Solutions (Affordable Housing) – Annual Review (Update)
- b. Solar MAP for State Agencies Authority

Resolution #9

WHEREAS, Connecticut Green Bank (“Green Bank”) staff has been working with State of

Connecticut (“State”) agencies to develop solar projects (“SAP Projects”) as more particularly described in the Memorandums dated December 8, 2023 (the “Memo”) and submitted to the Green Bank Board of Directors (the “Board”);

WHEREAS, Green Bank has been providing assistance in site feasibility analysis, incentive procurement, and facilitating a procurement process for development and construction of SAP Projects; and

WHEREAS, Green Bank desires to expand the SAP Project authority to accommodate the expected pipeline of SAP Projects and their associated development and construction costs, which costs would later be recovered by either (1) selling SAP Project assets pursuant to an RFP process, or (2) the issuance of bonds, other obligations or other term financing to repay the temporary advances.

NOW, therefore be it:

RESOLVED, that the Board of Directors approves funding, in a total not-to-exceed amount of \$60,000,000 development and construction capital for the continued development of the SAP Projects;

RESOLVED, that the Board hereby declares the Green Bank’s official intent that payment of SAP Project development and construction costs may be made from temporary advances of other available funds of the Green Bank, and that the Green Bank reasonably expects to reimburse such advances from the bonds or other obligations in an amount not to exceed \$60,000,000;

RESOLVED, that the President of Green Bank; and any other duly authorized officer of Green Bank, is authorized to execute and deliver, any contract or other legal instrument necessary to continue to develop and construct SAP Projects materially consistent with the Memo; and

RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents as they shall deem necessary and desirable to effect the above-mentioned legal instruments.

c. C-PACE Transaction – Cheshire

Resolution #10

WHEREAS, pursuant to Connecticut General Statute Section 16a-40g (the “Statute”), the Connecticut Green Bank (Green Bank) has established a commercial sustainable energy program for Connecticut, known as Commercial Property Assessed Clean Energy (“C-PACE”);

WHEREAS, the Green Bank Board of Directors (the “Board”) has approved a \$40,000,000 C-PACE construction and term loan program; and,

WHEREAS, the Green Bank seeks to provide a \$811,200 construction and term loan under the C-PACE program to 30 Grandview Court, LLC, the building owner of 30 Grandview Court, Cheshire, Connecticut (the “Loan”), to finance the construction of specified clean energy measures in line with the State’s Comprehensive Energy Strategy and the Green Bank’s Strategic Plan as more particularly described in the memorandum submitted to the Green Bank Board of Directors dated December 8, 2023 (the “Memo”).

NOW, therefore be it:

RESOLVED, that the President of the Green Bank and any other duly authorized officer of the Green Bank is authorized to execute and deliver the Loan in an amount not to be greater than one hundred ten percent of the Loan amount with terms and conditions consistent with the Memo , and as he or she shall deem to be in the interests of the Green Bank and the ratepayers no later than 120 days from the date of authorization by this resolution;

RESOLVED, that before executing the Loan, the President of the Green Bank and any other duly authorized officer of the Green Bank shall receive confirmation that the C-PACE transaction meets the statutory obligations of the Statute, including but not limited to the savings to investment ratio and lender consent requirements; and,

RESOLVED, that the duly authorized Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents and instruments as they shall deem necessary and desirable to effect the above-mentioned legal instruments.

d. C-PACE Transaction Amendment – East Hartford

Resolution #11

WHEREAS, pursuant to Connecticut General Statute Section 16a-40g (the “Statute”), the Connecticut Green Bank (Green Bank) is directed to, amongst other things, establish a commercial sustainable energy program for Connecticut, known as Commercial Property Assessed Clean Energy (“C-PACE”);

WHEREAS, the Green Bank Board of Directors (the “Board”) has approved a \$40,000,000 C-PACE construction and term loan program; and,

WHEREAS, the Green Bank seeks to provide a \$572,250 construction and (potentially) term loan under the C-PACE program to 580 Tolland Street, LLC the building owner 580 Tolland Street East Hartford, CT (the "Loan"), to finance the construction of specified clean energy measures in line with the State’s Comprehensive Energy Strategy and the Green Bank’s Strategic Plan.

NOW, therefore be it:

RESOLVED, that the President of the Green Bank and any other duly authorized officer of the Green Bank is authorized to execute and deliver the Loan in an amount not to be greater than one hundred ten percent of the Loan amount with terms and conditions consistent with the memorandum submitted to the Committee dated December 8, 2023, and as he or she shall deem to be in the interests of the Green Bank and the ratepayers no later than 120 days from the date of authorization by the Board of Directors;

RESOLVED, that before executing the Loan, the President of the Green Bank and any other duly authorized officer of the Green Bank shall receive confirmation that the C-PACE transaction meets the statutory obligations of the Statute, including but not limited to the savings to investment ratio and lender consent requirements; and,

RESOLVED, that the proper the Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents and instruments as they shall deem necessary and desirable to effect the above-mentioned legal instruments.

6. Incentive Programs Updates and Recommendations – 10 minutes

a. Energy Storage Solutions – Annual Review (Update)

7. Executive Session – Trade Secrets, Commercial Information Given in Confidence, and Personnel Related Matters – 30 minutes

Resolution #12

WHEREAS, Section 3.1 of the Connecticut Green Bank (Green Bank) Bylaws provides that the Board of Directors (Board) shall be responsible for determining or approving compensation for the officers;

WHEREAS, on June 23, 2023, the Board approved a 5.0% merit pool in its FY 2024 budget for annual merit adjustments that can range from 0.0% to 8.0%;

WHEREAS, the Green Bank has completed its annual performance review process based on the Board approved annual goals and 360-degree performance reviews from the staff; and,

WHEREAS, the President and C.E.O. of the Green Bank recommends a 5.0% merit increase for the Officers other than himself and authorizing the Chair to determine the President and C.E.O.

NOW, therefore be it:

RESOLVED, that all Officers other than the President and C.E.O. shall receive a 5.0% merit increase for Fiscal Year 2023; and,

RESOLVED, that the Board authorizes the Chair of the Green Bank to determine the merit compensation adjustment for the President and C.E.O. for FY23 based on the (i) feedback of the Board members, (ii) performance towards meeting the Organizational and Team Goals for FY23 and (iii) his Individual Goals for FY23.

8. Other Business – 5 minutes

9. Adjourn

[Click here to join the meeting](#)

Teams Meeting ID: 258 427 595 087

Passcode: dpwG3Z

Dial in:+1 860-924-7736

Phone Conference ID: 457 423 174#

***Next Regular Meeting: Friday, January 26, 2024 from 9:00-11:00 a.m.
Colonel Albert Pope Room at the
Connecticut Green Bank, 75 Charter Oak Avenue, Hartford***

ANNOUNCEMENTS

- **In-Person Option** – if anyone wants to join future BOD or Committee meetings in person, we are inviting you to our offices in Hartford
- **Mute Microphone** – in order to prevent background noise that disturbs the meeting, if you aren't talking, please mute your microphone or phone.
- **Chat Box** – if you aren't being heard, please use the chat box to raise your hand and ask a question.
- **Recording Meeting** – we continue to record and post the board meetings.
- **State Your Name** – for those talking, please state your name for the record.



Board of Directors Meeting

December 15, 2023

Colonel Albert Pope Conference Room

Board of Directors

Agenda Item #1

Call to Order

Agenda

Proposed Changes



1. **Remove** – Agenda Item #6a (RRES Update) and #7a (ESS Update) to January 26, 2024
2. **Move** – Agenda Item #4a (Community Solar Loan – Expansion) after #4e (Environmental Market Assets)
3. **Move** – Agenda Item #5 (Environmental Infrastructure – Waste and Recycling) after Agenda Items #6b, #6c, and #6d

Board of Directors
Agenda Item #2
Public Comments

Board of Directors
Agenda Item #3
Consent Agenda

Consent Agenda

Resolutions #1 through #3



1. **Meeting Minutes** – approve meeting minutes of October 20, 2023

2. **C-PACE Project Extension** – Stamford

3. **CY24 Regular Meeting Schedule** – revision to BOD to October 25, 2024 (from October 18, 2024) and Joint Committee to June 20, 2024 (from June 19, 2024)
 - **Budderfly** – approved at prior meeting, but included Green Bank Capital Solutions RFP score sheet
 - **Q1 FY24 Financial Statements** – memo, including abridged and comprehensive
 - **IPC Quarterly Report** – Q1 FY24 report out

Board of Directors
Agenda Item #4a
Investment Programs Updates and
Recommendations
Commercial Solar Program – Expansion

MOVED

Board of Directors
Agenda Item #4b
Investment Programs Updates and
Recommendations
Down East SPV's Project Pipeline

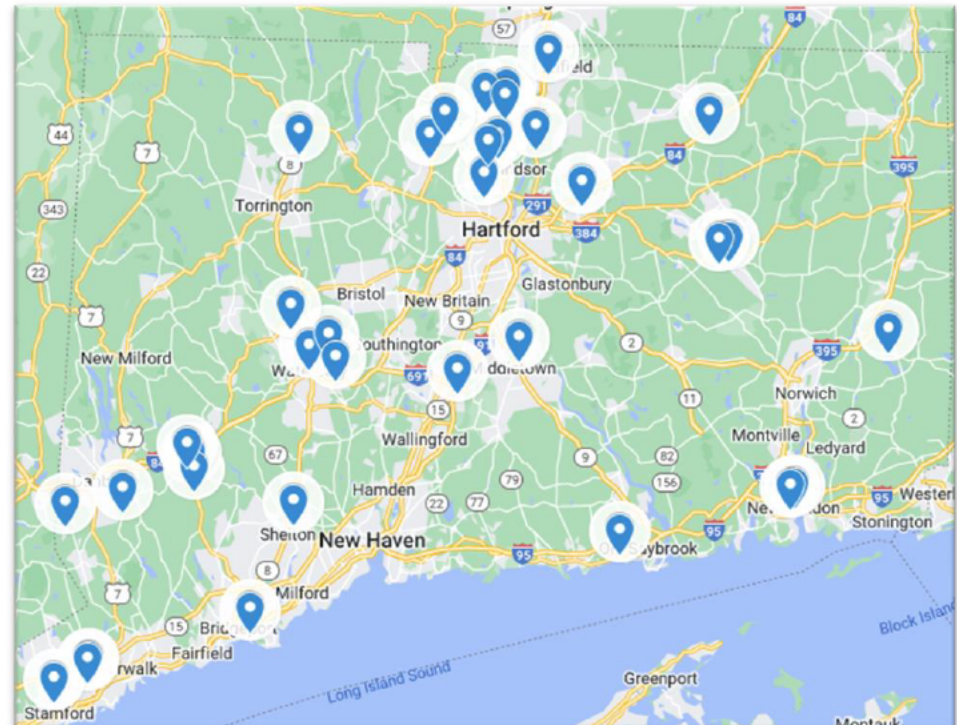
DownEast Overview



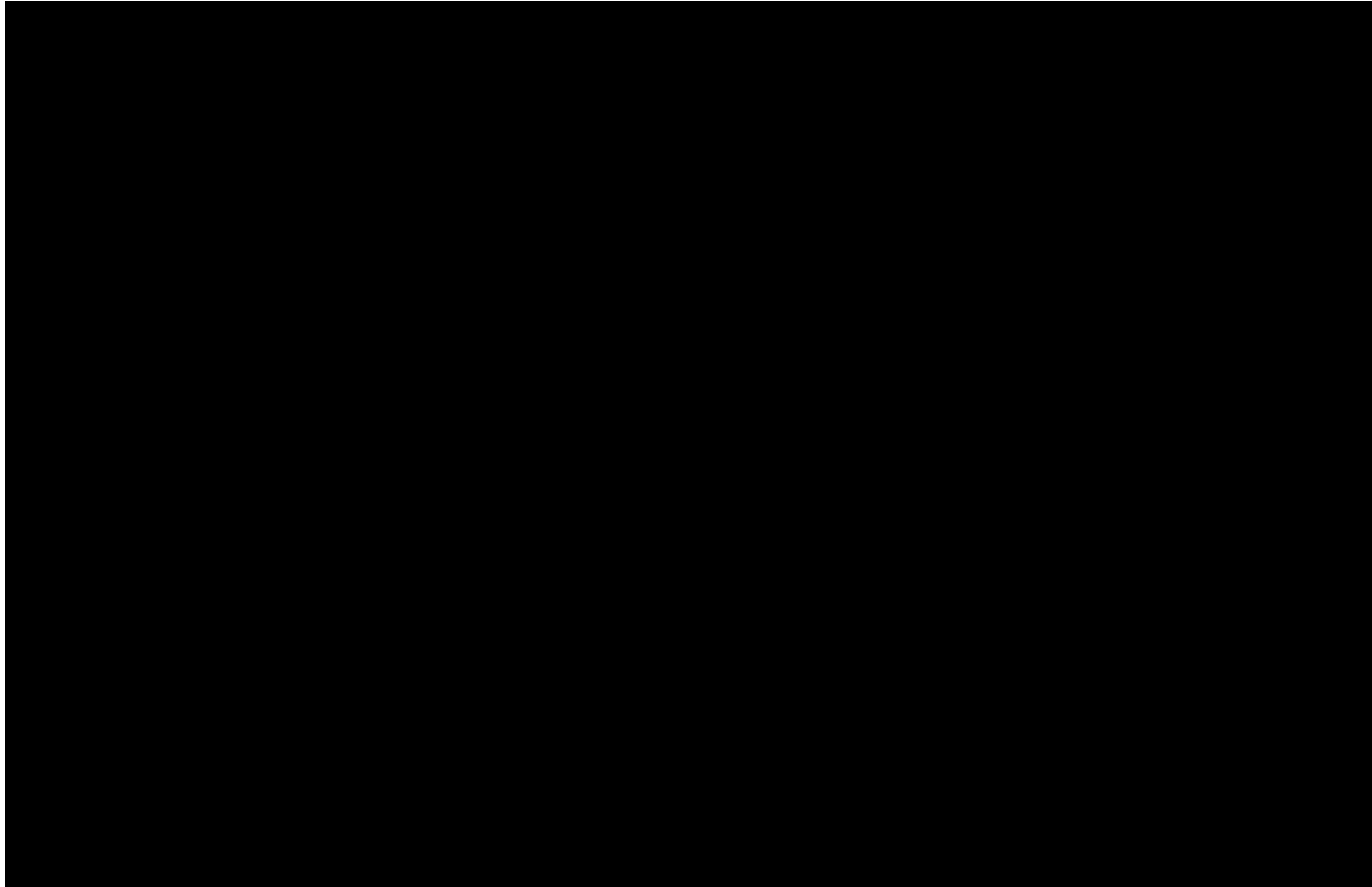
Debt Facility	████████ loan for ███ projects in various stages of development
Benefit to Borrower	Debt improves the return of the solar investments, thereby allowing projects to exceed MVCP's hurdle rate of return
Benefit to Green Bank	<p>Improving economics for solar investments → more renewables in CT</p> <p>Additional █████ MW of solar will help CGB achieve goals</p> <p>Generates return on CGB capital</p>
Borrower's Structure	MVCP, parent of DownEast SPVs which develops and operates solar projects (all are investment vehicles of family office)
Borrower's Leadership	<p>██</p> <p>██</p> <p>DownEast has hired reputable installers such as AEC</p>
Diligence Process	<p>Staff has underwritten borrower MVCP</p> <p>Will underwrite each individual project before disbursing funds</p>

Debt Facility Terms

- Debt Financing [REDACTED], available 12 months from closing
 - DSRC [REDACTED]x
- Pipeline: [REDACTED] commercial solar projects = [REDACTED]MW
 - [REDACTED] operational
 - [REDACTED]
 - [REDACTED]
 - [REDACTED] small (≤ 200 kW)
 - [REDACTED] medium (200-1000 kW)
- Commercial Solar Program



DownEast- Structure Diagram



Resolution #5



NOW, therefore be it:

RESOLVED, that the President of Green Bank; and any other duly authorized officer of Green Bank, is authorized to execute and deliver the Debt Facility, and any associated legal instrument, with terms and conditions as are materially consistent with this Board Memorandum dated December 8, 2023; and

RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents as they shall deem necessary and desirable to effect the above-mentioned legal instrument.

Board of Directors
Agenda Item #4c
Investment Programs Updates and
Recommendations
US Bank Withdrawal from Solar Lease 3
Partnership

CT Solar Lease 3 LLC

US Bank Withdrawal from Partnership



■ **Background** –

- Green Bank (via its subsidiary CEFIA Solar Services) and US Bank set up a tax equity partnership (CT Solar Lease 3, LLC) in 2017 to own commercial solar assets.
- ‘Partnership flip’ structure envisioned US Bank exit after ITC recapture period had ended; US Bank expressed interest in exiting by 12/31/2023.

■ **Valuation work performed** –

- Commissioned independent fair market valuation (FMV) services from CohnReznick, who used a discounted cashflow model to value equity stake
- Obtained a FMV from and compared to minimum buy-out price per Operating Agreement (min. Buy out price is slightly higher than FMV)

- **Request to Board** – Grant approval to transact with US Bank to effect its exit, at a ‘not to exceed’ minimum buy out price

Resolution #6



NOW, therefore be it:

RESOLVED, that the Board approves staff’s request to permit the Green Bank or an eligible subsidiary to purchase U.S. Bank’s equity stake in CT Solar Lease 3, LLC consistent with the memorandum to the Board dated December 12, 2023 (the “Board Memo”);

RESOLVED, that the President of the Green Bank; and any other duly authorized officer of the Green Bank, is authorized to execute and deliver, any contract or other legal instrument necessary to effect the transaction on such terms and conditions as are materially consistent with the Board Memo; and,

RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents as they shall deem necessary and desirable to effect the above-mentioned legal instrument.

Board of Directors

Agenda Item #4d

Investment Programs Updates and
Recommendations

Cargill Falls – Loan Payment Deferral Request

Historic Cargill Falls Mill Project Update



- **Project Background:** Putnam CT mill redevelopment to mixed-use residential and commercial space, 2 hydro electric turbines (~900 kW)+ energy conservation measures
- **Hydro Update:** operating and utility bills have reduced by 76% on average.

Historic Cargill Falls Mill Project Update



■ Real Estate Update:

	Units	Occupied	Vacant
Abatement completed	10	7	3
Requiring abatement per testing	51	38	13
Not requiring abatement per testing	21	17	4

- Property getting quote for units requiring abatement
 - Property manager will not be renewing contract, looking to hire new manager
 - 15 units participated in lawsuit or housing action suit; mediation dismissed most cases (\$80k of rent in escrow returned or being returned to the property). Property settled with two units for approximately \$10k.
 - Department of Housing - fully informed and working with parties involved to re-stabilize the property
- **Recommendation:** One-year CPACE loan deferral to allow for property to stabilize from new manager, further abatement and vacancies

Resolution #7



NOW, therefore be it:

RESOLVED, that the President of the Green Bank and any other duly authorized officer of the Green Bank is authorized to execute and deliver the Loan Deferral consistent with the Board Memo and the Green Bank's Loan Loss Decision Process last updated on March 25, 2022; and,

RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents and instruments as they shall deem necessary and desirable to effect the above-mentioned legal instrument.

Board of Directors
Agenda Item #4e
Investment Programs Updates and
Recommendations
Environmental Market Assets – Staff Approval
Process

Environmental Markets Assets



Staff approval Process

Currently we are active in 3 environmental asset markets:

- Renewable Energy Credits (SHRECs and RECs)
- Forward Capacity Markets
- Carbon Offsets (Electric Vehicles)

Green Bank Income from Environmental Markets

	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>
Forward Capacity Market income	159,238.66	258,183.59	392,565.09
SHREC	9,560,919.00	10,533,954.00	12,922,085.00
Non-SHREC RECs	917,850.00	1,032,309.50	2,241,182.00
Carbon Offsets			65,280.00
Total	10,638,007.66	11,824,447.09	15,621,112.09

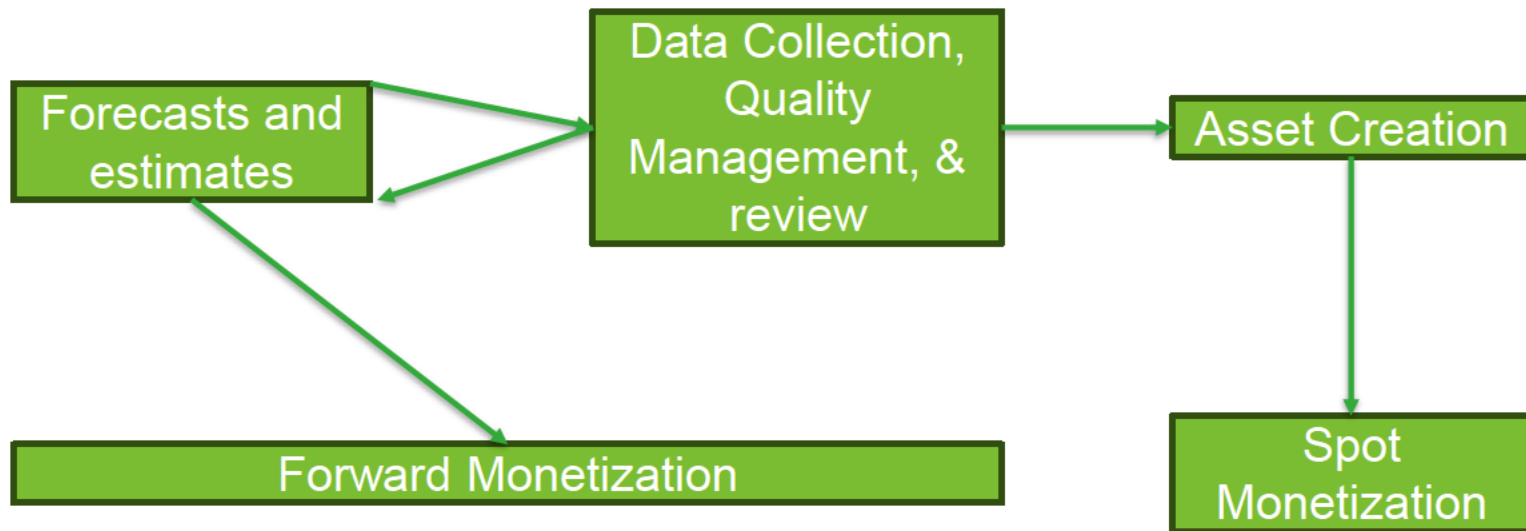
Staff approval Process

- **Manage Risk Across Environmental Assets** – we are standardizing our approach to managing operating and market risks across all existing environmental asset types
- **Manage Quantity** – track forecasts and actuals; review data and adjust expected quantity of assets on an ongoing basis
- **Manage Market (Price) Risk** – allow for forward sales to lock in pricing in advance but manage risk by applying limits as to not oversell quantity

Environmental Markets Assets



Staff approval Process



Limit what is sold in advance to lock in pricing. Sell the balance after the asset has been fully created to limit the risks around quantity.

Resolution #8



NOW, therefore be it:

RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents and instruments as they shall deem necessary and desirable to generate earned revenues from these assets while hedging portfolio risk over both the short and long term as specifically set forth in **Attachment C** of the memorandum to the Board dated December 8, 2023.

Board of Directors
Agenda Item #4a
Investment Programs Updates and
Recommendations
Commercial Solar Program – Expansion

Commercial Solar Program

Request for Expansion



- **What?**– The Green Bank Commercial Solar Program has expanded into a successful, multi-faceted financing platform since Board approval in 2018.
- **Why?**– 98% of the \$30M capital assigned to the Program has been allocated to a variety of transactions, yet market demand for the Program's products remains strong.
- **Request to Board**– Expand the Program to allow for total \$50M capital allocation to enable continued deployment of clean energy in CT.

Commercial Solar Program

Request for Expansion



Summary of transactions to which capital has been allocated

Date	Counterparty	Transaction type	Capital allocated	Status of facility
2018-19	Sunwealth	Debt financing for 3rd party ownership platform	\$2M	Closed
2019-20	Skyview Ventures	As above (2 facilities)	\$11.6M	One active, one closed
2020	Inclusive Prosperity Capital	As above (2 facilities)	\$10M	Active
2021 –	Various municipalities and solar contractors	Development equity (not yet recovered through asset sales)	\$1.7M	Active
2023	Sunwealth	Debt financing for 3rd party ownership platform	\$4M	Board approved; in diligence
		Total	\$29.3M	

Resolution #4



NOW, therefore be it:

RESOLVED, that the Board approves the increase of the allocation of \$30 million to the revised allocation of \$50 million, subject to budget constraints, use cases, and appropriate approval of investments as explained in the Board Memo;

RESOLVED, that the President of Green Bank; and any other duly authorized officer of Green Bank, is authorized to execute and deliver, any contract or other legal instrument necessary to continue to develop and finance commercial projects on such terms and conditions as are materially consistent with the Board Memo; and

RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents as they shall deem necessary and desirable to effect the above-mentioned legal instrument.

Board of Directors

Agenda Item #5a

Environmental Infrastructure Programs Updates
and Recommendations

Waste and Recycling - Primer Planning

MOVED



CONNECTICUT
GREEN BANK

Board of Directors
Agenda Item #6a
Financing Programs Updates and
Recommendations
Residential Renewable Energy Solutions
(Affordable Housing) – Annual Review (Update)

REMOVED
January 26, 2024

Board of Directors
Agenda Item #6b
Financing Programs Updates and
Recommendations
Solar MAP for State Agencies Authority

Solar MAP for State Agencies

Background



Oct 2019 – approved \$5m in development capital for Department of Correction projects

April 2020 – approved increase in development capital authority to \$19.5m

June 2023 – approved sale of projects to Total Energies and \$12m in term debt financing

Solar MAP for State Agencies Expansion



	EPC Contract Sum	Interconnection Cost	NRES Performance Assurance Payment	Total
SAP 1 (Pilot Projects)	\$18,712,088	\$108,923		\$18,821,011
SAP 2	\$21,459,450			\$21,459,450
SAP 3	\$8,994,257			\$8,994,257
SAP 4			\$500,000	\$500,000
Contingency 15%				\$7,466,208
Total				\$57,240,92

Request to expand authority to deploy development and construction capital in a not-to-exceed amount of \$60m

Resolution #9



NOW, therefore be it:

RESOLVED, that the Board of Directors approves funding, in a total not-to-exceed amount of \$60,000,000 development and construction capital for the continued development of the SAP Projects;

RESOLVED, that the Board hereby declares the Green Bank's official intent that payment of SAP Project development and construction costs may be made from temporary advances of other available funds of the Green Bank, and that the Green Bank reasonably expects to reimburse such advances from the bonds or other obligations in an amount not to exceed \$60,000,000;

RESOLVED, that the President of Green Bank; and any other duly authorized officer of Green Bank, is authorized to execute and deliver, any contract or other legal instrument necessary to continue to develop and construct SAP Projects materially consistent with the Memo; and,

RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents as they shall deem necessary and desirable to effect the above-mentioned legal instruments.

Board of Directors
Agenda Item #6c
Financing Programs Updates and
Recommendations
C-PACE Transaction – Cheshire

30 Grandview Court, Cheshire

Ratepayer Payback



- **\$833,980** for a 334kW (DC) Solar PV System.
- Projected savings are 29,073 **MMBtu** versus **\$833,980** of ratepayer funds at risk.



- Ratepayer funds will be paid back in one of the following ways
 - ❑ (a) through a take-out by a private capital provider at the end of construction (project completion);
 - ❑ (b) subsequently, when the loan is sold down to a private capital provider; or
 - ❑ (c) repayment of the C-PACE benefit assessment by the property owner.

30 Grandview Court, Cheshire

Terms and Conditions



- **\$833,980** construction loan at 5% and term loan set at a fixed 5.75% over the 20-year term
- **\$833,980** loan against the property
 - ❑ Property valued at [REDACTED]
 - ❑ Loan-to-value ratio equals [REDACTED] & Lien-to-value ratio equals [REDACTED]
 - ❑ DSCR > [REDACTED]

30 Grandview Court, Cheshire



The Five W's

- **What?** Receive approval for a \$833,980 construction and term loans under the C-PACE program to Cathedral Parish to finance the construction of specified energy upgrades.
- **When?** Project to commence 2024.
- **Why?** Allow Green Bank to finance this C-PACE transaction continue to build momentum in the market, and potentially provide term financing for this project until Green Bank sells it along with its other loan positions in C-PACE transactions.
- **Who?** **30 Grandview Court LLC**, the owner of 30 Grandview Court , Cheshire, CT
- **Where?** 30 Grandview Court , Cheshire, CT

30 Grandview Court, Cheshire

Project Tear Sheet



Property Information		
Property Address	30 Grandview Court	
Municipality	Cheshire	
Property Owner	30 Grandview Court, LLC	
Type of Building	Industrial	
Building Size (sf)	29,600 sf	
Year of Build / Most Recent Renovation	1997	
Environmental Screening Report	[REDACTED]	
Project Information		
Proposed Project Description	349.2 kW DC rooftop solar installation	
Energy Contractor	[REDACTED]	
Objective Function	35.84 kBTU / ratepayer dollar at risk	
		Total
Projected Energy Savings (mmBTU)	Per Year	1,234
	Over EUL	29,073
Estimated Cost Savings (incl. ZRECs/Tariff and tax benefits)	Per Year	\$118,499
	Over EUL	\$2,369,985
Financial Metrics		
Proposed C-PACE Assessment	833,980	
Term Duration (years)	20	
Term Rate	5.75% annually	
Construction Rate	5.00% annually	
Annual C-PACE Assessment	\$68,778	
Average DSCR	[REDACTED]	
Savings-to-Investment Ratio	1.68x	
Lien-to-Value (LiTV)	[REDACTED]	
Loan-to-Value (LTV)	[REDACTED]	
Appraisal Value	[REDACTED]	
Mortgage Lender Consent	[REDACTED]	

30 Grandview Court, Cheshire

Key Financial Metrics



Table 1. Financial Metrics over EUL	
Savings to Investment Ratio (SIR)	1.68
Project cost	\$811,200
Amount financed	\$833,980
Gross total cost savings over EUL	\$2,369,985
Total PACE + O&M payments over EUL	\$1,414,182
% financed	100%
Owner equity contribution	\$0
Interest rate	5.750%
Finance term, years	20

Table 2. Savings Summary	
Effective useful life – EUL (years)	30
Gross project cost	\$811,200
Closing cost	\$22,780
Financed amount (including closing costs)	\$833,980
First year electric energy generation (kWh/yr)	361,624
First year electric energy generation (MMBtu/yr)	1,234
Total electric generation over EUL (MMBtu)	29,073
Netting tariff REC revenue (total over 20 years) (\$)	\$226,702
Netting tariff electric revenue (total over 20 years) (\$)	\$1,658,591
Total revenue from generation (total over 20 years) (\$)	\$1,885,293
Federal ITC	\$243,360
MACRS for solar	\$241,332

Resolution #10



NOW, therefore be it:

RESOLVED, that the President of the Green Bank and any other duly authorized officer of the Green Bank is authorized to execute and deliver the Loan in an amount not to be greater than one hundred ten percent of the Loan amount with terms and conditions consistent with the memorandum submitted to the Green Bank Board of Directors (the “Board”) dated December 8, 2023, and as he or she shall deem to be in the interests of the Green Bank and the ratepayers no later than 120 days from the date of authorization by the Board;

RESOLVED, that before executing the Loan, the President of the Green Bank and any other duly authorized officer of the Green Bank shall receive confirmation that the C-PACE transaction meets the statutory obligations of the Statute, including but not limited to the savings to investment ratio and lender consent requirements; and

RESOLVED, that the proper the Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents and instruments as they shall deem necessary and desirable to effect the above-mentioned legal instruments.

Board of Directors
Agenda Item #6d
C-PACE Transaction – East Hartford

580 Tolland, East Hartford

580 Tolland Street LLC

Ratepayer Payback



- **\$568,412** for a 223kW solar PV system.
- Projected savings are 24,565 **MMBtu** versus **\$568,412** of ratepayer funds at risk.

- Ratepayer funds will be paid back in one of the following ways:
 - ❑ (a) through a take-out by a private capital provider at the end of construction (project completion);
 - ❑ (b) subsequently, when the loan is sold down to a private capital provider; or
 - ❑ (c) repayment of the C-PACE benefit assessment by the property owner.

580 Tolland, East Hartford

The Five W's



- **What?** Receive approval for a \$568,412 construction and term loans under the C-PACE program to 580 Tolland Street LLC to finance the construction of specified energy upgrades.
- **When?** Project commenced 2023.
- **Why?** Allow Green Bank to finance this C-PACE transaction, continue to build momentum in the market, and potentially provide term financing for this project until Green Bank sells it along with its other loan positions in C-PACE transactions.
- **Who?** 580 Tolland Street LLC, the property owner of 580 Tolland Street, East Hartford, CT.

580 Tolland, East Hartford

Terms and Conditions



- **\$568,412** construction loan at 5% and term loan set at a fixed 5.25% over the 20-year term
- **\$568,412** loan against the property
 - Property valued at [REDACTED]
 - Loan-to-value ratio equals [REDACTED] & Lien-to-value ratio equals [REDACTED]
- DSCR > [REDACTED]

580 Tolland, East Hartford

Project Tear Sheet - updated



	Original (April '23)	Revised (December '23)
Solar PV C-Pace Project	\$491,537	\$572,250
S.I.R.	1.79x	1.28x
Average DSCR	██████	██████
Annual C-PACE Assessment	\$41,125	\$46,660
Lien-to-Value	██████████	██████████
Loan-to-Value	██████	██████

580 Tolland, East Hartford

Key Financial Metrics



Table 1. Financial Metrics over EUL	
Savings to Investment Ratio (SIR)	1.35
Project cost	\$554,095
Amount financed	\$568,412
Gross total cost savings over EUL	\$1,252,751
Total PACE + O&M payments over EUL	\$924,905
% financed	100%
Owner equity contribution	\$0
Interest rate	5.250%
Finance term, years	20

Table 2. Savings Summary	
Effective useful life – EUL (years)	20
Gross project cost	\$554,095
Closing cost	\$14,317
Financed amount (including closing costs)	\$568,412
First year electric energy generation (kWh/yr)	289,400
First year electric energy generation (MMBtu/yr)	988
Total electric generation over EUL (MMBtu)	18,844
First year revenue from generation (\$/yr)	\$58,161
EUL revenue from generation (\$)	\$1,109,585
Energy on the line grant (\$)	\$0
Federal ITC	\$143,166
MACRS for solar	\$0

Resolution #11



NOW, therefore be it:

RESOLVED, that the President of the Green Bank and any other duly authorized officer of the Green Bank is authorized to execute and deliver the Loan in an amount not to be greater than one hundred ten percent of the Loan amount with terms and conditions consistent with the memorandum submitted to the Green Bank Board of Directors (the “Board”) dated December 8, 2023, and as he or she shall deem to be in the interests of the Green Bank and the ratepayers no later than 120 days from the date of authorization by the Board;

RESOLVED, that before executing the Loan, the President of the Green Bank and any other duly authorized officer of the Green Bank shall receive confirmation that the C-PACE transaction meets the statutory obligations of the Statute, including but not limited to the savings to investment ratio and lender consent requirements; and

RESOLVED, that the proper the Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents and instruments as they shall deem necessary and desirable to effect the above-mentioned legal instruments.



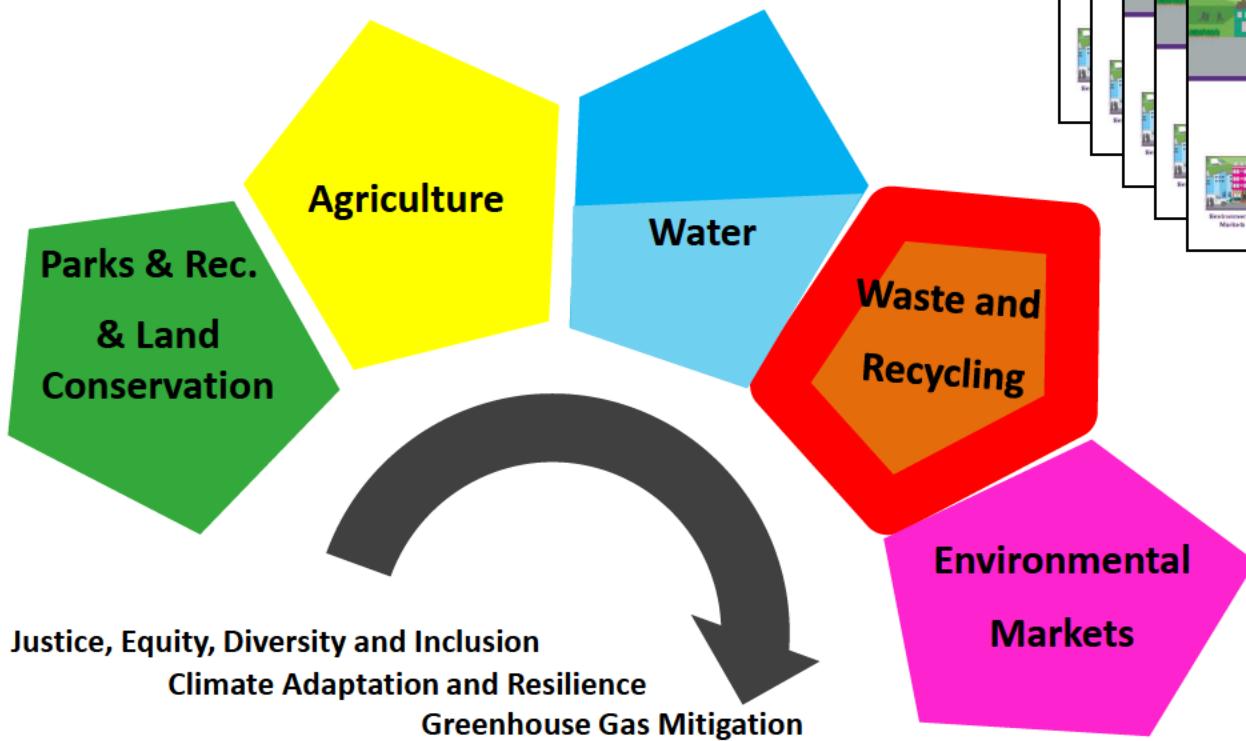
Board of Directors
Agenda Item #7
Incentive Programs, Rates and
Recommendations
Energy Storage Solutions – Annual Review
(Update)

REMOVED
January 26, 2024

Board of Directors
Agenda Item #5a
Environmental Infrastructure Programs Updates
and Recommendations
Waste and Recycling – Primer Planning

Environmental Infrastructure

Sectors & Primers



Waste & Recycling Challenge



Context for the Green Bank

- Public policy in development
 - Complexity of and challenges with getting municipalities on the same page as the state
- Landfill closures, no space for instate disposal, importance of self-sufficiency
 - No instate waste plan for nonorganic/nonrecyclable materials.
 - GHG emissions and air pollution from transportation for out of state disposal
- Primer process
 - Connecting with stakeholders around research and approach
 - Evaluation of existing programs

Solar PV and Battery Storage

Solar PV	+	Battery Storage (Residential)	+	Battery Storage (Non-Residential)
1.3 MM solar PV panels from nearly 380 MW installed through RSIP		58,000 5-kW battery storage units for 290 MW of residential		290 1-MW battery storage units for 290 MW of non-residential

≡ 41,000 tons of potential waste



45 Olympic-sized swimming pools



11,714 female African elephants



1,131 train cars (~10 mi. train)

Waste Streams & Landfill



CT Waste Streams by Category

		Est. 2021	
Rank	Waste Stream	T/Year	%
1	Paper	499,367	23
2	Food Scraps*	482,073	22
3	Other Waste	298,323	14
4	Construction & Demolition**	257,250	12
5	Plastic	255,088	12
6	Other Organics	239,956	11
7	Metal	75,662	4
8	Glass	54,044	2
Total		2,161,763	100

*Food Scraps = 60% of landfill GHG

**41k tons Solar PV & Battery waste

Where CT MSW was Landfilled '18-'22

Landfill	St.	Total Tons MSW Accepted '18-'22	Est. Mi. Traveled
Keystone Sanitation LF	PA	538,366	228
BFI Carbon Limestone LF	OH	411,034	497
Tunnel Hill Landfill	OH	197,466	623
Sunny Farms Landfill	OH	190,042	652
Brunswick Landfill	VA	94,842	532
Empire Sanitary Landfill	PA	76,785	196
Apex Landfill	OH	70,434	530
Seneca Meadows Landfill	NY	27,220	293
WM Tullytown Landfill	PA	26,643	185
LaFarge Landfill	OH	25,842	509

Our Approach: 1-2-3

Collective Responsibility

Take accountability together for the end-of-life problem ahead



1

Collective Responsibility

Assess existing products used in solar and battery installation and establish a “collective responsibility” to reuse, recycle, and dispose.

Scale-Up Solutions

Continue what we started



2

Scale-Up Solutions

Continuation of pilot program launched by the Green Bank to address food and farm waste to energy through investment in anaerobic digester infrastructure

Support the State

Prepare to support DEEP when assistance requested



3

Support the State

Support the DEEP Commissioner’s goals for waste management and recycling. DEEP may enter into agreements with CGB for bonding and financing.

Collective Responsibility

Solar PV and Battery Storage



- **Strategy:** Take accountability together for the end-of-life problem ahead
- **Approach** – research project identifying “waste and recycling” sources from and solutions for RSIP, ESS, and other relevant state policies that incentivize solar PV panels and battery storage
- **Lead** – Sara Harari
- **Relevant Policy:**
 - Residential Solar – per CGS 16-245ff,
 - Battery Storage – per Public Act 21-53, and subsequently Docket No. 17-12-03RE03
 - PURA Decision - Docket No. 23-08-02

Scale-Up Solutions

Food and Farm Waste to Energy



- **Definition** – what is the definition to classify within Connecticut’s waste streams (e.g., food scraps, ag waste, other waste)
- **Initial Strategy** – promote Green Bank Capital Solutions to developers of organic waste to energy projects (e.g., anaerobic digester projects) and support DEEP with implementation of AD procurement policy
- **Internal Leads** – Bert Hunter and Leigh Whelpton
- **Relevant Policy:**
 - Anaerobic Digester Pilot – per Section 103 of PA 11-80
 - Anaerobic Digester Procurement – per PA 19-35

Scale-Up Solutions

Food Waste to Energy AD Project

Market Segment	Project Finance (Co-Investment)
Project Summary	Provided long-term subordinated debt (i.e., 15 years) at low interest rate (i.e., 2%) for 20% of the capital structure to finance the 1 st AD project of its kind in CT
Support Needed	<ul style="list-style-type: none">▪ Links to food waste collection policy (PA 11-127)▪ Attracted local lender as a senior debt provider (i.e., Peoples Bank) along with equity and tax equity
CT Results	\$10 MM project, 1 MW, diverts organic materials from waste stream while producing renewable energy



Support DEEP

Materials Management



- **Definition** – DEEP to complete a materials management study
- **Initial Strategy** – await request for assistance from DEEP Commissioner on funding needed to support implementation of Environment Committee approved materials management plan
- **Internal Leads** – Bryan Garcia, Bert Hunter, and James Desantos
- **Relevant Policy** – MSW Management & MIRA Dissolution – as per PA 23-170

Next Steps...

- Initiating outreach to stakeholder and potential project sponsors
- Presentation and engagement with DEEP
- Staff engagement activities (e.g. food bank volunteerism, staff personal waste inventories, etc.)
- Staff and board site visits
 - Fort Hill Farms, Bright Feeds, Blue Earth, C-PACE project
 - Solar PV Recycling Plant, Battery Storage Recycling Plant, Appliance Recycling Plant site visit
- Primer writing and development process
- Priming the project opportunity pipeline

Board of Directors

Agenda Item #8

Executive Session

Trade Secrets, Commercial Information Given in
Confidence, and Personnel Related Matters

Resolution #12



NOW, therefore be it:

RESOLVED, that all Officers other than the President and C.E.O. shall receive a 5.0% merit increase for Fiscal Year 2023; and

RESOLVED, that the Board authorizes the Chair of the Green Bank to determine the merit compensation adjustment for the President and C.E.O. for FY23 based on the (i) feedback of the Board members, (ii) performance towards meeting the Organizational and Team Goals for FY23 and (iii) his Individual Goals for FY23

Board of Directors
Agenda Item #9
Other Business

Board of Directors
Agenda Item #10
Adjourn



**BOARD OF DIRECTORS OF THE
CONNECTICUT GREEN BANK**
Regular Meeting Minutes

Friday, October 20, 2023
9:00 a.m. – 11:00 a.m.

A regular meeting of the Board of Directors of the **Connecticut Green Bank** (the “Green Bank”) was held on October 20, 2023.

Board Members Present: Bettina Bronisz, Dominick Grant, John Harrity, Robert Hotaling (In-Person), Adrienne Houël, Matthew Ranelli, Lonnie Reed (In-Person), Brenda Watson, Hank Webster (In-Person), Joanna Wozniak-Brown

Board Members Absent: Thomas Flynn

Staff Attending: David Beech, Priyank Bhakta, Joe Buonannata, Larry Campana, Shawne Cartelli, Louise Della Pesca, James Desantos, Mackey Dykes, Brian Farnen, Bryan Garcia, Sara Harari, Bert Hunter, Alysse Lembo-Buzzelli Cheryl Lumpkin, Alex Kovtunencko, Ariel Schneider, Eric Shrago, Dan Smith, Mariana Trief, Leigh Whelpton

Others present: James O’Donnell and John Truscinski from CIRCA

1. Call to Order

- Lonnie Reed called the meeting to order at 9:03 am.

2. Public Comments

- No public comments.

3. Consent Agenda

a. Meeting Minutes of July 21, 2023 and August 3, 2023

Resolution #1

Motion to approve the meeting minutes of the Board of Directors for July 21, 2022, and August 3, 2022.

b. Transactions Under \$500,000 but No More in Aggregate than \$1,000,000

Resolution #2

WHEREAS, on January 18, 2013, the Connecticut Green Bank (the “Green Bank”)

Subject to Changes and Deletions

Board of Directors (the "Board") authorized the Green Bank staff to evaluate and approve funding requests less than \$300,000 which are pursuant to an established formal approval process requiring the signature of a Green Bank officer, consistent with the Green Bank Comprehensive Plan, approved within Green Bank's fiscal budget and in an aggregate amount not to exceed \$500,000 from the date of the last Deployment Committee meeting, on July 18, 2014 the Board increased the aggregate not to exceed limit to \$1,000,000 ("Staff Approval Policy for Projects Under \$300,000"), on October 20, 2017 the Board increased the finding requests to less than \$500,000 ("Staff Approval Policy for Projects Under \$500,000"); and

WHEREAS, Green Bank staff seeks Board review and approval of the funding requests listed in the Memo to the Board dated October 20, 2023 which were approved by Green Bank staff since the last Deployment Committee meeting and which are consistent with the Staff Approval Policy for Projects Under \$500,000;

NOW, therefore be it:

RESOLVED, that the Board approves the funding requests listed in the Memo to the Board dated October 13, 2023 which were approved by Green Bank staff since the last Deployment Committee meeting. The Board authorizes Green Bank staff to approve funding requests in accordance with the Staff Approval Policy for Projects Under \$500,000 in an aggregate amount to exceed \$1,000,000 from the date of this Board meeting until the next Deployment Committee meeting.

c. Progress to Targets FY23 Programs

Resolution #3

WHEREAS, in July of 2011, the Connecticut General Assembly passed Public Act 11-80 (the Act), "AN ACT CONCERNING THE ESTABLISHMENT OF THE DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION AND PLANNING FOR CONNECTICUT'S ENERGY FUTURE," which created the Connecticut Green Bank (the "Green Bank") to develop programs to finance and otherwise support clean energy investment per the definition of clean energy in Connecticut General Statutes Section 16-245n(a);

WHEREAS, the Act directs the Green Bank to develop a comprehensive plan to foster the growth, development and commercialization of clean energy sources, related enterprises and stimulate demand clean energy and deployment of clean energy sources that serve end use customers in this state;

WHEREAS, on June 24, 2022, the Board of Directors ("Board") of the Green Bank approved of the annual budgets, targets, and investments for FY 2023.

WHEREAS, on July 22, 2022, the Board approved a Comprehensive Plan for FY 2023;

WHEREAS, on January 20, 2023 the Board of the Green Bank reviewed and approved the revised FY 2023 Targets, Budget, and Comprehensive Plan, including the addition of the Dream Bigger Strategy and budget.

WHEREAS, on July 21, 2023, the Board of Directors of the Connecticut Green Bank approved of the draft Program Performance towards Targets for FY 2023 memos for the Incentive Programs, Financing Programs, and Investments.

Subject to Changes and Deletions

NOW, therefore be it:

RESOLVED, that Board has reviewed and approved the restated Program Performance towards Targets for FY 2023 memos dated October 13, 2023, which provide an overview of the performance of the Incentive Programs, Financing Programs, and Investments with respect to their FY 2023 targets.

d. Meeting Schedules for 2024 Committees and Board of Directors

Resolution #4

Motion to approve the Regular Meeting Schedules for 2024 for the Board of Directors, ACG Committee, BOC Committee, Deployment Committee, and Joint Committee.

Upon a motion made by Hank Webster and seconded by Bettina Bronisz, the Board of Directors voted to approve Resolution 4. None opposed or abstained. Motion approved unanimously.

4. Audit, Compliance, and Governance Committee **a. FY23 Annual Comprehensive Financial Report**

- Dan Smith summarized the findings of the FY23 audit in which the Green Bank was issued a clean, unmodified opinion about the financial statements. He reviewed the auditors' level of responsibility and financial overview as well as the required communications and recommendations. For highlights of the statements, revenues increased \$3.2 million year over year, operating expenses decreased \$3.6 million year over year, non-operating expenses decreased \$1.8 million year over year, and the overall net position increased \$30.3 million year over year. Disclosures were deemed neutral, consistent, and clear, and there were no material uncorrected misstatements.

- John Harranty asked for clarification about the unmodified opinion and Dan Smith answered that what the Green Bank received is considered the highest audit standard.
- Matthew Ranelli asked for clarification regarding the provision for loan loss and Dan Smith confirmed that it is not actual losses, just moneys set aside for loan loss reserves.
- Matthew Ranelli asked in relation to Unrestricted Funds, if it is more than what is usually in Unrestricted and if some of those funds should be in Restricted or be invested. Dan Smith answered that more investments are always sought but the Unrestricted Funds aren't necessarily related to the Cash Balance but is more of a signifier that the Net Position and Balance Sheet is strong. Bryan Garcia added that there is also a footnote indicating the commitments that the Green Bank has for Staff and Board approved transactions that cannot be reported on the Balance Sheet due to the status of those commitments.

Resolution #5

WHEREAS, Article V, Section 5.3.1(ii) of the Connecticut Green Bank ("Green Bank") Operating Procedures requires the Audit, Compliance, and the Governance Committee (the "Committee") to meet with the auditors to review the annual audit and formulation of an appropriate report and recommendations to the Board of Directors of the Green Bank (the "Board") with respect to the approval of the audit report;

Subject to Changes and Deletions

WHEREAS, the Committee met on October 10, 2023 and recommends to the Board the approval of the proposed draft Annual Comprehensive Financial Report (ACFR) contingent upon no further adjustments to the financial statements or additional required disclosures which would materially change the financial position of the Green Bank as presented.

NOW, therefore be it:

RESOLVED, that the Board approves of the proposed draft Annual Comprehensive Financial Report (ACFR) contingent upon no further adjustments to the financial statements or additional required disclosures which would materially change the financial position of the Green Bank as presented.

Upon a motion made by Robert Hotaling and seconded by Matthew Ranelli, the Board of Directors voted to approve Resolution 5. None opposed or abstained. Motion approved unanimously.

b. Employee Handbook Proposed Revisions

- Joe Buonannata summarized the changes to the Employee Handbook which includes updates to wordings for consistency and in relation to inclusion and diversity efforts, clarification about processes which have moved to SharePoint, holidays, the Educational Assistance Policy, staff gym benefits, and the Mobile Device Management Policy.
 - Robert Hotaling asked for clarification about the policy which allows IT to reset personal devices. Joe Buonannata clarified that the reset policy is to factory settings only applies if written approval by the employee is given, otherwise it is limited to Green Bank data only.

Resolution #6

WHEREAS, pursuant to Section 5.2.1 of the Connecticut Green Bank (Green Bank) Bylaws, the Audit, Compliance, & Governance Committee recommends that the Board of Directors (Board) approve of the above noted revisions to the Green Bank Employee Handbook;

NOW, therefore be it:

RESOLVED, that the Board hereby approves of the revisions to the Green Bank Employee Handbook presented on October 20, 2023.

Upon a motion made by Robert Hotaling and seconded by Hank Webster, the Board of Directors voted to approve Resolution 6. None opposed or abstained. Motion approved unanimously.

c. Legislative Process

- James Desantos reviewed the legislative process and improvements to increase transparency and engagement.
 - John Harranty expressed the importance of aligning issues and approaches pre-session in order to make the greatest impact, especially as the session moves quickly once

Subject to Changes and Deletions

it begins. James Desantos agreed fully.

- Bryan Garcia added as part of the materials are the abridged versions of the financial statements which help the Board communicate impact messages to various peoples, and so work is being done to simplify the legislative information so it can also be better utilized by including it within that quarterly report.

Resolution #7

WHEREAS, pursuant to Section 5.2.1 of the Connecticut Green Bank (Green Bank) Bylaws, the Audit, Compliance, & Governance (ACG) Committee is charged with the review and approval of, and in its discretion recommendations to the Board of Directors (Board) regarding, all governance and administrative matters affecting the Green Bank.

WHEREAS, on October 3, 2023, the ACG Committee recommended approval to the Board of a systematic process and associated timeline to align with (1) Connecticut legislative session deadlines, (2) Board and ACG Committee Meetings, and (3) PURA regulatory proceeding process per appropriate docket.

NOW, therefore be it:

RESOLVED, that the Green Bank Board approves of the proposed recommendations as outlined in the proposed Legislative & Policy Board Process Memo dated October 13, 2023 and previously submitted to the ACG Committee on October 3, 2023.

Upon a motion made by Robert Hotaling and seconded by Adrienne Houël, the Board of Directors voted to approve Resolution 7. None opposed or abstained. Motion approved unanimously.

d. Impact Methodology Updates

- Eric Shrago summarized the changes to the impact methodology for emissions and air quality so that it utilizes the EPA's models which will make the calculations more accurate, will produce more types of estimates, and should save staff time.

Resolution #8

WHEREAS, the Audit, Compliance, & Governance Committee recommends that the Connecticut Green Bank Board of Directors (Board) approve the updated EPA AvERT Model for the Evaluation and Measurement of the environmental impact of Green Bank supported projects including the new pollutants;

NOW, therefore be it:

RESOLVED, that the Board hereby approves of the updated EPA AvERT Model for the Evaluation and Measurement of the environmental impact of Green Bank supported projects including the new pollutants.

Upon a motion made John Harrity by and seconded by Matthew Ranelli, the Board of Directors voted to approve Resolution 8. None opposed or abstained. Motion approved unanimously.

5. Financing Programs Updates and Recommendations
a. FY 2024 Report Out – Financing Programs

- Mackey Dykes summarized the FY 2024 progress to targets for the various Financing programs. At a high level, the Green Bank is approximately where it should be, close to 25% of the goal completed. Some programs are a little under the projects and capital deployed goals, but most are over the 25% progress marker. There is also a lot still in the works to be marked completed soon.

- Robert Hotaling asked in relation to the Multi-Family Term and Smart-E Loan program, the target seems low but also why is there not as much uptake as was expected. Mackey Dykes responded that the Smart-E loan is part of Incentive Programs rather than Financing Programs but is doing well, but for Multi-Family it is the Solar Lease product which, despite the statutory and regulatory work to make it viable, it seems to be an awareness problem. A position was created to help push the program as well as to expand the Solar MAP program. The goal is low due to the extensive time it has taken to develop the program and projects. For example, one project has been in the works for 6 months and the lease is not even signed yet. Robert Hotaling expressed the urgency for Multi-Family Term project uptake due to the investment tax credits and other factors which increase uncertainty in the future. He offered help through the DECD to help increase exposure and uptake and asked if there is any way to revise the goal. Bryan Garcia responded that despite the energy being put into the program, it is the hardest market to penetrate, but he believes the efforts will pay off and that the target will grow. He reviewed some of the different economic benefits that will help improve the program including the RRES tariffs and IRA tax credit adders.

- Matthew Ranelli commented that a strategy to improve exposure may be to visit urban city planners and host education sessions. The group discussed options for promoting the program further. Joanna Wozniak-Brown added in the chat the HUD Hartford Director would be a good person to include in those conversations as they work directly with HUD funded property owners. Mackey Dykes responded that the Green Bank has been working in collaboration with HUD Hartford Multifamily staff and other organizations and doing its best to navigate those conversations, but some parts of the process just take time.

- Matthew Ranelli commented in the chat that CTAPA has an annual meeting in June that mostly town planners attend; the Green Bank could probably get on the agenda because affordable housing is a hot topic.

b. C-PACE Transaction – Winsted

- Alysse Lembo-Buzzelli summarized the details of the project needing \$1,355,448 for a 415kW Solar PV system with bi-facial panels, and an installation of a reflective white membrane roof with a SIR of 0.94. David Beech summarized the underwriting for the project which included a DSCR greater than [REDACTED]

- [REDACTED]

[REDACTED]. She also stated the SIR is currently calculated as lower than 1 due to the contractor still working through some calculations and the team is confident it will be greater than 1, but if not then the C-PACE financing can be reduced and the property owner can contribute equity so that the project moves forward.

- John Harranty commented that Connecticut has many private schools so if this works out it may open the door to more projects on private schools. It's a great potential

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market and Mackey Dykes agreed that it may be worth pulling together a case study to present. Matthew Ranelli added that there is the Connecticut Association of Independent Schools and they may be receptive.

- Robert Hotaling commented that he is one of the main speakers for an upcoming conference for the CT Association of Independent Schools and is willing to help draw attention to the potential opportunities.

Resolution #9

WHEREAS, pursuant to Connecticut General Statute Section 16a-40g (the "Statute"), the Connecticut Green Bank (Green Bank) has established a commercial sustainable energy program for Connecticut, known as Commercial Property Assessed Clean Energy ("C-PACE");

WHEREAS, the Green Bank Board of Directors (the "Board") has approved a \$40,000,000 C-PACE construction and term loan program;

WHEREAS, the Green Bank seeks to provide a \$1,355,448 construction and term loan under the C-PACE program to W.L. Gilbert Trust Corporation, the building owner of 200 Litchfield Avenue, Winchester, Connecticut (the "Loan"), to finance the construction of specified clean energy measures in line with the State's Comprehensive Energy Strategy and the Green Bank's Strategic Plan as more particularly described in the memorandum submitted to the Green Bank Board of Directors dated October 17, 2023 (the "Memo"); and

NOW, therefore be it:

RESOLVED, that the President of the Green Bank and any other duly authorized officer of the Green Bank is authorized to execute and deliver the Loan in an amount not to be greater than one hundred ten percent of the Loan amount with terms and conditions consistent with the Memo, and as he or she shall deem to be in the interests of the Green Bank and the ratepayers no later than 120 days from the date of authorization by this resolution;

RESOLVED, that before executing the Loan, the President of the Green Bank and any other duly authorized officer of the Green Bank shall receive confirmation that the C-PACE transaction meets the statutory obligations of the Statute, including but not limited to the savings to investment ratio and lender consent requirements; and

RESOLVED, that the duly authorized Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents and instruments as they shall deem necessary and desirable to affect the above-mentioned legal instruments.

Upon a motion made by Robert Hotaling and seconded by Hank Webster, the Board of Directors voted to approve Resolution 9. None opposed or abstained. Motion approved unanimously.

6. Incentive Updates and Recommendations

a. FY 2024 Report Out – Incentive Programs

- Bryan Garcia summarized the progress to Targets for the Incentive programs. The Smart-E program is doing great and is set to be increased in January, the Energy Storage Solutions program is in its annual review and a draft decision about that should be out soon,

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and the Commercial market segment is ahead of target due to some large projects. The Residential programs are having slow uptake but the annual review process will bring some structural changes which may help. Residential is a hard market to penetrate though as people seem unaware of the importance of resilience at this time.

7. Investment Programs Updates and Recommendations

a. FY 2024 Report Out – Investments

- Eric Shrago reviewed the progress to targets for Investment Programs, which is about 17% of the way so far. It is set to increase after today's transactions are approved however.

b. C4C Smart-E Financing Facility Modification

- Bert Hunter summarized the proposed changes to the funding facility which are driven by various factors such as Smart-E Loan programs becoming more desirable, the cost of electricity in Connecticut increasing, and interest rates increasing.
 - John Harrity asked for clarification about electricity use for the heat pumps, since the cost of electricity would only impact if the customer didn't have solar. Bert Hunter responded it is based on the cost of energy from the grid, not the implied cost through solar. John Harrity stated that he finds it surprising that those who would get heat pumps installed seem that they would also have solar. Bert Hunter responded that something to keep in mind is that only 10-20% of homes are fully eligible for solar due to their orientation and surrounding areas.
 - John Harrity asked if the team has a figure for how many homes are installing heat pumps and Bert Hunter responded that he doesn't have that number currently. Adrienne Houël commented that through the work with Energize Connecticut, most homes with heat pumps do not have solar and can't have it installed, so Bert's observation is accurate from her experience. So the heat pump running on electricity is replacing other less effective energy sources, is very attractive to homeowners, and interest doesn't seem to be waning. Brenda Watson commented in the chat that with heat pump, homes will only have one energy bill, no more fuel or gas bill for heat, so it somewhat saves. The indoor air quality is also improved so there are positive health impacts. She asked if the Green Bank could add health benefits as a metric. The group discussed the impact of heat pumps further.

Resolution #10

WHEREAS, the Connecticut Green Bank ("Green Bank") entered into a Smart-E Loan program financing agreement with Capital for Change ("C4C");

WHEREAS, C4C is the largest Smart-E lender on the Green Bank Smart-E platform;

WHEREAS, C4C, Amalgamated Bank and Green Bank have an existing medium term loan facility to C4C's CEEFCo subsidiary to fund C4C's Smart-E Loan and other residential energy efficiency loan portfolio growth and C4C's executive leadership has requested an increase in said facility as explained in the memorandum dated October 13, 2023 to the Connecticut Green Bank ("Green Bank") Board of Directors (the "Board") (the "Modification Memo"); and

WHEREAS, Green Bank staff recommends approval by the Board for an amended secured and subordinated medium term revolving loan facility for CEEFCo (the "Amended

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CEEFCo Revolving Loan”) in order to fund CEEFCo’s residential energy efficiency and Smart-E Loan portfolio in partnership with Amalgamated Bank.

NOW, therefore be it:

RESOLVED, that the Board approves the Amended CEEFCo Revolving Loan in an amount of up to \$15 million in capital from the Green Bank balance sheet in support of energy efficiency and Smart-E Loans in partnership with Amalgamated Bank generally consistent with the Modification Memo as a Strategic Selection and Award pursuant to the Green Bank Operating Procedures Section XII given the special capabilities, strategic importance, urgency and timeliness, and multi-phase characteristics of the Amended CEEFCo Revolving Loan transaction;

RESOLVED, that the President of the Green Bank; and any other duly authorized officer of the Green Bank, is authorized to execute and deliver, any contract or other legal instrument necessary to effect the CEEFCo Revolving Loan on such terms and conditions as are materially consistent with the Modification Memo; and

RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents as they shall deem necessary and desirable to affect the above-mentioned legal instrument.

Upon a motion made by Matthew Ranelli and seconded by Adrienne Houël, the Board of Directors voted to approve Resolution 10. None opposed or abstained. Motion approved unanimously.

c. Budderfly Facility Modification

- Larry Campana summarized the history of Budderfly and its collaboration with the Green Bank. Bert Hunter reviewed the payment and security structure of the facility.

Resolution #11

RESOLVED, that the Connecticut Green Bank (“Green Bank”) is authorized to modify its security position related to its six (6) year subordinated term loan agreement with Budderfly, Inc., which was closed in June 2022 in the maximum cash advanced amount of \$5,000,000 as more fully explained in the memorandum to the Green Bank Board of Directors (the “Board”) dated October 17, 2023; and

RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and negotiate and deliver all other documents and instruments as they shall deem necessary and desirable to affect the above-mentioned legal instruments.

Upon a motion made by Robert Hotaling and seconded by John Harrity, the Board of Directors voted to approve Resolution 11. None opposed and Matthew Ranelli and Joanna Wozniak-Brown abstained. Motion approved.

d. Sunwealth Senior Secured Term Loan Facility

- Louise Della Pesca summarized the history and progress of Sunwealth and their need to

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create a new Term Debt Facility, though the Resolution today is just to conduct further due diligence with the intent to enter into legal documentation for a \$4.2 million term financing facility with an SPV of Sunwealth. She reviewed the proposed facility structure.

Resolution #12

WHEREAS, the Connecticut Green Bank (“Green Bank”) Board of Directors approved, at its meeting held on October 26, 2018, investments in third-party owned commercial solar ownership in the form of debt or equity, and since that date Green Bank has made several such investments, including two with special purpose vehicles (“SPV”) of Sunwealth Power, Inc. (“Sunwealth”); and

WHEREAS, in October 2023, Sunwealth responded to the Open Request for Proposals for Green Bank Capital Solutions with a request for up to \$4.82 million in long term debt financing for commercial solar photovoltaic projects located in Connecticut to be built in 2023 and 2024 (“Solar Projects”), and such proposal response has been evaluated favorably by Green Bank staff.

NOW, therefore be it:

RESOLVED, that the President of the Green Bank; and any other duly authorized officer of the Green Bank, is authorized to execute and deliver, any contract or other legal instrument necessary to affect the transaction on such terms and conditions as are materially consistent with the memorandum to the Board of Directors dated October 13, 2023; and

RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents as they shall deem necessary and desirable to affect the above-mentioned legal instrument.

Upon a motion made by Robert Hotaling and seconded by Dominick Grant, the Board of Directors voted to approve Resolution 12. None opposed and Matthew Ranelli abstained. Motion approved unanimously.

e. US Bank Withdrawal from Solar Lease 2 Partnership

- Louise Della Pesca reviewed the history of the partnership, an overview reason why US Bank wants to exit the partnership, and work done to evaluate the equity of the entity through Cohn Reznick as an independent provider of a fair market value valuation. The proposal today is to transact with US Bank to negotiate their exit, and details as to the valuation are within the memorandum sent to the Board.
 - Robert Hotaling asked if there is a reason why they want to exit. Louise Della Pesca responded that US Bank has simply determined that it is not in their best interest to remain because of what happens after the flip date and the cash flows to US Bank from their equity stake following the flip date. They are simply not motivated to be long-term owners and their exit process at this timeline is standard. Bert Hunter added more information which motivates their decision based on the type of institution they are and a requirement to hold capital in relation to their equity stake.

Resolution #13

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WHEREAS, the Board of Directors (the “Board”) of Connecticut Green Bank (“Green Bank” then known as “The Clean Energy Finance and Investment Authority) approved the establishment on June 28, 2013 of a tax equity partnership (“CT Solar Lease 2, LLC”) via its subsidiary CEFIA Solar Services,- Inc., with Firststar Development, LLC, a subsidiary of U.S. Bancorp Community Development Corporation (“U.S. Bank”) to enable lease financing for residential and commercial solar PV projects in Connecticut under a program referred to as the “CT Solar Lease Program”; and

WHEREAS, the CT Solar Lease Program has concluded with ongoing activities limited to servicing a portfolio of residential and commercial solar PV projects and U.S. Bank has expressed an interest to exit CT Solar Lease 2, LLC following the completion of an independent valuation exercise to arrive at a buy-out price for U.S. Bank’s equity stake in CT Solar Lease 2, LLC.

NOW, therefore be it:

RESOLVED, that the Board approves staff’s request to permit the Green Bank or an eligible subsidiary to purchase U.S. Bank’s equity stake in CT Solar Lease 2, LLC consistent with the memorandum to the Board dated October 13, 2023 (the “Board Memo);

RESOLVED, that the President of the Green Bank; and any other duly authorized officer of the Green Bank, is authorized to execute and deliver, any contract or other legal instrument necessary to affect the transaction on such terms and conditions as are materially consistent with the Board Memo; and

RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents as they shall deem necessary and desirable to affect the above-mentioned legal instrument.

Upon a motion made by Robert Hotaling and seconded by Matthew Ranelli, the Board of Directors voted to approve Resolution 13. None opposed or abstained. Motion approved unanimously.

8. Environmental Infrastructure Programs Updates and Recommendations **a. FY 2024 Report Out – Environmental Infrastructure Programs**

- Bryan Garcia introduced Leigh Whelpton as the Director of Environmental Infrastructure.

Bettina Bronisz left the meeting at 10:49 am.

9. Connecticut Institute for Resilience and Climate Adaptation

- Bryan Garcia introduced James O’Donnell and John Truscinski from CIRCA and spoke a bit about the importance of resilience. Joanna Wozniak-Brown reviewed some of the history of CIRCA and resilience within the state. John Truscinski summarized the history of the CIRCA and the processes and strategies they utilize. He reviewed the factors they consider when doing evaluations and the various subsets of vulnerability examine. He reviewed one of the projects which was worked on by CIRCA and the improvements made to help the area deal with chronic flooding issues.

- John Harry asked if there is room for making some of the resilience projects mandatory, as many towns are volunteering to address the issue but others may not

Subject to Changes and Deletions

prioritize them, despite years and decades of chronic environmental issues. Leigh Whelpton answered in the chat that one thing the team will be doing is to dig into and under the EI business unit, opportunities for incentives and voluntary action in conjunction with the primary beneficiaries of these types of projects (often those on the hook to pay), and opportunities to create or support regulated/compliance markets, etc. John Truscinski responded that some towns may be required to have plans to deal with their natural hazards in order to qualify for FEMA funds after a disaster, but further preventative progress may not always occur, and is a gap that CIRCA is trying to assist. Robert Hotaling added that DECD has the Community Investment Fund to address various projects including chronic environmental infrastructure issues and encourages CIRCA to inform towns that they can apply to the Community Investment Fund. The group discussed other options to effectively utilize opportunities and funding to address these types of issues further.

10. Other Business

- Bryan Garcia stated that the Green Bank is now considered a State Energy Financing Institution (SEFI), having received the designation from the DOE.
- Bryan Garcia stated there is a final report on IPC's Health and Safety Grant to DEEP.
- John Harrity clarified that he sought out and received new information about PosiGen's business practices, especially in relation to their worker's unionization and management, and that PosiGen has no history of "union busting" or that they have bad management practices of their employees. John Harrity apologizes to the Board and PosiGen for his previous claims.
- Bryan Garcia noted that the annual Ethics Training would be held immediately following the Board of Directors meeting.

11. Adjourn

Upon a motion made by Robert Hotaling and seconded by John Harrity, the Board of Directors meeting adjourned at 11:19 am.

Respectfully submitted,

Lonnie Reed, Chairperson



Memo

To: Connecticut Green Bank Board of Directors

From: Alysse A. Lembo-Buzzelli, Associate Director, Financing Programs; Mackey Dykes, Vice President, Financing Programs

CC: Bryan Garcia, President & CEO; Alex Kovtunenکو, Deputy General Counsel, Financing Programs; Brian Farnen, General Counsel and CLO

Date: December 15, 2023

Re: Extending timeline for closing certain C-PACE transactions

Summary

The Connecticut Green Bank Board of Directors (the “Board”) or the Connecticut Green Bank Deployment Committee (“DC”), as may be applicable, has previously approved and authorized C-PACE financing for the following property:

Project Address	Approved	Expired	Project Amount
317 Courtland Ave, Stamford CT 06906	4/21/2023	8/19/2023	\$536,095

The financing agreement(s) listed above (the “Financing Agreements”) were authorized to be consistent with the terms, conditions, and memorandums submitted to the Board/DC and made no later than 120 days from the date of Board/DC approval.

Due to delays in fulfilling pre-closing requirements, including lender consent, the C-PACE program staff requests more time from the Board or DC, as may be applicable, to close and execute the Financing Agreements. The staff requests an additional 120 days from the date of this meeting to execute the Financing Agreements for the transaction(s) listed above.

Resolutions

WHEREAS, pursuant to Conn. Gen. Stat. 16a-40g (the “Act”) the Connecticut Green Bank (“Green Bank”) is directed to, amongst other things, establish a commercial sustainable energy program for Connecticut, known as Commercial Property Assessed Clean Energy (“C-PACE”);

WHEREAS, pursuant to the C-PACE program, the Connecticut Green Bank Board of Directors (the “Board”) or the Connecticut Green Bank Deployment Committee (“DC”), as may be applicable, approved and authorized the President of the Green Bank to execute financing agreements for the C-PACE projects described in this Memo submitted to the Board on December 15, 2023 (the “Finance Agreements”);

WHEREAS, the Finance Agreements were authorized to be consistent with the terms, conditions, and memorandums submitted to the Board or DC, as may be applicable, and executed no later than 120 days from the date of such Board or DC approval; and

WHEREAS, due to delays in fulfilling pre-closing requirements the Green Bank will need more time to execute the Finance Agreements.

NOW, therefore be it:

RESOLVED, that the Board extends authorization of the Finance Agreements to no later than 120 days from December 15, 2023 and consistent in every other manner with the original Board or DC authorization for the Finance Agreement.

Submitted by: Bryan Garcia, President & CEO; Alex Kovtunenکو, Deputy General Counsel, Financing Programs; Brian Farnen, General Counsel and CLO



BOARD OF DIRECTORS

REGULAR MEETING SCHEDULE FOR 2024

The following is a list of dates and times for regular meetings of the Connecticut Green Bank Board of Directors through 2024.

- Friday, January 26, 2024 – Regular Meeting from 9:00 to 11:00 a.m.
- Friday, March 15, 2024 – Regular Meeting from 9:00 to 11:00 a.m.
- Friday, April 26, 2024 – Regular Meeting from 9:00 to 11:00 a.m.
- Friday, June 21, 2024 – Regular Meeting from 9:00 to 11:00 a.m.
- Friday, July 26, 2024 – Regular Meeting from 9:00 to 11:00 a.m.
- Friday, October ~~18~~²⁵, 2024 – Regular Meeting from 9:00 to 11:00 a.m.
- Friday, December 13, 2024 – Regular Meeting from 9:00 to 11:00 a.m.

Should a special meeting need to be convened for the Connecticut Green Bank board of Directors to review staff proposals or to address other issues that arise, a meeting will be scheduled accordingly.

All regular and special meetings will take place at the:

Connecticut Green Bank
75 Charter Oak Avenue, Building #1-103
Albert Pope Board Room
Hartford, CT 06106



**Joint Committee of the CT Energy Efficiency Board and the
Connecticut Green Bank Board of Directors**

REGULAR QUARTERLY MEETING SCHEDULE FOR 2024

The following is a list of dates and times for **regular meetings** of the Connecticut Green Bank and the Connecticut Energy Efficiency Board through 2024

- **March 20, 2024** – Wednesday from 1:30-3:30 p.m.
Location: TBD
- **June 1920, 2024** – ~~Wednesday~~ Thursday from 1:30-3:30 p.m.
Location: TBD
- **September 25, 2024** – Wednesday from 1:30-3:30 p.m.
Location: TBD
- **December 18, 2024** – Wednesday from 1:30-3:30 p.m.
Location: TBD

Should a **special meeting** be needed to address other issues that arise, a meeting will be scheduled accordingly.

75 Charter Oak Avenue, Hartford, Connecticut 06106
T: 860.563.0015
www.ctgreenbank.com



Capital Solutions RFP

Modification of Funding Facility for Budderfly, Inc.

Subordinated Secured Term Loan Facility

October 17, 2023



Document Purpose: This document contains background information and due diligence the modification of an existing \$5.0 million funding facility for Budderfly, Inc. created through the Connecticut Green Bank's Capital Solutions Open RFP program. The information herein is provided to the Connecticut Green Bank Board of Directors for the purposes of reviewing and approving recommendations made by the staff of the Connecticut Green Bank.

In some cases, this package may contain, among other things, trade secrets and commercial or financial information given to the Connecticut Green Bank in confidence and should be excluded under C.G.S. §1-210(b) and §16-245n(D) from any public disclosure under the Connecticut Freedom of Information Act. If such information is included in this package, it will be noted as confidential.



Memo

To: Connecticut Green Bank Board of Directors

From: Bert Hunter, EVP and CIO; Larry Campana, Associate Director, Clean Energy Finance

Cc: Bryan Garcia, President and CEO; Brian Farnen, General Counsel and CLO; Mackey Dykes, VP Financing Programs and Officer; Jane Murphy, EVP Finance & Administration

Date: October 17, 2022

Re: Budderfly, Inc. – Modification of Existing Credit Facility

Summary & Background

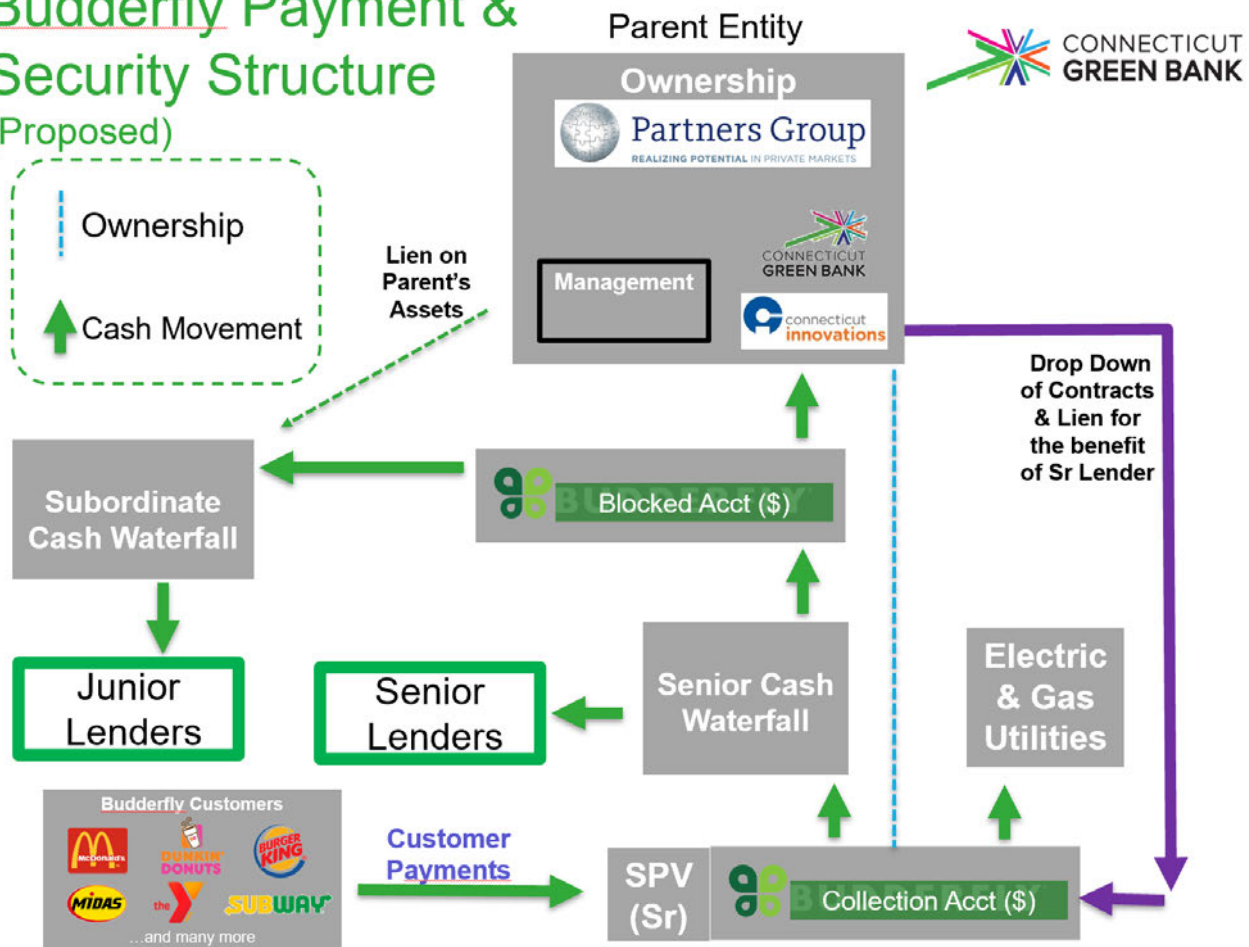
In early 2022, Budderfly, Inc., a Connecticut based company (“Budderfly”), submitted a request for funding through the Green Bank’s Capital Solutions Open RFP (approved by the Board in July 2021) which was approved at a meeting of the Connecticut Green Bank (“Green Bank”) Board of Directors (the “Board”) held April 22, 2022. Budderfly is Shelton CT headquartered energy-efficiency-as-a-service company that provides energy efficiency solutions and services to small and midsize commercial facilities in the U.S. (the business model will be explained in more detail below). The financing facility approved for Budderfly is a \$5 million 6-year term loan facility which, at the time, supplemented and complemented other existing debt facilities provided by the entities shown below. The facility has been fully performing since inception in June 2022. At the time the funding facility closed, Green Bank was subordinated to all secured senior funding (approximately \$47 million outstanding) and pari-passu with other secured subordinated facilities (approximately \$9 million outstanding):

Name	Facility Type	Outstanding 3/2022	Outstanding 9/2023
Balance Point & CT Innovations	First Lien Senior Secured	\$37.5 million plus PIK interest = \$45.1 million	\$0 (Repaid July 2022 in a recapitalization)
DECD	First Lien Senior Secured	\$1.7 million	\$1.6 million
Mizzen Capital	Second Lien Secured Creditor	\$5.0 million plus accrued interest	\$5.5 million plus accrued interest
CT Innovations	Second Lien Secured Creditor	\$2.0 million plus accrued interest	\$2.4 million plus accrued interest
CT Green Bank	Second Lien Secured Creditor	Subject to Board Approval	\$5.0 million plus accrued interest
Total		\$53.8 million	\$14.5 million

The nature of Budderfly’s request is for the Second Lien Secured creditors (including Green Bank) to release its security interest in a pool of collateral that will secure a new funding facility which will provide Budderfly up to \$200 million depending upon the net present value of eligible executed customer contracts that will be exclusively financed with this new facility during the estimated

(maximum) 3-year availability period. The new \$200 million debt facility to fund customer capital expenditure requirements is expected to be sufficient for the next 18 – 24 months depending upon the deployment ramp. The facility is structured like a traditional, project-based financing against customer cash flows, and will require that Budderfly assign all customer contracts eligible for financing, payments from customers and fixed assets at customer locations into a new, wholly-owned subsidiary (a special purpose vehicle or SPV designed to be bankruptcy remote from Budderfly). The structure is shown here¹:

Budderfly Payment & Security Structure (Proposed)



The facility will be non-recourse to Budderfly, but will require that Budderfly service and maintain the customer payments and installations of equipment at customer locations, in addition to Budderfly parent maintaining \$5 million of liquidity. (In reality, Budderfly's liquidity is multiples of this.) At closing, Budderfly expects to draw enough from the new \$200 million facility to reimburse Budderfly for about \$50 million in equity/operating cash that has been used over the last 12-18 months to fund capital expenditures for new installations at customer locations.

¹ CI & Green Bank hold warrants of ownership

Given the material improvement in Budderfly's capitalization subsequent to our financing facility becoming effective as shown in this summary balance sheet (below), staff supports the request and has had discussions with another lender (Mizzen) who is also supportive of the arrangements.

Budderfly, Inc.			
Balance Sheet	Unaudited	Final Draft	Audited
Period Ended December 31, 2021	Aug-23	Dec-22	Dec-21
Current Assets			
Cash	\$ 22,576,318	\$ 32,075,532	\$ 5,092,940
Accounts Receivable	6,268,726	2,337,629	456,741
Inventory	15,397,200	7,869,302	5,590,289
Prepays	16,423,781	3,757,031	1,831,719
Other			
Total Current Assets	60,666,025	46,039,494	12,971,689
Total Fixed Assets	61,270,232	40,929,380	22,374,269
Other assets	18,822	47,701	1,040,551
Intangible Assets, net	269,958,060	275,019,167	
Total Other Assets	269,976,882	275,066,868	1,040,551
TOTAL ASSETS	\$ 391,913,140	\$ 362,035,742	\$ 36,386,509
Current Liabilities			
Accounts Payable	\$ 9,882,884	\$ 7,163,691	\$ 7,428,483
Accrued Expenses	4,210,642	2,779,695	1,312,682
Other current liabilities	698,961	476,893	227,545
Current portion of notes payable	2,013,111	1,478,726	372,740
Total Current Liabilities	16,805,598	11,899,005	9,341,450
Long Term Liabilities			
Long-Term operating lease liability			
Deferred tax liability	4,768,329	4,768,329	
Other long term liabilities	833,307	547,618	
Note Payables, less current portion	12,760,452	13,446,809	46,126,869
Total LIABILITIES	35,167,686	30,661,761	55,468,319
Total Equity	356,745,454	331,373,980	(19,081,810)
TOTAL LIABILITIES & EQUITY	\$ 391,913,140	\$ 362,035,741	\$ 36,386,509

From a profit and loss statement perspective, the company is above plan in revenue and should approximate \$100 million in topline revenue, up almost 70% year on year. Net revenue for the current year should quadruple 2022's results, with a more than doubling in the net revenue margin, and enabling the company to reduce its negative operating margin by more than 50%. All of these metrics bear out the company's operating model which with sufficient capitalization in place from Partners Group (see below) and the new lender, the company can expand top line revenue to attain bottom line profitability on an annual basis by 2025. Management and the institutional shareholder are pleased with the progress to plan that the company has demonstrated for a business is strong growth mode:

Budderfly, Inc.					
Profit & Loss Statement	2019	2020	2021	2022	2023
	AUDITED	AUDITED	AUDITED	UNDER AUDIT	THROUGH AUGUST
EMO Revenue	\$ 13,246,880	\$ 22,465,330	\$ 31,560,294	\$ 55,144,657	\$ 67,589,884
Incentive & Other Revenue	522,660	845,356	1,273,689	1,102,115	730,020
MaaS Revenue	-	-	-	-	-
ESA Revenue	-	-	-	-	-
Total Gross Revenue	13,769,540	23,310,686	32,833,983	56,246,772	68,319,904
Utility/EMO Expense	16,772,822	24,788,514	30,614,113	53,324,107	59,501,611
Net Revenue	(3,003,282)	(1,477,828)	2,219,870	2,922,665	8,818,293
Net Revenue Margin	-21.8%	-6.3%	6.8%	5.2%	12.9%
Gross Profit (Loss)	(3,003,282)	(1,477,828)	2,219,870	2,922,665	8,818,293
Sales & Marketing	1,256,710	2,105,391	3,821,631	5,487,808	6,093,725
R&D Development	2,071,306	2,302,306	3,041,494	4,370,807	3,850,453
G&A (including product mgmt)	4,121,307	6,012,542	6,977,095	12,413,199	9,245,366
Total Operating Expense	7,449,323	10,420,239	13,840,220	22,271,814	19,189,544
Income (Loss) from Operations	(10,452,605)	(11,898,067)	(11,620,350)	(19,349,149)	(10,371,251)
Operating Margin	-78.9%	-53.0%	-36.8%	-34.4%	-15.2%
Other Expense (Income)	-	-	(3,158,361)	8,542,397	5,726,762
Interest Expense	1,650,350	3,258,552	5,256,374	5,888,114	966,285
Net Income (Loss) Before Taxes	(12,102,955)	(15,156,619)	(13,718,363)	(33,779,660)	(17,064,298)
Income Taxes	-	-	-	(943,387)	-
Net Income (Loss)	\$ (12,102,955)	\$ (15,156,619)	\$ (13,718,363)	\$ (32,836,273)	\$ (17,064,298)

Again, the Budderfly request for its new loan facility will require that Green Bank and the other secured lenders (which have a blanket lien on Budderfly's entire assets) to release its lien on the assets and rights dropped into the new subsidiary/SPV (customer contracts, accounts receivable and payments on those customer contracts, and fixed assets at customer locations, as well as certain IP rights in the event of default).

Budderfly Recapitalization

Budderfly is 80% owned by Partners Group, a global private equity firm with \$135 billion in assets under management. Partners Group has committed \$500 million in equity to Budderfly, and to date has deployed \$330 million of this equity. With about \$20 million in cash on the balance sheet, \$170 million in the balance of the Partners Group commitment, and with \$50 million in cash locked up in customer installations to be monetized with the new facility, Budderfly will have about \$240 million in corporate resources available in addition to \$120 million of unused capacity under the new financing facility, for \$360 million in total development resources to invest in its corporate operations and new customer installations. With a monthly cash "burn rate" of about \$2.5 million (excluding capital expenditures for new customers), Budderfly has sufficient resources to build out its business for the next 2-3 years.

Budderfly Background and Business Model

Budderfly is an energy-efficiency-as-a-service company that provides energy efficiency solutions and services to small and midsize commercial facilities in the U.S. Budderfly provides these solutions and services through a unique business model that for the first time successfully delivers comprehensive energy efficiency solutions to this segment of the U.S. commercial market at scale.

Budderfly's business model has the following key features:

- Budderfly signs the customer to a 10-year contract;
- Budderfly takes-over the customer's electric utility account as the customer of record, and agrees to pay the customer's electric utility bills for the length of the contract;
- Budderfly establishes the customer's baseline energy usage amount for each calendar month of the year (the Average Monthly Usage, or AMU);
- Budderfly invoices the customer each month based on the AMU baseline *minus* a fixed discount that for most customers ranges between 3% and 5%, and applies to that fixed energy usage amount whatever rates Budderfly is paying the utility and/or third-party supplier for that month;
- At Budderfly's expense, Budderfly deploys various energy efficiency solutions at the customer location, with the general expectation of achieving 25%, 30% or greater reduction in energy usage at the customer facility (Budderfly's solutions are described below);
- Any reduction greater than a contracted share point, generally 20% to 30% below the AMU, is shared equally with the customer on a 50%-50% basis; and
- The energy usage reduction in excess of the 3%-5% customer discount benefits Budderfly (i.e., results in a 10-year cash flow to Budderfly equal to the difference between the amount paid by Budderfly to the utility and the amount paid by the customer to Budderfly) thus returning to Budderfly its costs and its capital and generating margin.

In terms of customer value proposition, the customer receives an operating expense savings (3% to 5% of their energy cost), as well as "free" (no customer out-of-pocket capital cost) upgrades to the location, and various ongoing energy management and optimization services over the term of the contract.

