



## Board of Directors

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**Meeting Date**

**December 16, 2022**



## Board of Directors

<b>Lonnie Reed</b> Chair	<b>Vickie Hackett</b> Vice Chair Connecticut Department of Energy and Environmental Protection (DEEP)
<b>Matthew Ranelli</b> Secretary Partner Shipman & Goodwin	<b>Sarah Sanders</b> State Treasurers Office State of Connecticut
<b>Thomas Flynn</b> Managing Member Coral Drive Partners	<b>Binu Chandy</b> Deputy Director DECD
<b>Adrienne Farrar Houel</b> President and CEO Greater Bridgeport Community Enterprises, Inc.	<b>Dominick Grant</b> Director of Investments Dirt Capital Partners
<b>John Harrity</b> Chair CT Roundtable on Climate and Jobs	<b>Brenda Watson</b> Executive Director Operation Fuel
<b>Joanne Wozniak-Brown</b> Office of Policy and Management (OPM)	<b>Laura Hoydick</b> Mayor of Stratford

December 9, 2022

Dear Connecticut Green Bank Board of Directors:

We have a regular meeting of the Board of Directors scheduled for **Friday, December 16, from 9:00-11:00 a.m.**

Please take note that this will be an online meeting.

For the agenda, we have the following:

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

- Meeting Minutes for October 21, 2022
- Energy Storage Solutions non-residential incentive approvals
- Under \$500,000 and No More than \$1,000,000 staff approvals of transactions
- Position Description for Managing Director of Incentive Programs

In addition to items requiring resolution, there are also several documents provided within the materials that are report-outs, including:

- FY23 Q1 Financial Report – Abridged
- FY23 Q1 Financial Report – Comprehensive
- FY23 Q1 IPC Report

- **Financing Programs Updates and Recommendations** – we have several large C-PACE transactions for your review and approval, including projects in Mystic and Redding, as well as a potential new construction project in Hartford as a co-investment with Nuveen.
- **Investment Updates and Recommendations** – we have several transactions requiring extensions (i.e., Groton fuel cell project), modifications (i.e., C4C and Amalgamated Bank, *PosiGen with Forbriht Bank*, Energy Resources for Bradley Airport, and *Canton Hydro*), or new investment opportunities resulting from Green Bank Capital Solutions (i.e., *Budderfly with Berkshire Bank*, and *PosiGen ITC Bridge Facility*).
- **Incentive Programs Updates and Recommendations** – we have a proposed modification to the staff, Deployment Committee, and Board of Directors approval process for incentives provided to affordable housing or non-residential projects for Energy Storage Solutions.
- **Other Business** – if we have time, which I certainly hope we will, we would like to provide you with an overview of the Inflation Reduction Act, and why we believe this is a once in a

generation opportunity to increase and accelerate investment in and deployment of clean energy in Connecticut, especially in vulnerable communities. We have put together a memo describing this opportunity and look forward to presenting our “Dream Big” strategy for consideration in January 2023.

And, we continue to provide you with the public comments we have filed with various federal agencies – in this case, HUD’s Green and Resilient Retrofit Program.

- **Personnel Related Matters** – and lastly, in Executive Session, 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.

Please note, those items underlined and italicized above, are materials coming on Tuesday, December 13, 2022.

This is the last meeting of 2022 – and, we have a lot to cover in those two hours. I believe this is the most resolutions we have ever had in a single meeting at the Green Bank! As always, thank you for your diligent reviews.

Until next Friday, enjoy the weekend ahead.

Sincerely,

A handwritten signature in black ink, appearing to be 'Bryan Garcia', with a long horizontal stroke extending to the right.

Bryan Garcia  
President and CEO



## AGENDA

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

Friday, December 16, 2022  
9:00 a.m.– 11:00 a.m.

Dial (872) 240-3212  
Access Code: 432-477-613

Staff Invited: Sergio Carrillo, Mackey Dykes, Brian Farnen, Bryan Garcia, Bert Hunter, Jane Murphy, and Eric Shrago

1. Call to order
2. Public Comments – 5 minutes
3. Consent Agenda – 5 minutes
4. Financing Programs Updates and Recommendations – 30 minutes
  - a. C-PACE Project – Mystic, CT
  - b. C-PACE Project – Redding, CT
  - c. C-PACE New Construction project (Co-Investment w/Nuveen) – Hartford CT
5. Investment Updates and Recommendations – 40 minutes
  - a. Extension Request – Groton Fuel Cell Project
  - b. Capital Solutions Request – Budderfly and Berkshire Bank – Deferred to future meeting
  - c. Investment Modification Request (extension) – C4C (Co-Investment w/Amalgamated Bank)
  - d. Investment Modification Request (expansion) – PosiGen (Co-Investment w/Forbright Bank)
  - e. Investment Modification Request – Energy Resources USA LLC
  - f. Capital Solutions Request – PosiGen (ITC Bridge Facility)
  - g. Investment Modification Request (Collateral & Guaranty) - Canton Hydro
6. Incentive Programs Updates and Recommendations – 5 minutes
  - a. Energy Storage Solutions: Approval Process

7. Other Business – 30 minutes
  - a. Inflation Reduction Act – Incentive Maze and GHG Reduction Fund – 30 minutes
  - b. Other Business
8. Personnel Related Matters – Officer FY22 Performance Review – 10 minutes
9. Adjourn

Join the meeting online at  
<https://global.gotomeeting.com/join/432477613>

Or call in using your telephone:

Dial (872) 240-3212

Access Code: 432-477-613

***Next Regular Meeting: Friday, January 20, 2023 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 16, 2022  
9:00 a.m.– 11:00 a.m.

Dial (872) 240-3212  
Access Code: 432-477-613

Staff Invited: Sergio Carrillo, Mackey Dykes, Brian Farnen, Bryan Garcia, Bert Hunter, Jane Murphy, and Eric Shrago

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 21, 2022.

### **Resolution #2**

**WHEREAS**, in its June 24, 2022 meeting the Board of Directors approved the implementation of an Upfront Incentive Project Approval procedure (“Procedure”) involving of the issuance of a proposal for non-residential projects under consideration by the Green Bank in fulfillment of its responsibilities set forth in the Program with an estimated upfront incentive payments;

**NOW**, therefore be it:

**RESOLVED**, that the Board hereby approves the estimated upfront incentives sought by two (2) non-residential projects totaling \$706,550 consistent with the memorandum provided to the Board dated December 9, 2022.

**RESOLVED**, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all any documents and regulatory filings as they shall deem necessary and desirable to effect the above-mentioned incentives consistent with the Procedure and the memorandum provided to the Board dated December 9, 2022.

### **Resolution #3**

**WHEREAS**, on January 18, 2013, the Connecticut Green Bank (the “Green Bank”) 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 December 16, 2022 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 December 16, 2022 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.

### **Resolution #4**

Motion to approve the position description for the Managing Director of Incentive Programs

4. Financing Programs Updates and Recommendations – 30 minutes
  - a. C-PACE Project – Mystic, CT

### **Resolution #5**

**WHEREAS**, pursuant to Connecticut General Statute Section 16a-40g (the “Statute”), the Connecticut Green Bank (“Green Bank”) is directed to 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;

**WHEREAS**, the Green Bank seeks to provide a **\$2,958,385** term loan under the C-PACE program to Enko Realty, LLC., the building owner of 62 Maritime Dr., Mystic, 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.

**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 9, 2022, 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.

b. C-PACE Project – Redding, CT

**Resolution #6**

**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;

**WHEREAS**, the Green Bank seeks to provide a **\$3,213,498** construction and (potentially) term loan under the C-PACE program to Redding Life Care, LLC, the building owner of 100 Redding Road, Redding, 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; 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 memorandum submitted to the Committee dated December 9, 2022, 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 affect the above-mentioned legal instruments.

- c. C-PACE New Construction project (Co-Investment w/Nuveen) – Hartford CT

**Resolution #7**

**RESOLVED**, that the Connecticut Green Bank (“Green Bank”) is authorized in principle to enter into negotiations and documentation for co-investment in up to \$26,395,850 in C-PACE financing for 237 Hamilton Street, Hartford, CT as more fully explained in the memorandum to the Green Bank Board of Directors (the “Board”) dated December 9, 2022; provided, however, that authorization to enter into definitive documentation is pending further diligence by staff and approval by the Board at a future meeting.

- 5. Investment Updates and Recommendations – 40 minutes
  - a. Extension Request – Groton Fuel Cell Project

**Resolution #8**

**WHEREAS**, FuelCell Energy, Inc., of Danbury, Connecticut (“FCE”) has requested financing support from the Green Bank to develop a 7.4 megawatt fuel cell project in Groton, Connecticut located on the U.S. Navy submarine base and supported by a power purchase agreement (“PPA”) with the Connecticut Municipal Electric Energy Cooperative (“CMEEC”) (the “Navy Project”);

**WHEREAS**, staff has considered the merits of the Navy Project and the ability of FCE to construct, operate and maintain the facility, support the obligations under the Loan throughout its 20-year term, and as set forth in the due diligence memorandum (the “Board Memo”) dated December 18, 2020, recommended this support be in the form of a term loan not to exceed \$8,000,000, secured by the developer’s equity in the project company (which controls all project assets, contracts and revenues) as well as a pledge of revenues from an unencumbered project as explained in the Board Memo (the “Credit Facility”);

**WHEREAS**, on the basis of that recommendation, the Green Bank Board of Directors (“Board”) approved of the Credit Facility, in an amount not to exceed \$8,000,000 with the provision that the Credit Facility be executed no later than 315 days from the date of authorization by the Board (June 16, 2021), which was further extended by the Board on a number of occasions, including in July 2022 to October 31, 2022;

**WHEREAS**, Green Bank staff has further advised the Board that the closing for the Credit Facility is expected to close by March 31, 2023 and to accommodate the additional time that might be needed to execute the Credit Facility requests the permitted time to execute the credit facility be increased from not later than October 31, 2022 to not later than March 31, 2023;

**NOW**, therefore be it:

**RESOLVED**, that the Green Bank Board hereby approves the extension of time for the execution of the Credit Facility to not later than March 31, 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 and instruments as they shall deem necessary and desirable to effect the Term Loan and participation as set forth in the Memorandum.

**b. Capital Solutions Request – Budderfly (Co-Investment w/Berkshire Bank)**

**Resolution #9**

~~xxx~~

c. Investment Modification Request (extension) – C4C (Co-Investment w/Amalgamated Bank)

**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 substantially completed negotiations for modification to the medium term loan facility to fund C4C’s Smart-E Loan and other residential energy efficiency loan portfolio growth on revised terms as explained in the memorandum dated October 18 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 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 \$10 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;

**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 effect the above-mentioned legal instrument.

d. Investment Modification Request (expansion) – PosiGen (Co-Investment w/Forbright Bank)

## **Resolution #11**

**WHEREAS**, the Connecticut Green Bank (“Green Bank”) has an existing partnership with PosiGen, Inc. (together with its affiliates and subsidiaries, “PosiGen”) to support PosiGen in delivering a solar lease (including battery storage) and energy efficiency financing offering to LMI households in Connecticut;

**WHEREAS**, the Green Bank Board of Directors (“Board”) previously authorized and later amended the Green Bank’s participation in a back leverage credit facility (the “BL Facility”) collateralized by all of PosiGen’s solar PV system and energy efficiency leases in the United States as part of PosiGen’s strategic growth plan, as well as a facility to finance performance based incentives earned by PosiGen on its solar PV portfolio in Connecticut;

**WHEREAS**, PosiGen is now in the process of upsizing its BL Facility, as explained in the memorandum to the Board dated December 9, 2022 (the “Board Memo”);

**WHEREAS**, PosiGen repayment performance is satisfactory;

**NOW**, therefore be it:

**RESOLVED**, that the Board authorizes the Green Bank to amend its existing 2<sup>nd</sup> lien facility to allow for an upsized Green Bank position, as set forth in the Board Memo;

**RESOLVED**, that the Green Bank may advance up to \$9.3 million in 2<sup>nd</sup> lien financing associated with the BL Facility, in addition to serving as an agent for third-party participation to increase those participations to reduce Green Bank’s exposure as explained in the Board Memo;

**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.

- e. Investment Modification Request – Energy Resources USA LLC

## **Resolution #12**

**WHEREAS**, the Connecticut Green Bank (“Green Bank”) has significant experience in the development and financing of commercial energy efficiency projects in Connecticut;

**WHEREAS**, the Green Bank continually seeks new ways to facilitate the deployment of energy efficiency and renewable energy in the State; and

**WHEREAS**, the Green Bank has established the Capital Solutions Open RFP Program (the “Capital Solutions Program”) to accommodate clean energy and environment infrastructure capital needs not met by other existing Green Bank programs; and

**WHEREAS**, Energy Resources USA LLC (“Energy Resources”) has applied to the Capital Solutions Program and staff is recommending approval of Energy Resources’ application for a revolving construction loan facility (the “Construction Loan”), substantially on the terms and

conditions explained in a memorandum to the Green Bank Board of Directors (the “Board”) dated December 9, 2022 (the “Board Memo”);