For Budderfly, the key to scaling these customers is to engage with multi-locational, regionally distributed customers and brands, where Budderfly can repeat its processes and upgrades over and over at similar footprints, with short sales cycles and limited engineering work. Most of Budderfly's customers do not have the knowledge, time, or finances to determine, find, install, and pay for the majority of Budderfly's energy savings solutions, thus this significant segment of U.S. energy consumption goes unaddressed, continuing to waste 30%-plus energy. Budderfly is successfully addressing this segment, both saving considerable energy (carbon reduction) and providing significant business benefits to its customers. Budderfly's solutions also improve the working environment (lighting, air quality, food safety, workplace safety, etc.) for tens of thousands of employees as well as millions of their customers.

Budderfly's first significant customers came from the Subway brand of QSR sandwich shops. Building from that base, Budderfly has over 5,000 customer locations under contract (which is up

nearly 70% since the April 2022 Board approval) with a significant number of national brands in the QSR and casual dining space. While not an exhaustive list, customers include locations in the following brands: Subway, Jersey Mike's, Jimmy John's, McDonald's, Burger King, Wendy's, Carl's Jr., Hardee's, Five Guys, KFC, Popeye, Church's Texas Chicken, Taco Bell, Del Taco, Little Caesar's, Sonic, Dunkin, Arby's, 99 Restaurant, O'Charley's, IHOP, Denny's, Buffalo Wild Wing, and Outback Steakhouse. Outside of the QSR and casual dining verticals, Budderfly is in other multi-location brands/locations such as Midas, Meineke and EyeCare Partners.

The following are some of the key highlights of the Budderfly value proposition:

- Turnkey energy savings and sustainability solutions that reward customers and Budderfly
 - Customers make no upfront investment and save ~5%-10% on their energy costs and reduce their carbon footprint by 25-30%
 - Budderfly generates asset-level returns on invested capital in excess of 15%
- Unique and compelling business model that eliminates the traditional pitfalls of energy-as-a-service businesses (high customer acquisition costs and long sales cycles) by focusing on franchises
 - Quick Serve Restaurants (“QSRs”), Convenience Stores (“C-stores”) and other franchises that have similar footprints, equipment sets and energy use profiles allow Budderfly to avoid multiple and costly and time-consuming energy audits and enables a “copy exact” deployment model that reduces equipment and labor costs
 - Franchisors can require franchisees to use Budderfly’s solution, minimizing customer acquisition costs and shortening sale cycles
 - Volume purchases of the same equipment allow Budderfly to obtain preferred pricing
- Proprietary “one bill” model that effectively makes Budderfly the customer’s utility and gives Budderfly the right to implement future energy efficiency improvements at the customer’s site
 - Significantly reduces Budderfly’s risk of late or non-payment (65% ACH pull and 90%+ (on average) collected in 21 days or less)
 - Creates a valuable data stream that Budderfly uses to develop additional offers to the customer – resulting in additional energy and operational savings
 - Provides opportunity for continuing upgrades as new technology becomes available
 - Minimal working capital: Budderfly bills its customers in advance, while utility bills Budderfly in arrears
- Tech-enabled customer onboarding, billing and servicing that facilitates rapid growth
 - Budderfly founded by veterans of a major expense management software company
 - Patented software backbone and business processes

Budderfly has a very different billing model and targets different customers than typical EaaS providers. Rather than create a second bill for the customer related to energy efficiency improvements, Budderfly takes over the customer’s entire energy bill and becomes the customer of record for the utility. The customer pays Budderfly based on a predetermined level of energy usage, pays the utility for the customer’s actual energy usage (in 100% satisfaction of the required utility payment), and Budderfly keeps the portion of the payment related to the savings from the efficiency upgrades. By providing the customer with one bill and facing the utility on behalf of the

customer, *Budderfly effectively becomes the customer's utility*. "Becoming the utility" increases Budderfly's "stickiness" with the customer, reduces the risk of late or non-payments and creates a valuable data stream that not only enables the customer to better understand and manage its energy use, but that also allows Budderfly to use to develop additional offers to the customer. Budderfly's customer agreements also give Budderfly the right to install additional energy efficiency upgrades to the customer's site which creates ongoing opportunities to grow revenues for Budderfly as new energy saving technology become available.

Capital Solutions Open RFP Evaluation

The existing facility being considered for modification was evaluated under the Green Bank's Capital Solutions Open RFP (approved by the Board in July 2021) as part of the approval request of the original facility brought before the Board at a meeting held April 22, 2022. Capital Solutions RFP Proposals are evaluated on the following criteria:

- A. Meeting Green Bank Goals
- B. Green Bank Essentiality – to what extent is participation by the Green Bank essential to the success of the project?
- C. Project Feasibility – How feasible is the project to achieve its stated goals?
- D. Project Replicability – Could a similar project be replicated in Connecticut or elsewhere, or is this a unique opportunity?
- E. Relevant Experience – Does the proposer offer relevant and sufficient experience for the type of project being proposed?
- F. References
- G. Pending Litigation
- H. Budderfly management and character review

The company scored 22 / 24 possible points which is considered a compelling proposition from a Green Bank programmatic perspective. See evaluation matrix is Appendix A.

Conclusion

Management's progress has confirmed the Green Bank Investment Team's assessment that Budderfly has a durable and scalable business model that is rapidly expanding. Staff sees the new \$200 million financing facility providing the needed capital for the company's continues growth. In fact, Budderfly and the Green Bank are jointly discussing a financing facility from the US Department of Energy's Loan Program Office (LPO) under the State Energy Financing Institution (SEFI) program. The LPO facility would finance the next leg of the company's growth and could become available in the 2nd half of 2024. Staff believes the Budderfly's request is reasonable and that the Green Bank is in a lower risk position today vs. when the Board first approved the Green Bank facility for Budderfly owing to (a) the substantial recapitalization via the Partners Group, (b) limited secured creditors (less than \$15 million compared to capital resources of \$240 million as explained earlier), and (c) the material improvement in operating metrics. Staff requests approval



from the Board for this accommodation to enable Budderfly to continue its path to growth and ultimate bottom line profitability. Approval is recommended.

Resolutions

RESOLVED, that the Connecticut Green Bank (“Green Bank”) is authorized to modify its security position related to its six (6) year subordinated term loan agreement with Budderfly, Inc., which was closed in June 2022 in the maximum cash advanced amount of \$5,000,000 as more fully explained in the memorandum to the Green Bank Board of Directors (the “Board”) dated October 17, 2023; and

RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and negotiate and deliver all other documents and instruments as they shall deem necessary and desirable to effect the above-mentioned legal instruments.

Submitted by: Bert Hunter, EVP and CIO & Larry Campana, Associate Director, Clean Energy Finance

Appendix A

Capital Solutions Open RFP Evaluation Matrix

Capital Solutions Open RFP Evaluation

Proposal:	Approve modification of an existing \$5 million medium term loan facility provided solely by Green Bank to fund work in progress at Budderfly's various customer sites.		
Criteria	Rating	Explanation	Score
1 Meeting Green Bank Goals – how well does this project align with the Green Bank's goals?	High	This loan facility provides more affordable capital to Budderfly, an innovative CT-based, energy efficiency provider, focused on providing high scale energy efficiency upgrades to restaurant franchises.	3
2 Green Bank Essentiality – to what extent is participation by the Green Bank essential to the success of the project?	Medium	While Budderfly did have access to capital, it will be at significantly higher interest rates, which could hinder the company's long term deployment goals. Ultimately - by showing partnership with the Green Bank, Budderfly improves its position vis a vis DOE-LPO for a SEFI facility	2
3 Project Feasibility – How feasible is the project to achieve its stated goals?	High	The energy efficiency measures employed by Budderfly are expected to save 5,814 MWh in CT in 2022 and 51,815 MWh across the US	3
4 Project Replicability – Could a similar project be replicated in Connecticut or elsewhere, or is this a unique opportunity?	High	The company has nearly 5,000 contracts from Connecticut to California, and a revenue growth of 50% in 2022	3
5 Relevant Experience – Does the proposer offer relevant and sufficient experience for the type of project being proposed?	High	Budderfly is in its 6th year of operation with significant contract value and is led and managed by a group of four executives with (collectively) over 100 years of experience in disciplines from management consulting, engineering, technology-based solutions, expense management software, finance and the law.	3
6 References	High	Green Bank staff has spoken with senior and subordinated lenders to Budderfly who have spoken highly of management and Budderfly's business operations, this includes conversations with transaction managers at CT Innovations and DECD.	3
7 Pending Litigation	High	None	3
8 Management and character review	Medium	CEO, Albert Subbloie, Jr. had issues regarding SEC filings with his previous company, Tangoe. Staff does not consider these matters disqualifying.	2
Bonus Points	Rating	Explanation	Score
1 Project benefits LMI or underserved communities	N/A		0
2 Project benefits communities with environmentally hazardous areas, such as superfund sites	N/A		0
TOTAL SCORE	Pass		22/24



Memo

To: Board of Directors of the Connecticut Green Bank

From: Bryan Garcia (President and CEO)

Cc: Jane Murphy (EVP of Finance and Administration), Eric Shrago (VP of Operations), and Dan Smith (Associate Director of Financial Reporting)

Date: November 15, 2023

Re: Q1 of FY24 Financial Package (Abridged)

Overview

Following on the recommendation of the Chair¹ of and discussions with the Audit, Compliance, and Governance Committee (“ACG Committee”)² and Board of Directors,³ we are beginning our second year of providing the abridged quarterly financial package for the Connecticut Green Bank (“Green Bank”) for the purposes of helping members of the board communicate four key messages consistent with its Comprehensive Plan – (1) making an impact,⁴ (2) mobilizing private investment,⁵ (3) achieving sustainability,⁶ and (4) monitoring state budget allocation. Each of these areas is elaborated on further below with an explanation of what transpired at a “high level” within that area in each respective quarter.

Making an Impact – Board Member Dashboards

Given a primary goal of the Green Bank is to continuously deliver benefits to our communities, and need to communicate that impact to our stakeholders, we have created dashboards for each member of the board that shows the organization’s impact to your community or is most relevant to your appointer. For example, Adrienne Farrar Houel is an active community member of Bridgeport, and given her local interests, we have provided a link to the impact metrics the Green Bank has made for her city:

*“The Green Bank has **enabled \$198,850,825 of investment in clean energy in Bridgeport helping 4,738 families and businesses reduce the burden of energy costs while creating 2,781 job years in our communities and avoiding 1,251,363 tons of CO2 emissions causing global climate change.**”⁷*

¹ Tom Flynn

² May 17, 2022 ACG Committee meeting – [click here](#)

³ June 24, 2022 BOD meeting – [click here](#)

⁴ Goal 2 – to strengthen Connecticut’s communities, especially vulnerable communities, by making the benefits of the green economy inclusive and accessible to all individuals, families, and businesses.

⁵ Goal 1 – to leverage limited public resources to scale-up and mobilize private capital investment in the green economy of Connecticut.

⁶ Goal 3 – to pursue investment strategies that advance market transformation in green investing while supporting the organization’s pursuit of financial sustainability.

⁷ As of November 12, 2023

Given our goal to ensure that “no less than 40 percent of investment and benefits are directed to vulnerable communities by 2025,” you will see that we also include those breakdowns.

Mobilizing Private Investment – Balance Sheet

Given a primary goal of the Green Bank is to invest public funds wisely to mobilize multiples of private capital investment, the strength of the balance sheet (e.g., total assets, net position) is important to attracting private partners.

There is an increase in total assets in Q1 from \$256.8 million to \$262.4 million (i.e., increase of \$5.5 million), with specific growth in investments in program loans of \$11.4 million during the quarter. The total liabilities decreased in Q1 from \$120.9 million to \$118.3 million (i.e., decrease of \$2.6 million). In Q1 of FY24, public revenues were invested in 169 loans closed totaling \$4.4 million.

Achieving Sustainability – Organizational P&L

Given a primary goal of the Green Bank is to pursue organizational sustainability, the realization of revenues (i.e., specifically earned revenues) and management of operating expenses (i.e., specifically personnel-related operating expenses) is important.

The key observation from Q1 of FY24 is that earned revenues (i.e., \$6.1 million⁸) are not only ahead of budget, but continue to exceed personnel related operating expenses (i.e., \$2.8 million), as well as total operating expenses (i.e., \$5.4 million). These are continuing trends as the Green Bank makes steady progress towards organizational sustainability as planned in FY18.⁹

Monitoring State Budget Allocation

And lastly, to track the impact of the long-term structural budget deficit issues with respect to pension and healthcare liabilities, the Green Bank tracks the State of Connecticut Comptroller Employer SERS Rate (i.e., 59.6%) to a hypothetical market rate (i.e., 35.0%) to discern the amount the Green Bank overpays for such benefits causing increased pressure on organizational sustainability.

The key observation from Q1 of FY24 is that the Green Bank paid the State of Connecticut nearly \$600,000 more than it would have paid in a competitive environment for pension and healthcare benefits for its employees. This additional payment slows down progress of the Green Bank towards organizational sustainability.

Conclusion

For those interested in further details beyond the “Abridged” version of the Q1 of FY24 financial package, see the “Comprehensive” version attached.

⁸ Less the \$0.6 MM in Energy System Sales noted in the statement footnotes

⁹ December 15, 2017 BOD meeting – [click here](#)



Connecticut Green Bank

September 2023 Quarterly Financial Package
(Abridged)

Connecticut Green Bank
September 2023 Financial Package

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Connecticut Green Bank

Making an Impact

Board Member Dashboard

So that you can best articulate our ongoing impact to the Green Bank's stakeholders, we have created the below linked dashboards that show the organization's impact to your community or is most relevant to your appointer.

<https://www.ctgreenbank.com/boardimpact/>

CONNECTICUT GREEN BANK

Welcome to the Connecticut Green Bank KPI (Key Performance Indicator)
This dashboard shows our impact in various geographical areas.

HOME SOLUTIONS BUILDING SOLUTIONS

INVESTMENT SOLUTIONS CONTRACTOR SOLUTIONS

Click to Navigate to a Page

Home
State of CT
Council of Governments (COG)
Adrienne Farrar Houel - Bridgeport
Rob Hotaling - State of CT
Brenda Watson - Bloomfield
Brenda Watson - House District 1
Dominick Grant - Middlefield
Joanna Wozniak-Brown - State of CT
John Harrity - East Hartland
Lonnie Reed - Branford
Matt Ranelli - New Haven
Matt Ranelli - Senate District 11
Bettina Bronisz - State of CT
Tom Flynn - Fairfield
Tom Flynn - Senate District 21
Hank Webster - State of CT

When you access the site, you will see the different dashboards on the righthand side. Please click on the one you wish to view. The dashboards default to our performance and impact since inception but you may filter them by calendar or fiscal year in the top right. The top has a summary statement of the performance and impact for that geographic area. The bottom tables are further cross sections of this performance for vulnerable communities, Community Reinvestment Act Eligible Projects, and projects in Distressed Communities.

Please forward me your feedback and suggestions at eric.shrago@ctgreenbank.com.

CGB-Primary Government Mobilizing Private Investment Balance Sheet

	CGB-Primary Government As of 9/30/2023	CGB-Primary Government As of 06/30/2023	CGB-Primary Government YTD \$ Change
Assets			
Current Assets			
Cash and Cash Equivalents (1)	(a) 31,552,616	37,225,614	(5,672,998)
Due From Component Units (SL2/SL3/CSS)	(b) 55,228,887	59,088,724	(3,859,837)
Other Current Assets	(c) 10,097,089	9,614,984	482,105
Total Current Assets	96,878,592	105,929,322	(9,050,730)
Noncurrent Assets			
Program Loans/Notes Receivable and Other Investments	(d) 127,884,516	116,497,356	11,387,160
Capital Assets, net	(e) 15,023,960	15,164,675	(140,715)
Restricted Assets (1)	(f) 22,583,325	19,243,259	3,340,066
Total Noncurrent Assets	165,491,801	150,905,290	14,586,511
Total Assets	262,370,393	256,834,612	5,535,781
Liabilities			
Current Liabilities			
	(g) 14,431,567	14,068,418	363,149
Noncurrent Liabilities			
Bonds Payable-SHREC ABS 1	(h) 19,669,777	19,899,482	(229,705)
Bonds Payable-Green Liberty Bonds	(i) <u>37,163,000</u>	<u>37,163,000</u>	0
Total RSIP Bonds Payable	56,832,777	57,062,482	(229,705)
Bonds Payable-CREBs	(j) 9,272,525	9,272,525	0
Notes Payable-CGB (GLN)	0	2,742,250	(2,742,250)
Lease Liability	(k) 2,088,417	2,088,417	0
Pension & OPEB Liabilities	(l) 35,674,586	35,674,586	0
Total Noncurrent Liabilities	103,868,305	106,840,260	(2,971,955)
Total Liabilities	118,299,872	120,908,678	(2,608,806)
Deferred Inflows of Resources	(m) 3,981,219	3,981,219	0
Total Net Position	140,089,302	131,944,715	8,144,587

(1) The \$31.6M unrestricted balance at 9/30/2023 was mostly due to the issuance of two series of Special Capital Reserve Fund (SCRFF) backed Green Liberty Bonds in FY21. The purpose of these issuances was to refinance expenditures of the Green Bank related to its Residential Solar Incentive Program (RSIP) per CGS 16-245ff. As of 9/30/23, unfunded and committed Solar PV incentives related to the RSIP program totaled approximately \$18.0, to be paid to third parties over the next five fiscal years using the proceeds from these two bond issuances. Additionally, \$7.9M of RGGI funds are committed to Class 1 Renewable projects under the Regional Greenhouse Gas Initiative and not yet spent as of 9/30/23.

	Actual	Adj for RSIP/RGGI Commitments	Total
Cash - Unrestricted	\$ 31,552,616	\$ (25,900,000)	\$ 5,652,616
Cash - Restricted	22,583,325	25,900,000	48,483,325
Total Cash	\$ 54,135,941	\$ -	\$ 54,135,941

* Additionally, Pursuant to CGS 16-245n(h), the State cannot impair the Green Bank's rights or obligations contained in contracts it has with third parties unless the State otherwise makes the third party whole pursuant to the Green Bank's unique non-impairment clause. As such, please contact the Green Bank before any material funding reductions or sweeps to ensure this non-impairment clause is not triggered. This could impact the Green Bank's or the State's credit and bond rating, if applicable.

Appendix

- {a} Cash and Cash Equivalents includes all unrestricted cash accounts for the CT Green Bank and all entities included within the Primary Government for financial reporting purposes.
- {b} Due from Component Units represents the balance due to CGB's primary government through intercompany receivable accounts, the bulk of which relates to investment made in the CTSL2 and CTSL3 programs via CEFIA Solar Services Inc.
- {c} Other Current Assets are made up of Accounts Receivable, Utility Remittance Receivable, Interest Receivable, Other Receivables and Prepaid Expenses
- {d} Program Loans/Notes Receivable and Other Investments include the principal balances of all outstanding Program Loans, SBEA Notes, Solar Lease 1 Notes as well as some additional smaller investments made.
- {e} Capital Assets, net represent the cost of all capital assets that are owned by entities of the Primary Government, including Solar PV systems, furniture and equipment, leasehold improvements and computer hardware.
- {f} Restricted Assets includes all restricted cash accounts such as loan loss reserves, Special Capital Reserve Funds (SCRFs) related to the bonds outstanding and other contractually restricted cash accounts
- {g} Current Liabilities includes accounts payable and accrued expenses (including accrued incentives), accrued interest, and custodial liabilities
- {h} SHREC ABS 1 Bonds Payable represent the outstanding principal remaining on \$38.6M in bonds issued in March 2019. These bonds were collateralized by revenue from sales of SHRECs for two tranches of approx. 14,000 residential Solar PV systems to two CT utilities. These mature in 2033.
- {i} Green Liberty bonds represent the outstanding principal remaining on the \$16.8M Series 2020 and \$24.8M Series 2021 Green Liberty Bonds, collateralized by revenues from sales of SHRECs related to Tranche 3(Series 2020) and Tranche 4 (Series 2021). These mature in 2037.
- {j} Bonds Payable- CREBs are two separate Clean Energy Renewable Energy bonds issued in February 2017 for just under \$3.0M(Meriden Hydro project) and December 2017 for \$9.1M (CSCUs project). These mature in 2038.
- {k} Lease liability represents the amount owed on the two leases of office space (Hartford & Stamford). The amount is determined per GASB 87, which included a present value of payments expected to be made during the lease term at the onset of the lease (both of which include 10.5 year terms beginning in Fiscal year 2021).
- {l} Pension and OPEB Liabilities represent the actuarially determined Pension and OPEB liabilities allocated to the CT Green Bank out of the SERS retirement plans. This number is uncontrollable by the Green Bank, with the amount to be booked provided by the actuarial valuation on an annual basis.
- {m} Deferred inflows of resources are a governmental accounting function which represents an acquisition of net position that applies to future periods and will not be recognized until that time. Amounts included here are functions of the Pension and OPEB actuarial valuations and are updated on an annual basis.

**CGB-Primary Government
Achieving Sustainability
Organizational P&L**

		Consolidated 7/1/2023 Through 9/30/2023				
		Actual	Budget	Variance	Prior Year Actual	Variance
Total Revenues						
	Public Revenues	(a) 9,995,688	9,709,100	286,588	10,352,232	(356,544)
	Earned Revenues (**)	(b) 6,087,379	4,910,310	1,177,069	4,412,697	1,674,682
Total Revenues		16,083,067	14,619,410	1,463,657	14,764,929	1,318,138
Total Operating Expenses						
	Personnel Related Operating Expenses	(c) 2,807,055	3,485,186	(678,131)	2,630,194	176,861
	Non-Personnel Related Operating Expenses (**)	(d) 2,548,715	3,371,822	(823,107)	1,858,848	689,867
Total Operating Expenses		5,355,770	6,857,008	(1,501,238)	4,489,042	866,728
Margin (\$) - All Revenues		10,727,297	7,762,402		10,275,887	
Margin (%) - All Revenues		66.7%	53.1%		69.6%	
Margin (\$) - Pre Public Revenues		731,609	(1,946,698)		(76,345)	
Margin (%) - Pre Public Revenues		4.5%	-13.3%		-0.5%	
Total Non-Operating Expenses						
	Program Incentives and Grants	(e) 2,009,868	3,654,031	(1,644,163)	1,674,372	335,496
	Non-Operating Expenses	(f) 572,841	955,266	(382,425)	1,172,599	(599,758)
Total Non-Operating Expenses		2,582,709	4,609,297	(2,026,588)	2,846,971	(264,262)
Total Expenses		7,938,479	11,466,305	(3,527,826)	7,336,013	602,466
Net Margin (\$) - All Revenues (*)		8,144,588	3,153,105	4,991,483	7,428,916	715,672
Net Margin (%) - All Revenues		50.6%	21.6%		50.3%	

* Net Margin represents the Operating Results of the Green Bank before impact of State Pension and OPEB allocation of costs based on the annual actuarial valuation performed of the benefit plans. As such, the benefit/expense related to these actuarial determined amounts are not included in this presentation. See Detailed Quarterly and Annual ACFR for more details on these amounts.

** The Earned revenues and non-personnel related operating expenses both include \$0.6M in Energy System Sales that occurred in the current period, where the revenues and cost of sales net to zero. These items both have a budget of \$0. The prior year actuals do not include similar items in the first quarter of the fiscal year. See Detailed Quarterly report for more details on these amounts.

Appendix

- {a} Public Revenues include system benefit charges from electric ratepayers and RGGI allowance proceeds.

- {b} Earned Revenues include interest income, REC sales, PPA income and other revenues earned by the Primary Government.

- {c} Personnel Related Operating Expenses include Salaries, benefits and payroll taxes.

- {d} Non-Personnel Related Operating Expenses include all other operating expenses not related to personnel, including O&M, tech support costs, IPC human capital, marketing, consulting, rent, insurance, IT and other office expenses.

- {e} Program Incentives and Grants are included in Non-Operating Expenses, and relate mostly to PBI & EPBB incentives paid out.

- {f} Non-Operating Expenses include Interest expense (mostly on bonds), loan loss reserve expense, and Interest Rate Buydowns using ARRA funds.

**Connecticut Green Bank
Monitoring State Benefit Allocation
September 30, 2023**

	FYTD 9/30/23 Actual	FYE 6/30/23 Actual	FYE 6/30/22 Actual	FYE 6/30/21 Actual	FYE 6/30/20 Actual	FYE 6/30/19 Actual
Compensation:	\$ 1,550,822	\$ 5,902,859	\$ 4,813,293	\$ 4,476,214	\$ 3,931,596	\$ 4,204,855
Employee Benefits:						
State Retirement Plan Contributions	\$ 935,719	\$ 3,995,132	\$ 3,317,054	\$ 2,903,780	\$ 2,411,864	\$ 2,869,823
Medical Dental Rx Premiums	206,897	791,620	610,627	625,480	553,908	545,779
Total Employee Benefits	<u>1,142,616</u>	<u>4,786,752</u>	<u>3,927,681</u>	<u>3,529,260</u>	<u>2,965,772</u>	<u>3,415,602</u>
Total Compensation and Benefits	<u>\$ 2,693,438</u>	<u>\$ 10,689,611</u>	<u>\$ 8,740,974</u>	<u>\$ 8,005,474</u>	<u>\$ 6,897,368</u>	<u>\$ 7,620,457</u>
* Retirement Plan Contributions as a % of Salary	60.34%	67.68%	68.91%	64.87%	61.35%	68.25%
Medical Dental Rx Premiums as a % of Salary	13.34%	13.41%	12.69%	13.97%	14.09%	12.98%
Total Benefits and Taxes as a % of Salary	73.68%	81.09%	81.60%	78.84%	75.43%	81.23%
*** State of CT Comptroller Employer SERS Rate	59.57%	67.40%	65.90%	64.14%	59.99%	64.30%

* Retirement Plan Contributions include Pension & OPEB, included Employer contributions to the Tier IV Defined Contribution for associated employees in that plan.

** OPEB began in the year ended 6/30/18.

*** State of CT Comptroller Employer SERS Rate provided via the annual "Fringe Benefit Recover Rate" memo issued 7/1 of each year by the State Comptroller.

Total Benefits Cost @ Hypothetical Benefits Rate	35%	542,788	2,066,001	1,684,653	1,566,675	1,376,059	1,471,699
Actual Total Compensation and Benefits		2,693,438	10,689,611	8,740,974	8,005,474	6,897,368	7,620,457
Less Total Compensation and Benefits @ Hypothetical Rate		(2,093,610)	(7,968,860)	(6,497,946)	(6,042,889)	(5,307,655)	(5,676,554)
Incremental HR cost due to State Benefits Charge		599,828	2,720,751	2,243,028	1,962,585	1,589,713	1,943,903



Connecticut Green Bank

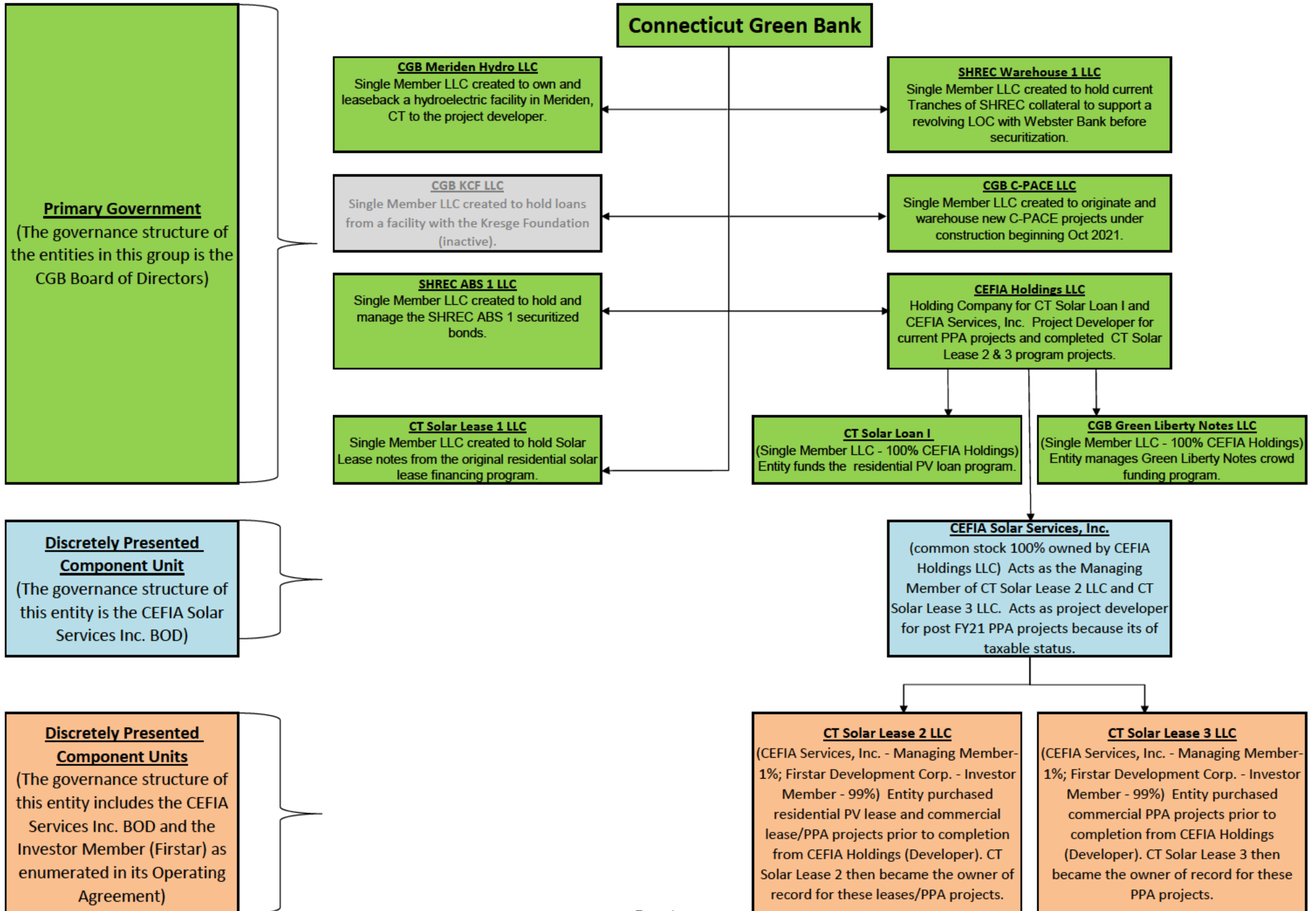
September 2023 Quarterly Financial Package
(Comprehensive)

Connecticut Green Bank
September 2023 Financial Package
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The Connecticut Green Bank and its Component Units (as of 9/30/2023)

See the Annual Comprehensive Financial Report of the Connecticut Green Bank for more details.



Connecticut Green Bank
Executive Summary
September 2023

Overview

This financial package contains financial information for the Connecticut Green Bank (CGB) for Fiscal Year ending June 30, 2024 with comparisons to June 30, 2023 for balance sheet, comparisons to the same period ended September 30, 2023 for the statement of revenue and expenditures, and versus Budget for the Statement of Revenue and Expenditures. Schedules of comp and benefits, unfunded commitments, loan guarantees, and program loans, notes and loan loss reserves are also presented. See Consolidated Balance Sheet, Consolidated Statement of Revenues and Expenditures and Consolidated Statement of Cash Flows for more details on the entities that make up the Primary Government for purposes of this Reporting.

Balance Sheet - Primary Government

- ✓ CGB's current assets decreased by \$14.9M compared to June 2023, which is mostly a function of timing of reporting current portions of loans/notes receivable (done for ACFR purposes annually at fiscal year end). Taking out the \$9.7M decrease in current assets related to this, the remaining current assets decreased \$5.2M in the first quarter of FY24. The largest contributing factor to the decrease is due to cash and cash equivalents decreasing \$5.7M. The cash decrease is mostly due to approx. \$18M in investment disbursements year to date outpacing the cash received from operating income and repayments of program loans receivable in the period.
- ✓ Noncurrent assets increased \$20.4M compared to June 30, 2023, due in part to the aforementioned reclassification of \$9.7M done for fiscal year end, as well as the approx. \$18M of program loan investment disbursements in the quarter outpacing the approx. \$7.2M received on program loans outstanding previously discussed.
- ✓ As of September 30, 2023, 96.9% of accounts receivable is aged 30 days or lower, and only 2.0% of accounts receivable aged 60+ days - showing no significant collectability issues on accounts receivable. Utility Remittance receivables are all aged under 30 days, and Other Receivables represent disbursements made for development of projects and don't have specific aging/invoice due dates at any given time.
- ✓ Liabilities have decreased \$2.6M compared to June 30, 2023, mostly attributable to approx. \$2.7M decrease in due to component units at September 30, 2023 compared to June 30, 2023, which was an ACFR reclassification for reporting purposes at fiscal year end.
- ✓ Net Position for the Primary Government has increased \$8.1M due to the period's income as seen on Statement of Revenues and Expenditures below.

Statement of Revenues and Expenditures vs. Prior Year - Primary Government

Change in Net Position for FY24 was approximately \$8.1M of Income.

- ✓ Operating Revenues increased \$1.1M from the same period of the prior year and Operating expenses increased \$1.0M from the same period of the prior year, resulting in Operating income increasing \$0.1M from the same period of the prior year. The revenue increase is mostly due to the \$0.6M increase in the Energy System Sales and a \$2.3M increase in interest income on program loans and notes receivable.
- ✓ Operating Expenses had increases of \$0.6M in Cost of Goods Sold-Energy Systems as well as increases of \$0.3M in program administrative expenses and grants and incentive expenses compared to the same period of the prior year, respectively.
- ✓ Nonoperating Revenues (expenses) showed an increase from expenses of \$0.5M to revenues of \$0.1M compared to the same period of the prior year. This increase is mostly due to an increase in interest income on cash of \$0.2M as well as a decrease in interest expense related to long term debt. This decrease is partially due to timing of CREBs subsidy receipt as well as an approx. \$0.1M decrease in SHREC ABS 1 interest due to the large prepayment made on the debt in this quarter in the prior year leading to significantly lower interest going forward.

Statement of Revenues and Expenditures vs. Budget - Primary Government

Fiscal Year to Date Net Revenues Over Expenses of \$8.1M was \$5.0M better than budget for the first three months of FY24.

- ✓ Revenues were \$1.5M higher than budget mostly due to \$0.6M in sales of energy systems that were not budgeted for, \$0.4M higher interest income than budget, and \$0.3M higher RGGI revenues than budget.
- ✓ Operating Expenses were \$1.5M under budget; however if we exclude the Costs of Sales of Energy Systems and its \$0.6M variance over a budget of zero, the remaining Operating expenses were \$2.1M below budget. The biggest factors to this were \$0.7M lower compensation and benefits, \$0.6M lower program development and administration expenses, and \$0.4M lower marketing expenses. See breakout of budget to actual for financing programs, incentive programs and environmental infrastructure programs for more details.
- ✓ Program incentives and grants were approx. \$1.6M lower than the recast budget for the fiscal year due to PBIs/EPBBs falling \$1.4M lower than budget and ESS incentives falling \$0.2M below budget.
- ✓ Non-operating expenses were approximately \$0.4M under budget, driven mostly by the accelerated receipt of CREBs subsidy compared to budgeted timing of approx. \$0.3M as well as \$0.1M lower ARRA interest rate buy-downs than budget in the period.

Unfunded Commitments

CGB has a total of \$67.1M in unfunded commitments at September 30, 2023, a decrease of \$23.8M from June 30, 2023. The decrease is seen mostly in a decrease in the unfunded commitments to the CPACE program of approx. \$9.3M due to the expiration of board approvals for some previously approved projects (each project has 120 days to close). Additionally, there was a \$7.0M decrease in Fuel Cell unfunded commitment due to the closing of a deal and investment made in the quarter. Lastly, the Multi/LMI/EE category decreased approx. \$3.9M due to further investments made from previous commitments in the period.

CGB-Primary Government Balance Sheet

	CGB-Primary Government 9/30/2023	CGB-Primary Government 6/30/2023	CGB-Primary Government \$ Change
Assets			
Current Assets			
Cash and Cash Equivalents	31,552,616	37,225,614	(5,672,998)
Accounts Receivable	4,400,020	4,135,781	264,239
Utility Remittance Receivable	2,262,080	1,852,329	409,751
Interest Receivable	1,441,801	1,621,350	(179,549)
Other Receivables	1,171,122	1,245,627	(74,505)
Prepaid Expenses and Other Assets	822,066	759,895	62,171
Current Portion of Solar Lease Notes	0	1,019,733	(1,019,733)
Current Portion of SBEA Promissory Notes	0	1,448,595	(1,448,595)
Current Portion of Program Loans, Net of Reserves	0	7,236,384	(7,236,384)
Total Current Assets	41,649,705	56,545,308	(14,895,603)
Noncurrent Assets			
Restricted Assets	22,583,325	19,243,259	3,340,066
Investments	939,395	852,427	86,968
Program Loans, net of reserves	121,332,726	102,369,925	18,962,801
Solar Lease I Promissory Notes, net of reserves	1,850,316	1,078,443	771,873
Renewable Energy Certificates	174,306	174,306	0
SBEA Promissory Notes, net of reserves	3,587,673	2,317,443	1,270,230
Due From Component Units	55,228,887	59,088,724	(3,859,837)
Investment in Component Units	100	100	0
Capital Assets, net	15,023,960	15,164,675	(140,715)
Total Noncurrent Assets	220,720,688	200,289,302	20,431,386
Total Assets	262,370,393	256,834,610	5,535,783
Deferred Outflows of Resources			
Deferred Amount for Pensions	7,301,972	7,301,972	0
Deferred Amount for OPEB	6,353,565	6,353,565	0
Total Deferred Outflows of Resources	\$ 13,655,537	\$ 13,655,537	\$ 0
Liabilities			
Current Liabilities			
Accounts Payable	422,613	879,346	(456,733)
Accrued Payroll and Related Liabilities	1,175,855	1,175,855	0
Accrued Expenses	10,390,147	9,646,769	743,378
Notes Payable- Green Liberty Notes	1,100,000	1,000,000	100,000
Current Maturities of Long-Term Debt	224,825	5,426,387	(5,201,562)
Custodial Liability	1,059,999	1,074,803	(14,804)
Deferred Revenue	58,128	66,818	(8,690)
Total Current Liabilities	14,431,567	19,269,978	(4,838,411)
Noncurrent Liabilities			
Due to Component Units	0	2,742,250	(2,742,250)
Bonds Payable-SHREC ABS 1	19,669,777	18,213,482	1,456,295
Bonds Payable-CREBs	9,272,525	8,566,963	705,562
Bonds Payable-Green Liberty Bonds	37,163,000	34,353,000	2,810,000
Lease Liability, less current maturities	2,088,417	2,088,417	0
Pension Liability	17,632,888	17,632,888	0
OPEB Liability	18,041,698	18,041,698	0
Total Noncurrent Liabilities	103,868,305	101,638,698	2,229,607
Total Liabilities	118,299,872	120,908,676	(2,608,804)
Deferred Inflows of Resources			
Deferred Pension Inflow Liability	6,176,916	6,176,916	0
Deferred OPEB Inflow Liability	11,459,840	11,459,840	0
Total Deferred Inflows of Resources	17,636,756	17,636,756	0
Net Position			
Net Investment in Capital Assets	15,023,960	15,164,675	(140,715)
Restricted-Energy Programs	22,583,325	19,243,260	3,340,066
Unrestricted Net Position	102,482,017	97,536,780	4,945,237
Total Net Position	140,089,302	131,944,715	8,144,588

CGB-Primary Government Statement of Revenues and Expenditures

	CGB-Primary Government Fiscal YTD 9/30/2023	CGB-Primary Government Fiscal YTD 9/30/2022	CGB-Primary Government \$ Change
Change in Net Position			
Operating Income (Loss)			
Operating Revenues			
Utility Remittances	7,112,158	7,443,191	(331,033)
Interest Income-Promissory Notes	2,047,658	1,726,404	321,254
RGGI Auction Proceeds	2,883,530	2,909,040	(25,510)
Energy System Sales	601,609	-	601,609
REC Sales	2,483,302	2,271,275	212,027
Other Income	609,401	275,529	333,872
Total Operating Revenues	<u>15,737,658</u>	<u>14,625,439</u>	<u>1,112,219</u>
Operating Expenses			
Cost of Goods Sold-Energy Systems	601,608	-	601,608
Provision for Loan Losses	310,252	550,566	(240,314)
Grants and Incentive Payments	2,022,869	1,674,372	348,497
Program Administration Expenses	3,655,846	3,384,447	271,399
General and Administrative Expenses	1,118,623	1,133,384	(14,761)
Total Operating Expenses	<u>7,709,198</u>	<u>6,742,769</u>	<u>966,429</u>
Operating Income (Loss)	<u>8,028,460</u>	<u>7,882,670</u>	<u>145,790</u>
Nonoperating Revenue (Expenses)			
Interest Income-Short Term Cash Deposits	348,254	152,836	195,418
Interest Income-Component Units	18,389	17,944	445
Interest Expense-ST Debt	(11,378)	-	(11,378)
Interest Expense-LT Debt	(231,029)	(622,034)	391,005
Debt Issuance Costs	(2,500)	(2,500)	-
Net change in fair value of investments	(5,608)	-	(5,608)
Total Nonoperating Revenue (Expenses)	<u>116,128</u>	<u>(453,754)</u>	<u>569,882</u>
Change in Net Position	<u>8,144,588</u>	<u>7,428,916</u>	<u>715,672</u>

**CT Green Bank Primary Government
Budget to Actual Financial Analysis
September 2023**

	CGB Primary Government 07/01/2023 Through 9/30/2023			Incentive Programs 07/01/2023 Through 9/30/2023			Financing Programs 07/01/2023 Through 9/30/2023			Environmental Infrastructure 07/01/2023 Through 9/30/2023		
	Actual	Budget	Variance	Actual	Budget	Variance	Actual	Budget	Variance	Actual	Budget	Variance
Revenue												
Operating Income												
Utility Customer Assessments	7,112,158	7,114,700	(2,542)	0	0	0	7,112,158	7,114,700	(2,542)	0	0	0
RGGI Auction Proceeds-Renewables	2,883,530	2,594,400	289,130	0	0	0	2,883,530	2,594,400	289,130	0	0	0
CPACE Closing Fees	149,642	30,000	119,642	0	0	0	149,642	30,000	119,642	0	0	0
REC Sales	2,395,160	2,375,624	19,536	2,395,160	2,375,624	19,536	0	0	0	0	0	0
Sales of Energy Systems	601,609	0	601,609	0	0	0	601,609	0	601,609	0	0	0
Grant Income-Federal Programs	111	10,000	(9,889)	0	0	0	111	10,000	(9,889)	0	0	0
Grant Income-Private Foundations	8,690	37,500	(28,810)	0	0	0	8,689	37,500	(28,811)	0	0	0
PPA Income	165,486	125,000	40,486	0	0	0	165,487	125,000	40,487	0	0	0
LREC/ZREC Income	88,142	90,000	(1,858)	0	0	0	88,142	90,000	(1,858)	0	0	0
Total Operating Income	13,404,528	12,377,224	1,027,304	2,395,160	2,375,624	19,536	11,009,368	10,001,600	1,007,768	0	0	0
Interest Income	2,352,815	2,002,253	350,562	126,104	11,100	115,004	2,226,711	1,991,153	235,558	0	0	0
Interest Income, Capitalized	40,252	15,000	25,251	0	0	0	40,252	15,000	25,252	0	0	0
Other Income	285,472	224,933	60,540	177,108	189,433	(12,325)	108,364	35,500	72,864	0	0	0
Total Revenue	\$ 16,083,067	\$ 14,619,410	\$ 1,463,657	\$ 2,698,372	\$ 2,576,157	\$ 122,215	\$ 13,384,695	\$ 12,043,253	\$ 1,341,442	\$ 0	\$ 0	\$ 0
Operating Expenses												
Compensation and Benefits	2,807,055	3,485,186	(678,131)	642,979	836,146	(193,166)	1,998,239	2,529,233	(530,994)	165,836	119,807	46,029
Program Development & Administration	619,560	1,205,967	(586,407)	431,854	635,379	(203,526)	185,638	500,588	(314,950)	2,070	70,000	(67,930)
Cost of Sales Energy Systems	601,609	0	601,609	0	0	0	601,609	0	601,608	0	0	0
Lease Origination Services	555	1,000	(445)	0	0	0	555	1,000	(445)	0	0	0
Marketing Expense	99,486	449,875	(350,389)	22,833	118,100	(95,267)	76,653	331,775	(255,122)	0	0	0
E M & V	165,389	257,501	(92,112)	141,539	206,251	(64,712)	23,850	51,250	(27,400)	0	0	0
Research and Development	27,802	89,500	(61,698)	0	0	0	5,402	55,000	(49,598)	22,400	34,500	(12,100)
Consulting and Professional Fees	318,710	524,429	(205,719)	85,362	152,750	(67,388)	233,348	359,179	(125,831)	0	12,500	(12,500)
Rent and Location Related Expenses	262,345	276,785	(14,440)	30,514	36,163	(5,648)	223,964	232,634	(8,670)	7,866	7,988	(122)
Office, Computer & Other Expenses	453,259	566,765	(113,505)	166,723	150,726	15,996	274,595	401,465	(126,870)	11,943	14,574	(2,631)
Total Operating Expenses	5,355,770	6,857,008	(1,501,238)	1,521,804	2,135,515	(613,711)	3,623,852	4,462,124	(838,271)	210,115	259,369	(49,255)
Program Incentives and Grants	\$ 2,009,868	\$ 3,654,031	\$ (1,644,163)	\$ 1,962,489	\$ 3,519,031	\$ (1,556,543)	\$ 47,379	\$ 135,000	\$ (87,621)	\$ 0	\$ 0	\$ 0
Operating Income/(Loss)	\$ 8,717,429	\$ 4,108,371	\$ 4,609,058	\$ (785,920)	\$ (3,078,389)	\$ 2,292,469	\$ 9,713,464	\$ 7,446,130	\$ 2,267,334	\$ (210,115)	\$ (259,369)	\$ 49,255
Non-Operating Expenses	\$ 572,840	\$ 955,266	\$ (382,425)	\$ 468,168	\$ 603,694	\$ (135,526)	\$ 104,672	\$ 351,572	\$ (246,899)	\$ 0	\$ 0	\$ 0
Net Revenues Over (Under) Expenses	\$ 8,144,588	\$ 3,153,105	\$ 4,991,483	\$ (1,254,088)	\$ (3,682,083)	\$ 2,427,995	\$ 9,608,791	\$ 7,094,558	\$ 2,514,233	\$ (210,115)	\$ (259,369)	\$ 49,255

**Connecticut Green Bank
September 2023 Financial Package
Analysis of Compensation and Benefits**

	FY 2024 YTD		Budget Variance	FY 2023 YTD	Prior Year
	Actual	Budget		Actual	Variance
Compensation:					
Full Time Employees	\$ 1,497,996	\$ 1,789,535	\$ (291,540)	\$ 1,348,776	\$ 149,220
Interns	46,289	62,400	\$ (16,111)	57,818	(11,529)
Temporary Employees	-	-	\$ -	-	-
Overtime	6,538	-	\$ 6,538	4,190	2,348
Total Compensation	\$ 1,550,822	\$ 1,851,935	\$ (301,113)	\$ 1,410,784	\$ 140,038
Employee Benefits:					
State Retirement Plan Contributions	\$ 935,719			\$ 943,088	\$ (7,369)
Medical Dental Rx Premiums	206,897			166,789	40,108
Payroll and Unemployment Taxes	107,403			102,560	4,843
Life, Disability & WC Premiums	6,214			6,974	(760)
Total Employee Benefits	1,256,233	1,633,251	(377,018)	1,219,411	36,822
Total Compensation and Benefits	\$ 2,807,055	\$ 3,485,186	\$ (678,131)	\$ 2,630,194	\$ 176,860
Benefits and Taxes as a % of Salary	81.00%	88.19%		86.43%	

Actual vs. Budget

Total Employee compensation and benefit costs were \$678k under budget. Full time employee costs are \$292k under budget mostly due to budgeted open positions and \$27k due to budgeted promotion pool not yet being utilized in FY24. Benefits and Taxes are approx. \$377k under budget due mostly to the favorable employee compensation variances previously noted as well as an approx 7% rate variance compared to budget. This is due to the SERS recovery rate determined by the state of CT decreasing from 67.40% in FY23 to 59.57% in FY24 (note: CGB do not determine this actual rate). Additionally, this led to actual benefits and taxes being significantly lower than budget (81.00% actual vs a 88.19% of total compensation for the period to date).

Actual vs. Prior Year

Compensation costs increased \$140k and benefit costs increased \$37k, respectively over the same period of the prior year. Two items led to these amounts being fairly similar year over year. First, July 2022 included 3 pay periods and July 2023 only including 2 pay periods, there is one more pay period in the FY23 amounts. Offsetting the volume decrease is an increase in total employees (50 in September 2023 compared to 43 in September 2022). Actual benefit percentages decreased from 86.43% in the prior period, to 81.00% in the current period due to the aforementioned decrease in SERS recovery rate from the prior year. Additionally, actual contributions to the State employee plan decreased from 69.9% to 62.5% of full time employee compensation, year over year.

**Connecticut Green Bank
September 2023 Financial Package
Historical Analysis of Compensation and Benefits**

	FYTD 9/30/23 YTD Actual	FYE 6/30/23 Actual	FYE 6/30/22 Actual	FYE 6/30/21 Actual	FYE 6/30/20 Actual	FYE 6/30/19 Actual
Compensation:						
Full Time Employees	\$ 1,550,822	\$ 5,902,859	\$ 4,813,293	\$ 4,476,214	\$ 3,929,354	\$ 4,195,593
Temporary Employees	-	-	-	-	2,242	9,262
Total Compensation	\$ 1,550,822	\$ 5,902,859	\$ 4,813,293	\$ 4,476,214	\$ 3,931,596	\$ 4,204,855
Employee Benefits:						
State Retirement Plan Contributions	\$ 935,719	\$ 3,995,132	\$ 3,317,054	\$ 2,903,780	\$ 2,411,864	\$ 2,869,823
Medical Dental Rx Premiums	206,897	791,620	610,627	625,480	553,908	545,779
Payroll and Unemployment Taxes	107,403	417,828	353,405	305,032	269,295	306,091
Life, Disability & WC Premiums	6,214	35,115	28,223	23,840	27,567	46,944
Total Employee Benefits	1,256,233	5,239,695	4,309,308	3,858,132	3,262,634	3,768,636
Total Compensation and Benefits	\$ 2,807,055	\$ 11,142,554	\$ 9,122,602	\$ 8,334,346	\$ 7,194,230	\$ 7,973,491
Medical Dental Rx Premiums as a % of Salary	13.34%	13.41%	12.69%	13.97%	14.09%	12.98%
* Retirement Plan Contributions as a % of Salary	60.34%	67.68%	68.91%	64.87%	61.35%	68.25%
Total Benefits and Taxes as a % of Salary	81.00%	88.77%	89.53%	86.19%	82.98%	89.63%
*** State of CT Comptroller Employer SERS Rate	59.57%	67.40%	65.90%	64.14%	59.99%	64.30%
* Retirement Plan Contributions include Pension & OPEB, included Employer contributions to the Tier IV Defined Contribution for employees in that plan.						
** OPEB began in the year ended 6/30/18.						
*** State of CT Comptroller Employer SERS Rate provided via the annual "Fringe Benefit Recover Rate" memo issued 7/1 of each year by the State Comptroller.						
Total Benefits Cost @ Hypothetical Benefits Rate	35% 542,788	2,066,001	1,684,653	1,566,675	1,376,059	1,471,699
Actual Total Compensation and Benefits	2,807,055	11,142,554	9,122,602	8,334,346	7,194,230	7,973,491
Less Total Compensation and Benefits @ Hypothetical Rate	(2,093,610)	(7,968,860)	(6,497,946)	(6,042,889)	(5,307,655)	(5,676,554)
Incremental HR cost due to State Benefits Charge	713,445	3,173,694	2,624,656	2,291,457	1,886,575	2,296,937

Analysis:

As noted above, the cost of benefits per employee has been in excess of 80% of salary for every year since FYE 6/30/18, with retirement plan contributions making up 58-69% of the cost of total benefits in each of these years. It is noted that the medical/dental/Rx costs have remained fairly consistent over the period presented above (approx. 12-14%). The main driver of the benefits rate is the State of CT Comptroller Employer SERS rate that is a tool the state uses to allocate expenses across all SERS employees. The allocation is done only based on salary of the employees, regardless of the demographic information or tier level of the benefit plans that each employee is eligible for. The Green Bank has a fairly young staff, with 17 Tier III and 25 Tier IV employees of the total 50 full-time employees of the Green Bank at 9/30/23 (where Tier III and Tier IV are lower cost pension arrangements than Tier IIa and Tier II where the Green Bank only has 8 employees). This rate is a cost of doing business to the Green Bank as a quasi-public agency of the state, and management of the Green Bank has no control to manage this rate provided to us. Due to the demographics of our staff, we also believe the rate charged to the Green Bank based on its broad allocation to not be representative of the Tier of employees, where the Green Bank would likely pay a lower rate than what is being charged if employee demographic information as it relates to what Tier SERS plan they are enrolled in was used in the allocation. As further noted above, if we were to apply a standard 35% benefits rate to our salaries over the time period presented, we would save approx. **\$2 - 3M per year**.

Connecticut Green Bank
Summary of Unfunded Commitments
As of September 30, 2023
(In thousands)

	EPBB	PBI	CPACE	Non CPACE	All Projects	Balance	Increase /
	Balance	Balance	Loans	Loans	Balance	6/30/2023	(Decrease)
	9/30/2023	9/30/2023	Balance	Balance	9/30/2023	9/30/2023	9/30/2023
Solar - SHREC Eligible	2,114	15,743	0	0	17,857	19,975	(2,118)
Solar - Not SHREC Eligible	5	184	0	0	189	234	(45)
CPACE	0	0	13,617	0	13,617	22,911	(9,294)
Multifamily/LMI Solar PV & EE	0	0	0	11,191	11,191	15,053	(3,862)
SBEA	0	0	0	16,085	16,085	15,857	228
Solar PPAs/IPC	0	0	0	7,829	7,829	9,537	(1,708)
Fuel Cells	0	0	0	0	0	7,000	(7,000)
Hydropower	0	0	0	330	330	330	0
Total Unfunded Commitments	\$ 2,119	\$ 15,927	\$ 13,617	\$ 35,435	\$ 67,098	\$ 90,897	\$ (23,799)

**Connecticut Green Bank
Summary of Loan Guarantees
As of September 30, 2023**

Guarantor	Issuer	Beneficiary	Relationship of guarantor to Issuer	Type of obligation guaranteed	Maximum amount of guaranty	Obligations guaranteed as of 9/30/2023	Obligations guaranteed as of 6/30/2023
CT Green Bank	Owners of multifamily dwellings in Connecticut	Housing Development Fund	Issuers participate in program administered by CGB and the Housing Development Fund to install energy upgrades in multifamily dwellings	Commercial and consumer loan products with various terms	\$ 5,000,000	\$ 3,004,188	\$ 3,004,188
CT Green Bank	New England Hydropower Company	Webster Bank	Issuer is the developer of hydropower project in Connecticut approved by the CGB Board of Directors.	Line of Credit	300,000	300,000	300,000
CEFIA Holdings LLC	CEFIA Solar Services Inc.	CHFA	Holdings is the sole shareholder of Services and an affiliate of CGB	Promissory Note for funds received from CHFA upon their issuance of Qualified Energy Conservation Bonds (QECBs) for State Sponsored Housing Projects (SSHP)	1,895,807	1,248,072	1,271,769
CT Green Bank	Canton Hydro, LLC	Provident Bank	Issuer is the developer of hydropower project in Connecticut approved by the CGB Board of Directors.	Unfunded guaranty not to exceed \$500,000, decreased to \$250,000 in December 2022.	500,000	500,000	500,000
					\$ 7,695,807	\$ 5,052,260	\$ 5,075,957

Connecticut Green Bank
Program Loans, Notes and Loan Loss Reserve Analysis
As of September 30, 2023

Legal Entity	Loan Program	Project	Loan Portfolio Balance 7/1/2023	FY24 YTD Investments	FY24 YTD Repayments	Loan Portfolio Balance As of September 30, 2023	Loan Loss Reserve Balance 7/1/2023	FY24 YTD Increase / Decrease to Reserve	Loan Loss Reserve Balance As of September 30, 2023	Reserve as a % of Portfolio Balance	Loan Portfolio Carrying Value As of September 30, 2023
CGB	CPACE Program	Various	\$ 48,326,723	\$ -	\$ (1,549,100)	\$ 46,777,624	(4,832,672)	\$ (144,500)	\$ (4,977,172)	10.6%	\$ 41,800,451
CGB	Fuel Cell Projects	FCE Corp-Master Refinance Facility	9,851,763		(223,146)	9,628,617	(985,176)		(985,176)	10.2%	8,643,440
		FCE Corp-Bridge Loan	3,000,000		(3,000,000)	-	(300,000)		(300,000)	0.0%	(300,000)
		FCE Corp-Promissory Note	-	8,000,000		8,000,000	-		-	0.0%	8,000,000
CGB	CHP Pilot	Bridgeport MicroGrid	381,500		(5,658)	375,842	(19,075)		(19,075)	5.1%	356,767
CGB	Anaerobic Digester	Quantum Biopower	1,120,765		(33,290)	1,087,475	(56,038)		(56,038)	5.2%	1,031,437
		Fort Hill Ag-Grid LLC	607,193		(14,196)	592,997	(30,360)		(30,360)	5.1%	562,637
CGB	Other Loans	Nu Power Thermal	427,000			427,000	(427,000)		(427,000)	100.0%	-
		Terrace Heights Condos	43,216		(9,005)	34,211	(4,322)		(4,322)	12.6%	29,889
CGB	Multifamily / Affordable Housing / Credit Challenged / LMI	Capital for Change	3,470,544		(51,490)	3,419,054	(347,055)		(347,055)	10.2%	3,072,000
		CEEFCo	8,520,000	1,480,000		10,000,000	(852,000)		(852,000)	8.5%	9,148,000
		Pre-Dev Loans	11,306		(1,401)	9,905	(2,261)		(2,261)	22.8%	7,644
		Posigen	20,965,655	3,131,845	(635,818)	23,461,682	(2,096,566)		(2,096,566)	8.9%	21,365,117
CGB	Energy Efficiency Financing	RENEW Energy Efficiency Bridgeport	78,182		(8,011)	70,172	(7,818)		(7,818)	11.1%	62,354
CGB	Alpha Program	Anchor Science	150,000		(150,000)	-	(149,999)	149,999	-	0.0%	-
CGB	Op Demo Program	New England Hydropower Co.	500,000		(500,000)	-	(499,999)	499,999	-	0.0%	-
CGB	Wind Financing	Wind Colebrook	1,358,487		(30,521)	1,327,966	(135,849)		(135,849)	10.2%	1,192,117
CGB	Hydro Projects	Canton Hydro	704,457		(5,874)	698,583	(35,223)		(35,223)	5.0%	663,360
CGB	Sunwealth Note	Sunwealth	794,813		(13,462)	781,351	(39,741)		(39,741)	5.1%	741,610
CGB	IPC Note Receivable	IPC	850,000			850,000	-		-	0.0%	850,000
CGB	Budgeted LLR Adj (to be adjusted at fiscal year end)	Various	-			-		(165,750)	(165,750)	0.0%	(165,750)
CGB	Budderfly	Budderfly	5,111,306		(207,642)	4,903,664	(511,132)		(511,132)	10.4%	4,392,532
CEFIA Holdings	Sunwealth Note	Sunwealth	696,293		(16,742)	679,552	(34,815)		(34,815)	5.1%	644,737
CEFIA Holdings	Skyview Notes	Skyview	7,106,804		(119,517)	6,987,287	(355,340)		(355,340)	5.1%	6,631,947
CEFIA Holdings	SBEA Loans	SBEA	(4,523)		(141)	(4,664)	-		-	0.0%	(4,664)
CEFIA Holdings	Inclusive Solar Manager	IPC	3,085,998	1,707,461		4,793,459	(61,720)		(61,720)	1.3%	4,731,739
CT Solar Loan 1	Solar Loans	CT Solar Loan 1	603,135	4,293	(52,608)	554,820	(30,157)		(30,157)	5.4%	524,663
CT Solar Lease 1	Solar Lease Notes	CT Solar Lease 1	2,331,307	10,128	(257,988)	2,083,446	(233,131)		(233,131)	11.2%	1,850,316
CGB CPACE LLC	CPACE Program	Various	3,655,485	3,737,787	(47,235)	7,346,036	-		-	0.0%	7,346,036
CGB Green Liberty Notes LLC	SBEA Loans	SBEA	4,147,523		(227,654)	3,919,868	-		-	0.0%	3,919,868
Total:			\$ 127,894,932	\$ 18,071,513	\$ (7,160,500)	\$ 138,805,946	\$ (12,047,447)	\$ 339,748	\$ (11,707,699)	8.4%	\$ 127,098,247
CGB:											
CPACE Loans			\$ 48,326,723	\$ -	\$ (1,549,100)	\$ 46,777,624	\$ (4,832,672)	\$ (144,500)	\$ (4,977,172)	10.6%	\$ 41,800,451
Posigen			\$ 20,965,655	\$ 3,131,845	\$ (635,818)	\$ 23,461,682	\$ (2,096,566)	\$ -	\$ (2,096,566)	8.9%	\$ 21,365,117
Sunwealth			\$ 794,813	\$ -	\$ (13,462)	\$ 781,351	\$ (39,741)	\$ -	\$ (39,741)	5.1%	\$ 741,610
Program Loans			\$ 36,185,719	\$ 9,480,000	\$ (4,240,234)	\$ 41,425,485	\$ (4,363,306)	\$ 484,248	\$ (3,879,058)	9.4%	\$ 37,546,427
Total CGB:			\$ 106,272,910	\$ 12,611,845	\$ (6,438,614)	\$ 112,446,141	\$ (11,332,284)	\$ 339,748	\$ (10,992,536)	9.8%	\$ 101,453,605
CEFIA Holdings			\$ 10,884,573	\$ 1,707,461	\$ (136,400)	\$ 12,455,634	\$ (451,875)	\$ -	\$ (451,875)	3.6%	\$ 12,003,759
CT Solar Loan 1			\$ 603,135	\$ 4,293	\$ (52,608)	\$ 554,820	\$ (30,157)	\$ -	\$ (30,157)	5.4%	\$ 524,663
CT Solar Lease 1			\$ 2,331,307	\$ 10,128	\$ (257,988)	\$ 2,083,446	\$ (233,131)	\$ -	\$ (233,131)	11.2%	\$ 1,850,316
CGB CPACE LLC			\$ 3,655,485	\$ 3,737,787	\$ (47,235)	\$ 7,346,036	\$ -	\$ -	\$ -	0.0%	\$ 7,346,036
CGB Green Liberty Notes LLC			\$ 4,147,523	\$ -	\$ (227,654)	\$ 3,919,868	\$ -	\$ -	\$ -	0.0%	\$ 3,919,868
											\$ 127,098,247

**Connecticut Green Bank - Primary Government
Consolidated Balance Sheet
As of September 30, 2023**

	Connecticut Green Bank As of 9/30/2023	CGB Meriden Hydro LLC As of 9/30/2023	CGB KCF LLC As of 9/30/2023	SHREC ABS 1 LLC As of 9/30/2023	SHREC Warehouse 1 LLC As of 9/30/2023	CT Solar Lease 1 LLC As of 9/30/2023	CGB C-PACE LLC As of 9/30/2023	CT Solar Loan 1 LLC As of 9/30/2023	CEFIA Holdings LLC As of 9/30/2023	CGB Green Liberty Notes LLC As of 9/30/2023	Eliminations As of 9/30/2023	CGB-Primary Government As of 9/30/2023
Assets												
Current Assets												
Cash and Cash Equivalents	22,098,770	36,859	-	1,109,850	75,917	-	1,455,855	1,959,879	1,477,479	3,338,007	-	31,552,616
Accounts Receivable	4,282,200	-	-	-	-	-	68,180	-	49,640	-	-	4,400,020
Utility Remittance Receivable	2,262,079	-	-	-	-	-	-	-	-	-	-	2,262,079
Interest Receivable	1,242,919	-	-	-	-	-	34,873	3,063	160,946	-	-	1,441,802
Other Receivables	218,038	-	-	-	-	82,267	-	2,903	849,394	18,521	-	1,171,122
Prepaid Expenses and Other Assets	153,647	54,244	-	30,333	-	-	-	-	583,841	-	-	822,065
Total Current Assets	30,257,653	91,103	-	1,140,183	75,917	82,267	1,558,908	1,965,845	3,121,300	3,356,528	-	41,649,705
Noncurrent Assets												
Restricted Assets												
Cash and Cash Equivalents	17,984,380	-	-	766,834	3,718,304	-	-	85,470	28,338	-	-	22,583,325
Investments	939,394	-	-	-	-	-	-	-	-	-	-	939,394
Program Loans, net of reserves	101,453,604	-	-	-	-	-	7,346,036	524,663	12,008,422	-	-	121,332,726
Solar Lease I Promissory Notes, net of reserves	-	-	-	-	-	1,850,316	-	-	-	-	-	1,850,316
Renewable Energy Certificates	174,306	-	-	-	-	-	-	-	-	-	-	174,306
SBEA Promissory Notes, net of reserves	-	-	-	-	-	-	-	-	(4,809)	3,592,482	-	3,587,673
Due From Component Units	81,201,741	-	-	28,715,204	5,784,455	-	-	-	12,082,338	-	(72,554,851)	55,228,887
Investment in Component Units	100,100	-	-	-	-	-	-	-	100	-	(100,100)	100
Capital Assets, net	11,400,352	3,623,608	-	-	-	-	-	-	-	-	-	15,023,960
Total Noncurrent Assets	213,253,877	3,623,608	-	29,482,038	9,502,759	1,850,316	7,346,036	610,133	24,114,389	3,592,482	(72,654,951)	220,720,688
Total Assets	243,511,531	3,714,711	-	30,622,221	9,578,675	1,932,583	8,904,944	2,575,978	27,235,690	6,949,010	(72,654,951)	262,370,393
Deferred Outflows of Resources												
Deferred Amount for Pensions	7,301,972	-	-	-	-	-	-	-	-	-	-	7,301,972
Deferred Amount for OPEB	6,353,565	-	-	-	-	-	-	-	-	-	-	6,353,565
Total Deferred Outflows of Resources	13,655,537	-	-	-	-	-	-	-	-	-	-	13,655,537
Liabilities												
Current Liabilities												
Accounts Payable	416,822	-	-	-	2,153	-	-	1,137	0	2,500	-	422,612
Accrued payroll and related liabilities	1,175,855	-	-	-	-	-	-	-	-	-	-	1,175,855
Accrued Expenses	10,200,172	-	-	42,571	-	-	-	-	124,913	22,491	-	10,390,146
Notes Payable-Green Liberty Notes	-	-	-	-	-	-	-	-	-	1,100,000	-	1,100,000
Current Maturities of Long-Term Debt	224,825	-	-	-	-	-	-	-	-	-	-	224,825
Custodial Liability	221,701	-	-	-	-	-	-	-	838,297	-	-	1,059,998
Deferred Revenue	58,128	-	-	-	-	-	-	-	-	-	-	58,128
Total Current Liabilities	12,297,504	-	-	42,571	2,153	-	-	1,137	963,210	1,124,991	-	14,431,566
Noncurrent Liabilities												
Due to Component Units	34,499,659	5,909,180	21,918	-	-	1,886,874	8,335,000	2,215,000	13,920,913	5,766,307	(72,554,851)	-
Long-term debt	48,523,942	-	-	19,669,778	-	-	-	-	-	-	-	68,193,719
Pension Liability	17,632,888	-	-	-	-	-	-	-	-	-	-	17,632,888
OPEB Liability	18,041,698	-	-	-	-	-	-	-	-	-	-	18,041,698
Total Noncurrent Liabilities	118,698,187	5,909,180	21,918	19,669,778	-	1,886,874	8,335,000	2,215,000	13,920,913	5,766,307	(72,554,851)	103,868,305
Total Liabilities	130,995,691	5,909,180	21,918	19,712,348	2,153	1,886,874	8,335,000	2,216,137	14,884,123	6,891,298	(72,554,851)	118,299,871
Deferred Inflows of Resources												
Deferred Pension Inflow Liability	6,176,916	-	-	-	-	-	-	-	-	-	-	6,176,916
Deferred OPEB Inflow Liability	11,459,840	-	-	-	-	-	-	-	-	-	-	11,459,840
Total Deferred Inflows of Resources	17,636,756	-	-	-	-	-	-	-	-	-	-	17,636,756
Net Position												
Net Investment in Capital Assets	11,400,352	3,623,608	-	-	-	-	-	-	-	-	-	15,023,960
Restricted-Energy Programs	17,984,380	-	-	766,834	3,718,304	-	-	85,470	28,338	-	-	22,583,325
Unrestricted Net Position	79,149,890	(5,818,077)	(21,918)	10,143,039	5,858,219	45,709	569,944	274,371	12,323,228	57,712	(100,100)	102,482,017
Total Net Position	108,534,621	(2,194,469)	(21,918)	10,909,873	9,576,523	45,709	569,944	359,841	12,351,566	57,712	(100,100)	140,089,303

**Connecticut Green Bank
Consolidated Balance Sheet
As of September 30, 2023**

	CGB-Primary Government	CT Solar Lease 2 LLC	CT Solar Lease 3 LLC	CEFIA Solar Services Inc.	Eliminations	Consolidated As of 9/30/2023	Consolidated As of 6/30/2023	Consolidated
	As of 9/30/2023	As of 9/30/2023	As of 9/30/2023	As of 9/30/2023	As of 9/30/2023	As of 9/30/2023	As of 6/30/2023	YOY Change
Assets								
Current Assets								
Cash and Cash Equivalents	31,552,616	1,790,762	3,261,316	757,096	-	37,361,790	41,785,219	(4,423,429)
Accounts Receivable	4,400,020	72,518	21,963	75,623	-	4,570,125	4,252,424	317,701
Utility Remittance Receivable	2,262,079	-	-	-	-	2,262,079	1,852,328	409,751
Current Portion of Lease Receivable	-	1,019,815	-	2,628	-	1,022,443	1,022,443	-
Interest Receivable	1,441,802	-	-	-	-	1,441,802	1,627,117	(185,315)
Other Receivables	1,171,122	905,388	431,979	5,259,595	-	7,768,085	1,709,204	6,058,882
Prepaid Expenses and Other Assets	822,065	271,310	21,457	721,490	-	1,836,323	1,686,574	149,749
Current Portion of Prepaid Warranty Management	-	-	-	-	-	-	260,389	(260,389)
Total Current Assets	41,649,705	4,059,794	3,736,715	6,816,433	-	56,262,646	63,906,987	(7,644,340)
Noncurrent Assets								
Restricted Assets								
Cash and Cash Equivalents	22,583,325	1,878,074	-	384,169	-	24,845,569	22,364,466	2,481,102
Investments	939,394	-	-	-	-	939,394	852,427	86,968
Program Loans, net of reserves	121,332,726	-	-	-	-	121,332,726	102,369,925	18,962,802
Solar Lease I Promissory Notes, net of reserves	1,850,316	-	-	-	-	1,850,316	1,078,443	771,872
Renewable Energy Certificates	174,306	-	-	-	-	174,306	174,306	-
SBEA Promissory Notes, net of reserves	3,587,673	-	-	-	-	3,587,673	2,317,443	1,270,230
Lease Receivable, less current portion	-	15,218,710	-	63,640	-	15,282,350	15,282,350	-
Other	-	-	-	-	-	-	7,400,518	(7,400,518)
Due From Component Units	55,228,887	-	-	7,641,831	(62,870,718)	-	0	(0)
Investment in Component Units	100	-	-	31,264,299	(31,264,399)	-	-	-
Prepaid Warranty Management, less current portion	-	3,147,215	-	-	-	3,147,215	2,951,923	195,292
Fair Value - Interest Rate Swap	-	345,708	-	-	-	345,708	345,708	-
Capital Assets, net	15,023,960	46,865,193	9,289,502	384,590	84,424	71,647,670	72,589,044	(941,374)
Total Noncurrent Assets	220,720,688	67,454,900	9,289,502	39,738,529	(94,050,692)	243,152,927	227,726,553	15,426,374
Total Assets	262,370,393	71,514,694	13,026,217	46,554,962	(94,050,692)	299,415,574	291,633,540	7,782,034
Deferred Outflows of Resources								
Deferred Amount for Pensions	7,301,972	-	-	-	-	7,301,972	7,301,972	-
Deferred Amount for OPEB	6,353,565	-	-	-	-	6,353,565	6,353,565	-
Deferred Amount for Asset Retirement Obligations	-	1,644,691	382,351	-	-	2,027,042	2,027,042	-
Total Deferred Outflows of Resources	13,655,537	1,644,691	382,351	-	-	15,682,579	15,682,579	-
Liabilities								
Current Liabilities								
Accounts Payable	422,612	7,722	-	26,134	-	456,469	987,666	(531,197)
Accrued payroll and related liabilities	1,175,855	-	-	-	-	1,175,855	1,175,855	-
Accrued Expenses	10,390,146	15,847	22,801	62,645	-	10,491,440	10,239,031	252,409
Notes Payable-Green Liberty Notes	1,100,000	-	-	-	-	1,100,000	1,000,000	100,000
Current Maturities of Long-Term Debt	224,825	-	-	-	-	224,825	6,624,849	(6,400,023)
Custodial Liability	1,059,998	-	-	6,383	-	1,066,381	859,484	206,897
Deferred Revenue	58,128	(12,179)	-	-	-	45,949	68,798	(22,849)
Total Current Liabilities	14,431,566	11,390	22,801	95,162	-	14,560,919	20,955,683	(6,394,764)
Noncurrent Liabilities								
Due to Component Units	-	18,503,242	1,224	44,366,252	(62,870,718)	-	-	-
Asset Retirement Obligation	-	3,570,957	637,768	-	-	4,208,724	4,208,724	-
Long-term debt	68,193,719	8,294,389	-	1,248,072	-	77,736,180	71,736,406	5,999,774
Pension Liability	17,632,888	-	-	-	-	17,632,888	17,632,888	-
OPEB Liability	18,041,698	-	-	-	-	18,041,698	18,041,698	-
Total Noncurrent Liabilities	103,868,305	30,368,587	638,992	45,614,324	(62,870,718)	117,619,490	111,619,716	5,999,774
Total Liabilities	118,299,871	30,379,978	661,793	45,709,485	(62,870,718)	132,180,409	132,575,399	(394,990)
Deferred Inflows of Resources								
Deferred Pension Inflow Liability	6,176,916	-	-	-	-	6,176,916	6,176,916	-
Deferred OPEB Inflow Liability	11,459,840	-	-	-	-	11,459,840	11,459,840	-
Deferred Lease Inflow Liability	-	15,635,019	-	65,378	-	15,700,397	15,700,397	-
Total Deferred Inflows of Resources	17,636,756	15,635,019	-	65,378	-	33,337,153	33,337,153	-
Net Position								
Net Investment in Capital Assets	15,023,960	46,865,193	9,289,502	384,590	84,424	71,647,670	72,589,044	(941,374)
Restricted-Energy Programs	22,583,325	1,878,074	-	384,169	-	24,845,569	21,504,981	3,340,588
Unrestricted Net Position	102,462,017	(21,598,880)	3,457,274	11,339	(31,264,399)	53,087,352	47,309,542	5,777,810
Total Net Position	140,089,303	27,144,387	12,746,776	780,099	(31,179,975)	149,580,590	141,403,567	8,177,024

Connecticut Green Bank - Primary Government
Consolidated Statement of Revenues and Expenditures
For the Period July 1, 2023 to September 30, 2023

	Connecticut Green Bank	CGB Meriden Hydro LLC	SHREC ABS 1 LLC	SHREC Warehouse 1 LLC	CT Solar Lease 1 LLC	CGB C-PACE LLC	CT Solar Loan I LLC	CEFIA Holdings LLC	CGB Green Liberty Notes LLC	Eliminations	CGB-Primary Government
	Fiscal YTD	Fiscal YTD	Fiscal YTD	Fiscal YTD	Fiscal YTD	Fiscal YTD	Fiscal YTD	Fiscal YTD	Fiscal YTD	Fiscal YTD	Fiscal YTD
	9/30/2023	9/30/2023	9/30/2023	9/30/2023	9/30/2023	9/30/2023	9/30/2023	9/30/2023	9/30/2023	9/30/2023	9/30/2023
Operating Income (Loss)											
Operating Revenues											
Utility Remittances	7,112,158	-	-	-	-	-	-	-	-	-	7,112,158
Interest Income-Promissory Notes	1,661,537	-	-	-	31,752	68,624	9,758	226,600	49,387	-	2,047,658
RGGI Auction Proceeds	2,883,531	-	-	-	-	-	-	-	-	-	2,883,531
Energy System Sales	-	-	-	-	-	-	-	601,609	-	-	601,609
REC Sales	932,855	-	939,154	611,293	-	-	-	-	-	-	2,483,302
Other Income	446,309	-	-	-	-	131,642	39	31,411	-	-	609,401
Total Operating Revenues	13,036,389	-	939,154	611,293	31,752	200,266	9,797	859,620	49,387	-	15,737,658
Operating Expenses											
Cost of Goods Sold-Energy Systems	-	-	-	-	-	-	-	601,609	-	-	601,609
Provision for Loan Losses	310,252	-	-	-	-	-	-	-	-	-	310,252
Grants and Incentive Payments	2,022,869	-	-	-	-	-	-	-	-	-	2,022,869
Program Administration Expenses	3,378,522	63,237	13,000	81,319	21,413	-	3,644	88,739	5,972	-	3,655,847
General and Administrative Expenses	1,106,850	-	2,625	578	-	206	711	2,653	5,000	-	1,118,623
Total Operating Expenses	6,818,493	63,237	15,625	81,897	21,413	206	4,355	693,001	10,972	-	7,709,199
Operating Income (Loss)	6,217,897	(63,237)	923,529	529,396	10,339	200,060	5,442	166,619	38,415	-	8,028,460
Nonoperating Revenue (Expenses)											
Interest Income-Short Term Cash Deposits	340,692	-	7,186	38	-	-	329	10	-	-	348,255
Interest Income-Component Units	18,389	-	-	-	-	-	-	-	-	-	18,389
Interest Expense-ST Debt	-	-	-	-	-	-	-	-	(11,378)	-	(11,378)
Interest Expense-LT Debt	28,185	-	(259,213)	-	-	-	-	-	-	-	(231,029)
Debt Issuance Costs	-	-	-	-	-	-	-	-	(2,500)	-	(2,500)
Unrealized Gain (Loss) on Investments	(5,608)	-	-	-	-	-	-	-	-	-	(5,608)
Total Nonoperating Revenue (Expenses)	381,657	-	(252,028)	38	-	-	329	10	(13,878)	-	116,129
Change in Net Position	6,599,554	(63,237)	671,501	529,433	10,339	200,060	5,771	166,630	24,537	-	8,144,588

Connecticut Green Bank
Consolidated Statement of Revenues and Expenditures
For the Period July 1, 2023 to September 30, 2023

	CGB-Primary Government Fiscal YTD 9/30/2023	CT Solar Lease 2 LLC Fiscal YTD 9/30/2023	CT Solar Lease 3 LLC Fiscal YTD 9/30/2023	CEFIA Solar Services Inc. Fiscal YTD 9/30/2023	Eliminations Fiscal YTD 9/30/2023	Consolidated Fiscal YTD 9/30/2023	Consolidated Fiscal YTD 9/30/2023	Consolidated YOY Variance
Operating Income (Loss)								
Operating Revenues								
Utility Remittances	7,112,158	-	-	-	-	7,112,158	7,443,191	(331,033)
Interest Income-Promissory Notes	2,047,658	-	-	-	-	2,047,658	1,726,404	321,255
RGGI Auction Proceeds	2,883,531	-	-	-	-	2,883,531	2,909,041	(25,510)
Energy System Sales	601,609	-	-	1,293,621	-	1,895,230	696,836	1,198,394
REC Sales	2,483,302	241,358	156,000	6,420	-	2,887,079	2,584,582	302,497
Lease Income	-	348,156	-	1,146	-	349,302	370,184	(20,883)
Other Income	609,401	251,312	114,118	138,193	(38,403)	1,074,622	673,037	401,585
Total Operating Revenues	15,737,658	840,825	270,118	1,439,380	(38,403)	18,249,580	16,403,275	1,846,305
Operating Expenses								
Cost of Goods Sold-Energy Systems	601,609	-	-	1,293,621	-	1,895,230	696,836	1,198,394
Provision for Loan Losses	310,252	-	-	-	-	310,252	550,566	(240,314)
Grants and Incentive Payments	2,022,869	-	-	-	-	2,022,869	1,734,973	287,895
Program Administration Expenses	3,655,847	828,001	126,527	7,373	(84,424)	4,533,323	4,086,796	446,527
General and Administrative Expenses	1,118,623	48,746	6,750	10,820	(38,403)	1,146,536	1,153,524	(6,988)
Total Operating Expenses	7,709,199	876,747	133,277	1,311,814	(122,827)	9,908,209	8,222,695	1,685,515
Operating Income (Loss)	8,028,460	(35,921)	136,842	127,567	84,424	8,341,371	8,180,580	160,790
Nonoperating Revenue (Expenses)								
Interest Income-Short Term Cash Deposits	348,255	259	967	304	-	349,785	153,882	195,903
Interest Income-Component Units	18,389	-	-	13,558	(31,947)	-	-	-
Interest Expense-Component Units	-	(31,947)	-	-	31,947	-	-	-
Interest Expense-ST Debt	(11,378)	-	-	-	-	(11,378)	-	(11,378)
Interest Expense-LT Debt	(231,029)	(89,948)	-	(7,850)	-	(328,827)	(766,618)	437,791
Debt Issuance Costs	(2,500)	-	-	-	-	(2,500)	(2,500)	-
Distributions to Member	-	-	(22,801)	-	-	(22,801)	(151,385)	128,584
Net change in fair value of investments	(5,608)	(44,062)	(98,955)	-	-	(148,625)	(11,108)	(137,517)
Total Nonoperating Revenue (Expenses)	116,129	(165,698)	(120,789)	6,012	-	(164,347)	(777,730)	613,383
Change in Net Position	8,144,588	(201,620)	16,052	133,579	84,424	8,177,024	7,402,851	774,173

Connecticut Green Bank - Primary Government
Consolidated Statement of Cash Flows
For the Period July 1, 2023 to September 30, 2023

	Connecticut Green Bank	CGB Meriden Hydro LLC	CGB KCF LLC	SHREC ABS 1 LLC Warehouse 1 LLC	SHREC CT Solar Lease 1 LLC	CGB C-PACE LLC	CT Solar Loan I LLC	CEFIA Holdings LLC	CGB Green Liberty Notes LLC	Eliminations	CGB-Primary Government	
	Fiscal YTD 9/30/2023	Fiscal YTD 9/30/2023	Fiscal YTD 9/30/2023	Fiscal YTD 9/30/2023	Fiscal YTD 9/30/2023	Fiscal YTD 9/30/2023	Fiscal YTD 9/30/2023	Fiscal YTD 9/30/2023	Fiscal YTD 9/30/2023	Fiscal YTD 9/30/2023	Fiscal YTD 9/30/2023	
Operating Activities												
Change in Net Position	6,599,554	(63,237)	-	671,501	529,433	10,339	200,060	5,771	166,630	24,537	-	8,144,588
Adjustments to reconcile change in net position to net cash provided by (used in) operating activities												
Depreciation	133,134	38,010	-	-	-	-	-	-	-	-	-	171,144
Provision for Loan Losses	(339,748)	-	-	-	-	-	-	-	-	-	-	(339,748)
Gain (Loss) on Investments	5,608	-	-	-	-	-	-	-	-	-	-	5,608
Noncash exercise of warrants	(121,322)	-	-	-	-	-	-	-	-	-	-	(121,322)
Changes in operating assets and liabilities:												
Accounts Receivable	(299,135)	-	-	-	-	69,960	-	(35,064)	-	-	-	(264,240)
Utility Remittance Receivable	(409,751)	-	-	-	-	-	-	-	-	-	-	(409,751)
Interest Receivables	283,836	-	-	-	-	21,351	197	(125,835)	-	-	-	179,548
Other Receivables	(62,905)	-	-	-	-	-	(1,845)	14,112	125,143	-	-	74,505
Due from Component Units	(3,265,013)	-	-	-	-	-	-	1,140,800	-	-	-	(2,124,214)
Prepaid Expenses and Other Assets	12,184	25,227	-	13,000	-	-	-	(112,581)	-	-	-	(62,170)
Accounts Payable and Accrued Expenses	255,274	(8,714)	-	(499)	(69)	-	91	33,214	7,347	-	-	286,644
Due to Component Units	-	-	-	-	-	(258,200)	3,500,000	-	-	-	-	3,241,800
Custodial Liability	-	-	-	-	-	-	-	(14,804)	-	-	-	(14,804)
Deferred Revenue	(8,690)	-	-	-	-	-	-	-	-	-	-	(8,690)
Net cash provided by (used in) operating activities	2,783,026	(8,714)	-	684,002	529,364	(247,860)	3,791,371	4,214	1,066,471	157,027	-	8,758,899
Investing Activities												
Purchase of Capital Assets	(30,429)	-	-	-	-	-	-	-	-	-	-	(30,429)
Program Loan Disbursements	(12,611,845)	-	-	-	-	(3,737,787)	-	(1,707,461)	(49,406)	-	-	(18,106,499)
Return of Principal on Program Loans	6,467,360	-	-	-	-	247,860	47,235	48,315	136,376	227,654	-	7,174,801
Net cash provided by (used in) investing activities	(6,174,914)	-	-	-	-	247,860	(3,690,552)	48,315	(1,571,085)	178,248	-	(10,962,127)
Financing Activities												
Proceeds from Green Liberty Notes	-	-	-	-	-	-	-	-	-	350,000	-	350,000
Repayments of Debt	-	-	-	(229,705)	-	-	-	-	-	(250,000)	-	(479,705)
Net cash provided by (used in) financing activities	-	-	-	(229,705)	-	-	-	-	-	100,000	-	(129,705)
Net increase (decrease) in cash and cash equivalents	(3,391,888)	(8,714)	-	454,298	529,364	-	100,819	52,530	(504,614)	435,275	-	(2,332,932)
Cash and Cash Equivalents, Beginning of Period												
Unrestricted	28,222,711	45,573	-	652,399	157,588	-	1,355,036	1,907,678	1,981,895	2,902,733	-	37,225,614
Restricted	15,252,327	-	-	769,988	3,107,268	-	-	85,141	28,537	-	-	19,243,260
Cash and Cash Equivalents, Beginning of Period	43,475,038	45,573	-	1,422,387	3,264,856	-	1,355,036	1,992,819	2,010,432	2,902,733	-	56,468,874
Cash and Cash Equivalents, End of Period												
Unrestricted	22,098,770	36,859	-	1,109,850	75,917	-	1,455,855	1,959,879	1,477,479	3,338,007	-	31,552,616
Restricted	17,984,380	-	-	766,834	3,718,304	-	-	85,470	28,338	-	-	22,583,325
Cash and Cash Equivalents, End of Period	40,083,150	36,859	-	1,876,684	3,794,220	-	1,455,855	2,045,349	1,505,817	3,338,007	-	54,135,941

Connecticut Green Bank
Consolidated Statement of Cash Flows
For the Period July 1, 2023 to September 30, 2023

	CGB-Primary Government Fiscal YTD 9/30/2023	CT Solar Lease 2 LLC Fiscal YTD 9/30/2023	CT Solar Lease 3 LLC Fiscal YTD 9/30/2023	CEFIA Solar Services Inc. Fiscal YTD 9/30/2023	Eliminations Fiscal YTD 9/30/2023	Consolidated Fiscal YTD 9/30/2023
Operating Activities						
Change in Net Position	8,144,588	(201,620)	16,052	133,579	-	8,092,599
Adjustments to reconcile change in net position to net cash provided by (used in) operating activities						
Depreciation	171,144	610,858	205,093	3,812	-	990,906
Provision for Loan Losses	(339,748)	-	-	-	-	(339,748)
Loss on Fixed Asset Disposals/Solar Lease Buyouts	-	44,062	-	-	-	44,062
Gain (Loss) on Investments	5,608	-	-	-	-	5,608
Noncash exercise of warrants	(121,322)	-	-	-	-	(121,322)
Changes in operating assets and liabilities:						
Accounts Receivable	(264,240)	16,514	3,556	(73,532)	-	(317,702)
Utility Remittance Receivable	(409,751)	-	-	-	-	(409,751)
Interest Receivable	179,548	9,027	-	-	-	188,575
Other Receivables	74,505	13,520	(37,557)	1,291,169	-	1,341,637
Due from Component Units	(2,124,214)	-	-	(13,558)	2,137,772	-
Prepaid Expenses and Other Assets	(62,170)	129,716	19,165	(174,623)	-	(87,911)
Accounts Payable and Accrued Expenses	286,644	251,049	192,691	(192,815)	-	537,569
Due to Component Units	3,241,800	35,151	1,224	(1,140,404)	(2,137,772)	-
Custodial Liability	(14,804)	-	-	-	-	(14,804)
Deferred Revenue	(8,690)	(12,179)	(1,980)	-	-	(22,849)
Net cash provided by (used in) operating activities	8,758,899	896,098	398,244	(166,373)	-	9,886,868
Investing Activities						
Purchase of Capital Assets	(30,429)	-	-	-	-	(30,429)
Proceeds from sale of Capital Assets/Solar Lease Buyouts	-	21,260	-	-	-	21,260
Program Loan Disbursements	(18,106,499)	-	-	-	-	(18,106,499)
Return of Principal on Program Loans	7,174,801	-	-	-	-	7,174,801
Net cash provided by (used in) investing activities	(10,962,127)	21,260	-	-	-	(10,940,867)
Financing Activities						
Proceeds from Green Liberty Notes	350,000	-	-	-	-	350,000
Repayments of Debt	(479,705)	(146,847)	-	(23,698)	-	(650,249)
Distributions to Investor Member	-	(384,354)	(203,724)	-	-	(588,078)
Net cash provided by (used in) investing activities	(129,705)	(531,201)	(203,724)	(23,698)	-	(888,327)
Net increase (decrease) in cash and cash equivalents	(2,332,932)	386,157	194,520	(190,071)	-	(1,942,326)
Cash and Cash Equivalents, Beginning of Period						
Unrestricted	37,225,614	1,404,824	3,066,796	947,470	-	42,644,704
Restricted	19,243,260	1,877,855	-	383,866	-	21,504,981
Cash and Cash Equivalents, Beginning of Period	56,468,874	3,282,679	3,066,796	1,331,336	-	64,149,685
Cash and Cash Equivalents, End of Period						
Unrestricted	31,552,616	1,790,762	3,261,316	757,096	-	37,361,790
Restricted	22,583,325	1,878,074	-	384,169	-	24,845,569
Cash and Cash Equivalents, End of Period	54,135,941	3,668,836	3,261,316	1,141,265	-	62,207,359

Memo

To: Connecticut Green Bank Senior Team

From: Inclusive Prosperity Capital Staff

Date: November 15, 2023

Re: IPC Quarterly Reporting – Q1 FY24 (July 1, 2023 – September 30, 2023)

Progress to targets for Fiscal Year 2023, as of 9/30/2023

Product	Number of Projects	Projects Target	% to goal	Total Financed Amount	Financed Target	% to goal	MW Installed	MW Target	% to goal
Smart-E Loan	436	1152	37.8%	\$8,672,340	\$17,852,737	48.5%	0.4	0.3	133%
Multi-Family H&S	0	0	n/a	\$0	\$0	n/a	n/a	n/a	n/a
Multi-Family Pre-Dev.	0	0	n/a	\$0	\$0	0%	0.0	0.0	0%
Multi-Family Term	0	0	0%	\$0	\$0	0%	0.0	0.60	0%
Solar PPA	0	16	0%	\$0	\$16,081,668	19.26%	0	8.2	0%

PSA 5410 – Smart-E Loan

Smart-E Volume followed it's strong FY2023 by continuing to remain in high demand for both contractors and homeowners. In the first quarter specifically, 436 loans were closed for \$8,672,340 (157 in July, 160 in August and 119 in September). HVAC projects continue to be the majority of volume this quarter with a majority of HVAC projects being heat pumps., Contractor interest in Smart-E is also at a very high level, with a total active contractor list of over 450 contractors throughout the state across all fields.

PSA 5411 – Multifamily

- With the closing of the Seabury ECT H&S RLF loan and deployment of the funds last fiscal year, IPC fully met the terms of the agreement between DEEP, IPC and CGB,

expiring on June 30, 2023, for development of this program and deployment of these funds. Funds will be redeployed as they revolve from existing borrowers and become available.

PSA 5412 – Solar PPA

- To-date, no solar PPA projects have closed in FY24 for .
- IPC staff responded to PPA pricing requests received by CTGB staff, particularly extensive scenarios to support the Solar MAP initiative.
- IPC staff continues to survey and monitor pricing competitiveness across installer and developer channels. General feedback is that our current pricing offering is competitive (for those projects requesting pricing).
- IPC staff continues to enhance its use of IPC Salesforce Platform to provide formatted installer/developer pricing responses.
- Staff continue to coordinate with CTGB staff on funding the the first set of Solar MAP Round 2 projects in late-2023 into early 2024.
- Staff continues to coordinate as part of the CGB-IPC Storage Product Working Group to identify market opportunities, structures and products to leverage the Green Bank’s new storage incentive program.

Use of DEEP Proceeds

Energize CT Health & Safety Revolving Loan Fund

- We will begin funding new projects with capital as it becomes available from repayments.

\$5M Capital Grant

- In Q1 FY20, IPC’s Board approved a \$1.2M investment in Capital for Change to provide liquidity under its successful LIME Loan program offered in partnership with the Connecticut Green Bank. Although the transaction was expected to close in February 2020 under a master facility construct with CGB, in the wake of the COVID-19 outbreak, CGB funded the entirety of the LIME recapitalization in IPC’s stead. IPC deployed the remaining funds or \$0.9M in March 2023 as part of a \$2.5M participation with CT Green Bank and ImpactAssets for a tax equity bridge loan to PosiGen. This capital grant is now fully expended and the grant is completed.

General Updates

Below are updates for the first quarter of FY24:

- **Capital raising:**
 - No capital raising in Q1 FY24, focus was on GGRF applications. IPC will begin raising investment and general operating capital in Q2 FY24 ahead of GGRF funds flowing later in 2024.
- **Business/Product Development/Initiatives of interest to Connecticut:**
 - Smart-E/NGEN technical partner discussions

- Working with LoanStar and KoolOwl/Greentech on strategic partnerships to offer additional functionality around instant pre-approval to contractors. Each would be a non-exclusive arrangement and come with different cost structures. IPC expects to ultimately work with a number of potential tech providers on the front end interface with contractors and consumers, as options offered to lenders and contractors for a fee.
- Software licensing agreement for the NGEN platform
 - Advanced discussions for NGEN licensing with CAETFA. Have worked through numerous CA contracting and procurement challenges.
 - Discussions continue with Colorado Clean Energy Fund and have just begun with Energy Trust of Oregon on potential NGEN licensing.
- Full Smart-E Program Implementation
 - Working with Inclusiv, Smart-E launch has launched in NM (public launch event on 4/22) and AZ (public launch event on 5/19) with TX to follow later in 2023 with funding provided by Wells Fargo Foundation. This is for a lender-led model, meaning no green bank or state energy office sponsoring the program, and with IPC being compensated to manage the program. IPC closed a \$2.5M guarantee with the Community Investment Guarantee Program for a credit enhancement for participating lenders.
 - Continue to work on potential Smart-E programs in various geographies, many led by lender interest, some by green bank or state/local government interest. Discussions ongoing with partners in over 20 states. Most are waiting for GGRF funding to flow, though a few might be in a position to launch ahead of that.
- Continue to work with a number of green banks, state energy offices, local governments, community-based lenders (including CDFIs), etc. on leveraging IPC's products and financing strategies.

Administrative:

Below are changes to staff and our talent acquisition process:

Additions and Departures:

Departures

1. Brian Sullivan, Director, Clean Energy Finance – July 28, 2023

Current Vacancies: There are currently no vacancies.

Staff Accountant (Interviewing)

People & Culture Manager (Hired & Starting Nov. 30)

Recruiting & Staff Updates:

1. We have focused on employee engagement and getting our new hires onboarded. Additionally, we have focused on refining our hiring process, job descriptions, and training processes for those that are engaged on our hiring team. Our goal is to not only attract a pool of top candidates with a wide range of skills and experiences, but to also ensure a fair and inclusive hiring process.

Memo

To: Connecticut Green Bank Board of Directors

From: Bert Hunter, EVP & CIO; Louise Della Pesca, Consultant, Clean Energy Finance

CC: Bryan Garcia, President & CEO; Mackey Dykes, VP, Financing Programs; Brian Farnen, General Counsel & CLO

Date: December 8, 2023

Re: Connecticut Green Bank Commercial Solar Program Expansion

Purpose

The purpose of this memorandum is to request approval to increase the capital allocation for the existing Connecticut Green Bank Commercial Solar Program (“Green Bank Commercial Solar Program” or the “Program”) from \$30 million to \$50 million.

Background and Context

The Green Bank Commercial Solar Program has operated successfully since 2015 and, following multiple approvals by Green Bank Board of Directors (the “Board”), evolved into a multi-faceted financing program.

Copies of the previously approved Board Memos associated with the Green Bank Commercial Solar Program are provided in Appendix 1 to this memorandum. This Appendix comprises the original Program Qualification Memo of the Program dated October 2018 and subsequently updated and approved by the Board in July 2019 and March 2020.

The Program was last updated via a ‘modification request’ in January 2023 after the Board approved the financing of property owned commercial solar PV systems through a loan that is not secured by C-PACE in situations where Green Bank is unable to put in place a C-PACE benefit assessment lien.

In summary, since October 2018, the Board approved the allocation of \$30 million funding for:

1. Development capital;
2. Construction financing;
3. Financing one or more 3rd-party ownership platforms, in the form of sponsor equity and/or debt;

4. Selling solar PPA projects developed by CEFIA Holdings LLC, the Green Bank subsidiary that acts as a development company, to third parties; and
5. Lending directly to property owners (such as condominium associations, non-profits and municipalities) who are unable to access C-PACE financing for the installation of solar projects on their property.

This memorandum requests an increase to the allocated funding so that Green Bank may continue to execute transactions that fall into the five categories noted above and, in so doing, meet both a market demand and work toward the financial sustainability of Green Bank through the deployment of clean energy in the state.

Summary of Capital Allocated to Date via Green Bank Commercial Solar Program

The table below summarizes the transactions and capital allocations executed to date under the Green Bank Commercial Solar Program. Table 1 excludes equity capital contributions to CT Solar Lease 2 and 3, and certain State agency solar projects which were finalized under separate Board authorization and transaction diligence processes.

Table 1. History of the Commercial Solar Program (2017-2023)

#	Date	Counterparty	Transaction type	Capital allocated	Facility active or closed / other?	Advances made to date	Amount owed / outstanding
1	2017-18	Onyx Renewable	Development equity prior to sale of asset(s) to third party (recovered through asset sales)	~\$8M	Closed	Redact	
2	2018-19	Sunwealth, Skyview Ventures	Development equity prior to sale of asset(s) to third party (recovered through asset sales)	~\$4M	Closed		
3	December 2018	Sunwealth	Term debt financing for a third party ownership platform	~\$1M	Closed		
4	Oct-Nov 2019	Skyview Ventures	Term debt financing for a third party ownership platform	~\$1.6M	Closed		
5	December 2019	Sunwealth	Term debt financing for a third party ownership platform	~\$1M	Closed		

6	April 2020	Skyview Ventures	Term and Construction debt financing for a third party ownership platform	\$10M	Active	Redacted	
7	July 2020	Inclusive Prosperity Capital	Term debt financing for a third party ownership platform	\$5M	Active		
8	2021 -	Various municipalities	Development equity not yet recovered through sale of assets to third parties	~\$1.7M	Active		
9	Dec 2020	Inclusive Prosperity Capital	Construction financing for a third party ownership platform	\$5M	Active		
10	October 2023	Sunwealth	Term debt financing for a third party ownership platform	~\$4M	Other: Board approved; in diligence process		
			Total	~\$29.5M ¹		~\$17.0M ¹	~\$13.6M ¹

Market Need for Expansion of Green Bank Commercial Solar Program

Green Bank continues to field inbound queries from parties interested in its financing solutions for commercial solar projects in Connecticut. In 2023 alone, Green Bank staff has held preliminary discussions with five solar developers seeking in excess of \$20M term debt financing for their commercial solar ownership platforms. Not all discussions progress to the stage of issuing a term sheet, but market interest in Green Bank’s term debt, in particular, is evident.

Reasons provided for the willingness to work with Green Bank and need for Green Bank funding include Green Bank staff’s deep understanding of the policy environment for developing commercial solar projects in CT, which has been honed through years of developing projects either for long term ownership or strategic sale to third parties. Green Bank owns a ~20MW portfolio of 142 assets now (see Appendix 2) and is comfortable with the technology and ownership risk of these assets. Staff has an appreciation of the diligence required to distinguish ‘good’ and ‘bad’ commercial solar projects and has institutionalized its operation, maintenance and asset management approach which has improved the operating

¹ Note that the ~\$27.6M total **excludes** items #1 and #2 in this table; development capital was fully recovered (plus a development fee) through sale of projects to third parties (Onyx, Sunwealth and Skyview)

performance of this portfolio over time. It also understands the requirements specific to the Connecticut market such as utility, municipal permit and incentive processes. These attributes, together with the commercial terms offered for debt financing (fixed rate, up to 18-year term), mean that Green Bank is able to fill a gap in the private sector debt financing market, particularly with considerable volatility in longer term interest rates. There is a niche for Green Bank to deploy capital in a sustainable, risk-managed way, that also fulfills the mission of addressing a market that is underserved by private sector lenders.

The specific trigger for addressing this memorandum to the Board at this time is the advanced stage of discussions with a counterparty, DownEast Renewable Energy, to provide up to \$10M of term debt financing for commercial solar projects in CT. The details of that transaction are covered in a separate memorandum to the Board, but prior to its discussion Staff seeks approval to increase the capital allocation to the Green Bank Commercial Solar Program so that transactions such as those with DownEast Renewable Energy may be properly considered.

Rationale for Value of Increased Capital Allocation

In just over five years since the Board approved the allocation of capital to the Green Bank Commercial Solar Program, over 95% of the \$30M allocation has been deployed / committed to be deployed. At an average deployment of ~\$5M to \$10M per year, a further increase of \$20M allocated to the Program would mean between two to four more years of financing activity before Staff would return to the Board and review the status of the Program. This would allow for significant exploration of the market need for Green Bank financing against the backdrop of macro-level changes to renewable energy financing in the country, brought about by federal legislation such as the Inflation Reduction Act.

Further, the progression of discussions to enter into a \$10M transaction with a counterparty in short order, which would take the total capital allocated to ~\$36M, suggests that the Program will continue to see meaningful activity in the near future.

Parameters for Actual Deployment of Capital

Staff is not requesting any modification for the approval process for deploying capital under the Green Bank Commercial Solar Program. Investment opportunities will be brought to the Board for approval in line with the existing Program parameters, namely, specifically for investments in third party owned financing structures containing projects not developed by Green Bank:

- Investments below \$0.5 million would be subject to Staff level approval,
- Investments between \$0.5 million and \$2.5 million would be subject to approval by Deployment Committee and
- Investments greater than \$2.5 million would be approved by the Board.

The deployment of capital for Green Bank's own development activities has not been subject to the aforementioned approval limits, instead being governed by the overall programmatic

approval for the Green Bank Commercial Solar Program. Currently, development capital not yet recovered through sale of assets to third parties is approximately \$800k, or 2.4% of the Program's capital allocation. The vast majority of capital deployed under the Program is in the form of investments in third party owned financing structures, which are routinely brought to the Board for approval due to the transaction values under discussion.

Furthermore, to avoid confusion concerning the use of the Board approved program allocation, Staff also requests that the measurement of the program's capital allocation be determined as the sum of:

- A. For "active facilities" (meaning, facilities for which the borrower can continue to request advances under the arrangements) – the sum of the facility amount drawn, outstanding and owing to Green Bank plus the maximum potential facility amount undrawn but available for additional advances by the borrower; and
- B. For "closed facilities" (meaning, facilities for which the borrower can no longer request advances under the arrangements) – the facility amount drawn, outstanding and owing to Green Bank.
- C. For development equity – the amount that is the sum of development expenditures (which are not otherwise part of a Green Bank Program budget or other approval) and value of construction contracts, for projects that have not yet been sold to third parties. Once such projects are sold, the development equity previously attributed to such projects is not counted toward the aggregate approval limit.

Green Bank Participation and Financial Benefit

Ratepayer Payback

How much clean energy is being produced (i.e. kWh over the projects lifetime) from the program versus the dollars of ratepayer funds at risk?

The Green Bank Commercial Solar Program is multi-faceted in terms of the types of investment it considers. It is difficult to arrive at a ratepayer payback for the extra \$20 million allocation being requested by this memorandum for a program, because the kWh over the projects lifetime will depend on a case by case basis how that capital is being deployed (100% equity in project ownership, or 60% loan-to-value debt financing, for example, would produce different ratepayer paybacks). Therefore, a hypothetical standalone commercial solar project that is fully financed with a loan from Green Bank is considered below.

Hypothetical project:

- Size: 200kW
- Green Bank financing: \$400,000
- kWh generated over 25 project life: 5,000,000 kWh
- kWh / ratepayer funds at risk: 12.5

Financial Statements

How is the program investment accounted for on the balance sheet and profit and loss statements?

The capital actually deployed by the Green Bank as authorized herein will result in a decrease in Unrestricted Cash on the Green Bank's balance sheet and, depending on the use of funds, an equivalent increase in short- and long-term promissory notes receivable, or an increase in investment assets (in the case of equity investments in solar projects).

Risk to Ratepayer Funds

What is the maximum risk exposure of ratepayer funds for the program?

The maximum risk exposure of ratepayer funds for the Green Bank Commercial Solar program is a not-to-exceed amount of \$50 million (subject to budget constraints), which may be development capital, construction or term debt capital to a 3rd-party solar project owner, or sponsor equity for a retained project.

Target Market

Who are the end-users of the engagement?

Solar developers (for debt financing) and property owners (for property-specific loans or for solar projects that Green Bank would develop, own and operate as an income-generating asset). Property owners would be deemed 'underserved', e.g. condominium associations that would struggle to obtain commercial loans for installation of solar projects, or affordable multifamily property owners that might not be able to access 'financed' solutions for installing solar (such solutions include leases or power purchase agreements) due to underwriting challenges.

Program Risks and Mitigation Strategies

The risks of structuring a commercial solar financing product are well understood by Green Bank given our deep experience operating in the market in both debt- and equity-holder roles.

Market and Origination Risk:

Risks:

- Changes to tariff rates offered by utilities mean the market may not be able to support cost of installation plus required return on investment for Green Bank financing
- Public policy changes (e.g., from tariff to some as yet undefined alternative) that have an adverse impact monetization of solar PV systems

Mitigation Strategy:

- Advocating appropriate tariff rates before PURA for behind the meter solar PV that balance ratepayer impact with end-use customer return on investment / savings
- Tariff terms are 20 years and are governed by contractual arrangements with utilities. Though the public policy (Non Residential Renewable Energy Solutions ("NRES")) may

change in future, such a change would not be expected to result in default by the utilities on executed tariff contracts

Structural risk:

Risks:

- Specifically relating to loans to solar developers that co-own multiple solar PV projects alongside tax equity investors: tax equity investors put protections into the legal structure of transactions, such as forbearance agreements, which essentially mean that lenders cannot be secured by the solar PV systems themselves during the first five years of operations (known as the 'tax credit recapture period'). This means that lending into the project companies results in an imperfect security for lenders during the recapture period.
- Specifically relating to making loans to property owners to install solar PV systems: parties to the tariff agreement are the customer of record (i.e., borrower) and utility. In event of borrower default, Green Bank does not become customer of record and utility's counterparty in tariff agreement. Instead, Green Bank is reliant on borrower to agree to assign tariff revenue to Green Bank in its entirety in order for Green Bank to continue receiving funds and recover its investment.

Mitigation Strategy:

- Green Bank will endeavor to structure debt facilities that result in perfect security at all times during the term, i.e., back leveraged lending so that Green Bank is secured by a pledge of membership interests in the tax equity partnership, and no forbearance agreement is required. Where project-level lending is considered, an appropriate increase to the interest rate will be charged to account for the added structural risk.
- Financing agreements will incorporate the requirement for borrower to assign tariff revenue to Green Bank in event of borrower default. Green Bank to also advocate for an improvement to the NRES program rules in this regard (this is an issue that industry has already identified as requiring amelioration).

Credit Risk:

Risk:

- Borrower defaults on loan / customer defaults on power purchase agreement terms and fails to make re/payments

Mitigation Strategy:

- Well delineated credit requirements for borrowers (and parent entities providing a guaranty) / customers in line with well-established Green Bank programs, such as C-PACE

- For loans, amongst other potential credit enhancements, use sculpted amortization of debt including balloon payments timed to coincide with receipt of tax credit

System Performance Risk:

Risk:

- Solar PV systems financed by Green Bank do not meet production expectations, the value proposition to commercial entities will decline, reducing energy savings

Mitigation Strategy:

- Contractor approval requirements, following existing Green Bank programs such as C-PACE, ensuring contractors have adequate experience, insurance, and finances to undertake project in a safe and effective manner, as well as ongoing oversight
- Enhanced commissioning protocols, for example involving an independent engineer inspection
- Potential to use a list of approved technologies, actively maintained/updated ensuring that technologies used are the most efficient, cost effective, and that manufacturers with the highest likelihood of being able to stand by their warranties are used
- Diligence process based on existing process used for Green Bank-developed projects

Development Risk:

Risk:

- Projects in construction fail to reach completion

Mitigation Strategy:

- Continuation of existing Green Bank best practices with respect to contractor approval and oversight, and milestone payment structure in construction agreements
- Pre-construction diligence to ensure that projects are economically viable with realistic chance of providing expected return on investment to all stakeholders, and to any stakeholder that would step into the project if necessary to help it reach completion
- When applicable, disbursements of loan proceeds only after a certain milestone (such as mechanical completion) has been attained

Summary, Conclusion & Recommendation(s)

In summary, Staff has identified a market need to build on the success of the Green Bank Commercial Solar Program, and increase its capital allocation from \$30M to \$50M, with the potential to assign up to \$10M to a term debt facility in short order. Staff requests Board approval to increase the capital allocation.

Resolutions

WHEREAS, the Connecticut Green Bank (“Green Bank”) Board of Directors (the “Board”) passed resolutions at its March 25, 2020 meeting to approve funding, in a total not-to-exceed amount of \$30 million in new money, subject to budget constraints, for the continued development by Green Bank, and financing of development by 3rd parties, of commercial-scale solar PV projects, to be utilized for the following purposes pursuant to market conditions and opportunities:

1. Development capital;
2. Construction financing;
3. Financing one or more 3rd-party ownership platforms, in the form of sponsor equity and/or debt;
4. Sell solar power purchase agreement / lease projects developed by Green Bank to third parties; and
5. Offer loans to property owners that are unable to access financing, such as C-PACE, for installation of solar.

WHEREAS, there is continuing demonstrated need for flexible capital to expand access to financing for commercial-scale customers looking to access solar, including near term opportunities to deploy capital at a rate that would mean the \$30 million allocation would be consumed, as explained in a memorandum submitted to the Green Bank Board of Directors (the “Board”) dated December 8, 2023 (the “Board Memo”); and

WHEREAS, the Green Bank is implementing a Sustainability Plan that invests in various clean energy projects and products to generate a return to support its sustainability in the coming years.

NOW, therefore be it:

RESOLVED, that the Board approves the increase of the allocation of \$30 million to the revised allocation of \$50 million, subject to budget constraints, use cases, and appropriate approval of investments as explained in the Board Memo;

RESOLVED, that the President of Green Bank; and any other duly authorized officer of Green Bank, is authorized to execute and deliver, any contract or other legal instrument necessary to continue to develop and finance commercial projects on such terms and conditions as are materially consistent with the Board Memo; and

RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents as they shall deem necessary and desirable to effect the above-mentioned legal instrument.

Submitted by: Bryan Garcia, President and CEO; Bert Hunter, EVP and CIO; Louise Della Pesca, Consultant, Clean Energy Investments.

Appendix 1 – Original Program Qualification Memo for Connecticut Green Bank Solar PPA Program

**Connecticut Green Bank Solar PPA Program
Updates**

Revised Due Diligence Package

**March 18, 2020 (originally circulated: October 19, 2018,
first revised July 9, 2019)**

Document Purpose: This document contains background information and due diligence on the Connecticut Green Bank Solar PPA Program, in partnership with Inclusive Prosperity Capital, Inc. and other potential PPA sponsors through financing arrangements described herein. This information is provided to the Connecticut Green Bank Board of Directors for the purposes of reviewing and approving recommendations made by the staff of the Connecticut Green Bank.

In some cases, this package may contain among other things, trade secrets, and commercial or financial information given to the Connecticut Green Bank in confidence and should be excluded under C.G.S. §1-210(b) and §16-245n(D) from any public discourse under the Connecticut Freedom of Information Act. If such information is included in this package, it will be noted as confidential.

Program Qualification Memo

To: Connecticut Green Bank Board of Directors

From: Bert Hunter, EVP & CIO; Mariana Cardenas, Consultant, Clean Energy Finance; Louise Della Pesca, Associate Director, Clean Energy Finance;

Cc: Bryan Garcia, President & CEO; Mackey Dykes, VP, C I & I; Brian Farnen, General Counsel

Date: March 18, 2020 (originally circulated October 19, 2018, first revised July 9, 2019)

Re: Connecticut Green Bank Solar PPA Program Updates

Purpose

The purpose of this memo is to request approval from the Connecticut Green Bank (“Green Bank”) Board of Directors (the “Board”) to confirm the authority of the Green Bank to participate in various financing and development roles with respect to commercial solar photovoltaic (“PV”) PPA projects within Connecticut – specifically, roles that the Green Bank has played at various times in the past and now would like to continue to operate across, and further expand on, for the benefit of both the Green Bank and the Connecticut market. In the past few years, as the commercial solar sector has evolved more generally, there have been new entrants into the commercial solar market in Connecticut who can contribute to financing and developing projects, including – just for the most “close to home” example – the Green Bank’s recent spin-out entity Inclusive Prosperity Capital, Inc. (“IPC”). IPC in turn, by means of its own growth strategy and partnership formations, is attracting additional financing and development players into Connecticut, such as Sunwealth Power, Inc. (“Sunwealth”), a Massachusetts-based commercial solar developer who can bring development capital, term financing, and tax equity to a diverse array of small projects with unconventional credit profiles².

As the market develops and benefits from new players who add liquidity, expertise, and options for customers, the role of the Green Bank necessarily changes away from (a.) having to be a foundational player that sets and communicates out a specific financing structure in order to move projects forward and towards (b.) being a “bridge” player that leverages ratepayer capital through multiple structures and platforms in order to continue to drive access to capital and cost savings to customers, as the market builds momentum and scales towards fully private capital solutions. Importantly, the Green Bank continues to develop a strong pipeline of commercial solar PPA projects in this evolving market, due to institutional knowledge derived over time, as well as a network of relationships with developers, customers, and key local players who facilitate project origination.

With the ability to determine, based on project fundamentals, partner strengths, and market conditions, how the Green Bank ultimately participates in specific projects and fund structures (e.g. whether via (i.) providing development and construction capital, (ii.) providing term

² <https://www.sunwealth.com/>

financing in the form of either debt or equity to projects that are developed by CEFIA Holdings LLC (“Holdings”) and sold to a 3rd party platform (e.g. IPC or Sunwealth), or (iii.) providing construction and term financing to projects that are developed by 3rd parties in Connecticut only), the Green Bank can optimize the use of ratepayer funds for leveraging private capital and developing quality projects to benefit local communities.

Staff is thus seeking approval to continue to develop and sell commercial solar PV PPA projects in Connecticut developed by Holdings, and to provide construction and term financing to projects developed by 3rd parties, and deploy capital in amounts in line with annual budgetary and financial planning limits but with an overall not-to-exceed amount across development, sponsor equity, and debt investments of up to \$30 million (originally approved in October 2018 at \$15 million), in form and structure in line with financing roles that the Green Bank has played in the past – specifically:

1. Development capital;
2. Construction financing;
3. Financing a 3rd party ownership platform (e.g. IPC or Sunwealth), in the form of sponsor equity and/or debt.

The participation and financing scenarios above give rise to various value streams and benefits to the Green Bank – for example, providing development capital to a project that is then purchased by a 3rd-party ownership platform gives the Green Bank an upfront income/liquidity boost, whereas providing term equity or debt provides a stream of cash flows over time. The following sections herein further detail those considerations, in addition to outlining parameters within which Green Bank staff will operate when determining how best to deploy capital for commercial solar PV projects in Connecticut.

Background and Context

The Green Bank has successfully run two commercial solar PPA funds, CT Solar Lease 2 LLC (“SL2”) and CT Solar Lease 3 LLC (“SL3”), through which the Green Bank previously developed and now continues to own and operate projects via an ownership platform that was capitalized by a combination of ratepayer funds and 3rd-party capital providers. Subsequently, the Green Bank entered into a sourcing and servicing arrangement with Onyx Renewable Partners (“Onyx”), under which the Green Bank has developed projects and then sold those projects into an Onyx-owned ownership platform. Moving forward from the self-sponsored solar funds and then to a strategically aligned partnership with a third party fund (i.e., Onyx), the Green Bank expanded its development reach to include on an opportunistic basis a development-deployment program whereby the Green Bank continued to work with contractors within the state to originate and develop projects which the Green Bank would then sell into the market. The following table summarizes the number and capacity of projects deployed into each of those fund structures, along with projects that are currently in development with the Green Bank but not yet designated for a final financing structure:

	# of Projects	Total Capacity (MW)

SL2 (Green Bank owned)	53	9.70
SL3 (Green Bank owned)	31	5.75
Onyx	14	9.41
Developed and sold	20	3.1
Currently in development	13	4.9

With the addition of new entrants and evolving market dynamics, as summarized in the “Purpose” section above, projects currently in development represent strategic assets that the Green Bank can monetize via different financing structures and ownership vehicles as the Green Bank deems to be in the best interest of both the Green Bank itself and the broader market, as dictated by project fundamentals, partner strengths, and market conditions. The ability to monetize projects without the restrictions of a single financing structure means that the Green Bank can continue to develop a pipeline of projects, to the benefit of both the Green Bank and the development / financing ecosystem that we are working to support. It should also be noted that as the commercial solar PV market transitions from a net metering and ZREC-LREC incentive policy, that the Green Bank having a financing product in place will assist the market in its transition to a tariff-based structure and to foster the sustained, orderly development of a state-based solar industry.

From both the customer and project origination perspective, given the Green Bank’s strong presence in the Connecticut commercial-scale solar market, it makes sense for the Green Bank to continue to originate commercial PPA projects in partnership with our existing, local developer base, as well as new market entrants attracted by the Green Bank’s ability to accelerate growth in this market. This “distributed” partnership approach, with local developers at the top of the funnel, larger developers and financiers at the bottom of the funnel, and the Green Bank intermediating in the middle, results in both localized economic development and – via competition – better terms for customers resulting in enhanced access to capital and lower energy costs.

Parameters for Financing 3rd-Party Ownership Platforms

Green Bank staff requests approval for the Green Bank to provide construction and term financing to support Connecticut projects developed and sold by Holdings under 3rd-party owned financing structures, and to support Connecticut projects developed by 3rd parties. An example would be the Green Bank providing term debt into a fund structure where that Green Bank debt sits alongside (or as back-leverage to) 3rd-party sponsor equity, 3rd-party tax equity, and potentially other 3rd-party debt in a financing vehicle that is owned by a 3rd-party (e.g. IPC or Sunwealth).

Green Bank staff has expertise in developing PPA projects, selling them to third party owners and subsequently structuring term financing, as it is the type of investment that the Green Bank has done before (most specifically via the term debt authority embedded in our Onyx

Agreement, further discussed below), and the Green Bank's position in this role represents a stepping stone in further market evolution towards fully private capital solutions (i.e. the market has evolved to the point where 3rd-party sponsors are willing to develop and own the types of underserved and unconventional credits typically served by the Green Bank, but the fund-level economics still need a boost from the Green Bank, in the form of term debt for example, in order to deliver project savings to the customers).

Capital deployed under this construct would be subject to the following terms:

- **Investment Type**: Debt (likely) or Equity (opportunistically);
- **Investment Return Profile**: An investment IRR not less than Green Bank return requirements across comparable investments (e.g. a C-PACE equivalent note yielding a C-PACE equivalent rate) nor more than a private investment in a similar facility given the risk-return expectations of the project portfolio;
- **Investment Risk Profile**: Underlying security, cashflow coverage, collateral, or otherwise equivalent to Green Bank risk requirements across comparable investments (e.g. a C-PACE equivalent IRR and structure carrying a C-PACE equivalent [over]collateral profile);
- **Investment Amount**: Anticipated to constitute no less than \$1 million of the total not-to-exceed amount of \$30 million³ in new money authorized herein, subject to budget constraints.

Specifically, for investments in 3rd-party owned financing structures containing PPA projects not developed by Green Bank:

- **Investment Approval**: Investments below \$0.5 million would be subject to Staff level approval, investments between \$0.5 million and \$2.5 million would be subject to approval by Deployment Committee and investments greater than \$2.5 million would be approved by the Board.
- **Counterparty Selection**: Recipients of Green Bank capital would be pre-qualified as financing partners, via a public request for proposals. Refer to Exhibit B for a list of proposed pre-qualification criteria for such financing partners.

Parameters for Development Capital and Construction Financing

Whether the Green Bank is developing a project and has not yet committed to the final financing/ownership structure for that project, or whether the Green Bank is providing development capital and construction financing to a project with either the intent of selling that project fully to a 3rd-party owned financing structure or rolling the construction financing into a term loan, the Green Bank may find it beneficial (both with respect to its own target returns and/or liquidity needs and broader market development) to deploy capital on a short-term basis in order to develop a project to the point that it can be monetized one way or another.

Green Bank staff therefore requests continuing authorization, pursuant to the Board approvals most recently granted at the Board's July 18, 2019 meeting, for the Green Bank to maintain its

³ Originally approved in October 2018 at \$15 million.

ability to deploy short-term capital for development and/or construction purposes. An example of how this works in practice is the relationship between the Green Bank and Onyx, who enjoyed a sourcing and servicing partnership from February 2017 until September 2019. Under the Commercial Solar Project Sourcing & Servicing Agreement (the “Onyx Agreement”), the Green Bank originated commercial PPA projects and provides continuing C-PACE related administrative services for C-PACE secured PPA projects. By way of reference, the Green Bank has, to date, earned more than \$400,000 in sourcing fees associated with the first 9 MW+ of projects originated under the Onyx Agreement.

Under this approach, projects that do not fall into the Onyx ownership structure will instead be sold to another 3rd-party ownership structure, as contemplated to be the case with new market entrants such as IPC, Sunwealth and , more recently, Skyview Ventures.

Capital deployed under this construct would be subject to the following terms:

- **Investment Type**: Debt (opportunistically) or Equity (likely);
- **Investment Return Profile**: Market returns based upon underlying project cash flows, with an expectation for a full, short-term return of capital plus either a reasonable developer markup or a sourcing fee / rights to residual cash flows depending on partnership structure;
- **Investment Risk Profile**: Standard development risk (principally, for projects of this size / credit quality, a lack of potential term financing) to be mitigated either through an internal Green Bank solution for unconventional credits, or via a predetermined credit box with one or more long-term 3rd-party owners;
- **Investment Amount**: Anticipated to constitute approximately a target minimum of \$1 million in revolving funds, out of the total not-to-exceed amount of \$30 million in new money authorized herein, subject to budget constraints.

Specifically, for investments in 3rd-party owned financing structures containing PPA projects not developed by Green Bank:

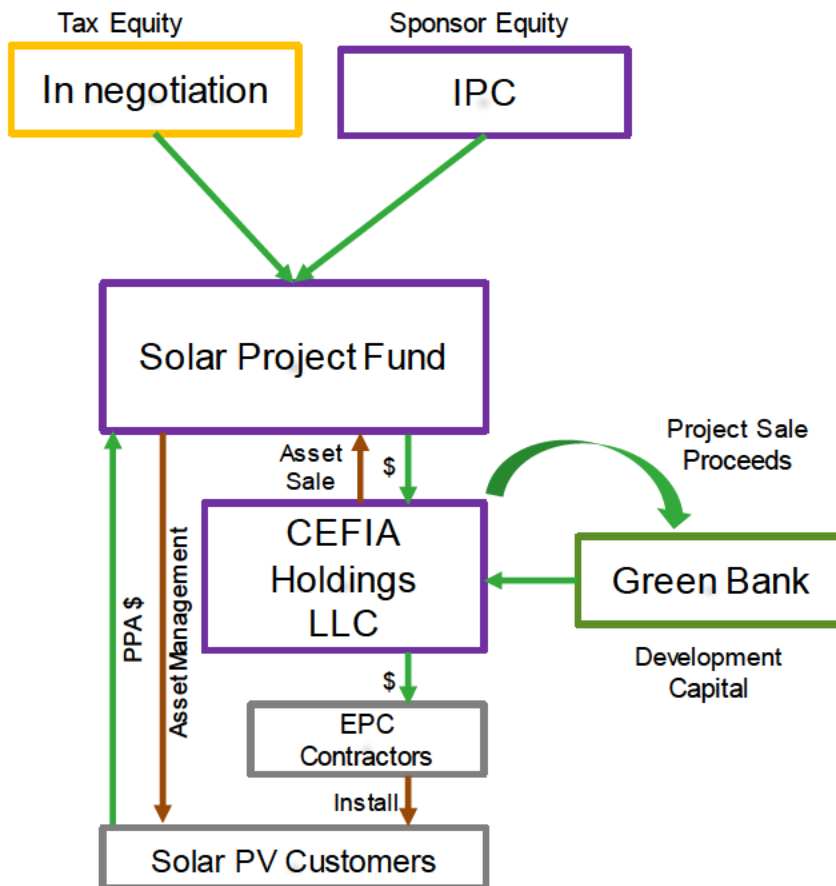
- **Investment Approval**: Investments below \$0.5 million would be subject to Staff level approval, investments between \$0.5 million and \$2.5 million would be subject to approval by Deployment Committee and investments greater than \$2.5 million would be approved by the Board.
- **Counterparty Selection**: Recipients of Green Bank capital would be pre-qualified as financing partners, via a public request for proposals. Refer to Exhibit B for a list of proposed pre-qualification criteria for such financing partners.

Green Bank Participation and Financial Benefit

Structure Diagram

The diagram below, taken from the August 21, 2018 memo to the Board of Directors, represents the world in the instance where the Green Bank provides development financing

and actively develops a project itself. To avoid confusion, rather than providing multiple diagrams, the authorizations requested in this memo would also allow the Green Bank to provide financing to a 3rd-party owner (in the case below, IPC) via, for example, debt directly to the solar project fund or back-leverage to the project sponsor.



Ratepayer Payback

How much clean energy is being produced (i.e. kWh over the projects lifetime) from the program versus the dollars of ratepayer funds at risk?

At a level of \$10 million of term capital deployed, expected generation would be approximately 240 GWh over 25 years from an anticipated 8 MW of solar PV systems,⁴ resulting in 240 kWh deployed per ratepayer dollar at risk.

Financial Statements

How is the program investment accounted for on the balance sheet and profit and loss statements?

⁴ Assuming \$10 million makes up 50% of a project's capital stack, with an FMV of \$2.50/W and average project yields of 1,200 kWh / kW

The capital deployed by the Green Bank as authorized herein will result in a decrease in Unrestricted Cash on the Green Bank's balance sheet and, depending on the use of funds, an equivalent increase in either a) short- or long-term promissory notes receivable (likely), b) the creation of a development asset at the level of CEFIA Holdings (likely), or c) the creation of a long-term asset through the Green Bank's ownership interest (sponsor equity) in a solar project holding company (only if determined to be needed due to unexpected market conditions).

Risk to Ratepayer Funds

What is the maximum risk exposure of ratepayer funds for the program?

The maximum risk exposure of ratepayer funds for the program is a not-to-exceed amount of \$30 million (subject to budget constraints), which may be development capital, construction or term debt capital to a 3rd-party solar project owner, or sponsor equity for a retained project.

Target Market

Who are the end-users of the engagement?

Commercial, municipal, and institutional PPA off-takers within the state of Connecticut, particularly of benefit to nonprofits and unrated small and medium-sized businesses and corporates that might otherwise struggle to access solar PV in the current market environment.

Program Partners

Key external players in the Green Bank's ongoing commercial solar PPA program could include:

- IPC
- Other PPA Sponsors including Sunwealth and Skyview Ventures
- Tax equity providers such as Enhanced Capital ("Enhanced")

High-level overviews of IPC and Sunwealth follow in Exhibit A to this memo, as does a representative term sheet for tax equity from Enhanced. As a reminder, staff is not suggesting to the Board that these are the only potential partners under this program as it evolves. Rather, these types of partners provide the capital, expertise, and flexibility that the Green Bank sees as necessary components to continue to accelerate the deployment of this evolving but still underserved sector of the market.

Program Risks and Mitigation Strategies

The risks of structuring a commercial solar PPA financing program are well understood by the Green Bank given our deep experience operating in the market.

Market and Origination Risk:

Risks:

- Commodity prices / utility rate changes making PPA rates charged a less viable option for repayment of capital providers

- Green Bank is unable to originate enough qualified projects to meet targets (either internal or under partnership agreements)
- If the pricing of future PPAs developed by the Green Bank is materially different from existing projects due to partner return requirements, the market may not be able to support pricing
- Public policy changes (e.g., from net metering to a tariff) that have an adverse impact on energy savings to end-use customers

Mitigation Strategy:

- Flexible approach to capitalizing these projects such that there are multiple potential partners available for term financing (including IPC), with the option for the Green Bank to place long-term debt (in addition to providing development capital) to ensure return hurdles are hit while retaining attractive pricing for customers
- Advocating appropriate tariff rates before PURA for behind the meter solar PV that balance ratepayer impact with end-use customer savings

Structural risk:

Risks:

- Principally, Green Bank debt that is placed into a comingled portfolio of solar PPA projects across a 3rd-party owner's portfolio faces repayment risk that is not mitigated by Green Bank underwriting criteria due to exposure to projects that are outside of Green Bank's control

Mitigation Strategy:

- Green Bank will have either (i) segregated Connecticut project cash flow waterfall or alternatively (ii) a distinct tracking of the revenues, expenses and cash flows of Connecticut projects under the program satisfactory to Green Bank
- Green Bank will require appropriate minimum debt service coverage ratios of base case projections to mitigate risk of over leveraging and ensuring debt service requirements can be met
- Green Bank will require appropriate sponsor guarantees and reserves as necessary and maintain appropriate rights with respect to the underlying project collateral and/or the sponsor's equity interests therein

Credit Risk:

Risk:

- Underlying off-takers fail to pay or default under the terms of the PPA

Mitigation Strategy:

- C-PACE as a security mechanism for unrated entities

- Well delineated credit requirements (for rated and unrated) requiring investor oversight
- Amongst other potential credit enhancements, requiring prepayments during tax credit recapture periods for weaker credits, as necessary

System Performance Risk:

Risk:

- Solar PV systems supporting the solar PPA do not meet production expectations, the value proposition to commercial entities will decline, reducing energy savings

Mitigation Strategy:

- Strict EPC approval requirements ensuring EPCs have adequate experience, insurance, and finances to undertake project in a safe and effective manner, as well as ongoing oversight
- Enhanced commissioning protocols
- List of approved technologies, actively maintained/updated ensuring that technologies used are the most efficient, cost effective, and that manufacturers with the highest likelihood of being able to stand by their warranties are used
- Extensive diligence process for projects developed by 3rd parties.

Development Risk:

Risk:

- Projects developed via CEFIA Holdings fail to reach completion

Mitigation Strategy:

- Continuation of existing Green Bank best practices with respect to project pricing, early fatal flaw analysis, rigorous negotiation of documentation, and contractor oversight
- Expansion of potential term financing solutions, including both competitive and strategic selections as authorized herein, to ensure all projects developed by the Green Bank find a long-term home with reasonable economic return for the Green Bank's invested resources and risk taken

Resolutions

WHEREAS, when the Green Bank Board of Directors (the “Board of Directors”) passed resolutions at its October 26, 2018 meeting, as modified by resolutions passed at its July 18, 2019 meeting, approving funding in a total not-to-exceed amount of \$15 million in new money, subject to budget constraints, for the continued development of commercial-scale solar PV PPA projects, for development capital; construction financing; financing one or more 3rd-party ownership platforms, in the form of sponsor equity and/or debt; and selling solar PPA projects developed by CEFIA Holdings LLC (“Holdings”) to third parties, the resolutions restricted projects so financed to those developed by Holdings;

WHEREAS, the Connecticut Green Bank (“Green Bank”) is uniquely positioned to continue developing a commercial solar PPA pipeline through local contractors in response to continued demand from commercial-scale off-takers;

WHEREAS, the market for commercial solar PPA financing continues to evolve, as various financing providers are entering the small commercial solar financing space with the ability to provide long-term financing for projects originated by the Green Bank;

WHEREAS, there is still demonstrated need for flexible capital to continue expanding access to financing for commercial-scale customers looking to access solar via a PPA, while both bolstering project returns for investors and enhancing project savings profiles for customers; and

WHEREAS, the Green Bank is implementing a Sustainability Plan that invests in various clean energy projects and products to generate a return to support its sustainability in the coming years.

NOW, therefore be it:

RESOLVED, that the Board of Directors approves funding, in a total not-to-exceed amount of \$30 million in new money (representing an increase of the previously approved not to exceed amount of \$15 million), subject to budget constraints, for the continued development by Green Bank, and financing of development by 3rd parties, of commercial-scale solar PV PPA projects, to be utilized for the following purposes pursuant to market conditions and opportunities:

6. Development capital;
7. Construction financing;
8. Financing one or more 3rd-party ownership platforms, in the form of sponsor equity and/or debt; and
9. Sell solar PPA projects developed by Holdings to third parties.

RESOLVED, that the President of Green Bank; and any other duly authorized officer of Green Bank, is authorized to execute and deliver, any contract or other legal instrument necessary to continue to develop and finance commercial PPA projects on such terms and

conditions as are materially consistent with the memorandum submitted to the Green Bank Board on March 18, 2020 ; and

RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents as they shall deem necessary and desirable to effect the above-mentioned legal instrument.

Submitted by: Bryan Garcia, President and CEO; Bert Hunter, EVP and CIO; Louise Della Pesca, Associate Director, Clean Energy Finance

Exhibit A
Potential Commercial Solar PPA Program Partners

IPC



INCLUSIVE
PROSPERITY CAPITAL

A CONNECTICUT GREEN BANK SPIN-OUT

SCALING COMMUNITY DEVELOPMENT IN UNDERSERVED MARKETS
THROUGH CLEAN ENERGY AND SOCIAL IMPACT INVESTMENTS



Redact

Sunwealth



INVEST WITH POWER AND PURPOSE

Unlocking the value of commercial
solar for investors and communities

PURPOSEFUL INVESTMENT

Sunwealth's Solar Impact Fund brings together a diverse community of partners - including local solar developers, community groups, local businesses, and impact investors - committed to investing in a renewable energy future that benefits all of us.



DIVERSE PROJECTS

We work with strong, local developers to pinpoint projects across our communities and design solar systems that deliver significant energy savings to power purchasers.



STRONG UNDERWRITING

Proprietary review process ensures each project meets the highest quality standards. We are investing for the long haul in projects and partners that will be here for decades to come.



SOLAR IMPACT FUND

A robust, diverse and transparent pool of high-performing commercial solar projects designed to deliver social, environmental and financial returns to investors and communities.

POWERFUL RETURNS

Sunwealth generates powerful returns - for our communities, our local economy, our environment and our investors. We are reimagining the bottom line, building a portfolio that is diverse, transparent, inclusive and resilient.



COMMUNITIES

Solar access and energy savings



LOCAL ECONOMY

Jobs and income for local solar developers and installers



ENVIRONMENT

Carbon reduction



INVESTORS

Fixed income from an alternative asset

TWO WAYS TO INVEST

All Solar Impact Fund investors get the benefit of a simple, transparent investment in a diversified portfolio of solar projects owned and managed by Sunwealth. **Bond investors** receive fixed income returns over a 10-year term, with quarterly distributions of principal and interest. **Eligible tax equity investors** receive valuable tax benefits and preferred cash distributions over a 5-year term.



BOND FUND

Invest in a diverse portfolio of solar projects and receive predictable returns over a 10-year term through quarterly distributions of principal and interest.

TAX EQUITY

Turn a tax liability into an investment opportunity - invest in solar and receive tax credits, deductions and preferred cash return.

**Enhanced
(Representative Term Sheet)**

Based on the information provided by [Sponsor Entity], a [State] limited liability company (“[Abbreviated name]”) and recent conversations regarding the Projects referred to below, Enhanced Capital Tax Credit Finance, LLC (“**Enhanced Capital**”) is pleased to propose the following preliminary terms and conditions for a tax equity investment in connection with the Projects (defined below).

This term sheet (the “**Term Sheet**”) does not constitute an offer or a solicitation of an offer to purchase or sell, nor is it a binding commitment by any party to purchase or sell, any equity or other interest in any of the Companies that own the Projects (defined below). The terms and conditions set forth in this Term Sheet are based on the information provided by [Sponsor Entity] as of the date hereof, without regard to the accuracy of the information provided, and remain subject to, among other things, completion of underwriting and due diligence, satisfactory documentation, investment committee approval by Investor (defined below) and review by Investor’s legal and tax counsel.



Redact

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Redact

If the terms herein are generally acceptable to you, please sign below and return by [Date]. This Term Sheet and the proposals contained herein will expire at 5:00 pm EST on [Date] if Investor fails to receive Sponsor's executed signature to this Term Sheet. Upon acceptance, we consider all communications in connection with this Term Sheet and the matters contemplated hereby to be confidential to the extent permitted under the Connecticut Freedom of Information Act. Any violation of this condition shall be considered detrimental and may subject the signor and related parties to damages to be determined by a court of competent jurisdiction. Notwithstanding anything set forth elsewhere in this Term Sheet, the Expenses provision will survive any termination of this Term Sheet for any reason.

Sincerely,

ENHANCED CAPITAL TAX CREDIT FINANCE, LLC

Exhibit B

Proposed Pre-Qualification Criteria for Recipients of Green Bank Capital for Investments in PPA Projects Developed by Third Parties

- At least five years operating history including at least one year operating history in the state of Connecticut
- Either: at least 1 MW capacity of commercial solar assets under management; or: at least 5 MW capacity of commercial solar assets installed
- No instance of default on a power purchase agreement
- Established program of asset management, to include: contracted operations and maintenance services and ability to obtain production data on a monthly basis
- Acceptance of non-negotiable requirement for Green Bank to secure loans by a first priority lien on assets against which loans are advanced
- Acceptance of non-negotiable requirement that proceeds of loans will be used for the development and longer term financing and refinancing of clean energy projects situated in the state of Connecticut

Appendix 2 to Memorandum dated December 8, 2023

Schedule of Commercial Solar Projects Owned by Green Bank

Project / Site Name	Size (kW)	Offtaker (customer)
111 Shawn Drive	9.38	Coppermine Housing Associates LLC
125 Shawn Drive	9.38	Coppermine Housing Associates LLC
128 Shawn Drive	7.37	Coppermine Housing Associates LLC
135 Shawn Drive	11.39	Coppermine Housing Associates LLC
145 Shawn Drive	10.72	Coppermine Housing Associates LLC
150 Shawn Drive	7.04	Coppermine Housing Associates LLC
155 Shawn Drive	6.03	Coppermine Housing Associates LLC
20 Adna Road	8.04	Coppermine Housing Associates LLC
20 Adna Road (Office)	24.12	Coppermine Housing Associates LLC
241 West Hill Rd. Bldg A	16.53	Newington Housing Authority
241 West Hill Rd. Bldg B	7.84	Newington Housing Authority
241 West Hill Rd. Bldg C	16.24	Newington Housing Authority
31 Butler Street	98	Wethersfield Housing Authority
312 Cedar St. Bldg #3	10.36	Newington Housing Authority
314 Cedar St. Bldg #1	11.76	Newington Housing Authority
314 Cedar St. Community Room	10.08	Newington Housing Authority
316 Cedar St. Bldg #2	12.26	Newington Housing Authority
44 Adna Road	8.04	Coppermine Housing Associates LLC
47 Lancaster Road	9.6	Wethersfield Housing Authority
48 Union Street Condo	73.78	Sun Hill Management Trust

Project / Site Name	Size (kW)	Offtaker (customer)
54 Research	130	54 Research Drive, LLC
55-57 & 61-63 Boardman Terrace	11.52	Wethersfield Housing Authority
60 Lancaster Road	30	Wethersfield Housing Authority
AB_School	28.08	Wellspring Foundation
Administration	23.76	Wellspring Foundation
American Legion	41.2	East Shore Post 196, Inc., Department of Connecticut American Legion
Ashford Fire House	12	Town of Ashford
Ashford Senior Housing	86	Town of Ashford
Ashford Town Hall	18	Town of Ashford
BAT 1	80.08	SBB Inc
BAT 2	86.8	SBB Inc
BAT 3	44.52	SBB Inc
Beauvais_house	16.92	Wellspring Foundation
Beecher School	247.52	Town of Woodbridge
Beechwood 126	21.42	MISAC Corp
Beechwood 29	9.18	MISAC Corp
Beechwood 55	19.89	MISAC Corp
Beechwood 59	8.67	MISAC Corp
Beechwood 84	21.42	MISAC Corp
Beechwood 87	21.93	MISAC Corp

Project / Site Name	Size (kW)	Offtaker (customer)
Bethany Fire House	100.01	Bethany
Bethany Town Hall	50.37	Bethany
B'nai Jacob	251.68	Congregation B?Nai Jacob
Bristol HA Site 1	23.24	Bristol Housing Authority
Bristol HA Site 2	124	Bristol Housing Authority
Brookfield HA (SSHP)	14.25	Brookfield Housing Authority
Carmen Arace	907.06	Bloomfield Board of Education
Center Elementary	114.92	Town of Ellington Board of Education
Colchester HA (SSHP)	18.48	Colchester Housing Authority
Common Ground	64.32	The New Haven Ecology Project, LLC
Coventry High School	112.32	Coventry, Connecticut, Board of Education
Coventry Middle School	112.32	Coventry, Connecticut, Board of Education
Crystal Lake Elementary	99.6	Town of Ellington Board of Education
CSCU - Central Connecticut State University	116.28	Connecticut State Colleges and Universities
CSCU Asnuntuck	721.44	Connecticut State Colleges and Universities
CSCU Housatonic Beacon	1008	Connecticut State Colleges and Universities
CSCU Housatonic Lafayette	198.72	Connecticut State Colleges and Universities
CSCU Quinebaug	862.92	Connecticut State Colleges and Universities
CSCU Tunxis	298.08	Connecticut State Colleges and Universities
CSCU Western Grasso	317.4	Connecticut State Colleges and Universities

Project / Site Name	Size (kW)	Offtaker (customer)
Dodd_Center	28.44	Wellspring Foundation
Dwight School	186.62	Town of Fairfield
Earthplace	29.64	The Nature Discovery Center, Inc
Ellington Middle School	98.02	Town of Ellington Board of Education
Essex Elementary	196.54	Essex Elementary School
Fairfield Conservation Garage	13	Town of Fairfield
Fairfield Hoyden Maintenance Shed	16.3	Town of Fairfield
Fairfield Public Works Garage 2	43.88	Town of Fairfield
Fairfield Riverfield School	104.96	Town of Fairfield
Fairfield Tennis Center	90.52	Town of Fairfield
Fairfield Woods Library	65.1	Town of Fairfield
Farmingville School	138.17	Town of Ridgefield
Firehouse	33	Town of Chaplin
First Presbyterian Church	85.68	First Presbyterian Church
First United Methodist Church	30.69	The First United Methodist Church of Stamford (50% interest) and The Trustees of the First Methodist Church of Stamford (50% interest)
Fischel Properties	200.88	85 Pond Mill LLC
Florence LSH	60	Marlborough Association For Senior Housing, Inc
GE Current - Praxair	1067.31	Paxair
GH Robertson	109.2	Coventry, Connecticut, Board of Education
Gloria Dei	82.04	Gloria Dei Evangelical Lutheran Church, Inc.

Project / Site Name	Size (kW)	Offtaker (customer)
Grammar School	99.36	Coventry, Connecticut, Board of Education
Hampton Elementary School	127.75	Town of Hampton
HDI	747.72	Hartford Distributors, Incorporated
Hebrew High	104.04	Hebrew High School of New England
Hospital for Special Care	253.44	Daughters of Mary of the Immaculate Conception, Inc.
Immaculate High School	137.19	Bridgeport Diocese
Italian Center	95.48	The Italian Center of Stamford, Inc.
JBG Ventures	61.6	JBG Ventures, LLC
JCC of Greater New Haven	754.26	The Jewish Federation of Greater New Haven, Inc.
John Winthrop Middle School	129.27	Regional School District #4
Kent School Athletic Facility	100.65	Kent School Corporation
Kent School Hockey Rink	217.16	Kent School Corporation
Kent School Tennis Building	63.75	Kent School Corporation
Ledyard CC	14.4	First Congregational Church of Ledyard, CT, Inc.
Ledyard HA (SSHP)	19.95	Ledyard Housing Authority
Lesro	995.1	GRS Realty, LLC
Library	46.75	Town of Chaplin
Marian Heights	288	Daughters of Mary of the Immaculate Conception, Inc.
Middlebrook School	301.62	Town of Wilton
Mill St. Extension	19.04	Newington Housing Authority

Project / Site Name	Size (kW)	Offtaker (customer)
Miller-Driscoll School	304.92	Town of Wilton
Monsignor Bojnowski Manor 1	282.24	Daughters of Mary of the Immaculate Conception, Inc.
Monsignor Bojnowski Manor 2	111.04	Daughters of Mary of the Immaculate Conception, Inc.
New Fairfield Meeting House School	370.14	Town of New Fairfield Board of Education
Niantic Community Church	26	Niantic Community Church, Inc.
NNI-Fair Street	52	Fair Street Apartment Limited Partnership
NNI-Samuel's Court	38.13	Samuel's Court Limited Partnership
Oronoque Village	62.1	Oronoque Village Condominium Association, Inc.
Peck Lane	257.61	Town of Orange
Plainville HA - 20 Stillwell Dr	19.95	Town of Plainville Housing Authority
Plainville HA - 234 East Street #1	9.98	Town of Plainville Housing Authority
Plainville HA - 234 East Street #2	12.54	Town of Plainville Housing Authority
Police HQ	35	Town of Coventry
Prudence Crandall	122.88	Daughters of Mary of the Immaculate Conception, Inc.
Race Brook	190.96	Town of Orange
Radiotower Annex	25	Town of Coventry
Region 1 - Housatonic Valley Regional High School	115.32	Regional School District #1 Board of Education
Region 1 - Salisbury Central School	75.95	Salisbury Board of Education
Region 10 School - Lower	165.23	Regional School District #10
Region 10 School - Upper	114.7	Regional School District #10

Project / Site Name	Size (kW)	Offtaker (customer)
Sacred Heart Rectory	8.27	Sacred Heart Church of East Port Chester Connecticut
Sacred Heart School	13.7	Sacred Heart Church of East Port Chester Connecticut
Samuel Staples School	301.32	Town of Easton
SCSU West	1267.2	Connecticut State Colleges and Universities
Southwest Terrace (SSHP)	67.27	Windsor Locks Housing Authority
St. Bridget's	26.95	Bridgeport Diocese
St. John's Episcopal Church	45.5	The Society of St. John's Parish
St. Joseph Church	151.8	Bridgeport Diocese
St. Lucians	122.88	Daughters of Mary of the Immaculate Conception, Inc.
Stern Village (SSHP)	91.8	Trumbull Housing Authority
Sugarloaf Terrace (SSHP)	24.96	Middlefield Housing Authority
Town Hall	77.75	Town of Coventry
Turkey Hill	167.4	Town of Orange
Ukrainian National Home	27.06	Ukrainian National Home of Hartford, Inc
Union School	107.24	Town of Union
Union Town Hall	23	Town of Union
Valley Regional High School	129.58	Regional School District #4
Voluntown Elementary School	216.96	Town of Voluntown
Wapping Community Church	41.12	Wapping Community Church
Warehouse	12.98	Coventry, Connecticut, Board of Education
Waterbury Boys & Girls Club	112.93	The Boys and Girls Club of Greater Waterbury, Inc.
Wethersfield United Methodist Church	76.85	Trustees of the Wethersfield Methodist Church



Memo

To: Board of Directors, Connecticut Green Bank

From: Larry Campana, Associate Director; Louise Della Pesca, Consultant; Desiree Miller, Associate Director, Clean Energy Investments; and Bert Hunter, EVP & CIO

CC: Bryan Garcia, President and CEO; Brian Farnen, General Counsel and CLO; Jane Murphy, EVP Finance and Administration

Date: December 8, 2023

Re: Connecticut Green Bank Commercial Solar Program: Term Debt Facility with MVCP, LLC

Introduction

The purpose of this memo is to request approval from the Board of Directors (the “Board”) for the Connecticut Green Bank (“Green Bank”), including any of its wholly-owned subsidiaries, to enter into a term debt facility of up to [REDACTED] with MVCP, LLC (“MVCP” or, the “Borrower”) to provide long term financing (“Term Debt”) for solar photovoltaic (“PV”) power purchase agreement (“PPA”) and Roof Lease projects, and potentially future Energy Storage Systems (“ESS”) (together the “Projects”) within Connecticut. The Borrower wholly and directly owns DownEast Renewable Energy LLC and DownEast OZ LLC, which are special purpose vehicles (“DownEast SPVs”) that develop and own the Projects. MVCP is a family office (private wealth management firm) which develops and owns commercial solar facilities, and engages in other unrelated investment activities. The proposed term debt facility would fall under the Green Bank Commercial Solar Program.

Background

Since November 2022, Green Bank Staff has been in discussions with MVCP to finance its Connecticut-based Projects. MVCP owns the DownEast SPVs which develop, own, and operate the solar facilities (Appendix 1). To date, three solar facilities are operational and an additional [REDACTED] are in various stages of development in Connecticut (Table 1 - DownEast SPVs’ Project Pipeline). The proposed Green Bank financing would be used to improve the internal rate of return of MVCP’s solar investments, thereby allowing projects to exceed MVCP’s hurdle rate of return thereby incentivizing more renewable energy development within the state. The majority of projects are subsidized by Connecticut’s Non-Residential Solar Renewable Energy Solutions (“NRES”) Program, which is a successor to the Low Emission Renewable Energy Credit and Zero Emission Renewable Energy Credit (“LREC/ZREC”) and Virtual Net Metering (“VNM”) programs. These programs aim to foster

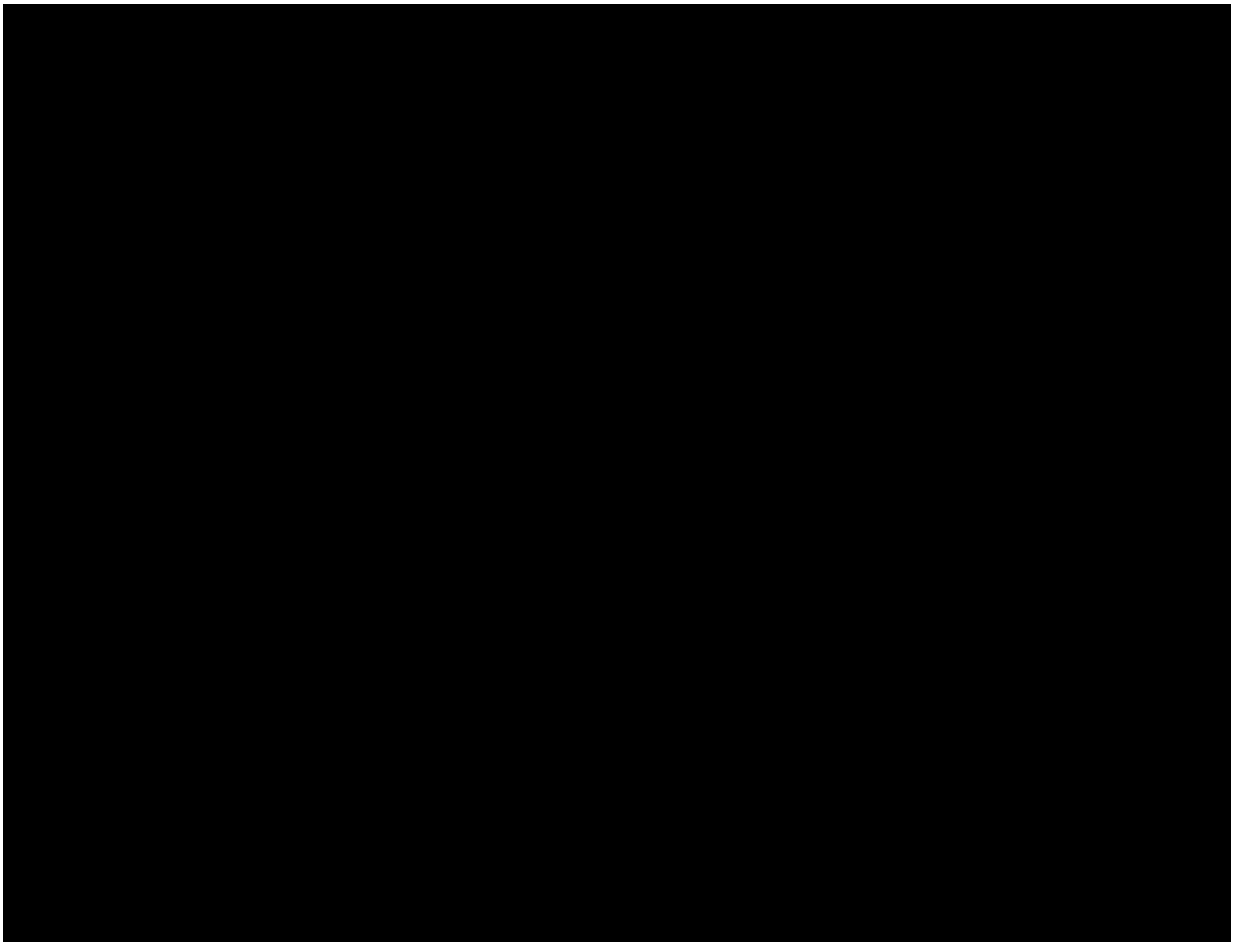
the development of the state's Class I renewable energy industry and to encourage the participation by customers in underserved and environmental justice communities, among others. The NRES program is statutorily authorized to run for six years and to select up to 60 MW of clean energy annually.

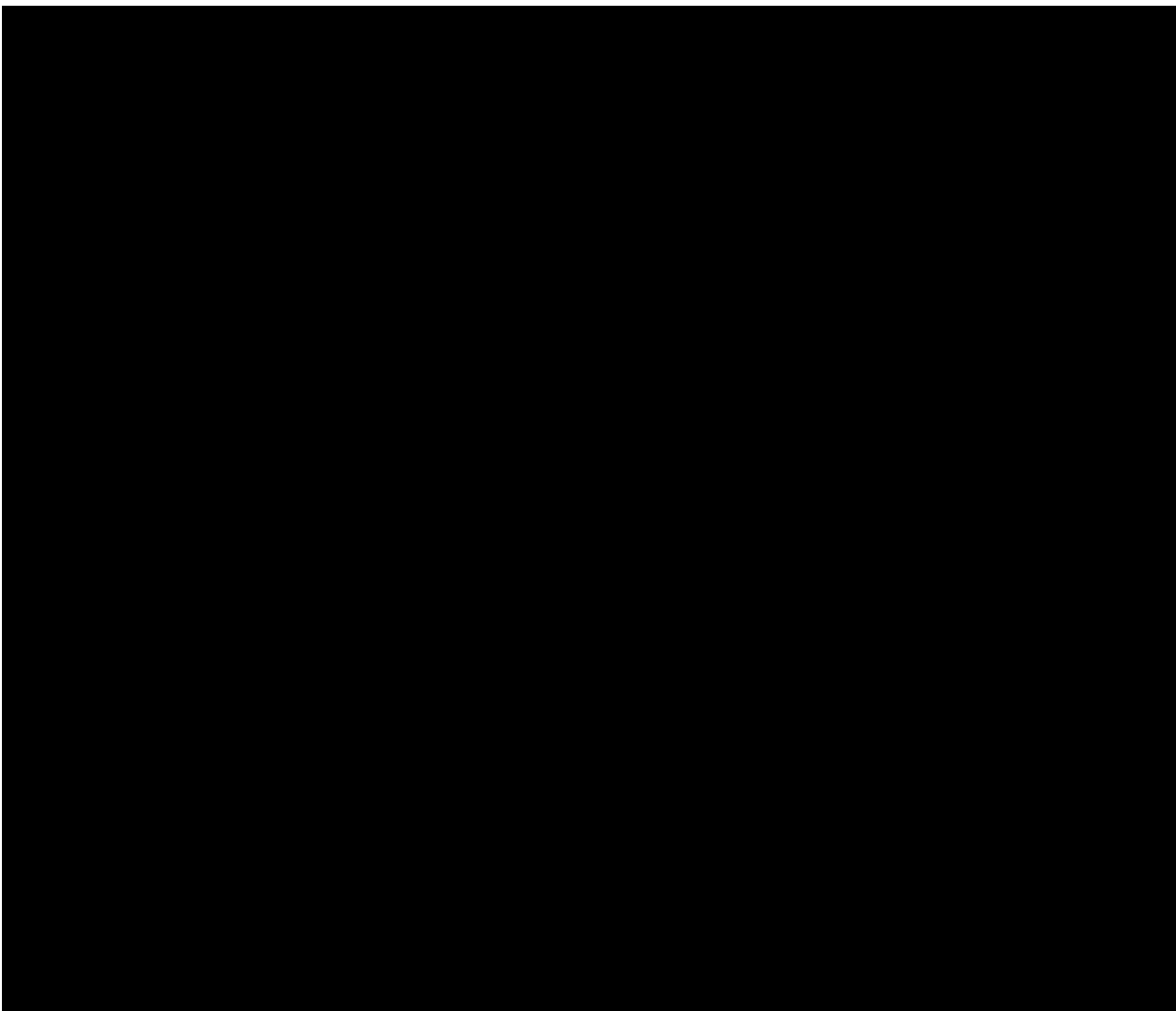
As a family office, MVCP engages in various investment activities including hedge funds, real estate, yacht building, and solar development. [REDACTED]

[REDACTED] The beneficial owners of MVCP are [REDACTED].

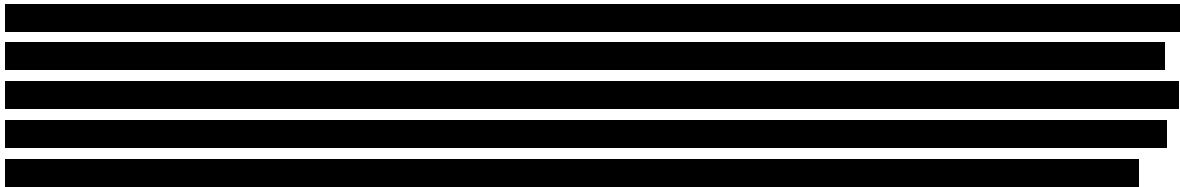
On October 26, 2018, the Board approved term debt investments to 'third party' commercial solar ownership platforms. Since Board authorization was granted, Green Bank has made term debt investments in commercial solar ownership platforms owned and operated by Sunwealth, Inclusive Prosperity Capital, and Skyview Ventures. The purpose of this memorandum is to request authorization to enter into a new debt facility with MVCP, to provide Term Debt for Projects that are either in operation or will be constructed in the near term.

Table 1. DownEast SPVs' Project Pipeline





TOTAL	10,149					
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DownEast plans to hire experienced solar EPCs, including but not limited to, AEC Solar, Dyna Electric, CTEC, Greenskies, Sync Renewables, and ConEd Solutions.

Managing Member of the DownEast SPVs is Philip Thompson, the CEO and founder of Monhegan Capital Management LLC, which manages [redacted] ultra-high net worth families. MVCP has hired James Patenaude to serve as the president of the DownEast SPVs. Patenaude has over 11 years of experience in the commercial and industrial solar industry, specifically in Connecticut. His role focuses on analyzing, developing, and implementing solar, battery, and EV Charging

projects for clients, and is experienced in a wide range of project types including roof, ground-mount, community solar, carport and off-site virtual net metering. Patenaude has been involved in deploying over 80 MW of solar projects across the east coast. The backgrounds of the DownEast leadership is described more fully in Appendix 2.

New Debt Facility

The proposed Term Debt facility (“Debt Facility”) would follow a typical back-leverage structure for commercial solar debt financing, which the Green Bank has used for prior financing arrangements (e.g., for IPC, Skyview and Sunwealth). Figure 1 depicts the intended transaction structure.

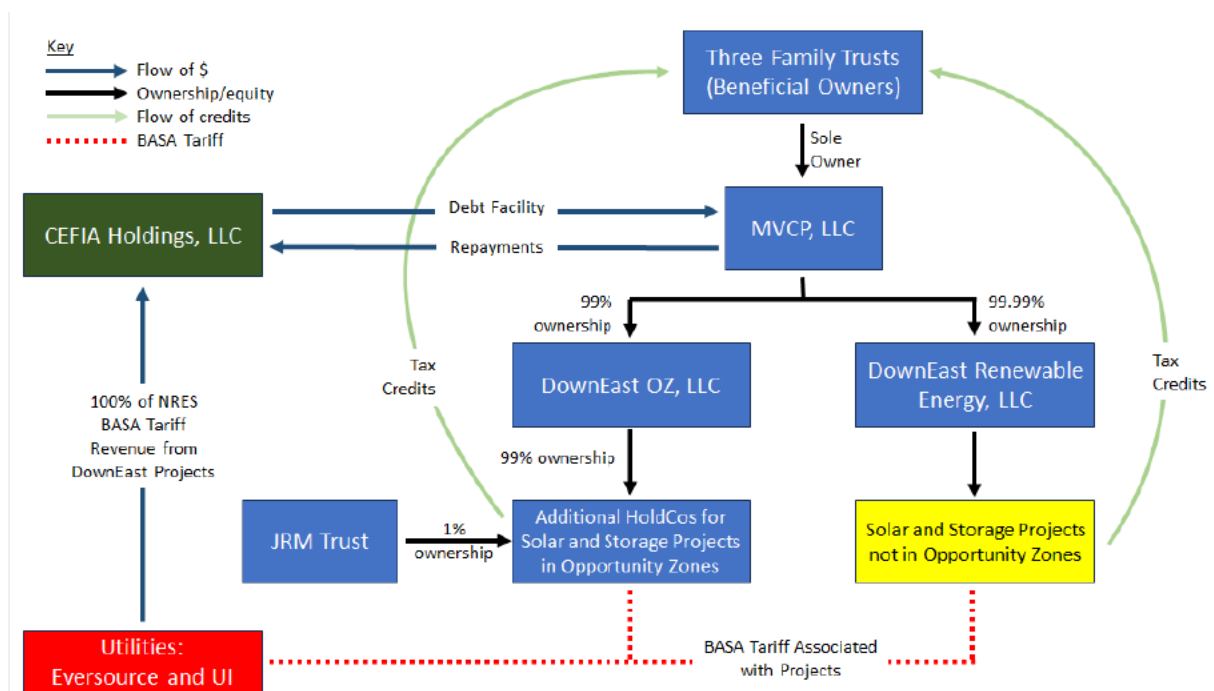


Figure 1. Transaction Structure (as contemplated)

The high-level terms of the Debt Facility would be as follows:

- Facility size: Up to [REDACTED]
- Available in multiple advances within a 12-month period from closing (no more than one advance per solar PV Project being financed with that advance only available upon completion of that solar PV Project, or up to two advances per ESS Project). ESS Projects are able to obtain upfront incentive financing as part of the Energy Storage Solutions Program in Connecticut, therefore a first advance is offered as bridge financing to the receipt of the upfront incentive of an ESS Project, and a second advance is offered at the completion and commencement of commercial operations of the ESS Project.
- Interest rate dependent on counterparty to major revenue contract, but typically expect the majority of these Projects to obtain Buy-All Sell-All tariffs under Connecticut’s NRES

program, which means the counterparty to the major revenue contract would be one of the two investment-grade utilities in CT, so the interest rate for advances against those projects would be [REDACTED]. Interest rates for other Projects will range from [REDACTED] and the Green Bank reserves the right to increase these rates based on changes in the yield of 10-year US Treasury Notes.

- Advance Rate: For solar Projects, the total loan amount advanced will not exceed [REDACTED] of collateral portfolio forecasted earnings before interest, tax, depreciation and amortization (“EBITDA”), discounted at the applicable interest rate. For storage Projects, the advance rate will be determined on a project-by-project basis.
- Debt Service Coverage Ratio: [REDACTED] for collateral portfolio, tested annually
- Term:
 - For solar Projects: lesser of (a) the solar PV system warranty period and (b) [REDACTED] from the date of the advance.
 - For ESS Projects: two advances per project will be offered, with different maturity profiles:
 - Advance A (Incentive Financing): financing term ends the earlier of: the commercial operation date of the project; or the date that Borrower receives the upfront incentive available under the Energy Storage Solutions Program in Connecticut
 - Advance B (Term Financing): financing term not to exceed the lesser of (a) the ESS Project warranty period and (b) [REDACTED] from the date of the advance
- As per our standard conditions with other solar program borrowers, security package to include: first priority interest and lien on Borrower’s existing and future assets, and the right, title and interest in all assets, equipment, accounts, contract rights and rights to payment

The proposed term sheet for the transaction with the detailed terms of the Debt Facility can be found at Appendix 3.

Due diligence approach

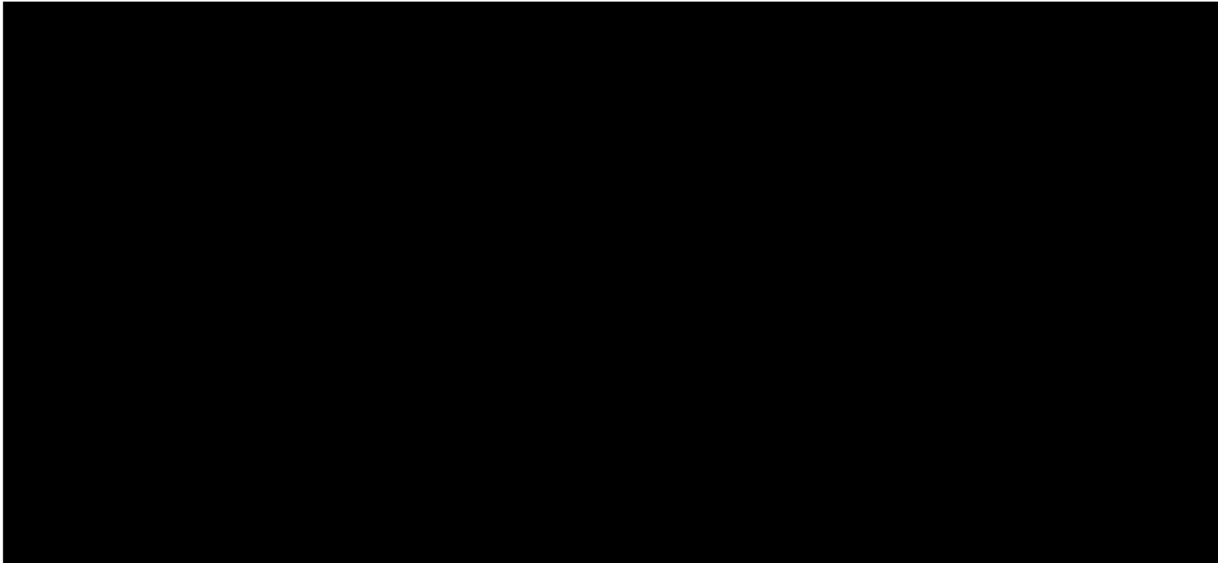
Due diligence to be conducted prior to transacting with MVCP, LLC on the Debt Facility falls into two categories:

- Due diligence on MVCP LLC, as the borrower
- Asset-level due diligence on each Project that would be financed by the Debt Facility.

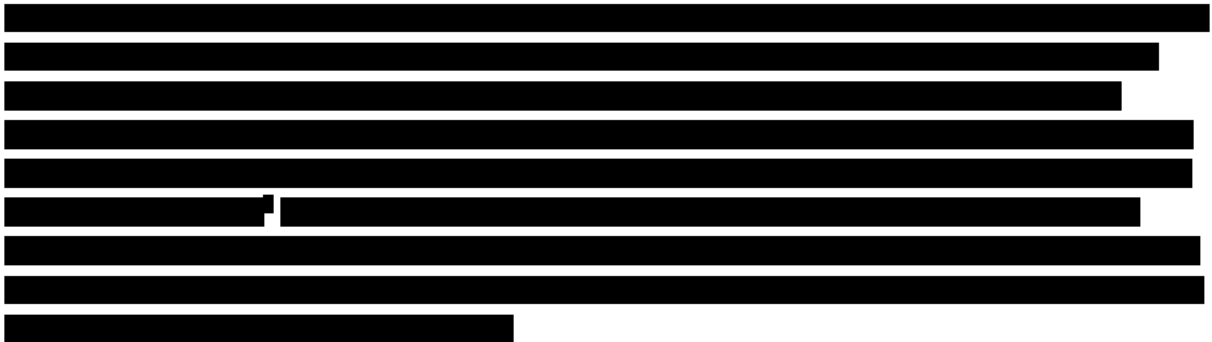
Having closed several similar debt facilities, Staff is experienced in, and has developed a formal process for, asset-level due diligence. An indicative asset-level due diligence checklist can be found in Appendix 4.

MVCP provided Staff with Tax Returns for the three years ended 12/31/2020 to 12/31/2022 Table 2 summarizes the key financial metrics.

Table 2. Financial metrics for MVCP LLC 2020 to 2022



Further underwriting metrics can be found in Appendix 5.



Green Bank is comfortable with technology risk associated with solar Projects and, should the opportunity arise to finance ESS Projects², will engage a qualified third party to advise on diligence required to be comfortable with battery energy storage technology risk. In addition, Green Bank holds extensive experience underwriting and performing diligence of commercial solar projects to ensure sufficient coverage to service the debt and minimizing risk to the investment.

■ [Redacted footnote text]

■ [Redacted footnote text]

■ [Redacted footnote text]

Ratepayer Payback

How much clean energy is being produced (i.e., kWh over the projects' lifetime) from the project versus the dollars of ratepayer funds at risk?

Based on the assumption that the full [REDACTED] Debt Facility commitment could be used to finance [REDACTED] of Solar Projects, the forecasted kWh over the projects' lifetime is approximately [REDACTED] of energy. The kWh / \$ ratepayer funds at risk is forecast to be [REDACTED].

Capital Extended

How much of the ratepayer and other capital that Green Bank manages is being expended on the project?

The Debt Facility will not exceed [REDACTED] in outstanding principal as of the end of the availability period, however due to principal repayments during the availability period, actual advances may exceed [REDACTED] somewhat.

Recommendation

The development and financing process for third party owned small commercial projects has always been a challenging one. The high transaction costs associated with tax equity, credit underwriting and project size have made this an underserved market. Starting in 2015, Green Bank leveraged CT Solar Lease 2, its residential tax equity fund, to incorporate ownership of commercial solar projects as there were limited third party ownership options being offered by private sector entities. As the market matured, a number of players desiring to be owners of commercial solar assets have entered the market in Connecticut and Green Bank has stepped away from owning assets (although this stance could change going forward for certain project types owing to changes in IRS code provisions enabling "direct payment" of the investment tax credit without the complexity of tax equity partnership structures). There continues to be a need for Green Bank support in the form of term debt that is competitive in terms of interest rate and term to make economics work, allowing for multiple advances over a period of time as separate projects come online, and Green Bank understands the diligence and requirements that are applicable for solar projects in Connecticut.

As an asset owner and an entity currently involved in solar development, Green Bank understands and is able to diligence commercial solar projects effectively while reducing our repayment risk. Given this context, staff recommends that the Board approve the Debt Facility with the special purpose vehicles wholly owned by MVCP consistent with the term sheet provided in Appendix 3.

Resolutions

WHEREAS, the Connecticut Green Bank (“Green Bank”) Board of Directors (“Board”) passed resolutions at its January 2023 meeting to approve funding for the continued development by third parties, of commercial-scale solar PV projects;

WHEREAS, MVCP LLC, a Connecticut-based investment company and direct owner of special purpose vehicles that are currently involved in the development of commercial solar projects and, in the future, may develop energy storage solutions projects in Connecticut,

WHEREAS, MVCP is seeking [REDACTED] of debt financing to fund the DownEast SPVs’ Project Pipeline (the “Debt Facility”).

NOW, therefore be it:

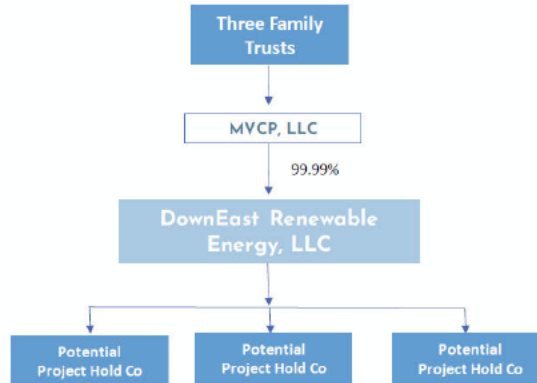
RESOLVED, that the President of Green Bank; and any other duly authorized officer of Green Bank, is authorized to execute and deliver the Debt Facility, and any associated legal instrument, with terms and conditions as are materially consistent with this Board Memorandum dated December 8, 2023; and

RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents as they shall deem necessary and desirable to effect the above-mentioned legal instrument.

Submitted by: Bryan Garcia, President and CEO; Bert Hunter, EVP and CIO; Louise Della Pesca, Consultant, Clean Energy Investments; Larry Campana, Associate Director, Clean Energy Investments; Desiree Miller, Associate Director, Clean Energy Investments

Appendix 1: MVCP Corporate Structure

DownEast Renewable Energy Org Chart

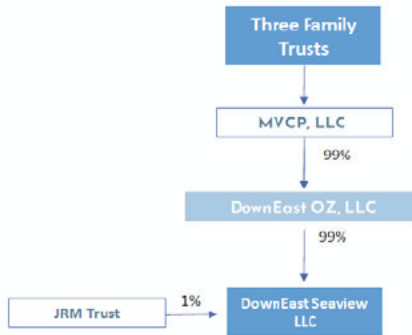


Majority of projects are owned by DownEast Renewable Energy, LLC directly. We may structure separate holding companies for some projects under DRE but beneficial ownership remains the same.

The beneficial owners are our tax equity, simple pass through of tax credits and depreciation up to the beneficial owners. No separate tax equity investor.

Equity funding from beneficial owners- MVCP / family trusts

DownEast Renewable Energy Org Chart- Opportunity Zone



1 project in opportunity zone structured this way, same beneficial ownership. If we have additional CT opportunity zone projects they will be the same, just additional hold co below DownEast OZ LLC.

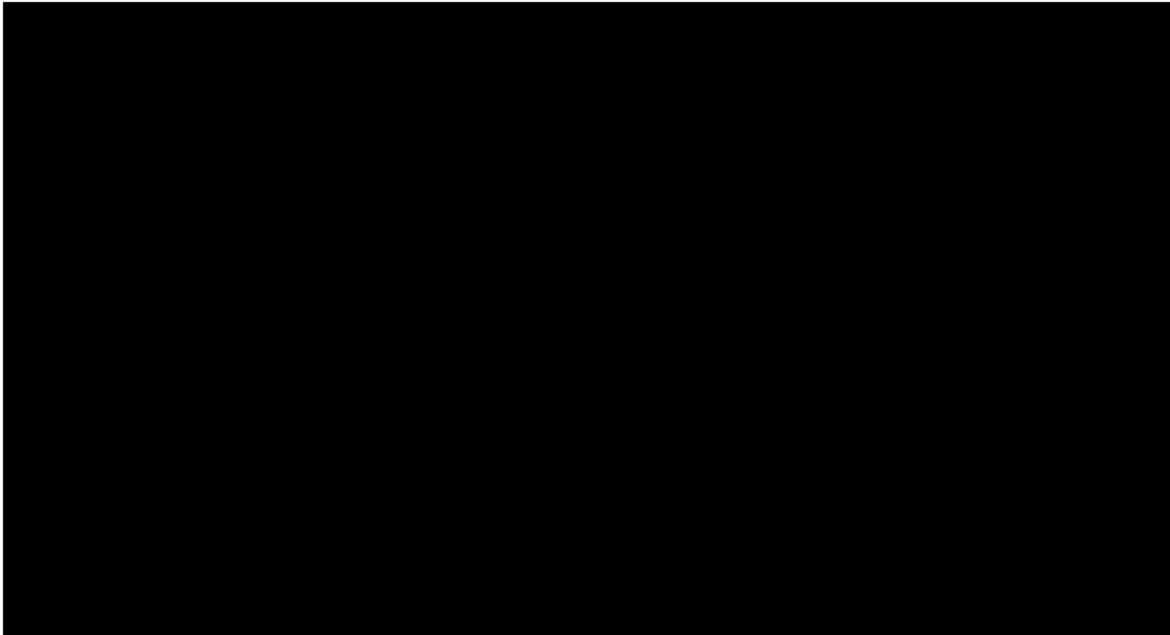
Appendix 2: DownEast Key Personnel Background and Connecticut Project Experience

Key Personnel:

Philip Thompson, Managing Member – Philip Thompson is the founder and CEO of Monhegan Capital Management, LLC, a family office with over ██████ in assets under management. He is responsible for managing the investment portfolios and financial affairs of a small group of ultra-high net worth families. In 2021, he formed DownEast Renewable Energy LLC, a solar finance and development company, to invest his family office capital in solar energy projects and satisfy tax equity and ESG investment allocations. DownEast is currently developing over ██████ megawatts of solar projects in New York, Maryland, Virginia, Washington DC, Connecticut, and Maine. Prior to founding Monhegan and DownEast, Philip was a Vice President at JPMorgan Private Bank where he was responsible for providing wealth management solutions to ultra-high net worth individuals, family

offices, endowments, and foundations. He graduated Cum Laude from Gettysburg College with a double major in Economics and Business Management. He also attended the University of Copenhagen and the Taft School. Philip currently serves on the board of Actasys, a sensor cleaning technology company, Sabre Yachts, WestWind Foundation, and the Young Leadership Board of AmeriCares.

James Patenaude, President - James has over 11 years of experience in the Commercial and Industrial solar industry, specifically in Connecticut. James is the President of DownEast Renewable Energy, LLC and specializes in analyzing, developing, and implementing solar, battery, and EV Charging projects for clients, and is experienced in a wide range of project types including roof, ground-mount, community solar, carport and off-site virtual net metering (VNM). James has been involved in deploying over 80 MW of solar projects down the East Coast. James leads the Energy Committee with the CT Green Building Council whose mission is to boost renewable/clean energy adoption in the Northeast and beyond. He also sits on the Connecticut Sierra Club's Legislative Committee.