**NOW**, therefore be it:

**RESOLVED**, that the Green Bank approves the Capital Solutions application of Energy Resources and the establishment of a revolving construction line of credit for funding its obligations under contracts for energy efficiency retrofits for state projects pursuant to the Eversource Small Business Energy Advantage program in an amount not to exceed \$2.5 million on terms substantially similar to those described in the Board Memo; 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.

f. Capital Solutions Request – PosiGen (ITC Bridge Facility)

**Resolution #13**

**WHEREAS**, the Connecticut Green Bank (“Green Bank”) has an existing partnership with PosiGen, Inc. (together with its affiliates and subsidiaries, “PosiGen”) to support PosiGen in delivering a solar lease (including battery storage) and energy efficiency financing offering to LMI households in Connecticut;

**WHEREAS**, the Green Bank Board of Directors (“Board”) previously authorized and later amended the Green Bank’s participation in a back leverage credit facility (the “BL Facility”) collateralized by all of PosiGen’s solar PV system and energy efficiency leases in the United States as part of the company’s strategic growth plan, as well as a facility to finance performance based incentives earned by PosiGen on its solar PV portfolio in Connecticut;

**WHEREAS**, PosiGen repayment performance is satisfactory;

**WHEREAS**, the passage of the federal Inflation Reduction Act of 2022 (the “IRA”) creates a variety of new tax credit value streams that are available in early 2023 but likely to be delayed in terms of monetizable cash flow as explained in the memorandum to the Board dated December 9, 2022 (the “Board Memo”);

**WHEREAS**, PosiGen is currently documenting a new tax equity facility that will incorporate that additional value from IRA and has applied under the Capital Solutions Open RFP program for a revolving loan facility to bridge this value to be derived from the IRA provisions being included in the Internal Revenue Code, as further explained in the Board Memo; and

**NOW**, therefore be it:

**RESOLVED**, that the Green Bank may advance up to \$6 million in 1<sup>st</sup> lien financing associated with tax equity cash flows under a revolving loan facility as further explained in the Board Memo; 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.

g. Investment Modification Request (Collateral & Guaranty) - Canton Hydro

**Resolution #14**

**WHEREAS**, Canton Hydro, LLC (“Developer”) was awarded exclusivity by the Town of Canton to redevelop a 1 MW hydroelectric facility located at the Upper Collinsville Dam (“Dam”), on the Farmington River, in Canton, Connecticut (the “Project”) and the Connecticut Green Bank (“Green Bank”) Board (the “Board”) approved approve subordinate debt financing in an amount to exceed \$1,200,000 (the “Loan”) along with an unfunded guaranty, in an amount not to exceed \$500,000 to support the Project (“Guaranty”);

**WHEREAS**, Green Bank’s debt was leveraged by a term loan from Provident (“Provident Loan”), as well as loan supported by the US Small Business Administration (“SBA”) 504 program (“SBA Loan”).

**WHEREAS**, the Project Developers are seeking to replace the SBA Loan with new funding or a new loan from Inclusive Prosperity Capital (“IPC Loan”) and are seeking Green Bank’s approval to trigger the benefit of 50% of the Guaranty before final completion of the Project and to extend the Project’s completion of construction date until June 30, 2023, as more fully explained in a memorandum to the Board dated December 13, 2022 (the “Board Memo”);

**WHEREAS**, to accommodate the Project Developers’ and senior lenders requests, Green Bank would increase the interest rate on the Loan by 1% until it receives a restructured security package for the Loan as described in the Board Memo

**NOW**, therefore be it:

**RESOLVED**, that the Green Bank Board of Directors hereby authorize staff to execute an amendment of the Loan agreement and Guaranty materially based on the terms and conditions set forth in the Board Memo;

**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 affect the above-mentioned legal instruments.

6. Incentive Programs Updates and Recommendations – 5 minutes

a. Energy Storage Solutions: Approval Process

**Resolution #15**

**WHEREAS**, the Connecticut Green Bank (“Green Bank”) was appointed Co-Administrator to the Energy Storage Solutions (ESS) Program (“Program”) by PURA pursuant its Final Decision, within Docket No. 17-12-03RE0 (PURA Investigation into Distribution System Planning of the Electric Distribution Companies – Electric Storage) on July 28, 2021 (the “Final Decision”);

**WHEREAS**, the Program responsibilities of the Green Bank established by the Final Decision, include customer enrollment, upfront incentive administration, communication and promotion of the Program, and data aggregation and publication;

**WHEREAS**, at the June 24, 2022 meeting the Board of Directors (the “Board”) approved the implementation of a process to approve and issue Program incentives, Green Bank staff seeks to clarify and amend the approval process, as set forth below;

**WHEREAS**, the Green Bank proposes to administer the upfront incentive payments as through (i) the issuance of a Reservation of Funds (ROF) letter, provided to the project developer and customer upon verification that the Battery Energy Storage System (BESS) meets the minimum technical requirements necessary to participate in the Program, including equipment roundtrip efficiency and warranty, ability to comply with passive and active dispatch modes, and demonstrated ability to communicate with the dispatch platforms; (ii) the issuance of a Confirmation of Funds (COF) letter upon the completed installment of all equipment, the procurement of required utility permits, and the verification of connectivity with dispatch platforms;

**WHEREAS**, incentives for residential customers will be administrated and issued by Green Bank staff similar to how Green Bank administrated the Residential Solar Investment Program (RSIP). Green Bank staff will issue ROFs, COFs, and incentive payments to residential customers in accordance with the ESS program rules and this Memo. Green Bank staff will periodically report out to the Board on the progress to targets and incentives issued to such residential customers;

**WHEREAS**, incentives below \$500k for multi-family affordable housing and non-residential customers will be approved by Green Bank staff, and will be issued a ROF letter upon approval. Projects which were approved and issued an ROF letter will be reflected in the “under \$500k” memo to the Board or DC, as may be applicable. Projects will receive COF letters and incentives pursuant to the staff approvals; and

**WHEREAS**, incentives equal to or greater than \$500k for multi-family affordable housing and non-residential customer projects shall be presented in accordance with this Memo to the Board or DC, subject to applicable limitations, for approval on the consent agenda. Once approved by the Board or DC, Green Bank staff will issue ROF letters. The subsequent COF letters and incentives will be issued in accordance with such Board or DC approval. Green Bank staff will periodically report out to the Board the actual incentives issued.

**NOW**, therefore be it:

**RESOLVED**, that the Board hereby approves the Green Bank’s proposed changes to the process of administration of upfront Program incentive payments as set forth in the memorandum to the Board dated December 9, 2022 (the “Memorandum”);

**RESOLVED**, that the Board hereby approves the Green Bank staff proposed process for upfront incentive payments under \$500,000 to residential, multi-family affordable housing and non-residential customers in accordance with Memo and existing staff approval processes;

**RESOLVED**, that the Board hereby approves the Green Bank staff proposed process for presenting upfront incentive payments equal to or over \$500,000 to multi-family affordable housing and non-residential customers to the Board or DC for approval, on the consent

agenda, in accordance with the Memo; and

**RESOLVED**, Green Bank staff will periodically report out to the Board on the progress to targets and incentives issued under the Program, explaining any changes between ROF estimated incentives and actual incentives issued.

7. Other Business – 30 minutes
  - a. Inflation Reduction Act – Incentive Maze and GHG Reduction Fund – 30 minutes
  - b. Other Business
8. Personnel Related Matters – Officer FY22 Performance Review – 10 minutes

**Resolution #16**

**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 24, 2022, the Board approved a 4.0% merit pool in its FY 2023 budget for annual merit adjustments that can range from 0.0% to 5.0%;

**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;

**WHEREAS**, the President and C.E.O. of the Green Bank recommends a 4.0% 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 4.0% merit increase for Fiscal Year 2022; 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 FY 2022 based on the (i) feedback of the Board members, (ii) performance towards meeting the Green Bank Board approved organizational goals for Fiscal Year 2022 and (iii) his Fiscal Year 2022 360-degree performance review.

9. Adjourn

Join the meeting online at  
<https://global.gotomeeting.com/join/432477613>

Or call in using your telephone:

Dial (872) 240-3212

Access Code: 432-477-613



***Next Regular Meeting: Friday, January 20, 2023 from 9:00-11:00 a.m.  
Colonel Albert Pope Room at the  
Connecticut Green Bank, 75 Charter Oak Avenue, Hartford***

# ANNOUNCEMENTS

- **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.



CONNECTICUT  
**GREEN BANK**<sup>SM</sup>

# Board of Directors Meeting

December 16, 2022

**Online Meeting**

# Board of Directors

## Agenda Item #1

### Call to Order

Board of Directors  
Agenda Item #2  
Public Comments

Board of Directors  
Agenda Item #3  
Consent Agenda

# Consent Agenda

## Resolutions #1 through #4



1. **Meeting Minutes** – approve meeting minutes of October 21, 2022
2. **Energy Storage Solutions** – non-residential staff approvals of upfront incentives less than \$500,000
3. **Under \$500,000 and No More in Aggregate than \$1,000,000** – staff approval of transactions consistent with plan and budget
4. **Position Description** – Managing Director of Incentive Programs
  - **Green Bank Financial Report** – abridged through Q1 of FY23
  - **Green Bank Financial Report** – comprehensive through Q1 of FY23
  - **IPC Report** – through Q1 of FY23

# Board of Directors

Agenda Item #4a

Financing Programs Updates and Recommendation

C-PACE Transaction – Mystic



# 62 Maritime Drive, Mystic

## Ratepayer Payback

- **\$2,958,385** for lighting, insulation, HVAC & controls.
- Projected savings are 81,886 **MMBtu** versus **\$2,958,385** 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.

# 62 Maritime Drive, Mystic

## Terms and Conditions



- **\$2,958,385** construction loan at 5% and term loan set at a fixed [REDACTED]
- **\$2,958,385** loan against the property
  - Property valued at [REDACTED]
  - Loan-to-value ratio equal [REDACTED] & Lien-to-value ratio equals [REDACTED]
- DSCR > [REDACTED]

# 62 Maritime Drive, Mystic

## The Five W's



- **What?** Receive approval for a \$2,958,385 construction and term loans under the C-PACE program to Enko Realty LLC to finance the construction of specified energy upgrades.
- **When?** Project to commence 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?** Enko Realty LLC, the property owner of 62 Maritime Drive, Stonington, CT.
- **Where?** 62 Maritime Drive, Stonington, CT.

# 62 Maritime Drive, Mystic

## Project Tear Sheet



Address	62 Maritime Dr., Mystic, CT 06106	
Owner	Enko Realty., LLC	
Proposed Assessment	\$2,958,385	
Term (years)	[REDACTED]	
Term Remaining (months)	Pending construction completion	
Annual Interest Rate <sup>1</sup>	[REDACTED]	
Annual C-PACE Assessment	\$272,058	
Savings-to-Investment Ratio	[REDACTED]	
Average DSCR	[REDACTED]	
Lien-to-Value	[REDACTED]	
Loan-to-Value	[REDACTED]	
Projected Energy Savings (mmBTU)		Total
	First year	5,406.40
	Over EUL	81,886
Estimated Cost Savings (incl. ZRECs and tax benefits)	Per year	\$334,032
	Over EUL	\$6,102,036
Objective Function	27.68 kBTU / ratepayer dollar at risk	
Location	Mystic	
Type of Building	Industrial	
Year of Build	1992	
Building Size (sf)	88,258	
Year Acquired by Owner	2020	
As-Complete Appraised Value <sup>2</sup>	[REDACTED]	
Mortgage Lender Consent	[REDACTED]	
Proposed Project Description	New and Retrofit Lighting, Insulation, HVAC & Controls	
Est. Date of Construction Completion	Pending closing	
Current Status	Awaiting Board of Directors Approval	
Energy Contractor	[REDACTED]	
Notes		

# 62 Maritime Drive, Mystic

## Key Financial Metrics



**Table 1. Project Financial Summary**

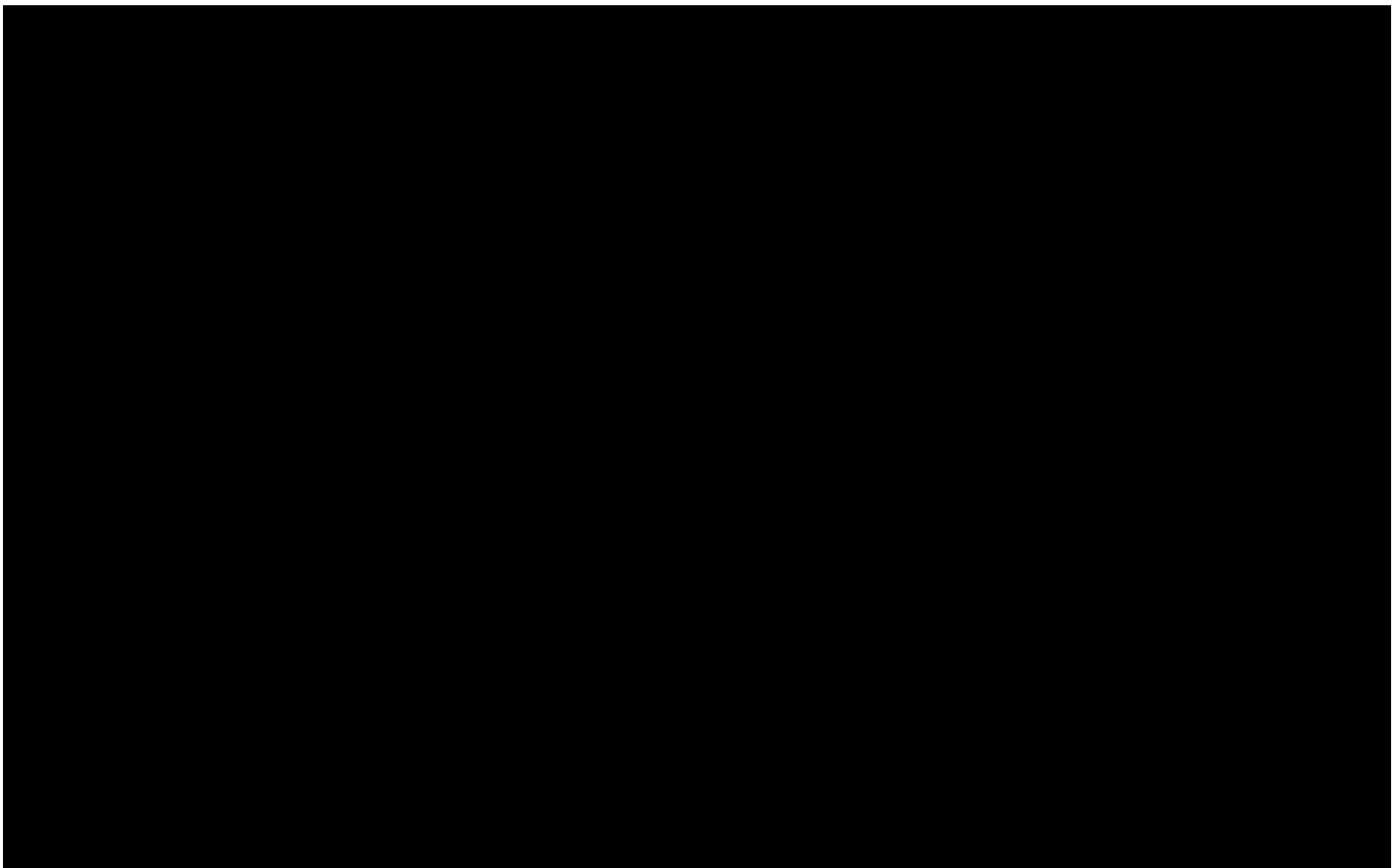
<b>Table 1. Financial Metrics over EUL</b>	
Savings to Investment Ratio (SIR)	██████████
Project cost	\$2,893,024
Amount financed	\$2,958,385
Gross total cost savings over EUL	\$6,102,036
Total PACE + O&M payments over EUL	\$4,624,994
% financed	100%
Owner equity contribution	\$0
Interest rate	██████████
Finance term, years	██████████

**Table 2. Measure Energy Savings Summary**

<b>Table 2. Savings Summary</b>	
Effective useful life – EUL (years)	██████████
Gross project cost	\$2,893,024
Closing cost	\$65,360
Financed amount (including closing costs)	\$2,958,385
Utility Incentives	\$714,986
First year electric energy savings (kWh/yr)	1,584,533
First year electric energy savings (MMBtu/yr)	5,406
Total electric savings over EUL (mmBtu)	81,886
First year energy cost savings (\$/yr)	\$334,032
Total energy cost savings over EUL (\$)	\$6,102,036

# 62 Maritime Drive, Mystic

## Underwriting



# Resolution #5



**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 9, 2022, 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 #4b

Financing Programs Updates and Recommendation

C-PACE Transaction – Redding



# 100 Redding Road, Redding

## Ratepayer Payback



- **\$3,213,498** for a 732.48 kW rooftop and carport solar PV, roof repairs & EV charging infrastructure
- Projected savings are 69,047 **MMBtu** versus **\$3,213,498** 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.

# 100 Redding Road, Redding

## Terms and Conditions



- **\$3,213,498** construction loan at 5% and term loan set at a fixed 5.75% over the 20-year term
- **\$3,213,498** loan against the property
  - Property valued at [REDACTED]
  - Loan-to-value ratio equals [REDACTED] & Lien-to-value ratio equals [REDACTED]
- DSCR > [REDACTED]

# 100 Redding Road, Redding

## The Five W's



- **What?** Receive approval for a \$3,213,498 construction and term loans under the C-PACE program to Redding Life Care, LLC d/b/a Meadow Ridge to finance the construction of specified energy upgrade
- **When?** Project to commence 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?** Redding Life Care, LLC d/b/a Meadow Ridge, the property owner of 100 Redding Road, Redding, CT
- **Where?** 100 Redding Road, Redding, CT

# 100 Redding Road, Redding

## Project Tear Sheet



Address	100 Redding Road, Redding, CT 06896	
Owner	Redding Life Care, LLC d/b/a Meadow Ridge	
Proposed Assessment	\$3,213,498	
Term (years)	20	
Term Remaining (months)	Pending construction completion	
Annual Interest Rate	5.75%	
Annual C-PACE Assessment	\$274,236	
Savings-to-Investment Ratio	1.02	
Average DSCR over Term	[REDACTED]	
Lien-to-Value	[REDACTED]	
Loan-to-Value	[REDACTED]	
Projected Energy Savings (mmBTU)	Year 1	2,931
	Over 25 Year EUL	69,047
Estimated Cost Savings (incl. ZRECs and tax benefits)	Year 1	\$1,668,026
	Over 25 Year EUL	\$5,599,921
Objective Function	21.5 kBTU / ratepayer dollar at risk	
Location	Redding, CT	
Type of Building	Assisted living	
Year of Build	1998	
Building Size (sf)	577,670	
Year Acquired by Owner	1998	
As-Complete Appraised Value <sup>1</sup>	[REDACTED]	
Mortgage Outstanding	[REDACTED]	
Mortgage Lender Consent	[REDACTED]	
Proposed Project Description	732.48 kW PV; roof repairs; EV charging infrastructure	
Est. Date of Construction Completion	Pending closing	
Current Status	Awaiting Board of Directors Approval	
Energy Contractor	[REDACTED]	

# 100 Redding Road, Redding

## Key Financial Metrics



<b>Table 1. Financial Metrics over EUL</b>	
Savings to Investment Ratio (SIR)	1.02
Project cost	\$3,143,135
Amount financed	\$3,213,498
Gross total cost savings over EUL	\$5,599,921
Total PACE + O&M payments over EUL	\$5,515,058
% <u>financed</u>	100%
Owner equity contribution	\$0
Interest rate	5.750%
Finance term, years	20

<b>Table 2. Savings Summary</b>	
Effective useful life – EUL (years)	25
Gross project cost	\$3,143,135
Energy on the Line Grant Amount (EOTL)	\$0
Closing Costs	\$70,363
Financed amount (including closing costs & EOTL)	3,213,498
First year electric energy savings (kWh/yr)	858,827
First year electric energy savings (MMBtu/yr)	2,931
Total electric savings over EUL (MMBtu)	\$69,047
First year energy cost savings (\$/yr)	\$103,205
EUL energy cost savings (\$)	\$3,513,896
Federal ITC	\$800,441
MACRS for solar (total over 6 years)	\$725,733
ZRECs (total over 15 years) (\$)	\$559,852

# Resolution #6



**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 9, 2022, 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.

# Board of Directors

Agenda Item #4c

Financing Programs Updates and Recommendation  
C-PACE Transaction – Hartford

# 237 Hamilton St, Hartford

- Rehabilitation of former factory to mixed-use commercial and residential complex
- Anticipated construction cost of \$95m with CPACE eligible amount of \$26.4m
- Requesting “in principle” approval for participation in and support of a C-PACE lending co-investment with Nuveen Green Capital as primary lender





# Resolution #7



**RESOLVED**, that the Connecticut Green Bank (“Green Bank”) is authorized in principle to enter into negotiations and documentation for co-investment in up to \$26,395,850 in C-PACE financing for 237 Hamilton Street, Hartford, CT as more fully explained in the memorandum to the Green Bank Board of Directors (the “Board”) dated December 9, 2022; provided, however, that authorization to enter into definitive documentation is pending further diligence by staff and approval by the Board at a future meeting.

Board of Directors  
Agenda Item #5a  
Investment Updates and Recommendations  
Extension Request – Groton Fuel Cell Project

# Groton Fuel Cell Project

## Extension Request



- **Current extension expires Dec 31 → Request Mar 31, 2023**
- **July 2021 – Mechanical Completion – commence commissioning**
- **Certain repairs effected during commissioning process (Apr 22)**
- **Additional issue identified Summer 2022**
- **Will require operating fuel cells at 6 MW (orig 7.4 MW) until full repairs made later in 2023**
- **Plant operating continuously (except scheduled downtime) since September 2022**
- **FCE, CMEEC, USN close to completing contract adjustments**
- **Sr Lenders and CGB working with FCE on loan package**
- **Expect loan package completed in Jan / Feb**
- **Navy microgrid should be fully in place by '23 (separate project)**

# Resolution #8



**NOW**, therefore be it:

**RESOLVED**, that the Green Bank Board hereby approves the extension of time for the execution of the Credit Facility to not later than March 31, 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 and instruments as they shall deem necessary and desirable to effect the Term Loan and participation as set forth in the Memorandum.

Board of Directors

Agenda Item #5b

Investment Updates and Recommendations

Capital Solutions Request - Boulderfly

**DEFERRED**

# Board of Directors

Agenda Item #5c

Investment Updates and Recommendations

Investment Modification (Extension) – C4C and  
Amalgamated Bank

# C4C and Amalgamated Bank Modification Request



**REDACTED**

# Resolution #10



**NOW**, therefore be it:

**RESOLVED**, that the Board approves the extension of the existing medium term revolving loan facility until a date not to exceed March 31, 2023 generally consistent with the memorandum submitted to the Board dated December 9, 2022 (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 extension of the existing medium term revolving loan facility until a date not to exceed March 31, 2023 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 #5e

Investment Updates and Recommendations

Investment Modification – Energy Resources USA

# Transaction Overview



**REDACTED**

# Resolution #12



**NOW**, therefore be it:

**RESOLVED**, that the Green Bank approves the Capital Solutions application of Energy Resources and the establishment of a revolving construction line of credit for funding its obligations under contracts for energy efficiency retrofits for state projects pursuant to the Eversource Small Business Energy Advantage program in an amount not to exceed \$2.5 million on terms substantially similar to those described in the Board Memo; 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.

# Board of Directors

Agenda Item #5d

Investment Updates and Recommendations

Investment Modification (Expansion) – PosiGen  
with Forbright Bank

# PosiGen Senior Facility

Activating the “accordion”

Approved July 2021



**REDACTED**

# PosiGen Senior Facility

Activating the “accordion”



## Risk Assessment (1)

**REDACTED**

# PosiGen Senior Facility

Activating the “accordion”



## Risk Assessment (2)

**REDACTED**

# Resolution #11



**NOW**, therefore be it:

**RESOLVED**, that the Board authorizes the Green Bank to amend its existing 2<sup>nd</sup> lien facility to allow for an upsized Green Bank position, as set forth in the Board Memo;

**RESOLVED**, that the Green Bank may advance up to \$9.3 million in 2<sup>nd</sup> lien financing associated with the BL Facility, in addition to serving as an agent for third-party participation to increase those participations to reduce Green Bank's exposure as explained in the Board Memo;

**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.



# Board of Directors

## Agenda Item #5f

### Investment Updates and Recommendations

### Capital Solutions Request – PosiGen

# Capital Solutions Request – PosiGen

Tax Equity & IRA Tax Credit Adder Bridge Facility



**REDACTED**

# Capital Solutions Request – PosiGen

Proposal Score 25 / 24 (with bonus point)



**REDACTED**

# PosiGen Senior Facility

Activating the “accordion”



## Risk Assessment (1)

**REDACTED**

# PosiGen Senior Facility

Activating the “accordion”



## Risk Assessment (2)

**REDACTED**

# Resolution #13



**NOW**, therefore be it:

**RESOLVED**, that the Green Bank may advance up to \$6 million in 1st lien financing associated with tax equity cash flows under a revolving loan facility as further explained in the Board Memo; 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.