Appendix 3: Term Sheet

**Indicative Summary of Terms and Conditions
DownEast Renewable Energy LLC Special Purpose Vehicle
Senior Secured Loan Facility – Solar PV and Energy Storage Systems – Up to [REDACTED]
[REDACTED]**

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[Redacted text block]

- [Redacted list item 1]
- [Redacted list item 2]

[Redacted text block]

[Redacted text block]

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- [Redacted list item 1]
- [Redacted list item 2]

- [Redacted]
- [Redacted]
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- | [Redacted]
- | [Redacted]
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[Redacted]

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[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

Appendix 4: Indicative Asset-Level Due Diligence List

Legal - Borrower
Organization Chart showing project owner entity and borrower (if borrower is not owner entity), plus Performance Guarantor
Roof Lease template
PPA template
Pending, anticipated, ongoing, or historical litigation for the past 5 years
Borrower Commercial General Liability COI
SNDA template
Memorandum of lease template
Legal - Projects
Roof lease
PPA
Title search report of property records
SNDA
Memorandum of lease
Financial – Borrower and Performance Guarantor
2 years of audited financial statements for Borrower, if applicable, and for Performance Guarantor
Explanation of existing debt secured by projects
Explanation of tax equity in structure
Financial - Projects (for each individual project that we finance)
Minimum production guarantee, if applicable
Maintenance plan, including contract with maintenance provider
Management fee / on-going personnel expense for managing the projects
Evidence of P&C insurance coverage for each project financed
Cashflow model
Design and Engineering

Project type
Installer (EPC)
EPC Contractor CGL certificate of insurance
EPC / design firm / stamping engineer professional liability insurance
Project installation cost
Project completion certificate
Patril lien waiver(s)
Final lien waiver
Local Permit and Inspection
Production estimates
Project plans (i.e., permit set or construction set drawings)
As Built
Structural Capacity letter (stamped) (rooftop projects)
Documentation on roof condition, age, warranty
Racking Plans
Phase 1 Environmental Site Assessment (ground mount projects)
Geotech analysis (ground mount projects)
Equipment Data Sheets (inverter, racking, modules, irradiance sensor, production meter)
Description of production monitoring, e.g. Locus / other online platform
Utility
Tariff agreement
Confirmation of 100% assignment of tariff revenue to Lender
Interconnection Application / Contingent Approval to interconnect
Utility Approval to Energize/Interconnection Agreement

Appendix 5: Underwriting Metrics – MVCP LLC

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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Memo

To: Board of Directors, Connecticut Green Bank

From: Louise Della Pesca, Consultant, Clean Energy Investments
and Bert Hunter, EVP & CIO

CC: Bryan Garcia, President and CEO; Brian Farnen, General Counsel and CLO; Jane
Murphy, EVP Finance and Administration

Date: December 12, 2023

Re: U.S. Bank Exit from CT Solar Lease 3, LLC

Introduction

At a meeting held January 20, 2017, the Connecticut Green Bank (“Green Bank”) Board of Directors (the “Board”) approved the CT Solar Lease 3 Program (“SL3”). SL3 built on the success of CT Solar Lease 2 (“SL2”), which enabled lease and power purchase agreement (“PPA”) financing for residential and commercial-scale solar PV systems in Connecticut installed by an array of independent contractors. SL3 was established to address the unmet demand from SL2 (though focused solely on commercial-scale solar PV systems) and, like SL2, U.S. Bank was the investor member, i.e., the tax equity investor. The tax equity partnership that was established as part of SL3 is called CT Solar Lease 3, LLC (the “Partnership”) and CEFIA Solar Services, Inc., a subsidiary of Green Bank, is its managing member.

The SL3 Partnership was established as a partnership flip structure, which is typical for tax equity partnerships in order to monetize the investment tax credits (“ITCs”) and depreciation benefits of the renewable energy project (in this case, 34 commercial solar projects). In a partnership flip, the governance documentation envisions that the investor member, in this case U.S. Bank, will exit the partnership approximately five years after the last project acquired by the partnership was placed in service. (Under the Internal Revenue Code, assets that have benefitted from the ITC are subject to a “recapture” (or unwind) of these benefits if the assets and/or partnership holdings are disturbed within a 5 year “compliance period” relating to the last acquired asset qualifying for the ITC.)

The Partnership operating agreement codified the methods by which U.S. Bank might exit after the passing of the requisite time of the compliance period: either the managing member (which is Green Bank’s entity: CEFIA Solar Services Inc. (“CSS”)) would exercise its call

option in the six month period October 1 2023 to March 31 2024, or, if such call option was not exercised, a withdrawal period would commence March 31 2025 (and end September 30 2025) during which the investor member shall have the right to resign and voluntarily withdraw as a member of the Partnership, in return for the lesser of the fair market value of its share in the Partnership (as determined by an independent appraiser), and [REDACTED]. To exercise the call option, a call price must be determined. The call price is codified as the greater of 5% of US Bank’s capital contributions to the Partnership and the fair market value of its share in the Partnership.

A summary of the options for valuing US Bank’s stake in SL3 is provided below:

Period	Greater of:		Lesser of:	
Call period (10/01/23 to 03/31/24)	5% of U.S. Bank’s original capital contributions [REDACTED]	Fair market value, as at 10/01/2023		
Withdrawal period (03/31/25 to 09/30/25)			Fair market value, as at time of determination	[REDACTED]

U.S. Bank expressed an interest to exit the Partnership by 12/31/2023. Regardless of the exit date, the valuation approaches require the use of a fair market valuation (“FMV”). CSS engaged a third-party independent appraiser (CohnReznick) in November 2023 to determine the FMV of U.S. Bank’s equity stake in the Partnership. The purpose of this memorandum is to present this valuation to the Board and request approval to effect U.S. Bank’s exit from Partnership.

Valuation

CohnReznick, with input from Green Bank staff and representatives from U.S. Bank, arrived at the following valuation for U.S. Bank’s equity stake in the Partnership:

[REDACTED]

U.S. Bank will take the lead on drawing up the legal documentation to effect its exit.

Recommendation

During the call period, the call price is the greater of [REDACTED]. It is possible that, if the call option is not exercised and U.S. Bank and CSS wait for the start of the withdrawal period to effect U.S. Bank’s exit, the FMV will be lower than it is as at 10/01/2023. However, there are administrative and operational efficiencies in addition to cost benefits to precipitating U.S. Bank’s exit from the Partnership in the call period rather than waiting until 2025. In conclusion, staff recommends that the Green Bank Board grant staff the authority to enter into documentation to effect U.S. Bank’s exit from CT Solar Lease 3, LLC on terms that

would not require a payment to US Bank for their interest in CT Solar Lease 2, LLC in excess of [REDACTED]

Resolutions

WHEREAS, the Board of Directors (the “Board”) of Connecticut Green Bank (“Green Bank”) approved the establishment on August 2, 2017 of a tax equity partnership (“CT Solar Lease 3, LLC”) via its subsidiary CEFIA Solar Services, Inc., with Firststar Development, LLC, a subsidiary of U.S. Bancorp Community Development Corporation (“U.S. Bank”) to enable financing for commercial solar PV projects in Connecticut under a program referred to as the “CT Solar Lease 3 Program”; and

WHEREAS, the CT Solar Lease 3 Program has concluded with ongoing activities limited to servicing a portfolio of commercial solar PV projects and U.S. Bank has expressed an interest to exit CT Solar Lease 3, LLC following the completion of an independent valuation exercise to arrive at a buy-out price for U.S. Bank’s equity stake in CT Solar Lease 3, LLC.

NOW, therefore be it:

RESOLVED, that the Board approves staff’s request to permit the Green Bank or an eligible subsidiary to purchase U.S. Bank’s equity stake in CT Solar Lease 3, LLC consistent with the memorandum to the Board dated December 12, 2023 (the “Board Memo”);

RESOLVED, that the President of the Green Bank; and any other duly authorized officer of the Green Bank, is authorized to execute and deliver, any contract or other legal instrument necessary to effect the transaction on such terms and conditions as are materially consistent with the Board Memo; and

RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents as they shall deem necessary and desirable to effect the above-mentioned legal instrument.

Submitted by: Louise Della Pesca, Consultant, Clean Energy Investments and Bert Hunter, EVP & CIO



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Historic Cargill Falls Mill A C-PACE Project in Putnam, CT

Green Bank C-PACE Loan Payment Deferral Request
December 8, 2023



Document Purpose: This document contains background information and due diligence on a proposed modification of a credit facility for the hydroelectric (“hydro) repowering and gut rehabilitation financing for energy efficiency measures using C-PACE for this project located in Putnam, CT. The information herein is provided to the Connecticut Green Bank Board of Directors for the purposes of reviewing and approving recommendations made by the staff of the Connecticut Green Bank.

In some cases, this package may contain, among other things, trade secrets and commercial or financial information given to the Connecticut Green Bank in confidence and should be excluded under C.G.S. §1-210(b) and §16-245n(D) from any public disclosure under the Connecticut Freedom of Information Act. If such information is included in this package, it will be noted as confidential.

Memo

To: Connecticut Green Bank Board of Directors
From: Bert Hunter, EVP and CIO and Mariana Trief, Associate Director, Investments
Cc: Bryan Garcia, President and CEO; Brian Farnen, General Counsel and CLO; Mackey Dykes, VP Financing Programs; Alex Kovtunencko, Associate General Counsel
Date: December 8, 2023
Re: Historic Cargill Falls Mill Redevelopment Project: Update & Request for Loan Payment Deferral

General Update & Proposed Investment Summary

Staff of the Connecticut Green Bank (“Green Bank”) returns to the Green Bank’s Board of Directors (the “Board”) to report on progress for the C-PACE project at 58 Pomfret Street, Putnam, CT (the “Historic Cargill Falls Mill”, “HCFM” or “Project”) and to recommend a deferral of the upcoming loan payment of the outstanding C-PACE financing, due to further lead abatement, vacancies and uncertainty about the property management company as further explained in this memo.

Building Update

In January 2023, the Northeast District Department of Health (“NDDH”) tested 9 units with children under the age of six (6), found excessive levels of lead were found, and issued an order of abatement. All the apartments were abated, in accordance with abatement plans approved by NDDH. Complaints about mold were received by the management for 15 units and these were addressed by testing and, when required, abated and remediated. Gutters and masonry work were also repaired to avoid leaks, which were leading to mold. There were complaints about fleas in 2 units, which were addressed through pest control. All the costs to inspect, test, remediate or abate, and relocate residents of the 20 units (5 units requiring both lead and mold abatement, 5 units requiring only lead abatement and 10 units requiring only mold abatement) were covered using cash available from the property, including reserves. Disclosure forms communicating the status and presence of lead in the building have been provided to current and new tenants.

During this time, 15 units participated in a lawsuit or housing action suit with 13 units paying rent to escrow. The housing court met, and mediation dismissed most cases as the abatement had been completed with the approximately \$56k of rent in escrow already returned to the property and \$24k in the process of being returned. The property settled with two units for approximately \$10k.

The Department of Housing (“DOH”) provided funding to perform lead testing of the remainder of the property that had not been tested by NDDH. The results are summarized in the table below.

	Units	Occupied	Vacant
Abatement completed	10	7	3
Requiring abatement per testing	51	38	13
Not requiring abatement per testing	21	17	4

The property is in the process of discussing the abatement work with contractors to get an update of the cost to abate the 51 units and common areas requiring abatement. Once those costs have been quantified, we will be having a discussion with DOH who has been working to support the property throughout the process. In addition, units that are vacant and either already abated or that do not require abatement are in the process of getting leased up to improve the cash position of the property.

In early October, Konover Residential Corporation (“Konover”) who acts as the property manager informed the property that they would not be renewing the management agreement. To date they have shown commitment to work with the owner until a new property manager is selected and brought up to speed. Housing Enterprises Inc (“HEI”) who acts as the property owner’s representative has been in the process of running a request for proposals to identify a new property manager. DOH is aware of the process and has provided support.

All the items discussed herein have affected the cash position of the property and its ability to make debt payments to both Green Bank and Haynes Construction Company, the only two lenders to the Project who currently have required debt service payment obligations.

Hydro Project Update

The Project consists of two turbines. The larger 600 kW turbine (“Turbine 1”) was placed in service in May 2017 but was then taken offline during the construction work associated with the redevelopment. Construction work associated with the bifurcation of water intake to enable the smaller 300 kW unit (“Turbine 2”) to come online was anticipated as part of the mill redevelopment and was finalized at the end of December 2022. In January 2023, as the Project started watering up the tunnel to begin testing of the two turbines; issues and challenges were identified which resulted in delays. However, both turbines are now under operation: Unit 2 began operation in May 2023 and Unit 1 began operations in September 2023. The property has already generated approximately 670 MWhs of clean energy. The property’s utility bills, as a result, have decreased (on average) by 76% compared to bills during those same months last year.

Recommended Deferral to C-PACE Payment

On June 23, 2023, the Board approved a second deferral of both the First and Second Benefit Assessment Lien payments due in June 2023 until December 2023, (as defined in the Financing Agreement) to allow for the property to recover and stabilize. 2023 was a challenging year for the property given the lead abatement orders mandated by NDDH, issues with mold, certain tenants deciding to leave their units early or to not renew, and rent deposited to escrow. All were remediated with funds available from cash flow and reserves. On a positive note, the housing court cases were addressed with most funds released from escrow and the hydro turbines have been operating since the summer. DOH has been working with and supporting the property on the lead issues and change in property management company. However, there continues to be uncertainty with regards to the cost to abate the 51 units requiring abatement, ability to lease up those units once abated and property management costs. All of these factors will impact, adversely, cash flow for the project during 2024. While staff believes the property will ultimately turn the corner, the 2024 will be one of transition as all of the lead remediation matters are fully completed, the units are progressively leased up, and the hydro project completes its first full year of operations.

As a result, Staff request a further deferral of both the First and Second Benefit Assessment Lien payments due in January 2024¹ and June 2024², with a commencement of repayment to start in January 2025. By that time, staff believes the property will be either be able to resume loan payment or staff would come back to the Board with further updates. Per the Green Bank's Loan Loss Decision Process last updated on March 25, 2022, the principal outstanding of the C-PACE loan is greater than \$1M, which requires the Staff to present the loan restructuring to the Board for approval. The property has asked Haynes, the other lender to the Project who has provided the same accommodations as Green Bank, to allow for interest only payments for Q1 and Q2 of 2024, with both interest and principal payments starting in Q3 2024 depending on financial position of the property. The Project will also continue working with DOH who is fully informed and working with all parties involved with the end goal of re-stabilizing the property.

Resolutions

WHEREAS, pursuant to Conn. Gen. Stat. 16a-40g, the Connecticut Green Bank ("Green Bank") has established a commercial sustainable energy program for Connecticut, known as Commercial Property Assessed Clean Energy ("C-PACE");

WHEREAS, the Board of Directors ("Board") of the Green Bank previously approved a construction and term financing, secured by a C-PACE benefit assessment lien, not-to-exceed amount of \$8,100,000 (the "Current Lien") to Historic Cargill Falls Mill, LLC ("HCFM"), the property owner of 52 and 58 Pomfret Street, Putnam, Connecticut, to finance the construction of specified clean energy measures (the "Project") in line with the State's Comprehensive Energy Strategy and the Green Bank's Strategic Plan;

WHEREAS, the Project includes numerous energy conservation measures that align with the goals and priorities of the Green Bank's multifamily housing program;

WHEREAS, Green Bank staff now seeks approval to defer C-PACE loan payments from HCFM ("Loan Deferral") until December 31, 2024 as explained in the memorandum in respect of this matter submitted to the Board on December 8, 2023 (the "Board Memo").

NOW, therefore be it:

RESOLVED, that the President of the Green Bank and any other duly authorized officer of the Green Bank is authorized to execute and deliver the Loan Deferral consistent with the Board Memo and the Green Bank's Loan Loss Decision Process last updated on March 25, 2022; and

RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents and instruments as they shall deem necessary and desirable to effect the above-mentioned legal instrument.

¹ The amount of payment due in January 2024 is \$376,310.05 with the breakdown as follows: Second Benefit Assessment Lien Interest Only amount of \$32,073.19; First Benefit Assessment Lien Principal amount of \$47,631.53 and Interest amount of \$297,128.26.

² The amount of payment due in June 2024 is \$295,318.82 with the breakdown as follows: Second Benefit Assessment Lien Interest Only amount of \$31,724.57 First Benefit Assessment Lien Principal amount of \$51,182.97 and Interest amount of \$212,411.28.

Submitted by: Bryan Garcia, President and CEO; Bert Hunter, EVP and CIO; Mariana Trief, Associate Director, Investments; Mackey Dykes, VP Financing Programs

Memo

To: Board of Directors of the Connecticut Green Bank

From: Eric Shrago (VP of Operations) and Sergio Carrillo (Managing Director of Incentive Programs)

CC: Senior Staff and Sara Harari (Associate Director of Innovation and Senior Advisor to the President and CEO)

Date: December 8, 2023

Re: Updating Guidelines and Procedures for Management of Class I REC Asset Portfolio, Participation in ISO New England Forward Capacity Market, and Voluntary Carbon Offsets

Overview

At a meeting held November 15, 2013, the Connecticut Green Bank (“Green Bank”) Board of Directors (“the Board”) approved the development and application of a set of guidelines and procedures to monetize Renewable Energy Credits (“RECs”) generated through the Residential Solar Incentive Program (“RSIP”) – see **Attachment A**. Subsequently, on January 20, 2023, the Board authorized the trade process for the Electric Vehicle Carbon Credit (“EVCC”) Pilot Program – see **Attachment B**.

As part of the deployment of the EVCC, Green Bank staff have reviewed the guidelines and procedures for processing our other assets, including RECs generated through RSIP and other programs. In this memo, staff present updated guidelines and procedures – see **Attachment C**. The objective of this update is to share with the Board our process to generate earned revenues from the sale of RECs, forward capacity markets, carbon offsets, and eventually ecosystem services (collectively environmental market assets), that can support the mission of the Green Bank, while taking appropriate measures to hedge portfolio risk over both the short and long terms. Attachment C contains a description of each of the asset classes, the markets in which these assets are monetized, and the process that the staff undertake to evaluate and monetize these assets. Also, we would point your attention to the Environmental Markets Guide that provided you earlier this year for those interested in these environmental market assets.¹

¹ https://www.ctgreenbank.com/wp-content/uploads/2023/04/Environmental-Infrastructure_Environmental-Markets-Guide_062323.pdf

Updated Guidelines and Procedures for Environmental Assets

The Green Bank monetizes three distinct asset classes:

1. RECs generated through RSIP and other programs which are precontracted² to United Illuminating and Eversource or are monetized in either spot or forward markets.
2. Capacity benefits for deployed solar monetized through forward capacity markets.
3. Voluntary carbon offsets monetized through spot or future markets.

Attachment C presents a standardized approach to assets not under contract as following:

Timing	Commitment Goal	Target Terms
3 years before delivery year	Up to 50%	Fixed Basis or Unit Contingent
2 years before delivery year	Up to an additional 20%	Fixed Basis or Unit Contingent
1 year before delivery year	Up to an additional 20%	Preferably Unit Contingent Basis
On the delivery year	Balance of uncommitted RECs	Spot Market

The above recommended transaction schedule intends to establish a disciplined approach for the effective implementation of a hedging strategy aimed at mitigating financial risks arising from price volatility and uncertainties in the external market environment. This structured approach will replace the more discretionary decision-making process currently in place.

Under a Fixed Basis contract, the seller commits to deliver and the buyer commits to purchase a pre-specified amount of environmental attributes (REC or carbon offset) at the agreed upon price. Failure to deliver the contracted number of RECs by the seller may result in financial penalties to the seller as contemplated in the REC Sales Agreement.

Under a Unit Contingent contract, the seller has the option, but not the obligation, to deliver any environmental attribute produced, up to the cap quantity specified in the unit contingent contract, at the agreed upon price. If production falls short of the contracted amount, there is no penalty to the seller. If environmental attribute production exceeds the contracted amount, then the seller will sell the over-production on the spot market.

Resolution

WHEREAS, CGS Sec. 16-245n (as amended by Public Act 21-2115) empowers the Connecticut Green Bank to leverage the carbon offset markets to monetize environmental attributes that accelerate the deployment of clean energy;

WHEREAS, CGS 16-245a established a Renewable Portfolio standard requiring Connecticut Electric Suppliers and Electric Distribution Company Wholesale Suppliers to obtain a minimum percentage of their retail load by using renewable energy;

² Per a Master Purchase Agreement as described in Attachment C.

WHEREAS, in November 2013, the Green Bank Board of Directors (“Board”) approved Green Bank staff to execute and deliver any contract for immediate and/or long-term sale of RECs generated under the Residential Solar Incentive Program;

WHEREAS, in January 2023, the Green Bank Board approved Green Bank staff to sell credits generated as part of the Electric Vehicle Carbon Credit Pilot Program;

NOW, be it

RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents and instruments as they shall deem necessary and desirable to generate earned revenues from these assets while hedging portfolio risk over both the short and long term as specifically set forth in **Attachment C** of the memorandum to the Board dated December 8, 2023.

Attachments

Attachment A – Memo to the Board regarding Class I REC Asset Portfolio from the Residential Solar Investment Program (Dated November 8, 2013)

Attachment B – Memo to the Board regarding Electric Vehicle Carbon Credit Pilot Program Trade Process Authorization (Dated January 13, 2023)

Attachment C – Guidelines and Procedures for Management of: Class I REC Asset Portfolio, Participation in ISO New England Forward Capacity Market, and Voluntary Carbon Offsets



CLEAN ENERGY
FINANCE AND INVESTMENT AUTHORITY

Memo

To: Board of Directors of the Clean Energy Finance and Investment Authority

From: Bryan Garcia (President and CEO), David Goldberg (Director of Government and External Relations), Ben Healey (Senior Manager of Clean Energy Finance), Dale Hedman (Director of Statutory and Infrastructure Programs), and Bert Hunter (EVP and CIO)

Cc: George Bellas (VP of Finance and Administration, Connecticut Innovations), Mackey Dykes (Chief of Staff), and Brian Farnen (General Counsel and Chief of Staff)

Date: November 8, 2013

Re: Class I REC Asset Portfolio from the Residential Solar Investment Program

Overview

Connecticut has an aggressive renewable portfolio standard policy (see Table 1). The deployment of solar photovoltaic (PV) systems and production of clean energy from such systems are eligible to supply RECs to help competitive electric suppliers and standard offer providers in CL&P and UI service territory satisfy their RPS compliance requirements. In general, every 1.0% of the Connecticut RPS represents about 275,000 RECs. In 2014, for example, approximately 3,025,000 RECs are estimated to be needed in order to satisfy the Class I RPS requirement. To put this number into perspective, the average 7 kW solar PV system in Connecticut generates about 8 RECs per year – or 0.0003% of the 2014 Class I RPS requirement. Put another way, over 375,000 households would have to install solar PV on their roofs in Connecticut to satisfy the amount of RECs required to meet the 2014 Class I RPS.

Table 1. Connecticut's Renewable Portfolio Standard

RPS Class	2014	2015	2016	2017	2018	2019	2020
Class I ¹	11.0%	12.5%	14.0%	15.5%	17.0%	19.5%	20.0%
Class II ²	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Class III ³	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Total	18.0%	19.5%	21.0%	22.5%	24.0%	26.5%	27.0%

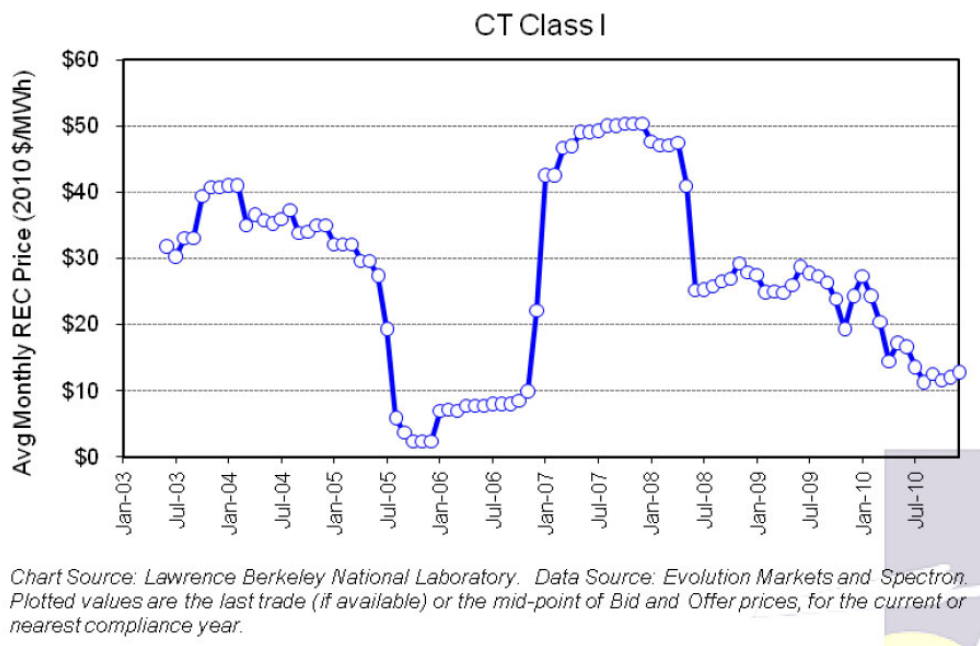
¹ Class I resources include electricity derived from solar power, wind power, fuel cells (using renewable or non-renewable fuels), geothermal, landfill methane gas, anaerobic digestion or other biogas derived from biological sources, ocean thermal power, wave or tidal power, low-emission advanced renewable energy conversion technologies, certain run-of-the-river hydropower facilities not exceeding 30 megawatts (MW) in capacity, and biomass facilities that use sustainable biomass fuel and meet certain emissions requirements. Electricity produced by end-user distributed generation (DG) systems using Class I resources also qualifies.

² Class II resources include trash-to-energy facilities, certain biomass facilities not included in Class I, and certain older run-of-the-river hydropower facilities.

³ Class III resources include: (1) customer-sited CHP systems, with a minimum operating efficiency of 50%, installed at commercial or industrial facilities in Connecticut on or after January 1, 2006; (2) electricity savings from conservation and load management programs that started on or after January 1, 2006, provided that on or after January 1, 2014, no such programs supported by ratepayers shall be eligible; and (3) systems that recover waste heat or pressure from commercial and industrial processes installed on or after April 1, 2007. The revenue from these credits must be divided between the customer and the state Conservation and Load Management Fund, depending on when the Class III systems are installed, whether the owner is residential or nonresidential, and whether the resources received state support.

If a competitive supplier or standard offer provider fails to satisfy the Class I RPS requirement, then they must pay an alternative compliance payment (ACP) of \$55 per REC for the amount of RECs that the supplier or provider is short. Currently, in Connecticut, Class I RECs are traded on the spot market in 2013 for greater than \$54. Historically, Class I REC prices have been volatile (see Figure 1).

Figure 1. Mid-Point of Bid and Offer Prices for Class I RECs in Connecticut from January of 2003 through July of 2010



Per Section 106 of Public Act 11-80, CEFIA is responsible for administering a Residential Solar Investment Program (RSIP) to deploy no less than 30 megawatts (MW) of new solar photovoltaic systems in Connecticut by the end of 2022. As the CEFIA Board of Directors is aware, the RSIP has achieved extraordinary success to date by deploying nearly 14 MW in 20 months since the start of the program in March of 2012. For homeowners that participate in the RSIP, the renewable energy credits (RECs)⁴ that are generated from the systems installed are owned contractually by CEFIA. Every solar photovoltaic system installed through the RSIP has real-time monitoring systems and revenue quality meters that measure the kilowatt-hours of clean energy produced from the system and thus account for the RECs being produced.

Given CEFIA’s ownership of Class I RECs through the RSIP, it is building a sizable asset that can be realized through spot market (i.e. a particular point in time) or future contract (i.e. a specified period of time) transactions whereby CEFIA’s RECs are sold to an interested buyer.

PURA Docket No. 13-02-03

In order to transact RECs in Connecticut, the regulator of the RPS market – the Public Utility Regulatory Authority (PURA) – must determine that a project (or projects) qualifies as a Class I eligible renewable energy technology. In anticipation of selling its Class I RECs from solar PV as a result of the RSIP, CEFIA registered a 30 MW solar PV facility with the New England Power Pool

⁴ 1,000 kilowatt-hours equals 1 megawatt-hour or 1 REC

Generation Information System (NEPOOL GIS) and was assigned a NEPOOL GIS Identification Number NON36589.

Subsequent to receiving its registration from the NEPOOL GIS, CEFIA submitted an application to PURA on February 5, 2013 – a little less than a year after the launch of the RSIP on March 1, 2012. CEFIA requested that PURA determine that the generating facilities being supported through the RSIP would qualify as a portfolio of projects as opposed to applying to PURA for each and every project. PURA determined that CEFIA’s request was consistent with the Class I RPS and that effective January 1, 2013 all RECs created as a result of the RSIP are deemed eligible to be aggregated as a generating behind-the-meter facility and assigned Registration No. CT 00534-13.

Class I REC Asset Portfolio Valuation

Through the RSIP, CEFIA is building a sizable REC asset – see Tables 2 and 3.

Table 2. Net Present Value of Class I RECs from an Average 7 kW Residential Solar PV Installation⁵

Length of Contract	\$25 REC Price	\$35 REC Price	\$45 REC Price
1-year	\$195	\$274	\$352
3-year	\$572	\$801	\$1,029
5-year	\$930	\$1,302	\$1,674
10-year	\$1,752	\$2,453	\$3,153

Table 3. Net Present Value of Class I RECs from 1 MW of Residential Solar PV Installations

Length of Contract	\$25 REC Price	\$35 REC Price	\$45 REC Price
1-year	\$27,912	\$39,076	\$50,241
3-year	\$81,700	\$114,380	\$147,060
5-year	\$132,883	\$186,037	\$239,190
10-year	\$250,261	\$350,365	\$450,470

Based on the average installed cost of \$31,700 for a 7 kW residential solar PV system, and the current level of RSIP incentive provided to these projects by CEFIA of \$8,800, a 10-year contract for RECs at \$35 a REC would generate approximately \$2,450 – or return nearly 30% of the RSIP back to CEFIA.

Depending upon the amount of Class I RECs available to sell, the price a buyer is willing to pay, and the length of time a buyer is willing to contract at (i.e., a one-time transaction for a single year is a spot market transaction, while a commitment to purchase over several years is a forward or future contract), CEFIA can realize additional cash flow into the organization that can be used for various purposes (i.e. administrative and program costs, financing programs, incentives, etc.). To date, CEFIA has reached 14 MW of residential solar PV capacity in Connecticut that will generate Class I RECs over the 25-year life of the projects (see Table 4).

⁵ Estimates are based on the following assumptions – 13% capacity factor, 0.5% degradation rate, a 2.0% discount rate, and an average system size of 7 kW based on the current program performance of the RSIP.

Table 4. Cumulative Amount of Class I RECs Produced Over Time from 14 MW of Residential Solar PV

Cumulative Class RECs Generated Over Time	Amount of Class I RECs
1-year	16,943
3-years	47,591
5-years	78,923
10-years	155,892

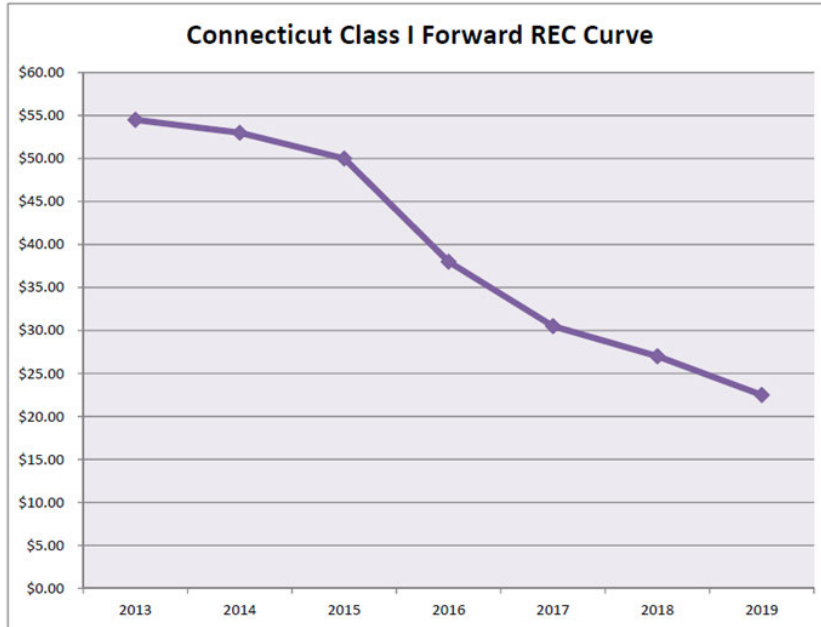
As a result of the successful implementation of the RSIP, CEFIA is producing Class I RECs that have the potential to generate additional revenues into the organization and continue to advance the mission of Connecticut’s “green bank”.

Request for Qualifications from REC Brokers

Over the summer, staff put out an RFQ to identify REC brokers who could potentially serve as CEFIA’s agent in helping us market and sell RECs generated by our RSIP portfolio. The heart of the RFQ was a request for each respondent to discuss the CT Class I REC market and demonstrate his or her understanding of how current and future market dynamics might affect CEFIA’s ability to most effectively monetize our REC portfolio. In particular, CEFIA sought to solicit each respondent’s insight into issues of forward versus spot pricing, contract length (1 year, 3-5 years, 5 years+), and the different options CEFIA could pursue in terms of marketing and selling its future stream of RECs via an auction process. The RFQ also requested indicative pricing from each respondent for a representative transaction or suite of services.

Through the RFQ, CEFIA identified five brokers whom we qualified as potential brokerage partners and whom we could call upon to market specific transactions: BGC Partners, Evolution Markets, GP Renewables, Marex Spectron, and Skystream. Representative pricing among the respondents ranged from 0.75% to 2.00% of proceeds, depending on deal size, and included various proposals for ancillary services. Since pricing responses to the RFQ were only representative and not fixed to specific deal terms, our intention in going to market will now be to ask each qualified broker to price a specific transaction that CEFIA would like to sell. Additionally, at that time, CEFIA will request a firm take-down fee associated with that transaction, so that we can partner with the broker who offers the most attractive combination of pricing, contract length, and transaction fees.

Based on responses to the RFQ and subsequent communications with the various REC brokers, we currently anticipate and modeled the forward price curve as set forth in the graphic below. The strategic decision for CEFIA will be to determine how much of a potential reduction in price CEFIA is willing to take in future years to lock in a longer term REC off-take contract.



Accordingly, staff requests approval by CEFIA’s Board of Directors to engage in contracts to monetize the RECs that have and are reasonably anticipated to accumulate by virtue of the program pursuant to guidelines and procedures that staff shall establish for such purposes.

Resolution

WHEREAS, Section 106 of Public Act 11-80 “An Act Concerning the Establishment of the Department of Energy and Environmental Protection and Planning for Connecticut’s Energy Future” (the “Act”) requires the Clean Energy Finance and Investment Authority (“CEFIA”) to design and implement a Residential Solar Photovoltaic (“PV”) Investment Program (“Program”) that results in a minimum of thirty (30) megawatts of new residential PV installation in Connecticut before December 31, 2022, and CEFIA has designed and implemented the Program;

WHEREAS, Pursuant to Conn. Gen Stat. 16-245a, a renewable portfolio standard (RPS) was established that requires that Connecticut Electric Suppliers and Electric Distribution Company Wholesale Suppliers (“Buyers”) obtain a minimum percentage of their retail load by using renewable energy.

WHEREAS, CEFIA has been assigned by New England Power Pool Generation Information System (“NEPOOL GIS”) an Identification Number NON36589 for the residential solar PV projects it supports through the Program, and subsequently the Public Utility Regulatory Authority (“PURA”) assigned a Registration No. CT 00534-13 to the behind-the-meter facilities supported by the Program;

WHEREAS, real-time revenue quality meters are included as part of solar PV systems being installed through the Program that determine the amount of clean energy production from such systems as well as the associated renewable energy credits (“RECs”) which, in accordance with Program guidelines, become the property of CEFIA to hold, manage and sell in CEFIA’s sole discretion;

WHEREAS, CEFIA staff seek to sell quantities of the Class I RECs produced as a result of the Program to Buyers who are seeking to comply with the Connecticut Class I RPS;

WHEREAS, CEFIA staff issued a Request for Qualifications on August 26, 2013 for brokers that are registered with the NEPOOL GIS to assist it in selling CEFIA's RECs (RFQ);

WHEREAS, CEFIA staff selected five brokers from the RFQ to sell RECs in Connecticut and act as CEFIA's preferred brokerage partners ("Preferred REC Brokers") and whom CEFIA could call upon to market specific REC transactions.

NOW, therefore be it:

RESOLVED, that the President of CEFIA and any other duly authorized officer of CEFIA, pursuant to guidelines and procedures that staff shall establish for such purposes in advance, is authorized to execute and deliver any contract with a Preferred REC Broker for the immediate and/or long-term sale of quantities of CEFIA's RECs from the Program, which shall include any applicable brokerage fees, as he or she shall deem to be in the interests of CEFIA and the ratepayers; and

RESOLVED, that the proper CEFIA officers are authorized and empowered to do all other acts and execute and deliver all other documents and instruments as they shall deem necessary and desirable to effect the above-mentioned legal instrument.

Memo

To: Connecticut Green Bank Board of Directors
From: Eric Shrago (Vice President of Operations)
Date: January 13, 2023
Re: Electric Vehicle Carbon Credit Pilot Program Trade Process Authorization

I. Overview

The Green Bank is enabled through CGS Sec. 16-245n (as amended by Public Act 21-115) to engage carbon offset markets using its “environmental infrastructure” authorization,¹ and also through its “clean energy”² authorization as applicable. Voluntary market carbon offsets (hereafter “offsets”) are tradable instruments embodying one ton of carbon dioxide avoided or reduced, as certified by credible and recognized sources. There are actually two general markets for offsets: 1) government-backed “compliance” markets (e.g., CA LCFS, OR CFS) where regulated entities must buy credits; and 2) voluntary markets, representing bilateral, free-market transactions whereby a broker or typically corporate off-taker seeks to acquire an offset so as to make a claim of emissions avoidance (which would require cancelling or retiring the offset).

High-quality and credible carbon offsets are created under administrative bodies that operate developed certification protocols, determining the emissions reduction activity, scope, verifiability, and measurement procedures. At present, the Green Bank has one offsets project, using methodology VM0038³ and VMD0049⁴ published under the Verified Carbon Standard (“VCS”) Programⁱ, administered by the nonprofit Verra. This methodology allows those with the rights to electric vehicle charging infrastructure to earn carbon credits based on vehicle charging activity. This project is a third-party aggregation, with the Green Bank as the sole project proponent, and all partners assigning to the Green Bank the rights and title to the environmental attributes of electric vehicle (“EV”) charging transactions, so that the

¹ Per Public Act 21-115, “environmental infrastructure” means “...and (G) environmental markets, including, but not limited to, carbon offsets and ecosystem services.” “Carbon offsets, means any activity that compensates for the emission or carbon dioxide or other greenhouse gases by providing for an emission reduction elsewhere.”

² Per CGS 16-245n, “clean energy” includes “...projects that seek to deploy electric, electric hybrid, natural gas or alternative fuel vehicles and associated infrastructure...”

³ <https://verra.org/methodologies/vm0038-methodology-for-electric-vehicle-charging-systems-v1-0/>

⁴ <https://verra.org/methodologies/vmd0049-activity-method-for-determining-additionality-of-electric-vehicle-charging-systems-v1-0/>

associated data sets may be converted into carbon offsets to make verifiable, permanent and liquid (tradable) claims of emissions avoidance. The Green Bank led the development of this methodology with several partners going back to 2016 and worked with a consortium of partners⁵ to submit for credits in 2021 for activity from 2016-2021.⁶ Credits were certified, verified, and minted in the fall of 2022.

Now we are seeking to monetize these credits on behalf of the consortium.

II. Credit Sales Process

Step 1. Verify quantities, fees, and delivery

The first step that the Green Bank will take is to confirm the quantity of credits due to each partner after the Green Bank's fees and any referral fees are charged and to confirm delivery instructions (i.e., that the partner wishes to take cash or credits and where).

Step 2. Consult market

Throughout the year, while the credits are being minted (reviewed and created by Verra), Green Bank staff will maintain relationships with brokers, offset buyers, and portfolio managers to ensure that they are up to date with regard to the direction of the market. The voluntary carbon markets are very much relationship based at this time and counterparties often desire to understand the intricate details of projects to ensure their comfort that carbon abatement is actually occurring.

When it comes time to sell the credits, Green Bank staff will obtain whenever possible, no fewer than three prices from external brokers and/or counterparties for interest in the credits. It is expected that, to meet the needs of all the partners and to maintain relationships in this market, multiple counterparties will be selected for the sales.

Step 3. Review and approval

Once staff have received at least three offers, the officers of the Green Bank, along with the Executive Vice President of Finance and Accounting, and the Vice President of Operations must approve of the transactions to be executed. And upon such approval, staff will enter into agreements with the counterparties for said sales.

Step 4. Summary

At the end of every monetization cycle (annually), staff will memorialize the details of that year's carbon offset aggregation and sales activity in a memorandum.

⁵ Partners include: AmpUp, Blink Dominion Energy, EV Match, EV Structure, Exelon, Opconnect, OptiWatt, and UGO. We have been facilitated by the expertise brought by the Climate Neutral Business Network.

⁶ <https://verra.org/new-methodology-for-ev-charging-systems-approved/>

III. Revisit Process

This process represents the nascence of the carbon markets and the Green Bank's engagement through this program. Given that the Green Bank has approximately 5200 carbon offsets for sale, at a price between [\$10] and [\$14], it is estimated that gross proceeds of the sales this year are to be less than \$65,000 but with rapid growth in the next few years. Staff commits to an ongoing review of this process and to bring this process back to the Board of Directors for their review by within the next two years.

IV. Resolution

WHEREAS, CGS Sec. 16-245n (as amended by Public Act 21-115) empowers the Connecticut Green Bank to leverage the carbon offset markets to monetize environmental attributes that accelerate the deployment of clean energy;

WHEREAS, the Green Bank has led the creation of a methodology with the Verified Carbon Standard to monetize electric vehicle charging activity and is the leader of a consortium that has earned credits under this methodology;

Now, be it

RESOLVED, the Board of Directors of the Connecticut Green Bank direct staff to sell the credits aggregated as part of this project using the aforementioned process and to update the Board as to this process by 2025.

ⁱ The VCS Program is the world's most widely used greenhouse gas (GHG) crediting program.

**Guidelines and Procedures for Management of:
Class I REC Asset Portfolio,
Participation in ISO New England Forward Capacity Market,
and Voluntary Carbon Offsets**

Revision Date: December 8, 2023



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Objective:

To maximize the value of Connecticut Green Bank’s (“Green Bank”) Class I REC asset portfolio (i.e., non-SHREC RECs), the Green Bank’s participation in the ISO New England (“ISO-NE”) forward capacity market, and voluntary carbon offsets including the Electric Vehicle Carbon Credit Pilot Program, to generate earned revenues that can support the mission of the Green Bank, while taking appropriate measures to hedge portfolio risk over both the short and long terms.

This document contains descriptions of each market, assets under management, and the process to monetize those assets.

Part 1: Class I REC Asset Portfolio

The Connecticut Renewable Portfolio Standard (“RPS”)¹ is a state policy that requires utilities and other electricity providers to generate or purchase a specified percentage of their electricity from renewable sources such as wind, solar, fuel cells, geothermal, hydro, or biomass. EDCs and electricity providers meet RPS requirements by purchasing electricity and renewable energy credits (“RECs”) from renewable sources. Renewable Energy Certificates are the environmental attributes generated by Class 1² assets from renewable energy production, and are the basis for demonstrating compliance with state’s RPS requirements. These RECs are tradable commodities that allow an environmental attribute of the renewable energy to be bought and sold separately from the energy commodity itself.

All RECs managed by the Green Bank discussed in this section are classified as CT Class I as they are produced from solar photovoltaic (“solar PV”) systems. The Green Bank manages two asset classes of Class 1 Renewable Energy Credits (“RECs”): Solar Home Renewable Energy Credits (“SHRECs”) and Other Tradable RECs.

Market Description

Both SHRECs and Other Tradable RECs are created and monetized through the New England Power Pool Generation Information System (“NEPOOL-GIS”)³. NEPOOL-GIS is a regional renewable energy tracking system designed to support compliance with state and regional RPS requirements and act as a clearinghouse for REC trading in the New England Independent System Operator (“ISO-NE”).

NEPOOL issues and tracks certificates for all MWh of generation and load produced in the ISO-NE control area. All RECs are minted quarterly in accordance with the rules and regulations of NEPOOL-GIS⁴ on a set schedule.⁵

REC trading creates an additional revenue stream that promotes sustainable development by encouraging the growth of the renewable energy sector. This can lead to job creation and economic

¹ [Renewable Portfolio Standards Overview \(ct.gov\)](#)

This policy promotes the growth of renewable energy by setting targets for its deployment. By mandating a minimum percentage of renewable energy in a utility’s energy portfolio, RPS requirements create demand for renewable energy, which can help to reduce greenhouse gas emissions, improve air quality, and promote energy independence in the state.

² As defined in §16-1(a)(20) of the General Statutes of Connecticut (Conn. Gen. Stat.)

³ [NEPOOL GIS](#)

⁴ [NEPOOL-GIS Operating Rules](#)

⁵ [Important-NEPOOL-GIS-Dates.pdf \(nepoolgis.com\)](#)

growth in the State, reduction in greenhouse gas emissions and other air pollution, as well as reducing dependence on foreign oil and promoting energy independence.

Among the customers interested in purchasing RECs are 1.) institutions that procure RECs on a voluntary basis to reduce their carbon footprint, and 2.) Load Serving Entities (LSEs) - companies responsible for supplying electricity to end-users in deregulated markets, like Connecticut, required to meet their RPS obligations with the utilities where they sell electricity. These REC purchases can be made directly with REC owners, like the Green Bank, or through brokers and aggregators.

Because REC trading operates on a voluntary basis, this system allows for flexibility and innovation in the renewable energy sector. Companies can find the most cost-effective and efficient ways to reduce their carbon footprint or meet renewable energy goals without having to invest in renewable energy infrastructure themselves.

Solar Home Renewable Energy Credits (“SHRECs”)

Asset Description

Under Connecticut Public Act No. 16-212 and Connecticut Public Act No. 15-194, the Green Bank was given the authority to create and mint SHRECs from qualified Residential Solar Investment Program (“RSIP”) ⁶ projects.

Under the RSIP, the Green Bank provided incentives to residents under two categories:

- Private homeowners - Expected Performance Based Buydown (“EPBB”), an upfront cost reduction for PV system purchases, calculated as a \$/watt of installed capacity
- Third-party system owners (“TPOs”) - Performance-Based Incentive (“PBI”) for systems leased to homeowners (or for systems under a Power Purchase Agreement) consisting of quarterly payments for 6 years based on actual PV system performance.

In exchange for the above incentives, the Green Bank retains all rights, title, and interest to the RECs and any other environmental attributes generated by homes participating in the RSIP program for the useful life of these solar PV systems.⁷ To continue to meet the state’s demand for residential solar and funding the RSIP program, the Connecticut Legislature established the SHREC program to enable the Green Bank to easily and reliably monetize the stream of RECs generated from RSIP systems.

⁶ [CGS Sec. 16-245ff, RSIP enabling language](#)

⁷ The Green Bank does not retain all rights, title, and interest to the RECs sold as part of the SHREC Master Purchase Agreement. At the end of the SHREC purchase period, the EDCs retain ownership of future RECs generated from such residential solar PV facility.



A SHREC is a Class I REC created by the production of one megawatt-hour from a residential solar PV facility that:

1. Received funding from the Green Bank through RSIP incentives approved on or after January 1, 2015;
2. Is certified by the Connecticut Public Utility Regulatory Commission (“PURA”) as a Class I renewable energy source;
3. Is located on the customer-side of the revenue meter of one-to-four family homes; and
4. Serves the distribution system of Connecticut EDCs.

The Green Bank is responsible for SHREC creation and processing for more than 36,000 sites totaling approximately 301 MW of residential solar PV capacity. Tranches were created when the Green Bank had accumulated 40-50 MW of eligible systems, regardless of their completion date. The table below shows each tranche, the number of projects within the tranche, the total installed capacity in the tranche, and the REC price.

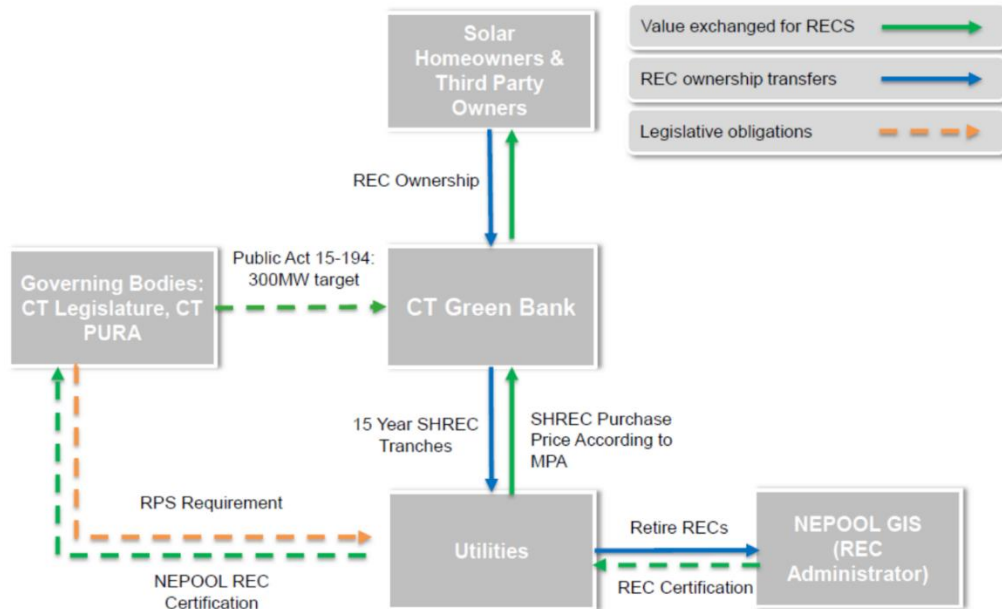
Table 1: SHRECs by Tranche

REC Type	Number of Projects	Total Capacity (MW)	# of RECs In Year 1	Price (\$/REC)
Tranche 1	6,796	49.21	56,044	\$50
Tranche 2	7,258	59.83	68,136	\$49
Tranche 3	4,818	39.29	44,739	\$48
Tranche 4	6,957	59.34	67,576	\$47
Tranche 5	7,264	61.90	70,486	\$35
Tranche 6	3,501	31.63	36,019	\$34
Total to date	36,595	301.19	343,000	

In the table above, the number of RECs in Year 1 represents the volume of RECs that each tranche was expected to generate in the year following the systems installation. The expectation is that with time, these systems will degrade and/or stop working entirely, and the expected numbers of RECs will decline each subsequent year.

Monetizing SHRECs

Figure 1: SHREC Process



Step 1: Meter Data Collection & Processing

Revenue grade meter solar PV generation data is collected and processed. For projects without a working meter, the RSIP Estimation Methodology approved by NEPOOL-GIS is used (see “Key Historic Decisions” Section below).

Step 2: Minting SHRECs with NEPOOL-GIS

The solar PV production data is then filed quarterly for REC minting and SHREC payment. As necessary, estimated generation is reported to NEPOOL separately typically within 60 days of REC filing.

Once NEPOOL-GIS approves the data filed, RECs and SHRECs are minted, and automatically transferred to the utilities.

Step 3: Monetizing SHRECs

SHREC sales are precontracted per the Master Purchase Agreement (“MPA”) in place with United Illuminating and Eversource per CGS 16-245gg.⁸ Rights to SHREC’s are held by the Green Bank for a

⁸ Approved by PURA on January 25, 2017



period of 15 years. At the expiration of the MPA, ownership rights to the environmental attributes will remain with the Green Bank.

The purchase price of SHRECs is defined in the MPA and declines from one tranche to the next one, over time commensurate with the schedule of declining RSIP incentives. The purchase price shall not exceed the lesser of either the price of small zero-emission renewable energy credit projects for the preceding year, or five dollars less per REC than the RPS Alternative Compliance Payment (“ACP”)⁹.

Under the MPA, SHRECs are quarterly transferred to an electric distribution company (EDC) immediately after being minted. This transfer triggers the invoicing and monetization of the SHRECs. By aggregation, SHRECs will automatically be transferred to the EDCs’ NEPOOL-GIS accounts (80% to Eversource and 20% to United Illuminating). Once the title of RECs has transferred to the EDCs, they officially become SHRECs for which the EDCs can be invoiced for the contracted purchase price.

Payments for SHRECs are due on the last Business Day of the month, following the month during which such SHRECs were delivered to the EDC. The Asset Management Group gives the Accounting Department the amounts for which each EDC will be invoiced so that they can render invoices to the EDCs by the fifteenth (15th) day following the end of each REC creation month.

Other Tradable RECs

Asset Description

Other Tradable RECs are generated from three sources: solar PV installed prior to the RSIP program, solar PV installed through RSIP-E, and onsite distributed generation (“OSDG”) assets. The Green Bank is not currently developing new projects that would generate tradable RECs.

The table below shows the amount of projects within each REC category, the total installed capacity in REC category, and the expected amount of RECs created in Year 1.

Table 2: Other Tradable RECs by Type

REC Type¹⁰	Number of Projects	Total Capacity (MW)	# of RECs	Price (\$/REC)
Pre-RSIP ¹¹	Up to 6,679	48.8	Up to 56,000	Open Market

⁹ The RPS ACP is a fee that EDCs must pay if they do not acquire sufficient RECs to meet RPS targets.

¹⁰ The capacity of projects in Pre-RSIP, RSIP-E, and OSDG will continue to decrease over time as these systems are retired at the end of their useful life.

RSIP-E	Up to 3,076	27.9	Up to 30,000	Open Market
OSDG	Up to 72	6.0	Up to 6,600	Open Market

The RECs generated from these three sources, referred to collectively as Other Tradable RECs, are minted collectively following a process similar to the one of SHRECs, and monetized through bilateral agreements in the open market rather than via statutorily-mandated agreements with the EDCs, according to the hedging strategy described below.

Monetizing Other Tradable RECs

Sales of Other Tradable RECs can be contracted in the forward and spot markets according to the following vintage year contracting schedule guidelines.

Table 3: Contract Commitment Timing for Other Tradable RECs

Timing	Commitment Goal	Target Terms
3 years before delivery year	Up to 50%	Fixed Basis or Unit Contingent
2 years before delivery year	Up to an additional 20%	Fixed Basis or Unit Contingent
1 year before delivery year	Up to an additional 20%	Preferably Unit Contingent Basis
On the delivery year	Balance of uncommitted RECs	Spot Market

Under a Fixed Basis contract, the seller commits to deliver and the buyer commits to purchase a pre-specified number of RECs at the agreed upon price. Failure to deliver the contracted number of RECs by the seller may result in financial penalties to the seller as contemplated in the REC Sales Agreement.

Under a Unit Contingent contract, the seller has the option, but not the obligation, to deliver any RECs produced, up to the cap quantity specified in the unit contingent contract, at the agreed upon price. If production falls short of the contracted amount, there is no penalty to the seller. If RECs production exceeds the contracted amount, then the seller will sell the over-production on the spot market as described above.

Successfully executing this strategy provides the Green Bank, among other things, (1) certainty of stable and predictable future revenue streams by locking in a price for RECs that will be created in the future, which also facilitates revenue budgeting and planning, and (2) a risk management mechanism that allows the Green Bank to hedge against market price fluctuations, protecting the Green Bank against potential future price volatility caused by RECs created with assets deployed through the State that may come online in the future.

¹¹ The Pre-RSIP category includes OSDG legacy assets and assets that installed before January 1, 2015 when RSIP was enacted as well as other projects that were not able to make it into SHREC Tranches.

To support these contracting schedule guidelines, the Green Bank staff performs regular market research, evaluates REC sale options, and executes contracts.

Quantifying Other Tradable RECs

Every quarter, the Green Bank Asset Management Team estimates the amount of Other Tradable RECs than can be generated over the following 3 years, based on rooftop solar installed capacity available, expected system degradation, maintenance schedule, and others.

The estimated generation of the portfolio is calculated based on the lesser of the following:

- In years where RSIP Estimating Methodology is available:
 - Previous year's Other Tradable REC generation degraded by 0.5% per year
 - P90 estimate degraded by 0.5% per year
- In years where the RSIP Estimating Methodology is not available:
 - Previous year's Other Tradable REC generation derived from revenue grade meter data degraded by 0.5% per year
 - P90 estimate degraded by 0.5% per year

REC Price Research

Green Bank staff regularly evaluates the status of the REC markets through conversations with qualified REC brokers, as well as publications and organizations that track the fundamentals of the New England REC markets for insight into policy changes both within Connecticut and elsewhere that might affect the CT Class I market, with a focus on identifying specified key elements of value and risk.

Additionally, to support contract price evaluation, Green Bank staff regularly evaluate REC prices in both the spot and future markets. This evaluation may include:

- A "look-back" to determine REC prices over the previous relevant periods and current market trends.
- An internal analysis of forward pricing curves based on data provided by at least two brokers going out no fewer than 3 years. This analysis will consider, as available, both pricing and bid-offer spreads, as well as the freshness and volume of relevant data points.
- Potentially anticipated or pending Regulatory/Governmental Impacts such as an assessment of Integrated Resource Plan ("IRP") proceedings and other Department of Energy and Environmental Protection ("DEEP") and PURA policy actions that could have a material impact on REC market prices, as well as ideal market timing and contract length.

Where necessary, Green Bank staff evaluate market risk, considering any existing or projected price volatility. This evaluation could include the identification of potentially large, binary, or non-diversified risk events that could materially impact market prices, as well as the timing for when information about such events could become available.

Contracting Other Tradable RECs

On the basis of the research described above and in line with the timeline established in Table 3, Green Bank staff may choose to sell Other Tradable RECs minted through NEPOOL-GIS. These RECs can be contracted through: 1) direct transaction with an interested party seeking to purchase CT Class I RECs, or 2.) working with at least one qualified broker selected through the Green Bank's Request for Qualifications process to price a variety of potential REC transactions.

The Green Bank may sell Other Tradable RECS through the Spot Market or one or more years into the future in line with the timeline established in Table 3.

In the Spot Market, the following conditions must be met for Green Bank staff to transact RECs:

- The RECs must be officially registered on NEPOOL-GIS.
- On an exception basis, staff can enter directly into a bilateral agreement with a REC purchaser if price discovery has occurred, meaning that the Green Bank has either:
 - o Already priced the RECs on the market via quotes offered by at least two qualified brokers and/or Load Serving Entities (LSE); or
 - o Received market reports from at least two qualified brokers that provide strong evidence of current spot market prices
- Unless approved by at least two Officers of the Green Bank and as justified by a comprehensive memo articulating the reasons for deviation from standard practice, the REC sale price must be at least 90% of the average weighted sale price, as quoted by at least two qualified brokers, of spot market transactions over the previous quarter, unless that sale price has declined by at least 10% from the beginning to the end of that quarter.
- The purchaser must be either an investment-grade counterparty (e.g., LSE) or a non-investment-grade counterparty who has provided appropriate financial safeguards (i.e. letter of credit, escrow agreement, bonding) or an entity the Green Bank has already contracted with on previous REC sales.
- The purchaser commits to retire the RECs in CT, and not any other state in the ISO-NE market.

In forward markets, the following conditions must be met for Green Bank staff to transact RECs:

- Unless approved by at least two Officers of the Green Bank and as justified by a comprehensive memo articulating the reasons for deviation from standard practice, the REC sale price for each vintage year must be at least 90% of the average forward curve price quoted by at least two qualified brokers for that vintage year, for both non-contingent and unit-contingent RECs, respectively
- The purchaser must be either an investment-grade counterparty or a non-investment-grade counterparty who has provided appropriate financial safeguards (i.e. letter of credit, escrow agreement, bonding) or who has otherwise objectively substantiated that the counterparty is financially capable of meeting its obligations under the sale and purchase agreement and who has successfully closed at least one REC purchase transaction of similar size per year over the previous three years. These standard practices can be waived by the collective approval of the

CEO, CIO and Chief Legal Officer, but any such waivers should be rare and well-substantiated, and documented by a comprehensive memo articulating the reasons for deviation from standard practice.

- The purchaser commits to retire the RECs in CT, and not any other state in the ISO-NE market.

Roles and Responsible Staff

For both SHRECs and Other Tradable RECs, responsibilities are as follows:

- Process Administrator – Establishes processes and controls, ensures qualified staff are assigned to roles, influences and implements organizational strategy, responsible for portfolio performance.
- REC Filing Manager – Leads implementation of policies, processes, and procedures governing the issuance of RECs, responsible for executing the filings, invoices, and other actions necessary to generate and monetize RECs and ensure proper functioning of the program.
- REC Filing Associate – Support REC Filing Manager with assigned tasks, assumes role of REC Filing Manager as needed.
- Database Administrator – Responsible for retrieval, storage, and processing of production data.

Key Historic Decisions

RSIP Estimation Methodology for REC and SHREC Creation

The Green Bank successfully revised the Operating Rules with NEPOOL-GIS, under which the Green Bank would be permitted to estimate the production of systems affected by 3G network sunsets (“RSIP Estimation Methodology”). The RSIP Estimation Methodology was enacted effective 7/1/2022 and permits estimation of 3G affected systems until 7/1/2026.

At a high level, the approach estimates generation for each impacted system based on the historical generation from that system and the concurrent generation by nearby systems with revenue grade meters and appropriate telemetry. The approach also brings in data on the characteristics of each impacted system and the nearby systems, although these data are less crucial for the estimation. The estimation is performed at an hourly level and the results are aggregated up to the month and quarter.

RSIP Program Sunset

Per PURA Decision¹², the RSIP program was replaced with the Residential Renewable Energy Solutions program. RSIP closed to new applicants on 12/31/2021 and ended registration activities for existing

¹² [Docket No. 20-07-01, 02/10/21](#)

applicants where their projects have not achieved sufficient prior to 12/31/2022. Generally, no new assets are forecasted to be added to the REC asset registry.

Potential Future Modifications

Potential future modifications shall be considered to respond to various risks affecting the portfolio including data network obsolescence, market driven forces, and other perceived risks to the long-term success of the portfolio. Currently considered modifications included but are not limited to:

- Explore RSIP Estimating Methodology Extension
- Develop Strategies to Ensure Adequate Data Reporting from TPO Systems Post-PBI

Part 2: Participation in ISO-NE Forward Capacity Market

Market and Partner Description

The specific part of the ISO-NE FCM in which the Green Bank operates is known as the On-Peak Hours Resource Program (the “Program”). The Green Bank currently participates in the Program with a partner, CPower Energy Management (“CPower”) and by doing so has the opportunity to earn revenue in the form of capacity payments.

ISO - New England On-Peak Hours Resource Program

The Program is a subset of the FCM run by ISO-NE¹³. It incentivizes owners of demand resources such as solar energy facilities for the role they play in reducing electricity consumption from the grid during certain seasonal performance hours. Through the Program, ISO-NE makes payments, known as capacity payments, to owners of demand resources, based on the demand reduction value (“DRV”) of the resource as measured by the hourly kWh reduction over defined performance hours. In the example of a solar energy facility, the DRV achieved during the performance hours in the Summer period, which is when the resource is operating most effectively and thereby reducing the demand on the main grid, will result in capacity payments for the facility owner. Owners must commit a defined capacity to the Program, as measured in kW_{AC}. The level of capacity payments depends on the production performance of the facility. The Green Bank, through its contractual arrangements from incentives (i.e., Residential Solar Investment Program or RSIP) and financing (e.g., Green Bank Solar PPA), owns the rights to such energy and capacity payments, also known as environmental attributes.

CPower Energy Management

CPower is an energy management company and a major market participant in the Program, with a large regional market share. CPower acquires Capacity Supply Obligations (“CSO”) through the auction process of the FCM. A CSO is an obligation to enroll resources that together aggregate to a certain capacity level, measured in kW, in return for capacity payments. CPower approached the Green Bank about working together to enroll our solar assets in the Program so that the Green Bank would have the ability to access capacity payments via CPower’s fulfillment of its CSO. Green Bank and CPower signed a Master Services Agreement (“MSA”) in 2017 and the first Green Bank solar assets were enrolled for the 2018-19 electricity year (commencing June 1, 2018). Under the MSA, CPower takes on the administrative work of enrolling the assets, bidding for the CSO in future Forward Capacity Auctions as well as monthly reconfiguration auctions, monitoring and managing the performance of assets, submitting asset performance information to ISO-NE, and remitting a portion of the capacity payments to the Green Bank.

¹³ Forward Capacity Market information can be found at: <https://www.iso-ne.com/markets-operations/markets/forward-capacity-market>

Business Terms with CPower

Originally CPower offered a 60%/40% split of the capacity payment revenue, with 60% going to the Green Bank. The Green Bank negotiated a tiered approach that makes the split more favorable as more kW of Green Bank-owned capacity is enrolled in the Program:

- Capacity enrolled: 0 kW to 6,990 kW; CPower receives 40% of the capacity payment revenue
- 7,000 kW to 11,990 kW; CPower receives 37.5%
- 12,000 kW and above; CPower receives 35%

As of May 2021, the Green Bank has enrolled almost 90 MW_{DC} (just over 40MW measured in DRV) of solar assets in the Program with CPower, so CPower will receive 35% of capacity payments going forward.

Revenue and Auctions

Enrolled assets, or 'resources', earn capacity payments simply by being online and generating electricity during the Summer performance period (hours of 1-5pm, non-holiday weekdays during June-July-August). The enrollment term is 20 years. The Program is for passive demand resources, which means that there is no curtailment requirement or indeed any changes required to how the resource operates.

The value of capacity payments is based on the auction price obtained by CPower for its CSO, how many MW capacity the Green Bank is able to enroll in the Program in each electricity year, and how well Green Bank facilities perform in terms of kWh produced.

There are two types of auction into which CPower bids Green Bank solar assets. The Forward Capacity Auction is held annually, three years ahead of the beginning of an operating period. CPower aims to successfully bid all Green Bank assets into the annual Forward Capacity Auction, thereby securing a known per kW capacity payment for the entirety of the operating period, but sometimes is unsuccessful due to market forces. In this case, CPower waits until the auction the following year to try again. However, the Green Bank assets can still earn capacity revenue in the period between annual Forward Capacity Auctions because CPower bids the assets into the Monthly Reconfiguration Auctions. These auctions add flexibility to what would otherwise be an annual process and mean that assets can earn capacity payments if they (a) failed to clear the auction price in the annual Forward Capacity Auction and/or (b) secured capacity payments from the Forward Capacity Auction but are in the three year 'waiting' period until those payments commence for the operating period. The annual Forward Capacity Auctions offer higher value payments than the Monthly Reconfiguration Auctions.

Asset Description

The Green Bank owns the forward capacity rights to all solar PV assets monetized through the SHREC or Other Tradable RECs process detailed in Part 1, a total capacity of approximately 372 MW.

Procedure

Step 1 – Registration

- CPower informs the Green Bank of the documentation required to register an asset in the Program. This can vary but is typically expected to include:
 - o Evidence that the Green Bank owns the capacity rights of the asset. This point has been written into power purchase agreements as standard since 2018. For projects with power purchase agreements signed prior to 2018, the customer signs a Host Acknowledgement Letter to confirm that the Green Bank owns capacity rights.
 - o Engineering drawings of the solar system to show its kW_{AC} capacity and confirm that it is a 'behind the meter' installation
 - o Interconnection Agreement
- The Green Bank submits the required documentation using CPower's ShareFile data management system
- CPower registers the asset in the Program and awaits ISO-NE's approval of the registration.
- Once approved by ISO-NE, the asset is ready to be bid into the annual / monthly auction process by CPower

Step 2 – Monthly Reporting

- Every month, within one and a half business days of the end of the previous month, the Green Bank has to report the exact kWh generated by the registered assets in a proscribed format
- CPower provided the reporting template to the Green Bank when the contractual relationship between CPower and the Green Bank commenced
- To complete the template, Green Bank staff obtain hourly kWh generation data from a defined report generated by the LocusNOC production monitoring system. Green Bank staff created the report and it runs automatically from LocusNOC on the first of the month. The report captures the generation for the previous month.
- Once the template is completed by a Green Bank staff member, another staff member checks its accuracy before it is uploaded to the CPower ShareFile data management system

Responsible Staff

- Forward Capacity Market Process Administrators – Establishes processes and controls, ensures qualified staff are assigned to roles, influences and implements organizational strategy, responsible for portfolio performance.
- Residential Asset Manager – Leads implementation of the FCM Guidelines with respect to Residential Assets.
- Commercial Asset Manager – Leads implementation of the FCM Guidelines with respect to Commercial Assets.

Key Historic Decisions

None.

Potential Future Modifications

As necessary, Green Bank staff may issue a competitive solicitation to identify one or more asset managers that may serve as aggregators to monetize these assets in the forward capacity markets.

Part 3: Voluntary Carbon Offsets

Market Description

Carbon markets are among the most well-established environmental markets and typically include projects that provide carbon sequestration or emissions avoidance. Projects participating in these markets can be designed to explicitly provide carbon sequestration, or the carbon sequestration benefits can be an externality (or ecosystem service) of a project designed for other purposes. Carbon sequestration benefits can be quantified and sold in an environmental market as “carbon offsets” or “carbon credits”.

The voluntary carbon market allows for entities conducting activities that result in a reduction of carbon in the atmosphere to quantify and sell those benefits to businesses, governments, nonprofit organizations, universities, municipalities, and/or individuals looking to purchase carbon offsets to meet their own emissions reduction objectives. In those transactions, the price per credit can be negotiated on a case-by-case basis. Quantifying the market price for the voluntary market requires averaging out available information to create an estimate.

In voluntary markets, corporations, NGO’s, and governments with emissions-reduction goals are buyers of carbon offsets. Sellers are entities conducting activities to a sufficient measurable level. Participants in voluntary markets are primarily motivated by Corporate Social Responsibility (“CSR”) goals, public relations, policy targets, and environmental and social benefits. Once a registry issues offset credits, the project developer can sell them. But with no centralized voluntary marketplace, finding a buyer can be a multi-step, challenging process. Some project developers sell their offsets directly to end buyers. Others sell their offsets through a broker or an exchange, which provide platforms for buyers and sellers to meet; still others may sell to a retailer, who then resells offsets to an end buyer. Retailers take temporary ownership of an offset, while brokers and exchanges do not. Retailers are more likely to walk companies through the process of offsetting and provide more tailored, customized advice. The transaction phase includes any time an offset is sold. Yet once an end buyer is ready to claim that offset against their own emissions, s/he should retire it. Retired offsets are no longer able to be traded in the market and represent emissions that are permanently “removed” from the atmosphere.

The Green Bank is enabled through CGS Sec. 16-245n (as amended by Public Act 21-115) to engage carbon offset markets using its “environmental infrastructure” authorization,¹⁴ and also through its “clean energy”¹⁵ authorization as applicable.

¹⁴ Per Public Act 21-115, “environmental infrastructure” means “...and (G) environmental markets, including, but not limited to, carbon offsets and ecosystem services.” “Carbon offsets, means any activity that compensates for the emission or carbon dioxide or other greenhouse gases by providing for an emission reduction elsewhere.”

At present, the Green Bank has one carbon offsets project, using methodology VM0038¹⁶ and VMD0049¹⁷ published under the Verified Carbon Standard (“VCS”) Program, administered by the nonprofit Verra. This methodology allows those with the rights to electric vehicle charging infrastructure to earn carbon credits based on vehicle charging activity.

As the Green Bank expands into Environmental Infrastructure, staff will continue to explore other potential voluntary carbon offsets.

Asset Description

High-quality and credible carbon offsets are created under administrative bodies that operate developed certification protocols, determining the emissions reduction activity, scope, verifiability, and measurement procedures.

Electric Vehicle Carbon Credit Pilot Program

This project is a third-party aggregation, with the Green Bank as the sole project proponent, and all partners assigning to the Green Bank the rights and title to the environmental attributes of electric vehicle (“EV”) charging transactions, so that the associated data sets may be converted into carbon offsets to make verifiable, permanent and liquid (tradable) claims of emissions avoidance.

The Green Bank led the development of this methodology with several partners going back to 2016 and worked with a consortium of partners¹⁸ to submit for credits in 2021 for activity from 2016-2021.¹⁹ Credits were certified, verified, and minted in the fall of 2022. The Green Bank is currently preparing to file for activity for calendar years 2021 and 2022 for activity in the United States, Canada, and Latin America shortly. Staff expects that the project’s activity will expand to other markets beyond those listed and intend to file for credits on behalf of its partners going forward for the life of the project, through 2041.

Procedure

Staff may sell carbon offsets either in advance of their creation in forward markets or after they have been issued in the spot market according to the following vintage year contracting schedule guidelines.

¹⁵ Per CGS 16-245n, “clean energy” includes “...projects that seek to deploy electric, electric hybrid, natural gas or alternative fuel vehicles and associated infrastructure...”

¹⁶ <https://verra.org/methodologies/vm0038-methodology-for-electric-vehicle-charging-systems-v1-0/>

¹⁷ <https://verra.org/methodologies/vmd0049-activity-method-for-determining-additionality-of-electric-vehicle-charging-systems-v1-0/>

¹⁸ Partners include: AmpUp, Blink Dominion Energy, EV Match, EV Structure, Exelon, Opconnect, OptiWatt, and UGO. We have been facilitated by the expertise brought by the Climate Neutral Business Network.

¹⁹ <https://verra.org/new-methodology-for-ev-charging-systems-approved/>

Table 4: Contract Commitment Timing for Carbon Offsets

Timing	Commitment Limit	Target Terms
3 years before delivery year	Up to 50%	Fixed Basis or Unit Contingent
2 years before delivery year	Up-to an additional 20%	Fixed Basis or Unit Contingent
1 year before delivery year	Up-to an additional 20%	Preferably Unit Contingent Basis
On the delivery year	Balance of uncommitted RECs	Spot Market

Similar to RECs, under a Fixed Basis contract, the seller commits to deliver and buyer commits to purchase a pre-specified amount of Carbon Offsets at the agreed upon price. Failure to deliver the contracted number of offsets by the seller, may result in financial penalties to the seller as contemplated in the Offsets Sales Agreement.

Under a Unit Contingent contract, the seller has the option, but not the obligation, to deliver any Offsets produced, up to the cap quantity specified in the unit contingent contract, at the agreed upon price. If production falls short of the contracted amount, there is no penalty to the seller. If offset production exceeds the contracted amount, then the seller will sell the over-production on the spot market as described above.

Successfully executing this strategy provides the Green Bank and our partners, among other things, (1) certainty of stable and predictable future revenue streams by locking in a price for offsets that will be created in the future, which also facilitates revenue budgeting and planning, and (2) a risk management mechanism that allows the Green Bank to hedge against market price fluctuations, protecting the Green Bank against potential future price volatility caused by offsets created with assets deployed through the State that may come online in the future.

This procedure was developed for Spot or Forward sales of Verified Carbon Units (“VCUs”) but can work for Prospective Carbon Units (“PCUs”) ²⁰, should Verra or another carbon registry allow for their use.

Forward Markets Sales

Step 1. Verify Forecasts, Commitments, Fees, and Delivery

The first step that the Green Bank will take is to confirm the quantity of credits expected by each partner after the Green Bank’s fees and any referral fees are charged, check those against any existing commitments (i.e. credit sales) and to confirm delivery instructions (i.e., that the partner wishes to take cash or credits and where). For the project on a whole, Green Bank staff will update this forecast for all

²⁰ Typically Verra issues VCUs or verified carbon units that are based on audited/verified activity. Prospective Carbon Units are unverified and based on a high degree of confidence that a VCU will be issued. This thereby allows the reductions to be sold at an earlier stage in the timeline.

partners on an annual basis. The forecast will be based on past production by partners and their views on future growth.

Step 2. Consult Market

After the forecasts are completed, staff will work directly with offset buyers and brokers to start to sell credits for future issuance, using the above stated percentages as limits. Depending on the uncertainty in forecasts, the forward limits might not be met until the year prior to the credit issuance as volumes solidify (in other words, the Green Bank might only commit 10-20% of credits 2-3 years in advance but will commit up to 90% of credits once we are in the months leading up to issuance).

When entering into forward contracts for the credits, Green Bank staff will obtain whenever possible, no fewer than three prices from external brokers and/or counterparties for interest in the credits. It is expected that, to meet the needs of all the partners and to maintain relationships in this market, multiple counterparties will be selected for the sales.

Step 3. Review and approval

Once staff have received at least three offers, the officers of the Green Bank, along with the Executive Vice President of Finance and Accounting, and the Vice President of Operations must approve of the transactions to be executed. And upon such approval, staff will enter into agreements with the counterparties for said sales.

Step 4. Summary

All forward sales will be tracked in the sales tracker.

Spot Market Sales

Step 1. Verify quantities, Commitments, fees, and delivery

The first step that the Green Bank will take is to confirm the quantity of credits due to each partner after the Green Bank's fees, any existing forwards, and any referral fees are charged and to confirm delivery instructions (i.e., that the partner wishes to take cash or credits and where).

Step 2. Consult Market

Throughout the year, while the credits are being minted (reviewed and created by Verra), Green Bank staff will maintain relationships with brokers, offset buyers, and portfolio managers to ensure that they are up to date with regard to the direction of the market. The voluntary carbon markets are very much relationship based at this time and counterparties often desire to understand the intricate details of projects to ensure their comfort that carbon abatement is actually occurring.

When it comes time to sell the credits, Green Bank staff will obtain whenever possible, no fewer than three prices from external brokers and/or counterparties for interest in the credits. It is expected that, to meet the needs of all the partners and to maintain relationships in this market, multiple counterparties will be selected for the sales.

Step 3. Review and Approval

Once staff have received at least three offers, the officers of the Green Bank, along with the Executive Vice President of Finance and Accounting, and the Vice President of Operations must approve of the transactions to be executed. And upon such approval, staff will enter into agreements with the counterparties for said sales.

Step 4. Summary

At the end of every monetization cycle (annually), staff will memorialize the details of that year's carbon offset aggregation and sales activity in a memorandum.

Responsible Staff

At present, the Vice President of Operations is responsible for the EV Carbon Credits program with guidance from other members of senior staff and the Deputy General Counsel.

Key Historic Decisions

Board authorization for the EV Carbon Credit pilot and this procedure were initially made in January 2023. When seeking this authorization, staff opted to not seek board approval for selling forward the carbon reductions prior to credit issuance.

Potential Future Modifications

Due to the growth in this program, staff are currently reviewing the program to minimize financial and reputational risk to the Green Bank and are presently identifying some changes that could impact this process including but not limited to the creation of a special purpose subsidiary whose sole purpose is to manage this program on behalf of the Green Bank.

In the near future, and at the behest of our partners, the Green Bank will continue to explore other options that expedite the timely monetization of carbon reductions including but not limited to the use of registry tools such as prospective carbon units (PCUs).

Staff are also exploring taking our project to other registries to diversify the concentration risk around only dealing with Verra.

Glossary

ACP	Alternative Compliance Payment.
Batch	Batch is a terminology used by Green Bank to group systems that will be uploaded to the NEPOOL GIS to receive a NON Number. It can also be referred as aggregation at later stage while filing PURA application.
Class 1 Certificate	These are the Renewable Energy Resource Certificates certified by PURA confirming that the respective systems are accepted as facilities that can generate RECs and create SHRECs.
CSO	Capacity Supply Obligation. An obligation to enroll resources that together aggregate to a certain capacity level, measured in kW, in return for capacity payments.
DEEP	Connecticut Department of Energy and Environmental Protection.
Docket Number	Docket Number is a # assigned to application submitted to PURA for contested and non-contested case – see PURA’s action.
DRV	Demand Reduction Value. This is the basis for capacity payments made by ISO-NE.
EPBB	Expected Performance Based Buydown. RSIP incentives to private homeowners.
EDCs	Electricity distribution company, including Eversource and United Illuminating.
FCM	Forward Capacity Market. Operated by ISO-NE.
Forward Transfer	Green Bank RECs created and transferred to the EDCs as SHRECs are done in the NEPOOL-GIS automatically by Forward Transfer, which transfers and confirms the transfer of RECs to the EDCs NEPOOL-GIS account at the time of REC creation.
IRP	Integrated Resource Plan.
ISO-NE	New England Independent System Operator.
LSE	Load Serving Entities. Companies responsible for supplying electricity to end-users in deregulated markets, such as Connecticut.
MPA	Master purchase agreement is a binding agreement between Green Bank and EDC for transaction of RECs at a fixed price for 15 years.

MSA	Master service agreement.
NEPOOL-GIS	New England Power Pool Generation Information System. A regional renewable energy tracking system designed to support compliance with state and regional RPS and to facilitate REC trading in ISO-NE.
OSDG	Onsite distributed generation.
PBI	Performance-based incentive. Offered to RSIP customers for systems leased to homeowners.
PCU	Prospective Carbon Unit.
PPA	Power purchase agreement is an agreement signed between the energy producer and energy purchaser. In this case the PPA will be signed between Green Bank and the PV System owner.
PURA	Public Utility Regulatory Commission of Connecticut.
REC	A renewable energy credit, generated by a Class 1 renewable asset registered with PURA, and it's the equivalent to 1,000 kWh or electricity of 1 MWh. This definition includes credits generated by SHREC's and REC-E.
REC-E	A subset of RECs that were created following the expiration of the SHREC program pursuant to CGS 16-245ff.
RPS	Renewable Portfolio Standard. For Connecticut, this policy can be found at Renewable Portfolio Standards Overview (ct.gov) . This policy requires utilities and other electricity providers to generate or purchase a specified percentage of their electricity from renewable sources.
RPV Number	RPV Number is assigned to systems by PowerClerk seeking and receiving approval for an RSIP incentive, also referred to as the project or system number.
RSIP	Residential Solar Investment Program. Administered by the Green Bank from January 1, 2015 – December 31, 2021 to support the deployment of residential solar in Connecticut.
SHREC	Solar Home Renewable Energy Credit is a subset of RECs that are created pursuant to CGS 16-245ff.
System or Project	Each solar PV project under RSIP scheme is considered as a system or a project.

TPO	Third-party System Owners.
Tranche	Tranches are made up of systems that have received Class 1 certification in Aggregations and approved by the EDCs in the execution of a TCA. The current tranches are REC, T1, T2, T3, T4, T5, T6 and REC-E.
VCS	Verified Carbon Standards.



STATE OF CONNECTICUT

**PUBLIC UTILITIES REGULATORY AUTHORITY
TEN FRANKLIN SQUARE
NEW BRITAIN, CT 06051**

DOCKET NO. 23-08-02

**ANNUAL RESIDENTIAL RENEWABLE ENERGY
SOLUTIONS PROGRAM REVIEW – YEAR 3**

November 1, 2023

By the following Commissioners:

Marissa P. Gillett
John W. Betkoski, III
Michael A. Caron

DECISION

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DECISION

I. INTRODUCTION

A. SUMMARY

In this Decision, the Public Utilities Regulatory Authority (Authority or PURA) approves updates to the Residential Renewable Energy Solutions Program (RRES Program or Program), administered by The Connecticut Light and Power Company d/b/a Eversource Energy (Eversource) and The United Illuminating Company (UI; collectively, with Eversource, the electric distribution companies or EDCs). The approved changes are intended to better align the RRES Program with the program objectives. The Decision also sets the RRES Program Tariff rates for project applications received in calendar year 2024.

B. BACKGROUND OF THE PROCEEDING

On February 10, 2021, the Authority issued an Interim Decision in Docket No. 20-07-01, PURA Implementation of Section 3 of Public Act 19-35, Renewable Energy Tariffs and Procurement Plans (Residential Tariff Decision), establishing renewable energy tariffs for residential customers of each EDC effective January 1, 2022, through December 31, 2027, pursuant to § 16-244z subsections (b), (d), (e) and portions of subsection (c) of the General Statutes of Connecticut (Conn. Gen. Stat.). The approved tariff program was subsequently named the RRES Program. The Authority initiates a docket annually to review key RRES Program metrics, including deployed megawatts (MW) and low- and moderate-income customer participation, and to ensure the Program is “on track to at least maintain historical deployment levels and to deliver a carbon free grid by 2040.” Residential Tariff Decision, p. 40.

Further, the Authority utilizes the annual proceeding to “set the [RRES Program] Tariff rates, any separate [renewable energy certificate (REC)] payments, and any fully, non-bypassable charges for Program applications received during the following calendar year.” *Id.* The Authority additionally uses the docket to evaluate the key data inputs, in addition to MW deployed, necessary to establish the annual RRES Program Tariff rates. *Id.* Thus, the above-captioned proceeding was initiated pursuant to the Residential Tariff Decision and in order to ensure the continued successful implementation of the RRES Program.

The Authority conducted the first annual RRES Program review in Docket No. 21-08-02, Annual Residential Renewable Energy Tariff Program Review and Rate Setting, issuing Decisions on October 6, 2021 (Year 1 Decision), January 5, 2022, and June 8, 2022. The Decisions respectively finalized the Program Manual and set the RRES Program Tariff rates for project applications received in calendar year 2022, provided limited modification and clarifications of the RRES Program Manual, and established eligibility and participation guidance for affordable housing in the RRES Program.

The Authority conducted the second annual RRES Program review in Docket No. 22-08-02, Annual Residential Renewable Energy Solutions Program Review – Year 2, issuing Decisions on November 2, 2022 (Year 2 Decision) and February 8, 2023. The

Decisions respectively finalized the Year 2 Program Manual, established RRES Program tariff rates for project applications received in calendar year 2023, and authorized several changes to the application process to better align the Program with the Program Objectives.

C. CONDUCT OF THE PROCEEDING

On April 27, 2023, the Authority issued the Notice of Proceeding in the above-captioned proceeding.

On May 15, 2023, the Authority issued a Notice of Request for Written Comments on the following topics: rate setting; Distressed Municipality adder expansion and grace period allowance; low-income and Distressed Municipality adder values, form reduction, and incentive socialization; system oversizing allowance; an improved UI application; RRES data portals; and subsidizing roof repairs with investment tax credit (ITC) funds. On or before June 23, 2023, the Authority received seven sets of written comments from interested stakeholders.

On June 21, 2023, the Authority held a Technical Meeting to discuss the topics outlined in the May 15, 2023, Notice of Request for Written Comments.

On July 18, 2023, the Authority issued a second Notice of Request for Written Comments on the following topics: adder auto-enrollment; a minimum threshold for Income Eligible (IE) and Distressed Municipality (DM) deployment; income eligibility data; adder form reduction; increased solar plus storage deployment amongst underserved customers; a cancellation period and handling application discrepancies; electronic signatures; solar panel recycling; multifamily affordable housing meter sockets; multifamily affordable housing eligibility; a non-bypassable charge for Netting system expansions; the percentage of benefit to tenants; DC-coupling wiring options; proposed application fees; standardized data reporting; ensuring participant benefits; and proposed programmatic changes. On August 15, 2023, the Authority received ten sets of written comments from Program stakeholders.

On September 6, 2023, the Authority held a second Technical Meeting to discuss the topics outlined in the July 18, 2023 Notice of Request for Written Comments.

On September 8, 2023, the Authority issued a Notice of Request for Briefs with specific briefing prompts. The Authority received seven Briefs on September 20, 2023, in response.

The Authority issued a Proposed Final Decision on October 12, 2023, and provided an opportunity for Participants to file Written Exceptions.

D. PARTICIPANTS

A listing of all Participants to this proceeding is appended hereto as Appendix A.

II. LEGAL AUTHORITY

The RRES Program was established pursuant to subsections (b), (d), and (e) and portions of subsection (c) of section 3 of the Public Act 19-35, An Act Concerning a Green

Economy and Environmental Protection, now codified in Conn. Gen. Stat. § 16-244z. Conn. Gen. Stat. § 16-244z(b)(1) required the Authority to establish tariffs for each EDC to purchase from residential customers Class I renewable energy from projects located on a residential customer's own premises as well as rates for such tariffs. Additionally, Conn. Gen. Stat. § 16-244z(b)(1) permits the Authority to modify the tariff rates based on changed circumstances.

As previously stated, the Authority indicated in the Residential Tariff Decision that it will initiate an annual docket to review key RRES Program metrics, including, but not limited to, deployed MW and low- and moderate-income customer participation, and to ensure the Program is "on track to at least maintain historical deployment levels and to deliver a carbon free grid by 2040." Residential Tariff Decision, p. 40.

Herein, the Authority reviews the RRES Program design documents and Program Manual, relevant compliance filings, and current tariff rates to determine if and how the RRES Program can and should be modified to better align with the direction provided in the Residential Tariff Decision.

III. PROGRAM OBJECTIVES

In the Residential Tariff Decision, the Authority established the following five objectives to guide the development, implementation, and administration of the RRES Program (Program Objectives).

1. The sustained, orderly development of the state's solar industry, ensuring at a minimum that Connecticut's annual historical deployment of residential solar is maintained (i.e., approximately 50-60 MW per year);
2. Achieve a 100% zero carbon electric grid by 2040, including by promoting additional annual deployment of residential renewable energy as needed;
3. Balance participant costs and benefits with non-participant costs and benefits and electric system costs and benefits;
4. Ensure program accessibility for customers, by providing customer protections both explicitly through resources and disclosure forms, and also through simplified program and tariff designs;
5. Encourage increased inclusivity overall, as well as program participation by low- and moderate-income (LMI) customers and customers in environmental justice communities.

Residential Tariff Decision, p. 7.

Accordingly, the Authority relied on the Program Objectives in evaluating the current RRES Program design and assessing any possible changes to be ordered in this proceeding and Decision with the objective of better aligning the RRES Program with the Program Objectives and the direction provided in the Residential Tariff Decision. Relatedly, the Authority reaffirms that the Program Objectives shall guide the Program Administrators in their administration of the RRES Program, particularly in instances (1) not explicitly addressed through the approved RRES Program documents or through Authority direction in prior Decisions or motion rulings and (2) where the EDCs are empowered to make administrative changes without PURA approval (See Section IV.N. of the Year 2 Decision). Finally, the Authority reaffirms that the fifth Program Objective, encourage increased inclusivity overall, shall be explicitly guided by a goal of 40% deployment amongst low-income populations or in Distressed Municipalities, in line with the Justice 40 goal set in the Residential Tariff Decision. Residential Tariff Decision, p. 40.

IV. AUTHORITY ANALYSIS

A. PROGRAM OVERVIEW

In the Residential Tariff Decision, the Authority established a statewide, six-year residential solar program to be administered by the EDCs in their respective service territories. Pursuant to Public Act 19-35, the RRES Program was created to ensure the continued growth of the residential renewable energy market upon the conclusion of the prior Residential Solar Investment Program (RSIP) and the sunseting of traditional net metering on December 31, 2021.

The RRES Program gives residential customers the opportunity to sell energy and renewable energy certificates (RECs) from an eligible project, such as a solar photovoltaic (PV) system, for a 20-year term under one of two tariff rate structures: (1) Buy-All; or (2) Netting. Under the Buy-All tariff, the solar project is provided fixed compensation for all energy and RECs produced over the 20-year term. Alternatively, under the Netting tariff, the qualified project is currently compensated for the energy produced at the retail electric rate at the time of generation and for the RECs at a fixed rate over the 20-year term. Under the Buy-All tariff, compensation is provided to customers in the form of monetary on-bill credits, with the potential for an annual cash out of credits in excess of their utility bill. Under the Netting tariff, a customer's energy consumption, and monthly energy bill, is reduced by the energy produced and used on site. Further, under the Netting tariff, for any energy exported to the electric grid by the eligible project and not consumed on site, the EDCs provide customers with monetary on-bill credits. Last, under the Netting tariff, all REC payments are made on a quarterly basis.

Table 1, below, provides a summary of the RRES Program Tariff rates for project applications received in calendar year 2023.

Table 1: 2023 RRES Tariff Rates

2023 Residential Tariff Rates		
	Buy-All Rate (\$/kWh)	Netting REC Rate (\$/kWh)
Eversource	0.2943	0.0318
UI	0.2943	0.0000
Low-Income Adder	0.030	0.025
Distressed Municipality Adder	0.0175	0.0125

See Year 2 Decision, p. 9.

Table 2 includes a summary of application data for Years 1 (2022) and 2 (2023) of the RRES Program provided in the EDCs' January and October 2023 monthly compliance filings in Docket No. 22-08-02. From January 2022 through September 2023, 234,846 kilowatts (kW), or roughly 235 MW, have been approved for the Program.

Table 2: RRES Program Applications to Date

RRES Application Data: January 2022-September 2023				
	Total Applications	Total Application kW	Approved Applications	Approved kW
Eversource	25,289	200,924	25,433	202,699
UI	4,949	34,739	4,608	32,147

See Eversource Order No. 12 Compliance, Oct. 13, 2023;
Eversource Order No. 12 Compliance, Jan. 13, 2023;
UI Order No. 12 Compliance, Jan. 17, 2023;
UI Order No. 12 Compliance, Oct. 13, 2023.

Table 3 includes a summary of project deployment for Years 1 (2022) and 2 (2023) of the RRES Program provided in the EDCs' January and October 2023 monthly compliance filings. From January 2022 through September 2023, 152,710 kilowatts (kW), or roughly 153 MW, of approved projects have been deployed through the Program.

Table 3: RRES Program Deployments to Date

RRES Deployment: January 2022-September 2023		
	Total Deployment	Total Deployment kW
Eversource	16,767	135,336
UI	2,478	17,374

See Eversource Order No. 12 Compliance, Oct. 13, 2023;
UI Order No. 12 Compliance, Jan. 17, 2023;
UI Order No. 12 Compliance, Oct. 16, 2023.

B. RATE SETTING

In setting tariff rates for future Program years, the Authority is guided by the three rate-setting objectives outlined in the Residential Tariff Decision. First, the Authority seeks to foster the sustained, orderly development of the state's solar industry. Residential Tariff Decision, p. 37. Second, the Authority seeks to deploy residential renewable energy systems through the RRES Program to help achieve a 100% zero carbon grid by 2040. *Id.* Third, the Authority seeks to balance RRES Program participant costs and benefits with the costs and benefits to non-participating ratepayers and the electric system as a whole. *Id.* Ultimately, the Authority weighs all three objectives in establishing RRES Program Tariff rates, but errs on the side of setting such rates no higher than necessary to achieve these objectives. Year 1 Decision, p. 5.

When authorizing the Program, the Authority relied on analysis from the CGB to determine the appropriate rate of return needed to meet the rate-setting objectives. Residential Tariff Decision, p. 38. Based on the CGB data and stakeholder testimony, the Authority subsequently determined that the rate of return that was necessary to achieve these objectives was 9 – 11%. *Id.* Finally, to calculate the ratepayer support necessary to achieve this rate of return, the Authority found the following values necessary to consider: “1) Average upfront installed system cost; 2) the federal Investment Tax Credit (ITC); 3) Ongoing operations and maintenance (O&M) costs; 4) System performance (e.g., capacity factor); 5) Retail electricity rates, including an assumed escalation factor; and 6) the unlevered [internal rate of return (IRR)] for each tariff (i.e., the buy-all and netting tariffs).” Year 1 Decision, p. 6.

1. Stakeholder Comments

The EDCs stated that average installed costs reported by installers have generally increased since the start of the program and exceed those reflected in the Residential Tariff Model. EDC Comments, June 1, 2023, p. 2. However, the EDCs noted that these costs likely reflect prices paid by retail customers and “may not exclusively reflect increases in labor or materials costs”, as higher electricity supply costs and increased customer demand may have increased short-term system pricing. *Id.* Considering that current residential solar installations have substantially exceeded the historical rate of deployment despite higher reported costs, the EDCs suggested that the Authority “may reasonably elect to discount the application of reported pricing data when setting RRES rates for Year 3.” *Id.* While the EDCs do not collect data on actual or estimated O&M costs, they do not believe O&M costs are a significant barrier to solar deployment and concur with the methodology used to estimate O&M costs, as well as the 13% residential PV capacity factor assumption, used in the Residential Tariff Model adopted in the Year 1 Decision. *Id.* In addition, the EDCs noted that the availability of a 30% ITC pursuant to the Inflation Reduction Act (IRA), as well as bonus credits for certain qualified systems, will likely increase rates of return for some solar system owners. *Id.* CGB also stated that the 30% credit is now available to more entities, including business taxpayers and not-for-profits. CGB Comments, June 1, 2023, p. 2.

PosiGen noted that installed costs increased by 8% nationally throughout 2022 but appear to be leveling off, which is consistent with price relief in the module market and slowing inflation. PosiGen Comments, June 1, 2023, p. 2. PosiGen also stated that although data provided by the EDCs indicates average system capacity factor ranges

between approximately 11.1% and 12.5%, the 13% capacity factor assumption used in the Residential Tariff Model “is a reasonable approximation of a well-performing system in Connecticut.” *Id.* ConnSSA noted that national data indicates higher year-over-year installed costs, and that labor shortages and higher interest rates likely result in weaker economic value for residential solar ownership. ConnSSA Comments, June 1, 2023, p. 1.

2. Rate Setting Calculations

There are two steps to setting prospective RRES compensation rates to ensure achievement of the three rate-setting objectives listed above. The first step is to review and update, if and when necessary, the retrospective IRR analysis utilized to set RRES compensation rates. In other words, the first step entails reviewing the analysis used to determine that the rate of return that was necessary to achieve the rate-setting objectives was 9 – 11% based on any new information available to the Authority. This step is particularly important in this year’s proceeding as it represents the first opportunity for the Authority to assess historical deployment within the RRES Program as the Authority had insufficient data to do so last year. The second step is to set the prospective compensation rates by utilizing and updating, if and when necessary, the Residential Tariff Model adopted in the Year 1 Decision. The Authority may also make out-of-model adjustments to the compensation rate based on known or knowable future changes (e.g., the January 1, 2024 implementation of a low-income discount rate) and other factors to ensure the Program Objectives are achieved. All out-of-model adjustments must be documented and explained to ensure transparency.

a. Step 1

The Authority previously stated that the rate-setting review in this Decision would be “guided by the Program application and deployment numbers from January 1, 2022, through June 30, 2023, as well as the six values surrounding project costs outlined ... in the Year 1 Decision.” Year 2 Decision, p. 8. The Authority applied this guidance by developing a novel time-series model that predicts RRES deployment based on the following inputs: monthly historical solar kW deployment in Connecticut, aggregated by approval to energize date; the average annual project IRR;¹ and historical electricity rates.

The deployment data utilized in the time-series model is from both the RSIP and RRES Programs and extends from 2012 through June 2023, consistent with the above-cited Year 2 Decision guidance. CGB Interrog. Resp. CAE-6; UI Interrog. Resp. CAE-14, Att. 4 Public; Eversource Interrog. Resp. CAE-14; Eversource Compliance, Aug. 22, 2023, Att. 1.²

¹ The “six values surrounding project costs” are incorporated by way of the IRR calculations.

² The data utilized in the time-series model is limited to the projects deployed through the RSIP and RRES Programs provided in this proceeding through the cited interrogatory responses. While the Authority recognizes that solar projects have been deployed outside of RSIP and RRES Programs, particularly in 2021, it is unclear that the addition of such projects would significantly change the results of the time-series model. Further, the Authority is not aware of any data source for the production or REC revenue data for such projects. The Authority will consider the incorporation of such data in setting RRES rates for future program years (i.e., Year 3 or later) if such data is provided in the record of the relevant proceeding.

The Authority calculated the historical IRR of the RRES and RSIP projects using production data provided by the CGB and EDCs, and using the same incentives and other relevant cash flow data utilized in the Residential Tariff Model – 2024 appended to this Decision as Appendix B. CGB Interrog. Resp. CAE-6; UI Interrog. Resp. CAE-14, Att. 4 Public; Eversource Interrog. Resp. CAE-14; Eversource Compliance, Aug. 22, 2023, Att. 1. Notably, the Authority applied accelerated depreciation in its calculations for historical IRR for third-party owned (TPO) systems, which represents a change from the prior analysis used to determine the target IRR.

The historical electricity rate data used in the model is an 80-20 split between Eversource and UI using Rate 1 and Rate R data, respectively. The model is fit with annual average delivery rate data that is lagged by one year. However, due to the impact of increased supply rates on solar deployment, the model uses the higher of the two supply rates, which is typically the rate effective January through June.³ The model also does not lag supply rates due to their volatility. However, as the supply rates for the first half of 2024 were not available at the time the modeling exercise was conducted this year, the Authority ran various scenarios for 2024 supply rates to project deployment, including escalating 2022 rates by the median annual percent supply rate increase squared (i.e., escalating based on the median annual increase for two years from 2022 to 2024) and averaging 2022 and 2023 winter supply rates.⁴ These scenarios showed that an IRR of 10% will, on average, result in annual deployment of 91 MW and 115 MW, respectively. Moreover, the Authority's analysis results in a confidence interval of 95% that deployment will be between 56 MW and 150 MW.

While deployment of 91 MW to 115 MW is significantly above the target range of 50-60 MW, 106 MW have been deployed through the RRES program from January 2023 through the end of September 2023, putting the program on pace to deploy roughly 140 MW in calendar year 2023. Eversource Order No. 12 Compliance, Oct. 13, 2023; UI Order No. 12 Compliance, Oct. 16, 2023.

b. Step 2

As noted above, an updated version of the Residential Tariff Model adopted in the Year 1 Decision is appended to this Decision as Appendix B, Residential Tariff Model – 2024. The Authority updated the following inputs in the model since it was last approved in the Year 1 Decision: (1) the retail electric rates and historical escalation factor; (2) the average installed cost, using a simple average of the 2022 and 2023 RRES project cost data based on stakeholder comments that 2023 cost data may be inflated, and that cost trends do not necessarily support the notion that costs have significantly risen from 2022 to 2023; and (3) the federal investment tax credit rates. The Authority also added functionality to apply accelerated depreciation in proportion to the market share of TPO

³ Since 2012, residential supply rates have always been higher in January through June for UI. UI Interrog. Resp. CAE-15. Over the same time, residential supply has been higher in the second half of a calendar year three times, in 2014, 2017, and 2022, with an average increase of only 4.95% for Eversource. Eversource Interrog. Resp. CAE-15.

⁴ The median annual rate increase was calculated using electricity rate data from 2012 through 2013. Eversource Interrog. Resp. CAE-15; UI Interrog. Resp. CAE-15.

systems and applied this approach in its compensation rate calculations, consistent with the approach taken this year in calculating the target IRR in step 1.⁵

Incorporating the above updates to the Residential Tariff Model – 2024 allows for the calculation of Buy-All tariff and Netting tariff REC or non-bypassable charge rates. Again, for reference, the Authority previously set an IRR target of 10% for the Buy-All tariff and an IRR range of 9-11% for the Netting tariffs the Residential Tariff Decision.

Applying an IRR of 10%, the Residential Tariff Model – 2024 returns a compensation rate of \$0.3189/kWh for the Buy-All tariff. \$0.3189/kWh represents an increase over the current rate of \$0.2943/kWh, which is driven by the underlying increase in the installed system costs in Connecticut. For the Netting tariff, the underlying retail rate provides the starting point for calculating RRES project compensation as all projects receive monetary credits equivalent to the retail rate for exported production (and, effectively, for on-site consumption as well). Accordingly, only the Netting REC and non-bypassable charge are being considered and set in this Decision; a Netting REC if the Residential Tariff Model – 2024 shows that the retail rate is insufficient to achieve the target IRR and a non-bypassable charge if the model shows the retail rate is more than sufficient to achieve the target IRR. Applying an IRR of 10%, the Residential Tariff Model – 2024 returns a non-bypassable charge of \$0.0256/kWh for Eversource and \$0.0476/kWh for UI. This would effectively be a decrease in the current compensation level of \$0.0574/kWh for Eversource and \$0.0476/kWh for UI (i.e., the current Netting REC of \$0.0318/kWh and \$0.0000/kWh for Eversource and UI, respectively, minus the calculated non-bypassable charges). Applying an IRR of 11%, the Residential Tariff Model – 2024 returns a non-bypassable charge of \$0.0018/kWh for Eversource and \$0.0236/kWh for UI. Notably, if the 2023 installed cost of \$4.40/W is substituted for the average installed costs for 2022 and 2023 of \$4.19/W, and an IRR of 11% is maintained, the Residential Tariff Model – 2024 returns a non-bypassable charge of \$0.0065/kWh for UI.

The principle of gradualism is vitally important in achieving Program Objective One to ensure the sustained and orderly deployment of the state's solar industry. Thus, while the Authority is confident in its time-series modeling that an IRR of 10% would result in RRES program deployment above the 50-60 MW target, all else being equal, and likely near 100 MW, the Authority finds that a decrease in the current compensation rates by approximately \$0.0476-0.0574/kWh does not achieve gradualism and could send a negative market signal regarding the long-term stability of the RRES Program. Thus, the Authority finds it appropriate to apply the necessary adjustments to move towards a 10% IRR over multiple years, starting by decreasing the current Netting REC rate in Eversource territory to \$0.00/kWh for systems that apply under the Netting tariff in 2024. As noted above, this Netting REC rate in Eversource territory is consistent with the Residential Tariff Model – 2024 output applying an IRR of 11%.

For UI, deployment under the RRES Program has historically lagged deployment in Eversource, with only 12% of the MW deployment under the RRES Program in 2023 through the end of August in UI's territory. UI's total annual load is roughly one-fourth

⁵ The Authority received Written Exceptions providing suggested areas of improvements for the Residential Tariff Model. See, e.g., Earthlight Exceptions, p. 2; PosiGen Exceptions, pp. 3-7; OCC Exceptions, pp. 1-2. The Authority has noted these comments and will take them under advisement for the next annual RRES review proceeding, Docket No. 24-08-02.

that of Eversource's, which indicates that deployment in UI's service territory should be closer to 20% of the Program total. Therefore, the Authority does not find it necessary or appropriate to change the Netting REC rate in UI territory at this time for systems that apply under the Netting tariff in 2024, which is consistent with the Residential Tariff Model – 2024 output for UI applying an IRR of 11% and 2023 average installed project costs.

The above-authorized Netting REC rates for both service territories of \$0.00/kWh is consistent with the original target IRR range of 9-11%. However, again, for clarity, the Authority is committed to moving towards, and potentially beyond, an IRR of 10% for all tariff offerings under the RRES Program in future years based on its time-series modeling, but in furtherance of the objective of gradualism will do so over multiple years. This will very likely necessitate the adoption of non-bypassable charges under the Netting tariff in both EDC service territories for 2025.

Last, the Authority finds that a compensation rate of \$0.3189/kWh, utilizing the Residential Tariff Model – 2024 updates and an IRR of 10%, is appropriate for systems that apply under the Buy-All tariff in both UI and Eversource service territory in 2024.

i. Adder Values

The Authority requested stakeholder input on the current Low-Income and Distressed Municipality adders in the RRES Program. Notice, May 15, 2023, pp. 3-4. In response, PosiGen flagged that the implementation of a Low-Income Discount Rate (LIDR), which will provide a tier 1 discount of 10% to all customer at or below 60% of State Median Income and a tier 2 discount of 50% for all customers at or below 160% of the Federal Poverty Guidelines,⁶ will make the RRES Program less attractive for low-income customers because the potential savings will decrease under the Netting tariff with the application of low-income bill discounts. PosiGen Comments, June 1, 2023, pp. 5-6. Consequently, PosiGen advocated for an increased low-income Netting tariff adder for customers enrolled in LIDR, approximated to current customer outcomes. Id. PosiGen noted that the Solar Massachusetts Renewable Target (SMART) Program offers a similar adder to LIDR customers. Id. Further, LIDR has the potential to increase low-income Program enrollment by making low-income customers more easily identifiable for installers earlier in the process. Id.

In its comments, the EDCs highlighted the relative deployment with low-income customers and in Distressed Municipalities in the RRES program. Specifically, the EDCs provided data showing that approximately 24% of all RRES systems receive one of the two adders. EDC Comments, June 1, 2023, p. 5. Further, the EDCs note that roughly 30% of RRES projects receive one of the two adders or are located in an environmental justice community. Id.

⁶ See Decision, Docket No. 17-12-03RE11, Oct. 19, 2022.

The RRES program has made good progress towards its Justice 40 targets to date. However, the above data indicates that the program has further to go to meet those goals, particularly amongst low-income customers who only represent 4.3% of RRES program participation. Id. Paired with the potential negative impact of the LIDR on low-income RRES Program deployment as highlighted by PosiGen, the Authority is concerned that the RRES Program may not meet its Justice 40 goals in 2024. Thus, the Authority determines that it is appropriate to raise adder values for both low-income and Distressed Municipalities. Specifically, the Authority determines that it is appropriate to raise the low-income adder for Netting tariff customers to \$0.035/kWh, which represents the decrease in the overall Netting tariff compensation in Eversource's territory authorized in this Decision (\$0.0318/kWh) plus an additional 10% to offset the tier 1 LIDR discount of 10%.

Moreover, the Buy-All tariff will become increasingly important to the deployment of RRES projects amongst low-income customers in the future as it is unimpacted by the LIDR, and thus will be the best financial option for customers receiving the tier 2 LIDR discount of 50% and is applicable to multifamily affordable housing for which little deployment has occurred to date. Accordingly, the Authority determines that it is appropriate to raise the low-income adder for the Buy-All tariff such that it is financially equivalent to the Netting tariff plus the adder authorized above. Utilizing the Residential Tariff Model – 2024, the Authority finds that the Buy-All tariff provides compensation roughly \$0.02/kWh lower than the Netting tariff on a levelized basis; thus, PURA authorizes a low-income adder for Buy-All systems of \$0.055/kWh (i.e., \$0.02/kWh above the low-income adder for the Netting tariff).

The Authority takes additional steps to bolster underserved participation in the RRES program throughout this Decision which, when paired with the increased incentives authorized above, PURA is confident will help ensure equitable outcomes. Ultimately, the Authority will continue to monitor underserved enrollment in the RRES Program and will adjust the low-income and/or Distressed Municipality adders as needed to support the Program's 40% underserved enrollment target in future annual review proceedings. The Authority will pay special attention to LIDR customer enrollment. Consequently, the Authority directs the EDCs to report the number and percentage of LIDR customers enrolled in the RRES Program, broken out by both LIDR tier and RRES tariff, by August 1 annually.

3. Summary – 2024 Compensation Rates

Retail electric rates have increased significantly since RRES compensation rates were last set in 2021 (i.e., approximately ~\$0.06-0.07/kWh between the date of this Decision and this time in 2021). That increase more than offsets the downward adjustments to Netting compensation rates authorized in this Decision. Moreover, the modeling conducted by the Authority shows that the IRRs that the approved compensation rates enable, i.e., 10-11%, are still more than sufficient to exceed the annual deployment goal of 50-60 MW, and will likely result in deployment closer to or above 90-115 MW. Further, as discussed in greater detail above, both the Buy-All tariff and the low-income and Distressed Municipality adders have been increased. The Authority is hopeful that the increase in the Buy-All tariff rate will aid the success of the RRES Program in meeting its Justice 40 goals, even with the implementation of a LIDR, and increase the current Buy-All Program share of 0.24% as of June 30, 2023. UI

Interrog. Resp. CAE-14, Att. 4; Eversource Compliance, Aug. 22, 2023, Att. 1. Additionally, as discussed in Section IV.E., State and Federal Incentive Eligibility, significant opportunities exist to increase project returns through the currently-available ITC adders of 10-30%. Thus, the Authority concludes that the authorized tariff compensation rates represent a measured adjustment that accomplishes Program Objective One to ensure the sustained, orderly development of the solar industry, while also achieving Program Objective Three, to balance participant costs and benefits with non-participant costs and benefits and electric system costs and benefits.

A summary of the RRES Year 3 compensation rates is available in Table 4 below.

Table 4: 2024 RRES Tariff Rates

2024 Residential Tariff Rates		
	Buy-All Rate (\$/kWh)	Netting REC Rate (\$/kWh)
Eversource	0.3189	0.000
UI	0.3189	0.000
Low-Income Adder	0.055	0.035
Distressed Municipality Adder	0.0275	0.0175

C. OTHER LOW-INCOME AND DISTRESSED MUNICIPALITY ADDER TOPICS

1. Form Reduction and Simplification

In the Year 2 Decision, the Authority directed the EDCs to file an evaluation of the documents required for automatic enrollment in the low-income and Distressed Municipality adders, to determine whether the application process could be better streamlined, in support of the Program Objectives. Year 2 Decision, p. 30. In its document evaluation, the EDCs stated that payment beneficiaries who automatically qualify for either adder by participating in an income-eligible hardship program or by residing in a Distressed Municipality require no additional qualification documents. EDC Order No. 17 Compliance, June 1, 2023, Docket No. 22-08-02, p. 1. To receive direct adder payments, however, both EDCs require a W-9 form, in accordance with Internal Revenue Service (IRS) requirements. *Id.*, pp. 1-2. If the adders were applied on-bill for the customer of record, the EDCs would not require a W-9 unless the customer cashed out excess on-bill credits in an amount greater than \$600. *Id.*, p. 3. Moreover, UI has simplified the documents utilized for adder enrollment by requiring one single vendor certification form in lieu of several required forms (i.e., business classification form, ACH/wire authorization form, and voided check or bank information). *Id.*, p. 2. When applicable, UI also provides a vendor certification form and a blank W-9 directly in PowerClerk, so that applicants can easily access the required forms for adder payment. *Id.* Additionally, both EDCs consolidated the payment beneficiary form with the tariff application by the end of July 2023. *Id.*; UI Exceptions, Oct. 24, 2023, p. 4.

The Authority requested written comments from stakeholders on the EDCs' evaluation of the documents required for automatic adder enrollment, including whether

additional improvements could be made to further streamline the adder enrollment process. Notice, July 18, 2023, p. 3. In response, PosiGen stated that it appreciates the enrollment improvements the EDCs made and does “not have any additional specific recommendations to further simplify the process and increase enrollment for the adders.” PosiGen Comments, Aug. 15, 2023, pp. 7-8. OCC stated that it favors “a streamlined, simple, and accessible application process”, but similarly did not identify any specific recommendations for changes at this time. OCC Comments, Aug. 15, 2023, p. 9.

The Authority appreciates the adder enrollment improvements made to date and does not require additional changes at this time. The Authority finds that the consolidation of application forms and requirements furthers the Program Objectives by increasing Program accessibility, aiding customer inclusivity, and reducing application completion timelines. The Authority therefore strongly encourages the EDCs to consider additional consolidation and simplification of required application documents wherever possible, so long as the Program Objectives are not adversely impacted.

2. Adder Definition Expansion

In support of the fifth Program Objective of increased inclusivity in the RRES Program, the Authority sought stakeholder feedback on a potential expansion of the Distressed Municipality adder to include projects located in environmental justice census block groups. Notice, May 15, 2023, p. 2. The Authority noted that Conn. Gen. Stat. § 22a-20a defines environmental justice communities as including both Distressed Municipalities and environmental justice census block groups where 30% or more of the population of both communities lives below 200% of the Federal poverty level. *Id.* Ultimately, the Authority stated that it was specifically interested in whether the benefits of the adder expansion outweigh potential customer confusion and increased programmatic costs. *Id.*

In written comments, the city of New Haven supported the proposed expansion because it would aid programmatic low- and moderate-income (LMI) targets while aligning the RRES Distressed Municipality adder with the statutory definition of environmental justice communities. New Haven Comments, May 31, 2023, pp. 2-3. Moreover, ConnSSA had no objection to the proposed expansion of the Distressed Municipality adder qualification. ConnSSA Comments, June 1, 2023, p. 1.

PosiGen noted that while it was not opposed to an expansion of the Distressed Municipality adder definition, the proposed change would add complexity for customers since it would provide an adder “at a more granular level than is typical for solar programs.” PosiGen Comments, June 1, 2023, p. 4. Further, some environmental justice census block groups “are more isolated or not large enough on their own to warrant” the same level of attention by developers as an entire Distressed Municipality. *Id.* CGB also recommended an expansion of the eligibility for the Distressed Municipality adder to include not just environmental justice communities, but also Community Reinvestment Act communities. CGB Comments, June 1, 2023, pp. 3-5. Additionally, DEEP argued that the RRES low-income adder should be aligned with the definition used in the Inflation Reduction Act (i.e., less than 80% of Area Median Income). *Id.*

While OCC stated support for increased inclusivity in the RRES Program, OCC noted that it cannot weigh the benefits of the proposed change without understanding its

true costs. OCC Comments, June 1, 2023, pp. 1-2. Additionally, the EDCs agreed that the criteria for environmental justice communities is similar to the criteria for Distressed Municipalities. EDC Comments, June 1, 2023, p. 4. Nevertheless, the EDCs stated that the Authority should consider how an expansion of the Distressed Municipality adder would impact the costs of the RRES Program. *Id.*, p. 5. Additionally, the EDCs could not confirm that the proposed change would increase environmental justice participation beyond current enrollment levels, since over 700 customers in environmental justice census block groups are already participating in the RRES Program without an adder. *Id.*, p. 6.

a. Distressed Municipality Definition Determination

The Authority declines to expand customer eligibility for the Distressed Municipality adder in the RRES Program at this time. The inclusion of environmental justice census block groups in the Distressed Municipality adder could negatively impact the fourth Program Objective, accessibility for customers through simplified Program and tariff designs, by adding unneeded complexity to the Distressed Municipality adder. An expanded definition for the Distressed Municipality adder may also negatively impact the third Program Objective, balancing participant costs and benefits, by increasing programmatic costs through increased adder enrollment, including for projects in environmental justice census block groups that may be deployed without an adder.

Ultimately, 19.4% of RRES customers are currently enrolled in the Distressed Municipality adder, a figure that is significantly higher than the 4.3% customer enrollment in the low-income adder. EDC Comments, June 1, 2023, p. 5. Consequently, unlike low-income enrollment, Distressed Municipality customer enrollment appears to be better positioned to reach the Authority's 40% underserved enrollment target, especially when considering upward underserved enrollment trends in the RRES Program. See Year 2 Decision, p. 8.

However, as discussed further in Section IV.C.6, New EDC Underserved Reporting Requirements, below, the Authority will require the EDCs to track Program enrollment in environmental justice census block groups to enable the Authority and stakeholders to evaluate the relative deployment in EJ communities and Distressed Municipalities moving forward and to inform discussions on related programmatic changes in future RRES annual review proceedings.

Additionally, as discussed further in Section IV.E., State and Federal Incentive Eligibility, the Authority authorizes additional measures to ensure that developers have the necessary resources to determine the geography-based federal and state incentive eligibility of RRES projects. The resources identified in that section, paired with the statewide incentive eligibility tool being spearheaded by DEEP, which the Authority strongly supports, will ensure that the state optimizes the available federal funds.⁷

b. Low-Income Definition Determination

⁷ For more information on DEEP's incentive eligibility tool, see DEEP Corresp., Sept. 13, 2023, Docket No. 23-08-01. Additionally, the Authority's comments on DEEP's incentive eligibility tool may be found here: PURA Corresp., Sept. 21, 2023, Docket No. 23-08-01.

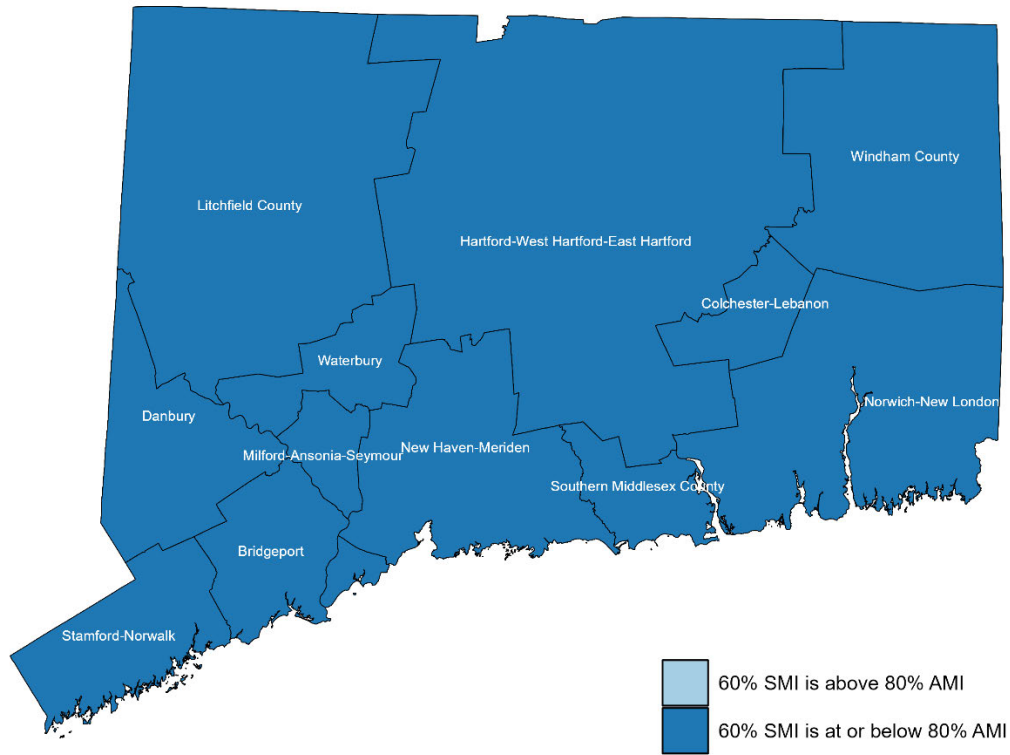
The Authority is not persuaded, at this time, that it is necessary to expand incentive eligibility to enable projects to take advantage of the ITC adders for two primary reasons. First, and most importantly, the Authority and other stakeholders have worked to consistently use 60% of State Median Income (SMI) as the low-income eligibility threshold for all of the programs under its purview for the last four years. The Authority has pursued the objective of standardizing income-eligibility for all programs using this 60% of SMI based on consistent feedback from low-income advocates that 60% of SMI is the most appropriate and accessible threshold for their constituents because it is the criteria that customers experience the most frequently as it is used in the Connecticut Energy Assistance Program, utility arrearage forgiveness programs, and now the LIDR.⁸

Second, the expansion of any eligibility must be carefully balanced with the pros and cons and costs and benefits of doing so. In this case, as noted in Section IV.E., State and Federal Incentive Eligibility, RRES projects are not eligible for the ITC adder that utilizes income-eligibility. Additionally, there is no data to suggest that an additional state incentive, either income or geography-based, is required to unlock federal funding from ITC adders, as a 10-30% tax credit represents a substantial financial incentive. Indeed, in the case that the ITC adders are sufficient to encourage deployment amongst eligible customers, any expansion to the state eligibility criteria represents an unnecessary additional cost that diminishes the net value of the federal incentives to Connecticut ratepayers (i.e., ideally, Connecticut would optimize the amount of federal funding received, while minimizing the amount of Connecticut ratepayer funding used). Further, as shown in Figure 1 below, all low-income eligible customers (i.e., customers with income at or below 60% of SMI) also meet the definition of 80% of Area Median Income for the relevant U.S. Department of Housing and Urban Development geographic areas. Thus, the existing eligibility criteria already allow for easy identification of eligibility with the ITC adders on an income basis (although, as noted above, ITC income-based adders are irrelevant to the RRES program). Moreover, comments have been provided in past annual reviews asserting that the collection of any additional income information represents a substantial barrier to deployment in underserved communities.⁹ As such, the Authority is not inclined to require such data collection for the RRES Program, particularly if existing information, such as LIDR eligibility, can be leveraged.

⁸ See, e.g., Docket No. 17-12-03RE01, Operation Fuel/CT Legal Services Comments, Dec. 4, 2019, p. 3; see also, Docket No. 17-12-03RE11, Operation Fuel Comments, June 15 and July 15, 2022; see also, Docket No. 17-12-03RE11, Center for Children's Advocacy Comments, July 21, 2022.

⁹ See, e.g., Tr. Docket No. 22-08-02, Hr'g Tr. Aug. 26, 2022, 130:21-131:22.

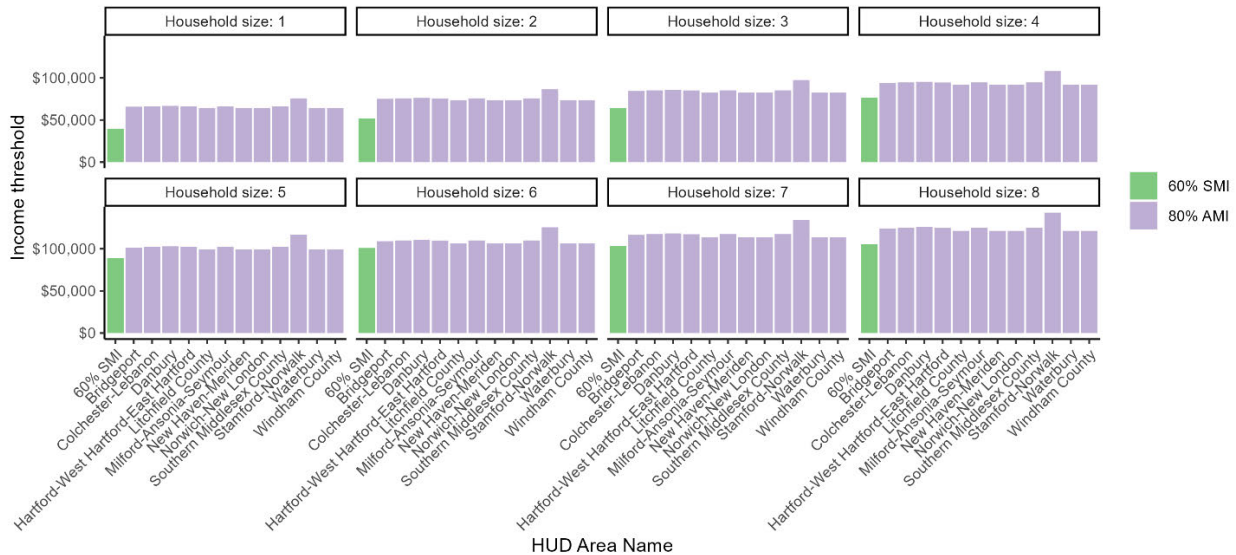
Figure 1: Geographic Areas Where 80% AMI Exceeds 60% SMI



Households eligible for state incentives are also eligible for federal ITC adders in all counties and for all household sizes.

Note: 80% AMI exceeds 200% Federal Poverty Guideline (FPG) in all cases, so 200% FPG comparison not shown.

Figure 2: Comparison of 60% SMI and 80% AMI Income Thresholds



3. Distressed Municipality Adder Grace Period Allowance

In a Notice of Request for Written Comments, the Authority requested stakeholder feedback on solutions for circumstances where a RRES project eligible for the Distressed Municipality adder becomes ineligible after the Distressed Municipality list is updated, potentially making the project financially unviable. Notice, May 15, 2023, p. 2.

In response, DEEP asserted that the current statutory definition of Distressed Municipalities already has a five-year grace period:

Any municipality which, at any time subsequent to July 1, 1978, has met such thresholds but which at any time thereafter fails to meet such thresholds, according to said department, shall be deemed to be a distressed municipality for a period of five years subsequent to the date of the determination that such municipality fails to meet such thresholds, unless such municipality elects to terminate its designation.

Conn. Gen. Stat. § 32-9p(b); DEEP Comments, June 23, 2023, pp. 2-3.

Therefore, DEEP argued that the five-year grace period is appropriate for programs relying on the Distressed Municipality designation. *Id.*, p. 3. Additionally, DEEP noted that a five-year grace period provides sufficient notice to developers and Distressed Municipalities of pending changes. *Id.* Similarly, the city of New Haven advocated in favor of the statutory definition for the RRES Program and noted that the Department of Economic and Community Development (DECD) currently uses the statutory definition. New Haven Comments, May 31, 2023, pp. 1-2. In written comments, PosiGen stated it was unaware of projects becoming unviable because of a change in Distressed Municipality status. PosiGen Comments, June 1, 2023, p. 4. PosiGen also advocated for consistency between the RRES definition of a Distressed Municipality and the latest list on DECD's website and noted that the most recent Program Manual excludes eight municipalities on the current DECD list. *Id.*, p. 5. Ultimately, PosiGen believed that a five-year grace period was the simplest solution to the problem described in the Notice of Request for Written Comments and would ensure that municipalities receive sustained support from the RRES Program. *Id.* CGB, conversely, argued that “[f]or efficiency and simplicity's sake in program operation ... eligibility for the distressed municipality adder [should] apply to a system at the time of development with no changes in the adder in future years.” CGB Comments, June 1, 2023, p. 5.

The Authority determines that the current statutory definition of a Distressed Municipality, with a five-year grace period, provides sufficient notice to solar developers of future changes to project eligibility for the Distressed Municipality adder, thereby supporting the first, fourth, and fifth Program Objectives. Notably, DECD follows the statutory definition when publishing the Distressed Municipality list on its website, which is then used by the EDCs to determine project eligibility for the Distressed Municipality adder.¹⁰ EDC Compliance to Order No. 13, Dec. 15, 2023, Docket No. 22-08-05, Att. 2, p. 11. Finally, the Authority clarifies that a project will be eligible for the Distressed

¹⁰ The most recent DECD-published Distressed Municipality list may be found here: [Distressed Municipalities \(ct.gov\)](#). For example, using the statutory definition of a Distressed Municipality, projects installed in Groton will remain eligible for the underserved adder until October 4, 2028.

Municipality adder provided the project's municipality is on the Distressed Municipality list when the project's application is approved by the EDCs.

4. Adder Awareness

The Authority is interested in ways to improve RRES applicant awareness of the underserved adders and the additional incentives they provide, including by “emphasizing and placing adder incentive and eligibility criteria in a prominent location on the application document.” Notice, July 18, 2023, pp. 1-2. In response to the July 18, 2023 Notice of Request for Written Comments, CGB stated support for any action that would increase RRES adder awareness. CGB Comments, Aug. 15, 2023, p. 1. Further, CGB believes that the Authority should require developers to “inform participating customers of their eligibility for federal investment tax credit [ITC] adders,” so that ITC benefits can flow directly to underserved communities and participating customers. *Id.*, p. 2. Moreover, ConnSSA stated that installers have no objections to placing adder incentive criteria in the top half of the first application page. ConnSSA Comments, Aug. 15, 2023, p. 1. DEEP also noted that it strongly supports increased customer awareness of the RRES underserved adders, including a requirement that adder eligibility criteria be placed in a prominent location on the RRES application. DEEP Comments, Aug. 15, 2023, pp. 1-2.

While OCC supported a requirement to place adder eligibility requirements in a more prominent location on the RRES application, OCC also highlighted a need to “expand outreach to customers” eligible for the underserved adders. OCC Comments, Aug. 15, 2023, p. 2. PosiGen further noted a belief that increased customer education, when combined with the implementation of Low-Income Discount Rates, “will better assist installers in identifying qualifying customers as they review a customer’s utility bill.” PosiGen Comments, Aug. 15, 2023, p. 2. PosiGen ultimately noted support for the inclusion of RRES adder eligibility criteria in the RRES customer disclosure form, since this is likely the first RRES document encountered by customers. *Id.*, pp. 2-3. Moreover, Trinity Solar noted “that applicants should be well-informed about benefits and additional incentives” and consequently stated support for the inclusion of such information in a prominent and visible location in the application process. Trinity Solar, Aug. 15, 2023, p. 1. Finally, the EDCs stated that they are “not opposed to making changes to the Program application to display information about RRES adders and eligibility criteria more prominently.” EDC Comments, Aug. 15, 2023, p. 2. Nevertheless, the EDCs believe that such a change would not increase the number of customers who directly receive the underserved adder because the sales contract has often already been signed by the time the customer reviews the RRES application. *Id.* Consequently, the EDCs suggested additional trainings and webinars with solar contractors to help them better understand which customers may qualify for an underserved adder before a contract is developed by the installer. *Id.*, pp. 2-3.

The Authority determines that changes are warranted to the RRES application and administration of the RRES Program to ensure that customers are adequately informed of the RRES underserved adders and their eligibility requirements. The Authority therefore directs the EDCs to amend the RRES customer disclosure form to include the following information: (1) definitions of each RRES adder; (2) adder amounts; (3) a list of programs whose participation would qualify a customer for the low-income adder (e.g., Home Energy Solutions – Income Eligible [HES-IE]); (4) a link to the Distressed

Municipality webpage of the Department of Economic and Community Department (DECD)¹¹; and (5) a link to a webpage with the latest guidance on state median income percentiles, broken out by family size.¹² Further, the above information shall be displayed in a prominent location and fashion on the customer disclosure form to ensure customers are aware of the RRES adders.¹³ Additionally, the Authority directs the EDCs to include such information on the RRES Program website by January 1, 2024. Finally, to help inform developers of the underserved adder eligibility criteria, in addition to other Program requirements and information, and in line with the recommendation provided by the EDCs, the Authority directs the EDCs to hold at least one webinar with solar developers by February 1 of each year. At least 30 days' notice shall be provided to Program stakeholders prior to the date of the webinar on the Program website, with a compliance filing made in the relevant RRES docket at least 21 days prior to the webinar with information on the date, time, and location of such webinar. Further, during the webinar to be held by February 1, 2024, the EDCs shall update Program installers on the implementation of LIDR and provide information and examples of how installers can identify LIDR-enrolled customers, to ensure that LIDR customers are receiving bill savings from participation in the RRES Program. The Authority concludes that these changes will increase underserved adder awareness among Program developers and customers, thereby supporting the fourth and fifth Program Objectives, to ensure program accessibility through increased customer protections and disclosures and encourage increased inclusivity overall, especially amongst underserved communities.

5. Minimum Threshold for Eligibility

The Authority requested stakeholder input on additional RRES Program requirements to increase underserved Program enrollment, including: “(1) establishing a minimum threshold of deployment to participants who are eligible for the IE or DM adders (e.g., 5%) for each developer; and (2) establishing an additional incentive for customers of developers who achieve a high percentage of deployment amongst customers who are eligible for either the IE or DM adders (e.g., 50%).” Notice, July 18, 2023, p. 2. In response, CGB stated support for requiring the EDCs to make publicly available the number of underserved projects for each developer enrolled in the Program. CGB Comments, Aug. 15, 2023, p. 2. Consequently, CGB advocated for “data collection and transparency” instead of a minimum underserved threshold for each Program developer. *Id.*, pp. 2-3. Further, OCC stated that a 5% underserved deployment requirement for each developer would not support full underserved Program deployment. OCC Comments, Aug. 15, 2023, p. 3. Moreover, OCC stated that of the 39% of Connecticut residents eligible for the underserved adders, only 50% reside in owner-occupied homes, thereby highlighting a need for developers to target renters for inclusion in the RRES Program. *Id.*, pp. 3-5.

¹¹ DECD's Distressed Municipality webpage may be found here: https://portal.ct.gov/DECD/Content/About_DECD/Research-and-Publications/02_Review_Publications/Distressed-Municipalities.

¹² For example, the latest Connecticut state median income numbers, broken out by percentile and family size, may be found here: <https://uwc.211ct.org/connecticut-state-median-income-2013/>.

¹³ Eversource proposed conducting user research during 2024 to suggest modifications to the customer disclosure form in the next annual program review. Eversource Exceptions, Oct. 24, 2023, p. 4. If Eversource, or any other stakeholder, submits compelling, data-driven evidence outlining why further changes are needed to the customer disclosure form in comments submitted in the next annual review proceeding, the Authority may consider additional changes to the customer disclosure form.

Additionally, PosiGen argued that the new requirements proposed by the Authority would “add a new layer of significant complexity” to the RRES Program. PosiGen Comments, Aug. 15, 2023, p. 3. For example, customers may become confused by varying incentives between different installers, the EDCs may be unable to make differentiated installer payments, and threshold methodologies could become contentious. Id. Therefore, PosiGen does “not believe that a minimum or bonus threshold would be beneficial for the program.” Id. Increasing adder amounts, PosiGen noted, may also increase underserved participation. Id., pp. 3-4. PosiGen further stated that it would be difficult to establish a minimum underserved deployment threshold and noted that specialized installers offering more complex systems (e.g., ground mount solar), and smaller installers marketing to specific geographic locations, would have a difficult time meeting any mandated underserved threshold. Id., pp. 4, 6. While PosiGen noted that it does not recommend a bonus incentive for developers who exceed an underserved threshold established by the Authority, if such incentive were established, PosiGen recommends that it be set between \$0.005-\$0.0075/kWh if 30% underserved deployment was achieved by an installer in the prior Program year. Id., pp. 4-6.

While Trinity Solar noted support for the participation of underserved communities in the RRES Program, Trinity Solar opposed penalties for developers who do not reach a certain underserved enrollment threshold, because penalties would “significantly harm the industry.” Trinity Solar Comments, Aug. 15, 2023, p. 1. Trinity Solar instead encouraged the state and the EDCs to develop outreach programs targeting underserved communities. Id. Similarly, ConnSSA opposed underserved deployment mandates because they could lead to “the wrong kind of sales tactics.” ConnSSA Comments, Aug. 15, 2023, p. 2. ConnSSA noted that installers have difficulty working in Distressed Municipalities, because higher system costs make “jobs less desirable.” Id. ConnSSA ultimately supported new outreach efforts as a way to increase underserved RRES enrollment. Id. Last, the EDCs stated that they do not support minimum underserved deployment requirements, because such requirements “could lead to bad actors in the market selling products that may have an adverse financial impact on vulnerable customers.” EDC Comments, Aug. 15, 2023, p. 3. Further, the EDCs noted that a minimum underserved deployment mandate would “require strong oversight and consumer protection guardrails.” Id.

The Authority declines to establish a minimum underserved enrollment threshold for RRES contractors for the coming Program year. The Authority concludes that an underserved enrollment mandate requires additional discussion, including on the required underserved enrollment percentage and potential exemptions for RRES contractors specializing in niche technologies or serving smaller geographic areas, to ensure that RRES deployment is not unnecessarily harmed. Nevertheless, the Authority remains committed to encouraging Program inclusivity and the achievement of the Program’s 40% underserved enrollment target. The Authority will therefore require that the EDCs compile the following information on each RRES developer: (1) number and percentage of systems by type of housing (e.g., single family, 2-4 unit multifamily, or multifamily affordable housing); and (2) number and percentage of total approved RRES applications that are eligible for the low-income or Distressed Municipality adder(s). The EDCs shall file such information as compliance with the Authority by August 1 annually for every developer participating in the RRES Program. Should underserved RRES enrollment

continue to lag behind the goals of the Program, the Authority may institute an underserved enrollment minimum threshold in a future annual Program review.

6. New EDC Underserved Reporting Requirements

Finally, in order for the Authority and other stakeholders to better track underserved enrollment in the RRES Program, the Authority directs the EDCs to begin including breakouts for the total number of low-income customers and customers located in Distressed Municipalities, and associated project capacity, which do not receive either adder in the Order No. 12 data filings, in addition to the existing breakouts for customers enrolled in the low-income and Distressed Municipality adders. The Authority also directs the EDCs to include a breakout for the number of customers who reside in environmental justice communities as defined by Conn. Gen. Stat. § 22a-20a, and associated project capacity, in the Order No. 12 filings. Specifically, the EDCs shall track and report the number of customers and total capacity enrolled by environmental justice census block groups broken out by customers that qualify for the low-income and Distressed Municipality adders and those who do not. Further, the Authority also directs the EDCs to include the number of RRES customers who qualify for the federal Justice 40 disadvantaged communities definition in the Order No. 12 filings, and associated project capacity, so that the Authority and Program stakeholders may better understand how well the RRES Program is incentivizing deployment according to federal underserved definitions.¹⁴

Last, to ensure timely and actionable underserved deployment data, the Authority finds it necessary to extend RRES enrollment data reporting requirements through the entirety of the RRES Program on a quarterly basis. Consequently, the Authority extends the end date for Order No. 12 from January 1, 2024, to the termination of the RRES Program. The Program Administrators shall also include underserved enrollment percentages, broken out by both low-income¹⁵ and Distressed Municipality status, regardless of whether the customers are receiving adders or not, with the information published on the EDCs' respective RRES websites, in addition to any existing data reporting requirements, by April 1, 2024. The Authority acknowledges the low-income enrollment value will likely be an undercount, as income verification may not be performed for each customer in the RRES Program.

¹⁴ For more information see: <https://www.energy.gov/sites/default/files/2023-07/DOE%20Justice40%20General%20Guidance%2072523.pdf>.

¹⁵ The Authority acknowledges the low-income enrollment value will likely be an undercount, as income verification may not be performed for each customer in the RRES Program.

D. ENSURING PARTICIPANT BENEFITS

1. Introduction

The income-based and Distressed Municipality adders are meant to incentivize project deployment in underserved areas to ensure all residents, and LMI customers in particular, benefit from the RRES Program, thereby furthering the fifth Program Objective. The related topic of whether and how the adder values are passed onto eligible customers has been raised and discussed at various points in past RRES annual review proceedings. See Solar Energy and Storage Association, Inc. Exceptions, Dec. 24, 2021, Docket No. 21-08-02, p. 1. Accordingly, the Authority requested written comments from stakeholders to understand how the adder funds are utilized, including whether the adders are reflected in pricing offered to underserved customers, or whether the adders are socialized across all projects. Notice, May 15, 2023, p. 4. The Authority also expressed interest in programmatic requirements to ensure the adders were being reflected in the pricing information given to customers. Id.

Additionally, during the June 21, 2023 Technical Meeting, stakeholders stated that in Massachusetts, customers on discounted rates have signed long-term power purchase agreements after having been marketed solar installations, which assumed full retail rates, only to see their total energy costs go up. Hr'g Tr. June 21, 2023, 54:7-16. As a result, the Solar Massachusetts Renewable Target (SMART) Program issued warnings to some installers and suspended others who failed to meet minimum customer savings requirements. Tr., 54:17-24. Accordingly, the Authority requested written comments from stakeholders on "recommendations to improve verification and enforcement regarding passing savings to customers," including minimum savings thresholds to be passed on to customers. Notice, July 18, 2023, p. 7.

2. Stakeholder Comments

PosiGen advocated for a new Program requirement to ensure low-income customers "actually receive the value of an increased adder in the form of lower solar payments and the corresponding savings," by ensuring the adder is either paid directly to the customer, "or if paid to a third party that there is a corresponding reduction in the purchase price of the solar system" with a lease or Power Purchase Agreement (PPA) rate that is lower than the annual utility rate at the time of the sales contract's signing. Posigen Comments, June 1, 2023, pp. 5-6. PosiGen noted that the Authority's Office of Education, Outreach, and Enforcement (EOE) could enforce these new requirements "through an audit of a sample of [low-income discount rate (LIDR)] customers on a regular basis." Id.

PosiGen also supported ensuring participant savings for customers on discounted utility rates. PosiGen Comments, Aug. 15, 2023, p. 12. PosiGen noted that to enforce participant benefits, the RRES Program could adopt the SMART program requirement that the rate for power purchase agreements or leases be less than the average utility rate for discount rate customers. Id., p. 13. Alternatively, PosiGen stated that the Authority could require a minimum 10% savings for RRES customers. Id. PosiGen cautioned, however, that this second approach could limit installations or product types. Id. Regardless of which approach is used, PosiGen conveyed its belief that any savings rate calculation methodology needs to have clear guidance and be replicable across

installers. Id., p. 14. PosiGen stated that the EDCs or EOE could conduct regular audits of sales contracts for discount rate customers to verify compliance. Id. Last, PosiGen noted that participant savings should not be mandated for customers on standard utility rates to preserve consumer choice, including for solar systems that do not meet a minimum savings requirement, but instead provide additional environmental or resilience benefits. Id., p. 12.

PosiGen further stated that the Distressed Municipality adder encourages Program inclusivity by lowering barriers to project deployment in Distressed Municipalities, including by encouraging third-party owners to focus on underserved customers. PosiGen Comments, June 1, 2023, p. 9. Additionally, PosiGen stated that while it costs more on average to deploy projects in Distressed Municipalities than other communities, PosiGen socializes these higher costs across all projects and does not charge Distressed Municipality customers more. Id. PosiGen asserted that projects in Distressed Municipalities are more costly for a variety of reasons, “including older housing stock, smaller system sizes, increased financing costs and risks, difficulty in reaching customers, higher cancellation rates, and challenging installations including more frequent electrical upgrades.” Id., p. 10. PosiGen also provided data showing that customers in Distressed Municipalities had a lower average system size and FICO credit score and a higher delinquency percentage. PosiGen Comments, June 1, 2023, p. 10. Consequently, the Distressed Municipality adder helps PosiGen offset higher Distressed Municipality operating costs. Id., p. 11. PosiGen asserted that enforcement of “differentiated pricing for distressed municipalities would be challenging.” Id. PosiGen therefore argued that programmatic changes regarding how the Distressed Municipality adder is reflected in customer pricing would disincentivize investment in those communities, while also forcing developers to pass on higher development costs to Distressed Municipality customers instead of socializing those higher costs across all customers. Id., p. 12.

The EDCs noted their support for Program inclusivity and their belief that the current underserved enrollment percentage does not accurately reflect total underserved enrollment in the Program because not all customers that qualify for the underserved adders necessarily receive them, particularly if the customers do not participate in the low-income programs considered for auto-enrollment in the low-income adder. EDC Comments, June 1, 2023, pp. 7-8. The EDCs also remarked that they are unable to determine whether the adders are reflected in the pricing given to customers by installers. Id., p. 8. Further, for Eversource, 57% of projects with adders are third-party owned, and, of these projects, 97% direct payments to a tariff payment beneficiary that is not the customer of record. Id. Likewise, for UI, 80% of projects with adders are third-party owned, and, of these projects, 73% direct payments to someone other than the customer of record. Id., p. 9.

Ultimately, the EDCs expressed concern over the auto-enrollment of customers in the underserved adders because the EDCs have no expectation “that such adders are reflected in customer pricing when installers decline to apply for them, and when commercial terms between a customer and installer are set prior to submitting an RRES application.” EDC Comments, June 1, 2023, p. 9. Consequently, according to the EDCs, auto-enrollment of adders to third-party payment beneficiaries can reasonably be assumed to be “a windfall to the system owner” with no benefit to the customer of record. Id. To better ensure underserved customers are benefiting from the adders, the EDCs

recommended limiting the adders to projects that (1) apply for the adder in the initial application, or (2) are auto-enrolled and have the customer of record as the tariff payment beneficiary. *Id.* Finally, the EDCs noted that they do not currently collect contracts for all RRES applications. EDC Comments, Aug. 15, 2023, p. 10. The EDCs argued that it would be “administratively burdensome” to collect and review every contract to ensure savings are passed on to customers. *Id.* The EDCs consequently recommended that EOE be responsible for verification of customer savings for RRES customers, as this approach is similar to the one used in Massachusetts. *Id.*

CGB stated that it was a “proponent of data collection and transparency” to ensure customer savings from the RRES Program. CGB Comments, Aug. 15, 2023, pp. 11-13. Additionally, CGB stated that the Authority should focus on savings verification for the following two groups: (1) single family customers with third-party owned financing; and (2) affordable housing. *Id.*, pp. 12-13. Last, OCC agreed that “proactive action should be taken to ensure participant benefits are verified and enforced,” possibly through a third-party administrator who can protect customers from misleading solar contracts. OCC Comments, Aug. 15, 2023, p. 16.

3. Authority Analysis

The Authority determines that changes are needed to the RRES Program to track whether and how much participants financially benefit from Program participation and to empower EOE to take appropriate action, if and when necessary, to apply the “four-tier” or “four strike” enforcement system established in the Residential Tariff Decision for suspending or banning the noncompliant developers. Residential Tariff Decision, p. 27. More specifically, the Authority determines that the following changes are needed: (1) new compliance requirements for contractors and associated EOE auditing direction; (2) EOE auditing of contractor marketing scripts and training materials; and (3) changes to the adder auto-enrollment process.

a. Financial Benefits Compliance

First, the Authority determines that requiring developers to provide information via an annual compliance filing (Financial Benefits Compliance) related to the financial benefits calculations *already provided to RRES Program participants* will advance the Program Objectives, particularly the fourth Program Objective, program accessibility through customer protections and disclosures, by protecting all customers through increased data transparency. The Financial Benefits Compliance will better inform the Authority and relevant stakeholders, as appropriate, as to the benefits received by RRES Program participants, including LMI customers. Notably, under the current Program requirements, if a low-income adder is sent to a tariff payment beneficiary that is not the customer of record, it is unclear whether the customer is benefiting from the adder as intended. Accordingly, the new reporting requirements will provide clarity to the Authority as to whether low-income customers are financially benefiting from the RRES Program. The required information will also assist EOE in its annual audit of RRES customer disclosure forms. See Residential Tariff Decision, p. 27; Year 1 Decision, p. 21.

To aid in implementation, the Financial Benefits Compliance builds off the information already required in the customer disclosure form; thus, the incremental requirements of this new compliance are largely in aggregating and explaining information that is already provided to customers, as developers already track and have established calculation methodologies for the customer disclosure forms. Specifically, the Authority directs each developer participating in the RRES Program to annually file the following with the Authority for all RRES projects deployed in the previous calendar year:

1. All customer disclosure forms;
2. An unlocked Excel file summarizing key information from the customer disclosure forms, as well as other information provided to customers such as contracts and promotional materials, for each project as detailed below (Financial Benefits Summary Sheet); and
3. A narrative explanation of any calculation methodologies included in the Financial Benefits Summary Sheet (Sheet Narrative).

The Financial Benefits Summary Sheet shall include one row each for every project deployed by the developer under the RRES program in the previous calendar year. For each project, the following information shall be provided (i.e., each of the following should be a column in the Financial Benefits Summary Sheet): (1) site address;¹⁶ (2) utility account number associated with the project; (3) annual contract rate increase amount;¹⁷ (4) estimated year one production (kWh) as a percentage of estimated annual utility customer usage (kWh);¹⁸ (5) estimated year one customer net savings;¹⁹ (6) starting utility rate used to estimate net year one savings;²⁰ (7) estimated net savings over the RRES tariff term (i.e., 20 years) if provided by the developer to customers in a contract or promotional materials, or if it can be easily extrapolated from the customer disclosure data;²¹ and (8) utility rate used to estimate net savings over the RRES tariff term (i.e., 20 years) if provided by the developer to customers in a contract or promotional materials, or if it can be easily extrapolated from the customer disclosure data.²²

The Sheet Narrative may be a simple summary document (e.g., as brief as a couple of pages) outlining the methodology used to calculate the above required information to be included in the Financial Benefits Summary Sheet, as applicable, along with a general list of the documents needed for such calculations (e.g., a customer's electric bill and sales contract are needed to verify the methodology for the fourth requirement, etc.). Developers should retain all documents listed in the Sheet Narrative at least through the end of the calendar year following the deployment of the system (i.e., for systems deployed in 2023, relevant documents should be maintained until December

¹⁶ Information already required in the customer disclosure form.

¹⁷ Information already required in the customer disclosure form for third-party owned systems. If the rate increase is another increment other than annual, provide an estimate of the annual amount. If a direct ownership customer, simply state "direct ownership".

¹⁸ Estimated year one production is already required in the customer disclosure form, if the percentage of customer load is not.

¹⁹ Information already required in the customer disclosure form. For direct ownership customers, convert the calculated monthly savings into an annual amount. Developers should use whichever methodology they are currently using to calculate annual or monthly savings as required for the disclosure form.

²⁰ Information already required in the customer disclosure form. For direct ownership customers, provide the starting utility rate used to estimate net average monthly savings.

²¹ Developers can mark this column "N/A" if this information is not provided to customers.

²² Developers can mark this column "N/A" if this information is not provided to customers.

31, 2024), as they may be requested by the Authority or EOE in reviewing such annual filings.

The Financial Benefits Compliance (e.g., customer disclosure forms, Financial Benefits Summary Sheet, and Sheet Narrative) shall be filed annually by all Program developers with the Authority as compliance in the reopener to the annual Program review docket for contractor education and enforcement (e.g., Docket No. 23-08-02RE01 for the 2024 filing, etc.). To give developers enough time to adjust to the new reporting requirements, the first annual filing will be due no later than June 1, 2024. All subsequent filings shall be due by April 1 annually (i.e., the 2025 compliance filing will be due on April 1, 2025).

The Authority also recognizes that each contractor's annual financial benefit tracking filing may contain sensitive customer information not suitable for public disclosure. All confidential material, unless otherwise directed by the Authority, must be provided in accordance with the instructions outlined in the annual docket's Notice of Proceeding. Currently, such instructions require the materials to be emailed to the Authority's Executive Secretary, Jeff.Gaudiosi@ct.gov, contemporaneously with the motion. The email's subject line shall state in all capital letters "CONFIDENTIAL MATERIAL - NOT FOR PUBLIC DISCLOSURE." Each page of any electronic confidential information shall also contain a header "CONFIDENTIAL – NOT FOR PUBLIC DISCLOSURE." Consequently, the Authority clarifies that contractors may file a Motion for Protective Order requesting that portions of their annual filing be protected. The Motion and accompanying affidavit shall be filed publicly along with the redacted version of the submission.²³ Last, the Authority clarifies that each contractor may file one Motion for Protective Order for their entire annual filing.

As discussed in prior annual RRES review docket Decisions, EOE annually audits customer disclosure forms. See Residential Tariff Decision, p. 27 ("an annual audit of a subset of customer disclosure forms, with at least one from each renewable energy contractor"); see also Year 1 Decision, pp. 21-22. Moving forward, the Authority directs EOE to annually audit a representative sample of the customer disclosure forms (e.g., a random selection of 5% of the forms for each developer) through the annual Program review docket for contractor education and enforcement (e.g., Docket No. 23-08-02RE01 for the 2024 filing, etc.). Additionally, EOE may audit a contractor's Financial Benefits Summary Sheet and Sheet Narrative and can request additional documentation or evidence as needed to verify a contractor's Financial Benefits Summary Sheet calculations, particularly for low-income customers to support the fifth Program Objective, increased inclusivity overall.

The Authority intends to evaluate the implementation of a minimum customer savings threshold for low-income customers in next year's annual RRES Program review proceeding, Docket No. 24-08-02. Additionally, the Authority will require that all RRES projects that receive money from Connecticut's Project SunBridge, which would be funded through the Greenhouse Gas Reduction Fund Solar for All competition if selected,

²³ For reference on how to write a Motion for Protective Order, contractors may consult protective orders filed in other dockets. Importantly, contractors are not required to hire an attorney to file or write a Motion for Protective Order, so long as the Motion for Protective Order contains specific legal arguments with reference to state or federal law describing with supporting facts as to why the information should be kept confidential, as well as an affidavit subscribed and sworn before a public notary.

demonstrate 20% household savings consistent with the U.S. Environmental Protection Agency (EPA) definition starting on January 1, 2025.²⁴

Last, the Authority recognizes that contractors may use different methodologies to calculate the net savings of their project installations, even if currently required to be included in the customer disclosure form. Consequently, the Authority may request written comments from all stakeholders in the next annual review proceeding on the utility of establishing a consistent methodology to calculate the net savings for all RRES project applications moving forward, and if so, what such methodology should be.

b. Auditing of Marketing Materials

Additionally, the Authority concludes that the continued expansion of the Program increases the need for monitoring of marketing information conveyed to customers, in support of the first Program Objective, the sustained and orderly development of the state's solar industry, and the fourth Program Objective, accessibility for customers by providing customer protections. Accordingly, the Authority directs EOE to review a sample of marketing materials for at least 25% of all RRES contractors by August 1 annually.²⁵ More specifically, EOE shall review contractor marketing materials for clearly deceptive or misleading marketing practices, as determined by EOE. Notably, EOE's review of contractor marketing materials supports the auditing process first laid out in the Residential Tariff Decision, where EOE reviews contractor breaches of the Program Manual, including misleading marketing of the RRES Program. Residential Tariff Decision, p. 27. EOE shall then file a written summary of any marketing materials filed by Program developers in the previous calendar year that are deemed to be clearly deceptive or misleading to Program customers, as determined by EOE, in the appropriate reopener to the annual Program review docket for contractor education and enforcement (e.g., Docket No. 23-08-02RE01, etc.) and consistent with the "four strike" system authorized in the Residential Tariff Decision.²⁶ More specifically, the summary should be provided directly to the developers in question and filed as correspondence if only representing one "strike" and filed as a motion if representing two or more "strikes".

To facilitate EOE's review, contractors participating in the RRES Program shall annually file their marketing scripts and training materials generated for or provided to anyone engaging with a customer.²⁷ Such filings shall be made in the reopener to the annual Program review docket for contractor education and enforcement by April 1 each year with the first filing due on June 1, 2024, consistent with the financial benefits compliance outlined in the above section. For clarity, contractors shall file one copy of

²⁴ See U.S. EPA, Revised Request for Applications, Aug. 31, 2023, available at: <https://www.grants.gov/web/grants/view-opportunity.html?oppld=348957>.

²⁵ EOE shall also continue its current annual review of at least one customer disclosure form per renewable energy contractor. See Residential Tariff Decision, p. 27.

²⁶ The penalties for developer non-compliance with any new tracking or marketing requirements set forth in this Decision, including the use of marketing practices that may be deemed deceptive pursuant to Conn. Gen. Stat. § 42-100b, include removal from the RRES Program, if recommended to the Authority by EOE. Ultimately, EOE shall follow the "four-tier" or "four strike" enforcement system established in the Residential Tariff Decision for recommending the suspension or banning of the noncompliant developer. Residential Tariff Decision, p. 27. EOE may, however, recommend the assessment of multiple strikes for a single audit if multiple violations are identified, particularly if they are severe.

²⁷ Marketing materials and scripts are not confidential, and providers should file them publicly.

each discreet marketing script and training material.²⁸ Further, the Authority clarifies that the collection and review of marketing materials shall be administered and enforced by EOE.

c. Auto-enrollment Process Changes

The Authority determines that changes are warranted to the auto-enrollment process for the low-income or Distressed Municipality adders. The Authority agrees with the EDCs' assessment that, absent a requirement that the adder value be reflected in a customer's solar pricing agreement, the after-the-fact application of the adders results in windfall profits to developers. Thus, the Authority directs the adder value to only be applied automatically by the EDCs to qualifying customers if the tariff payment beneficiary is the customer of record, or if the applicant applied for an adder in their original RRES application. This change will further the fifth Program Objective by helping to ensure that underserved customers are benefiting from the adders, since the adders will either be identified to the customer at the outset of the RRES application process, which requires the customer's review via the signing of several forms,²⁹ or be paid directly to the customer. Further, the Authority concludes that this change will not disincentivize developers such as PosiGen, who socialize the higher deployment costs of Distressed Municipalities across all projects, from focusing on underserved communities, since such developers may still collect the underserved adder provided that they apply for it in the original RRES application. Further, if an underserved customer qualifying for either Program adder is not (auto)enrolled by the Program Administrators for not meeting the new requirements outlined in this Decision, the Program Administrators shall still track such enrollment so that it may be counted toward the Program's 40% deployment target in underserved communities.

E. STATE AND FEDERAL INCENTIVE ELIGIBILITY

The Authority requested written comments from stakeholders on the usefulness of a mapping tool depicting areas with the most residents eligible for the low-income RRES adder, aggregated at the census block level, to aid RRES project deployment in underserved communities. Notice, July 18, 2023, p. 2. The Authority also requested stakeholder feedback on the usefulness of a mapping tool depicting census block areas where residents are eligible for both the low-income RRES adder (i.e., 60% or less of state median income) and the qualified low-income economic benefit project investment tax credit (low-income economic benefit ITC) adder (i.e., 80% or less of area median income). Id.

The CGB noted that, based on federal guidance, the low-income economic benefit ITC adder is intended for front-of-the-meter (FTM) projects with at least 50% of the facility's total output serving low-income households. Id., p. 4. Nevertheless, CGB believed that a single tool on a website like EnergizeCT would be helpful for other ITC adders, particularly the low-income community 10 percentage point ITC adder, which is based on geographic location. Id. PosiGen noted that increased low-income RRES

²⁸ For example, if a contractor provides the same marketing script to multiple entities, then it may file one copy and note the entities to which it provides the script.

²⁹ In addition to the sales, lease, or power purchase agreement, the customer of record must sign the Tariff Terms and Conditions, a Customer Disclosure Form, and a Payment Beneficiary Form. EDC Compliance to Order No. 13, Dec. 15, 2022, Docket No. 22-08-02, Att. 2, pp. 22, 27, 40.

enrollment would “require further education and familiarity with both prospective customers and installers.” PosiGen Comments, Aug. 15, 2023, p. 6. Therefore, PosiGen believed that the creation of new public identification tools, such as a census-level map using Low Income Home Energy Assistance Program (LIHEAP) data, would be helpful. *Id.*, p. 7. PosiGen, however, did not support the creation of a new mapping tool for the low-income economic benefit ITC adder because the Department of Energy already has a mapping tool for the low-income communities 10 percentage point bonus credit and, as identified by CGB, because the low-income economic benefit ITC adder is better suited for the Shared Clean Energy Facilities (SCEF) Program. *Id.*

OCC agreed “that a tool to identify income eligibility would be useful in identifying physical overlaps in target populations,” particularly for residents located in Distressed Municipalities, income-eligible communities, and environmental justice census block groups. OCC Comments, Aug. 15, 2023, p. 6. OCC consequently recommended the use of maps that include all three populations, to support outreach to underserved communities, and provided copies of such maps for stakeholder review. *Id.*, pp. 6-8. Moreover, ConnSSA stated that its members would use a LIHEAP mapping tool when determining customer ITC adder eligibility. ConnSSA Comments, Aug. 15, 2023, p. 2.

The Authority concludes that the inclusion of a mapping “tool” on the RRES Program website will help developers better target underserved communities, thereby aiding the Program Objectives, particularly the fourth Program Objective, enhanced Program accessibility, and the fifth Program Objective, increased inclusivity overall. The Authority therefore directs the EDCs to include a link to Connecticut’s environmental justice mapping tool on the RRES Program webpage(s) by January 1, 2024, along with a brief summary of the tool and how installers can use it.³⁰ Notably, in addition to highlighting Distressed Municipalities and environmental justice census block groups, the map contains a socioeconomic layering tool, which may be used to target areas of high poverty.

The Authority notes that qualified RRES projects located in some underserved communities are eligible for a 10-percentage point increase in the ITC under Category 1 of the Low-Income Communities Bonus Credit Program. Low-income communities are defined according to the New Markets Tax Credits (NMTC) section of the Internal Revenue Code as a census tract where (1) the poverty rate is at least 20%; or (2) in the case of a tract not located in a metropolitan area, the median family income does not exceed 80% of statewide median family income; or 3) in the case of a tract located in a metropolitan area, the median family income does not exceed 80% of the greater of statewide median family income or the metropolitan area median family income.³¹ Further, projects within each category may receive priority for an allocation if they meet at least one of two additional selection criteria (ASC) based on ownership and geographic location, and at least 50% of the capacity of each category will be reserved for projects that meet ASC. A facility will meet the Ownership Criteria if it is owned by a Tribal enterprise, an Alaska Native Corporation, a renewable energy cooperative, a qualified

³⁰ Connecticut’s environmental justice mapping tool may be found here: <https://connecticut.maps.arcgis.com/apps/webappviewer/index.html?id=85bf095c8fc043edaa15ca5f78299fe3>.

³¹ Eligibility criteria and additional guidance on the Low-Income Communities Bonus Credit Program is provided at <https://www.federalregister.gov/documents/2023/08/15/2023-17078/additional-guidance-on-low-income-communities-bonus-credit-program>.

renewable energy company meeting certain characteristics, or a qualified tax-exempt entity. To meet the Geographic Criteria, a facility must be located in (1) a Persistent Poverty County (PPC), or (2) a census tract designated in the Climate and Economic Justice Screening Tool (CEJST) as disadvantaged based on whether the tract is either (a) greater than or equal to the 90th percentile for energy burden and is greater than or equal to the 65th percentile for low income, or (b) greater than or equal to the 90th percentile for particulate matter (PM) 2.5 exposure and greater than or equal to the 65th percentile for low income.

RRES projects located in some underserved communities are also eligible for the Energy Community Tax Credit Bonus, which provides a 10 percentage point adder for qualified projects located in energy communities. The IRA defines energy communities as (1) brownfield sites; (2) metropolitan or non-metropolitan statistical areas that have, or had at any time since 2009, a) a 0.17% or greater direct employment or 25% or greater local tax revenues related to the extraction, processing, transport, or storage of coal, oil, or natural gas, and b) an unemployment rate at or above the national average unemployment rate for the previous year; and (3) a census tract or directly adjoining census tract that has had a coal mine closure after 1999 or coal-fired electric generating unit retired after 2009.³²

The map below displays the geographic overlap between Connecticut's Distressed Municipality list; census tracts designated as Low-Income Communities eligible for the ITC adder under Category 1 of the Low-Income Communities Bonus Credit Program³³, including the additional Geographic Criteria;³⁴ and areas eligible for the ITC adder under the Energy Community Tax Credit Bonus (excluding brownfield sites).³⁵ The Authority also provides below a list of census tracts both located in Distressed Municipalities and eligible for the ITC Category 1 Bonus Credit as Low-Income Communities.³⁶ The Authority directs the EDCs to include the attached map and table, and additional, similar resources identifying areas where RRES projects may be eligible for both state and federal incentives, on the RRES Program webpage(s), along with a brief description of federal incentive eligibility by January 1, 2024. Ultimately, the information shall be relocated to the PURA Data Dashboard when the dashboard is expanded to include Clean Energy Program data. At a minimum, the Authority will update the static map and list of census tracts annually, in order to help identify communities eligible for additional federal incentives and aid deployment among low-income and underserved communities in furtherance of the Program Objectives.

³² Additional information on the Energy Community Tax Credit Bonus and a mapping tool is available at <https://energycommunities.gov/energy-community-tax-credit-bonus/>.

³³ Low-Income Communities as designated by the NMTC can be downloaded at https://www.cdfifund.gov/sites/cdfi/files/2023-08/NMTC_2016-2020_ACS_LIC_Sept1_2023.xlsx. The maps and data provided here utilize NMTC low-income community data based on the 2016-2020 American Community Survey, released in September 2023. For one year following the release of updated data, either the 2011–2015 ACS low-income community data or the updated data can be used to determine the poverty rate for a population census tract.

³⁴ CEJST data is available at <https://screeningtool.geoplatform.gov/en/downloads>.

³⁵ Energy Communities geographic eligibility data is available at <https://edx.netl.doe.gov/dataset/ira-energy-community-data-layers>.

³⁶ RRES projects in parts of Stamford, Danbury, and Bridgeport appear to be eligible for an ITC of up to 60%. RRES projects in Bridgeport are also eligible for the Distressed Municipality adder.

Additionally, the Authority notes that Category 3 of the Low-Income Communities Bonus Credit Program provides a 20 percentage point bonus to Qualified Low-Income Residential Building Projects that serve affordable housing customers, which are not constrained by geographic location.³⁷ As discussed in section IV.F.2, RRES multifamily affordable housing projects at covered housing facilities would be eligible to receive the additional ITC adder based on tenant benefit sharing requirements. For additional considerations related to multifamily affordable housing participation in the RRES Program, the Authority refers stakeholders to the ongoing work of DEEP, CGB, the Connecticut Housing Finance Authority (CHFA), the Connecticut Department of Housing (DOH), EOE, the EDCs, the U.S. Department of Housing and Urban Development (HUD), and the CT Fair Housing Center as part of the Multifamily Housing Working Group, established in the Year 1 annual review proceeding. Decision, June 8, 2022, Docket No. 21-08-02, pp. 1, 4-6; DEEP Correspondence, Sep. 1, 2023, pp. 13-16.

³⁷ A list of eligible covered housing programs for Category 3 is provided at <https://www.energy.gov/media/302641>.

Figure 3: Geographic Eligibility for the Low-Income Communities Bonus Credit, Energy Community Tax Credit Bonus, and Distressed Municipalities

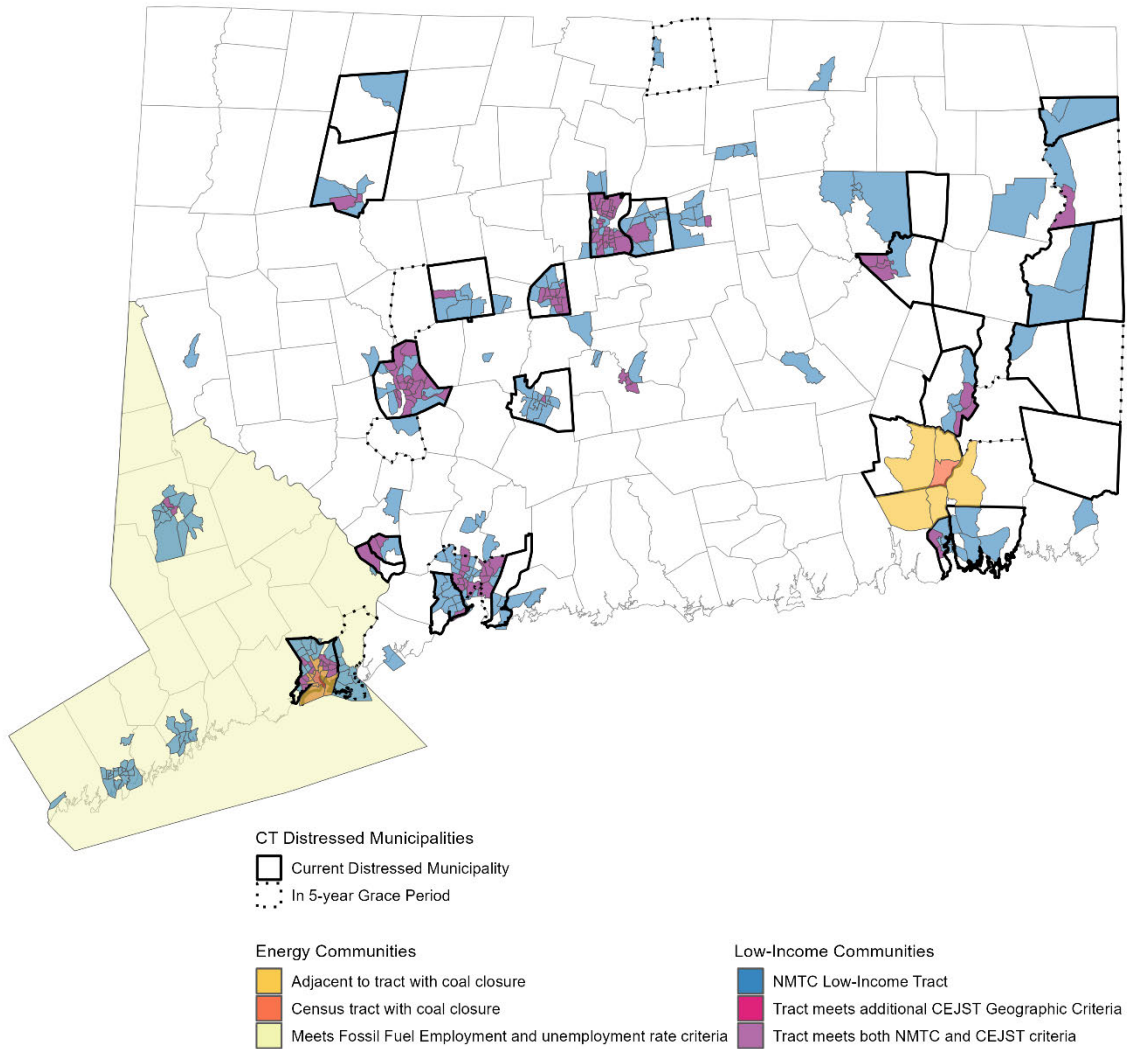


Table 5: NMTC Low-Income Census Tracts FIPS within Current Distressed Municipalities

9009350400	9009171100	9015903102	9011696500	9003501200	9003501300	9001072100
9009350500	9009352300	9015800501	9003405600	9011702500	9003501500	9003503700
9009352701	9005320101	9011870300	9003510200	9011702700	9011696401	9003503800
9009352702	9005320102	9011690800	9003510400	9011709200	9011696701	9003503900
9009352800	9009170600	9011696800	9003510300	9001073600	9009361500	9003504000
9009351100	9009170700	9011697000	9003415300	9003502700	9003500900	9003503500
9009350800	9009170800	9011702300	9003510700	9003503102	9003503300	9003504200
9009351800	9009171000	9001071000	9003510800	9003503101	9003510500	9003504300
9009351000	9015800300	9001071100	9003502300	9009120200	9003511200	9003504500
9009351200	9015800400	9001071200	9003415500	9011870200	9003501700	9003504100
9009351300	9015800600	9001071300	9003415600	9011690300	9003415400	9003504900

9009351400	9003500500	9001071400	9003415800	9011690400	9003416500	9003405700
9009350900	9009350101	9001071600	9003415900	9011690500	9003405500	9003502800
9009352200	9009180102	9001071900	9003416000	9011690700	9003500100	9003502900
9009352500	9009154102	9001072000	9003416100	9009154200	9003501800	9003502500
9009352600	9009154101	9001072200	9003502400	9009154500	9003510600	9003503000
9009352100	9009351601	9001072300	9003416200	9009154600	9003405100	9003502600
9015907200	9009351500	9001072400	9003416300	9009154900	9003406100	
9003524501	9009171300	9001072500	9003416600	9009155100	9003501400	
9009352400	9009171400	9001072600	9003416700	9015800700	9001073900	
9009351602	9009171500	9001072700	9003416800	9001072900	9001073100	
9009170900	9011696100	9001072800	9003417100	9001074000	9009180300	
9009155000	9011702800	9001073200	9003417500	9015907300	9009180200	
9009125200	9003417200	9001073300	9003504800	9015903200	9009350200	
9005310803	9003417300	9001073400	9003500200	9001070300	9009350300	
9005310804	9001257200	9001073500	9003500300	9001070400	9009170200	
9009351700	9003405402	9001073700	9009125300	9001070500	9009170300	
9009170100	9003524700	9001073800	9009125400	9001070600	9009170400	
9005310300	9003524400	9001074300	9003511300	9001070900	9005310100	
9005310801	9003524600	9001074400	9003500400	9001070200	9005310200	

Table 6: NMTC Low-Income Census Tracts FIPS within Distressed Municipalities in Five-Year Grace Period

9009345100	9009140102	9009141500	9001080500	9009140600	9003480700	9009142500
9009142000	9009141301	9009141600	9001080600	9009140700	9001081000	9009142601
9009140900	9009140101	9009141800	9009140200	9009361402	9001080400	
9009141200	9009142604	9009142100	9009140300	9015904400	9009141400	
9015904500	9009361401	9001080100	9009140400	9009140800	9009142300	
9009142605	9009142700	9001080200	9009140500	9003480600	9009142400	

F. MULTIFAMILY AFFORDABLE HOUSING

1. Master-Metered and Sub-Metered Participation

The Authority established a Multifamily Housing Working Group (MFH WG) in the Year 1 annual review proceeding to investigate outstanding issues surrounding multifamily housing participation in the RRES Program. Decision, June 8, 2022, Docket No. 21-08-02, Annual Residential Renewable Energy Tariff Program Review and Rate Setting (MFH Decision), pp. 1, 4-6. Currently, only individually metered multifamily affordable housing is eligible for the RRES Program, provided such housing agrees to distribute at least 20% of the financial benefit of the RRES tariff to tenants. EDC Compliance to Order No. 13, Dec. 15, 2022, Docket No. 22-08-02, Att. 2, pp. 41-45. The Authority later announced its intention in the Year 2 Decision to allow master-metered multifamily affordable housing to participate in the RRES Program by January 1, 2024,

after the MFH WG submitted benefit sharing recommendations for such properties. Year 2 Decision, p. 8.

The MFH WG recommended that master-metered multifamily affordable housing be eligible for the RRES Program if the system owner uses 20% of the net present value of the RRES tariff to complete pre-approved building upgrades, such as energy efficient windows, heat pumps, broadband access, etc., which would benefit tenants. MFH WG Compliance, June 1, 2023, Docket No. 21-08-02, pp. 1-3. Additionally, CGB stated a willingness to provide the upfront capital necessary for building improvements under the MFH WG's proposal. *Id.*, p. 2. The MFH WG also proposed that any master-metered project be subjected to an audit by the Authority to ensure compliance. *Id.* Accordingly, the Authority requested written comments from stakeholders on the MFH WG's proposal for master-metered multifamily housing inclusion in the RRES Program. Notice, July 18, 2023, pp. 4-5. The Authority further requested stakeholder feedback on a framework to pass a master-metered multifamily affordable housing project's RRES benefit directly to tenants via direct payment or through on-bill or rent credits. *Id.*, p. 5.

OCC agreed that the financial benefits of the RRES Program should be passed on to tenants. OCC Comments, Aug. 15, 2023, p. 12. However, OCC noted that renters do not necessarily accrue the same benefits as the landlord when building improvements are made (e.g., increased property values). *Id.* OCC believes that passing RRES financial benefits on to tenants would require regulation to prevent "unintended consequences for renters such as higher rents, higher energy bills, and increased displacement." *Id.*, pp. 12-13. OCC further highlighted that Connecticut statutes does not protect renters "from assuming an unreasonable amount of the costs from energy efficiency upgrades." *Id.*, p. 13. The EDCs deferred to the MFH WG's recommendation on master-metered participation in the RRES Program. EDC Comments, Aug. 15, 2023, p. 6.

In written comments, the MFH WG argued that the Authority should establish a "building-enhancement" definition for master-metered projects, if the MFH WG's proposal were accepted. MFH WG Comments, Aug. 15, 2023, p. 2. Additionally, the MFH WG believes that additional requirements for sub-metered units would "be burdensome and impractical for implementation, given the diverse array" of sub-metered systems. *Id.* The MFH WG noted that its proposal for passing RRES benefits on to tenants in master-metered properties would not harm tenants' eligibility for assistance programs. *Id.*, p. 3. Conversely, after consulting with the U.S. Department of Housing and Urban Development (HUD), the MFH WG concluded that rent credits would "adversely affect tenants' eligibility for HUD assistance." *Id.* The MFH WG therefore did not recommend that the Authority adopt rent credits for master-metered properties participating in the RRES Program.

The Authority thanks the MFH WG for their thoughtful consideration of how to include master-metered multifamily affordable housing projects in the RRES Program and accepts with modification the proposal submitted. First, as stated above, the Authority requires that "at least 20% of the total financial benefit [of the RRES tariff] be directed to tenants" (emphasis added) for individually metered housing projects participating in the RRES Program. Year 2 Decision, pp. 13-14. While tenants may benefit from the building upgrades described in the MFH WG's compliance filing, the landlord would also financially benefit from building upgrades via increased property values. Further, if long-term tenant

rental agreements include building energy costs, upgrades to increase a building's energy efficiency would solely benefit the landlord if tenant rents were not adjusted downwards accordingly. Thus, the Authority concludes that if 20% of the net present value of the RRES tariff went to building upgrades, some percentage of that value would be provided to landlords, potentially to the detriment of tenants. Said another way, the Authority is concerned that allowing 20% of the net present value of the RRES tariff to be used on building upgrades would not result in 20% of the project value being distributed to building tenants. Consequently, the Authority requires that at least 25% of the net present value of the RRES tariff be spent on building upgrades, which would benefit the tenants of the master-metered multifamily affordable housing project. The MFH WG may submit a recommendation to the Authority requesting that this threshold be revised, so long as clear and quantitative analysis is provided to the Authority showing that this number would not allow master-metered multifamily affordable housing projects to be financially viable.

Furthermore, the Authority concludes that only certain building upgrades that provide the greatest value to either tenants or the electric grid may be used when determining master-metered multifamily affordable housing project qualification in the RRES Program. More specifically, the Authority determines that only the following upgrades will qualify for the arrangement described: (1) energy efficient windows or doors; (2) insulation; (3) energy efficient appliances; (4) heat pumps; (5) energy storage (if such storage enrolls in the Energy Storage Solutions Program); (6) broadband internet access (if such internet access is provided freely to tenants); (7) lead remediation or removal of environmental hazards such as asbestos necessary to enable energy efficiency upgrades; and 8) energy efficient lighting. The MFH WG may submit a recommendation to amend this list, provided sufficient justification is given to the Authority demonstrating tangible tenant financial benefits of any building upgrade additions.

Additionally, the EDCs shall require that developers of master-metered housing projects submit: (1) documentation outlining the net present value of the project's RRES tariff and how the developer reached such determination; (2) a detailed plan for the expenditure of 25% of the net present value of the project's RRES tariff on approved building upgrades; (3) a description of how the upgrades will financially benefit tenants (e.g., energy efficient lighting upgrades when utilities are included in rent will not by itself result in benefits passed to tenants, and thus may be deemed an ineligible upgrade in certain circumstances); (4) upon project approval, receipts and invoices for each approved building upgrade expenditure; and (5) photographic evidence of completed building upgrades, available upon request.

The Authority respectfully requests that the MFH WG develop and submit a plan for: (1) a member or members of the MFH WG to conduct eligibility screenings for project adherence with the above requirements prior to the start of construction; (2) at least annual audits of completed project's adherence with the above requirements; and (3) suggested remedies if projects later fail to adhere to the above requirements after receiving approval to proceed. The Authority's preference is for DEEP to work in conjunction with the EDCs to audit and verify the compliance documents outlined above; however, the Authority is open to alternative recommendations from the MFH WG regarding compliance auditing, provided that such recommendations are accompanied by a detailed justification.

Finally, before master-metered affordable housing projects can be approved for inclusion in the RRES Program, the Authority concludes that rental protections need to be considered by the MFH WG. As property values increase upon the completion of approved building upgrades, landlords could raise rents to levels unaffordable for low-income tenants, thereby hindering the fifth Program Objective, increased inclusivity overall. Accordingly, the Authority directs the MFH WG to submit proposed protections from eviction and renter protections for master-metered multifamily affordable housing that identify enforcement mechanisms for ensuring that tenants are not harmed via increased rents that are tied to the Authority's jurisdiction (e.g., including RRES compensation clawback provisions, etc.). The proposed protections shall also include a plan to determine eligibility of building upgrades whereby the landlord demonstrates that benefits will be passed to tenants (e.g., documentation demonstrating free broadband access will be provided) and, where appropriate, will result in financial benefits for tenants. Stated another way, the proposal must provide a clear plan for how tenants will financially benefit from all eligible building upgrades.