# Board of Directors

Agenda Item #5g

Investment Updates and Recommendations

Investment Modification (Collateral & Guaranty) –

Canton Hydro

# Canton Hydro



- Final Completion delayed. Provident Bank looking to trigger covenant compliance, debt service reserve funding and payment waterfall on 12/30/2022
- IPC doing short term participation by 12/30/22 to take out original SBA loan. IPC to fully refinance upon the earlier of 90 days or receipt of a lien release from Wasserkraft
- Provident Bank requesting Green Bank Guaranty to trigger when IPC Participation is finalized (expected on or by 12/30/22) instead of at Final Completion
- Staff requesting board approval to:
  - Unlock 50% of the Guaranty by 12/30/22
  - Unlock remaining 50% of the Guaranty upon IPC's full refinancing. Green Bank to receive a perfected security interest in all project assets, subordinate only to the senior lenders (Provident and IPC)  
(current security is a "back leverage" structure – secured by security interest in owner's partnership that owns 100% of the project)
  - Increase in Loan by 1% to unlock 50% of Guaranty until security interest in all project assets is granted to Green Bank



# Canton Hydro Resolutions



**RESOLVED**, that the Green Bank Board of Directors hereby authorize staff to execute an amendment of the Loan agreement and Guaranty materially based on the terms and conditions set forth in the Board Memo;

**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 affect the above-mentioned legal instruments.

# Board of Directors

Agenda Item #6a

Incentive Programs Updates and Recommendations  
Energy Storage Solutions – Approval Process

# ESS Incentive Approval Process

## Proposed Amendment



- In June, the Board approved a process for the administration of upfront incentives for projects applying to the Energy Storage Solutions (ESS) Program.
- The process authorized staff to approve incentives for residential projects (capped at \$7,500) and C&I projects under \$500K and requires Board approval for C&I incentives equal or above \$500K.
- We seek to amend the process:
  - to allow the Board OR the Deployment Committee to approve incentives above \$500K.
  - to include multi-family affordable housing in response to a recent decision by PURA in the RRES Program, which approved the treatment of multi-family affordable housing as residential customers.

# Resolution #15



**NOW**, therefore be it:

**RESOLVED**, that the Board hereby approves the Green Bank’s proposed changes to the process of administration of upfront Program incentive payments as set forth in the memorandum to the Board dated December 9, 2022 (the “Memorandum”);

**RESOLVED**, that the Board hereby approves the Green Bank staff proposed process for upfront incentive payments under \$500,000 to residential, multi-family affordable housing and non-residential customers in accordance with Memo and existing staff approval processes;

**RESOLVED**, that the Board hereby approves the Green Bank staff proposed process for presenting upfront incentive payments equal to or over \$500,000 to multi-family affordable housing and non-residential customers to the Board or DC for approval, on the consent agenda, in accordance with the Memo.

**RESOLVED**, Green Bank staff will periodically report out to the Board on the progress to targets and incentives issued under the Program, explaining any changes between ROF estimated incentives and actual incentives issued.

# Board of Directors

Agenda Item #7a

Other Business

Inflation Reduction Act – Incentive Maze and  
GHG Reduction Fund

# Navigate the Incentive Maze

## Realize the Opportunity for Connecticut



LDZEV  
STORAGE MHDZEV  
RPS **TARGETS**  
WEATHERIZATION  
GHG

**State  
Policy**

**100%  
clean electricity**

25C 25D 45U  
48 48E 25E 45V  
30C **CREDITS** 25W 45Z  
30D 45 45X 45Y  
45L 45Q

**Federal  
Policy**

RRES SCEF  
ESS C&LM  
**INCENTIVES**  
HES GREEN BANK  
CHEAPR

LOW-INCOME PREVAILING WAGE  
**ADDERS** ENERGY COMMUNITY  
APPRENTICESHIP  
DOMESTIC CONTENT

DIRECT PAY  
**TRADING VALUE**  
TRANSFERS

# Incentive Maze

## Federal Opportunities



### Please see the memo to the Board for additional details

- **Additional (Labor) Requirements** – For commercial projects, prevailing wage and apprenticeship requirements for construction, alteration, or repair work. In the context of renewable energy generation, these labor requirements are only applicable to projects above 1MWac. Some commercial energy efficiency credits must comply.
- **Adders – Energy Communities** – 10% - (i) a brownfield site; (ii) areas of certain percentage of fossil fuel related employment and higher than average unemployment, and (iii) areas where coal-fired electric generating unit was retired; **Domestic Content** – 10% - steel and components; **Low Income** – 10% or 20% (must be awarded for eligible projects below 5MW, subject to annual capacity caps)
- **Tax Credits** – Most credits are 30% of eligible improvements, subject to caps depending on the specific credits. There are credits for renewables, efficiency upgrades, and EVs and more.
- **Rebates – (1) Residential Efficiency and Electrification Rebates**: DEEP will receive funds for rebates for a variety of home energy upgrades under the Home Owner Managing Energy Savings (“HOMES”) rebate program, for single and multi-family homes, and **(2) High-Efficiency Electric Home Rebate Program**: DEEP will receive funds for rebates to low-income single and multi-family homes which meet low-income eligibility criteria.

# GHG Reduction Fund

Modelled after Connecticut Green Bank



**Congresswoman Dingell**  
Clean Energy and  
Sustainability  
Accelerator (a.k.a. NCB)



**Senator Markey,  
Senator Van Hollen,  
and Senator Sanders**  
NCB – \$20 B  
ZET – LI/DACs – \$7 B



**President Biden and  
EPA Administrator Regan**  
GHG Reduction Fund

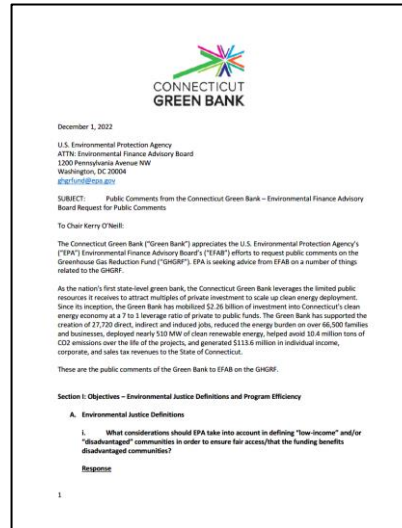


# EPA Public Comments

# Connecticut Green Bank Priority Engagement



## Green Bank Session November 1



**Greenhouse Gas Reduction Fund Listening Session**  
Sesión de escucha sobre el Fondo de Reducción de Gases de Efecto Invernadero

Welcome! The live event will start shortly.  
*Bienvenido! El evento en vivo comenzará en breve.*

You **MUST** select your preferred language under "Interpretation" if you want to access the Spanish interpretation channel.  
*Usted TIENE que elegir el idioma de su preferencia bajo "interpretación" si desea acceder al canal de interpretación al español.*

For Spanish listeners, it is recommended to "Mute Original Audio".  
*DEBE seleccionar su idioma preferido en "Interpretación". Se recomienda "Silenciar audio original".*

>> Taylor Gillespie: For the folks that are

## EFAB Comments December 1

## EPA Comments December 5



## Listening Sessions November 1 and 9

## "Show Me the Money" Team "Fired Up and Ready to Go!!!"

# Green Storm

## Priority Use Cases – “Top 5”



1. **Resiliency Hubs** – increasing resiliency against impacts of climate change in vulnerable communities (e.g., critical facilities)
2. **Residential Home Energy Performance** – focus on low-income single family and affordable housing, including audit (i.e., HES), Wx, heat pumps, solar PV, battery storage, EVs, EV chargers, and other (e.g., roof, health and safety)
3. **Municipal Buildings** (including affordable housing) – including audit (i.e., HES), Wx, heat pumps, solar PV, battery storage, microgrid, fuel cells, and EV chargers
4. **Solutions for Renters** (including condominium associations) – including audit, Wx, heat pumps, solar PV, battery storage, and EV chargers
5. **Non-Residential** – broadly, increasing efforts to promote SBEA, C-PACE, GB Solar PPA.

# Affordable Housing

## Residential Home Energy Performance



- **Opportunity**

- 1300 properties with over 80,000 units approved by PURA as “affordable housing”

- **Incentives & Tax Credits**

- Renewables

- Section 48 (ITC) – up to 70% tax credit depending on adders
- RRES - \$0.319 tariff rate

- Storage

- Section 48 (ITC) – up to 50% tax credit depending on adders
- Enhanced ESS incentive

- EV Recharging Infrastructure

- Section 30C – 30% tax credit
- Utility incentives – up to \$40k for level 2; up to \$250k for DCFC

# Affordable Housing

## Residential Home Energy Performance



### ■ Incentives & Tax Credits (continued)

#### Energy Efficiency

- 179D – up to \$5.00 per square foot tax deduction
- 45L – up to \$5,000 per unit for new construction or substantial rehabilitation
- \$1B in grants and loans through HUD
- Expecting additional rebates through DEEP (e.g., HOMES)

### ■ Financing Products

#### CPACE

- Solar, EV Chargers, Storage, Energy Efficiency

#### PPA

- Solar

### ■ Use Case and Opportunity

- Product development and, just as important, process work to guide property owners and projects through all these opportunities. Goal is to harness all the tax credits and rebates to design a holistic approach with our state agency (e.g., DEEP, DOH, CHFA) and utility partners

# Connecticut Green Bank

## “Dream Big” Strategies – Six P’s



### Public Policy

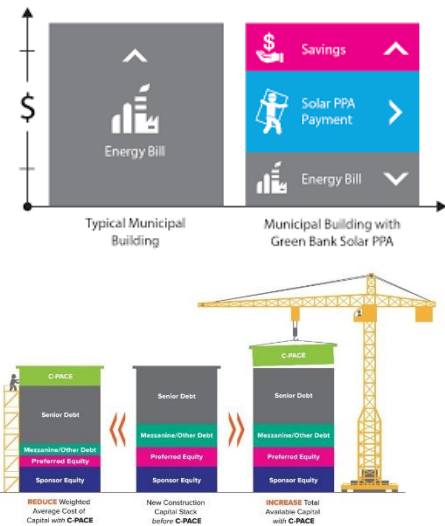
### People

### Place



### Products

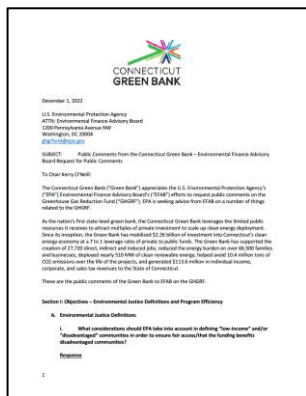
### Promotion



Politics----->Politics----->Politics----->Politics----->Politics----->Politics

Board of Directors  
Agenda Item #7b  
Other Business  
Federal Public Comments

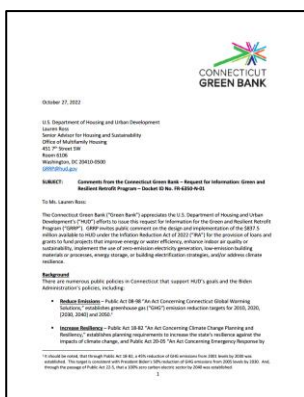
# Federal Government Public Comments



## Department of Energy

- Battery Storage Recycling
- Loan Program Office – Title XVII
- Energy Efficiency Revolving Loan Fund
- Regional Clean Hydrogen Hubs
- **Communities LEAP**

## Environmental Protection Agency Greenhouse Gas Reduction Fund



## Department of Treasury

- Community Reinvestment Act
- Tax Credits 2022-49
- Tax Credits 2022-50
- Tax Credits 2022-51

## Housing and Urban Development Green and Resilient Retrofit Program

Board of Directors  
Agenda Item #8  
Executive Session  
Personnel Related Matters



# Resolution #16



**NOW**, therefore be it:

**RESOLVED**, that all Officers other than the President and C.E.O. shall receive a 4.0% merit increase for Fiscal Year 2022; 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 FY 2022 based on the (i) feedback of the Board members, (ii) performance towards meeting the Green Bank Board approved organizational goals for Fiscal Year 2022 and (iii) his Fiscal Year 2022 360-degree performance review.

# Board of Directors

Agenda Item #9  
Adjourn



**BOARD OF DIRECTORS OF THE  
CONNECTICUT GREEN BANK**

Regular Meeting Minutes

Friday, October 21, 2022  
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 21, 2022.

**Due to COVID-19, all participants joined via the conference call.**

Board Members Present: Binu Chandy, Thomas Flynn, Dominick Grant, Victoria Hackett, John Harrity, Adrienne Houël, Matthew Ranelli, Lonnie Reed, Sarah Sanders, Joanna Wozniak-Brown, and Brenda Watson

Board Members Absent: Laura Hoydick,

Staff Attending: David Beech, Shawne Cartelli, Louise Della Pesca, Mackey Dykes, Brian Farnen, Bryan Garcia, Sara Harari, Bert Hunter, Alex Kovtunenکو, Ed Kranich, Cheryl Lumpkin, Jane Murphy, Sara Pyne, Ariel Schneider, Eric Shrago, Dan Smith, Marianna Trief

Others present: Claire Sickinger, Giulia Bambara, Mike King

**1. Call to Order**

- Lonnie Reed called the meeting to order at 9:06 a.m.

**2. Public Comments**

- No public comments.

**3. Consent Agenda**

- a. Meeting Minutes of July 22, 2022 and July 28, 2022**

**Resolution #1**

Motion to approve the meeting minutes of the Board of Directors for July 22, 2022 and July 28, 2022.

- b. Transactions Under \$500,000 and No More in Aggregate of \$1,000,000**

## Subject to Changes and Deletions

### **Resolution #2**

**WHEREAS**, on January 18, 2013, the Connecticut Green Bank (the “Green Bank”) 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 21, 2022 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 21, 2022 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. FY22 Progress to Targets**

### **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 July 18, 2019, the Board of Directors of the Connecticut Green Bank approved a Comprehensive Plan for FY 2020 and Beyond called Green Bonds US, including an annual budget and targets for FY 2022, which were approved on June 25, 2021 and July 23, 2021;

**WHEREAS**, on July 22, 2022, the Board of Directors of the Connecticut Green Bank approved of the draft Program Performance towards Targets for FY 2022 memos for the

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Incentive Programs, Financing Programs, and Investments.

**NOW**, therefore be it:

**RESOLVED**, that Board has reviewed and approved the restated Program Performance towards Targets for FY 2022 memos dated October 21, 2022, which provide an overview of the performance of the Incentive Programs, Financing Programs, and Investments with respect to their FY 2022 targets.

### **d. CY23 Regular Meeting Schedule**

#### **Resolution #4**

Motion to approve the Regular Meeting Schedules for 2023 for the Board of Directors, ACG Committee, BOC Committee, Deployment Committee, and Joint Committee.

**Upon a motion made by Matthew Ranelli and seconded by John Harrity, the Board of Directors voted to approve the Consent Agenda which includes Resolutions 1 – 4. None opposed or abstained. Motion approved unanimously.**

- David Beech gave an update to the Green Liberty Notes Offering 4. It is over halfway to the \$250,000 maximum for this issuance. In total the Green Liberty Notes offerings have had investors from 30 states and have raised over \$690,000.

#### **4. Committee Recommendations and Updates**

##### **a. Audit, Compliance, and Governance Committee**

##### **i. Annual Comprehensive Financial Report**

- Jane Murphy summarized the ACFR, including communications and recommendations, which was recommended for approval by the ACG Committee. It was performed by the new auditors, PKF O'Connor Davies, and they issued an unmodified opinion on the financial statements. She reviewed the revenues, expenses, and changes in net position of the Green Bank.
  - John Harrity asked if inflation and rising interest rates are reflected in the ACFR. Jane Murphy responded that for the evaluation of the pension, it is the year before and does not reflect the interest rates, but for the interest rates swaps, they are up to date. Bert Hunter added that interest rates started increasing in March 2022 but little was reflected in what was affected through the end of June, though it will be more apparent after June 2022.
  - Thomas Flynn commented that he was feeling cautious due to entering the new inflationary period and in reflection of the one-time pickups from this year's statements. He also praised the team for their work and success through the audit.
  - John Harrity asked if there was a cost of living adjustment for the staff of the Green Bank and Eric Shrago answered yes, and it was effective as of July 1, 2022.
  - Dominick Grant asked about the Statement of Net Position, in thinking about the expanded mandate for environmental infrastructure, if the unrestricted position is available to other types of non-energy programming if the need was present. Jane Murphy answered yes with the caveat that it is not pulling from rate-payer funds. However she stated there is cash from the last 2 bond issuances which could be

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used if needed.

- Jane Murphy stated for the Federal Single Audit, which was required because annual expenditures exceeded \$750,000, and an unmodified opinion on compliance was given.
- For the required communications, disclosures were deemed neutral, consistent, and clear, management representations were requested and received, and there were no material uncorrected misstatements. There were a couple passed adjustments and one recommendation to tighten up documentation of approval of non-standard journal entries, which arose from staff telecommuting more often, but measures are already being taken to improve the approval process for that.
  - Matthew Ranelli asked about the adjustments, if they are acknowledged, do they have to be accounted for with the State auditors or what happens. Jane Murphy responded the State auditors will look at the audit reports for FY22 but given the fact that the Federal Funds reporting was accurate for that time, it shouldn't be an issue. As for the deferred financing fees adjustment, it was very small and is immaterial to ending income and equity so it shouldn't be an issue. Also, it is correct for of the standalone audit where the issue occurs, and the amortization period will complete soon.
  - John Harrity commented that given the amount of innovative financing the Green Bank does, it is remarkable how successful the staff is at its recordkeeping.

### **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;

**WHEREAS**, the Committee met on October 11, 2022 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 Thomas Flynn and seconded by Matthew Ranelli, the Board of Directors voted to approve Resolution 5. None opposed or abstained. Motion approved unanimously.**

#### **ii. Impact Methodology Update**

- Eric Shrago summarized the update to the Jobs and Impact Revenue methodologies which has been expanded to include technologies previously left out, update the rates such as the indirect and induced job multiplier, and other metrics such as property tax generation and sales and use tax estimates, but the methodology itself is unchanged. The ACG Committee has recommended the updates at their recent meeting.

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### **Resolution #6**

**WHEREAS**, the Audit, Compliance and Governance Committee has reviewed and recommended the approval of these updated methodologies;

**NOW**, therefore be it:

**RESOLVED**, that the Connecticut Green Bank Board of Directors approves of the proposed Jobs Study and Tax Calculator for the Evaluation and Measurement of the jobs created and tax revenue generated by Green Bank supported projects.

**Upon a motion made by John Harrity and seconded by Thomas Flynn, the Board of Directors voted to approve Resolution 6. None opposed or abstained. Motion approved unanimously.**

### **5. Investment Updates and Recommendations**

#### **a. Q1 Progress to Targets Update**

- Bert Hunter summarized the investment updates to funding for solar, battery storage, and the rolling Capital Solutions RFP. Funding for solar is going well and discussion around battery storage are progressing, being stoked by the ESS incentive program and key changes in the Inflation Reduction Act which give benefits to standalone battery storage. He discussed several of the Capital Solutions RFP projects.
  - Lonnie Reed asked if battery storage projects will be vulnerable to property taxes and Brian Farnen responded that property tax cases with the various towns have been settled and resolved in a positive way for the Green Bank as it relates to commercial and residential solar. Lonnie Reed asked if the settlement includes battery storage going forward. Brian Farnen stated the towns would be hard pressed to say that the battery storage attached to a solar PV system is not included within the exemption, but if it's a standalone system it may be a different argument.
  - Matthew Ranelli asked if with the new NRES model if the argument will be made about where the energy is used. Brian Farnen answered that he would like to think that it would not be pursued again at least at the residential level due to the amount of legal fees it would require, as it is municipal tax dollars being used. Mackey Dykes commented that he has heard it cropping up in some cases and one that should be watched closely. Joanna Wozniak-Brown added some information about Public Act 22-14 as it applies due to the confusion in tax code and rapid changes to the systems which occurred and there is a working group formed of town assessors, towns, and the solar industry. Matthew Ranelli asked if the Green Bank could get into the group, but Joanna Wozniak-Brown responded it's an informal group that is unlikely to propose any legislation, though she is happy to bring any feedback or information to the group.
  - Victoria Hackett asked how the Green Bank is looking at the cost-benefit test at PURA and the amount of the incentive that is collected from rate-payers due to the Inflation Reduction Act incentive increase. Bryan Garcia answered that there are a number of different adders in the Inflation Reduction Act for clean energy and the team is currently involved in dissecting 25 or more pieces of the tax code to figure out how they apply to Connecticut and provide comments into Treasury about how

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they should consider looking at the various elements of it. It is likely the results of those discussions will be a while out. As for the benefit-cost analysis at PURA, the Green Bank did develop a model to run sensitivities around the adders to see how the Participant Cost test is affected. He stated the Green Bank would focus on the low income and disadvantaged community element for the ESS program in order to bring more federal benefits in. Victoria Hackett asked when the tax credits go into place and Bert Hunter responded that the standalone credits come into effect January 1, 2023. Victoria Hackett expressed concern given the high cost of electricity, more should be done with the PURA docket to avoid free ridership. She made suggestions as to a course of action and the group discussed the issue further.

### **b. Extension Request – Groton Fuel Cell Project**

- Bert Hunter reviewed the history of the Groton Fuel Cell Project and request for an extension on the loan package due to issues identified, which have been publicly disclosed by Fuel Cell Energy (“FCE”) in filings to the Securities and Exchange Commission, and the Green Bank is working with the FCE to identify any future changes necessary to the loan package, which is expected to be finished by the end of the year. The prior extension expires October 31 and the requested extension would be valid through December 31, 2022.

### **Resolution #7**

**WHEREAS**, in accordance with (1) the statutory mandate of the Connecticut Green Bank (“Green Bank”) to foster the growth, development, and deployment of clean energy sources that serve end-use customers in the State of Connecticut, (2) the State’s Comprehensive Energy Strategy (“CES”) and Integrated Resources Plan (“IRP”), and (3) Green Bank’s Comprehensive Plan (the “Comprehensive Plan”) in reference to the CES and IRP, Green Bank continuously aims to develop financing tools to further drive private capital investment into clean energy projects;

**WHEREAS**, FuelCell Energy, Inc., of Danbury, Connecticut (“FCE”) has used previously committed funding (the “Bridgeport Loan”) from Green Bank to successfully develop a 15 megawatt fuel cell facility in Bridgeport, Connecticut (the “Bridgeport Project”), and FCE has operated and maintained the Bridgeport Project without material incident, is current on payments under the Bridgeport Loan;

**WHEREAS**, FCE has requested financing support from the Green Bank to develop a 7.4 megawatt fuel cell project in Groton, Connecticut located on the U.S. Navy submarine base and supported by a power purchase agreement (“PPA”) with the Connecticut Municipal Electric Energy Cooperative (“CMEEC”) (the “Navy Project”);

**WHEREAS**, staff has considered the merits of the Navy Project and the ability of FCE to construct, operate and maintain the facility, support the obligations under the Loan throughout its 20-year term, and as set forth in the due diligence memorandum (the “Board Memo”) dated December 18, 2020, recommended this support be in the form of a term loan not to exceed \$8,000,000, secured by the developer’s equity in the project company (which controls all project assets, contracts and revenues) as well as a pledge of revenues from an unencumbered project as explained in the Board Memo (the “Credit Facility”);

**WHEREAS**, on the basis of that recommendation, the Green Bank Board of Directors (“Board”) approved of the Credit Facility, in an amount not to exceed \$8,000,000 with the



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provision that the Credit Facility be executed no later than 315 days from the date of authorization by the Board (June 16, 2021), which was further extended by the Board on a number of occasions, including in July 2022 to October 31, 2022;

**WHEREAS**, Green Bank staff has further advised the Board that the closing for the Credit Facility is expected to close by December 31, 2022 and to accommodate the additional time that might be needed to execute the Credit Facility requests the permitted time to execute the credit facility be increased from not later than 682 days from the original date of authorization by the Board (i.e., not later than October 31, 2022) to not later than 743 days from the date of authorization by the Board (i.e., not later than December 31, 2022);

**NOW**, therefore be it:

**RESOLVED**, that the Green Bank Board hereby approves the extension of time for the execution of the Credit Facility to not later than 743 days from the original date of authorization by the Board (i.e., not later than December 31, 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 affect the Term Loan and participation as set forth in the Memorandum.

**Upon a motion made by Adrienne Houël and seconded by John Harranty, the Board of Directors voted to approve Resolution 7. None opposed and Matthew Ranelli and Victoria Hackett abstained. Motion approved.**

### **c. Investment Modification Request – PosiGen (Generac ESS Program)**

- Bert Hunter reviewed the history and progress of the PosiGen & Generac partnership under the ESS program to bring solar and storage for all, especially LMI families. He noted the key for the Green Bank is to serve vulnerable communities which has been recently enhanced by federal policy through the Inflation Reduction Act. Bert Hunter stated the \$2 million working capital line is unchanged but under the \$6 million term loan, the interest rate for LMI and distressed communities is reduced from 4% to 2% in order to achieve a super-low lease rate of not more than \$10 per month for the battery systems.
  - Victoria Hackett commented that DEEP is focusing on comprehensive energy retrofits with the recent influx of federal funding and asked if the Green Bank could coordinate with DEEP to see if there are other things that can be leveraged. Bert Hunter responded that discussions have been started and that there are many possibilities in terms of how deployment can be enhanced within Connecticut. He agreed with the sentiment of cooperation and noted the importance of education as well for contractors, customers, and legislators. Victoria Hackett agreed and noted the importance and possibilities the new federal funding opens up.
  - Thomas Flynn asked for clarification regarding the choice to lower the interest rate since the economy is currently experiencing a rising interest rate environment. Bert Hunter responded that that the additional concession in rate is on the portion of the loan supporting LMI and distressed communities only and that PosiGen will have to disclose to Green Bank the lease pricing on those particular systems, so the Green Bank will have oversight on that. As well, the Green Bank engaged in pricing discussions with PosiGen and so by going from 4% to 2%, between the IRA and

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- pushing PosiGen on their margins, the program would get to the goal of not more than \$10/month for these particular customers. PosiGen is also lowering their fees as they will get some benefits from the IRA to offset. Thomas Flynn asked what the 2% interest rate is monetarily worth and Bert Hunter answered that based on the expected portion of systems that could be deployed – being roughly 60% of PosiGen’s deployment – about \$80,000 per year fully deployed, so about \$500,000 for the overall program, which are rough estimates.
- Joanna Wozniak-Brown asked if the potential communities have been identified, and Bert Hunter responded yes, there are certain vulnerable communities that PosiGen is already in, and their strategy is to target those customers in these communities that already have solar PV systems with PosiGen.