The Authority directs the MFH WG to provide a comprehensive proposal for master-metered housing projects' participation in the RRES program incorporating the above direction for review and approval by April 10. The MFH WG may propose updates to any of the Authority's conclusions outlined in this section, or to any recommendations previously made by the MFH WG, to ensure that the proposal most effectively advances the Program Objectives, so long as sufficient explanation and justification is provided. Last, the Authority clarifies that master-metered housing projects will not be eligible for the Program until the updated compliance is filed and an Authority ruling is issued.

2. Financial Benefit Sharing Requirement Updates

At the September 6, 2023 Technical Meeting, the MFH WG noted that the requirements for the federal Low-Income Communities Bonus Credit Program (Low-Income Bonus Credit), which increases a project's ITC between 10-20% above normal levels, are not aligned with the RRES Program's tenant benefit sharing requirement. MFH WG Corresp., Sept. 1, 2023, pp. 12-15. For example, the Low-Income Bonus Credit requires that at least 12.5% of a project's financial benefits be equitably distributed to low-income tenants, while the RRES Program requires that 20% of a project's financial benefits be distributed equally amongst all tenants (emphasis added). Id., p. 15. Consequently, without a change to the RRES requirements, multifamily housing projects participating in the Program will not be eligible for the Low-Income Bonus Credit and will lose out on approximately \$127,200 of Federal funds. Id.

The Authority concludes that revisions to the RRES multifamily affordable housing requirements are needed to ensure that projects can benefit from the Low-Income Bonus Credit. Accordingly, the Authority will allow a minimum of 12.5% of the value of the RRES tariff to be equally shared with low-income tenants residing at a multifamily affordable housing project site, so long as the project is pursuing the Low-Income Bonus Credit. In such case, the remainder of the financial benefit to be shared with tenants (e.g., 7.5% of the value of the RRES tariff) shall be distributed equally amongst all non-low-income tenants residing at the project site, to maintain the 20% minimum benefit sharing requirement used in the Program currently. However, the average per unit financial benefit for non-low-income tenants cannot exceed the average per unit financial benefit for low-income tenants. Thus, for example, if dividing 7.5% of the financial benefit

amongst non-low-income tenants would result in a larger payment to those tenants than the payment to low-income tenants, the total financial value of the RRES tariff shared with tenants shall be distributed equally across all tenants. The Authority notes that the 12.5% low-income benefit sharing requirement will still be met in such circumstances, as this would effectively result in low-income tenants receiving more than 12.5% of the financial benefits. The Authority concludes that this change will further the first Program Objective, the sustained and orderly development of the state's solar industry, by opening up new revenue streams for multifamily affordable housing projects. Additionally, low-income tenants may receive greater total financial benefits with this programmatic change, thereby advancing the fifth Program Objective, increased inclusivity overall, particularly for low- and moderate-income customers. The Authority looks forward to the participation of multifamily affordable housing projects in the RRES Program as new revenue opportunities are unlocked.

3. Percentage of Benefit to Tenants

Pursuant to Authority direction, the MFH WG filed a recommendation that at least 20% of the total financial benefit of the RRES tariff be provided to tenants in multifamily affordable housing projects. MFH WG Compliance, Sept. 30, 2022, Docket No. 21-08-02, p. 1. In making its recommendation, the MFH WG concluded that, on average, approximately 60% of the RRES tariff value was needed to cover system costs. Id. Consequently, the MFH WG believed that splitting the remaining financial benefit equally between tenants and system owners was the most equitable solution to ensure that tenants were financially benefiting from solar projects located at their place of residence. Id. The MFH WG further noted that additional incentives from the IRA may change the MFH WG's system benefit calculation once federal guidance was released. Id., pp. 2-3. In the Year 2 Decision, the Authority approved the MFH WG's recommendation to require at least 20% of the total financial benefit of the RRES tariff to be split equally between all tenants of multifamily affordable housing sites. Year 2 Decision, pp. 13-14. Further, the Authority requested that the MFH WG file updated financial benefit sharing recommendations in the current proceeding. Id., p. 14. In response, the MFH WG stated that it did "not have any additional recommendations to make at this time." DEEP Compliance, Aug. 1, 2023, p. 1.

Accordingly, the Authority requested written comments from stakeholders on whether system owners should be required to share a different percentage of the RRES tariff benefit with tenants of multifamily affordable housing sites. Notice, July 18, 2023, p. 6. The Authority specifically requested stakeholder consideration of whether system owners should be required to share some percentage of the net system benefit (instead of the total financial benefit) of the RRES tariff, since the percentage of the RRES tariff needed to cover system costs can vary from the 60% figure used in the MFH WG's calculations. Id. OCC responded to the Authority's request for written comments by stating its support for a modest increase in the total financial benefits sent to tenants, provided project viability was not jeopardized by such increase. OCC Comments, Aug. 15, 2023, p. 14. The EDCs and CGB deferred to the comments submitted by the MFH WG. EDC Comments, Aug. 15, 2023, p. 8; CGB Comments, Aug. 15, 2023, p. 8. Last, the MFH WG believes that since the RRES Program was still new, data is lacking "to substantiate recommendations for modifying the tenant benefit percentage." Id. The MFH WG also noted that system owners still had the flexibility to provide a greater

percentage of benefits to tenants than what is required by the Program Manual. *Id.*, pp. 5-6.

The Authority concludes that changes are not warranted to the total percentage of the RRES tariff required to be shared with tenants (i.e., 20%) at this time, because evaluation of the impact of federal incentives on RRES project economics is still ongoing, and because the Authority lacks RRES multifamily housing project data to validate any changes. Nevertheless, should the MFH WG recommend additional changes to the current tenant benefit sharing requirements in the future, the Authority will consider such recommendations, to ensure that tenants receive appropriate benefits for solar projects located at their place of residence. The Authority ultimately remains committed to the fifth Program Objective, increased inclusivity overall, and, as such, the Authority will adjust Program requirements as needed to ensure Program equity at multifamily affordable housing sites.

4. Meter Sockets

At the June 21, 2023 Technical Meeting, developers noted difficulties in obtaining multi-gang meter sockets, which are frequently used in solar configurations for multifamily homes. *Tr.*, June 21, 2023, 93:17-94:4. Further, a stakeholder argued that trough-type connections with single meters next to each other could be used in lieu of multi-gang meter sockets for Netting projects. *Tr.*, 94:5-14. Therefore, the Authority requested written comments on any difficulties obtaining multi-gang meter sockets, particularly for multifamily affordable housing, and on recommendations for allowing alternatives to multi-gang meters for use in the RRES Program, including trough-type connections with single meters next to each other. Notice, July 18, 2023, p. 4.

While the EDCs acknowledged installer difficulties in obtaining multi-gang meter sockets, the EDCs did not support changing current metering requirements because the current requirements “maintain safety standards and avoid inherent risks of alternatives such as high maintenance costs and higher ease of tampering.” EDC Comments, Aug. 15, 2023, p. 6. Conversely, Trinity Solar supported the use of trough-type connections with single meters installed side by side, because Trinity Solar believed this solution could “be easily implemented should this be safe and compliant with standards.” Trinity Solar Comments, Aug. 15, 2023, p. 2. Trinity Solar also highlighted delays in obtaining multi-gang meter sockets among multiple manufacturers. *Id.* Similarly, ConnSSA noted manufacturer multi-gang meter socket delays, including an open purchase order dating back to March 2022. ConnSSA Comments, Aug. 15, 2023, p. 4. ConnSSA asserted that trough-type connections with tamper-resistant or security screws would be one possible alternative to multi-gang meter sockets. *Id.* Further, OCC supported alternatives to multi-gang meter sockets, should such alternatives be “safe and technically viable,” to increase affordable housing participation in the Program. OCC Comments, Aug. 15, 2023, pp. 11-12.

The Authority does not authorize the use of trough-type connections with side-by-side meter installations for use in the RRES Program at this time as additional research must first be conducted to determine solutions to any safety or tampering risks that may be associated with such metering configurations. Nevertheless, it is clear to the Authority that the allowance of trough-type connections with side-by-side meter installations would aid the deployment of solar installations at multifamily affordable housing sites, which

have thus far been hindered through an acute manufacturer shortage of multi-gang meter sockets. Moreover, the allowance of such metering configurations would further the Program Objectives, particularly the first and fifth Program Objectives, by supporting the sustained and orderly development of the state's solar industry and by increasing inclusivity overall. Consequently, the Authority intends to reconsider trough-type connections with side-by-side meter installations for use in the RRES Program next year in Docket No. 24-08-02, after the appropriate safety review has been completed by the EDCs.

Accordingly, by March 15, 2024, the EDCs shall develop and submit for review and approval a plan to alleviate any potential safety or tampering risks associated with trough-type connections with side-by-side meter installations. Such plan shall include implementation costs and expected timelines for allowing such metering configurations for use in the RRES Program. Additionally, when developing the proposal, the EDCs shall research any steps taken by other jurisdictions to allow trough-type connections with side-by-side meter installations at multifamily housing sites, to determine if such steps can be replicated in Connecticut. Finally, the EDCs shall consult with the Interconnection Working Group, established in the Decision dated November 25, 2020, in Docket No. 17-12-03RE06, PURA Investigation into Distribution System Planning of the Electric Distribution Companies – Interconnection Standards and Practices, when developing the proposal. Ultimately, the Authority determines that the benefits of allowing trough-type connections with side-by-side meter installations, via increased underserved Program enrollment and multifamily affordable housing participation, may warrant their inclusion in the RRES Program once the EDCs develop a proposal to alleviate the potential risks associated with such metering configurations.

5. Eligible Affordable Housing Facilities Reporting

The Authority refers the Agencies (i.e., DEEP, CGB, DOH, and CHFA) to Order Nos. 4 and 6 of the MFH Decision issued in the Year 1 annual review proceeding, which request that the Agencies file annually, by August 1, a list of housing facilities eligible under Tier I of the affordable housing definition approved in the MFH Decision, as well as the DEEP and DOH contact information for a housing facility seeking to be defined as “affordable housing” that does not meet the Tier I or Tier II thresholds of the affordable housing definition. MFH Decision, p. 16. The Authority notes that these orders were not fulfilled for the current year and reiterates the importance of providing this information annually to facilitate multifamily affordable housing participation in the RRES Program. Further, the Authority directs the EDCs to post the most recent compliance with Order Nos. 4 and 6 of the MFH Decision, along with contact information for each of the Agencies, on the RRES Program website by January 1, 2024, and annually thereafter.

In written exceptions, DEEP, on behalf of the MFH Working Group, proposed an alternative process to the annual list of eligible Tier I properties submitted to the Authority, whereby eligible properties could be added to the list on a rolling basis, with quarterly submissions of the Tier I list to the Authority. DEEP Exceptions, Oct. 24, 2023, p. 3. Further, DEEP proposed that if a project not on the current Tier I list seeks participation in RRES, the EDCs could contact the Agencies to verify that the project has been approved for participation in a CHFA or DOH program, and, if so, CHFA or DOH would provide the EDCs with proof of Tier I eligibility. *Id.* DEEP also opined that the change would allow projects to more easily apply for federal programs and facilitate timelier Tier

I property eligibility for RRES, as CHFA and DOH continuously approve new projects for their programs. Id. UI expressed support for rolling approval for Tier I eligibility and quarterly Tier I list submissions. UI Exceptions, Oct. 24, 2023, pp. 7-8. The Authority finds that the proposed change expands affordable housing Program eligibility, in support of the fifth Program Objective, increased inclusivity overall. Consequently, the Authority accepts the proposal to allow the Agencies to approve Tier I submissions on a rolling basis and to submit the list of Tier I properties to the Authority on a quarterly basis and directs the EDCs to update the Program Manual to incorporate such change.

G. PROPOSED APPLICATION FEES

Order No. 2 of the Year 2 Decision directed the EDCs to file annually for Authority review and approval an RRES application fee to “cover the estimated administrative costs associated with processing applications,” including detailed calculations to justify the proposed fee. Year 2 Decision, p. 33. Eversource proposed maintaining the Year 2 RRES applications fees for Year 3 of the Program, because the current fees collected covered Eversource’s entire administrative programmatic costs. Motion No. 8, Att. 1, p. 1. More specifically, Eversource collected approximately \$2.3 million in application fees, while the costs incurred by Eversource to administer the Program totaled approximately \$1.2 million. Id. While Eversource’s collected application fees exceeded administrative programmatic costs, Eversource believed no fee change was warranted because: (1) the resulting excess is credited to customers; (2) the current fees do not present a barrier to RRES Program participation given recent application numbers; (3) current solar deployment levels exceed the historical average and may not be sustained; and (4) administrative costs are expected to increase in 2024 as Eversource enhances customer resources. Id. Additionally, Eversource stated that it would continue to monitor fee revenue and programmatic costs, to see if application fee changes were warranted in the future. Id., p. 2.

Similar to Eversource, UI proposed to maintain the Year 2 RRES application fees for Year 3 of the Program, because the current fees were “appropriately offsetting a significant portion of program costs without discouraging participation.” Motion No. 9, p. 1. The fees collected by UI ultimately covered most but not all administrative programmatic costs (i.e., approximately \$162,000 in fees were collected, versus Program operation costs of \$179,000). Id. Moreover, keeping the fees the same would “reduce customer confusion” and “enable statewide alignment.” Id. Finally, UI stated that it would continue to evaluate Program administrative costs and would report to the Authority if the fees collected vary significantly from actual Program costs. Id.

In a Notice of Request for Written Comments, the Authority requested stakeholder feedback on the EDCs’ proposed Year 3 application fees. Notice, July 18, 2023, pp. 6-7. ConnSSA responded stating that the issue had been “worked out” and no fee increases had occurred. ConnSSA Comments, Aug. 15, 2023, p. 6. Additionally, OCC recommended a tiered fee approach to reduce barriers to low-income participation. OCC Comments, Aug. 15, 2023, p. 15. OCC cited the Home Energy Solutions (HES) Program as one example of a program offering reduced application fees for low-income residents, since the HES Program has an income-eligible fee waiver. Id. OCC noted that reduced fees for low-income and Distressed Municipality residents could aid in the participation of underserved communities in the Program. Id.

Given robust RRES Program enrollment, the Authority concludes that the current application fees fulfill their intent to cover most EDC costs associated with administering the Program, thereby minimizing cost impacts to nonparticipating ratepayers, while not posing a major barrier to Program participation. Residential Tariff Decision, p. 26. Consequently, the Authority grants Motion Nos. 8 and 9 and maintains the Year 2 application fees for Year 3 of the Program. Maintaining the Year 2 fees will further the first and third Program Objectives by reducing customer confusion and limiting Program costs. Additionally, while the Authority sees the potential value of a tiered fee system, where low-income applicants would pay reduced application fees, the Authority determines that additional analysis and stakeholder feedback is warranted before such fee structure is approved. More specifically, the Authority is concerned that reduced fees would not be passed on as cost savings to low-income applicants, particularly if the fees are paid by developers and incorporated into the sales or lease contract signed by the low-income customer. Moreover, the existing adders effectively accomplish the same objective. Therefore, the Authority may revisit the idea of a tiered fee system during the Year 4 RRES Program review to better consider the proposal's costs and benefits, while taking into consideration current low-income deployment rates.

Finally, the Authority clarifies that any application fee overcollection shall be held by the Company for a period of one year before being credited to all ratepayers to mitigate any potential see-saw effects due to under- or over-collection changes from one year to another. Regardless of whether the application fees are over- or under-collected relative to Program administrative costs, such balance shall be reviewed by the Authority in the appropriate rate adjustment mechanism proceeding before being charged or credited to customers. The Authority encourages the EDCs to continue to critically assess whether application fee collection will sufficiently cover future Program administrative costs through its August 1 annual application fee filing.

H. IMPROVED RRES APPLICATION

On September 15, 2022, the Authority directed the EDCs to establish an Application Process Working Group (APWG) to streamline and identify improvements to the RRES application process. Year 2 Decision, p. 29. Accordingly, last year in Docket No. 22-08-02, the APWG submitted for the Authority's review several recommended RRES application improvements, thereby resulting in the Authority's approval of various changes to better align the RRES application process with programmatic goals. Decision, Docket No 22-08-02 (APWG Decision), Feb. 8, 2023. Further, in a May 15, 2023 Notice of Request for Written Comments, the Authority sought comments on RRES application process improvements made to date, specifically for the challenging UI application, to investigate whether additional improvements should be made to further the Program Objectives and RRES deployment targets. Notice, May 15, 2023, pp. 4-5.

In response, ConnSSA stated that there has been "marginal improvement in getting projects through the challenging UI application process." ConnSSA Comments, June 1, 2023, p. 2. Similarly, PosiGen noted that the UI RRES application process has seen improvements throughout 2022 and 2023. PosiGen Comments, June 1, 2023, pp. 12-13. Nevertheless, PosiGen argued that more work was "needed to ensure that the remaining issues that have surfaced with the move to PowerClerk are addressed so that there can be greater consistency (for both UI and installers), but also so that approval timelines can be reduced." *Id.*, p. 13. PosiGen also noted that application timelines are

twice as long for UI when compared to Eversource, primarily because of UI software bugs and learning pains. Id. Additionally, the EDCs highlighted the improvements made to the RRES application process to date, including UI's launch of a PowerClerk-based application process. EDC Comments, June 1, 2023, p. 13. The EDCs also noted several application improvements that are currently underway, including changes related to payment processing and customer data. Id., pp. 13-14. While integration challenges have occurred during UI's transition to PowerClerk, the EDCs highlighted UI's ability to address such challenges by working with applicants and a software vendor. Id., p. 13.

The Authority commends the EDCs' efforts to improve and streamline the RRES application process. The Authority notes that UI's average timeline from RRES application submission to issuance of permission to operate is now below that of Eversource (79 days for UI versus about 94 days for Eversource). Eversource Compliance, July 27, 2023, Docket No. 22-08-02, Att. 1, p. 1; UI Compliance, May 1, 2023, Docket No. 22-08-02, Att. 1, p. 1. The Authority encourages the EDCs to continue to proactively streamline RRES application processes and forms, to further reduce application barriers and timelines, in furtherance of the Program Objectives and RRES deployment targets.

I. ELECTRONIC SIGNATURES

The Authority directed the EDCs to file a robust electronic signature proposal for the RRES Program, including at least one feature to ensure customers are informed of relevant financial data and educational materials, by July 1. APWG Decision, p. 17. Accordingly, the EDCs made a revision to the Program's customer disclosure form "to ensure customers are informed of relevant financial data and educational material," including a hyperlink to the EDCs' customer educational pages. EDC Order No. 24 Compliance, June 30, 2023, p. 2. Additionally, UI stated that it uses an electronic signature feature provided by DocuSign to efficiently and conveniently obtain signatures required by the RRES application through an electronic process. Id., pp. 1-2. Further, Eversource was still implementing electronic signature capabilities for the RRES Program and planned to copy UI's signature process for the sake of consistency, with a planned launch date in the third quarter of 2023 at a cost of \$3.80 per document package. Id., p. 2. Notably, installers still have the capability to provide wet signatures with the launch of electronic signature processes. Id. Last, the EDCs remained "engaged with stakeholders on their respective e-signature plans/processes." Id.

Upon reviewing the EDCs' electronic signature proposal, the Authority requested written comments from stakeholders, including whether any changes should be made. Notice, July 18, 2023, p. 4. PosiGen stated that it uses "UI's electronic signature process wherever possible and supports Eversource rolling out a similar process." PosiGen Comments, Aug. 15, 2023, p. 10. Nonetheless, PosiGen also believed that wet signatures should still be allowed for use in the Program. Id. Further, Trinity Solar believed that the "format for submitting signatures has been efficient." Trinity Solar Comments, Aug. 15, 2023, p. 2. Should additional revision be needed, however, Trinity Solar requested collaboration between developers and the EDCs to ensure a good customer experience. Id. ConnSSA conversely believed that the current UI electronic signature process was problematic. ConnSSA Comments, Aug. 15, 2023, p. 4. Finally, OCC favored a simplified application process, including the option to sign documents electronically. OCC Comments, Aug. 15, 2023, p. 11. OCC also argued that Program

participants should not incur additional fees to fulfill document signature requirements. Id.

In support of the Program Objectives, the Authority approves the EDCs' electronic signature proposal. More specifically, the Authority concludes that electronic signatures will increase Program efficiency and accessibility by enabling quick document and signature collection, thereby shortening application timelines and supporting the first and fourth Program Objectives. Further, EDC revisions to the customer disclosure form will help ensure customers are informed of relevant financial data and educational materials during the electronic signature process. The Authority clarifies that the implementation cost of electronic signatures should be paid for using the revenue collected from existing RRES application fees. Last, the Authority strongly encourages the EDCs to work with members of the previously-organized APWG before implementing any electronic signature changes, so that developers are adequately informed of process modifications, and to alleviate any potential developer concerns with EDC proposed changes.

J. CANCELLATION PERIOD

The EDCs cannot remove stale or duplicative RRES project applications according to the current Program requirements. Year 2 Decision, p. 27. Consequently, the Program queue could build up as outdated projects remain pending indefinitely. To resolve this issue, in the Year 2 Decision the Authority directed the EDCs to work with the Interconnection Policy Working Group (IPWG), established through Docket No. 17-12-03RE06, PURA Investigation into Distribution System Planning of the Electric Distribution Companies – Interconnection Standards and Practices, to propose a cancellation period for projects which have not progressed. Id., pp. 27-28. After discussions with the IPWG, the EDCs requested “authorization to automatically withdraw Level I (25 kW and less) applications that have remained in a status requiring customer/applicant action (e.g., received contingent approval/awaiting municipal inspection) for 12 months or more.” EDC Order No. 18 Compliance, June 30, 2023, p. 2. The EDCs also proposed sending email notifications to both the applicant and customer no less than 15 business days before an application's cancellation, whereby the EDCs would maintain the application should a request to do so be received from either the applicant or the customer prior to the application's cancellation. Id. Last, the EDCs requested authorization to withdraw duplicate applications if the efficient enrollment of RRES customers is hindered. Id. Upon receiving notification of an application's impending cancellation, applicants and customers would be given 15 business days to request project retention, provided that a duplicate application is subsequently withdrawn. Id. Upon reviewing the EDCs' project cancellation proposal, the Authority requested written comments and feedback from all stakeholders. Notice, July 18, 2023, pp. 3-4.

PosiGen supported the EDCs' project cancellation proposal because PosiGen believes the proposal's cancellation timeframes are reasonable, and because developers would still be given an opportunity to maintain applications that should not be canceled. PosiGen Comments, Aug. 15, 2023, p. 9. Further, ConnSSA stated that the EDCs' proposal addressed developer concerns by alerting developers of impending project cancellations. ConnSSA Comments, Aug. 15, 2023, p. 3. Additionally, Trinity Solar stated support for the EDCs' proposal and argued that the developer and customer should be notified concurrently regarding impending application cancellations, to provide developers a chance to respond accordingly. Trinity Solar Comments, Aug. 15, 2023, p.

1. Finally, OCC argued that customers should not be penalized for stale applications that did not move forward through no fault of their own. OCC Comments, Aug. 15, 2023, p. 10.

In line with stakeholder comments, the Authority determines that the EDCs' proposal to cancel stale or duplicative RRES applications is in line with the Program Objectives because the proposal will increase Program efficiency through the removal of projects that will not progress, while giving both applicants and customers a reasonable timeframe to request the maintenance of a project application. Importantly, the proposal was also developed by the EDCs through an open and transparent process including discussions with project developers at APWG meetings, thereby supporting the first Program Objective, the orderly development of the state's solar industry. The EDCs' application cancellation proposal is therefore accepted and shall be included directly in the updated Program Manual to be filed in compliance with this Decision. The Authority clarifies that the applicant, customer, and developer, if the applicant's contact information has not been provided to the EDCs, shall be notified simultaneously according to the timetable included in the EDCs' proposals, to give all parties a chance to respond prior to an application's cancellation. The Authority thanks all parties involved and looks forward to the efficient administration of the RRES application queue.

K. COST DATA REPORTING

During the First Technical Meeting in this proceeding, stakeholders raised the issue of installed cost data reporting, noting that it was self-reported and that there was not much EDC guidance for how applicants should report such data. Hr'g Tr., June 21, 2023, 34:22-35:8. Consequently, the Authority requested written comments from stakeholders on cost data reporting requirements, including guidance on data standardization across all applicants. Notice, July 18, 2023, p. 7.

Accordingly, CGB remarked that updated Program data provides "transparency to the market" by helping customers compare costs, and by providing data for state, research, and educational organizations for the analysis of market trends. CGB Comments, Aug. 15, 2023, p. 9. CGB also provided a list of data points publicly collected for the Residential Solar Investment Program (RSIP), which are not currently released publicly for the RRES Program. *Id.* CGB cautioned, however, that the RSIP data list was only a starting point for a potential data collection expansion in the RRES Program. *Id.* Additionally, CGB asserted that clear definitions and explanations for each field used in the RRES application "may help make data more consistent." *Id.* Further, ConnSSA believes that "[a]ll parties would be helped by a document that clearly explains to installers how to enter [RRES project] information." ConnSSA Comments, Aug. 15, 2023, p. 6. Moreover, OCC supported standardized data reporting because it would increase Program transparency and "establish consistent baselines" for data analysis. OCC Comments, Aug. 15, 2023, p. 15. PosiGen supported the existing cost categories and argued that guidance could be provided to developers to ensure that cost data that should not be included, such as battery costs, are not reported by installers. PosiGen Comments, Aug. 15, 2023, p. 12.

ConnectDER believes that data improvements could be made to help the Authority better understand interconnection and service upgrade cost impacts on residential solar projects, since interconnection costs could be split across several of the current RRES

cost categories included in the application. ConnectDER Comments, Aug. 15, 2023, pp. 1-2. ConnectDER ultimately recommended that the EDCs establish a single document outlining data reporting requirements, with specific guidance on interconnection and service upgrade costs, so that cost solutions could be developed more effectively. *Id.*, p. 2. Last, the EDCs welcomed suggestions on clear data reporting guidance to “to promote consistent collection of data.” EDC Comments, Aug. 15, 2023, p. 8. The EDCs also believed that while current solar deployment outpaces the historical average, seemingly in contrast to reported solar costs, the quality of current installed cost data should not necessarily be questioned as such data matches what is reported on customer disclosure forms. *Id.*, p. 9.

The Authority determines that additional action is required to ensure that the project data collected is as standardized and accurate as possible. Moreover, the stakeholder comments make clear that additional EDC guidance would be helpful to Program participants by reducing customer confusion about what to include when answering data field questions in a project application. Different interpretations across Program participants reduce the reliability of the data collected, thereby negatively impacting any quantitative analysis of Program costs or data trends. Consequently, the Authority directs the EDCs to develop and submit for review and approval a draft project data guidance document that provides clear definitions for each data field required in an RRES application, including guidance on what not to include and specific examples for each data field. The EDCs shall consult with and allow members of the Application Process Working Group (APWG), established through the September 15, 2022 Procedural Order in Docket No. 22-08-02 and subsequently disbanded,³⁸ an opportunity to comment on the draft document prior to submission with the Authority. The guidance developed should not deviate substantially from developers’ current interpretation of the data fields, particularly where developers have a consensus understanding of a field’s definition, so that future data collected does not unnecessarily differ from the data collected in prior Program years. The EDCs shall file such document for review and approval with the Authority by February 1, 2024, and shall post such document on the Program webpage(s) alongside other installer resources once a final determination is reached by the Authority. Finally, by March 15, 2024, or 30 days after Authority approval of the project data guidance document, whichever occurs later, using the guiding document, the EDCs shall develop an “i”, or information, button for any data fields where significant developer confusion is present in the web-based RRES application. When a developer hovers over the “i” button, a brief definition of the data field shall appear. The EDCs’ compliance with this requirement shall include screenshots and descriptions of each “i” button.

Additionally, the Authority notes that the EDCs are currently required to file RRES Program information by August 1 annually, pursuant to Order No. 6 of the February 8, 2023 Decision. Decision, Feb. 8, 2023, p. 14. The Authority directs the EDCs to include in each annual filing a list of all existing fields collected in the RRES application, in addition

³⁸ Per the September 15, 2022 Procedural Order in Docket No. 22-08-02, the APWG members included ConnSSA and its members, Sunrun, Tesla, Inc., as well as DEEP and OCC at their discretion. The September 15, 2022 Procedural Order is available at: [https://www.dpuc.state.ct.us/dockcurr.nsf/8e6fc37a54110e3e852576190052b64d/52860e7d7cbbd895852588be0069270e/\\$FILE/22-08-02%20Procedural%20Order%20-%20Application%20Process%20Working%20Group.pdf](https://www.dpuc.state.ct.us/dockcurr.nsf/8e6fc37a54110e3e852576190052b64d/52860e7d7cbbd895852588be0069270e/$FILE/22-08-02%20Procedural%20Order%20-%20Application%20Process%20Working%20Group.pdf). The Authority understands that the APWG has not met since the report was filed on December 14, 2022, in Docket No. 22-08-02.

to any supplemental field data as indicated in CAE-1 and CAE-14 in the above-captioned proceeding and included in the EDCs' redacted filings. UI Interrog. Resp. CAE-14, Att. 4 Public; Eversource Compliance, Aug. 22, 2023, Att. 1. The annual filings shall also include fields with information on the application submission and approval date for each project. Lastly, the Authority directs the EDCs to include a copy of the Program data on the RRES Program websites. Notably, this data can be provided in any reasonable fashion (e.g., attached file, web link, embedded data), and may be relocated to the PURA data dashboard, as established pursuant to the Decision dated April 20, 2022 in Docket No. 21-07-01, Application of The Connecticut Light and Power Company and Yankee Gas Services Company, each Individually d/b/a Eversource Energy, The United Illuminating Company, Connecticut Natural Gas Corporation, and The Southern Connecticut Gas Company for Approval of Arrearage Forgiveness Program 2021-2022 (PURA Data Dashboard), when the dashboard is expanded to include Clean Energy Program data.

1. Roof Repairs

In the May 15, 2023 Notice of Request for Written Comments, the Authority sought information on the practice of bundling of solar costs with roof repairs, including information on whether any repair costs are included in the RRES Program \$/kW pricing information provided to the EDCs, so that the Authority can ensure that tax credits and ratepayer incentives are being used both properly and effectively. Notice, May 15, 2023, pp. 5-6. Additionally, the Authority noted "that under the Investment Tax Credit (ITC) only some solar roofing tiles and shingles may qualify, while strictly roofing or structural materials do not." Id., p. 6.

CGB subsequently filed written comments with the Authority stating that about 5% of Smart-E Loans involving solar PV installations involved non-solar costs, including roof repairs or tree removals, and that those non-solar costs amounted to approximately 18% of the total cost of the Smart-E loans for such projects. CGB Comments, June 1, 2023, p. 7. Further, ConnSSA stated that its members are aware that roof repair costs are ineligible for the ITC, but that costs for electric work necessary to complete projects are bundled with solar costs. ConnSSA Comments, June 1, 2023, p. 2. ConnSSA further argued that where project costs are being tracked, it should "clearly state [solar] costs do not include any other site prep or electrical upgrade work." Id. Additionally, OCC believed that ratepayer funding should not be used for roof repairs. OCC Comments, June 1, 2023, p. 3. Last, PosiGen stated that it does not bundle roof repair costs with its solar leases, and such costs are reported as separate invoices. PosiGen Comments, June 1, 2023, p. 15. Roof repairs are needed on between 10-20% of projects at a typical cost of between \$2,500 to \$7,000. Id. Notably, most of PosiGen's projects requiring roof repairs do not move forward due to the added cost. Id. The project cost data reported by PosiGen also only includes solar costs not inclusive of roof or electrical upgrades. Id., p. 16. PosiGen stated, however, that electrical upgrade costs should be reported with solar costs in instances where the electrical upgrade is required for the project to participate in the Program, including multi-gang meter socket upgrades required for Buy-All projects per the latest Eversource Information and Requirements Book. Id.

The Authority clarifies that roof and electrical repairs, under most circumstances, do not qualify for the ITC, and, likewise, should not be reported in the project cost data sent by developers to the EDCs. Consequently, the EDCs shall clarify in the RRES

Program documents to be filed in compliance with this Decision that RRES project cost data shall only include solar PV costs. However, for data tracking purposes, and to compare with historical data, the Authority directs the EDCs to add a location specifying costs for associated electrical upgrades in its Order No. 6 compliance, as those costs are sometimes bundled and may have been reported in historical project pricing. The Authority notes, however, that other funds, such as the Greenhouse Gas Reduction Fund or Solar for All, may be used to fund rooftop or electrical repairs.

L. RRES DATA PORTALS

In the Residential Tariff Decision, the Authority directed the EDCs to create a webpage containing relevant data related to the RRES Program, including aggregate avoided emissions, lease price, total installed cost, system size, and historical kilowatt-hour (kWh) dispatch. Residential Tariff Decision, p. 33. Further, the data was to be aggregated on a rolling six-month average and by town by January 1, 2023.³⁹ *Id.* After the EDCs created a webpage containing RRES Program data, the Authority requested written comments “on the accessibility, visibility, and content of the data on the webpages, including any recommendations for improvements.” Notice, May 15, 2023, p. 5.

Accordingly, ConnSSA stated that its members saw “no appreciable impact from the EDC webpages [because] the summary data appears to be intermingled with contractor information.” ConnSSA Comments, June 1, 2023, p. 2. ConnSSA therefore believed that customers would likely be unable to find or use RRES Program data unless the data were moved to a more prominent location. *Id.* Additionally, PosiGen believes that while Eversource’s webpage is generally accessible to the public, UI’s webpage was not as the target audience is installers rather than consumers. PosiGen Comments, June 1, 2023, pp. 13-14. PosiGen nevertheless recommended changes to both webpages. *Id.* For the Eversource webpage, PosiGen recommended: (1) an expansion of the supply, distribution, and retail rates section to show a six-month time period, so consumers could have a better understanding of rate fluctuations’ impact on their solar system; (2) a display of average system size alongside project cost data; and (3) an inclusion of RRES approval timelines including for individual project phases. *Id.* Moreover, for the UI webpage, PosiGen recommended the following: (1) a clearer customer website navigation path; (2) a separation of the RRES and Non-Residential Renewable Energy Solutions (NRES) webpages to prevent customer confusion; (3) the inclusion of a link to the “Historical Rates, System Costs, and Program Data” from the “Getting Started” webpage; (4) a display of the average system size alongside project cost data; and (5) the inclusion of RRES approval timelines including for individual project phases. *Id.*, pp. 14-15.

Further, the EDCs stated that they were working on a joint data portal for all Program reporting requirements pursuant to a final Decision in Docket No. 21-07-01. EDC Comments, June 1, 2023, pp. 14-15. Consequently, the EDCs jointly released a

³⁹ All data reporting requirements outlined in the Residential Tariff Decision must be fulfilled by the EDCs. The Authority notes that UI’s RRES Program website currently lacks aggregate RRES data by town, which was required last January. Consequently, if the EDCs’ RRES Program websites lack any data requirements outlined in the Residential Tariff Decision, the EDCs must publish such data when the EDCs file compliance with Order No. 29. As the RRES website requirements are already past due, the Authority may consider further actions including, but not limited to, civil penalties pursuant to Conn. Gen. Stat. § 16-41 if the website(s) remain deficient of any data requirements outlined in the Residential Tariff Decision. *See* Residential Tariff Decision, p. 33.

“Request for Proposal (‘RFP’) for the development of a centralized Data Reporting Platform ... to develop a user-friendly, web-based centralized data reporting platform, providing accurate reporting of the electric and gas companies’ Energy Affordability data” in addition to other clean energy programs such as RRES. Id., p. 15; Decision, April 20, 2022, Docket No. 21-07-01, p. 57. Additionally, the EDCs noted that at the RFP’s conclusion, they could develop a detailed timeline and plan for improvements to the PURA Data Dashboard to include RRES data. Id.

The Authority concludes that changes are warranted to the existing RRES data reporting on the EDCs’ websites to ensure user accessibility and data transparency. Therefore, the Authority directs the EDCs to incorporate, by April 1, 2024, the changes suggested by PosiGen into the RRES Program webpages. See PosiGen Comments, June 1, 2023, pp. 13-14. Additionally, to ensure that Program participants can easily access RRES programmatic information, the Authority directs the EDCs to break out the current RRES webpage(s) into three distinct pages displaying the following: (1) RRES customer educational materials and general programmatic information; (2) RRES required forms, fees, and installer materials; and (3) RRES programmatic data.⁴⁰ Each webpage shall also include links to the other webpages in a prominent and clearly identifiable section. The Authority finds that these changes to the RRES Program webpage(s) will further the first and fourth Program Objectives by fostering the sustained and orderly development of the state’s solar industry and by increasing Program accessibility for customers. Last, the EDCs shall provide a detailed implementation timeline for the incorporation of RRES data into “a centralized Data Reporting Platform” by January 1, 2024.

M. SYSTEM EXPANSION UNDER NETTING TARIFF

The Authority recently approved a modification to the Program Manual to allow RRES customers to expand existing solar projects under the Netting tariff. System expansions were previously only allowed using the Buy-All tariff. EDC Compliance to Order No. 13, Dec. 15, 2022, Docket No. 22-08-02, Att. 2, p. 2. However, on June 6, 2023, the Authority approved a revision to the Program Manual to allow customers with existing PV systems to enroll a second PV system in the RRES Netting tariff. Motion No. 16 Ruling 2, Docket No. 22-08-02. The change took effect immediately for Eversource customers. Id., p. 1. For UI customers, however, system upgrades, with an estimated timeline of seven months, will need to occur before the change can take effect. Id., p. 2. As a result, the Authority directed UI to file compliance in Docket No. 23-08-02 no later than two weeks after the completion of the UI system modification to allow existing solar PV customers to enroll a second PV system in the RRES Netting tariff, indicating the date(s) when the UI system modification was completed and when the change can take effect. Id. The compliance shall also include a clean and redlined final version of the RRES Program Manual incorporating such change. Id. The Authority looks forward to the successful completion of UI’s system upgrades, which will further the first, third, and fourth Program Objectives by expanding RRES tariff options for existing solar PV customers.

1. Non-Bypassable Charge for Netting System Expansions

⁴⁰ Including all the data requirements listed in the Residential Tariff Decision, in addition to the new data requirements ordered through this Decision. See Residential Tariff Decision, pp. 25-26, 33.

In the Residential Tariff Decision, the Authority directed the EDCs to jointly file proposals for non-bypassable charge designs for projects taking service under the Netting tariff in the RRES Program. Residential Tariff Decision, p. 47. Upon reviewing the EDCs' non-bypassable charge proposal, the Authority approved EDC system modifications to support the potential implementation of a non-bypassable charge in the RRES Program.⁴¹ Motion No. 24 Ruling, Feb. 24, 2022, Docket No. 21-08-02, pp. 1-3. Further, as discussed above, system expansions, where an existing solar customer decides to expand their original solar system, can immediately take service under the Netting tariff in Eversource territory, while such option will become available to UI customers after the completion of necessary system upgrades. Motion No. 16 Ruling 2, July 19, 2023, Docket No. 22-08-03, pp. 1-2. Additionally, the Authority requested a supplement to the EDCs' original non-bypassable charge proposal, including an identification of any changes to non-bypassable charge implementation costs or timelines, while taking into consideration the effects of allowing system expansions to take service under the Netting tariff. Motion No. 16 Ruling 1, June 9, 2023, Docket No. 22-08-02, p. 4. Consequently, the Authority requested written comments from stakeholders on whether the allowance of system expansions to take service under the Netting tariff requires modification if a non-bypassable charge is implemented in the RRES Program. Notice, July 18, 2023, p. 5.

In its supplemental compliance filing, UI stated that the estimated cost and timeline for allowing system expansions to take service under the Netting tariff remain valid, assuming no issues arise with the implementation of a non-bypassable charge. UI Compliance, Aug. 17, 2023, p. 2. Further, in written comments UI stated that if a non-bypassable charge were approved, add-on Netting systems could not be accepted by UI before the completion of IT billing and system upgrades, which could not begin until January 2024 based on UI's resource utilization for other regulatory projects. EDC Comments, Aug. 15, 2023, p. 7. Moreover, UI was unaware of additional barriers caused by the approval of a non-bypassable charge. *Id.* Eversource stated that it could support non-bypassable charges for all add-on Netting systems except those enrolled in a time-of-use rate because those customers are billed through a separate system, which could not support a non-bypassable charge for multiple Netting systems behind one meter. *Id.* Nevertheless, Eversource did not believe that this was a "meaningful barrier to implementing a non-bypassable charge and continuing to allow Add-On netting systems," since only a small number of customers are enrolled in both time-of-use rates and the RRES Program. *Id.* Additionally, PosiGen argued that no modification to the non-bypassable charge structure approved in Docket No. 21-08-02 would be needed for add-on Netting systems. PosiGen Comments, Aug. 15, 2023, p. 11. Similarly, ConnSSA did not see the need for any modifications to the allowance of add-on Netting systems, because a non-bypassable charge could be applied solely to the production of the new system. ConnSSA Comments, Aug. 15, 2023, p. 5.

The Authority determines that no changes are warranted to the allowance of add-on Netting systems in the RRES Program at this time because non-bypassable charges could be supported by both EDCs for most add-on Netting systems. Nevertheless, the Authority reiterates its conclusion that non-bypassable charges are an important

⁴¹ The Authority clarifies that any EDC cost recovery associated with implementing a non-bypassable charge for the RRES Netting tariff remains subject to a full prudency review in the applicable Rate Adjustment Mechanism (RAM) proceeding. *See* Motion No. 24 Ruling, Feb. 24, 2022, Docket No. 21-08-02, p. 3.

mechanism designed to ensure that non-participating ratepayers are not facilitating a rate of return that is more than is necessary to sustain historical solar deployment, thereby supporting the third Program Objective, balancing Program costs and benefits. Residential Tariff Decision, p. 39. Therefore, should a significant number of add-on Netting systems that are unable to support the addition of a non-bypassable charge enroll in the Program, the Authority requests that the EDCs alert the Authority in the current RRES annual review proceeding (i.e., if in 2024, in Docket No. 24-08-02), so that the Authority can determine the appropriate steps, including potential EDC billing or IT modifications or additional programmatic changes.

N. OVERSIZING ALLOWANCE FOR SYSTEMS

In a May 15, 2023 Notice of Request for Written Comments, the Authority requested stakeholder feedback on the pros and cons of allowing residential solar customers to receive additional incentives for system oversizing, in return for sending “credits for a percentage of the energy generated to low-income residents at no cost to the recipient,” as is currently done in Massachusetts via the Solar Equity Program. Notice, May 15, 2023, p. 4.

In written comments, the EDCs supported exploration of creative solutions to increase RRES inclusivity. EDC Comments, June 1, 2023, p. 10. Nevertheless, the EDCs believe that the RRES Program has already achieved some success on low-income and underserved enrollment and noted that Conn. Gen. Stat. § 16-244z(b)(2) currently limits RRES system oversizing. *Id.* Further, the EDCs noted that the Massachusetts Solar Equity Program was launched by a private company and is helped by the unique programmatic design of the Solar Massachusetts Renewable Target (SMART) Program. *Id.*, pp. 10-11. The EDCs also do not “have in place the processes and resources to transfer bill credits among a range and volume of customers similar to Massachusetts,” which would require time and resources to implement in Connecticut. *Id.*, p. 12. Ultimately, the EDCs stated that the proposal would increase RRES Program costs without improving outcomes for Connecticut electric customers, because the RRES Program currently supports customer inclusivity. *Id.* Additionally, while OCC recognized that system oversizing could increase Program participation, OCC was concerned that the proposal would undermine Program inclusivity. OCC Comments, June 1, 2023, pp. 2-3.

CGB, conversely, supported allowing additional incentives for system oversizing in the RRES Program in return for sending credits at no cost to low-income residents. CGB Comments, June 1, 2023, p. 6. CGB noted that through the existing Buy-All tariff, Program participants can already direct compensation to another party, and CGB sees no reason that such party could not be another electric meter. *Id.* CGB also highlighted the importance of ensuring “that this arrangement does not qualify as additional income or taxes,” to avoid penalizing the low-income recipient. *Id.* Further, the city of New Haven supported the proposed change because residential solar customers could utilize additional space to satisfy other customers’ loads while improving their projects’ economies of scale. New Haven Comments, May 31, 2023, p. 3. New Haven also noted that the proposal would increase solar project equity, since wealthier customers would share benefits with low-income households. *Id.*

While the Authority remains committed to exploring innovative programmatic changes to increase low-income deployment in the RRES Program, to support the fifth Program Objective by increasing inclusivity overall, the Authority ultimately declines to implement a proposal to provide additional incentives for system oversizing in return for sending credits to low-income residents at no cost. Conn. Gen. Stat. § 16-244z(b)(2) does not allow RRES system oversizing, thereby currently preventing the proposal's implementation. Moreover, the Authority concludes that additional data would be needed before the proposal could be implemented, including implementation cost estimates from the EDCs and more specific information on the proposal's status and success in the SMART Program. The Authority highlights, however, that low-income enrollment in the RRES Program remains low, at only 4.3% of total deployment. EDC Comments, June 1, 2023, p. 5. Consequently, the Authority is concerned about low-income inclusivity and remains open to the consideration of similar proposals in the RRES Program in future Program years.

O. SOLAR PANEL RECYCLING

In a Notice of Request for Written Comments, the Authority sought stakeholder feedback “on any proposals or recommendations for solar panel recycling, including information on any programs in other jurisdictions.” Notice, July 18, 2023, p. 4. Accordingly, CGB noted that solar panels remain useful for 20 to 25 years. CGB Comments, Aug. 15, 2023, p. 6. Additionally, with the passage of Public Act 21-115, CGB's mission was expanded to include “waste and recycling.” *Id.* CGB was consequently interested in resolving the issue of solar panel recycling. *Id.* CGB ultimately recommended that the Authority “work with DEEP and the EDCs to study the potential waste from solar panels and battery storage over time and bring forth recommendations at the next annual review of the RRES and ESS programs.” *Id.*, pp. 6-7. Moreover, ConnSSA noted that solar panels ready for recycling were “not at a quantity for investors to create recycling businesses.” ConnSSA Comments, Aug. 15, 2023, p. 4. ConnSSA nevertheless believed that the formation of a multi-state recycling program would be worthwhile and pointed to the success of other solar panel recycling programs, including Solarcycle in California. *Id.*

Further, PosiGen provided information on solar panel recycling solutions proposed in other states. PosiGen Comments, Aug. 15, 2023, p. 10. For example, to resolve the issue of solar panel recycling, other states have established task forces or working groups, extended producer responsibility, designed tax incentives for solar recycling facilities, and created solar decommissioning plans. *Id.* Any solar panel recycling policy, PosiGen argued, should consider both large- and small-scale solar installations, in addition to customer or third-party owned systems. *Id.* PosiGen concluded by providing several informational references on solar panel recycling efforts, including resources produced by the Solar Energy Industries Associations (SEIA). *Id.*, pp. 10-11. Last, the EDCs stated that they were unaware of any solar panel recycling programs in their service territories. EDC Comments, Aug. 15, 2023, p. 5.

The Authority determines that a proactive approach is needed to resolve the issue of solar panel recycling and waste and consequently accepts a modified version of the proposal suggested by CGB in written comments. Accordingly, the Authority respectfully requests that CGB convene and lead a working group of relevant stakeholders, including DEEP and the EDCs, to develop recommendations to proactively address foreseeable

issues related to solar panel recycling and waste for residential solar projects in Connecticut. Additionally, the Authority anticipates that recycling will also become an important topic in the NRES, SCEF, and Energy Storage Solutions (ESS) Programs as well once commercial solar and batteries reach their end of life. Consequently, the Authority requests that CGB, in consultation with DEEP, the EDCs, and other stakeholders, develop recycling and waste recommendations for the NRES, SCEF, and ESS Programs as well. The Authority requests that the recommendations consider the environmental effects of solar panel and battery waste and the success or failure of approaches used in other jurisdictions. Further, all recommendations should include a description of the pros and cons of each approach, and an estimate of each approach's implementation timeline and cost. If suggested as an outcome of these collaborative efforts, the Authority would strongly consider creating a new fee, either applied at the time of project application or on an annual basis per developer, across the state's clean energy programs to cover the costs associated with solar panel and battery recycling. Last, the Authority requests that CGB provide an update on the stakeholder process, including any recommendations developed, by August 1, 2024. Ultimately, while solar panel recycling and waste is not yet a prevalent issue in Connecticut, the Authority concludes that the development of a solution is needed sooner rather than later, to ensure state preparedness for when the issue becomes more emergent, and in support of state environmental goals and the first Program Objective, the sustained and orderly development of the state's solar industry.

P. SOLAR PLUS STORAGE ADDER

The Authority sought stakeholder feedback on an increased incentive for solar plus storage projects, specifically for customers eligible for either the low-income or Distressed Municipality adder. Notice, July 18, 2023, p. 3. Further, the Authority requested comments on challenges related to solar plus storage project deployment, and whether an increased incentive should be provided solely by developers who meet a certain threshold of solar plus storage deployment among low-income or Distressed Municipality customers (e.g., if a developer deploys 40% of solar plus storage systems to underserved customers in a subsequent Program year). Id.

CGB stated support for the implementation of an adder to encourage the deployment of solar plus storage projects for underserved customers. CGB Comments, Aug. 15, 2023, p. 5. CGB noted several barriers to retrofitting existing solar with storage, including "additional research and labor costs to determine if the existing system is compatible with new energy storage technologies, the potential need for redesigning, rewiring, replacing old equipment, and, the cost of labor for installing new equipment." Id. Further, CGB asserted that a solar retrofit adder should be administered through the Energy Storage Solutions (ESS) Program, because retrofits for systems installed before the launch of RRES would then qualify for the adder. Id. Moreover, ConnSSA argued that an adder for solar plus storage projects should be worked out in Docket No. 23-08-05, the annual ESS Program review proceeding. ConnSSA Comments, Aug. 15, 2023, p. 3.

PosiGen similarly argued for a solar plus storage incentive to be investigated in Docket No. 23-08-05, where it can be considered in the context of existing ESS incentives. PosiGen Comments, Aug. 15, 2023, p. 8. PosiGen also noted that the cost of energy storage has not declined since the launch of the ESS Program. Id., p. 9.

Additionally, in an interrogatory response, PosiGen provided quantitative analysis of the estimated RRES adder needed to equalize customer savings between solar only and solar plus storage systems, for both standard and low-income customers. *Id.*, p. 8. The analysis was based on a typical PosiGen solar lease and considered existing RRES and ESS Program incentives. Interrog. Resp. CAE-21, p. 1. PosiGen cautioned however that its analysis used many complex variables and assumptions, including cost data likely to fluctuate in the future, as well as company-specific data. *Id.* PosiGen also assumed battery use over a 10-year time frame rather than the full 20-year RRES tariff length given uncertain battery replacement costs and the potential discontinuation of ESS incentives.⁴² *Id.*, p. 2. Ultimately, PosiGen's analysis recommended a 20-year solar only lease rate of \$0.2132/kWh, a 20-year solar plus storage adder of \$0.0452/kWh for standard customers, and a 20-year solar plus storage adder of \$0.0297/kWh for low-income customers. *Id.*

OCC stated support for increased adders for solar plus storage projects for low-income or Distressed Municipality customers. OCC Comments, Aug. 15, 2023, pp. 9-10. Nevertheless, because many underserved customers live in rental properties, OCC noted concern that landlords would collect the solar plus storage adder and not share it with their tenants. *Id.* OCC believes a solar plus storage adder would also likely require coordination between the RRES and ESS Programs, "to ensure alignment between program benefits and application and eligibility criteria." *Id.*, p. 10. Finally, while the EDCs noted support for promoting solar plus storage projects to underserved customers, the EDCs recommended that the Authority "carefully consider the effectiveness of [RRES and ESS] incentives in achieving target outcomes" of underserved deployment, instead of assuming "that further incentives would be effective or efficient." EDC Comments, Aug. 15, 2023, p. 5.

The Authority will not implement a solar plus storage adder in the RRES Program at this time. More specifically, the Authority concludes that a solar plus storage adder in the ESS Program would better balance non-participant cost and benefits, because, in contrast to the RRES Program, battery dispatch events in the ESS Program bring value to all ratepayers via peak shaving and ancillary services. Decision, Dec. 21, 2022, Docket No. 22-08-05, Annual Energy Storage Solutions Program Review - Year 2, p. 3. Consequently, the Authority may consider implementing a solar plus storage adder in Docket No. 23-08-05, Annual Energy Storage Solutions Program Review - Year 3, or another future annual review of the ESS Program. The Authority, nonetheless, determines that better coordination could exist between the RRES and ESS Programs. As a result, the Authority directs the EDCs to work with the ESS Program Administrators to promote or market the ESS Program through the RRES Program. As compliance, the EDCs shall file, by March 1, 2024, a plan for better coordination between the RRES and ESS Programs, so that RRES customers and developers are aware of the incentives and requirements of the ESS Program. Last, the Authority directs the EDCs to include, by January 1, 2024, a link to the ESS Program website, along with a brief description of the ESS Program, on the RRES Program webpage(s), to provide RRES stakeholders with easy access to information pertaining to the ESS Program.

⁴² Additional assumptions used by PosiGen include: (1) an 8 kW-DC solar system producing 9,288 kWh in year 1; (2) a 7.6 kW/18 kWh storage system size; (3) full ESS participation; (4) an Eversource customer with applicable RRES adders; (5) no customer savings from energy efficiency, only from solar; (6) a \$20,000 total battery cost; (7) a target of 20% savings or greater over the lease's term; and (8) a 20-year solar lease. Interrog. Resp. CAE-21, pp. 1-2.

Q. OMBUDSPERSON

In the Year 2 review of the Non-Residential Renewable Energy Solutions (NRES) Program, and in the Year 4 review of the Shared Clean Energy Facilities (SCEF) Program, stakeholders supported the implementation of an independent ombudsperson to resolve disputes between developers and the EDCs that do not require an Authority ruling. Decision, Nov. 9, 2022, Docket No. 22-08-03, Annual Non-Residential Renewable Energy Solutions Program Review – Year 2, pp. 31-32; Decision, Dec. 7, 2022, Docket No. 22-08-04, Annual Shared Clean Energy Facility Program Review – Year 4, pp. 19-20.

While the idea of a clean energy program ombudsperson has primarily been considered from the perspective of the NRES and SCEF programs to date, the Authority is concerned that developer disputes with the EDCs could become more common in the RRES Program if project applications and deployment levels remain at historic levels. EDC Corresp., June 16, 2023, pp. 13-14. Consequently, the Authority concludes that the use of an independent ombudsperson could be beneficial for the RRES Program in furtherance of the first Program Objective, the sustained and orderly development of the state's solar industry, and by furthering the fourth Program Objective, accessibility for customers through customer protections. However, as the number and type of issues that have risen to date have not been significant, the Authority only finds such ombudsperson appropriate if also determined to be necessary for the NRES and SCEF Programs so that costs can be shared across those programs in furtherance of the third Program Objective to balance participant costs. Therefore, if approved in one of the annual program review Decisions for the NRES or SCEF Programs, the Authority will issue a competitive request for proposal (RFP) to hire an independent ombudsperson to serve as a dedicated Program resource to resolve Program disputes that do not require a ruling from the Authority. In such case, the cost of the ombudsperson shall be partly recovered through RRES application fees. Since the ombudsperson would be used as a Program resource for other statewide clean energy programs besides RRES, only 25% of the cost of the ombudsperson shall be recovered by the EDCs through RRES application fees. Last, if an ombudsperson is deemed necessary for the NRES and SCEF Programs, the Authority will file a cost estimate for the ombudsperson in the present docket when the RFP process has concluded, which shall inform the EDCs' recommendation for RRES application fees for Year 4 of the Program.

R. TRANSFORMER COST SOCIALIZATION

The Authority recognizes that interconnection costs, including transformer upgrades, pose a barrier to the deployment of RRES projects, particularly for low-income residents who may be unable to afford unexpected distribution system upgrades. The Authority plans to issue a decision addressing interconnection costs for residential systems in Docket No. 22-06-29, PURA Investigation into Distributed Energy Resource Interconnection Cost Allocation, by the end of calendar year 2023.

S. PROPOSED PROGRAMMATIC CHANGES**1. Wiring Diagrams**

In the Year 2 annual review proceeding, Tesla noted that the current EDC-approved Buy-All wiring configurations limit solar systems' ability to provide back-up

power to a home during a grid outage. Year 2 Decision, p. 17. Consequently, Order No. 18 of the Year 2 Decision, which was later updated to Order No. 16 in the APWG Decision (APWG Order No. 16), directed the EDCs to jointly develop with solar industry stakeholders several wiring configurations with the ability to provide home backup power during grid outages, including an estimated timeline and cost of implementation for each diagram. Year 2 Decision, p. 36. In the EDCs' compliance with APWG Order No. 16, several diagrams were submitted. EDC Order No. 16 Compliance, June 30, 2023, Atts. 1 and 2. Eversource stated that the diagrams could be implemented "without added time or cost," while UI stated that the diagrams would "have minimal impact on UI's billing systems and therefore may be implemented with relatively low cost to UI." EDC Order No. 16 Compliance, June 30, 2023, p. 2. Accordingly, the Authority requested written comments on the EDCs' compliance, including any support or opposition to implementing the proposed diagrams. Notice, July 18, 2023, p. 6.

In response, CGB stated that it had "not heard of any potential issues" with the diagrams. CGB Comments, Aug. 15, 2023, pp. 8-9. CGB also believes the diagrams would provide greater customer access to solar and storage configurations. *Id.*, p. 8. Further, PosiGen supported the additional configurations because they would provide customers with new options. PosiGen Comments, Aug. 15, 2023, p. 12. Last, ConnSSA argued that it should be possible "to have the normal output circuit feed the grid via a [front-of-the-meter] connection and have the backup loads in the home be fed during an outage." ConnSSA Comments, Aug. 15, 2023, p. 5.

Additionally, on August 1, 2023, the EDCs filed metering wiring diagrams for Authority review and approval in Motion No. 10, in accordance with Order No. 7 of the Year 2 Decision. Order No. 7 directed the EDCs to review and update their meter wiring diagrams and guidelines no less than annually by August 1. Year 2 Decision, p. 32. Eversource proposed that its "meter wiring diagrams for configurations of the Netting and Buy-All Tariffs for Year 3 remain the same as presented in Year 2." Motion No. 10, p. 1. UI proposed a set of Netting and Buy-All metering diagrams that were "intended to simplify and consolidate various metering configurations into a single diagram for each Tariff". *Id.*, p. 2. Notably, the EDCs' proposed wiring diagrams included the additional Buy-All and Netting tariff configurations filed in compliance with Order Nos. 16 and 25 of the APWG Decision, as discussed at the beginning of this section. Motion No. 10, Att. 1. Further, the EDCs filed a redlined version of the RRES Metering Guidelines reflecting the proposed changes. Motion No. 10, Att. 3. The Authority grants Motion No. 10, pursuant to any Program updates as directed by the Authority in this Decision.

In written comments, several stakeholders proposed additional updates to the metering guidelines and requirements of the RRES Program. Tesla recommended the Authority direct the EDCs to explicitly allow meter socket adapters (MSAs, also called meter collar adapters), which are currently disallowed under the RRES Metering Guidelines. Tesla Comments, Aug. 15, 2023, p. 2. Tesla asserted that customer-owned MSAs, which are a category of device installed between a residential utility meter and the meter socket, "allow for residential solar and battery storage systems to be installed roughly 10-times faster, with significantly less rewiring, and can help avoid the need for electrical panel upgrades." *Id.* Tesla further suggested that the EDCs employ certain approval and assessment criteria, such as allowing only MSAs that are approved or listed by a National Recognized Testing Laboratory, as has been done in other utility jurisdictions. *Id.* In written comments, ConnectDER also encouraged updating the RRES

guidelines to enable the use of MSAs, citing faster installation and avoided upgrade costs. ConnectDER Comments, Aug. 15, 2023, pp. 3-5. Like Tesla, ConnectDER suggested that the Authority and the EDCs take similar steps to approve certain MSAs as have been pursued by other states and utilities. Id.

Conversely, Eversource stated that the company had identified several issues with MSAs based on physical evaluations of the devices “that would have adverse impact on Company policies, processes, and safety measures.” Eversource Corresp., Sep. 7, 2023. Specifically, Eversource noted that such devices are not compatible with the voltage measurement and recording equipment the Company uses to diagnose power quality issues. Id. In addition, Eversource stated that MSAs block access to the bypass switch on all self-contained meter sockets, such that meter replacements or maintenance require a customer outage. Id. Further, Eversource noted that the other utilities identified by Tesla that have approved MSAs do not require lever bypass sockets with clamping jaws for 200A services, which differs from Eversource’s existing standards. Id.

Further, in written comments, ConnSSA suggested several additional metering requirement changes. The recommended changes included modifying or eliminating the requirement for meter grouping, allowing customers to have more than one Netting meter at the project site, and allowing Netting REC meters to be installed inside if the customer’s existing utility meter is inside. ConnSSA Comments, Aug. 15, 2023, pp. 6-7. ConnSSA argued that the cost of these requirements is preventing the deployment of projects that would otherwise be viable. Id.

First, the Authority approves the wiring diagrams submitted by the EDCs in compliance with Order Nos. 16 and 25 of the APWG Decision. The Authority directs the EDCs to implement the new diagrams for immediate use in the RRES Program. The Authority foresees no issues with the diagrams’ implementation and concludes that the diagrams will further the RRES Program Objectives, particularly the first, third, and fourth Program Objectives, by providing RRES participants with new wiring options at a minimal cost to non-participating ratepayers. The Authority thanks all parties involved for their work on this matter and looks forward to the allowance of backup power under the Buy-All tariff. If the approved diagrams are not sufficient to deploy solar systems that can provide backup power to a home during a grid outage, or if stakeholders believe that other options exist that may further advance the Program Objectives, the Authority invites data and information pertaining to cost, safety, equipment availability, and any improvements offered by such alternative configurations or solutions to be submitted in the next annual review proceeding (i.e., Docket No. 24-08-02).

Second, the Authority recognizes the concerns raised by Eversource regarding the potential adoption of MSAs and will therefore not allow MSAs for use in the RRES Program at this time. However, the Authority is generally inclined to allow MSAs for residential solar installations as they provide potential benefits that would advance the Program Objectives by lowering solar installation costs. Additionally, the potential to defer costly wiring upgrades by utilizing MSAs could be a particular benefit for low-income customers, thereby increasing low-income Program enrollment. Accordingly, the Authority directs the EDCs to file by April 10, 2024, a summary of all MSA safety concerns, along with solutions for each safety concern, and estimated costs and timelines for implementing each solution. In developing the compliance, the EDCs shall work directly with ConnectDER and Tesla to understand how other jurisdictions have addressed MSA

safety concerns, and to determine if steps taken by other jurisdictions to allow MSAs can be replicated in Connecticut. Further, the compliance shall also be filed in Docket No. 23-08-05, as similar concerns have been raised by Tesla in that proceeding. See, Tesla Comments, Aug. 30, 2023, Docket No. 23-08-05, pp. 5-9. Finally, the EDCs shall present their findings to the Interconnection Working Group and allow for written feedback from that working group before submitting its MSA safety concerns and solutions filing on April 10, 2024.

Third, the Authority does not approve the metering modifications suggested by ConnSSA for Program Year 3, as broad stakeholder input has not been provided on these topics in the annual review process. Consequently, the Authority declines to make a decision on these topics at this time, as PURA lacks pertinent information on the impact of such requirements, as well as the safety and feasibility of alternative metering configurations. Additionally, solar deployment under the RRES Program has significantly exceeded the historical average to date, thereby suggesting that the existing metering requirements do not pose a significant barrier to entry for Program participants. EDC Corresp., June 16, 2023, pp. 11-15. However, ConnSSA may work with the Interconnection Working Group to propose solutions to the metering problems described. Additionally, if compelling and detailed quantitative or qualitative information is provided to the Authority, the Authority may consider ConnSSA's suggested changes to the RRES metering requirements in a future annual review proceeding.

2. Production Meter Ownership and Non-Bypass Meter Sockets

In the APWG Decision, the Authority stated its intent to “re-implement the utility-owned meter socket requirement starting on January 1, 2024, absent overwhelming evidence that the requirement should not be reinstated.” APWG Decision, p. 8. In briefs, the EDCs concurred with the Authority decision and requested that the Authority affirm the re-implementation of utility-owned production requirements beginning January 1, 2024. Eversource Brief, p. 8.

The Authority notes that no evidence has been received indicating that utility-owned production meters should not be required, and, thus, affirms its prior guidance to reimplement the requirement for utility-owned production meters beginning on January 1, 2024, for all new RRES applications.

Additionally, the Authority maintains the allowance of non-bypass meter sockets in the RRES Program through 2024. The Authority is concerned that continued meter shortages and supply chain challenges could hinder Program participation if non-bypass meter sockets were disallowed at this time without sufficient notice to installers. However, the Authority intends to reconsider the allowance of non-bypass meter sockets in the next annual Program review. Ultimately, unless stakeholders provide compelling and data-driven evidence for why the allowance of non-bypass meter sockets remains necessary in the next annual review proceeding, the Authority will not allow their use in the Program beyond the end of 2024.

3. Program Manual

On August 1, 2023, the EDCs jointly filed redline edits to the RRES Program Manual in Motion No. 11, in compliance with Order No. 1 of the Year 2 Decision, which directed the EDCs to annually file “(1) Program Manual and guidelines and (2) other resources for residential utility customers and/or renewable energy contractors to explain the technical, administrative, and procedural requirements of the Residential Tariff program, including all cash out provisions.” Year 2 Decision, pp. 32-33.

The Authority grants with modification Motion No. 11, pursuant to the redline updates as directed by the Authority in this Decision. Further, the Authority directs the EDCs to file updated RRES Program documents, including the Program Manual (both a redlined and a clean version), incorporating the approved modifications authorized herein as compliance in this proceeding by December 15, 2023.

V. CONCLUSION AND ORDERS

A. CONCLUSION

In this Decision, the Authority explores and approves several changes to the RRES Program to better serve the Program Objectives. The Decision also approves the RRES Program Tariff rates for project applications received in calendar year 2023.

Further, the Decision includes the Authority’s rulings to Motion Nos. 8, 9, 10, and 11 in the instant proceeding.

T. EXISTING AND NEW ORDERS

For the following Orders, the Company shall file an electronic version through the Authority's website at www.ct.gov/pura. Submissions filed in compliance with the Authority's Orders must be identified by all three of the following: Docket Number, Title and Order Number. Compliance with orders shall commence and continue as indicated in each specific Order or until the Company requests and the Authority approves that the Company's compliance is no longer required after a certain date. All Orders requiring Authority review and approval shall be submitted as a motion.

The below standing orders are a summation of prior orders related to the RRES Program that continue to apply. In some instances, the Authority has amended those standing orders with redline edits. The below new orders apply on a going forward basis.

1. Standing Orders to be filed in RRES Annual Review Dockets

1. Reference Interim Decision, Feb. 10, 2021, Docket No. 20-07-01, Order No. 4, p. 44: No later than [August 1], 2021, the EDCs shall develop and file for the Authority's review, modification, and approval a set of (1) Program Manual and guidelines and (2) other resources for residential utility customers and/or renewable energy contractors to explain the technical, administrative, and procedural requirements of the Residential Tariff program, including all cash out provisions. Such Program Manual, guidelines, and other resources shall strictly adhere to this Interim Decision, incorporating any direction provided herein. Any proposed rules and guidelines shall include a list of program eligibility requirements. The EDCs shall update all Program Manual, guidelines, and other resources by August 1 annually to reflect the most recent program information and Authority orders and/or rulings and file the aforementioned updated documents in the appropriate annual review docket (e.g., changes to be enacted in 2024 should be filed in Docket No. 23-08-02).
2. Reference Interim Decision, Feb. 10, 2021, Docket No. 20-07-01, Order No. 5, pp. 44-45: No later than [August 1], 2021, and annually thereafter, each EDC shall file, in the annual Residential Tariff program review and rate setting proceeding for the Authority's review, modification, and approval a proposal for a Residential Tariff program application fee to cover the estimated administrative costs associated with processing applications. The EDCs shall provide detailed calculations and written descriptions to explain and to justify the proposed application fee. In the same filing, the EDCs shall file for the Authority's review, modification, and approval a proposed nominal administrative fee pursuant to Section III.A. for any change orders or re-designation changes subsequent to the initial project interconnection, so long as a robust rationale for the proposed fee and fee level is provided. The 2021 submission shall provide a copy of the language to be included in the customer disclosure form informing program participants of the fee.
3. Reference Interim Decision, Feb. 10, 2021, Docket No. 20-07-01, Order No. 15, p. 46: No later than November 1, 2021, the EDCs shall file with the Authority link to their respective Residential Tariff program webpages. Such webpages shall include all relevant information regarding the "buy-all" and netting Residential Tariffs for interested residential customers and renewable energy contractors.

Such website shall be made public no later than January 1, 2022 and shall be updated as frequently as is practicable, unless otherwise directed herein, to reflect the most recent program information and Authority orders and/or rulings.

4. Reference Interim Decision, Feb. 10, 2021, Docket No. 20-07-01, Order No. 19, p. 47: No later than January 1, 2023, each EDC shall have in place a customer education and information webpage that shall, at a minimum, include the average installed cost (\$/W) and PPA or lease price (\$/kWh) for all Residential Tariff applications accepted by the EDC over the preceding 6-month period, as well as current and historical retail rates for the customer to compare their pricing and savings in real-time. Such website shall be updated at least monthly and customers shall be required to electronically acknowledge that they have reviewed the material on the customer education and information webpage as part of Residential Tariff application process. On or before January 1, 2022, each EDC shall submit a cost estimate for the development of such a webpage. On or before August 1, 2022, each EDC shall file with the Authority a working draft of such webpage.
5. Reference Interim Decision, Feb. 10, 2021, Docket No. 20-07-01, Order No. 21, p. 47: No later than June 1, 2022, each EDC shall publicly disclose the costs of setting up and maintaining the REC metering equipment, as well as the customer acquisition costs, on their respective Residential Tariff websites. Each EDC shall update the required information at least annually. No later than June 1, 2022, and annually thereafter, each EDC shall submit in the above-captioned proceeding and in the appropriate annual review docket (e.g., changes to be enacted in 2024 should be filed in Docket No. 23-08-02) the required REC metering cost information.
6. Reference Interim Decision, Feb. 10, 2021, Docket No. 20-07-01, Order No. 22, p. 47: No later than August 1, 2022, and annually thereafter, the EDCs shall jointly file, in the annual Residential Tariff program review and rate setting proceeding the Excel workbooks outlined in Section III.[C].6.a. The EDCs shall each use the same Excel workbook, including the same format and the exact same data fields, as each other. The EDCs shall follow all other direction provided in Section III.[C].6.a. [The Authority further directs the EDCs to include the following in each annual filing: (1) any supplemental field data as indicated in CAE-1 and CAE-14 in Docket No. 23-08-02 and included in the EDCs' redacted filings; (2) a list of all existing data fields collected in the RRES application; (3) information on the application submission and approval date for each RRES project; (4) both solar PV costs, and other costs (e.g., costs of associated electrical upgrades); (5) the number and percentage of LIDR customers enrolled in the RRES Program, broken out by both LIDR tier and RRES tariff; (6) the number of add-on Netting systems enrolled in the Program which are unable to support the addition of a non-bypassable charge; (7) by each developer, the number and percentage of systems by type of housing (e.g., single family, 2-4 unit multifamily, or multifamily affordable housing); and (8) by each developer, the number and percentage of total approved RRES applications which are eligible for the low-income or Distressed Municipality adder(s). See, UI Interrog. Resp. CAE-14, Att. 4 Public; Eversource Compliance, Aug. 22, 2023, Att. 1. Last, the Authority also directs the EDCs to include a summary of the Program data on the RRES Program websites. Notably, this data

can be provided in any reasonable fashion (e.g., attached file, web link, embedded data), and may be relocated to the PURA Data Dashboard when the dashboard is expanded to include Clean Energy Program data.]

7. Reference Interim Decision, Oct. 6, 2021, Docket No. 21-08-02, Order No. 8, p. 28: No later than January 1, 2022, the EDCs shall submit revised compliance with Order No. 14 of the Residential Tariff Decision for Authority review and approval. The EDCs shall review and update their meter wiring diagrams and guidelines as appropriate, but no less frequently than August 1 annually, and submit the revised documents in the appropriate Annual Review docket.
8. Reference Decision, June 8, 2022, Docket No. 21-08-02, Order No. 4, p. 16: No later than August 1, 2022, and [quarterly] thereafter, PURA requests that the Agencies file as compliance in the appropriate RRES annual review docket (i.e., in Docket No. 22-08-02 on August 1, 2022, etc.) a list of housing facilities eligible under Tier I of the affordable housing definition approved in Section II.A of this Decision. [The EDCs shall post the most recent compliance with this order, along with contact information for each of the Agencies, on the RRES Program website by January 1, 2024, and quarterly thereafter.]
9. Reference Decision, June 8, 2022, Docket No. 21-08-02, Order No. 5, p. 16: No later than August 1, 2022, and annually thereafter, the EDCs shall file as compliance in the appropriate RRES annual review docket (i.e., in Docket No. 22-08-02 on August 1, 2022, etc.) a list of housing facilities eligible under Tier II of the affordable housing definition approved in Section II.A of this Decision.
10. Reference Decision, June 8, 2022, Docket No. 21-08-02, Order No. 6, p. 16: No later than August 1, 2022, and annually thereafter, PURA requests that the Agencies file as compliance in the appropriate RRES annual review docket (i.e., in Docket No. 22-08-02 on August 1, 2022, etc.) the DEEP and DOH contact information for a housing facility seeking to be defined as “affordable housing” that does not meet the Tier I or Tier II thresholds of the affordable housing definition approved in Section II.A of this Decision. [The EDCs shall post the most recent compliance with this order on the RRES Program website by January 1, 2024, and annually thereafter.]
11. Reference Decision, June 8, 2022, Docket No. 21-08-02, Order No. 9, p. 17: No later than August 1, 2023, and annually thereafter, the EDCs shall file as compliance documentation of the distribution of the incentive adders to validate that the required percentage of the benefit was received by the tenants in multifamily affordable houses in the previous year (e.g., calendar year 2022 for the August 1, 2023 filing), for both the cases of on-bill credits for individually metered units and annual checks or other approved distribution methodology for those multifamily homes where units are not individually metered.
12. Reference Year 2 Decision, Order No. 12, p. 35: On a [quarterly basis beginning on January 1, 2024] through [the duration of the RRES Program], the EDCs shall provide updates to Docket No. 21-08-02 Response to Interrogatory CAE-8. Specifically, the Authority adapts the ruling in Docket No. 21-08-02 to Motion No. 26 dated March 22, 2022, which directed the EDCs to submit as a compliance filing

an update to Interrogatory CAE-8 ~~on or before the 15th of every month through January 1, 2023 (i.e., the final filing would have been made on December 15, 2022), to instead direct the compliance filings to continue monthly through January 1, 2024.~~ Such filings shall be made in [the annual review proceeding (i.e., in 2024, Docket No. 24-08-02)] and should also include tariff type and incentive adder status information. [Last, beginning by July 1, 2024, the quarterly filings shall include: (1) the total number of low-income customers and customers located in Distressed Municipalities, and associated project capacity, which do not receive either adder, in addition to the existing breakouts for customers enrolled in the low-income and Distressed Municipality adders; (2) the number and associated project capacity of customers who reside in environmental justice census block groups, broken out by customers that qualify for the low-income and Distressed Municipality adders and those that do not; and (3) the number and associated project capacity of RRES customers who qualify for the Federal Justice 40 disadvantaged communities definition.]

13. Reference Year 2 Decision, Order No. 15, p. 35: No later than January 1, 2023, the EDCs shall update any clean energy and hardship program webpages where dual enrollment in any clean energy programs is adversely impacted or otherwise prohibited. Specifically, Eversource shall update at least their RRES Program and New Start webpages with a disclaimer alerting customers that, until such time as a proposal to enable concurrent participation in the RRES Program and the New Start Program is submitted by Eversource and approved by the Authority, existing New Start Program participants are unable to continue to participate in New Start once enrolled in the RRES Program. Moreover, moving forward, the Authority requires Eversource and UI to provide such disclaimer(s) on the appropriate clean energy program website for any instances where hardship program enrollment is jeopardized or negatively impacted by enrollment in solar programs, or vice versa. Each disclaimer should include an explanation of why dual enrollment is adversely impacted or prohibited. Further, the EDCs shall file a copy of the disclaimer(s) as compliance and provide links to the online locations where the disclaimer(s) is/are located.
14. Reference Year 2 Decision, Order No. 17, p. 36: No later than May 1, 2023, and quarterly thereafter for the remainder of the RRES Program, the EDCs shall submit information for the prior quarter (e.g., January 1, 2023 through March 31, 2023 for the May 1, 2023 filing) on the following items related to RRES Program applications: (1) the length of time from application to submission to tariff review approval; (2) the length of time from tariff review approval to interconnection contingent approval; (3) the length of time to receive the work order number needed to apply for permits from cities and towns; (4) the length of time to process payments when applicable; (5) the length of time for any applicable witness tests; (6) the number of days between when the utility is notified of a completed inspection to meter installation; and, (6) the length of time for final issuance of the permission to operate. The RRES APWG may recommend additions to this list in their final report filed on December 14, 2022. Such filings shall be submitted in the relevant RRES Program review docket (e.g., any updates related to Year 2 of the RRES Program shall be disclosed in this proceeding, Docket No. 22-08-02).

15. Reference Year 2 Decision, Order No. 22, p. 37: Through the end of the RRES Program, the EDCs shall follow the guidance provided in Section IV.N of this Decision when making administrative changes to the RRES Program without prior PURA approval. Such changes shall be clearly documented, explained, and justified in a compliance filing submitted at least ten (10) business days prior to such changes taking effect in the relevant RRES Program review docket (e.g., any changes related to Year 2 of the RRES Program shall be disclosed in this proceeding, Docket No. 22-08-02). Justification must include a clear articulation of how each Program Objective may or may not be impacted and how the requested change would serve to further the Program Objectives overall.
16. Reference Decision, Feb. 8, 2023, Docket No. 22-08-02, Order No. 26, p. 17: As required, the Authority directs the EDCs to identify any required NEPOOL waivers to allow the program to continue without the utility-owned meter socket requirement through June 2024, and to request the requisite authorization from PURA.
17. Reference Motion No. 16 Ruling 2, Docket No. 22-08-02, p. 2: [UI shall] file compliance in Docket No. 23-08-02, no later than two weeks after the completion of the UI system modification, indicating the date(s) when the UI system modification project was completed and customers with existing PV systems can enroll under the Netting tariff in UI's territory. Further, the compliance shall include a clean and redlined final version of the RRES Program Manual incorporating such change.

2. New Orders

18. No later than December 15, 2023, the EDCs shall file as compliance updated RRES Program documents, including the Program Manual and RRES Metering Diagrams, incorporating all the approved modifications authorized in this Decision. Such filing shall include both a clean and a redlined version of all RRES Program documents.
19. Reference Decision, Feb. 22, 2023, Docket No. 22-08-01, pp. 4-5: No later than January 1, 2024, and annually thereafter, the EDCs shall file an updated Frequently Asked Question document and Fact Sheet for the RRES Program that reflects the Program modifications as directed in the most recent final Decision issued through the RRES Program Annual Review proceeding, Docket No. XX-08-02.
20. No later than January 1, 2024, the EDCs shall include a link to the ESS Program website, along with a brief description of the ESS Program, on the RRES Program website(s). The EDCs shall file compliance with the Authority when this order is fulfilled.
21. No later than January 1, 2024, the EDCs shall include a link to Connecticut's environmental justice mapping tool on the RRES Program webpage(s), along with

- a brief summary of the tool and how installers can use it.⁴³ Additionally, no later than January 1, 2024, the EDCs shall include the map and table in Section IV.E., and additional, similar resources identifying areas where RRES projects may be eligible for both state and federal incentives, on the RRES Program webpage(s), along with a brief description of federal incentive eligibility. The EDCs shall file compliance with the Authority when this order is fulfilled.
22. No later than January 1, 2024, the EDCs shall amend the RRES customer disclosure form to include the following information: (1) definitions of each RRES adder; (2) adder amounts; (3) a list of programs whose participation would qualify a customer for the low-income adder (e.g., Home Energy Solutions – Income Eligible [HES-IE]); (4) a link to the Distressed Municipality webpage of the Department of Economic and Community Development (DECD); and (5) a link to a webpage with the latest guidance on state median income percentiles, broken out by family size. Further, the above information shall be displayed in a prominent location in the customer disclosure form to ensure customers are aware of the RRES adders. Additionally, the Authority directs the EDCs to include such information on the RRES Program website when the customer disclosure form is amended. As compliance, the EDCs shall file both a clean and redlined version of the RRES customer disclosure form, and links to the Program webpage(s) which were updated to fulfill this order.
 23. No later than January 1, 2024, the EDCs shall submit as compliance a detailed implementation timeline for the incorporation of RRES data into a centralized data reporting platform. See, EDC Comments, June 1, 2023, p. 15.
 24. No later than February 1, 2024, and annually thereafter, the EDCs shall hold at least one webinar with solar developers to inform them of the underserved adder eligibility criteria, in addition to other Program requirements and information. Further, during the webinar to be held by February 1, 2024, the EDCs shall update Program installers on the implementation of LIDR and provide information and examples of how installers can identify LIDR-enrolled customers, to ensure that LIDR customers are receiving bill savings from participation in the RRES Program. At least 30 days' notice shall be provided to Program stakeholders prior to the date of the webinar on the Program website. As compliance, the EDCs shall file the date, time, and location of the webinar with the Authority in the applicable annual review proceeding at least 21 days prior to the webinar.
 25. No later than February 1, 2024, the EDCs shall file a draft document for the Authority's review and approval that provides clear definitions for each data field required in a RRES application, including guidance on what not to include and providing specific examples for each one. The draft guidance shall be developed by the EDCs in coordination with Application Process Working Group members. The guidance developed should not deviate substantially from developers' current interpretation of the data fields, where developers have a consensus understanding of a field's definition, so that future data collected does not

⁴³ Connecticut's environmental justice mapping tool may be found here: <https://connecticut.maps.arcgis.com/apps/webappviewer/index.html?id=85bf095c8fc043edaa15ca5f78299fe3>.

unnecessarily differ from the data collected in prior Program years. The EDCs shall post such document on the Program webpage(s) alongside other installer resources once a final determination is reached by the Authority.

26. No later than March 1, 2024, the EDCs shall file as compliance a plan for better coordination between the RRES and ESS Programs, so that RRES customers and developers are aware of the incentives and requirements of the ESS Program. The EDCs shall coordinate with the ESS Program Administrators when developing such plan.
27. No later than March 15, 2024, or 30 days after the Authority's approval of the project data guidance document developed in Order No. 25, whichever occurs later, the EDCs shall use the data guidance document to develop an "i" or information button for any required data fields where significant developer confusion is present in the web-based RRES application. When a developer hovers over the "i" button, a brief definition of the data field shall appear. The EDCs' compliance with this requirement shall include application screenshots and the text descriptions of each "i" button.
28. No later than March 15, 2024, the EDCs shall develop and submit for the Authority's review and approval a plan to alleviate any potential safety or tampering risks associated with trough-type connections with side-by-side meter installations. Such plan shall include implementation costs and expected timelines for allowing such metering configurations for use in the RRES Program. Additionally, when developing the proposal, the EDCs shall research any steps taken by other jurisdictions in the United States to allow trough-type connections with side-by-side meter installations at multifamily housing sites, to determine if such steps can be replicated in Connecticut. Finally, the EDCs shall consult with the Interconnection Working Group, established in a Decision dated November 25, 2020, in Docket No. 17-12-03RE06, PURA Investigation into Distribution System Planning of the Electric Distribution Companies – Interconnection Standards and Practices, when developing the proposal.
29. No later than April 1, 2024, the EDCs shall incorporate the changes suggested by PosiGen into the RRES Program webpages. See, PosiGen Comments, June 1, 2023, pp. 13-14. Additionally, to ensure that Program participants can easily access RRES programmatic information, the Authority directs the EDCs to break out the current RRES webpage(s) into three distinct pages displaying the following: (1) RRES customer educational materials and general programmatic information; (2) RRES required forms, fees and installer materials; and (3) RRES programmatic data. Each webpage shall also include links to the other webpages in a prominent and clearly identifiable section. The EDCs shall file compliance with the Authority when this order is fulfilled.
30. No later than April 1, 2024, the EDCs shall include underserved enrollment percentages, broken out by both low-income and Distressed Municipality status, in the Program data published on the EDCs' respective websites. If an underserved customer qualifying for a Program adder is not (auto)enrolled by the Program Administrators for not meeting the new requirements outlined in this Decision (i.e., the tariff payment beneficiary is not the customer of record, and the

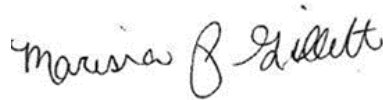
developer did not apply for an adder in the initial Program application), the Program Administrators shall still track such enrollment and include it in the data reporting so that it may be counted toward the Program's 40% deployment target in underserved communities. Consistent with the existing data on the Program website, the EDCs shall update the underserved deployment data no less than monthly. Last, the EDCs shall file compliance with the Authority when this order is first fulfilled.

31. No later than April 10, 2024, the Authority requests that the Multifamily Housing Working Group (MFH WG) provide a comprehensive proposal for master-metered housing projects' participation in the RRES program, incorporating proposed protections from eviction and renter protections for master-metered multifamily affordable housing that identify enforcement mechanisms for ensuring that tenants are not harmed via increased rents that are tied to the Authority's jurisdiction (e.g., including RRES compensation clawback provisions, etc.). The filing shall also include a clear plan for how tenants will financially benefit from all eligible building upgrades (e.g., documentation demonstrating the quantifiable financial benefits free broadband access will provide tenants, etc.). In the compliance filing, the MFH WG may propose updates to any of the Authority's conclusions outlined in Section IV.F., or to any recommendations previously made by the MFG WG, to ensure that the proposal most effectively advances the Program Objectives. Additionally, the Authority requests that the MFH WG develop and submit a plan for: (1) a member or members of the MFH WG to conduct eligibility screenings for project adherence with master-metered Program requirements prior to the start of construction; (2) at least annual audits of completed projects' adherence with the master-metered Program requirements; and (3) suggested remedies if projects later fail to adhere to the master-metered Program requirements after receiving approval to proceed.
32. No later than April 10, 2024, the EDCs shall file a summary of all meter socket adapter (MSA) safety concerns, along with solutions for each safety concern, and estimated costs and timelines for implementing each solution, in Docket Nos. 23-08-02 and 23-08-05. In developing the compliance, the EDCs shall work directly with ConnectDER and Tesla to understand how other jurisdictions have addressed MSA safety concerns, to determine if steps taken by other jurisdictions to allow MSAs can be replicated in Connecticut. Finally, before submitting their compliance, the EDCs shall present their findings to the Interconnection Working Group, established in a Decision dated November 25, 2020, in Docket No. 17-12-03RE06, PURA Investigation into Distribution System Planning of the Electric Distribution Companies – Interconnection Standards and Practices. In so doing, the EDCs shall allow for written feedback from Interconnection Working Group members on the EDCs' compliance before filing it with the Authority.
33. No later than June 1, 2024, and April 1 and annually thereafter, all renewable energy contractors participating in the RRES Program shall file in the reopener to the annual Program Review docket for contractor education and enforcement (e.g., Docket No. 23-08-02RE01 for 2024, etc.,) their marketing scripts and training materials generated for or provided to anyone engaging with a customer. Last, the Authority clarifies that the collection of marketing materials shall be administered and enforced by EOE.

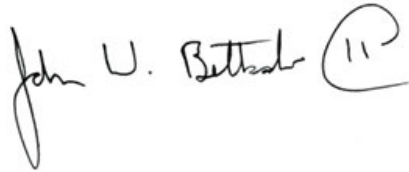
34. No later than June 1, 2024, and April 1 annually thereafter, all Program developers shall file in the reopener to the annual Program review docket for contractor education and enforcement (e.g., Docket No. 23-08-02RE01 for the 2024 filing, etc.), a Financial Benefits Compliance, in accordance with Section IV.D. Specifically, the Authority directs each developer participating in the RRES Program to annually file with the Authority the following for all RRES projects deployed in the previous calendar year: (1) All customer disclosure forms; (2) An unlocked Excel file summarizing key information from the customer disclosure forms, as well as other information provided to customers such as contracts and promotional materials, for each project as detailed below (Financial Benefits Summary Sheet); and (3) A narrative explanation of any calculation methodologies included in the Financial Benefits Summary Sheet (Sheet Narrative). The Financial Benefits Summary Sheet shall include one row each for every project deployed by the developer under the RRES Program in the previous calendar year. For each project, the following information shall be provided (i.e., each of the following should be a column in the Financial Benefits Summary Sheet): (1) site address; (2) utility account number associated with the project; (3) annual contract rate increase amount; (4) estimated year one production (kWh) as a percentage of estimated annual utility customer usage (kWh); (5) estimated year one customer net savings; (6) starting utility rate used to estimate net year one savings; (7) estimated net savings over the RRES tariff term (i.e., 20 years) if provided by the developer to customers in a contract or promotional materials, or if it can be easily extrapolated from the customer disclosure data; and (8) utility rate used to estimate net savings over the RRES tariff term (i.e., 20 years) if provided by the developer to customers in a contract or promotional materials, or if it can be easily extrapolated from the customer disclosure data. The Sheet Narrative may be a simple summary document (e.g., as brief as a couple of pages) outlining the methodology used to calculate the above required information to be included in the Financial Benefits Summary Sheet, as applicable, along with a general list of the documents needed for such calculations (e.g., a customer's electric bill and sales contract are needed to verify the methodology for the fourth requirement, etc.). Last, the Authority clarifies that the collection of financial benefit documentation shall be administered and enforced by EOE. EOE may audit a contractor's Financial Benefits Summary Sheet and Sheet Narrative and can request additional documentation or evidence as needed to verify a contractor's Financial Benefits Summary Sheet calculations, particularly for low-income customers.
35. No later than August 1, 2024, the Authority requests that CGB provide an update on the stakeholder process to develop recommendations to resolve the issue of solar panel and battery recycling and waste for clean energy projects in Connecticut. The Authority respectfully requests that CGB convene and lead a working group of relevant stakeholders, including DEEP and the EDCs, to develop recommendations to resolve the issue of solar and battery waste that consider the environmental effects of solar panel and battery waste and the success or failure of approaches used in other jurisdictions. Further, all recommendations should include a description of the pros and cons of each approach, and an estimate of each approach's implementation timeline and cost. The Authority requests that the update, including any recommendations developed, be filed in Docket Nos. 24-08-02, 24-08-03, 24-08-04, and 24-08-05.