### **Resolution #8**

**WHEREAS**, the Connecticut Green Bank (“Green Bank”) has an existing partnership with PosiGen, Inc. (together with its affiliates and subsidiaries, “PosiGen”) to support PosiGen in delivering a solar lease and energy efficiency financing offering to LMI households in Connecticut;

**WHEREAS**, PosiGen is planning to expand its offerings to LMI households in Connecticut to include an affordable battery energy storage system (“BESS”) option that will provide the customer backup power during a power outage and will reduce peak demand on the electric distribution system, as more fully explained in a memorandum dated April 15, 2022 to the Green Bank Board of Directors (the “Board Memo”);

**WHEREAS**, PosiGen and Green Bank have agreed to substantially reduced lease rates to apply to low income customers in return for a concessional interest rate as more fully explained in a memorandum dated October 14, 2022 to the Green Bank Board of Directors (the “Modification Memo”);

**NOW**, therefore be it:

**RESOLVED**, that the Green Bank may permit a concessional interest rate for term loans as more fully explained in the Modification Memo to apply to advances up to \$6 million to PosiGen on terms substantially similar to those described in the Modification Memo; 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 Sarah Sanders and seconded by Thomas Flynn, the Board of Directors voted to approve Resolution 8. None opposed or abstained. Motion approved unanimously.**

#### **d. Investment Modification Request – C4C (Co-Investment with Amalgamated Bank)**

- Bert Hunter summarized the history of the C4C Smart-E and EE Loan Funding Facility and proposal to change the facility to have a fixed 4% rate and increasing the Green Bank’s share of the facility to 40% and a maximum of \$10 million from 16.7% and \$4.5 million as well

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as an extension of the maturity of the facility to December 31, 2025. He explained the nature of the co-financing of the loan facility with Amalgamated Bank and the fact that C4C is the Smart-E lender with the most funding outstanding to Connecticut households and that most of these are to families with modest incomes.

### **Resolution #9**

**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 substantially completed negotiations for modification to the medium term loan facility to fund C4C’s Smart-E Loan and other residential energy efficiency loan portfolio growth on revised terms as explained in the memorandum dated October 18 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 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 \$10 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, including an extension of the maturity of the facility to December 31, 2025;

**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 CEEFCo Revolving Loan on such terms and conditions as are materially consistent with the Modification Memo, including an extension of the maturity of the facility to December 31, 2025; 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 John Harrity and seconded by Dominick Grant, the Board of Directors voted to approve Resolution 9. None opposed or abstained. Motion approved unanimously.**

#### **e. Capital Solutions Request – Budderfly (Co-Investment with Berkshire Bank)**

- Bert Hunter reviewed the history of the Budderfly transaction including the recent update to recapitalize with new ownership, Budderfly’s business model and impact, current loan facility structure, and proposal for a longer-term financing facility. He explained that Berkshire Bank

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had reached out to develop this working capital facility after seeing the success of the \$5 million facility the Green Bank closed at the end of May. He emphasized that the Resolution is a request for “in principle” approval in order to enter negotiations with confidence and that final approval would not be done without Board approval at a future meeting.

### **Resolution #10**

**RESOLVED**, that the Connecticut Green Bank (“Green Bank”) is authorized in principle to enter into negotiations and documentation for co-investment in a \$20,000,000 working capital facility being considered by Berkshire Bank for Budderfly Inc. in a participation amount for Green Bank not to exceed \$5,000,000 as more fully explained in the memorandum to the Green Bank Board of Directors (the “Board”) dated October 18, 2022; provided, however, that authorization to enter into definitive documentation is pending further diligence by staff and approval by the Board at a future meeting.

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

#### **f. Investment Modification – Canton Hydro Project**

- Bert Hunter summarized the history of the Canton Hydro project, the nature of the change being that IPC is taking over the SBA loan meaning that one of the senior lenders is changing. Provident Bank, the other senior lender, would remain a lender under the existing terms and conditions. The Resolution does not affect the Green Bank exposure, but just shifts the lenders to allow the current guaranteed benefits to apply to IPC as they did to the SBA loan.

### **Resolution #11**

**WHEREAS**, Canton Hydro, LLC (“Developer”) was awarded exclusivity by the Town of Canton to redevelop a 1 MW hydroelectric facility located at the Upper Collinsville Dam (“Dam”), on the Farmington River, in Canton, Connecticut (the “Project”) and the Connecticut Green Bank (“Green Bank”) Board approved approve subordinate debt financing in an amount to exceed \$1,200,000 (the “Loan”) along with an unfunded guaranty, in an amount not to exceed \$500,000 to support the Project (“Guaranty”);

**WHEREAS**, Green Bank’s debt was leveraged by a term loan from Provident (“Provident Loan”), as well as loan supported by the US Small Business Administration (“SBA”) 504 program (“SBA Loan”).

**WHEREAS**, the Project Developers are seeking to replace the SBA Loan with a new loan from Inclusive Prosperity Capital (“IPC Loan”) and are seeking Green Bank’s approval to extend the Guaranty to the new IPC Loan, with such Guaranty to be on the same terms with IPC as lender as apply to the current SBA Loan as more specifically set forth in the memorandum circulated to the Board dated October 14, 2022.

**WHEREAS**, to complete the change in lenders the Developer is requesting to extend the Project’s completion of construction date until December 31, 2022;

**NOW**, therefore be it:

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**RESOLVED**, that the Green Bank Board of Directors (the “Board”) hereby authorizes staff to execute an amendment of the Loan agreement materially based on the terms and conditions set forth in the memorandum to the Board dated October 14, 2022;

**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 affect the above-mentioned legal instruments.

**Upon a motion made by Matthew Ranelli and seconded by Binu Chandy, the Board of Directors voted to approve Resolution 11. None opposed and Victoria Hackett abstained. Motion approved.**

### **g. Project Update – Historic Cargill Falls Mill**

- Bert Hunter gave a brief update to the progress of the Cargill Falls project.

## **6. Financing Programs Updates and Recommendations**

### **a. Q1 Progress to Targets Update**

- Mackey Dykes noted the update details are in the Board package but skipped it more thoroughly for time.

### **b. C-PACE Program Guidelines Updates for EV Chargers**

- Mackey Dykes summarized the change to the C-PACE enabling statute revised in the last legislative session, and so the program guidelines needed to be changed accordingly to bring them in line with statute. They were brought to the public for comment and none were received, so the changes are being brought to the Board for final approval.

## **Resolution #12**

**WHEREAS**, Conn. Gen. Stat. Section 16a-40g (the “Authorizing Statute”) authorizes the Commercial Property Assessed Clean Energy Program (“C-PACE”) program and designates the Connecticut Green Bank (“Green Bank”) as the state-wide administrator of the program responsible for, among other things, establishing program guidelines for the C-PACE program; and

**WHEREAS**, the Green Bank staff have recently updated the C-PACE program guidelines (the “Program Guidelines”), which draft guidelines then went through a thirty-day public comment period in accordance with Conn. Gen. Stat. Section 1-120 et seq., during which time no comments were received.

**NOW**, therefore be it:

**RESOLVED**, the Green Bank Board of Directors (the “Board”) approves the updated Program Guidelines, substantially in the form of attached to that certain memo to the Board dated October 14, 2022 and authorizes the Green Bank staff to implement the updated Program Guidelines.

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**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 affect the above-mentioned Program Guidelines.

**Upon a motion made by Matthew Ranelli and seconded by John Harrity, the Board of Directors voted to approve Resolution 12. None opposed or abstained. Motion approved unanimously.**

### **7. Incentive Programs Updates and Recommendations**

#### **a. Q1 Progress to Targets Updates**

- Bryan Garcia notes the updates to the details are in the Board package but skipped it more thoroughly for time.

#### **b. Asset Backed Securities (ABS) – Bond Matters**

- Sara Pyne gave an update to the Production Reconciliation due to the 3G meter upgrades for Q1 and Q2 of 2022. In Q1 the production was about 91.5% of the budget with Tranches 1 and 2 affected the most given that they are older and have more 3G meters. In Q2, about 99,000 RECs have been created, with about 13,000 created by Ken Gillingham's methodology. In total, Q2 SHRECs are estimated to result in about \$4.3 million.

- Bert Hunter gave an update to the bond status and KBRA report which had previously gave a Watch Developing Status. A prepayment was made with the bond holder which did not involve a prepayment penalty, which allowed the Green Bank to enhance the DSCR in turn KBRA reaffirmed the ratings at A- and BBB- which keeps it at investment grade status.

### **8. Environmental Infrastructure Updates and Recommendations**

- Bryan Garcia gave an update to the Environmental Infrastructure primers and progress to the program overall. The next to be worked on will be ecosystem services and carbon offsets and water. He noted that given the priority of time needing to be focused on the Greenhouse Gas Reduction Fund, that they will likely not address "waste and recycling" in FY23. He also noted that the EI team is still being built, and more work is going strong to continue engagement, raise resources, launch new projects, and conduct research.

- Sarah Sanders asked, in relation to MIRA letting go of some of its top executives, if at a future meeting how those activities are affecting the Green Bank could be discussed further with respect to waste.

### **9. Other Business**

- Bryan Garcia noted the Green Bank has been actively involved in providing comments on different entities including the Community Reinvestment Act and Dept of Energy Battery Storage Recycling program. Bryan Garcia reviewed the creation of the Green House Gas Reduction Fund within the Inflation Reduction Act and several key components within it.

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**10. Adjourn**

**Upon a motion made Lonnie Reed, the Board of Directors Meeting adjourned at 11:06 am.**

Respectfully submitted,

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Lonnie Reed, Chairperson

DRAFT



# Memo

**To:** Board of Directors of the Connecticut Green Bank – Deployment Committee of the Connecticut Green Bank

**From:** Sergio Carrillo (Director of Incentive Programs), Bryan Garcia (President and CEO) and Alex Kovtunenکو (Senior Counsel)

**CC:** Mackey Dykes, Brian Farnen, Bert Hunter, Jane Murphy, and Eric Shrago

**Date:** December 9, 2022

**Re:** Approval of Funding Incentives for Energy Storage Solutions (ESS) Program

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## Background

The Energy Storage Solutions (ESS) Program was established by the Public Utility Regulatory Authority (PURA) in Docket No. 17-12-03RE03, PURA Investigation into Distribution System Planning of the Electric Distribution Companies – Electric Storage. In its Final Decision<sup>1</sup> (Decision) in this docket, issued July 28, 2021, PURA appointed The Connecticut Light and Power Company d/b/a Eversource Energy (Eversource), The United Illuminating Company (UI), and the Connecticut Green Bank (Green Bank) as co-administrators of the ESS Program.

The Green Bank’s responsibilities include customer enrollment, administration of the upfront incentive, communication and promotion of the Program, and data aggregation and publication, among others.

## Board Approval of Upfront Incentive Review and Approval Process

During the June 24 Board of Directors meeting, the Green Bank presented to the Board a two-step approach for the review and approval of upfront incentives in the ESS program. The approach calls for upfront incentives under \$500,000 to be approved by Green Bank staff, and those incentives greater than \$500,000 to be approved by the Board through the consent agenda.

Upon approval of the upfront incentives by the Board, Green Bank staff will issue Reservation of Funds Letter (ROF). Upon completion of the projects, Green Bank staff will issue Confirmation of Funds (COF) letters and inform the Board of any material difference in incentive amounts between ROF and COF letters.

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<sup>1</sup> <https://tinyurl.com/2p8v4cwa>



## Request for Approval of Estimated Upfront Incentives

This memo provides an update on funding requests below \$500,000 that would typically be evaluated and approved by Green Bank Staff via Project Approval Forms pursuant to the “Under \$500,000 and No More in Aggregate than \$1,000,000” process. However, if staff approved both incentive below that would exceed the \$1,000,000 cap. Therefore, staff is seeking Board approval of these ESS incentives separately. This approval request follows the process for incentives above \$500k by consent agenda approval request.

Table 1 below shows the two (2) projects seeking approval of estimated upfront incentives for a total amount of \$706,550.

Project Name	Contractor Account	Application Submitted Date	FCM	Estimated Upfront Incentive	Battery Manufacturer	Battery Model	Total System Energy Capacity (kWh)	Total System Power (kW)
ESS-00033	ConEdison Solutions	1/19/2022	No	\$ 449,750	Tesla	Megapack	2,570	1,285
ESS-00158	Enel X North America	3/7/2022	Yes	\$ 256,800	Tesla	Megapack	2,568	1,284

Table 1. List of projects with incentives under \$500K approved by Green Bank Staff via Project Approval Forms (PAFs)

The attached Tear Sheets provide these and other details pertaining to the two projects seeking estimated upfront incentives in the ESS Program.

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## Resolution

**WHEREAS**, in its June 24, 2022 meeting the Board of Directors approved the implementation of an Upfront Incentive Project Approval procedure (“Procedure”) involving of the issuance of a proposal for non-residential projects under consideration by the Green Bank in fulfillment of its responsibilities set forth in the Program with an estimated upfront incentive payments;

**NOW**, therefore be it:

**RESOLVED**, that the Board hereby approves the estimated upfront incentives sought by two (2) non-residential projects totaling \$706,550 consistent with the memorandum provided to the Board dated December 9, 2022.

**RESOLVED**, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all any documents and regulatory filings as they shall deem necessary and desirable to effect the above-mentioned incentives consistent with the Procedure and the memorandum provided to the Board dated December 9, 2022.

## Energy Storage Solution Program Upfront Incentive Application

<b>Project Description</b>	Installation of a Tesla Mega Pack battery storage system of 2.68 power rating to peak demand ratio and 1,285 kW of power capacity to reduce electric bills and provide backup power to the facility during power outages.
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### Customer / Site information

<b>Customer Name</b>	South Windsor Wastewater Treatment Plant
<b>Address</b>	1 Vibert Rd., South Windsor, CT 06074
<b>Business Purpose</b>	Wastewater Treatment Plant
<b>Incentive Application No.</b>	<b>ESS-00033</b>
<b>Incentive Application Date</b>	1/19/2022
<b>Customer Peak Demand (kW)</b>	480 kW
<b>Customer Class (S / M / L)</b>	Medium
<b>Project Developer / Installer</b>	ConEdison Solutions

### Program Eligibility

<b>Critical Facility</b>	Yes
<b>Small Business</b>	No
<b>Onsite Fossil Fuel Generator</b>	No
<b>Grid Edge Customer</b>	No
<b>Participation in FCM Allowed</b>	Yes
<b>Participation in FCM Declared</b>	No
<b>Resiliency Plan on File (N/A if Grid Edge Customer)</b>	No

### Battery Energy Storage System (BESS) Characteristics

<b>System Configuration</b>	Standalone battery
<b>Expected Program Participation</b>	Passive and Active Dispatch
<b>BESS Make / Model</b>	Tesla Megapack
<b>BESS Power Rating (kW)</b>	1,285 kW
<b>BESS Energy Capacity (kWh)</b>	2,570 kWh
<b>BESS Technology Approval Status</b>	Pre-Approved
<b>Power Rating to Peak Demand Ratio</b>	2.68
<b>Interconnection Application Filed</b>	Yes
<b>Interconnection Study Required</b>	Distribution and Transmission study needed
<b>Estimated Project Cost</b>	\$1,472,411.00

**Benefit / Cost Ratios**

<b>RIM – Ratepayer Impact Measure</b>	1.36
<b>PCT – Participant Cost Test</b>	1.14
<b>PACT – Program Administrator Cost Test</b>	1.99
<b>SCT – Societal Cost Test</b>	1.58
<b>TRC – Total Resource Cost Test</b>	1.58

**Upfront Incentive Information**

<b>Incentive Application Status</b>	<ul style="list-style-type: none"><li>▪ Application Submitted</li><li>▪ Approved Reservation of Funds Letter (ROF)</li><li>▪ Approved Confirmation of Funds Letter (COF)</li></ul>
<b>Incentive Calculation Method</b>	Single Rate
<b>Estimated Upfront Incentive</b>	\$449,750.00

## Energy Storage Solution Program Upfront Incentive Application

<b>Project Description</b>	Installation of a Tesla Megapack battery storage system of a 1.03 power rating to peak demand ratio and 1,284 kW of power capacity to reduce electric bills and provide backup power to the facility during power outages.
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### Customer / Site information

<b>Customer Name</b>	O&G Industries Inc.
<b>Address</b>	33 Boardman Road, Unit 3, New Milford, CT 06776
<b>Business Purpose</b>	Quarry/Mining
<b>Incentive Application No.</b>	<b>ESS-00158</b>
<b>Incentive Application Date</b>	3/7/2022
<b>Customer Annual Average Demand (kW)</b>	1,250
<b>Customer Class (S / M / L)</b>	Large
<b>Project Developer / Installer</b>	Enel X North America, Inc.

### Program Eligibility

<b>Critical Facility</b>	No
<b>Small Business</b>	No
<b>Onsite Fossil Fuel Generator</b>	No
<b>Grid Edge Customer</b>	Yes
<b>Participation in FCM Allowed</b>	Yes
<b>Participation in FCM Declared</b>	Yes
<b>Resiliency Plan on File (N/A if Grid Edge Customer)</b>	N/A

### Battery Energy Storage System (BESS) Characteristics

<b>System Configuration</b>	Standalone
<b>Expected Program Participation</b>	Passive and Active Dispatch
<b>BESS Make / Model</b>	Tesla Megapack
<b>BESS Power Rating (kW)</b>	1,284 kW
<b>BESS Energy Capacity (kWh)</b>	2,568 kWh
<b>BESS Technology Approval Status</b>	Pre-Approved
<b>Power Rating to Peak Demand Ratio</b>	1.03
<b>Interconnection Application Filed</b>	Yes
<b>Interconnection Study Required</b>	None
<b>Estimated Project Cost</b>	\$1,800,809.00

### Benefit / Cost Ratios

<b>RIM – Ratepayer Impact Measure</b>	1.79
<b>PCT – Participant Cost Test</b>	0.88
<b>PACT – Program Administrator Cost Test</b>	2.30
<b>SCT – Societal Cost Test</b>	1.53
<b>TRC – Total Resource Cost Test</b>	1.53

### Upfront Incentive Information

<b>Incentive Application Status</b>	<ul style="list-style-type: none"><li>▪ <b>Application Submitted</b></li><li>▪ Approved Reservation of Funds Letter (ROF)</li><li>▪ Approved Confirmation of Funds Letter (COF)</li></ul>
<b>Incentive Calculation Method</b>	Tiered Rate
<b>Estimated Upfront Incentive</b>	\$256,800.00



# Memo

**To:** Board of Directors of the Connecticut Green Bank – Deployment Committee of the Connecticut Green Bank

**From:** Bryan Garcia (President and CEO)

**Date:** December 16, 2022

**Re:** Approval of Funding Requests below \$500,000 and No More in Aggregate than \$1,000,000 – Update

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At the October 20, 2017 Board of Directors (BOD) meeting of the Connecticut Green Bank (“Green Bank”) it was resolved that the BOD approves the authorization of Green Bank staff to evaluate and approve funding requests less than \$500,000 which are pursuant to an established formal approval process requiring the signature of a Green Bank officer, consistent with the Comprehensive Plan, approved within Green Bank’s fiscal budget and in an aggregate amount not to exceed \$1,000,000 from the date of the last Deployment Committee meeting. This memo provides an update on funding requests below \$500,000 that were evaluated and approved. During this period, 1 project was evaluated and approved for funding in an aggregate amount of approximately \$470,978. If members of the board or committee would be interested in the internal documentation of the review and approval process Green Bank staff and officers go through, then please request it.

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## 307 Pepe's Farm Road: A C-PACE Project in Milford, CT

<b>Address</b>	307 Pepe's Farm Road, Milford, Connecticut 06460			
<b>Owner</b>	Mod Associates, LLC			
<b>Proposed Assessment</b>	\$470,978			
<b>Term (years)</b>	20			
<b>Effective Annual Interest Rate</b>	5.25%			
<b>Annual C-PACE Assessment</b>	\$38,318			
<b>Savings-to-Investment Ratio</b>	1.55x			
<b>Average DSCR</b>	[REDACTED]			
<b>Lien-to-Value</b>	[REDACTED]			
<b>Loan-to-Value</b>	[REDACTED]			
<b>Projected Energy Savings (mmBTU)</b>		<b>EE</b>	<b>RE</b>	<b>Total</b>
	<b>Year 1</b>	-	869	869
	<b>Over term</b>	-	16,582	16,582
<b>Estimated Cost Savings (incl. tariff payments and tax benefits)</b>	<b>Year 1</b>	-	\$227,209	\$227,209
	<b>Over term</b>	-	\$434,115	\$434,115
<b>Objective Function</b>	32.5 kBTU / ratepayer dollar at risk			
<b>Location</b>	Milford			
<b>Type of Building</b>	Light Industrial			
<b>Building Size (sf)</b>	36,078			
<b>Year Acquired by Owner</b>	1999			
<b>Appraised Value</b>	\$2,325,520			
<b>Mortgage Lender Consent</b>	[REDACTED]			
<b>Proposed Project Description</b>	Installation of 216.2 kW Solar PV Systems			
<b>Est. Date of Construction Completion</b>	Pending closing			
<b>Current Status</b>	Awaiting Staff Approval			
<b>Energy Contractor</b>	[REDACTED]			

## **Resolution**

**WHEREAS**, on January 18, 2013, the Connecticut Green Bank (the “Green Bank”) 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 December 16, 2022 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 December 16, 2022 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.



## CONNECTICUT GREEN BANK

### MANAGING DIRECTOR OF INCENTIVE PROGRAMS

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**Position Grade:** 19

**Direct Reports:** As Assigned

**Salary Range:** \$139,873-\$223,797

**Reports to:** President and CEO

**Wage Hour Class:** Exempt

**Hours Worked:** 40

**Effective Date:** December 16, 2022

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#### **SUMMARY:**

The Connecticut Green Bank (hereafter "CGB"), Managing Director of Incentive Programs oversees all programs and efforts designed to deploy clean energy through incentives by the Green Bank. The Incentive Business's current programs include the Residential Solar Investment Program (RSIP), and the Energy Storage Solutions Program (ESS), as well as other future incentive programs. The Managing Director will be tasked with designing, implementing, and overseeing existing and new (as appropriate) incentive programs to deploy clean energy to properties, fleets, and infrastructure (e.g., grid) in the state. S/he will also be responsible for several graduated programs where the Green Bank still has responsibilities to the program participants such as the CT Solar Loan and the CT Solar Lease I and II.

The Managing Director is distinguished from lower-level directors by either its oversight of multiple areas in large operational departments, or the management of program services with agency wide internal and/or significant external impact. The Managing Director is the most highly experienced and specialized within the Director career series. While the core duties may overlap significantly with lower level Directors, the Managing Director is an expert in their field and has full managerial and decision making responsibility on issues of significance and consequence (issues of significance and consequence are: 1. Issues involving the use of personnel (hire, terminate, progressive discipline, etc.); 2. Issues pertaining to the formulation, interpretation, or administration of policy and/or legislation affecting their program area; 3. Issues involving exceptions or deviations from policy or past practice; 4. significant input into issues involving the allocation of financial resources. In addition, a managing director has complete programmatic responsibility and is responsible for coordinating department wide resources (staff, consultants, budget, etc.) as part of overall responsibility for an entire program with significant internal and external impact.

Green Bank, a quasi-public authority, is the nation's first state-level "Green Bank," leveraging public funds to increase and accelerate private investment in the green economy of Connecticut. Working at Green Bank means being part of a dynamic team of talented people who are passionate about implementing the green bank model, stimulating the growth and development of clean energy and environmental infrastructure investment in Connecticut - growing our economy, strengthening our communities, and protecting our environment.