36. No later than October 1, 2024, and annually by August 1 thereafter, EOE shall complete its audit of the Financial Benefits Compliance filings and a sampling of RRES developer marketing materials and file any findings with the Authority as directed in Section IV.D.3. of this Decision following the “four strike” system authorized in the Residential Tariff Decision as necessary.

This Decision is adopted by the following Commissioners:



Marissa P. Gillett



John W. Betkoski, III



Michael A. Caron

CERTIFICATE OF SERVICE

The foregoing is a true and correct copy of the Decision issued by the Public Utilities Regulatory Authority, State of Connecticut, and was forwarded by Certified Mail to all parties of record in this proceeding on the date indicated.



Jeffrey R. Gaudiosi, Esq.

November 1, 2023

Date

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Memo

To: Board of Directors of the Connecticut Green Bank

From: Mackey Dykes, Vice President, Commercial, Industrial & Institutional Programs

Cc: Bryan Garcia, President and CEO, Brian Farnen, General Counsel and Chief Legal Officer and Bert Hunter, Chief Investment Officer, Alex Kovtunen, Deputy General Counsel

Date: December 12, 2023

Re: State Solar Program Expansion

Introduction

The Green Bank's Solar Marketplace Assistance Program ("Solar MAP" or the "Program") supports underserved municipal and state agency partners access clean energy and energy savings. The Program provides no-cost, turnkey project development support to identify optimal projects, access necessary incentives and financing, and shepherd the projects through design, permitting and construction. Projects on similar development timelines are bundled into project portfolios. The Program administers a competitive solicitation to bid project portfolios out to the market to select construction partner(s). State projects (known as "SAP") are also bid out to financing partners for the long term ownership of the Projects.

The first portfolio of SAP projects originally consisted of 12 projects located at Department of Correction facilities. Five of the projects were removed due to infeasibility or experienced issues which moved them to a subsequent round of the Program, resulting in a final seven solar projects located at Department of Correction facilities (the "Pilot Projects"). This memo provides an update on the Pilot Projects and requests to expand Green Bank deployment of development capital for other SAP projects that are in the pipeline.

Previous Board Approvals and Pilot Projects Update

The Program was approved by the Board at the July 22, 2023 meeting and included in the Comprehensive Plan. Due to the Pilot Project size and development cycle, they have had a separate Board approval track from other Solar MAP projects. The authorization, and capital limits, for the development of municipal Solar MAP projects is addressed in a separate Board approval, which Green Bank staff is requesting to amend in a separate memo to the Board at this December 15, 2023 meeting ("Commercial Solar Expansion Memo"). The previous Board approvals cited below are specific to the Pilot Projects.

On October 25th, 2019, the Board approved \$5M in development capital of the Pilot Projects. On April 24, 2020, the Board approved an increase to the development capital authority for the Pilot Projects to \$19.5M. On June 16, 2023, the Board approved the sale and assignment of the Pilot Projects to the RFP winner, Sunpower, which has been acquired by TotalEnergies ("Pilot

Projects Owner”), and \$12M in term debt financing to Pilot Projects Owner to be used for the Pilot Projects.

Green Bank has entered into an asset purchase and sale agreement with the Pilot Project Owner and is working through remaining diligence and closing deliverables necessary to complete the sale and transfer thereunder. In the meantime, Green Bank continues to develop the Pilot Projects pursuant to Engineering, procurement, and construction (“EPC”) contracts with the Pilot Projects Owner until the Pilot Projects are transferred. The documentation of the term debt facility with the Pilot Projects Owner will follow the completion of the sale.

Need for Expanded Authority

Green Bank has developed a pipeline of SAP projects across a number of State agencies and needs to expand the existing development capital authority to accommodate developing future rounds of projects. The current SAP pipeline includes the Pilot Projects, 13 projects total with the Department of Transportation, Department of Energy and Environmental Protection and CT Technical Education and Career System (“SAP 2”), 4 projects total with the Department of Veteran Affairs and Department of Mental Health and Addiction Services (“SAP 3”), 2 projects total with the Office of Policy and Management (“SAP 4”). The estimated development costs for the current pipeline of projects is set forth in Table 1 below. While this represents a large increase in authority, staff is confident it is within the risk profile of the prior authority and is justified given the organization’s goals for this program. EPC contracts to obligate the majority of this authority would not be signed until Power Purchase Agreements (PPAs) or other financing agreements are signed and the necessary state incentives are secured. PPAs are already in place for the Pilot Projects and SAP 2 projects, with SAP 3 PPAs expected to be signed this fiscal year.

Please note that the “EPC Contract Sum” in Table 1 indicates the total value of EPC contracts for the applicable projects. Green Bank expects to expend a fraction of such contract sum in the form of development capital prior to transfer the applicable projects and EPC to a term owner pursuant to an RFP process. However, the full EPC contract sum is used for purposes of tracking the full development capital authority limit until the projects and EPCs are sold and transferred. The table below does not account for expenditures that are part of the Green Bank program budget or otherwise approved pursuant to Green Bank Operating Procedures (e.g. Program consulting and development services that are provided pursuant to a PSA).

Table 1 – SAP Pipeline Estimated Necessary Development Capital

	EPC Contract Sum	Interconnection Cost	NRES Performance Assurance Payment	Total
SAP 1 (Pilot Projects)	\$18,712,088	\$108,923		\$18,821,011
SAP 2	\$21,459,450			\$21,459,450
SAP 3	\$8,994,257			\$8,994,257
SAP 4			\$500,000	\$500,000

Contingency 15%				\$7,466,208
Total				\$57,240,92

Recommendation

To accommodate the expected pipeline of the SAP projects in the MAP Program, Green Bank staff requests the following expanded approval from Board, necessary for the continued successful development of SAP projects, including authority to:

1. **Deploy development and construction capital in a not-to-exceed amount of \$60M (increase from \$19.5M which was previously approved for Pilot Projects).** Once SAP project assets are sold and costs are recovered, the developments capital previously attributed to such projects shall not be counted toward this aggregate approval limit.
2. Subject to limit above, enter into contracts and make development expenditures (which are not otherwise part of a Green Bank program budget or otherwise approved pursuant to Green Bank Operating Procedures) for SAP projects pursuant to EPCs or associated development activities (e.g. incentive procurement fees and performance assurance payments).
3. Enter into Power Purchase Agreements (PPAs), License and associated energy offtake and development agreement with the State;
4. Continue to conduct RFP processes for the construction and ownership of SAP projects, either combined or separately;
5. Apply for state and/or federal incentives associated with the projects;
6. Enter into EPC contracts, and associated agreements, with RFP winner(s);
7. Enter into a financing term sheets with ownership RFP winners, if applicable, subject to appropriate governance approval of specific financing terms prior to execution;
8. Sell and transfer PPA, EPC contracts and other associated project assets and enter into contracts associated with the sale and transfer of such assets;
9. Subject to the limit above, make temporary advances of costs associated with SAP projects that could be reimbursed in the future by the, sale of the projects, issuance of bonds or other term financing to repay the temporary advances; and
10. Utilize existing Green Bank subsidiaries or create new subsidiaries, if necessary, to facilitate the development structure outlined above.

For the avoidance of doubt, staff is not requesting any modification for the approval process for deploying investment and debt financing associated with SAP projects for RFP winners or other parties (e.g., \$12M term loan facility approved by the Board for the Pilot Projects). Such investment and debt financing opportunities will be considered with the existing Bylaws and Operating Procedures:

- Investments below \$0.5 million would be subject to Staff level approval,
- Investments between \$0.5 million and \$2.5 million would be subject to approval by Deployment Committee and
- Investments greater than \$2.5 million would be approved by the Board.

Resolution

WHEREAS, Connecticut Green Bank (“Green Bank”) staff has been working with State of Connecticut (“State”) agencies to develop solar projects (“SAP Projects”) as more particularly described in the Memorandums dated December 8, 2023 (the “Memo”) and submitted to the Green Bank Board of Directors (the “Board”);

WHEREAS, Green Bank has been providing assistance in site feasibility analysis, incentive procurement, and facilitating a procurement process for development and construction of SAP Projects; and

WHEREAS, Green Bank desires to expand the SAP Project authority to accommodate the expected pipeline of SAP Projects and their associated development and construction costs, which costs would later be recovered by either (1) selling SAP Project assets pursuant to an RFP process, or (2) the issuance of bonds, other obligations or other term financing to repay the temporary advances.

NOW, therefore be it:

RESOLVED, that the Board of Directors approves funding, in a total not-to-exceed amount of \$60,000,000 development and construction capital for the continued development of the SAP Projects;

RESOLVED, that the Board hereby declares the Green Bank’s official intent that payment of SAP Project development and construction costs may be made from temporary advances of other available funds of the Green Bank, and that the Green Bank reasonably expects to reimburse such advances from the bonds or other obligations in an amount not to exceed \$60,000,000;

RESOLVED, that the President of Green Bank; and any other duly authorized officer of Green Bank, is authorized to execute and deliver, any contract or other legal instrument necessary to continue to develop and construct SAP Projects materially consistent with the Memo; and

RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents as they shall deem necessary and desirable to effect the above-mentioned legal instruments.

Submitted by: Bryan Garcia, President and CEO; Bert Hunter, EVP and CIO; Mackey Dykes, VP, Commercial, Industrial & Institutional Programs



STATE OF CONNECTICUT

PUBLIC UTILITIES REGULATORY AUTHORITY
TEN FRANKLIN SQUARE
NEW BRITAIN, CT 06051

DOCKET NO. 23-08-05

ANNUAL ENERGY STORAGE SOLUTIONS
PROGRAM REVIEW – YEAR 3

November 29, 2023

By the following Commissioners:

Marissa P. Gillett
John W. Betkoski, III
Michael A. Caron

DECISION

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DECISION

I. INTRODUCTION

A. SUMMARY

In this Decision, the Public Utilities Regulatory Authority (Authority or PURA) approves updates to the Energy Storage Solutions Program (ESS Program or Program), administered by The Connecticut Light and Power Company d/b/a Eversource Energy (Eversource), The United Illuminating Company (UI; collectively, with Eversource, the electric distribution companies or EDCs), and the Connecticut Green Bank (CGB; collectively, with the EDCs, the Program Administrators). The approved changes are intended to better align the ESS Program with the Program objectives.

B. BACKGROUND OF THE PROCEEDING

On July 28, 2021, the Authority issued its Final Decision in Docket No. 17-12-03RE03, PURA Investigation into Distribution System Planning of the Electric Distribution Companies – Electric Storage (Storage Decision) establishing a nine-year program to support electric storage in Connecticut, starting on January 1, 2022, and continuing through at least December 31, 2030, pursuant to Public Act 21-53 (PA 21-53) and Conn. Gen. Stat. §§ 16-11, 16-19, 16-19e, and 16-244i and in accordance with the October 2, 2019 Interim Decision in Docket No. 17-12-03, PURA Investigation into Distribution System Planning of the Electric Distribution Companies (Equitable Modern Grid Decision). The Authority annually reviews key ESS Program metrics, including deployed megawatts (MW), and makes strategic adjustments as necessary to support the program objectives. Storage Decision, p. 43. Additionally, during the last year of each three-year Program cycle (e.g., 2024), “the Authority will conduct a full program review ... including an evaluation of the existing program design to ensure that the Program is: (1) delivering on the expected value to Connecticut’s ratepayers; and (2) is meeting the Program Objectives.” Id., p. 44.

The Authority conducted the first annual ESS Program review in Docket No. 21-08-05, Annual Review of the Electric Storage Program – Year 1, issuing a Decision on December 8, 2021 (Year 1 Decision). The Decision reviewed the Year 1 Program design documents and other key compliance filings, and addressed other topics regarding Program implementation, to successfully execute the first year of the ESS Program beginning January 1, 2022.

Further, the Authority conducted the second annual ESS Program review in Docket No. 22-08-05, Annual Energy Storage Solutions Program Review – Year 2, and issued a Decision on December 21, 2022 (Year 2 Decision). The Year 2 Decision reviewed Year 1 deployment data in the ESS Program and implemented several changes to better align the ESS Program with the program objectives.

C. CONDUCT OF THE PROCEEDING

On May 16, 2023, the Authority issued the Notice of Proceeding in the above-captioned docket.

On June 23, 2023, the Authority issued a Notice of Request for Written Comments on the following topics: new front-of-the-meter storage barriers not addressed in the Year 2 Decision; updated incentive levels; an expansion of the Distressed Municipality adder to include environmental justice census block groups; a grace period allowance for the Distressed Municipality adder; the addition of a vendor fee cap; financial benefit sharing for multifamily projects; project extensions to account for supply chain or interconnection challenges; approved battery manufacturers; and the inclusion of additional battery types in the Program. The Authority received nine sets of written comments from interested stakeholders on or before August 11, 2023.

On August 3, 2023, the Authority held a Technical Meeting to discuss the topics outlined in the June 23, 2023 Notice of Request for Written Comments.

On August 11, 2023, the Authority issued a second Notice of Request for Written Comments on the following topics: the Program Administrators' recommended Program changes; CGB's marketing plan for high emission areas; CGB's actively managed charging proposal; application process changes and working group implementation; inspection requirements; the eligible contractor application; the Program's battery integration process; residential battery enrollment; commercial incentive changes; battery net metering credits; flood proofing requirements; siting and safety guidelines; and a grid edge grace period allowance. The Authority received 11 sets of written comments from interested stakeholders on or before September 13, 2023.

On September 1, 2023, the Authority issued a second Notice of Request for Technical Meeting to discuss the topics included in the second Notice of Request for Written Comments. The Notice was revised on September 13, 2023, to include discussion of the EDCs' proposed rate design for wholesale distribution charges that would be included in their respective front-of-the-meter (FTM) wholesale distribution access tariffs. The second Technical Meeting was subsequently held on September 29, 2023.

On October 2, 2023, the Authority issued a Notice of Request for Briefs providing stakeholders the opportunity to summarize their positions on various topics discussed in the instant proceeding. The Authority subsequently received seven briefs on or before October 16, 2023.

On November 6, 2023, the Authority issued a Proposed Final Decision and provided an opportunity for docket Participants to file written exceptions.

D. PARTICIPANTS

A listing of all Participants to this proceeding is appended hereto as Appendix A.

II. LEGAL AUTHORITY

Section 2 of PA 21-53 directed the Authority to “develop and implement one or more programs, and associated funding mechanisms, for electric storage resources connected to the electric distribution system.” PA 21-53 § 2. Pursuant to PA 21-53, in addition to Conn. Gen. Stat. §§ 16-11, 16-19, 16-19e, and 16-244i (see Section II of the Storage Decision), the Authority established the Program through the Storage Decision. Furthermore, the Authority was permitted to select CGB, the Department of Energy and Environmental Protection (DEEP), the EDCs, a third party, or any combination thereof to implement and/or administer the Program. PA 21-53 § 2(d)

As previously stated, the Authority indicated in the Storage Decision that it will initiate an annual docket to review key ESS Program metrics, to ensure that the Program is on track to meet its deployment targets. Storage Decision, p. 43. Herein, the Authority reviews the Program documents developed by the Program Administrators, relevant compliance filings, and current incentive rates to determine if and how the ESS Program can and should be modified to better align with the direction provided in the Storage Decision.

III. PROGRAM OBJECTIVES

In the Storage Decision, the Authority adopted the following seven (7) objectives (Program Objectives) to guide the Program Administrators in the development and implementation of the Program:

- 1) Provide positive net present value to all ratepayers, or a subset of ratepayers paying for the benefits that accrue to that subset of ratepayers.
- 2) Provide multiple types of benefits to the electric grid, including, but not limited to, customer, local, or community resilience, ancillary services, peak shaving, and avoiding or deferring distribution system upgrades or supporting the deployment of other distributed energy resources.
- 3) Foster the sustained, orderly development of a state-based electric energy storage industry.
- 4) Prioritize delivering increased resilience to: (1) low-to-moderate income (LMI) customers, customers in environmental justice or economically distressed communities, customers coded for medical protection, and public housing authorities as defined in Conn. Gen. Stat. § 8-39(b); (2) customers on the grid-edge who consistently experience more and/or longer than average outages during major storms; and (3) critical facilities as defined in Conn. Gen. Stat § 16-243y(a)(2).
- 5) Lower the barriers to entry, financial or otherwise, for electric storage deployment in Connecticut.
- 6) Maximize the long-term environmental benefits of electric storage by reducing emissions associated with fossil-based peaking generation.
- 7) Maximize the benefits to ratepayers derived from the wholesale capacity market.

Storage Decision, pp. 5-7. Accordingly, the Authority relied on the Program Objectives to guide its review of the Program Administrators' compliance filings and in evaluating the current ESS Program design and assessing any possible changes to be ordered in this proceeding. The primary objective of the Authority's review was to better align the ESS Program with the Program Objectives and the direction provided in the Storage Decision. The Storage Decision states that, "[k]ey Annual Review filings shall be submitted on or around August 1st . . . including, but not limited to: an annual report, including Program results and recommendations for Program modifications as discussed in Section V.F." Storage Decision, p. 43.

The Authority reaffirms that the above listed Program Objectives shall guide the Program Administrators in their administration of the ESS Program, particularly in instances not explicitly addressed through the approved ESS Program documents or through Authority direction in prior Decisions or motion rulings. Finally, the Authority reaffirms that the fourth Program Objective, prioritizing increased resilience, shall be explicitly guided by a goal of 40% deployment amongst low-income populations or in Distressed Municipalities, in line with the Justice 40 goal set in the Storage Decision. Storage Decision, p. 13.

IV. AUTHORITY ANALYSIS

A. PROGRAM OVERVIEW

Public Act 21-53 established statewide energy storage deployment goals, namely: (1) 300 MW by December 31, 2024; (2) 650 MW by December 31, 2027; and (3) 1,000 MW by December 31, 2030. Further, PA 21-53 § 2 directed the Authority to develop the Program authorized in the Storage Decision, while PA 21-53 § 3 authorized DEEP to competitively procure energy storage projects. The Authority subsequently established an ESS Program deployment target of 580 MW by the end of 2030 to help achieve these statewide targets. Storage Decision, p. 5. The Authority also authorized three-year Program cycles with interim goals of 100 MW by 2025 and 300 MW by 2028, as shown in Table 1. *Id.*, p. 8.

Pursuant to the Year 1 and Year 2 Decisions, energy storage projects under the ESS Program are eligible for both upfront and performance-based incentives, as shown in Tables 2, 3, and 4 below. Upfront incentives vary based on whether the project's host customer is a residential or commercial and industrial (C&I) customer, while performance-based incentives are the same for all participating customers. Energy storage increases the affordability, resiliency, and reliability of the state's electric grid, and can help reduce carbon emissions from the state's power sector, thereby highlighting the importance of the ESS Program.

Table 1: Program Deployment Targets

CUSTOMER CLASS	Tranche 1	Tranche 2	Tranche 3	TOTAL
Residential	50 MW	100 MW	140 MW	290 MW
Commercial and Industrial	50 MW	100 MW	140 MW	290 MW
Total	100 MW	200 MW	280 MW	580 MW

Storage Decision, p. 8.

Table 2: Residential Upfront Incentives (Tranche 1)

Incentive Step	Installed Capacity (MW)	Baseline (\$/kWh)	Underserved Community (\$/kWh)	Low-Income (\$/kWh)	Grid Edge Adder
1	10	\$200	\$300	\$400	+50%
2	15	\$170	\$300	\$400	+50%
3	25	\$130	\$300	\$400	+50%

Year 1 Decision, p. 11; Year 2 Decision, pp. 18-19.

Table 3: Commercial Upfront Incentives (Tranches 1 and 2)

Installed Capacity (MW)	Small Commercial (\$/kWh)	Large Commercial (\$/kWh)	Industrial (\$/kWh)	Priority Customer Adder ¹
50	\$200	\$175	\$100	+25%
100	\$200	\$175	\$100	+25%

Year 1 Decision, p. 11; Year 2 Decision, p. 18.

Table 4: All Customer Classes Performance-Based Incentives (Tranche 1)

Years 1-5		Years 6-10	
Summer (\$/kW)	Winter (\$/kW)	Summer (\$/kW)	Winter (\$/kW)
\$200	\$25	\$115	\$15
\$225 annually		\$130 annually	

Year 1 Decision, p. 12.

¹ A priority customer is any customer located on grid edge, critical facilities, small businesses, and customers replacing a fossil fuel generator. Year 2 Decision, pp. 17-18.

Tables 5 and 6, below, provide a summary of the number of C&I and residential ESS projects approved by the Program Administrators from January 1, 2022 to June 30, 2023. As can be seen from the tables, 48.68 MW of C&I energy storage projects and 2.16 MW of residential energy storage projects have been approved by the Program Administrators.

Table 5: Commercial Project Application Data as of June 30, 2023

Size Category	Number of Approved Projects	Total System Power Rating (MW)	Total System Energy Capacity (kWh)
Large C&I	14	28.07	78,394
Eversource	11	25.55	72,735
UI	3	2.52	5,659
Medium C&I	9	16.53	51,620
Eversource	7	10.36	32,350
UI	2	6.17	19,270
Small C&I	7	4.09	16,890
Eversource	7	4.09	16,890
UI	0	0	0
Grand Total	30	48.68	146,904

CGB Compliance, Aug. 1, 2023, Annual Evaluation Report, pp. 2-3, 23.

Table 6: Residential Project Application Data as of June 30, 2023

	Number of Approved Projects	Total System Power Rating (kW)	Total System Energy Capacity (kWh)	Low Income (# of Projects)	Underserved Community (# of Projects)
Eversource	140	1,166	2,592	1	6
UI	175	991	2,018	0	166
Grand Total	315	2,157	4,580	1	172

CGB Compliance, Aug. 1, 2023, Annual Evaluation Report, pp. 2, 22-23.

B. UPFRONT INCENTIVES

1. Residential Upfront Incentives

As shown in Table 6 above, 315 residential battery projects totaling 2.16 MW have been approved for the ESS Program as of June 30, 2023, a number that is far below the pace necessary to achieve the Program's goal of 50 MW of residential storage deployment by the end of 2024. Year 2 Decision, p. 34. Accordingly, this section discusses upfront incentives, and specifically increases residential upfront incentive rates and the residential upfront incentive cap, effective immediately, in order to increase residential Program participation.

During this proceeding, six stakeholders commented on the need for increased residential incentives. First, Guidehouse, the Program's evaluation, measurement, and verification (EM&V) consultant, recommended increasing incentives for residential customers to enhance the Program's residential participant cost test (PCT) value. Program Administrator Corresp., Aug. 3, 2023, p. 12. The Program's residential PCT is currently 0.79, which is below the Program's target PCT value of 1.² *Id.*; Storage Decision, pp. 33-34. Further, the Program Administrators believe that the high upfront cost of batteries is hindering residential storage adoption. Program Administrator Corresp., Aug. 3, 2023, p. 15. The Program Administrators noted that the Program's current average residential battery cost (i.e., \$31,500) is significantly above the average residential battery cost used in the Program's original incentive design (i.e., \$12,500). *Id.* CGB also argued that residential Program enrollment is undersubscribed relative to expected participation levels because of rising battery costs. CGB Corresp., Sept. 25, 2023, p. 23. Consequently, CGB supported doubling the Program's low-income and underserved incentive rates, in addition to increasing the Program's residential upfront incentive cap from \$7,500 to \$16,000 per battery for all customers. *Id.* Additionally, the EDCs argued that increasing residential upfront incentives across all customer types is paramount to increasing residential enrollment. EDC Corresp., Sept. 25, 2023, p. 7. The EDCs noted that residential upfront incentive increases can keep the Program's ratepayer impact measure (RIM) score above the Program's target of 1.4. *Id.*

The Northeast Clean Energy Council (NECEC) supported expanded upfront incentive caps for residential customers because residential storage systems "are generally less affordable on a per kW basis" than commercial systems as residential systems do not benefit from economies of scale. NECEC Comments, Aug. 30, 2023, p. 2. Therefore, expanded residential upfront incentive caps, NECEC opined, would yield high participation rates. Sunnova Energy International Inc. (Sunnova) also supported increasing residential upfront incentives to accelerate residential storage adoption by decreasing the high upfront costs of batteries. Sunnova Comments, Aug. 30, 2023, p. 6. Increased residential incentives, Sunnova argued, would result in "a greater adoption rate for energy storage and ultimately [P]rogram success." *Id.* Finally, the Office of Consumer Counsel (OCC) noted that high upfront battery costs remain a barrier to residential storage adoption. OCC Comments, Aug. 30, 2023, p. 14.

The Authority conducted discovery regarding residential upfront incentive increases to determine their effects on the Program's PCT and RIM values. At the Authority's direction, the Program Administrators submitted a proposal that would: (1) double the existing low-income and underserved upfront incentive rates; (2) raise the upfront incentive cap from \$7,500 to \$16,000; and (3) increase the standard upfront incentive rate by 1.5 times its current value. Program Administrator Interrog. Resp. CAE-34, pp. 1-2. If the proposal was adopted, the average standard residential PCT would increase from 0.74 to 0.81, the average underserved PCT would increase from 0.82 to 0.95, and the average low-income PCT would increase from 0.83 to 0.97. *Id.*, p. 6. Further, Program costs would increase by \$18.8 million if an additional 28 MW of residential storage were enrolled in the Program, and the Program's residential RIM

² A PCT value of 1 indicates that the Program is attractive to participants, because the benefits provided by the Program outweigh the costs of participation. Storage Decision, pp. 33-34.

would decline from 1.97 to 1.61. Id., pp. 6, 8. Finally, only about 70% of the proposed upfront incentive increases would go toward reducing a participant's battery cost because as upfront incentives increase, a customer's federal Investment Tax Credit value, which is based on a system's total installed cost minus any upfront incentives, declines. See Program Administrator Interrog. Resp. CAE-34, p. 11.

The Authority determines that upfront incentive rate increases are needed for all three residential customer classes to ensure that the Program incentivizes the level of residential participation needed to meet the Program's residential enrollment targets. Accordingly, the Authority adopts with modification the residential upfront incentive proposal submitted by the Program Administrators. More specifically, effective immediately, the standard residential upfront incentive rate shall increase by 1.25 times current upfront incentive levels, while the underserved and low-income upfront incentive rates shall increase by 1.5 times their current levels. The rate increases shall apply to all three Tranche 1 residential Incentive Steps. Further, effective immediately, the Authority authorizes the proposed increase in the upfront incentive cap from \$7,500 to \$16,000. Additionally, consistent with current Program requirements, participants shall only be eligible for the maximum upfront incentive if the new maximum value (i.e., \$16,000) is below 50% of the battery project's cost and the applicable incentive rate multiplied by the battery's kWh capacity. See CGB Compliance, June 15, 2023, Clean Program Manual, p. 43.

The approved upfront incentive changes balance participant and nonparticipant interests and result in a less substantial increase to Program costs relative to the Program Administrators' proposal, thereby supporting the first Program Objective, providing positive net value to all ratepayers. Notably, the Program Administrators' proposal only considers RIM impacts for 28 MW of new residential customer enrollments by 2024, which is below the 50 MW residential enrollment target for Tranche 1. See Program Administrator Interrog. Resp. CAE-34, pp. 6, 8. Accordingly, if the Program's Tranche 1 residential target was achieved under the Program Administrators' proposal, the Program's residential RIM would decrease below the value given by the Program Administrators (i.e., below 1.61), increasing the risk that the Program does not achieve its 1.4 RIM target. Therefore, to limit negative RIM impacts, and to support a gradual approach to residential upfront incentive changes, the Authority approved half of the residential upfront incentive rate increases sought by the Program Administrators. Last, the Authority clarifies that residential storage projects remain eligible for federal funding in excess of the ratepayer-funded residential upfront incentive increases approved through this Decision, to further support the development of the state's residential storage industry.

The Authority further clarifies that the upfront incentive rate increases approved through this Decision shall not apply retroactively to projects that have already received reservations of funds but have not yet been deployed. The objective of increasing the residential upfront incentive rates is to increase the number of new residential projects participating in the Program, not to provide additional revenue to projects that are already financially viable at the existing incentive levels. Further, contractors will not be permitted to cancel projects with existing reservations of funds with the purpose of reapplying to receive the higher incentive rate. See CGB Exceptions, Nov. 15, 2023, p. 2. The Program Administrators shall explicitly include this clarification in the Program Manual to be filed

in compliance with this Decision (e.g., by updating language in Section 3.1.3 of the Program Manual). Additionally, the Program Administrators should check new residential project applications against canceled residential projects to ensure that such projects are not being canceled solely to reapply once the higher incentive rates take effect.

The Authority concludes that higher upfront incentives are needed for underserved and low-income participants versus standard customers to support the fourth Program Objective, prioritizing increased resilience to low-income customers and Distressed Communities. Additionally, disadvantaged populations are less likely to be able to afford the high upfront costs associated with battery installations when compared to standard customers, highlighting the need for increased incentives for disadvantaged residents. Moreover, as of July 2023, only 3 residential customers qualified as low-income, further highlighting the need for higher incentive increases for low-income customers when compared to standard customers. CGB Comments, July 20, 2023, p. 3. In summary, as described at the beginning of this section, total residential enrollment (2.16 MW) is insufficient to achieve the Program's residential enrollment target (50 MW), showcasing the need for increased residential upfront incentives for all three residential customer classes.

The Authority authorizes the above measured approach to increasing residential upfront incentives as the high upfront cost of batteries only partly explains the Program's low residential enrollment numbers; thus, the Authority is wary of increasing incentives more than what may be necessary to drive deployment. For example, low residential Program enrollment can also be explained by the nascency of the residential battery storage market in Connecticut, limited customer awareness, a lack of manufacturer participation in the Program, and the Program's complex application enrollment flow. Moreover, current battery storage costs have increased in recent years due to inflationary pressures and supply constraints, both of which have eased in recent months. Paired with federal efforts to scale energy storage manufacturing and to provide financial incentives for the deployment of residential battery systems, the Authority is hopeful that the installed cost paid by residential customers will decline in the coming years. Consequently, the Authority implements the aforementioned incentive level increases supplemented by addressing additional residential enrollment barriers discussed in other parts of this Decision to increase residential Program participation, including in Sections IV.C. and IV.I. The Authority will continue to monitor residential deployment and may make further incentive adjustments in the future if warranted by residential deployment numbers and market conditions, including considering any updated cost test results (e.g., RIM, PCT).

a. Tranche 2 Residential Upfront Incentives

The Authority highlights that residential upfront incentive rates have not yet been established for Tranche 2 of the Program. As stated in the Storage Decision, the Authority will "revisit electric storage deployment targets, the breakdown of deployment targets by customer class, and incentive structures considering the current status of energy storage in Connecticut" during the three-year cycle Program review. Storage Decision, p. 44. Therefore, the Authority directs the Program Administrators to file for the Authority's review and approval any proposed changes to the residential upfront incentive rate for Steps 2 and 3 of Tranche 1 and to develop proposed residential upfront incentive rates

for Tranche 2 by the start of the next annual ESS Program Review on June 15, 2024, which will serve as the beginning of the Program’s three-year review. The Program Administrators shall consider, at a minimum, the Program’s residential enrollment trends, battery cost data, and actual project PCT values when making their Tranche 2 residential upfront incentive recommendation. To the extent that residential project enrollments increase in the near-term, the Program Administrators shall file the proposed Tranche 2 residential upfront incentive rates within 60 days from the conclusion of Incentive Step 2 in residential Tranche 1, if Incentive Step 2 concludes prior to June 15, 2024.

The Authority concludes that a proactive approach to future residential upfront incentive levels will advance multiple Program Objectives, including the third Program Objective, the sustained and orderly development of the state’s energy storage industry, and the fifth Program Objective, lowering energy storage deployment barriers in Connecticut.

Table 5: Updated Residential Upfront Incentives (Tranche 1)

Incentive Step	Installed Capacity (MW)	Baseline (\$/kWh)	Underserved Community (\$/kWh)	Low-Income (\$/kWh)	Grid Edge Adder
1	10	\$250	\$450	\$600	+50%
2	15	\$212.5	\$450	\$600	+50%
3	25	\$162.5	\$450	\$600	+50%

2. Underserved Adder Eligibility Expansion

The fourth ESS Program Objective includes language to “[p]rioritize delivering increased resilience to . . . low-to-moderate income (LMI) customers, customers in environmental justice or economically distressed communities, customers coded medical [protection], and public housing authorities as defined in Conn. Gen. Stat. § 8-39(b).” Additionally, the current incentive structure in the ESS Program provides adders to: (1) customers with incomes below 60% of the state median; and (2) underserved communities, defined as customers that reside in an economically Distressed Municipality, as defined by the most recent list developed by the Connecticut Department of Economic and Community Development (CT DECD), or multifamily affordable housing as contemplated by Conn. Gen. Stat. § 16-244z. Year 1 Decision, pp. 8-9; Year 2 Decision, p. 34. Notably, Conn. Gen. Stat. § 22a-20a defines environmental justice communities as including Distressed Municipalities as defined by the CT DECD and census block groups that are not in Distressed Municipalities in which 30% or more of the population lives below 200% of the federal poverty level.

Accordingly, to support the fourth ESS Program Objective to “[p]rioritize delivering increased resilience to...low-to-moderate income (LMI) customers, customers in environmental justice or economically distressed communities, customers coded medical [protection], and public housing authorities as defined in Conn. Gen. Stat. § 8-39(b),” the Authority sought stakeholder feedback on whether to expand the Distressed Municipality adder to include census block groups that meet the environmental justice community definition under the Connecticut General Statutes but which are not already located in a Distressed Municipality. Notice, June 23, 2023, pp. 2-3. The Authority specifically sought

comments on whether the benefits of increased inclusivity from the adder expansion would outweigh potential increased programmatic costs and customer confusion. Id.

The City of New Haven supported the proposed definition expansion because it would help the Authority meet its 40% target deployment in low-income and underserved communities and align the Distressed Municipality adder with the state definition of environmental justice communities. New Haven Comments, July 20, 2023, pp. 2-3. CGB also supported the proposed expansion of the locational adder, and further suggested that the Authority consider expanding the locational definition to also include Community Reinvestment Act eligible communities (defined as less than 80% AMI), as both environmental justice communities and Community Reinvestment Act eligible communities are within the “Vulnerable Communities” definition of Public Act 20-05. CGB Comments, July 20, 2023, pp. 5-7. CGB noted that such expansion could maximize Inflation Reduction Act tax credit benefits to such communities. Id. In addition, CGB urged the Authority to maintain consistency between the locational definitions in the RRES and ESS Programs. Id. DEEP similarly noted the importance of aligning state and federal program income eligibility and recommended that the Authority consider amending the definition of a low-income customer to “at or below 60% SMI or below 80% AMI” for consistency with IRA incentives, federal Home Energy Rebate Programs, and the Solar for All program. DEEP Comments, Aug. 11, 2023.

The EDCs generally agreed with a reasonable expansion of the ESS program eligibility criteria to better align with the RRES Program eligibility criteria. EDC Comments, July 20, 2023, pp. 3-4. Further, the EDCs cited similar written comments in Docket No. 23-08-02, Annual Residential Renewable Energy Solutions Program Review - Year 3, in which they stated that the definitions of Distressed Municipalities and environmental justice communities are “sufficiently consistent for customers of both to be eligible for the same Distressed Municipality adder,” and that the EDCs could likely implement the change for Year 3 at a reasonable cost. Id. However, the EDCs noted that the Authority should still carefully consider impacts to the balance of benefits between Program participants and non-participants. Id. OCC similarly expressed support for the goal of increased Program inclusivity but requested that the Authority order the EDCs to file cost estimates for implementing the change in order to better compare the benefits with increased programmatic costs. OCC Comments, July 20, 2023, p. 3.

The Authority acknowledges that impacts between participants and ratepayers must be balanced, and further notes that the ESS Program is on track to meet its 40% underserved deployment target, because 46.5% of approved residential projects qualify for an underserved adder. CGB Comments, July 20, 2023, pp. 3-4. Moreover, while total residential enrollment lags behind programmatic targets, the Authority concludes that the residential upfront incentive increases approved in Section IV.B.1., in addition to other changes approved in this Decision, will likely increase Program enrollment among all residential customer classes, including among underserved populations. Moreover, there may be low-income customers enrolled in the ESS Program not receiving an adder, meaning 46.5% of approved projects is likely a conservative approximation of the percentage of underserved customers enrolled in the ESS Program. Further, the Authority is concerned that the inclusion of environmental justice census block groups in the Distressed Municipality upfront incentive adder could negatively impact the third Program Objective, fostering the sustained and orderly development of the state’s electric

storage industry, by adding unneeded complexity to the Distressed Municipality upfront incentive adder.

Additionally, determination of whether a customer resides in an environmental justice census block group is not as accessible as the current requirements for the Distressed Municipality upfront incentive adder, which are based solely on a customer's town of residence. Finally, the Authority declined to expand eligibility for the Distressed Municipality adder to include environmental justice census block groups in the RRES Program. Consequently, the Authority determines that maintaining consistent definitions between the ESS and RRES Programs will further the Program Objectives by reducing developer confusion. Decision, Nov. 1, 2023, Docket No. 23-08-02, (RRES Year 3 Decision), pp. 12-14. Accordingly, the Authority will not expand customer eligibility for the Distressed Municipality upfront incentive adder in the ESS Program.

Last, while the Authority declines to amend the income eligibility threshold from 60% of State Median Income to 80% of Area Median Income for the reasons outlined in the RRES Year 3 Decision (see RRES Year 3 Decision, p. 15), the Authority makes "multifamily affordable housing as contemplated by Conn. Gen. Stat. § 16-244z" eligible for the low-income adder as this change is consistent with the treatment of multifamily affordable housing in the RRES Program. See RRES Program Manual, p. 47.³

3. Commercial Upfront Incentives

In contrast to residential battery enrollment, commercial enrollment has greatly exceeded programmatic targets. Commercial Tranche 1 completed enrollments in March of 2023, almost two years before the Tranche's expected conclusion at the end of 2024. CGB Compliance, March 14, 2023, p. 1. Additionally, 34.9 MW have already been approved for the 100 MW commercial Tranche 2. Tech Mt'g Tr. Aug. 3, 2023, 71:1-2. Notably, while performance incentives and residential upfront incentives are both set to automatically decline over time, commercial upfront incentives remain the same across all three commercial incentive Tranches. CGB Compliance, June 15, 2023, Clean ESS Program Manual, pp. 41, 45. Consequently, the Authority requested written comments on whether a declining-block upfront incentive structure should be established for commercial Tranche 3 of the ESS Program. Notice, Aug. 11, 2023, pp. 5-6. As an alternative, the Authority also requested comments on whether it would be appropriate to wait to open Tranche 3 until further commercial project Tranche 1 and Tranche 2 data is available. Id.

CGB stated that there is insufficient data to determine whether a declining-block incentive structure is warranted for commercial projects because few commercial projects have been completed thus far. CGB Comments, Aug. 30, 2023, p. 15. Nevertheless, CGB "is always focused on declining incentive block structures as evidenced by the RSIP" and would ideally submit proposals for Tranche 3 commercial incentives once Tranche 2 nears completion. Id. CGB further proposed "a declining block structure" for commercial projects if allocated commercial capacity were increased from current levels. CGB Corresp., Sept. 25, 2023, p. 22. Similarly, NECEC argued that "it is too early to determine

³ Available at: https://www.eversource.com/content/docs/default-source/save-money-energy/residential-renewable-energy-solutions-program-manual.pdf?sfvrsn=2f505776_7.

whether the [P]rogram is on track to meet deployment goals, due to the slow pace” of commercial project deployment. NECEC Comments, Aug. 30, 2023, p. 1. CPower argued against commercial Tranche 3 upfront incentive reductions, because there was no evidence that battery development costs would decline by the time Tranche 3 is opened. CPower Comments, Aug. 30, 2023, pp. 18-19. CPower also stated that interconnection costs remain uncertain because no medium or large commercial ESS projects have completed the interconnection process yet. *Id.* Ultimately, CPower supported revisiting commercial upfront incentive levels next year. *Id.*, p. 19. Last, OCC recommended that the Authority review current commercial incentive levels to ensure that “they do not exceed the amount necessary to secure sufficient [commercial] enrollment.” OCC Comments, Aug. 30, 2023, p. 16.

The Authority determines that further evaluation is needed before approving changes to the current commercial upfront incentive rates. Accordingly, the Authority directs the Program Administrators to reevaluate commercial upfront incentive rates ahead of the three-year Program review to be conducted next year. More specifically, by June 15, 2024, the Authority directs the Program Administrators to file for review and approval a recommendation for new upfront incentive rates for the small, medium, and large commercial categories for the unallocated commercial MWs remaining in Tranche 2 as of June 15, 2024, as well as rates for the MWs in Tranche 3. After the submission of this recommendation on June 15, 2024, the Program Administrators shall pause all commercial passive dispatch enrollments in the Program until the Authority determines the commercial upfront incentives for the remainder of Tranche 2 and for Tranche 3.⁴ The Authority expects to issue a ruling on the Program Administrators’ commercial incentive recommendation in the Year 4 Decision in Docket No. 24-08-05, after which commercial passive dispatch enrollments are expected to resume for the Program, unless the Authority determines otherwise in the Year 4 Decision. This evaluation is consistent with the intention of the three-year reviews to “ensure that the Program is...delivering on the expected value” and to reevaluate the “deployment targets, the breakdown of deployment targets by customer class, and incentive structures.” Storage Decision, p. 44.

Further, through modeling and data analysis of current commercial project data, the Program Administrators shall work with the Program’s EM&V consultant (i.e., Guidehouse) to ensure that the commercial upfront incentive recommendation will achieve a PCT at or slightly above 1, because a PCT above 1 “indicates that the program benefits outweigh program costs and therefore that the incentives provided through the program will result in even greater benefits.” See Storage Decision, pp. 33-34.

The Authority highlights that the average PCT for commercial Tranche 2 is currently 1.15, which is above the assumed value needed to incent sufficient commercial Program enrollment. See CGB Interrog. Resp. CAE-23. Additionally, commercial enrollment far exceeds the Program’s original commercial targets, which further suggests that a decline in commercial upfront incentive rates will still allow the Program to achieve its commercial enrollment goal. Further, while the Program’s nonresidential RIM is currently above 1.4 (1.93), when interstate benefits are not considered in the Program’s RIM calculation, the Program’s RIM drops to 0.90, which suggests that non-participating

⁴ The Program Administrators shall also pause commercial passive dispatch enrollments in the Program if all Tranche 2 MWs are allocated prior to June 15, 2024.

Connecticut ratepayers are not financially benefiting fully from the ESS Program at current incentive payment levels. See Program Administrator Corresp., Aug. 3, 2023, p. 12; Program Administrator Interrog. Resp. CAE-7. Therefore, the Authority directs the Program Administrators to work with the Program’s EM&V consultant (i.e., Guidehouse), using modeling and data analysis of current commercial project data, to propose incentive rates closer to a participant cost test (PCT) at or slightly above 1.

Ultimately, a reevaluation of future commercial upfront incentives during next year’s review will advance multiple Program Objectives, including the first Program Objective, providing positive net present value to all ratepayers, by ensuring that ratepayer funds do not exceed the amount necessary to incent commercial enrollment. The Authority also originally intended for the ESS Program to have a declining-block upfront incentive structure, which has yet to be realized for the commercial Program sector. See Storage Decision, p. 5. Consequently, the first three-year cycle provides the Authority with an opportunity to critically examine the success of the Program to date, to assess how best to set commercial upfront incentives moving forward, and to establish a measured approach to implementing the intended declining-block upfront incentive structure for the commercial portion of the Program. Additionally, allowing the current Tranche to continue through June 15, 2024 furthers the third Program Objective to foster the sustained, orderly development of a state-based electric energy storage industry by allowing for a runway before any changes are evaluated or take effect.⁵

C. PROJECT ENROLLMENT PROCESS CHANGES

1. Form Removal and Application Process Working Group

In response to the Authority’s June 23, 2023 Notice of Request for Written Comments, EnergyHub, the administrator of the Program’s residential Distributed Energy Resource Management System (DERMS), recommended that the Authority resolve “points of friction in the current application and enrollment process” to make the ESS Program less complex with the goal of attracting more developers and interested customers. EnergyHub Comments, July 20, 2023, p. 2. To simplify the enrollment flow, EnergyHub proposed requiring only one ESS application through the battery manufacturer, instead of having two applications through both the battery manufacturer and CGB. Id., p. 3. Further, Sunrun argued for a simplification of the Program enrollment flow because developers are currently required to “submit extensive documentation through the Green Bank portal at multiple stages of project interconnection and program enrollment.” Sunrun Comments, June 20, 2023, p. 4.

Consequently, the Authority requested comments from all stakeholders on potential changes to the current ESS application enrollment flow, including whether and how existing application processes, forms, and data requirements should be simplified to make the ESS Program less complex for developers by reducing the administrative burden and application timelines. Notice, Aug. 11, 2023, pp. 3-4. Moreover, the Authority noted the successful development of an Application Process Working Group last year in Docket No. 22-08-02 to streamline the RRES Program enrollment flow, thereby resulting

⁵ The November 6, 2023 Proposed Final Decision in this proceeding was intended to provide this runway. Any implication otherwise was unintentional.

in the Authority's approval of various changes to better align the RRES application process with programmatic goals. Decision, Feb. 8, 2022. Docket No 22-08-02, Annual Residential Renewable Solutions Program Review – Year 2; Id. Therefore, the Authority also requested comments on whether a similar approach would help resolve potential application barriers for the ESS Program. Notice, Aug. 11, 2023, pp. 3-4.

In response, CGB welcomed “the opportunity to collaborate with stakeholders to streamline ESS” enrollment. CGB Comments, Aug. 30, 2023, p. 8. However, given that only a small number of active contractors currently participate in the Program, CGB opined that changes to the ESS enrollment process could be made on “an ad-hoc basis.” Id. CGB remained open to holding a residential enrollment working group in the future. Id. Similarly, UI did not recommend the creation of a working group because the Program Administrators have already been working to understand bottlenecks in the application process. UI Comments, Aug. 30, 2023, p. 3. Eversource also did not support the development of an application process working group. Eversource Comments, Aug. 30, 2023, pp. 3-4. Eversource nevertheless noted that “one large battery manufacturer has indicated that they would be more willing to participate in the ESS Program if the Program could enable enrollment through their mobile app,” which could be accomplished by reviewing application information the battery partner is able to collect through their existing apps. Id., p. 4. Additionally, Eversource believes that the ESS Program has longer application timelines than the RRES Program because of “the amount of additional information required for ESS Program participation in addition to the complexity of battery projects and installer experience level.” Id., p. 5.

CPower had no objection to simplifying the application and enrollment process and believes that any application changes should focus “mainly on the residential portion of the Program.” CPower Comments, Aug. 30, 2023, pp. 14-15. Moreover, OCC noted that an application process working group could help “identify difficulties with the application process [and] could help root out any problems and ameliorate any issues that remain with the application process.” OCC Comments, Aug. 30, 2023, pp. 10-11. Last, Tesla was “very supportive” of improvements to the ESS application process. Tesla Comments, Aug. 30, 2023, p. 2. Tesla noted that in-app enrollment processes were efficient in attracting new customers by reducing application burdens and excessive paperwork, and highlighted ConnectedSolutions and California's load reduction program as two examples of successful in-app battery enrollment programs. Id. Tesla proposed that the Authority direct the Program Administrators to eliminate “several specific enrollment documents, enrollment processes, and eligibility requirements that could impede the adoption of in-app ESS enrollment.” Id., p. 3. Tesla recommended removing the utility approval to energize letter, the self-inspection report and photos, the one-line diagram, the home energy audit, and the electric bill from the ESS application, among other suggested changes. Id., pp. 3-4. Ultimately, Tesla argued that, with the sunset of ConnectedSolutions, “delaying implementation of a streamlined ESS in-app enrollment process threatens to create a period during which new [battery] customers fail to enroll in any battery [demand response] program.” Id., p. 5.

CGB further stated that it takes on average 237 days for a project to receive an upfront incentive payment after the project is submitted for CGB review. CGB Interrog. Resp. CAE-16. Strikingly, the average application completion timeline for the ESS Program is significantly higher than the RRES Program, where projects receive

permission to operate within an average of between 79-94 business days. Eversource Compliance, July 27, 2023, Docket No. 22-08-02, Attachment 1, p. 1; UI Compliance, May 1, 2023, Docket No. 22-08-02, Attachment 1, p. 1. Additionally, 62% of ESS applications with reservations of funds received an application rejection at any point in the ESS application process. CGB Interrog. Resp. CAE-17. On average, application rejections occur 27 days after a residential project was submitted for CGB review and 193 days after a commercial project was submitted for CGB review, respectively. Id. Applications can be rejected at three different times during the application review process: (1) during the initial application review stage; (2) after funds are reserved and the project has been completed; and (3) during a project's inspection. Id. Last, applications are most commonly rejected due to incomplete or missing project data or application documents.⁶ CGB Interrog. Resp. CAE-18. A potential solution to reduce application rejections, CGB believed, would be to "provide contractors with a checklist for all of the materials that the Green Bank requires through the process." Id.

Upon weighing stakeholder comments and application data, the Authority directed the EDCs to include an inventory of all Program forms identified for removal in briefs, to reduce application timelines through the removal of document requirements. Notice, Oct. 2, 2023, p. 1. Additionally, the Authority directed CGB to include a discussion of any areas of disagreement it has with the EDCs' proposed form reductions. Id. In response, the EDCs recommended the removal of several documents for all customer applications. First, the EDCs recommended removing the customer's electric bill from the Program's list of required documents because this requirement is duplicative of other enrollment processes, including the collection of the customer's account number and DERMS customer verification. Eversource Brief, Oct. 16, 2023, p. 18; UI Brief, Oct. 16, 2023, p. 5. Further, the EDCs recommended removing the home energy audit requirement for homes built prior to 1980 because this requirement is duplicative of RRES application requirements and because 100% of ESS residential customers are co-located with solar. Eversource Brief, Oct. 16, 2023, p. 18; UI Brief, Oct. 16, 2023, p. 5. The EDCs also recommended removing the approval to energize letter and one line diagram from the Program's required document list because both documents are already collected in the EDCs' interconnection application. Eversource Brief, Oct. 16, 2023, pp. 17-18; UI Brief, Oct. 16, 2023, p. 6.

Conversely, CGB recommended removing the one-line diagram, self-inspection report, and site plan for active dispatch only customers because these documents are used to facilitate CGB's inspections, which do not occur for active dispatch only systems. CGB Brief, Oct. 16, 2023, pp. 1-2. CGB also recommended removing the electric bill for active dispatch only customers because electric account information is verified by EnergyHub. Id., p. 2. Additionally, CGB recommended removing the sales contract for active dispatch only systems because the sales contract is used to calculate the upfront incentive, which is only applicable for passive dispatch customers. Id. Last, CGB recommended removing the approval to energize letter and energy audit documentation for all customers, for reasons similar to what were provided by the EDCs. Id., pp. 2-3.

⁶ According to the ESS Program website, approximately 11 documents are required for each ESS application. See <https://energystoragect.com/contractor-resources-2/>.

The Authority concludes that application process changes are needed to reduce the ESS Program's high rejection rate (62%) and lengthy application review timelines (237 days), and, consequently, provides new direction to the Program Administrators. First, to reduce application barriers by removing unnecessary or redundant forms, the Authority approves several documentation changes supported by both the EDCs and CGB. More specifically, the Authority approves the removal of the following forms from the active dispatch only application: (1) electric bill; and (2) one-line diagram. Further, the Authority approves the removal of the approval to energize letter for all applications because the EDCs already have this letter on file as a part of the interconnection approval process. The Authority does not, however, approve the removal of home energy audit documentation for homes built before 1980 for projects not co-located with solar. Home energy audits provide financial benefits to customers via energy bill savings. Increased energy efficiency also reduces greenhouse gas emissions by reducing overall energy consumption, thereby supporting the sixth Program Objective. The Authority acknowledges, however, that the home energy audit is duplicative if the ESS customer is also enrolled in the RRES Program or previously received funding through the Residential Solar Investment Program, which also required home energy audits. Consequently, the Authority clarifies that the Program Administrators do not need to collect home energy audit documentation as a part of the ESS residential application if the project is co-located with a solar project, since the overwhelming majority of existing solar projects have already been subject to home energy audit requirements.

Second, the Authority directs the ESS Program Administrators to establish an Application Process Working Group (APWG). The Authority determines that an APWG will further the Program Objectives by improving application inefficiencies, in furtherance of the third Program Objective, the sustained and orderly development of the state's energy storage industry. Notably, while the Program Administrators opposed an APWG in written comments, at the first Technical Meeting, CGB stated a belief that an APWG would "greatly help the Program," after which UI stated it was "in agreement" with CGB. Hr'g Tr., Aug. 3, 2023, 53:23-24, 54:3-4. The APWG shall focus specifically on ways to simplify or streamline the complex ESS enrollment flow for residential projects, whose enrollment is lagging significantly behind programmatic goals, in contrast to commercial projects. The Program Administrators shall invite all active residential ESS contractors for inclusion in the APWG, so that informed decisions can be made on any application process improvements. Further, the APWG shall be co-led by both the EDCs and CGB. The Program Administrators shall also allow any other interested parties, including stakeholders not currently participating in the ESS Program such as Tesla or Sunrun, to join the APWG by request. Additionally, the Authority recognizes that improvements may be warranted to the ESS commercial enrollment flow as well, to improve commercial application timelines or to address commercial enrollment inefficiencies. Consequently, the APWG may recommend improvements to the commercial application, in addition to the residential enrollment flow. The APWG shall strive to reach consensus whenever possible in recommending changes to the ESS enrollment flow. Last, if recommended by the APWG, the Authority would strongly consider the removal of the following documents identified by the EDCs in briefs, which may be duplicative of existing interconnection processes, for all application types: (1) operations agreement; (2) the electric bill; (3) site plan; and (4) the one-line diagram.

The Program Administrators shall file a report with the Authority (APWG Report) by March 15 including consensus recommendations and feedback from APWG members, and providing specific recommendations on the following: (1) required application field questions that can be omitted from the ESS Salesforce-based application; (2) required application forms that can be consolidated or removed; and (3) a proposal to combine or streamline the separate ESS applications and enrollment processes to the fullest extent possible, including a method to combine a project's DERMS-enrollment application with the existing ESS incentive approval application.⁷ If consensus on any of the above cannot be reached, the Program Administrators shall include in the APWG report a fair and accurate description of all views expressed. The APWG shall meet a minimum of four times, and the Program Administrators shall include the dates and attendees of each APWG meeting in the APWG Report. Finally, the Authority clarifies that any consensus recommendations not requiring changes to the Program Manual or Program documents may be implemented immediately by the Program Administrators. The Authority looks forward to reviewing the APWG Report, which will aid the Program Objectives by reducing application barriers, timelines, and project rejections.

2. Eligible Contractor Application

As outlined in Section 4.3. of the Program Manual, contractors and third-party owners are required to submit an application to the Program Administrators via the Program website before gaining access to the ESS enrollment portal. CGB Compliance, June 15, 2023, Clean ESS Program Manual, pp. 23-30. The ESS Eligible Contractor application requires approximately 10 documents, each with their own specific requirements. *Id.*, pp. 23-26. Additionally, a contractor's eligibility in the ESS Program may be forfeited if at least one application is not submitted per year. *Id.*, p. 29.

Notably, other statewide clean energy programs, including the RRES and Non-Residential Renewable Energy Solutions (NRES) Programs, do not require Eligible Contractor applications. Accordingly, the Authority requested written comments on the pros and cons of requiring contractor applications prior to joining the ESS Program, including whether any changes to the current Eligible Contractor application are warranted to increase contractor participation. Notice, Aug. 11, 2023, p. 4.

CGB opined that its Eligible Contractor application process is not onerous or exclusive. CGB Comments, Aug. 30, 2023, p. 10. CGB argued that its Eligible Contractor application serves as "an indicator of quality" and aids in preventing unprofessional contractors from enrolling in the Program. *Id.* CGB further argued that in contrast to the solar market, the battery market is not mature and needs greater engagement to foster the market's development. *Id.* Additionally, CPower argued that the development of a commercial storage project requires skill and expertise to navigate project uncertainties and technical issues. CPower Comments, Aug. 30, 2023, p. 16. Consequently, CPower recommended no changes to the commercial Eligible Contractor application. *Id.*, p. 17. Last, OCC supported requirements that would ensure that ESS contractors have the

⁷ The Authority is aware of at least four separate ESS project applications that must be completed before incentive payout: (1) the DERMS-enrollment application required by certain battery manufacturers; (2) CGB's incentive approval application; (3) CGB's project completion application; and (4) a project's interconnection application with the EDCs.

necessary qualifications to safely install battery projects. OCC Comments, Aug. 30, 2023, p. 12.

The Authority directs the Program Administrators to investigate improvements to the Eligible Contractor application through the APWG established in the prior section. Accordingly, the Program Administrators shall include a fourth item in the APWG Report: a recommendation to streamline or reduce the requirements included in the Eligible Contractor application. The Authority concludes that the lack of residential contractor participation in the ESS annual review proceeding makes it difficult to determine whether the existing Eligible Contractor application is problematic for residential contractors. Nevertheless, given the small number of active residential contractors currently participating in the Program, the Eligible Contractor application may pose a barrier to Program participation. The Authority notes that it takes a contractor on average 26 days to receive approval for the ESS Program, which suggests that the Eligible Contractor enrollment process could benefit from process improvements or form reduction to reduce potential application barriers. CGB Interrog. Resp. CAE-24. Nevertheless, the Authority concludes that, given the infancy of the residential energy storage market in Connecticut, an Eligible Contractor application furthers the Program Objectives by ensuring that contractors meet the Program's licensing and safety requirements. The Authority looks forward to the APWG's recommended improvements to the Eligible Contractor application, which would advance the Program Objectives by lowering barriers to entry.

3. Inspection Requirements

Section 3.6.1. of the Program Manual outlines an inspection process for ESS projects, where the Program Administrators may conduct a field inspection of any completed system. CGB Compliance, June 15, 2023, Clean ESS Program Manual, pp. 16-17. Additionally, the Program Manual states that the Program Administrators "will work to ensure that inspections are performed in a reasonable timeframe and do not impose an excessive burden or inconvenience on customers." Id., p. 17. The Authority requested written comments on the current ESS inspection process to better understand the need for CGB-led ESS inspections. Notice, Aug. 11, 2023, p. 4. More specifically, the Authority requested comments "on the pros and cons of CGB-led ESS inspections, whether the current inspection process is duplicative of municipal and/or EDC inspections, and whether ESS inspections are an excessive burden to customers and/or developers." Id.

Eversource averred that CGB-led inspections should be "phased out before the next program cycle." Eversource Comments, Aug. 30, 2023, p. 5. Eversource noted that most of CGB's inspection requirements are duplicative of existing state, utility, or municipal inspections. Id. Nevertheless, Eversource supported a "methodical sampling approach to ensure installers are complying with Program requirements." Id. Additionally, Eversource argued that "signing off on items for which another entity (in this case, a town's electrical inspector) is responsible for approving could create customer confusion and could expose the Program Administrators to the risk of unnecessary liability." Eversource Brief, Oct. 16, 2023, p. 19. Similarly, UI stated that CGB-led inspections provided "no added benefit to the developer, customer, or program; only increases to overall program costs and lead times." UI Comments, Aug. 30, 2023, p. 4. Like Eversource, UI noted that CGB-led inspections were duplicative of inspections that

are already occurring. Id. Consequently, UI recommended eliminating CGB-led inspections. Id. Moreover, Tesla argued that ESS inspection processes were redundant when compared with the existing EDC interconnection process. Tesla Comments, Aug. 30, 2023, p. 4.

Conversely, CGB argued that its inspections were important for fostering the sustained and orderly development of the state's storage industry, given the "nascency of the market for battery storage." CGB Comments, Aug. 30, 2023, p. 9. CGB also argued that its inspectors worked closely with Program participants to ensure inspections were completed in a timely manner. Id. CGB anticipated that, in the future, installers who consistently passed inspections would only have to submit "self-inspections." Id. Additionally, OCC argued that ESS inspections should occur only for the "purpose of verifying that storage resources align with program requirements and goals." OCC Comments, Aug. 30, 2023, p. 11.

The Authority conducted further discovery on the impacts of CGB-led inspections. CGB stated that each inspection costs approximately \$450. CGB Interrog. Resp. CAE-19. Of the 81 completed residential projects, 90% (or 73 projects) were inspected by CGB, of which 67% failed inspection. CGB Interrog. Resp. CAE-20. Projects most commonly failed CGB inspections due to labeling issues.⁸ CGB Interrog. Resp. CAE-21. The average number of days from when a residential project enters the CGB inspection pipeline to when the project receives CGB inspection approval is approximately 54. CGB Interrog. Resp. CAE-22.

The Authority concludes that the CGB-led inspections require modifications to better align them with the Program Objectives. Specifically, the Authority is concerned that the CGB-led inspections, as currently envisioned, may be hindering the first Program Objective to achieve net ratepayer benefits, as each inspection costs \$450 and inspections have been conducted for 90% of residential projects to date,⁹ and the fifth Program Objective to lower barriers to entry, as these inspections add an average of 54 days to the project approval process.¹⁰ Moreover, the Authority is concerned by the high number of inspection failures due to "labeling issues", which seem unrelated to the operational soundness of the energy storage project.

The Authority primarily raises these concerns for CGB's awareness and to provide feedback to help optimize the Program's results with the Program Objectives. Ultimately, the Authority recognizes that CGB inspections are likely more thorough than inspections conducted by other parties and, therefore, provide additional comfort or security to Program participants, particularly in a nascent market, thereby aiding the third Program Objective to foster the sustained orderly development of the in-state industry. Consequently, the Authority defers to CGB's recommendation that CGB-led inspections continue for Year 3 of the Program but directs one modification to make the optional

⁸ CGB requires 10 labels on a residential storage project. See <https://energystoragect.com/wp-content/uploads/2023/08/BEES-Checklist-2020-Code-Labels.pdf>.

⁹ The total CGB-led residential project inspection costs to date (approximately \$33,000) is not as much of a concern to the Authority as the potential cost of auditing 90% of all future residential ESS Program projects and the costs of commercial project inspections.

¹⁰ 54 days is more than 50% of the average *total* approval time in the RRES Program.

nature of these inspections more apparent. Specifically, for all applications beginning January 1, 2024, the customer must explicitly opt-in to the inspection process. CGB may choose the mechanism through which customers opt-in (e.g., a check box in the ESS Program application, one-off email, etc.), but may only select one such mechanism. Further, if CGB utilizes email to receive customer opt-in for CGB inspections, the email must state that the inspection is optional in the email's subject header and first sentence. Moreover, CGB shall only send the inspection opt-in email to each customer once, consistent with the above direction that only one mechanism may be used to request customer opt-in. If the customer does not respond to the inspection opt-in email within 15 days, the Program Administrators shall assume that the customer has declined an optional inspection and move the application to the next stage in the application review process. CGB shall identify the mechanism through which they will seek customer opt-in to the CGB-led inspections via compliance filed in the instant proceeding no later than December 20, 2023; if CGB selects email, the inspection opt-in email shall also be submitted with this compliance filing. Further, the Authority clarifies that stakeholders may propose an alternative inspection opt-in process to the APWG, if such proposal would more effectively resolve the inspection concerns identified in this section.

The Program Administrators shall remove required application forms pertaining to CGB inspections for projects that have opted-out of CGB's inspection process (e.g., by not responding to the opt-in email within 15 days, or by replying to the email before 15 days and opting out of the inspection). All references to CGB inspections in the Program Manual shall also clarify that CGB inspections are optional. CGB Compliance, June 15, 2023, Clean Program Manual, pp. 13, 16-18, 29-30, 47, 85. However, CGB shall still retain the right to audit systems, but such audits shall not impact the approval of a specific project if the customer declines to opt-in to the CGB-led inspection process.

The Authority appreciates CGB's efforts to ensure the sustained orderly development of the storage industry in Connecticut and will continue to evaluate potential Program barriers related to inspections in future annual review proceedings. However, as a trusted partner, the Authority anticipates and appreciates that CGB will internalize the concerns highlighted above and will address them to the extent they are hindering the ESS Program's ability to achieve the Program Objectives.

D. INTERCONNECTION REFORM

In Order No. 10 of the Year 2 Decision, the Authority directed the policy and technical interconnection working groups (IX WG)¹¹ to file with the Authority no later than July 1, 2023, specific recommendations to address energy storage interconnection concerns, "including but not limited to: streamlining the documentation needed for energy storage interconnection, defining timelines for energy storage interconnection approval, and determining how to model energy storage systems for interconnection." Year 2 Decision, p. 40.

¹¹ The policy and technical interconnection working groups (IX WG) were established pursuant to a Decision dated November 25, 2020, in Docket No. 17-12-03RE06, PURA Investigation into Distribution System Planning of the Electric Distribution Companies – Interconnection Standards and Practices (RE06 Decision).

On June 1, 2023, CGB filed a motion (Motion No. 3) in this proceeding requesting that the Authority provide further guidance and clarification to the IX WG, including detailed agendas and expectations for each IX WG meeting, to ensure that the IX WG met the requirements of Order No. 10. Motion No. 3, p. 2. CGB was also concerned about the number of energy storage models eligible for EDC interconnection, since the EDCs' interconnection application software, PowerClerk, only allows interconnections for systems that are approved by the California Energy Commission.¹² Id., p. 4. The Authority granted Motion No. 3 in part and extended the Order No. 10 compliance deadline until September 1, 2023. Motion No. 3 Ruling 2, p. 3. Further, the Authority amended the requirements of the IX WG's Order No. 10 compliance to include the following:

- 1) a proposed process for the EDCs to notify developers when the interconnection study begins and is expected to be approved for each application;
- 2) a proposal, including estimated implementation costs and timelines, for all interconnection process forms coming from one source;
- 3) a proposal for evaluating energy storage based on the expected charging and discharging patterns of storage systems, especially for those systems collocated with solar and/or those systems participating in the Active and Passive Dispatch components of the ESS Program; and
- 4) a plan for rectifying the deficiencies in the number of models able to interconnect through PowerClerk.

Motion No. 3 Ruling 2, p. 3.

On behalf of the IX WG, the EDCs filed compliance with Order No. 10. See EDC Compliance, Sept. 1, 2023. In the compliance, the EDCs stated that the Guidelines for Generator Interconnection have been revised to clarify that ESS systems are included under the Guidelines. Id., p. 2. Moreover, the EDCs stated that their Fast Track and Study Process Guidelines provide information and guidance on the interconnection study process, "including how EDCs presently notify developers of study start and expected end dates" (i.e., via the interconnection study agreement or by email once all study deliverables are met). Id. The EDCs also clarified that all interconnection forms already come from one source (i.e., PowerClerk). Id. The EDCs further stated that they gave IX WG participants guidance on how to reach out to the EDCs with questions regarding the required interconnection forms. Id.

Additionally, the EDCs submitted a proposal to evaluate energy storage based on the systems' expected charging and discharging patterns. EDC Compliance, Sept. 1, 2023, p. 2. More specifically, the EDCs proposed to evaluate the distribution impacts of energy storage using dispatch limiting schedules. In the proposal, developers would be required to submit when the battery plans to charge and discharge during the following periods (i.e., developers would fill out tables like the ones shown below):

¹² At least 19 energy storage companies expressed interest in joining the ESS Program and are not on the California Energy Commission's approved battery equipment list. Program Administrator Interrog. Resp. CAE-9.

Table 6: EDC Proposed Dispatch Limiting Schedules¹³

Maximum MW Charge				
Charge Limiting Schedule	00:00 – 09:00	09:00 – 12:00	12:00 – 18:00	18:00 – 00:00
Spring (March, April, May)				
Summer (June, July, Aug.)				
Fall (Sept., Oct., Nov.)				
Winter (Dec., Jan., Feb.)				

Maximum MW Discharge				
Discharge Limiting Schedule	08:00 – 10:00	10:00 – 16:00	16:00 – 18:00	18:00 – 08:00
Spring (March, April, May)				
Summer (June, July, Aug.)				
Fall (Sept., Oct., Nov.)				
Winter (Dec., Jan., Feb.)				

EDC Compliance, Sept. 1, 2023, Attachment 2, pp. 10-11. Further, the EDCs plan to inform developers of potential adjustments to a project’s proposed dispatch limiting schedule so that the project may avoid distribution system upgrades on a case-by-case basis. EDC Compliance, Sept. 1, 2023, Attachment 2, p. 10. Compliance with a project’s proposed dispatch limiting schedule will be enforced by operational restrictions as determined by the EDC, including via a “Real Time Automatic Controller.” *Id.* Finally, the EDCs clarified that they no longer restrict the number of energy storage models interconnecting through PowerClerk because the energy storage model manufacturer field was changed from a required to an optional field. EDC Compliance, Sept. 1, 2023, p. 3.

The Authority approves with modification the IX WG’s Order No. 10 compliance. Specifically, while the steps outlined by the EDCs in the Order No. 10 compliance will generally improve energy storage interconnection barriers by clarifying existing interconnection processes and by reforming the interconnection study process for energy storage projects, the Authority concludes that additional changes are needed to ensure the EDCs’ proposal most effectively advances the Program Objectives. First, the Authority determines that ESS projects’ proposed dispatch limiting schedules shall be verified using the Program’s existing DERMS provider if the projects are less than 500 kW, since such projects do not currently need to be verified using a Real Time Automatic Controller (i.e., SCADA) per existing interconnection guidelines. EDC Compliance, Sept. 1, 2023, Exhibit B, p. 16. Accordingly, by December 20, 2023, the EDCs shall amend the Generator Interconnection Technical Requirements to clarify this requirement for projects participating in the ESS Program. The Authority concludes that this clarification will

¹³ The time intervals shown in Table 7 are “for reference only and can be changed by the developer to fit their intended operational schedule.” EDC Compliance, Sept. 1, 2023, Exhibit B, p. 10. The seasonal windows, however, are fixed and cannot be adjusted by the developer. UI Exceptions, Nov. 15, 2023, p. 3.

advance the fifth Program Objective, lowering barriers to entry for Program participants, by ensuring that ESS projects do not have to enroll in multiple automatic controller programs.

Second, the Authority cannot conclude whether the EDCs' proposal most effectively reduces energy storage interconnection timelines because the EDCs did not include detailed qualitative or data-driven explanation in their proposal. EDC Compliance, Sept. 1, 2023, p. 2. Consequently, the Authority directs the EDCs to review energy storage interconnection practices currently used in other jurisdictions, specifically in cases where other utilities have adopted storage interconnection requirements intended to both ensure distribution reliability and minimize unnecessary interconnection and grid upgrade costs (i.e., smart interconnection requirements, discharge limiting schedules for energy storage interconnections, etc.). The EDCs shall then compare their proposal with the practices identified in other jurisdictions to determine whether the EDCs' proposal, including but not limited to the proposed (dis)charge limiting schedules, should be adjusted to more effectively enhance reliability and reduce storage interconnection timelines and costs. The EDCs shall also present their findings to the IX WG before filing them with the Authority. The EDCs shall state whether and why changes to their proposed (dis)charge limiting schedules are or are not warranted in their compliance, which shall include data-driven analysis for any conclusions reached. The EDCs shall file a summary of their findings with the Authority, incorporating all the above direction, by August 1 in the next annual review proceeding. In the interim, however, the EDCs' proposed (dis)charge limiting schedules are approved for immediate use for storage interconnections. Further, the Authority directs the EDCs, if they have not already done so, to add an option labeled as "TBD" or "Other" to the drop-down list for all energy storage manufacturer fields required by the PowerClerk interconnection application, to broaden the number of energy storage models that may apply for interconnection, thereby increasing Program participation.

Finally, so the Authority can monitor interconnection timelines and project attrition rates for ESS commercial projects, each EDC shall file as compliance by August 1 annually in that year's annual Program review docket (i.e., 2024 compliance shall be filed in Docket No. 24-08-05) an ESS Interconnection Report. The Report shall consist of a summary of the state of interconnection for all commercial ESS projects and shall include, at a minimum: (1) the interconnection status of each commercial ESS project; (2) the expected EDC interconnection approval due date for each commercial project per EDC interconnection guidelines, as applicable; (3) the date all required interconnection materials were submitted to the utility for each commercial ESS project; (4) the number of days from when all required interconnection materials were submitted to the utility for each commercial ESS project up to the completion of the interconnection process; (5) the attrition rate for all commercial ESS projects, based on the withdrawal of a project's interconnection application; (6) a list of the most common reasons for ESS interconnection delays; and (7) EDC-proposed solutions for each of the most common reasons delaying ESS interconnections.¹⁴ The Authority intends to review the information

¹⁴ If either EDC is unable to provide the information required for the ESS Interconnection Report for preexisting Program applications because such information was never collected or tracked, the EDC may state so in the Report in lieu of providing such information. See UI Exceptions, Nov. 15, 2023, p.

included in the ESS Interconnection Report on an annual basis to determine if changes are needed to the interconnection process for ESS projects, in support of the third Program Objective, the sustained and orderly development of the state's energy storage industry.

1. Interconnection Cost Socialization

Even with the changes approved in this Decision, interconnection costs may hinder the deployment of ESS projects, especially large commercial projects that may encounter high distribution system cost upgrades during the interconnection study and review process. Accordingly, the Authority directs ESS participants to Docket No. 22-06-29, PURA Investigation into Distributed Energy Resource Interconnection Cost Allocation, and Docket No. 22-06-29RE01, PURA Investigation Into Distributed Energy Resource Interconnection Cost Allocation – Non-residential Interconnection Upgrades, as a permanent solution for residential interconnection cost socialization is expected to be implemented in Docket No. 22-06-29 by the end of the year and discovery on a solution for commercial interconnection cost socialization is currently ongoing.

E. FRONT-OF-THE-METER (FTM) INCENTIVE AND TARIFF DESIGN

In Order No. 9 of the Year 2 Decision, the Authority directed the Program Administrators to “establish a working group with relevant stakeholders, in accordance with section IV.B.4., to provide a complete set of FTM tariff and incentive designs, including at least one wholesale distribution rate, in addition to specific estimates on FTM tariff costs and implementation timelines.” Year 2 Decision, p. 39.

The Authority specified that the FTM tariff design must allow for “use case” or “revenue” stacking and directed the working group to use gap analysis to identify ways for FTM storage to optimize all opportunities, “including but not limited to, forward capacity markets, ancillary service markets, and peak shaving.” Id. In addition, the Authority directed the EDCs to develop at least one Wholesale Distribution Charge (WDC) and present it for the working group's consideration. The Authority specified that such WDC “shall be similar to the FERC-approved ComEd tariff, which was used in the modeling completed by CGB's consultant Sustainable Energy Advantage LLC and filed as compliance on June 10, 2022, in Docket No. 21-08-05.” Id. Further, the Authority directed the Program Administrators to file benefit-cost analysis of the combination of any WDC and incentive designs as part of the working group's final report. Id. Finally, the Authority noted that while the Working Group Report may recommend an updated version of the Option 5 incentive structure modeled by CGB and filed as Correspondence in Docket No. 22-08-05, “the Working Group Report must adjust the incentive level based on the proposed WDC and must show that Option 5 appropriately allows for the optimization of all FTM use case opportunities.” Id.

5. However, the EDCs shall be required to collect all information required for the Report for all new Program applications submitted on and after January 1, 2024.

The EDCs subsequently filed a Motion (Motion No. 8) for a two-month extension of time to file the Working Group Report. Motion No. 8, June 20, 2023, Docket No. 22-08-05. The Authority granted an extension of time until December 29, 2023, for filing the final Working Group Report, incentive designs, and gap analysis, but granted an extension to file the FTM tariff until September 12, 2023, to align with the annual docket review schedule. The Authority further noted that any tariff should be based on distribution system cost-causation; specifically, “[a]bsent system costs incurred due to interconnection (e.g., transformer, line, and substation upgrades), the Authority operates under the strong presumption that the incremental cost to serve FTM storage systems is minimal and, thus, the distribution costs applied through a wholesale distribution rate should be similar in magnitude.” Motion No. 8 Ruling, June 27, 2023, Docket No. 22-08-05, p. 2.

On September 12, 2023, the EDCs jointly filed compliance with Order No. 9 and Motion No. 8 with information on the rate design for WDC that would be included in their FTM Wholesale Distribution Access Tariffs (WDATs) for the service of delivering power to energy storage systems to be later resold at wholesale. EDC Compliance, Docket No. 22-08-05, Sep. 12, 2023. In the compliance filing cover letter, the EDCs describe the filing with the Authority as solely informational because FERC “has exclusive jurisdiction over the rates, terms, and conditions of wholesale distribution service,” and note that the EDCs intend to file the proposed WDAT with FERC for review and approval. Id.

The EDCs’ proposed tariff includes a two-part rate with a monthly Customer Charge and time-differentiated Demand Charges, which are “based on a modified system average cost rate methodology and reflects input from Working Group participants regarding ESS service configurations and charging operations.” EDC Compliance, Docket No. 22-08-05, Sep. 12, 2023. The EDCs further note that the proposed Demand Charge consists of two time-of-use (TOU) periods, with the peak period designated as 3 p.m. to 8 p.m. on weekdays. Id. To develop the time-differentiated rates, the EDCs allocated costs to respective TOU periods “using the period’s respective probability of peak applied to relevant distribution system assets.” Id. Eversource’s proposed off-peak and peak rates are \$2.01 and \$3.83 per kW-month, respectively, with a fixed monthly customer charge of \$30; UI’s respective off-peak and peak rates are \$1.79 and \$3.14 per kW-month, with a monthly customer charge of \$37.68. EDC Compliance, Sep. 12, 2023, Docket No. 22-08-05, Attachments 1A and 1B. Finally, the EDCs note that the proposed FTM tariff design evolved based on stakeholder input, including introducing a TOU approach, and state that the tariff design will continue to be developed further to incorporate additional stakeholder feedback, including expansion to a three-period TOU structure with a lower off-peak rate and adjustments to the Demand Charge design, tariff terms and conditions, and cost of service. EDC Compliance, Docket No. 22-08-05, Sep. 12, 2023; EDC Correspondence, Sep. 25, 2023, p. 10; Eversource Exceptions, Nov. 15, 2023, p. 8.

In response to the EDCs’ proposed FTM tariff, Elevate Renewables F7, LLC (Elevate) submitted an alternative FTM tariff design as a minority report to the EDCs’ proposed rate, stating that the EDCs’ rate proposal “is not representative of the working group majority and does not have the full support of the FTM working group.” Elevate Comments, Sep. 13, 2023, Attachment 2, p. 2. Specifically, Elevate argued that the EDCs’ proposal is insufficient to incentivize the development of the FTM storage industry,

primarily because the proposal would apply relatively high demand charges in off-peak periods. Id. Accordingly, the Elevate rate design contains charges for demand during peak hours only. Id. Further, the alternative proposal converts a portion of the demand-based revenue requirement into volumetric charges to further reduce the demand charge barrier to ESS deployment. Id. Finally, Elevate's proposal would differentiate revenue requirements into high and low voltage categories so that "ESS only pay for the infrastructure located at voltages greater than or equal to their interconnection voltage." Id.

NECEC and Agilitas Energy, Inc. (Agilitas) also filed correspondence with the Authority arguing that the EDCs' proposed rate design does not comply with the Authority's directive in Motion No. 8 regarding cost-causation. NECEC stated that the EDCs' calculation of demand charges based on an "average" system cost approach results in ESS customers paying a portion of the existing system costs rather than the incremental cost of wholesale distribution service. NECEC Correspondence, Sep 19, 2023, Docket No. 22-08-05, p. 2. Similarly, Agilitas stated that the EDCs did not provide evidence that ESS projects result in net incremental costs to the distribution system and requested that PURA direct the EDCs to propose a rate based on evidence of cost-causation. Agilitas Correspondence, Sep. 20, 2023, Docket No. 22-08-05, p. 2. More broadly, NECEC notes the working group did not reach consensus regarding whether average or marginal costs were appropriate to calculate costs and requested Authority guidance on the appropriate method to use. NECEC Correspondence, Sep 19, 2023, Docket No. 22-08-05, p. 2. In addition, NECEC appreciated the EDCs' incorporation of time-differentiation in response to stakeholder concerns, but believed that the probability of peak methodology used was flawed. Id. NECEC disputed that "off-peak peak" usage drives distribution investment costs and requested that PURA direct the EDCs to release their probability of peak analysis for Authority and Working Group review. NECEC recommended that the EDCs' average cost proposals be refined to utilize more granular time periods, including seasonal differentiation. Id.

In the Year 2 Decision, the Authority stated that "upon review of the Working Group Report, the Authority may consider UI's proposal to implement FTM storage in a docket separate from the ESS annual review proceeding, if it is deemed more appropriate to consider the BTM and FTM programmatic elements separately." Upon consideration of the relevant compliance filings in the current proceeding, the Authority determines that the schedule for submission of the necessary information does not allow time for Authority review before a decision is issued in the current Program Review proceeding. Accordingly, the Authority will consider the implementation of FTM incentives and tariff design in a separate decision in the current docket pending the submission of all relevant compliance filings. Specifically, the Authority notes that the final FTM Working Group Report, FTM tariff and incentive designs including updated cost of service and three-period TOU structure, and gap analysis to identify ways for FTM storage to optimize all opportunities, will be filed by December 29, 2023. Motion No. 8 Ruling, June 27, 2023, Docket No. 22-08-05, p. 2. In addition, the EDCs plan to further develop the actual rates using the most recent available data and may further review and adjust the peak period to reflect time of ESS operation and charging requirements before filing with FERC. EDC Compliance, Docket No. 22-08-05, Sep. 12, 2023, Cover Letter, pp. 1-2. Additionally, the Authority clarifies that, as discussed in the second Technical Meeting, the EDCs shall include in the final FTM tariff filing their probability of peak analysis used to develop the

rate design for Authority and Working Group review. Tech Mt'g Tr. Sep. 29, 2023, 34:9:15.

Finally, while the Authority declines to address the EDCs' legal arguments regarding FERC jurisdiction over the WDATs in this Decision, the Authority strongly opposes the EDCs' exclusive use of average costs in setting the WDAT rates. As such and as necessary, the Authority will contest the filing at FERC when the WDATs are filed to highlight that clear direction was provided to the EDCs regarding the allocation of *distribution* costs in the WDATs and that the EDCs intentionally took another approach. Regardless of the FERC process, it is unclear why the EDCs persist in disregarding the Authority's direction as the EDCs will be made whole under current interconnection practices, which requires the ESS developers to directly pay for any distribution system costs incurred by interconnecting their ESS. This policy is not currently under review in this context; even if the current policy for contributions in aid of construction to fully cover the required upgrade costs were removed, such costs would still be eligible for recovery through a rate case proceeding or another mechanism.¹⁵

Moreover, balancing marginal and average costs to both encourage the deployment of incremental load, which ESS represents, and to benefit existing ratepayers by spreading existing costs over more kWh, kW, and customers is not a novel concept. Indeed, Connecticut has already grappled with these concepts, including in its development and application of electric vehicle tariffs and programs. See, e.g., Procedural Order, Oct. 11, 2023, Docket No. 21-09-17, PURA Investigation into Medium and Heavy-Duty Electric Vehicle Charging. The Authority has also weighed these issues in the UI rate case in establishing an economic development tariff. See, Decision, Aug. 25, 2023, Docket No. 22-08-08, Application of The United Illuminating Company to Amend its Rate Schedule. The Authority concedes that a truly marginal cost approach would not benefit existing ratepayers if only distribution system costs and benefits were considered, but the benefits of ESS deployment enabled by such tariffs would. Nevertheless, an approach that charges ESS somewhere between marginal and average costs would be more than reasonable and justifiable as it would both benefit existing ratepayers (i.e., it would recover revenue above the marginal cost to serve the ESS, thus lowering customer rates through revenue decoupling) and encourage the deployment of energy storage in Connecticut in line with the policy objectives of PA 21-53.¹⁶ An approach that charges a marginal cost rate and slowly increases to average cost over the first five years of the tariff may also be a reasonable approach.¹⁷ Given the existence of reasonable alternatives to a strictly average cost-based approach, the alignment of such

¹⁵ The Authority is currently reviewing relevant policies in Docket No. 22-06-29RE01. Specifically, the Authority is investigating "interconnection upgrade cost sharing," which would, by its nature, include detailed plans for how developers and/or customers would pay for any upgrades required to connect distributed energy resources.

¹⁶ As further clarification, the Authority reiterates that marginal costs are likely *de minimis*, while average costs in this case refer to the average cost approach currently being refined by the EDCs based on stakeholder input, as described above. Thus, a charge between zero and the EDCs' proposal could be considered reasonable.

¹⁷ Regardless of the concerns raised by developers about a transition to an average cost approach over a defined period (see, e.g., Elevate Exceptions, Nov. 15, 2023, pp. 3-5), such an approach would lower the charges paid by ESSs under a WDAT compared with the modified average cost approach currently proposed by the EDCs.

approaches with the intended ratepayer and public policy outcomes, and the lack of financial impact to the EDCs of such approaches, the Authority strongly encourages the Companies to reconsider their current tariff design proposals before submitting them to FERC.

F. FINANCIAL BENEFIT SHARING IN MULTIFAMILY PROJECTS

The Authority previously clarified that the definition and eligibility criteria for multifamily affordable housing shall be the same across both the RRES and ESS Programs. Year 2 Decision, p. 34. The RRES Program, however, requires “at least 20% of the total financial benefit [of the RRES tariff] to be directed to tenants in multi-family affordable homes.” Decision, Nov. 2, 2022, Docket No. 22-08-02, pp. 13-14 (RRES Year 2 Decision). Consequently, CGB filed a motion in Docket No. 22-08-05 requesting clarification as to whether, consistent with the RRES Program, 20% of the total ESS financial benefits were also required to be shared with tenants served by multifamily affordable housing projects. Motion No. 7, Docket No. 22-08-05, pp. 1-2. The Authority ultimately determined that 20% of the ESS financial benefits were not required to be shared with tenants. Motion No. 7 Ruling, Docket No. 22-08-05, pp. 1-2. Nevertheless, the Authority encouraged stakeholders to file comments in the present docket on the appropriateness of a requirement for financial benefit sharing in multifamily affordable housing in the ESS Program, including “a proposed percentage and the methodology for applying such percentage.” Id.

CGB supports ESS benefit sharing at multifamily affordable housing sites. CGB Comments, July 20, 2023, p. 9. CGB proposed, however, that such benefit sharing be limited to only backup power, because “the financial benefits can vary per project.” Id. Moreover, the EDCs argued that financial benefit sharing in the ESS Program “would be challenging because wiring configurations for multi-family dwellings vary from location to location.” EDC Comments, July 20, 2023, p. 5. The EDCs also believe that financial benefit sharing could discourage ESS projects in multifamily affordable housing because lower revenue for project owners could “jeopardize project economics.” Id. Last, OCC is concerned that a landlord would collect the underserved adders without sharing the benefits with tenants, “whose economic status or actual dwelling location form the basis for eligibility.” OCC Comments, July 20, 2023, p. 5. OCC therefore would support any action that would ensure underserved adders are directed toward ESS Program participants. Id.

The Authority declines to approve financial benefit sharing for multifamily affordable housing sites in the ESS Program this year because the Authority does not have the requisite quantitative analysis to determine an appropriate value that would maintain a PCT value of one. The financial benefit sharing approved for the RRES Program was based on financial analysis for solar systems, which provide different benefits than energy storage projects, particularly regarding resilience and demand charge reduction. RRES Year 2 Decision, p. 13. As a result, 20% financial benefit sharing with tenants, as used in the RRES Program, may or may not be appropriate in the ESS Program.

Nevertheless, to ensure that tenants of multifamily affordable housing sites are benefiting from energy storage projects, in support of the Program Objectives, the Authority concludes that further investigation of financial benefit sharing in the ESS Program is warranted. Therefore, the Program Administrators shall file as compliance with the Authority by June 15, 2024, a recommendation for a percentage of ESS incentives or project net benefits¹⁸ that shall be distributed equally amongst all tenants of a multifamily affordable housing site. The analysis shall focus solely on the performance incentive, since the upfront incentive is intended to reduce upfront energy storage costs, which are paid by the site owner or project developer. The Authority acknowledges, however, that multifamily affordable housing projects may have a significantly higher upfront incentive than normal commercial projects.¹⁹ Further, the analysis shall include, at a minimum, quantitative financial analysis, estimated rates of return (factoring in both ESS incentives and additional incentives such as demand charge reduction and Federal tax credits), and PCT values. Additionally, the financial analysis and estimated rate of return shall exclude any monetary benefits provided through the RRES Program. The compliance shall also include recommendations for enforcement and incentive distribution to tenants, including discussion of options such as on-bill electric credits and direct payments. The Program Administrators shall also consult with relevant parties when writing the compliance, including the Connecticut Department of Housing (DOH), the Connecticut Finance Authority (CFA), the Department of Energy and Environmental Protection (DEEP), and storage developers. Finally, because the RRES Program already requires tenant benefit-sharing for all revenue associated with the RRES tariff, the Program Administrators may exclude ESS multifamily affordable housing projects dually enrolled in the RRES Program from the proposed tenant benefit-sharing requirement.

The Authority ultimately intends to review the Program Administrators' multifamily housing benefit sharing recommendation in the Year 4 review of the ESS Program in Docket No. 24-08-05 and will request stakeholder comments at such time, as appropriate. Finally, to further ensure that tenants in underserved communities are benefiting from storage projects at multifamily affordable housing sites during Year 3 of the ESS Program, the Administrators shall require that the battery's backup power be distributed amongst the host customer and tenants during a power outage. By December 20, 2023, the Program Administrators shall file as compliance with the Authority updated Program documents incorporating the above direction.

G. VENDOR FEE CAP

During the Year 2 review of the ESS Program, CGB stated that most vendors collect a percentage of the performance incentive for managing a customer's residential battery and, consequently, recommended that the Authority consider implementing a vendor fee cap. CGB Brief, Docket No. 22-08-05, p. 2. Additionally, CGB recommended that vendor fees be published on the Program website for greater transparency. Id. The

¹⁸ Net benefits refer to the expected rate of return an ESS project brings to the system owner, exclusive of any onsite solar revenue.

¹⁹ A large, grid edge commercial customer would be given an upfront incentive equal to \$125/kWh. However, if the same site was considered multifamily affordable housing, the upfront incentive would equal \$450/kWh, which is almost four times greater. See CGB Compliance, June 15, 2023, pp. 5, 41-42.

Authority accordingly requested written comments on CGB's proposal for a vendor fee cap and the inclusion of vendor fee information on the ESS Program website. Notice, June 23, 2023, p. 3.

In response, CGB clarified that, while some vendors charge fees for customer participation in ConnectedSolutions, "no vendors have instituted any direct fees for residential customers participating" in the ESS Program. CGB Comments, July 20, 2023, p. 8. Nevertheless, CGB recommended a vendor fee cap of "no greater than 20% of the total performance incentive payment, and support[ed] making any applicable fees publicly available on the Eligible Equipment list" published on the ESS website, in addition to collecting such information during the ESS application process. *Id.* Additionally, OCC supported a fee cap and the publishing of vendor fees on the Program website. OCC Comments, July 20, 2023, p. 4. OCC ultimately believes that "vendors should not be unduly profiting from ratepayer contributions intended to enhance the Program for participants." *Id.* Moreover, the EDCs supported the publication of vendor fees online in the eligible technology section of the Program website "to further improve program transparency to consumers." EDC Comments, July 20, 2023, p. 5. The EDCs nevertheless concluded that further investigation would be needed to determine whether vendor fee publication would inhibit vendor participation in the Program. *Id.* Ultimately, however, the Program Administrators proposed a 20% cap on residential energy storage vendor fees, in addition to publishing residential vendor fee data on the ESS Program website. Program Administrator Compliance, Aug. 1, 2023, Proposed Program Modifications, p. 10. The Program Administrators did not propose publishing or capping commercial vendor fees, because of the "bespoke nature" and "complexity" of commercial projects. *Id.*

Further, while EnergyHub did not oppose the publication of vendor fees on the Program website, EnergyHub cautioned against vendor fee caps because vendor fee caps may negatively impact a vendor's ability to offer flexible payment offerings, including "payment plans to LMI customers." EnergyHub Comments, July 20, 2023, p. 2. EnergyHub also believes that vendors have "adhered to a strict policy of transparency with customers" when participating in the Program. *Id.* Additionally, while CPower took no position on the implementation of residential vendor fee cap, CPower opposed a vendor fee cap for nonresidential vendors. CPower Comments, July 20, 2023, p. 11. CPower argued against a nonresidential vendor fee cap because commercial storage projects were "considerably more complex" than residential projects, with financial arrangements varying greatly. *Id.*, p. 12. CPower also asserted that business owners, unlike residential customers, did "not need to be protected from excessive vendor fees [because they] have the expertise and wherewithal to make [financial] decisions." *Id.* Last, CPower argued that competition should protect customers from vendors charging excessive storage fees. *Id.*

The Authority determines that the publication of vendor fees on the ESS Program website is not necessary at this time, in part because the ESS Program website currently contains average installed cost data on the website's data dashboard.²⁰ Notably, the Program's average installed cost data can be filtered by customer type (e.g., large

²⁰ The ESS data dashboard may be accessed here: [Energy Storage Solutions Performance Report – Energy Storage Solutions \(energystoragect.com/ess-performance-report/\)](https://energystoragect.com/ess-performance-report/).

commercial, 1-4 residential, etc.), project status, EDC, and contractor name. Nevertheless, average installed cost data only partly illustrates a host customer's financial benefit from an ESS project. Conversely, the disclosure of additional financial information (e.g., the percentage of the battery funded by the vendor, the percentage of Program incentives retained by the vendor and not passed on to the customer in some form, etc.) would paint a more complete picture as to whether the host customer appropriately benefits from an ESS project. Financial arrangements may also vary greatly between project applications, particularly for commercial projects negotiated on a per-project basis, making direct financial comparisons between vendors difficult. See CPower Exceptions, Nov. 15, 2023, pp. 4-5. However, the Program's PCT value includes quantitative analysis of multiple project benefits and costs, including net avoided outage benefits, participant bill savings, upfront and performance incentives, federal tax credits, storage system costs, and storage lease values, which are all used to come up with a value that indicates how greatly a project's benefits outweigh its costs. Storage Decision, p. 33. Consequently, the Program's PCT value provides a means to directly compare the financial benefits ESS projects provide to host customers between Program vendors.

Therefore, to protect consumers and businesses from excessive project fees or unfair financial agreements by increasing transparency and by encouraging vendor competition, and in support of the Program Objectives, the Authority directs the Program Administrators to take the following steps. First, to provide more actionable information to potential ESS Program participants, the Program Administrators shall update the Program data dashboard by January 1, 2024 to also include average installed cost data calculated as \$/kWh and \$/kW. The Program Administrators shall add these additional calculations to relevant tables included on the data dashboard that allow for such information to be viewed by customer type, project status, EDC, and contractor. Second, the Program Administrators shall continue collecting information on fees charged by vendors, including both contractors and original equipment manufacturers (OEMs), related to performance incentives for all projects (Performance Incentive Fees).²¹ Relatedly, the Program Administrators shall file as compliance by August 1, and annually thereafter, in that year's annual ESS Program review docket (e.g., the August 1, 2024 filing should be submitted in Docket No. 24-08-05) a summary of the Performance Incentive Fees for all residential projects deployed through the end of the previous month (e.g., through July 2024 for the August 1, 2024 filing) by developer. Last, CGB shall file as compliance by August 1, and annually thereafter, the average PCT broken out by customer type, project size category, and Program developer for both residential and commercial customer projects, utilizing all information available to CGB, including Performance Incentive Fee data, to ensure an accurate accounting of the PCT. The PCT shall also specifically be conducted from the perspective of the host customer; to the extent that this necessitates a change from the methodology that has historically been applied, CGB shall submit PCT values calculated using both the historical methodology and the customer-focused methodology.

²¹ The Authority understands that the Program Administrators currently collect this information. To the extent that this understanding is incorrect or the Program Administrators do not collect vendor fees related to performance incentives for certain types of projects (e.g., not for commercial and industrial customers and projects), the Authority clarifies that the Program Administrators shall begin collecting vendor fee information related to performance incentives for all projects for which such information is not currently collected.

To the extent that CGB determines that the average PCT values by Program developer constitute trade secrets or information given in confidence and not required by statute, CGB may file the compliance confidentially with the Authority's Executive Secretary. See Notice of Proceeding, May 16, 2023, p. 2 (providing information on confidential filings). The Authority may direct the inclusion of residential Performance Incentive Fees and average PCT values on the Program website at a later date, if the Authority deems it prudent to do so, and after all stakeholders have had a chance to weigh in on the inclusion of such information on the Program website. While the Authority will not impose a Performance Incentive Fee cap at this time, the Authority may consider doing so in future Program years if the Performance Incentive Fee and PCT data suggests that consumers are being subjected to unfair financial agreements, to ensure that ratepayer funds are primarily benefiting host customers rather than storage developers and contractors.

H. PROJECT EXTENSIONS

The Authority previously approved a CGB proposal to cap reservation of funds extension requests at six months to ensure the sustained and orderly development of the state's energy storage industry, in accordance with the third Program Objective. Year 2 Decision, p. 22. Pursuant to the Year 2 Decision, ESS upfront incentive funds could be reserved for up to 24 months for any project application, including the six-month extension. CGB Compliance, June 15, 2023, p. 11.

Subsequent to the issuance of the Year 2 Decision, CPower filed a motion in April 2023 requesting an additional one-year extension for Tranche 1 projects that have completed a System Impact Study, so that funds may be reserved for up to 36 months. Motion No. 2, pp. 1-2. CPower argued that many Tranche 1 projects are not on track to reach commercial operation within two years, partly because of interconnection process delays. Id., pp. 1-2, 6. CPower also argued that project financiers would require assurance of incentive eligibility before funding any required interconnection upgrades. Id., p. 3. Consequently, without an additional reservation of funds extension, CPower claimed that projects would either stall or drop out of the interconnection queue. Id., p. 5. The Authority approved CPower's motion and increased reservation of funds extension requests for all Tranche 1 projects to up to 36 months for projects that have completed a System Impact Study, to prevent ESS project attrition, in support of the Program Objectives. Motion No. 2 Ruling, June 13, 2023, p. 3.

Based on the new evidence provided by CPower, the Authority announced its intention to review the extension cap approved last year in the present docket and stated that additional extensions may be approved if supply chain challenges persisted in 2023. Year 2 Decision, p. 22. In response, CPower reiterated its view that the interconnection process has taken longer than expected. CPower Comments, July 20, 2023, p. 12. CPower also argued that a project would only be able to complete the interconnection process within two years if no issues occurred and if the project did not require any interconnection upgrades. Id., p. 15. Supply chain issues, CPower stated, also contributed to project uncertainty. Id. CPower ultimately believes that the "most important change that PURA could mandate to address interconnection delays and supply chain issues is to lengthen the amount of time allowed to bring a storage project to fruition." Id.,

p. 16. CPower recommended that the Authority give all Tranche 2 projects two years from when funds are reserved to complete project development, with the option of an additional one-year extension if the project's System Impact Study has been funded. Id. Last, CPower argued for the allowance of two one-year extensions for projects subject to group interconnection studies, provided the project has funded its share of the group study. Id.

Additionally, CGB argued that extensions requests were primarily caused by interconnection delays and supply chain issues. CGB Comments, July 20, 2023, p. 10. Interconnection approval, CGB noted, can take a year or more for some projects. Id. Finally, OCC supported changes to extensions "in order to ensure that qualifying projects are not needlessly delayed." OCC Comments, July 20, 2023, p. 6. Moreover, the Program Administrators proposed modifying the current ESS extension policy to give all commercial projects a full 24 months to reach project completion, with the option of an additional 12-month extension at the discretion of the Program Administrators. Program Administrator Compliance, Aug. 1, 2023, Proposed Program Modifications, p. 10. Residential projects, conversely, would be given 12 months to reach commercial operation under the Program Administrators' proposal, with the option of one 6-month extension. Id.

Given uncertain interconnection timelines and continued supply chain challenges, the Authority concludes that changes are warranted to extension requests in the ESS Program to ensure reservations of funds are not needlessly canceled and to support the orderly development of the state's energy storage industry. Therefore, the Authority extends the project completion deadline for all commercial Tranches to 24 months, with the option of an additional one-year extension if the project has funded a System Impact Study, as applicable. The Authority further recognizes that circumstances beyond the control of the applicant may exist that could prevent residential project completion within the 12 months allotted. Consequently, all residential projects shall have up to 24 months to reach commercial operation upon issuance of reservation of funds. Additionally, to prevent unnecessary project attrition, the Program Administrators may approve extension requests beyond 24 months (if no System Impact Study) or 36 months (if the first extension request was granted) for commercial projects and beyond 24 months for residential projects. More specifically, to maintain consistency between the State of Connecticut's clean energy programs,²² the Program Administrators may grant a second extension request if at least one of the following five criteria are met: (1) the generation facility or project is unique and more complex than ordinary customer-sided distributed generation installation projects, such as having additional technology-specific regulatory or local siting requirements; (2) the project developer has worked diligently and in good faith in developing the project since inception; (3) the project is near completion or likely to begin commercial operation within the requested extended deadline; (4) a significant portion of the total project investment has already been made and would potentially be stranded if the contract is terminated; and/or (5) the interconnection process extended beyond the utilities' initial estimates and/or significantly (e.g., one month) beyond the

²² The criteria for the second ESS extension request are identical to the extension criteria recently approved for the Non-Residential Renewable Energy Solutions (NRES) Program. See Decision, Nov. 8, 2023, Docket No. 23-08-03, Annual Non-Residential Renewable Energy Solutions Program Review – Year 3, p. 56.

average interconnection process timeline. If granted, the second extension shall prolong the project completion deadline proportional to the delay experienced and/or the amount of time demonstrated that is needed to complete the project. The Authority clarifies that all extension requests are subject to review by the Program Administrators and are not guaranteed, especially if the applicant cannot provide sufficient explanation as to the cause of the project's delay. Further, all such extension requests shall be handled by the Program Administrators, who have the exclusive right to grant or deny such requests.

The Program Administrators shall update the Program documents to be filed in compliance with this Decision incorporating the direction outlined above. Ultimately, the Authority concludes the changes outlined will further the success of the ESS Program by advancing the third and fifth Program Objectives, by fostering the sustained and orderly development of the state's energy storage industry and by lowering barriers to project deployment. Last, as this topic has now been adjudicated on several occasions, the Authority is not inclined to revisit this topic in future annual Program reviews unless a change is suggested based on clear quantitative and data-driven evidence and agreed upon by the Program Administrators.

I. EQUIPMENT ELIGIBILITY REQUIREMENTS

1. Integration and Application Process

A battery manufacturer receives final approval to participate in the ESS Program when a New Technology Application has been submitted and is approved by the Program Administrators and when the equipment is fully integrated with the respective DERMS provider (commercial or residential). CGB Compliance, June 15, 2023, Clean ESS Program Manual, pp. 62-68. In the first Notice of Request for Written Comments, the Authority requested stakeholder input on the availability of eligible equipment in the ESS Program and any equipment approval delays experienced thus far. Notice, June 23, 2023, p. 4. In response to the Notice, CGB stated that "the software integration process for the residential DERMS (EnergyHub) is more complex than comparable programs, including ConnectedSolutions, and requires significant resources to complete," in part because of the data requirements associated with DERMS integration. CGB Comments, July 20, 2023, p. 11. As a result, CGB recommended reducing integration data requirements and allowing a "more open market for DERMS providers." Id.

Consequently, in response to CGB's comments, the Authority requested feedback from all stakeholders on the current energy storage integration process for the ESS Program to see if changes were warranted, such as an expansion in the number of DERMS providers and/or a reduction in the Program's integration data requirements. Notice, Aug. 11, 2023, p. 5. When responding to the Notice, UI did not recommend that additional DERMS providers be introduced to the Program because UI believes that ESS DERMS integration issues are primarily caused by the Program's "stringent telemetry requirements and onerous enrollment process." UI Comments, Aug. 30, 2023, p. 4. UI cited the lack of integration issues in the ConnectedSolutions Program, which uses the same DERMS providers as ESS, to support its conclusion. Id. Further, UI believes that adding more DERMS providers to the Program would increase Program costs and create confusion amongst developers and vendors. Id., pp. 4-5. Ultimately, UI recommended that the Authority instead focus on the data and application requirements of the Program.

Id., p. 5. Eversource agreed with UI's comments and believes that additional DERMS would create "dispatch complexity." Eversource Comments, Aug. 30, 2023, pp. 5-6. Further, Eversource argued that allowing additional DERMS providers would not "meaningfully increase Program enrollments" because the existing DERMS are "actively pursu[ing] additional integrations with additional smaller manufacturers on behalf of the EDCs to help expand Program eligibility." Id., p. 6. Last, in 2024, the EDCs plan to conduct an open RFP for the Program's DERMS provider to support the Program upon the conclusion of the EDCs' existing DERMS contracts at the end of 2024. EDC Corresp., Sept. 25, 2023, p. 5.

Conversely, CGB reiterated its original comments and stated that additional DERMS providers would "allow more competition into the market, allowing for the most efficient, user-friendly, and practical DERMS provider(s) to succeed and propel the ESS Program forward." CGB Comments, Aug. 30, 2023, p. 11. Additional DERMS providers also allow for faster Program integrations, CGB opined. Id. CGB further stated that for an energy storage manufacturer to integrate with EnergyHub, the manufacturer must have "local storage of at least 2 weeks of telemetry data, cloud storage of telemetry data for 6 months, and the ability to send 15-minute interval data to EnergyHub with latency of no greater than 15-minutes." Id. Moreover, CPower supported allowing any qualified provider to act as a Program DERMS provider. Cpower Comments, Aug. 30, 2023, p. 17. Cpower noted that "the DERMS function can be performed by any entity with the technical capability to receive and transmit a signal." Id. Cpower also currently functions as a DERMS provider for its ISO-NE capacity market and ConnectedSolutions customers. Id., p. 18. Additionally, Cpower argued that having a single DERMS provider "adds an unnecessary and redundant link in the communication chain, creating more potential for communication failures and needlessly increasing the Program administration and battery integration cost." Id., p. 17. Like Cpower, Sunnova supported "a more open market for DERMS providers" and believes a more open DERMS market could reduce Program costs by removing administrative layers and by streamlining the integration process for Program participants. Sunnova Comments, Aug. 30, 2023, p. 7. Sunnova also believes that an open DERMS market would allow more companies to participate in the Program. Id.

Enel X (Enel) argued that the Program's requirement for near real-time data was not supported by most battery vendors. Enel Comments, Aug. 30, 2023, p. 1. Enel also argued that the Program's current data requirements were "onerous for the battery operator to communicate" and costly to set up. Id. Moreover, Enel stated that most storage systems are unable to locally store telemetry data for a minimum of two weeks, which is another Program integration requirement. Id., p. 2. Enel believed that cloud storage was the most effective way for a battery system to store data. Id. If the battery's connection with the cloud went down, Enel's systems "are capable of logging data and sending the system performance for the period the connection was offline." Id. Last, OCC supported a streamlined integration process for the ESS Program. OCC Comments, Aug. 30, 2023, p. 13.

Further, when submitting their annual recommendations for Program modifications, the Program Administrators recommended that the data latency exchange be extended from once every 15 minutes to at least hourly. Program Administrator Compliance, Aug. 1, 2023, Proposed Program Modifications, p. 8. Additionally, the

Program Administrators updated the New Technology Application: (1) to allow aggregators to apply to the Program; (2) to account for the various parties involved in Program integration; (3) to establish clearer integration expectations for applicants by requiring them to provide a “clear timeline and resource allocations for integration efforts;” and (4) to simplify DERMS telemetry requirements. *Id.*, pp. 8-9. Ultimately, the Program Administrators believed that the recommended changes to the New Technology application would increase Program participation. *Id.*, p. 7.

The Authority determines that changes are warranted to the ESS technology integration and application process to reduce barriers to battery manufacturer participation in the Program.²³ First, the Authority concludes that allowing a more open DERMS market may advance the third Program Objective by providing additional optionality for Program participants, potentially increasing manufacturer participation in the ESS Program and overall Program enrollment. Second, allowing a more open DERMS market may lead to a reduction in battery integration costs, as Program participants choose a DERMS provider that would provide the lowest integration cost for their chosen battery manufacturer. Third, OEMs may be less likely to integrate to a competitor’s DERMS platform; notably, the Program’s commercial DERMS platform, Concerto, is administered by Generac, a competitor to other national battery companies. Nevertheless, the Authority concludes that further investigation is warranted before a more open DERMS market is approved for the ESS Program, to fully evaluate the proposal’s costs and benefits.

Therefore, the Authority directs the EDCs to submit for review and approval by March 15 a plan to allow multiple DERMS to participate in the ESS Program. The plan shall propose a method to allow new DERMS providers to join the ESS Program if the following conditions are met: (1) the DERMS can fulfill all existing ESS data collection and dispatch requirements; (2) the functionality required of a DERMS can be achieved (e.g., sending control, dispatch, and override signals at the appropriate time); (3) the DERMS’ data matches a preset format (e.g., the data format of the existing DERMS providers); and (4) the cost incurred by ratepayers associated with the new DERMS is likely to be less than the cost of the existing ESS DERMS provider(s) on a per-project DERMS basis (i.e., the administrative, fixed, and per-project operations and/or performance costs associated with the new DERMS divided by the likely number of projects that will participate using such DERMS is lower than the same calculation for the existing ESS DERMS provider[s]). Additionally, the plan shall outline a way to verify that all data and cost requirements are met when determining whether to allow new DERMS providers into the Program. The plan shall also outline a way for the EDCs to contract with new DERMS providers, if and when necessary, if it is prudent, reasonable, and aligned with the above direction and Program Objectives. Further, the plan shall outline all EDC-concerns associated with allowing multiple DERMS in the Program, along with solutions for each concern, and estimated costs and timelines for implementing each solution. Last, upon the submission of the EDCs’ plan to allow multiple DERMS to participate in the ESS Program, the Authority intends to hold a Technical Meeting to discuss the plan with all stakeholders, to fully evaluate the plan’s costs and benefits before issuing a ruling.

²³ As of October 18, 2023, only ten residential battery manufacturers were approved to participate in the ESS Program. See https://energystoragect.com/submitted_ess_system_status_list/.

The Authority also intends to scrutinize the need for all Program DERMS providers in future ESS Program annual review proceedings to determine whether changes are warranted. Accordingly, by December 20, 2023, and annually by August 1 thereafter, the EDCs shall file as compliance all existing DERMS fees by each DERMS provider that are paid to support the ESS Program. Notably, the Freedom of Information Act (FOIA) exempts certain records from public disclosure. See Conn. Gen. Stat. § 1-210(b). In particular, FOIA exempts “trade secrets,” which are defined as “information, including formulas, patterns, compilations, programs, devices, methods, techniques, processes, drawings, cost data, customer lists, film or television scripts or detailed production budgets that (i) derive independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from their disclosure or use, and (ii) are the subject of efforts that are reasonable under the circumstances to maintain secrecy.” Conn. Gen. Stat. § 1-210(b)(5)(A). Additionally, FOIA exempts “commercial or financial information given in confidence, not required by statute.” Conn. Gen. Stat. § 1-210(b)(5)(B). The Authority determines that the EDCs’ existing DERMS fees contain information that constitutes trade secrets and commercial or financial information given in confidence and not required by statute. Therefore, the Authority concludes that the EDCs’ DERMS fees are exempt from public disclosure under Conn. Gen. Stat. § 1-210(b)(5)(A) and (B).

Further, the public disclosure of EDC DERMS fees could impact the fees submitted by other DERMS providers wishing to enroll in the Program, if the Authority were to allow this in the future, because alternative DERMS providers could submit the maximum fee allowable to join the Program. Accordingly, the EDCs shall file all existing DERMS fees under seal with the Authority. Additionally, to support public transparency of all Program costs to the fullest extent possible, the Program Administrators shall include all DERMS fees paid to support the Program in an aggregate (i.e., total) amount in the annual evaluation report filed pursuant to Order No. 3. Last, the Authority directs the EDCs to file as compliance with the Authority its open RFP for new ESS DERMS provider(s) no later than 15 days from when such RFP is first publicly issued, so that the Authority can monitor the EDCs’ DERMS solicitation process.

Second, the Authority approves with modification the Program Administrators’ proposed revisions to the New Technology Application subject to the changes outlined below. First, the Authority directs the Program Administrators to remove the question pertaining to the California Energy Commission list, as this is no longer relevant due to the interconnection changes discussed in Section IV.D. See Program Administrator Compliance, Aug. 1, 2023, Clean Program Manual, p. 62. Further, the Authority accepts the Program Administrators removal of the requirement that manufacturers locally store battery data. Id., p. 66. The Authority concludes that cloud data communication is an acceptable and proven alternative to local data storage, and the existing local data storage requirement may be difficult for some battery manufacturers to meet. Nevertheless, the Authority will require the Program Administrators to include a warning in the ESS Terms and Conditions, a manufacturer-specific document signed by the customer, for any manufacturers of systems incapable of storing two weeks of data locally. See Program Administrator Compliance, Aug. 1, 2023, Clean Program Manual, p. 58. The warning shall state that if system data cannot be retrieved in the event of a

system outage for manufacturers relying on cloud data storage, the battery's performance in any dispatch events for which data cannot be retrieved will be recorded as zero. The Authority determines that this additional disclosure will ensure customers are informed of any potential risks associated with cloud battery data storage.

Last, the Authority approves with modification the Program Administrators' recommendation to require greater latency of battery data. Program Administrator Compliance, Aug. 1, 2023, Clean Program Manual, p. 66. While no stakeholder provided evidence to demonstrate that the Program's latency requirements prohibited manufacturers from participating in the Program or analysis quantifying the time and monetary impact of any barriers identified (e.g., the time and expense to set up automated reporting), given the multiple stakeholder comments in opposition to the requirements and the small number of equipment manufacturers currently eligible for the Program, the Authority is sufficiently convinced that the Program's data latency requirements are a barrier to manufacturer participation. Notably, the EDCs, who have no financial incentive to make such assertion, were among the stakeholders who asserted that the Program's data latency requirement is burdensome. See Eversource Exceptions, Nov. 15, 2023, p. 5; UI Exceptions, Nov. 15, 2023, p. 13; CGB Exceptions, Nov. 15, 2023, p. 5; Sunrun Exceptions, Nov. 15, 2023; Enel Comments, Aug. 30, 2023, p. 1. Consequently, the Program Administrators shall require a one-month latency of battery system performance data (i.e., battery data shall be provided at least once a month to the Program's DERMS provider and/or the Program Administrators). Importantly, the granularity of the battery data to be provided monthly shall remain at 15-minute interval lengths, so the Authority may evaluate peak load reduction at the most granular level possible.

Ultimately, the Authority concludes that the integration and technology application changes discussed in this section will advance the third Program Objective, the sustained and orderly development of the state's energy storage industry, and the fifth Program Objective, lowering barriers to entry, by creating a plan for allowing additional DERMS, by clarifying the Program's integration process, and by reducing manufacturer data requirements. The Authority may adjust the Program's integration requirements in the future, including telemetry or data interval requirements, if the changes outlined in this section are insufficient to increase manufacturer participation in the Program, or if stakeholders provide clear and quantitative analysis demonstrating that a specific requirement is prohibiting manufacturer participation in the Program and/or evidence that the volume of requirements are still presenting barriers. Any such data should also be accompanied by a recommended solution that achieves the Program Objectives.

2. Additional Eligible Battery Types

Currently, only electro-chemical energy storage systems are eligible for the ESS Program. CGB Compliance, June 15, 2023, p. 21. Accordingly, in a June 23, 2023 Notice of Request for Written Comments, the Authority requested stakeholder feedback on the energy storage types eligible for the ESS Program, including whether additional types should be eligible for the ESS Program. Notice, June 23, 2023, p. 5.

In response, CGB supported the inclusion of alternative energy storage technologies in the ESS Program provided the technologies meet the necessary Program safety and technical requirements, including UL-9540 and “the ability to discharge 80% of capacity within a 5-hour passive dispatch window, or up to 100% of capacity within a 3-hour active dispatch window.” CGB Comments, July 20, 2023, pp. 11-12. Additionally, OCC “strongly support[ed] expanding Program eligibility to all storage technologies that can provide safe and reliable storage benefits for Program participants.” OCC Comments, July 20, 2023, p. 6.

The Authority concludes that an expansion of energy storage types eligible for the ESS Program would further the third, sixth, and seventh Program Objectives by increasing opportunities for Program eligibility more broadly, thereby increasing Program participation. Consequently, the Authority determines that alternative energy storage technologies shall be eligible for the ESS Program, including but not limited to: hydrogen storage; mechanical storage; thermal storage; and pumped hydropower. The Authority clarifies that electric vehicles, however, shall not be allowed in the ESS Program at this time, as important barriers discussed in the Year 2 proceeding have not been resolved to warrant their inclusion in the Program, including, as first suggested by OCC: “the dependability of timed dispatch, IT investments, and the degradation of EV batteries.” Year 2 Decision, pp. 28-29.²⁴ Accordingly, the Program Administrators shall update the Program Manual to state that all energy storage technologies other than EVs shall be eligible for the ESS Program, provided the technologies meet the safety and technical requirements, and all other requirements of the Program. Finally, the Authority clarifies that all energy storage technologies shall use the same incentive calculation methodology.

J. SITING AND SAFETY

The Authority requested written comments on any existing flood proofing, safety, or siting guidelines and/or requirements developers follow when installing batteries to determine whether changes to the Program Manual are warranted to ensure appropriate battery siting. Notice, Aug. 11, 2023, pp. 7-8. Further, the Authority requested comments on whether additional resources are needed to assist developers in understanding and following local building, safety, and siting codes. Id.

CGB stated that it was not enforcing flood proofing requirements. CGB Comments, Aug. 30, 2023, p. 16. Additionally, CGB believed that local authorities “should be knowledgeable of current code requirements of systems that are located in a flood zone.” Id. CGB stated that it “will continue to work with industry professionals... to determine if any future action is necessary” for projects sited in a flood plain. Id. CGB also noted that building code requirements “can be confusing for all parties involved.” Id. Consequently, CGB recommended increasing stakeholder education through seminars with municipal inspectors and other industry professionals. Id., p. 17. Moreover, OCC expressed interest in reviewing stakeholder input on how flooding and fire risks could be mitigated for battery storage projects through proper siting and installation guidance. OCC Comments, Aug. 30, 2023, p. 19.

²⁴ Electric vehicle inclusion in the Program may be reconsidered in the future if the barriers identified in the Year 2 Decision are resolved.

Further, CPower stated that batteries would be unlikely to be sited in a flood plain, because the cost to insure such a project would be prohibitive. CPower Comments, Aug. 30, 2023, p. 20. Consequently, CPower believes that it is unnecessary to add flood proofing requirements for projects located in flood plains. Id. CPower argued that the costs of flood proofing requirements for projects located outside of flood plains would be substantial, thereby adversely affecting project economics. Id., p. 21. Changes to Program requirements that would impact the financial viability of projects under development would “send a chilling message to potential storage developers about the stability of the program rules,” CPower argued. Id. CPower also believes that any additional siting or safety requirements instituted by the Authority would be redundant and would offer little value to projects or ratepayers, because “[n]ational labs, EDCs, municipalities, and state departments already have their own time-tested, expert-developed safety and compliance requirements.” Id. Nevertheless, CPower argued that it would be beneficial for the Authority to “establish a state-wide, universal e-Permitting system for use by all municipal jurisdictions,” because e-permits would streamline and standardize project permitting forms statewide. Id.

The Authority concludes that safety and siting educational resources for energy storage developers would advance the third Program Objective, the sustained and orderly development of the state’s energy storage industry, and the fifth Program Objective, lowering barriers to energy storage deployment, by providing clarity to Program participants on existing safety and siting requirements for energy storage projects. Consequently, the Authority directs the Program Administrators to create an educational resource (Energy Storage Siting Resource) for Program participants compiling existing, publicly available resources regarding any applicable flood proofing, building code, safety, and siting requirements affecting residential and commercial ESS projects, and providing relevant state and municipal contact information, which need not be exhaustive (e.g., “the relevant department in most municipalities are X, Y, Z”). For clarity, such resource shall simply aggregate publicly available resources into one place for developer ease of access.

The Program Administrators shall file the Energy Storage Siting Resource by April 1, 2024, in the present docket, after which the resource shall be published on the ESS website. Further, the Energy Storage Siting Resource shall be updated when Order 16 of the Year 2 Decision is fulfilled, after a new building code for energy storage projects is adopted statewide, and annually thereafter, to ensure the Resource remains up to date and relevant for Program participants. Further, after the Energy Storage Siting Resource is completed, CGB shall hold at least one seminar with Program stakeholders reviewing the siting and safety requirements for energy storage projects. The seminar shall be held no less than once annually, to ensure that Program participants are informed of any potential code or safety changes. As compliance, CGB shall file the date of such seminar annually with the Authority no less than 10 days after such seminar is held. Last, while the Authority would support the creation of a statewide e-permitting system for battery storage projects, as suggested by CPower, the development of such a tool requires coordination with and involvement of other state agencies and/or may be better suited for legislative action.

K. GRID EDGE GRACE PERIOD ALLOWANCE

In the Year 2 Decision, the Authority approved a 50% upfront incentive adder for residential grid edge customers, and a 25% upfront incentive adder for commercial grid edge customers. Year 2 Decision, p. 18. Further, pursuant to Order No. 1, by August 1 annually, the EDCs are required to submit for the Authority's review and approval an updated map of circuits qualifying as grid edge. Id., pp. 37-38. Notably, circuits can be removed as grid edge during the annual map updates, thereby affecting project eligibility for the grid edge upfront incentive adder. See Motion No. 10, p. 1.

Accordingly, the financial viability of storage projects under development that do not have reservation of funds may be adversely impacted if the project suddenly becomes ineligible for the grid edge upfront incentive adder after the maps are updated. The Authority therefore requested comments on whether a grace period should be implemented for the grid edge map adder, where the maps submitted under Order No. 1 would take effect January 1 of the following year. Notice, Aug. 11, 2023, p. 7. The Authority further requested additional solutions or comments to resolve the potential problem described. Id.

In response, UI proposed that projects which are eligible for the grid edge upfront incentive adder at the time of reservation of funds be allowed to receive the adder "even if the system is no longer on the grid edge map following an annual update." UI Comments, Aug. 30, 2023, p. 7. Additionally, if a project is not eligible for the grid edge upfront incentive adder at the time of reservation of funds but becomes eligible after the maps are updated, UI proposed that the contractor or customer contact CGB to request an updated reservation of funds letter inclusive of the grid edge adder. Id. UI believes that its proposed methodology would provide "predictability for the developer and ease the administrative burden for the Program Administrators." Id. Further, CGB clarified that the grid edge adder was currently assigned at the reservation of funds stage and "would not be removed if, at a later stage in the project lifecycle, the project no longer qualifies as grid edge." CGB Comments, Aug. 30, 2023, p. 17. CGB believes that this policy provides greater certainty for project developers and customers. Id. Moreover, CPower argued that the Authority should "[l]ock in the adder that a customer qualifies for at the time it receives [reservation of funds] for the entire 10-year term of the Program," to prevent projects from being subjected to undue risk. CPower Comments, Aug. 30, 2023, p. 22. Last, OCC recommended that the Authority establish a grace period for the grid edge adder that is similar to the grace period for the Distressed Municipality adder. OCC Comments, Aug. 30, 2023, pp. 20-21.

The Authority concludes that a grace period is needed for the grid edge upfront incentive adder to ensure that storage projects currently in the planning stages that are expecting a grid edge adder, and that do not yet have reservation of funds, do not suddenly become ineligible for the grid edge adder. Consequently, when the new grid edge maps are approved by the Authority in August, the EDCs shall not update the grid edge maps until January 1 of the following year. The Authority determines that this grace period will provide developers with adequate notice to anticipate the financial impacts to any projects under development that will become ineligible for the grid edge adder. Further, the Authority is aware that CGB conducts monthly training with ESS contractors. Hr'g Tr., Aug. 3, 2023, 42:18-19. Upon Authority approval of the new grid edge maps,

CGB shall inform developers of any expected changes to the grid edge maps during its monthly contractor trainings, so that developers are not surprised when the maps change in January. The Authority also clarifies that projects that receive an upfront incentive adder, including a grid edge adder, in a reservation of funds letter shall remain eligible for such adder for the project's entire duration in the Program.²⁵ The Authority determines that these changes will provide greater certainty to Program participants, thereby advancing the third Program Objective, the sustained and orderly development of the state's electric storage industry.

L. ESS PROGRAM DATA DASHBOARD

Order No. 24 of the Storage Decision directed the Program Administrators to "publish a website containing all relevant Program data, incorporating all direction provided in Section V.D." no later than January 1, 2023. Storage Decision, p. 53. Further, Section V.D lists all data requirements that must be present on the Program website developed by the Program Administrators.²⁶ The Program Administrators subsequently filed compliance with Order No. 24 stating that a dashboard containing all required data was developed pursuant to the original order.²⁷ Program Administrator Compliance, Dec. 30, 2022, Docket No. 17-12-03RE03, p. 1.

While the Program Administrators' ESS website contains most of the data required by Order No. 24, the Authority concludes that the webpage does not meet all the requirements outlined in Section V.D. of the Storage Decision. See Storage Decision, pp. 42-43. Specifically, the website lacks the following data requirements: (1) aggregate storage dispatch, at the most granular level possible; (2) historical aggregate hourly dispatch; (3) program administrative costs; and (4) aggregate avoided emissions (CO₂, NO_x, SO_x). The Authority further concludes that while aggregate storage dispatch data and aggregate avoided emissions may not have been readily available January 1, 2023, with the conclusion of the Year 2 summer dispatch season and the participation of multiple batteries in the ESS Program, such information should be available now. Consequently, the Authority directs the Program Administrators to refile compliance with Order No. 24 once all data requirements have been met and are publicly accessible on the ESS Program website, no later than January 1, 2024.

²⁵ In other words, an application with an existing reservation of funds letter containing a grid edge adder shall remain eligible for the adder even if the project site is no longer considered grid edge after the map is updated.

²⁶ Pursuant to Section V.D. of the Storage Decision, the Program Administrators must include all the following on the ESS Program website: (1) aggregate storage dispatch, at the most granular level possible; (2) historical aggregate hourly dispatch; (3) six-month rolling average installed cost data; (4) historical installed cost and TPO customer agreement data, by contractor, system locations, and application date; (5) Program incentive funds disbursed; (6) Program administrative costs; (7) installed capacity (number of units, kW, and kWh), in aggregate and by town; (8) installed capacity (number of units, kW, and kWh) in low-income households and underserved communities; (9) aggregate avoided emissions (CO₂, NO_x, SO_x); and (10) average project metrics, such as incentive per unit, electric storage system size (kW), and electric storage system size (kWh). Storage Decision, p. 42.

²⁷ The Program Administrator's ESS performance data dashboard may be accessed here: <https://energystoragect.com/ess-performance-report/>.

M. EMISSIONS REDUCTION

1. Marketing Plan Targeting High Differential Emission Areas

Energy storage can increase emissions if not deployed strategically. As a result, to ensure that the ESS Program was not increasing emissions to the detriment of state emissions goals, CGB submitted several recommendations last year in the Year 1 annual review docket, Docket No. 21-08-05, including a proposal to market energy storage in areas with high emissions using locational data. CGB Compliance, Aug. 23, 2022, Docket No. 21-08-05, pp. 28-33. Upon reviewing CGB's proposal, the Authority directed CGB to submit:

a marketing plan scoped to target areas with the highest differential between peak and trough emissions on a temporal scale over which a battery will charge and discharge [including] information on potential marketing activities, customer demographics of those who have installed or applied for battery storage to date and potential customers in the target locations, benefit-cost analysis, expected outcomes from such a marketing plan, and scope objectives. Further, the marketing plan scope must also contain data collection and evaluation requirements, in addition to an estimated budget, and a timeline for implementation.

Year 2 Decision, p. 40.

On August 1, CGB filed a draft marketing plan for use in fiscal year 2024 targeting areas with the highest emissions differential. CGB stated that its emissions analysis discovered that residential energy storage systems have a positive impact on emissions reductions, "due to the prevailing trend of residential storage being co-located with solar." Motion No. 7, pp. 1-2. As a result, CGB proposed updating its existing ESS marketing plan to focus on areas where solar plus storage deployment would have the greatest emission benefits, specifically areas with the highest differential in monthly average emissions, as determined by CGB's consultant, Kevala. Id. The marketing plan's goal would be to continue to increase awareness of battery storage and the ESS Program. Id. Further, CGB's marketing campaign would also target Distressed Municipalities. Id. Additionally, the marketing campaign would include several different tactics, including podcasts, online ads, and streaming television ads. Id., p. 3. The success of the marketing plan would be evaluated by: (1) landing page form submissions on the ESS Program website; (2) performance against industry advertising benchmarks; (3) web traffic and engagement; and (4) an awareness study conducted by Great Blue Research to gauge knowledge of battery storage and the ESS Program. Id., pp. 3-4. The total cost of the media campaign would be \$100,000, of which half (\$50,000) would be used to "target high priority areas [and] grid edge circuits." Id., p. 4.

Last year, the Authority was concerned about the benefit cost analysis of the marketing plan, since targeting areas with high differentials between peak and trough emissions may not increase Program enrollment. Year 2 Decision, p. 24. Accordingly, the Authority requested written comments on CGB's marketing plan scoped to target areas with high emissions differentials, including on whether the proposal's cost

outweighs potential benefits, in addition to any other suggested modifications to the proposed plan. Notice, Aug. 11, 2023, p. 2.

UI was generally supportive of CGB's marketing plan targeting high emissions differential areas. UI Comments, Aug. 30, 2023, p. 1. UI was, however, concerned about the benefit cost analysis of a marketing plan targeting high emissions differential areas. Id., p. 2. Nevertheless, UI indicated that CGB's plan to limit emissions-related marketing activities to 50% of the marketing campaign's budget limited ratepayer risk while providing an opportunity for stakeholders to evaluate the effectiveness of an emissions-related marketing campaign in the future. Id. Conversely, Eversource stated that emissions reduction was not a main motivator for batteries. Eversource Comments, Aug. 30, 2023, p. 3. Consequently, Eversource argued that ESS marketing in high emissions differential areas would not lead to increased Program enrollment. Id. Last, OCC looked forward to reviewing the data generated by the marketing plan to determine if "increased storage capacity will help to reduce the emissions in certain areas, in order to gauge whether the projected marketing plan costs will be offset by emission reduction benefits." OCC Comments, Aug. 30, 2023, p. 7.

The Authority approves with modification CGB's marketing plan targeting high emissions differential areas, thereby granting with modification Motion No. 7. The Authority concludes that a marketing plan targeting high emissions differential areas will help ensure that the ESS Program aligns with the state's climate goals, thereby supporting the sixth Program Objective by maximizing the long-term environmental benefits of electric storage. Notably, the estimated cost of CGB's marketing plan for fiscal year 2024 (\$100,000) is below CGB's marketing campaign costs for the prior year (\$187,087), thereby supporting the first Program Objective, providing positive net value to all ratepayers, by decreasing programmatic costs. See CGB Interrog. Resp. CAE-3. The Authority, however, clarifies that no greater than 50% of the marketing campaign's costs shall be spent on high emissions differential areas, which may be inclusive of other priority areas including Distressed Municipalities or grid edge circuits.²⁸ As noted by UI, using approximately 50% of the marketing plan's budget on high emissions differential areas will allow the Authority to evaluate the success of ESS marketing in such areas to see if the marketing plan's continuation is warranted in the future, while limiting ratepayer risk if such marketing proves unsuccessful. Further, the focus of the remaining funds for the marketing campaign (i.e., \$50,000) shall be left up to the discretion of CGB.

Last, so that the Authority can evaluate the success of ESS marketing in high emissions differential areas, CGB shall file as compliance by August 1, 2024, an evaluation of the success metrics highlighted in their marketing proposal, including: (1) landing page form submissions on the ESS Program website; (2) performance against industry advertising benchmarks; (3) web traffic and engagement; and (4) an awareness study conducted by Great Blue Research to gauge knowledge of battery storage and the ESS Program. If the proposed marketing plan proves successful in supporting the Program Objectives and increasing ESS awareness and adoption in high emissions

²⁸ The Authority clarifies that CGB may target specific zip codes with the highest emissions differential to further refine its marketing plan. See CGB Exceptions, Nov. 15, 2023, pp. 5-6. The Authority also clarifies that CGB may make adjustments to the marketing plan so long as such adjustments do not contradict the direction contained in this Decision.

differential areas, the Authority may direct CGB to continue prioritizing ESS marketing in high emissions differential areas in future Program years.

2. Actively Managed Charging

The Authority previously stated that it anticipated reviewing and potentially approving a voluntary managed charging program to maximize the emissions reductions of the ESS Program through the Year 3 Annual Review proceeding. Year 2 Decision, p. 25. Accordingly, in Order No. 14, the Authority directed CGB to submit for Authority review and approval:

a plan to implement actively managed charging as a part of the ESS Program, so that emissions are most effectively reduced by the Program. The actively managed charging plan must include any necessary penalties and/or incentives required to ensure the success of the proposal, in addition to clear justification for said penalties and/or incentives. The actively managed charging plan must also discuss the proposal's feasibility and locational impacts and include a cost estimate and timeline for successful implementation. Moreover, the plan must reference which vendor will be used to gather the data necessary to implement the plan, in addition to specifying any emissions impact analysis which would need to be completed before the plan's implementation.

Year 2 Decision, p. 41.

On August 1, 2023, CGB submitted a Motion (Motion No. 8) in compliance with Order No. 14, which included analysis of the emissions impacts of ESS and a proposal prepared by Kevala to implement a Managed Charging Adder (MCA). Motion No. 8, Aug. 1, 2023. Kevala modeled the emissions impact of ESS and developed the MCA proposal based on a Total Carbon Accounting analysis of regional average emissions and locational marginal emissions using one year of publicly available data on hourly generation emissions, network and grid infrastructure, hourly load, and DER attributes. Id. Kevala's results indicated key differences between customer classes. Residential systems are currently co-deployed with solar, so business-as-usual operations of the systems are expected to reduce emissions without additional incentives. Id. As additional managed charging would likely only reduce emissions by 0.2%, Kevala did not believe that "the complexity and expenditure to achieve this reduction is worthwhile." Id. Conversely, commercial systems are larger and are incentivized to minimize demand charges, likely charging during overnight hours where carbon intensity is highest; thus, Kevala stated that "managing the charging of C&I BESS is attractive from an emissions reduction standpoint." Id. Accordingly, Kevala proposed a statewide managed charging period between 6 a.m. and 3 p.m. for June through September, and an adder of \$40/kW for years 1-5 and \$25/kW for years 6-10 for commercial ESS customers to allow the charging behavior to be scheduled within the optimal time period. Motion No. 8, Attachment 2, p. 5. Kevala estimated that appropriate management of C&I charging could reduce average CO₂ emissions by 36.3%. Id. Kevala further noted that grid carbon conditions are expected to change over the next ten years and recommended that CGB evaluate and recalibrate the charging period every 2-3 years. Id.

CGB did not recommend approving the MCA in the current Annual Review proceeding. Motion No. 8, pp. 2-5. Specifically, CGB stated that the emissions analysis indicated that the ESS Program currently has minimal impact on overall emissions, as 100% of residential projects to date have storage co-located with solar, and further efforts to manage charging would have minimal additional impact. Id. CGB also did not recommend implementing managed charging to optimize emissions benefits for C&I customers because the optimal charging window of 6 a.m. to 3 p.m. coincides with the on-peak window for commercial customers; therefore, charging during this window could result in higher demand charges and disincentivize commercial customers from participating in managed charging. Id. Further, CGB stated that the ESS Program's current design already incentivizes ESS customers to discharge batteries during periods of high grid stress and "[i]ntroducing an additional incentive for managed charging could be perceived as double incentivizing systems to behave in a way they are already behaving." Id. Finally, CGB was concerned that the MCA would add cost and complexity to the program without clear benefits for the RIM. Id. Accordingly, CGB recommended that the topic be revisited during the next three-year review period in 2027, when more data will be available regarding the deployment of solar and co-located storage; actual emissions impacts of the ESS Program; and shifting emissions impacts due to the evolving generation mix, end-use electrification, and DER deployment. Id.

The Authority subsequently sought stakeholder comment on Motion No. 8, including comments on the costs and benefits, impacts of charging restrictions on the Program Objectives and participation, and suggested modifications to the proposal. Notice, Aug. 11, 2023, pp. 2-3. Both EDCs, as well as OCC, supported CGB's recommendation that actively managed charging not be pursued at this time, and should be revisited in the next program cycle. UI Comments, Aug. 30, 2023, p. 3; Eversource Comments, Aug. 30, 2023, p. 2; OCC Comments, Aug. 30, 2023, p. 9. CPower similarly did not support implementing actively managed charging for the reasons CGB identified; further, CPower was concerned that adding the new cost of the MCA to the program would adversely impact the RIM, necessitating cost reductions in other aspects of the Program that would negatively affect participation. CPower Comments, Aug. 30, pp. 13-14.

Conversely, WattTime supported further consideration of actively managed charging, noting that there is a substantial risk that the energy storage receiving ESS incentives could increase emissions without managed charging. WattTime Comments, Aug. 30, 2023, p. 1. However, WattTime argued that the use of marginal emissions data is more appropriate to measure the change in emissions caused by the charging and discharging of storage systems than Kevala's approach of Total Carbon Accounting. Id. WattTime acknowledged that actively managed charging could increase Program complexity and cost, and recommended that, should the Authority decide the cost and complexity of managed charging outweigh emissions savings, the Authority conduct an emissions assessment using marginal emissions data in each program review to determine whether the Program is significantly exceeding its emissions-reduction obligations and inform whether managed charging should be revisited. Id.

Upon weighing the actively managed charging proposal and stakeholder comments, the Authority will not implement actively managed charging to optimize emissions reductions in the ESS program for the next Program year, thereby providing a ruling to Motion No. 8. The Authority concurs with stakeholder positions that consideration of managed charging will be more appropriate once further data is available regarding actual emissions impacts of the ESS Program, recognizing that residential participation to date is far below Program targets and few commercial projects have reached the deployment stage. Absent additional data, the Authority is concerned that an actively managed charging program will harm the Program Objectives, particularly the first Program Objective, providing positive net value to all ratepayers, by raising Program costs. However, the Authority intends to reevaluate the topic of managed charging in future years pending additional data on the ESS Program's emissions impacts, in support of the sixth Program Objective, maximizing the long-term environmental benefits of electric storage by reducing emissions associated with fossil-fuel generation. Any future review of the topic will include a prospective analysis of the emissions benefits in future years of the ESS Program (e.g., in the late 2020s and 2030s), as the generation mix is expected to see a significant shift over the next decade as the state works towards its 100% zero carbon electricity goal by 2040.

N. COST RECOVERY

In the Storage Decision, the Authority directed CGB to:

submit its costs into both [EDC rate adjustment mechanism (RAM)] dockets splitting its costs between Eversource and UI based on the proportion of megawatts deployed in each EDC's respective service territory ... The EDCs shall each pay the CGB its annual costs authorized by the Authority associated with the administration of this Program in monthly installments starting the first month electric rates reflect the recovery of such costs from ratepayers ... 2022 program costs not included in the January 15, 2022 filings will be addressed through the 2023 RAM proceeding.

Storage Decision, pp. 48-49.

In the present docketed proceeding, CGB stated that given the current RAM timeline, more than two years may pass before CGB's incurred Program costs are recovered from ratepayers. CGB Comments, Aug. 30, 2023, p. 4. For example, 2023 costs are filed in the 2024 RAM dockets and do not begin to be recovered from ratepayers until September 1 of each year, after which CGB's incurred ESS costs are recovered on a monthly basis for twelve months. *Id.*, pp. 4-5. Consequently, costs incurred in 2023 are not fully recovered until August 2025. CGB Corresp., Sept. 25, 2023, p. 24. During the first and second ESS Program years, the extended cost recovery timeline did not pose a burden to CGB because only a small number of upfront incentives were disbursed. CGB Comments, Aug. 30, 2023, p. 4. However, in future Program years, CGB is expected to pay out more than \$25 million in upfront incentives, mostly to commercial projects still under development. *Id.*, pp. 4-5. If CGB must wait two years to recover such costs, CGB argued it would be "under some financial stress [which] could impact other Green Bank programs." *Id.*, p. 5. CGB subsequently proposed to be allowed to recover estimated

Program costs “on a yearly basis, with the opportunity to true-up these costs within the RAM filing.” Id.

The Authority approves changes to CGB’s ESS cost recovery timeline in line with the Authority’s current practice to allow for “Known and Measurable” adjustments to RAM rate components to recover reasonably well-known expenses likely to be incurred in the calendar year in which a particular RAM proceeding is occurring. Specifically, the Authority authorizes CGB to seek recovery of ESS Program costs that have not yet been incurred for the Program year of the RAM proceeding in which they are filing (e.g., anticipated Year 3 ESS Program costs may be recovered through the 2024 RAM proceedings). To receive recovery of anticipated costs, CGB must provide detailed cost estimates, informed by past invoices or outstanding reservation of funds letters, in the applicable RAM proceeding by January 15 of each year following all applicable guidance for “Known and Measurable” adjustment requests. For example, in the 2024 RAM proceeding, CGB shall submit estimates of 2024 ESS Program costs by January 15, in addition to any outstanding 2023 Program costs for which CGB has not yet recovered from ratepayers.

As estimated costs will likely differ from actual incurred costs, the Authority clarifies that all recovery of costs for the upcoming Program year will be subject to reconciliation in the following year. If actual costs do not match the January 15 estimate filed by CGB, CGB may seek to recover the cost difference in the next RAM proceeding. To illustrate, if the January 15, 2024 cost estimate is less than CGB’s actual incurred 2024 costs, CGB may seek to recover any additional costs in the 2025 RAM proceedings. Additionally, if CGB’s ESS cost estimates are *more* than the actual incurred costs, such as in cases of commercial project cancellations, CGB shall subtract any overpayments from the cost estimate submitted in the next RAM proceeding. Further, at such time, CGB shall inform the Authority of the cause of any cost overpayments in addition to the cost overpayment amount. To prevent cost overpayments, CGB shall assume that a percentage of commercial projects with reservations of funds will be canceled. Accordingly, for commercial ESS upfront incentives, CGB shall request funding for the percentage of commercial projects with reservations of funds that have not yet been recovered by ratepayers minus the assumed project attrition rate. For the 2024 RAM proceeding, the commercial project attrition rate shall be informed by the actual ESS commercial cancellations to date, relative to the total number of commercial projects with reservations of funds. CGB shall report the assumed project attrition rate in its RAM filing, and such rate shall be updated in each subsequent RAM filing using actual project data. If the assumed project attrition rate proves incorrect, CGB will have an opportunity to recover distributed upfront incentives by reconciling the cost difference in a subsequent RAM proceeding. CGB shall also continue to split all ESS costs between Eversource and UI based on the proportion of megawatts deployed in each EDC’s respective service territory.

Finally, the Authority clarifies that all cost estimates submitted by CGB, or costs incurred through CGB’s administration of the ESS Program, are subject to a full prudency review by the Authority and are not guaranteed to be approved for cost recovery. The Authority notes that CGB’s itemized 2022 expenses filed in the past RAM proceeding lacked supporting documentation of costs incurred. CGB Compliance, Feb. 3, 2023, Docket No. 23-01-04. Accordingly, the Authority reiterates that all estimated costs or

costs incurred should be submitted with necessary financial documentation, including invoices, request for proposals, contracts, etc., to demonstrate prudence. Failure to do so moving forward may result in a delay or denial of cost recovery.

O. CRITICAL FACILITY DEFINITION

The Authority designated grid edge customers, critical facilities, small businesses, and customers replacing a fossil fuel generator as priority customer classes most likely to further the Program Objectives and consequently provided such classes with additional incentives to facilitate their deployment (i.e., forward capacity market [FCM] rights). Storage Decision, p. 21. In the Year 2 Decision, however, the Authority removed FCM participation from the Program in exchange for an upfront incentive adder of 25% for eligible commercial customers, and of 50% for eligible residential customers, to increase the Program's RIM. Year 2 Decision, pp. 17-18. Only customers previously eligible for FCM participation (i.e., grid edge customers, critical facilities, small businesses, and customers replacing a fossil fuel generator) qualified for the aforementioned upfront incentive adder. Id.

Notably, upon reviewing Year 2 enrollment data, the Authority discovered that an abnormally large number of projects qualify as critical facilities under the current Program requirements (i.e., 73%, or 11 out of 15 projects). Program Administrator Interrog. Resp. CAE-2. The current Program Manual defines critical facilities as any facility that was deemed essential pursuant to Governor Ned Lamont's Executive Order 7H, issued during the COVID-19 pandemic, or according to Conn. Gen. Stat. § 16-243y(a)(2).²⁹ CGB Compliance, June 15, 2023, Clean Program Manual, pp. 42-43. Upon investigating further, the Authority discovered that most facilities were deemed essential by Executive Order 7H, including, among other businesses, restaurants, insurance companies, banks, wholesale clubs, and liquor stores. Conversely, Conn. Gen. Stat. § 16-243y(a)(2) defines a critical facility as:

any hospital, police station, fire station, water treatment plant, sewage treatment plant, public shelter, correctional facility or production and transmission facility of a television or radio station, whether broadcast, cable or satellite, licensed by the Federal Communications Commission, any commercial area of a municipality, a municipal center, as identified by the chief elected official of any municipality, or any other facility or area identified by the Department of Energy and Environmental Protection as critical.

The Authority concludes that the current critical facilities definition is overly broad and therefore necessitates a change. The creation of additional incentives for priority customer classes was intended to aid deployment of those projects that would provide the greatest societal benefits and positive impacts on the Program Objectives. Consequently, the Authority never intended priority customer incentives to encompass most project locations. Further, the fourth Program Objective, prioritizing increasing resilience, defines critical facilities solely according to the statutory definition. The

²⁹ Executive Order 7H may be found here: <https://portal.ct.gov/-/media/Office-of-the-Governor/Executive-Orders/Lamont-Executive-Orders/Executive-Order-No-7H.pdf>.

Authority ultimately concludes that the statutory definition better reflects the intent of the critical facilities adder in the Program, because this definition includes only the locations most essential to the functioning of a community in a time of a power outage, such as hospitals, police stations, and public shelters. The Authority therefore directs the Program Administrators to solely use the statutory definition when determining critical facility eligibility for the upfront incentive adder, effective January 1, 2024.

P. RESIDENTIAL RENEWABLE ENERGY SOLUTIONS (RRES) ANNUAL PROGRAM UPDATES

1. Additional Solar Plus Storage Wiring Configurations

Docket Participants in this proceeding should be aware of the approval of new solar plus storage wiring diagrams in the Authority's RRES Year 3 Decision. In the RRES Year 3 Decision, the Authority approved several wiring diagrams developed by the EDCs, which will allow additional solar plus storage configurations to provide home backup power during grid outages. See EDC Order No. 16 Compliance, June 30, 2023, Attachments 1 and 2; RRES Year 3 Decision, pp. 53-55. More specifically, with the approval of the new wiring configurations, the following system configurations will be able to provide home backup power during grid outages: (1) DC-coupled solar plus storage wiring diagram under the Buy-All tariff, for both single- and multi-family homes; (2) DC-coupled systems under the Buy-All tariff for homes with existing solar systems; (3) AC-coupled systems under the Buy-All tariff for homes with existing solar systems; and (4) AC-coupled systems under the Buy-All tariff, specifically for single-family systems. Id. The approval of the new solar plus storage wiring diagrams will advance the third and fifth ESS Program Objectives by fostering the sustained and orderly development of the state's energy storage industry, and by lowering the barriers to entry for energy storage deployment in Connecticut.

2. Battery Recycling

The Authority also determined in the RRES Year 3 Decision that a proactive approach is needed to resolve the potential issue of solar panel and battery waste. Consequently, the Authority respectfully requested that CGB convene and lead a working group of relevant stakeholders, including DEEP and the EDCs, to develop by August 1, 2024, recommendations to resolve the potential issue of solar panel and battery recycling and waste for clean energy projects in Connecticut.³⁰ RRES Year 3 Decision, pp. 50-51. In developing the recommendations, CGB should consider the environmental effects of solar panel and battery waste and the success or failure of approaches used in other jurisdictions. Further, all recommendations should include a description of the pros and cons of each approach, and an estimate of each approach's implementation timeline and cost. If suggested by CGB and the working group, the Authority would strongly consider creating a new application fee across the state's clean energy programs to cover the costs associated with solar panel and battery recycling. Id. Ultimately, while solar and battery waste is not yet a prevalent issue in Connecticut, the Authority determined that the

³⁰ The Authority requests that CGB lead the recycling working group. However, if CGB would like to co-lead the recycling working group with one or more other government agencies, CGB may do so. In such case, the Authority requests that CGB identify any government agency(ies) co-leading the working group in its Order No. 11 compliance filing.

development of a solution is needed sooner rather than later, to ensure state preparedness for when the issue becomes more emergent, and in support of state environmental goals and the third and sixth ESS Program Objectives, the sustained and orderly development of the state's energy storage industry, and the maximization of the long-term environmental benefits of electric storage.

3. Meter Socket Adapters

In the present proceeding, Tesla argued for the allowance of meter socket adapters (MSAs) in the ESS Program because MSAs “allow for residential solar and battery storage systems to be installed roughly 10-times faster, with significantly less rewiring, and can help avoid the need for electrical panel upgrades.” Tesla Comments, Aug. 30, 2023, p. 6. Nevertheless, Eversource opposed MSA approval in the RRES Program and highlighted several MSA safety risks. See Eversource Corresp., Sep. 7, 2023, Docket No. 23-08-02. For example, Eversource argued that MSAs block access to the bypass switch on all self-contained meter sockets, such that meter replacements or maintenance require a customer outage. Id.

In the RRES Year 3 Decision, the Authority recognized the benefits of MSAs and indicated a preference for their adoption but did not yet approve their use because of the safety concerns highlighted by Eversource. Consequently, the Authority directed the EDCs to file by April 10, 2024, a summary of all MSA safety concerns, along with solutions for each safety concern, and estimated costs and timelines for implementing each solution. The EDCs will file their compliance in both Docket Nos. 23-08-02 and 23-08-05, so that the effects of MSA (dis)approval can be evaluated in both proceedings. See RRES Year 3 Decision, pp. 54-56.

Q. PROGRAM REDLINES

Order No. 22 of the Storage Decision directs the Program Administrators to file by August 1 annually “an updated BCA, and recommendations for any Program modifications.” Storage Decision, p. 53. In compliance with Order No. 22, the Program Administrators filed proposed Program modifications and updated Program documents, including an updated Program Manual. See Program Administrator Compliance, Aug. 1, 2023. In this section, the Authority addresses several suggested revisions to the Program documents filed in compliance with Order No. 22 that are not addressed by other aspects of this Decision. Finally, the Authority approves all additional redline changes proposed by the Program Administrators, which are not discussed in this section or affected by other parts of the Decision.

1. Upfront Incentive Clawback Provision

First, CPower suggested that the clawback provision for noncompliance with the Program's passive dispatch requirements be relaxed “to avoid creating undue risk for Program participants.” CPower Comments, Aug. 30, 2023, p. 9. Under the current Program requirements, projects receiving an upfront incentive must participate in greater than 90% of all passive dispatch events each year. CPower Corresp. Sept. 22, 2023, p. 7. If a project does not meet this requirement, the project must return 10% of the upfront incentive for the first offense, and a “prorated portion of [the upfront] incentive for the

remaining years and expulsion from the [P]rogram for the second offense.” Id. Further, CPower noted that when an active dispatch event is held, the passive dispatch event scheduled for that day is canceled. Id., p. 8. The Program Administrators, CPower highlighted, can call up to 60 active dispatch events per summer. Id. If all 60 active dispatch events were called during passive dispatch event days, only about five passive dispatch events would be held during the summer season. Id. Consequently, missing just one of these five events would trigger an upfront incentive clawback, CPower noted, thereby creating undue risk for project developers. Id., p. 9. CPower proposed changing the upfront incentive clawback to be based on 90% participation in passive and active dispatch events during the summer season. Id., p. 10. Similarly, NECEC supported CPower’s recommendation because NECEC believed that the “clawback provision is extremely sensitive to mishaps, making participation in passive dispatch events risky.” NECEC Comments, Aug. 30, 2023, p. 3. CGB conversely argued against adjustments to the Program’s upfront incentive clawback provision because the Program Administrators lack battery dispatch data. CGB Corresp., Sept. 25, 2023, p. 26.

The Authority is not persuaded by the arguments presented by CPower and NECEC as commercial project interest has significantly exceeded expectations to date. Further, the Authority plans to move away from adjudicating these type of Program design elements (i.e., design aspects that have been previously adjudicated, existed for multiple years, and no evidence exists to show that the specific requirement is impairing the Program’s ability to meet its deployment goals) in future years, as too many adjustments to details of the ESS Program serve to undermine the consistency and predictability the storage industry needs to effectively scale solutions in Connecticut and maintain participation over several years. Moreover, developers in this proceeding and others have consistently advocated for this type of year-to-year consistency. For the Authority to consider changes to the Program’s upfront incentive clawback provision, multiple developers would need to demonstrate in a future annual review proceeding, by submitting data-driven or project specific data, that this provision is hindering the ability for projects to be financed, thereby hindering overall Program enrollment. The Authority is hesitant to make changes to this provision because the upfront incentive participation requirement is needed to send a strong signal to all projects to follow the pre-arranged hours under the passive dispatch portion of the Program. Further, the Program’s passive demand response parameters are intended to act as a safeguard against missing the one peak hour each year that the regional grid is planned around. The benefits of the Program are largely driven by reducing regional demand during the annual peak, making all program elements that ensure dispatch during potential peak hours vital to the success of the Program. In short, the Authority finds that changing the upfront incentive clawback provision, based on the data and analysis in the instant proceeding, hinders the third Program Objective to foster the sustained, orderly development of a state-based electric energy storage industry as it represents a change from a previously adjudicated program design element and may potentially impact the first Program Objective to provide positive net present value to all ratepayers. As such, the Authority declines to adopt this change through this proceeding.

2. Residential and Commercial Program Allocation

Currently, the residential and commercial MW allocations for the ESS Program are the same (i.e., 50/50). Year 2 Decision, p. 4. CGB proposed increasing the Program's commercial MW allocation to 70% of the Program's capacity, because commercial interest in the Program exceeds residential interest. CGB Comments, Aug. 30, 2023, pp. 3-4. Similarly, CPower recommended an 86% percent MW allocation for the Program's commercial sector to better account for the interest received in the commercial sector to date. CPower Corresp., Sept. 22, 2023, p. 22.

The Authority declines to change the MW allocations between the commercial and residential sectors of the Program at this time because the issue was already adjudicated in last year's proceeding. More specifically, as concluded in the Year 2 Decision, the Authority will not "review the residential and non-residential allocation split to ensure that it serves the Program Objectives again until the three-year program cycle review proceeding in 2024, as contemplated in the Storage Decision." Year 2 Decision, p. 30; See Storage Decision, pp. 43-44. Consequently, the Authority intends to revisit this topic next year. At such time, stakeholders are encouraged to submit both qualitative and quantitative data in the relevant docketed proceeding (i.e., Docket No. 24-08-05) to explain why the current commercial and residential MW allocations warrant change. While commercial enrollment currently far exceeds residential enrollment, process and incentive changes made through this Decision may increase residential enrollment. Additionally, in line with the fourth Program Objective, the Authority seeks to deliver increased resilience to a wide swath of customers through the ESS Program, including low-income customers, customers in Distressed Communities, customers coded for medical protection, public housing authorities, and residential customers on the grid edge. Ultimately, a larger commercial MW allocation may detract from this goal, as more Program benefits flow to businesses. Nevertheless, if programmatic data demonstrates that current residential targets are unrealistic even with the changes made in this Decision, the Authority may adjust the Program's MW allocations next year, in support of the third Program Objective, the sustained and orderly development of the state's electric storage industry.

3. Forward Capacity Market Participation

In the Year 2 Decision, the Authority prohibited forward capacity market (FCM) participation in the Program to improve the Program's RIM score at the recommendation of CGB. See Year 2 Decision, pp. 17-18. In place of FCM participation, the Authority approved a 50% upfront incentive adder for residential customers, and a 25% upfront incentive adder for commercial customers, if such customers were previously eligible for FCM participation (i.e., grid edge customers, critical facilities, small businesses, eligible customers replacing a fossil fuel generator). Id.

However, in this proceeding, several stakeholders expressed support for allowing forward capacity market (FCM) participation in non-summer months. To begin, the Program Administrators argued that developers needed "additional revenue streams for many of their battery projects to become commercially viable." Program Administrator Compliance, Aug. 1, 2023, Proposed Program Modifications, p. 7. The Program Administrators contended that one way to allow developers to access additional revenue

streams would be to allow FCM participation during non-summer months only. Id. Additionally, NECEC supported allowing FCM participation during non-summer months, because non-peak times “do not require as much energy flexibility for the ESS [P]rogram, and could be used by participants to maximize the value of their storage through other markets.” NECEC Comments, Aug. 30, 2023, p. 2. Similarly, CPower argued that FCM participation in non-summer months would not increase ratepayer costs, because the payment for FCM participation comes “from another capacity supplier that is shedding” its capacity supply obligation (i.e., the payment would not come from load). CPower Comments, Aug. 30, 2023, pp. 7-8. Further, CPower believed that commercial project attrition could be reduced by allowing FCM participation. Id., p. 7. Last, Sunnova argued that the Authority should allow FCM participation year-round, because Sunnova believed that capacity rights were a “critical aspect... [in] value calculations for expected compensation mechanisms”. Sunnova Comments, Aug. 30, 2023, pp. 2-3. Further, Sunnova argued that FCM participation allowance would help projects achieve financial viability and “apply downward pressure on wholesale market prices” through more competitive auctions. Id. Last, Sunnova understands ISO NE’s capacity tariff to require capacity availability year-round, which is verified by ISO NE through audits, thereby precluding FCM participation during solely the non-summer months. Id., p. 5-6.

The Authority conducted discovery on the Program Administrators’ proposal to allow FCM participation during non-summer months to determine the proposal’s expected RIM impacts. In response, the Program Administrators stated that it was unclear whether FCM participation in non-summer months would be considered as “cleared capacity” from an Avoided Energy Supply Costs (AESC) perspective. Program Administrator Interrog. Resp. CAE-6, p. 1. Further, the 2021 AESC states that uncleared capacity can later become cleared. Id. If FCM participation in non-summer months is considered cleared, the Program RIM would decline from 1.95 to 0.91 under a scenario where 100% of all Program capacity is cleared in FCM markets. Id., p. 2; Program Administrator Corresp., Aug. 3, 2023, p. 12. Conversely, if FCM participation in non-summer months is considered uncleared, the RIM would experience only marginal declines from 1.95 to 1.91. Program Administrator Interrog. Resp. CAE-6, p. 2.

The Authority declines to allow FCM participation during non-summer months at this time as such participation would negatively impact the Program’s RIM if such capacity were cleared in the FCM. A RIM decline from 1.95 to 0.91 would significantly impact the first Program Objective, providing positive net value to all ratepayers, by decreasing the cost effectiveness of the Program. Moreover, as discussed in Section IV.B.3., participation in the commercial sector of the Program far exceeds the Programmatic targets set in the Storage Decision. Consequently, the Authority concludes that the commercial sector of the Program does not require additional revenue streams (i.e., FCM participation) to incent the level of storage development needed to fulfill the Program’s commercial targets. While residential storage deployment has lagged behind the commercial sector of the Program, the residential upfront incentive changes authorized in this Decision will increase available revenue for residential projects, thereby encouraging residential project development. Moreover, FCM participation during non-summer months may require storage assets to make their capacity available year-round, thereby impacting overall dispatch participation and peak shaving induced by the Program, in hindrance of the second Program Objective.

Last, the Authority determines the broader issue of FCM participation in the Program has already been adjudicated through the Year 2 Decision, where the Authority prohibited FCM participation to increase the Program's RIM while authorizing increased upfront incentives for projects which were previously eligible for the FCM. See Year 2 Decision, pp. 17-18. Absent compelling evidence that the Year 2 Decision negatively impacted the Program Objectives or stymied Program enrollment, the Authority sees no reason to reverse its prior determination on this topic.

4. Passive Dispatch Window Length

Finally, the Program Administrators proposed working with the Program's EM&V consultant (i.e., Guidehouse) to evaluate whether a shorter passive dispatch window would be beneficial for the Program. Program Administrator Compliance, Aug. 1, 2023, Proposed Program Modifications, p. 10. The Program Administrators noted that the 3 p.m. – 8 p.m. time window for passive dispatch overlaps with the peak solar generation period. Id. Further, the Program Administrators argued that a shorter passive dispatch window may be beneficial because such change would "increase the likelihood of batteries being able to dispatch uniformly, which is one of the program requirements for participation in passive dispatches." Id.

The Authority concludes that there is insufficient data to determine whether a change in the passive dispatch window would be beneficial to the Program's benefit cost tests. Therefore, the Program's passive dispatch requirements shall remain unchanged for Year 3 of the Program. Nevertheless, the Authority concludes that a change in the passive dispatch window length or time may benefit the Program Objectives by reducing potential hurdles to the Program's uniform dispatch requirement, thereby advancing the fifth Program Objective, lowering barriers to entry. Accordingly, the Authority directs the Program Administrators to submit by June 15, 2024, an evaluation of the current passive dispatch window, including both qualitative and quantitative analysis of the benefits and costs of any proposed passive dispatch window changes. Additionally, the evaluation must consider the effects of any passive dispatch requirement changes on each of the Program's benefit cost tests. Ultimately, if the Program Administrators' passive dispatch evaluation suggests that the Program would benefit from changes to the current passive dispatch requirements, the Authority may adjust the passive dispatch window in the next annual review proceeding.

V. CONCLUSION AND ORDERS

A. CONCLUSION

In this Decision, the Authority explores and approves several changes to the ESS Program to better serve the Program Objectives. Further, the Decision provides several additional clarifications for stakeholders. The Decision also includes the Authority's rulings to Motion Nos. 7 and 8.

B. EXISTING AND NEW ORDERS

For the following Orders, the Company shall file an electronic version through the Authority's website at www.ct.gov/pura. Submissions filed in compliance with the Authority's Orders must be identified by all three of the following: Docket Number, Title, and Order Number. Compliance with orders shall commence and continue as indicated in each specific Order or until the Company requests and the Authority approves that the Company's compliance is no longer required after a certain date. All Orders requiring Authority review and approval shall be submitted as a motion.

The below standing orders are a summation of prior orders related to the ESS Program that continue to apply. In some instances, the Authority has amended those standing orders with redline edits. The below new orders apply on a going forward basis.

1. Standing Orders to be filed in ESS Annual Review Dockets

1. Reference Decision, July 28, 2021, Docket No. 17-12-03RE03, Order No. 8, p. 52: No later than October 1, 2021, and by August 1 annually thereafter, the EDCs shall submit for the Authority's review and approval a map of circuits that meet the grid edge criteria in Section III.D. The EDCs shall include the map in all relevant Program documentation and on the EDCs' respective Program webpages.
2. Reference Decision, July 28, 2021, Docket No. 17-12-03RE03, Order No. 12, p. 52: No later than October 1, 2021, the EDCs shall provide a list of all electric storage systems that are eligible for the Program in Docket No. 21-08-05. Any updates shall be submitted in the appropriate Annual or Program Review docket **[by August 1, and annually thereafter]**, as applicable.
3. Reference Decision, Dec. 21, 2022, Docket No. 22-08-05, Order No. 3, p. 38: No later than August 1, 2022, and annually thereafter, the Program Administrators shall submit an annual report summarizing the Program results to date, including an updated BCA **[and an updated BCA calculator]**, and recommendations for any Program modifications to the ESS Program documents including the Program Manual, providing both a clean and a redlined version of all documents and an accompanying narrative document explaining how the recommended changes would help achieve the Program Objectives, which may also be the annual report, in the relevant Annual Review proceeding (i.e., in Docket No. 23-08-05 on August 1, 2023, etc.). The Program Administrators shall include active dispatch only projects in the Program's total 580 MW deployment goal, and the Program Administrators shall exclude active dispatch only projects from the Program's Tranche and incentive step MW capacity limits. Further, the Program Administrators shall track total active dispatch only project MW deployment and include such information in the annual report filed with the Authority. **[Last, the Program Administrators shall include all DERMS fees paid to support the Program in an aggregate or total amount.]**
4. Reference Decision, July 28, 2021, Docket No. 17-12-03RE03, Order No. 25, p. 53: No later than June 15, 2024, and every three years thereafter, the Program

Administrators shall submit the EM&V consultant's full report on the established Program metrics into the relevant Program Review proceeding.

5. Reference Decision, July 28, 2021, Docket No. 17-12-03RE03, pp. 48-50: Each Program Administrator shall submit their prudently incurred costs associated with the administration of the Program in a given calendar year into the subsequent year's annual review of the Revenue Adjustment Mechanism (RAM) (e.g., costs incurred in 2023 by UI shall be submitted into the 2024 RAM proceeding). The EDCs shall submit such costs into their individual RAM review docket, whereas the CGB [**may seek recovery of ESS Program costs that have not yet been incurred for the Program year of the RAM proceeding in which they are filing, in accordance with the guidance set forth in Section IV.N. of the Year 3 Decision. Further, CGB shall submit its detailed cost estimates for the subsequent Program year by January 15, and annually thereafter,**] into both dockets splitting its costs between Eversource and UI based on the proportion of megawatts deployed in each EDC's respective service territory.
6. Reference Decision, July 28, 2021, Docket No. 17-12-03RE03, Order No. 24, p. 53: No later than January 1, 2023, the Program Administrators shall publish a website containing all relevant Program data, incorporating all direction provided in Section V.D.
7. Reference Decision, July 28, 2021, Docket No. 17-12-03RE03, Order No. 26, p. 53: The CGB shall provide notice to the Authority as a compliance filing and in the applicable docket(s) when a given capacity block is near completion. Specifically, the CGB shall: (1) set a date for the start of the subsequent step (e.g., first day of the next month), and (2) notify the market and the Authority that current step will end on a specific date (e.g., last day of the current month) and that the subsequent step will begin the day after (e.g., first day of the next month).
8. Reference Decision, Dec. 8, 2021, Docket No. 21-08-05, Order No. 9, p. 40: No later than August 1, 2022, and annually thereafter, the Program Administrators shall submit its compliance with Order No. 22 of the Storage Decision, incorporating the direction provided in Sections IV.B.2. and V.A.4.iii. of this Decision.
9. Reference Decision, Dec. 21, 2022, Docket No. 22-08-05, Order No. 15, p. 41: No later than [**August 1**], 2024, and annually thereafter until the end of the ESS Program, the Program Administrators shall file project cancellation data for the Authority's review in the relevant ESS annual review docket. The cancellation data must show which tranche the canceled projects were selected for, as well as the reasons behind the project cancellations, if known by the Program Administrators.
10. Reference Decision, Dec. 21, 2022, Docket No. 22-08-05, Order No. 16, p. 41: No later than 30 days from DAS adoption of an updated building code that incorporates best practices for electric storage, and annually thereafter, the Program Administrators shall file as compliance with the Authority the current best guidance on siting, local permitting, and safety for local officials and developers on FTM [**and behind-the-meter**] storage construction and development. Such

guidance shall be developed in consultation with relevant state agencies, including DAS, DEEP, and the Siting Council. Such guidance shall also be provided on the ESS Program's website. A link to such guidance shall be provided to the Authority as a part of the compliance filing. [Upon the fulfillment of this order, the Energy Storage Siting Resource shall be updated to incorporate any new siting guidance from DAS.]

11. Reference Decision, Nov. 1, 2023, Docket No. 23-08-02, Order No. 35, p. 67: No later than August 1, 2024, the Authority requests that CGB provide an update on the stakeholder process to develop recommendations to resolve the issue of solar panel and battery recycling and waste for clean energy projects in Connecticut. The Authority respectfully requests that CGB convene and lead a working group of relevant stakeholders, including DEEP and the EDCs, to develop recommendations to resolve the issue of solar and battery waste that consider the environmental effects of solar panel and battery waste and the success or failure of approaches used in other jurisdictions. Further, all recommendations should include a description of the pros and cons of each approach, and an estimate of each approach's implementation timeline and cost. The Authority requests that the update, including any recommendations developed, be filed in Docket Nos. 24-08-02, 24-08-03, 24-08-04, and 24-08-05.

2. New Orders

12. No later than December 20, 2023, the Program Administrators shall file for the Authority's review and approval updated ESS Program documents, including the Program Manual, incorporating all of the approved modifications authorized in this Decision. Such filing shall include both a clean and a redlined version of all ESS Program documents.
13. No later than December 20, 2023, the EDCs shall amend the Generator Interconnection Technical Requirements to clarify the requirement that ESS projects' proposed dispatch limiting schedules shall be verified using the Program's existing distributed energy resource management system (DERMS) provider, in accordance with Section IV.D. Further, the Authority directs the EDCs, if they have not already done so, to add an option labeled as "TBD" or "Other" to the drop-down list for all energy storage manufacturer fields required by the PowerClerk interconnection application.
14. No later than December 20, 2023, the ESS Program Administrators shall establish an Application Process Working Group (APWG) with relevant stakeholders, in accordance with Section IV.C.1., to focus specifically on ways to simplify or streamline the complex ESS enrollment flow for residential projects. Additionally, the APWG may recommend improvements to the commercial application, in addition to the residential enrollment flow. The APWG shall be co-led by both the EDCs and CGB. By March 15, 2024, The Program Administrators shall provide in a report to the Authority (APWG Report) specific recommendations on the following: (1) required application field questions that can be omitted from the ESS Salesforce-based application; (2) required application forms that can be consolidated or removed; (3) a proposal to combine or streamline the separate

ESS applications and enrollment processes to the fullest extent possible, including a method to combine a project's DERMS-enrollment application with the existing ESS incentive approval application; and (4) a recommendation to streamline or reduce the requirements included in the Eligible Contractor application, as described in Section IV.C.2. If consensus on any of the above cannot be reached, the Program Administrators shall include in the APWG report a fair and accurate description of all views expressed. The APWG shall meet a minimum of four times, and the Program Administrators shall include the dates and attendees of each APWG meeting in the APWG Report. Finally, the Authority clarifies that any consensus recommendations not requiring changes to the Program Manual or Program documents may be implemented immediately by the Program Administrators, provided such changes do not contradict a prior Authority ruling.

15. No later than December 20, 2023, and August 1 annually thereafter, the EDCs shall file as compliance all existing DERMS fees by each DERMS provider that are paid to support the ESS Program, in accordance with Section IV.I.1. The Authority also directs the EDCs to file as compliance with the Authority its open RFP for new ESS DERMS provider(s) no later than 15 days from when such RFP is first publicly issued, so that the Authority can monitor the EDCs' DERMS solicitation process.
16. No later than December 20, 2023, CGB shall file as compliance an identification of the mechanism through which they will seek customer opt-in to the CGB-led inspections. If CGB selects email as the mechanism to receive customer opt-in for CGB inspections, the inspection opt-in email shall also be submitted with this compliance filing, and must state that the CGB- inspection is optional in the email's subject header and first sentence.
17. No later than January 1, 2024, the Program Administrators shall: (1) refile compliance with Order No. 24 of the Storage Decision once all data requirements have been met and are publicly accessible on the ESS Program website, in accordance with Section IV.L.; and (2) add average installed cost data calculated as \$/kWh and \$/kW to relevant tables included on the Program data dashboard that allow for such information to be viewed by customer type, project status, EDC, and contractor, in accordance with Section IV.G.
18. Reference Decision, Feb. 22, 2023, Docket No. 22-08-01, 2022 Clean and Renewable Energy Program Data and Report, p. 5: No later than January 5, 2024, and annually thereafter, CGB shall provide updated fact sheets for both residential and C&I customers for the ESS Program that reflect the program modifications as directed in the most recent Final Decision issued through the ESS Program Annual Review proceeding, Docket No. XX-08-05.
19. No later than March 15, 2024, the EDCs shall submit for the Authority's review and approval a plan to allow multiple DERMS to participate in the ESS Program, following all direction outlined in Section IV.I.1.
20. No later than April 1, 2024, the Program Administrators shall create an educational resource (Energy Storage Siting Resource) for Program participants compiling existing, publicly available resources regarding any applicable flood proofing,

building code, safety, and siting requirements affecting residential and commercial ESS projects and providing relevant state and municipal contact information, which need not be exhaustive (e.g., “the relevant department in most municipalities are X, Y, Z”). For clarity, such resource shall simply aggregate publicly available resources into one place for developer ease of access. The Program Administrators shall file the Energy Storage Siting Resource in the present docket, after which the resource shall be published on the ESS website. Further, the Energy Storage Siting Resource shall be updated when Order 10 is fulfilled, after a new building code for energy storage projects is adopted statewide, and annually thereafter, to ensure the Resource remains up to date and relevant for Program developers. The Program Administrators shall file as compliance with the Authority in the applicable ESS proceeding (i.e., for 2024, Docket No. 24-08-05) any future updates to the Energy Storage Siting Resource.

21. No later than June 15, 2024, the Program Administrators shall file as compliance with the Authority a recommendation for a percentage of ESS incentives or project net benefits that shall be distributed equally amongst all tenants of a multifamily affordable housing site, in accordance with Section IV.F. The analysis shall focus solely on the performance incentive and shall include, at a minimum, quantitative financial analysis, estimated rates of return (factoring in both ESS incentives and additional incentives such as demand charge reduction and federal tax credits), and PCT values. Additionally, the financial analysis and estimated rate of return shall exclude any monetary benefits provided through the RRES Program. The compliance shall also include recommendations for enforcement and incentive distribution to tenants, including discussion of options such as on-bill electric credits and direct payments. The Program Administrators shall also consult with relevant parties when writing the compliance, including the Connecticut Department of Housing (DOH), the Connecticut Finance Authority (CFA), the Department of Energy and Environmental Protection (DEEP), and storage developers. Finally, because the RRES Program already requires tenant benefit-sharing for all revenue associated with the RRES tariff, the Program Administrators may exclude ESS multifamily affordable housing projects dually enrolled in the RRES Program from the proposed tenant benefit-sharing requirement.
22. No later than June 15, 2024, the Program Administrators shall submit as compliance in this proceeding an evaluation of the current passive dispatch window in accordance with Section IV.Q.4., including both qualitative and quantitative analysis of the benefits and costs of any proposed passive dispatch window changes. Additionally, the evaluation must consider the effects of any passive dispatch requirement changes on each of the Program’s benefit cost tests.
23. No later than June 15, 2024, the Program Administrators shall file for the Authority’s review and approval in the most recent annual review proceeding a recommendation for new upfront incentive rates for the small, medium, and large commercial categories for the unallocated commercial MWs remaining in both Tranches 2 and 3, in accordance with Section IV.B.3. During the commercial upfront incentive reevaluation period, the Program Administrators shall pause all commercial passive dispatch enrollments in the Program until the Authority determines whether commercial upfront incentives should decline for all new

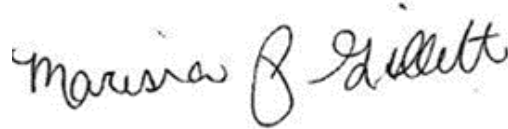
commercial projects. Further, through modeling and data analysis of current commercial project data, the Program Administrators shall work with the Program's EM&V consultant (i.e., Guidehouse) to ensure that the commercial upfront incentive recommendation will achieve a participant cost test (PCT) at or slightly above 1.

24. No later than August 1, 2024, and annually thereafter, CGB shall file as compliance in the applicable annual review proceeding (i.e., in 2024, Docket No. 24-08-05) the average participant cost test (PCT) broken out by customer type, project size category, and Program developer for both residential and commercial customer projects, utilizing all information available to CGB, including Performance Incentive Fee data, to ensure an accurate accounting of the PCT. The PCT shall also specifically be conducted from the perspective of the host customer; to the extent that this necessitates a change from the methodology that has historically been applied, CGB shall submit PCT values calculated using both the historical methodology and the customer-focused methodology.
25. No later than August 1, 2024, and annually thereafter, the Program Administrators shall file as compliance in the applicable annual review proceeding (i.e., in 2024, Docket No. 24-08-05) a summary of the Performance Incentive Fees for all residential projects deployed through the end of the previous month (e.g., through July 2024 for the August 1, 2024 filing) by developer, following all direction contained in Section IV.G.
26. No later than August 1, 2024, and annually thereafter, each EDC shall file as compliance an ESS Interconnection Report, as detailed in Section IV.D., in the applicable annual review proceeding (i.e., in 2024, Docket No. 24-08-05). The Report shall consist of a summary of the state of interconnection for all commercial ESS projects and shall include, at a minimum: (1) the interconnection status of each commercial ESS project; (2) the expected EDC interconnection approval due date for each commercial project per EDC interconnection guidelines, as applicable; (3) the date all required interconnection materials were submitted to the utility for each commercial ESS project; (4) the number of days from when all required interconnection materials were submitted to the utility for each commercial ESS project up to the completion of the interconnection process; (5) the attrition rate for all commercial ESS projects, based on the withdrawal of a project's interconnection application; (6) a list of the most common reasons for ESS interconnection delays; and (7) EDC-proposed solutions for each of the most common reasons delaying ESS interconnections.
27. No later than August 1, 2024, CGB shall file as compliance in Docket No. 24-08-05 an evaluation of the success metrics highlighted in their marketing proposal in accordance with Section IV.M.1., including: (1) landing page form submissions on the ESS Program website; (2) performance against industry advertising benchmarks; (3) web traffic and engagement; and (4) an awareness study conducted by Great Blue Research to gauge knowledge of battery storage and the ESS Program.

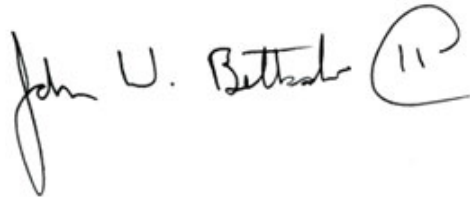
28. No later than August 1, 2024, the EDCs shall review energy storage interconnection practices currently used in other jurisdictions, specifically in cases where other utilities have adopted storage interconnection requirements intended to both ensure distribution reliability and minimize unnecessary interconnection and grid upgrade costs (i.e., smart interconnection requirements, discharge limiting schedules for energy storage interconnections, etc.). The EDCs shall then compare their proposal with the practices identified in other jurisdictions to determine whether the EDCs' proposal, including but not limited to the proposed (dis)charge limiting schedules, should be adjusted to more effectively reduce storage interconnection timelines and costs. The EDCs shall also present their findings to the IX WG before filing them with the Authority. The EDCs shall state whether and why changes to their proposed (dis)charge limiting schedules are or are not warranted in their compliance, which shall include data-driven analysis for any conclusions reached. Last, the EDCs shall file as compliance a summary of their findings with the Authority in Docket No. 24-08-05, incorporating all direction outlined in Section IV.D.
29. No later than 60 days from the conclusion of Incentive Step 2 in residential Tranche 1, or by June 15, 2024, whichever occurs sooner, the Program Administrators shall file for the Authority's review and approval any proposed changes to the residential upfront incentive rate for Steps 2 and 3 of Tranche 1 and proposed residential upfront incentive rates for Tranche 2, as described in Section IV.B.1. The Program Administrators shall consider, at a minimum, the Program's residential enrollment trends, battery cost data, and actual project PCT values when making their Tranche 2 residential upfront incentive recommendation.
30. No less than once annually after the Energy Storage Siting Resource referenced in Order No. 20 is first completed, CGB shall hold at least one seminar with Program stakeholders reviewing the siting and safety requirements for energy storage projects. The seminar shall help ensure that Program participants are informed of any potential energy storage code or safety changes. As compliance, CGB shall file the date of such seminar annually with the Authority in the applicable annual review proceeding (i.e., if 2024, Docket No. 24-08-05) no less than 10 days after such seminar is held.

DOCKET NO. 23-08-05 ANNUAL ENERGY STORAGE SOLUTIONS
PROGRAM REVIEW – YEAR 3

This Decision is adopted by the following Commissioners:



Marissa P. Gillett



John W. Betkoski, III



Michael A. Caron

CERTIFICATE OF SERVICE

The foregoing is a true and correct copy of the Decision issued by the Public Utilities Regulatory Authority, State of Connecticut, and was forwarded by Certified Mail to all parties of record in this proceeding on the date indicated.



Jeffrey R. Gaudiosi, Esq.
Executive Secretary
Public Utilities Regulatory Authority

November 29, 2023
Date

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