## **EXAMPLES OF DUTIES:**

- Initiates and manages the design of Connecticut Green Bank's Incentive Programs, including, but not limited to, RSIP, ESS, and others.
- Works with the Marketing team to develop and implement strategies to increase participation in incentive programs
- Works with the Investments Team to attract private capital to support incentive programs (i.e., SHREC securitization, Green Bank Capital Solutions);
- Develops and implements strategies to reduce the cost of residential battery systems and ratepayer incentives for the systems;
- Works with the Chief Investment Officer and Vice President of Financing Programs to understand market gaps for incentives;
- Works with the Department of Energy and Environmental Protection and the Energy Efficiency Board, as well as other key stakeholders, to align programs where possible and ensure Green Bank programs take advantage of shared resources and programmatic synergies;
- Ensures all operational (i.e. staff and policies) and organizational (i.e. contracting and reporting) requirements are being implemented and carried out;
- Manages the selection of consultants, where necessary, to support the program in areas where Connecticut Green Bank does not have specific in-house expertise;
- Works in collaboration with the Green Bank Leadership to integrate comprehensive strategies to advance clean energy, including the smooth and orderly transition from incentives upon program completion;
- In conjunction and through the supervision of the Green Bank's portfolio manager, ensure the revenue due to the Green Bank from Renewable Energy Credit sales is maximized;
- Identify additional revenue streams generated from projects (i.e. Forward Capacity Markets payments) to offset and recover the costs of incentives and operations;
- Support Green Bank activities in regulatory proceedings;
- Lead the design and implementation of new Green Bank programs in response to regulator orders and identified market gaps;
- Works in coordination with the Vice President of Financing Programs in order to ensure that renewable energy and energy efficiency are integrated across all sectors;
- Contributes to the development of Connecticut Green Bank's comprehensive plan with a particular emphasis on strategy related to incentive programs and projects;
- Works with the Board of Directors and the President and CEO to lead the development of clean energy programs and initiatives;
- Regularly updates the Board of Directors, with support from the President and CEO and Executive Vice President and CIO on the development and progress of incentive programs;
- Represent Connecticut Green Bank on appropriate task forces, committees, and boards relevant to incentives for clean energy;
- Represents Connecticut Green Bank to the public in speaking engagements; and
- Supervises Connecticut Green Bank staff including managers, associates, and assistants.

**MINIMUM QUALIFICATIONS REQUIRED**  
**KNOWLEDGE, SKILL AND ABILITY:**

- Strong knowledge and experience in clean energy incentives and/or policy;
- Familiarity with the finance and energy industries;
- Considerable experience in program/project management;
- Ability to work in a team environment as a lead contributor, manager, and facilitator;
- Strong knowledge of business operations and general management including supervisory experience;
- Considerable ability to develop programs, manage stakeholder processes toward results, and interpret energy policy;
- Understanding of the interaction in clean energy markets between incentives, finance and demand;
- Demonstrated ability to understand various scientific and energy-related technological principles and applications, and integrate those concepts into the overall project, program, or CT Green Bank;
- Ability to work with external stakeholders including strong facilitation, negotiation, and coordination skills;
- Considerable interpersonal skills, as well as oral and written communications skills;
- Ability to market the benefits of clean energy incentives and financing products to potential customers;
- Knowledge of State and Federal energy policies and regulations that support clean energy finance; and

**EXPERIENCE AND TRAINING:**

**General Experience:**

A Bachelor's Degree (but a Master's degree is preferred) in environmental science, engineering, economics, political science, business administration, or related field. Ten (10) years of experience in energy policy and clean energy finance. Experience supervising staff and working across departments is preferred. Experience working with and facilitating collaborative outcomes with various stakeholder groups in energy policy design and project development.

**Special Experience:**

Two (2) years of the general experience must have been in supervising staff and with full responsibility for a program implementation.

**Substitutions Allowed:**

1. A Master's Degree in environmental science, engineering, economics, business administration or other related field may be substituted for one additional year of the general experience
2. A professional certification in a relevant field may substitute for one additional year of experience

**Physical Requirements:**

1. Frequent communications, verbal and written
2. Frequent use of math/calculations
3. Visually or otherwise identify, observe and assess
4. Repetitive use of hands and fingers -typing and/or writing

**Physical Demands:** The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. While performing the duties of this job, the employee is frequently required to sit; use hands to finger, handle, or feel; reach with hands and arms and talk or hear. The employee is occasionally required to stand and walk. The employee must occasionally lift and/or move up to 20 pounds. Specific vision abilities required by this job include close vision.

**Work Environment:** The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. The noise level in the work environment is usually moderate.



# 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, 2022

**Re:** Q1 of FY23 Financial Package (Abridged)

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## Overview

Following on the recommendation of the Chair<sup>1</sup> of and discussions with the Audit, Compliance, and Governance Committee (“ACG Committee”)<sup>2</sup> and Board of Directors,<sup>3</sup> we are providing our first 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,<sup>4</sup> (2) mobilizing private investment,<sup>5</sup> (3) achieving sustainability,<sup>6</sup> 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.

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## 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 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, Lonnie Reed, Chair of the Green Bank, there is a “Branford” page given the location of her residence and “State of Connecticut” page given her appointment by Governor Lamont:

*“The Green Bank has **enabled \$13,455,906 of investment in clean energy in Branford helping 401 families and businesses reduce the burden of energy costs while creating 141 job years in our communities and avoiding 59,785 tons of CO2 emissions causing global climate change.**”*

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<sup>1</sup> Tom Flynn

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

<sup>3</sup> June 24, 2022 BOD meeting – [click here](#)

<sup>4</sup> 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.

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

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

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.

As this is our launch of these dashboards, we welcome your feedback on how they can be improved. Please forward any suggestions to Eric Shrago at [eric.shrago@ctgreenbank.com](mailto:eric.shrago@ctgreenbank.com)

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### **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.

The key observation from Q1 of FY23 is that total assets decreased by \$1.7 million (i.e., from \$242.3 million to \$240.6 million), while liabilities decreased by \$9.1 million (i.e., from \$137.4 million to \$128.3 million). This is the result of the Green Bank approximate \$10 million cash repayment of SHREC ABS 1 bonds to address the bond matter raised at the July 22, 2022 meeting of the board.<sup>7</sup> This transaction was done to stabilize the bond rating as a result of revenue shortfalls for matters related to interruptions of reporting or production given the 3G to 5G meter issue. Additionally, net position increased by \$7.4 million (i.e., from \$101.3 million to \$108.8 million), as a result of current quarter income further discussed in Achieving Sustainability below.

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### **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 FY23 is that earned revenues (i.e., \$4.4 million) exceeded personnel related operating expenses (i.e., \$2.6 million) – nearly 70% margin – and were nearly on par (i.e., approximately \$100,000 short) with total operating expenses (i.e., \$4.5 million) – nearly 1% loss. These are both improvements from the prior year as the Green Bank makes steady progress towards organizational sustainability as planned in FY18.<sup>8</sup>

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### **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., 67.4%) 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 FY23 is that the Green Bank paid the State of Connecticut more than \$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.

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### **Conclusion**

For those interested in further details beyond the “Abridged” version of the Q1 of FY23 financial package, see the “Comprehensive” version attached.

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<sup>7</sup> July 22, 2022 BOD meeting – [click here](#)

<sup>8</sup> December 15, 2017 BOD meeting – [click here](#)



# **Connecticut Green Bank**

September 2022 Quarterly Financial Package  
(Abridged)

Connecticut Green Bank  
**September 2022 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.

**Click to Navigate to a Page**

- Home
- State of CT
- Council of Governments (COG)
- Adrienne Farrar Houel - Bridgeport
- Binu Chandy - State of CT
- Brenda Watson - Bloomfield
- Brenda Watson - House District 1
- Dominick Grant - Middlefield
- Joanna Wozniak-Brown - State of CT
- John Harrity - East Hartland
- Laura Hoydick - Stratford
- Laura Hoydick - House District 86
- Lonnie Reed - Branford
- Matt Ranelli - New Haven
- Matt Ranelli - Senate District 11
- Sarah Sanders - State of CT
- Tom Flynn - Fairfield
- Tom Flynn - Senate District 21
- Vickie Hackett - State of CT

**HOME SOLUTIONS**

**BUILDING SOLUTIONS**

**INVESTMENT SOLUTIONS**

**CONTRACTOR SOLUTIONS**

Microsoft Power BI | 1 of 19 | 63%

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.

As this is our launch of these dashboards, we welcome your feedback on how they can be improved.

Please forward me your feedback and suggestions at [eric.shrago@ctgreenbank.com](mailto:eric.shrago@ctgreenbank.com).

**CGB-Primary Government  
Mobilizing Private Investment  
Balance Sheet**

		CGB-Primary Government As of 09/30/2022	CGB-Primary Government As of 06/30/2022	CGB-Primary Government YTD \$ Change
<b>Assets</b>				
Current Assets				
Cash and Cash Equivalents (1)	{a}	46,070,575	50,243,875	(4,173,300)
Due From Component Units (SL2/SL3/CSS)	{b}	50,520,809	47,802,865	2,717,944
Other Current Assets	{c}	12,654,934	12,816,164	(161,230)
<b>Total Current Assets</b>		<b>109,246,318</b>	<b>110,862,904</b>	<b>(1,616,586)</b>
Noncurrent Assets				
Program Loans/Notes Receivable and Other Investments	{d}	96,985,097	98,385,642	(1,400,545)
Capital Assets, net	{e}	15,860,629	16,028,071	(167,442)
Restricted Assets (1)	{f}	18,533,895	17,002,056	1,531,839
<b>Total Noncurrent Assets</b>		<b>131,379,621</b>	<b>131,415,769</b>	<b>(36,148)</b>
<b>Total Assets</b>		<b>240,625,939</b>	<b>242,278,673</b>	<b>(1,652,734)</b>
<b>Liabilities</b>				
Current Liabilities				
	{g}	12,985,792	11,539,504	1,446,288
Noncurrent Liabilities				
Bonds Payable-SHREC ABS 1	{h}	21,301,596	31,615,390	(10,313,794)
Bonds Payable-Green Liberty Bonds	{i}	39,985,000	39,985,000	0
<b>Total RSIP Bonds Payable</b>		<b>61,286,596</b>	<b>71,600,390</b>	<b>(10,313,794)</b>
Bonds Payable-CREBs	{j}	9,966,229	9,966,229	0
Lease Liability	{k}	2,313,242	2,527,386	(214,144)
Pension & OPEB Liabilities	{l}	41,789,937	41,789,937	0
<b>Total Noncurrent Liabilities</b>		<b>115,356,004</b>	<b>125,883,942</b>	<b>(10,527,938)</b>
<b>Total Liabilities</b>		<b>128,341,796</b>	<b>137,423,446</b>	<b>(9,081,650)</b>
<b>Deferred Inflows of Resources</b>	{m}	<b>3,506,823</b>	<b>3,506,823</b>	<b>0</b>
<b>Total Net Position</b>		<b>108,777,320</b>	<b>101,348,404</b>	<b>7,428,916</b>

(1) The \$46.1M unrestricted balance at 9/30/2022 was mostly due to the issuance of two series of Special Capital Reserve Fund (SCRf) 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 9/30/22, unfunded and committed Solar PV incentives related to the RSIP program totaled approximately \$34.2M, to be paid to third parties over the next six fiscal years using the proceeds from these two bond issuances. Additionally, \$8.3M of RGGI funds are committed to Class 1 Renewable projects under the Regional Greenhouse Gas Initiative and not yet spent as of 9/30/22.

	Actual	Adj for RSIP/RGGI Commitments	Total
Cash - Unrestricted	\$ 46,070,575	\$ (42,500,000)	\$ 3,570,575
Cash - Restricted	18,533,895	42,500,000	61,033,895
<b>Total Cash</b>	<b>\$ 64,604,470</b>	<b>\$ -</b>	<b>\$ 64,604,470</b>

\* 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 7/1/2022 Through 9/30/2022				
		Actual	Budget	Variance	Prior Year Actual	Variance
<b>Total Revenues</b>						
Public Revenues	{a}	10,352,232	9,897,197	455,035	9,332,204	1,020,028
Earned Revenues	{b}	4,412,697	4,319,134	93,563	4,523,305	(110,608)
<b>Total Revenues</b>		<b>14,764,929</b>	<b>14,216,331</b>	<b>548,598</b>	<b>13,855,509</b>	<b>909,420</b>
<b>Total Operating Expenses</b>						
Personnel Related Operating Expenses	{c}	2,630,194	3,148,419	(518,225)	2,400,128	230,066
Non-Personnel Related Operating Expenses	{d}	1,858,848	3,376,569	(1,517,721)	2,328,619	(469,771)
<b>Total Operating Expenses</b>		<b>4,489,042</b>	<b>6,524,988</b>	<b>(2,035,946)</b>	<b>4,728,747</b>	<b>(239,705)</b>
<b>Margin (\$) - All Revenues</b>		<b>10,275,887</b>	<b>7,691,343</b>		<b>9,126,762</b>	
<b>Margin (%) - All Revenues</b>		<b>69.6%</b>	<b>54.1%</b>		<b>65.9%</b>	
<b>Margin (\$) - Pre Public Revenues</b>		<b>(76,345)</b>	<b>(2,205,854)</b>		<b>(205,442)</b>	
<b>Margin (%) - Pre Public Revenues</b>		<b>-0.5%</b>	<b>-15.5%</b>		<b>-1.5%</b>	
<b>Total Non-Operating Expenses</b>						
Program Incentives and Grants	{e}	1,674,372	5,868,402	(4,194,030)	5,312,244	(3,637,872)
Non-Operating Expenses	{f}	1,172,599	1,623,286	(450,687)	1,121,010	51,589
<b>Total Non-Operating Expenses</b>		<b>2,846,971</b>	<b>7,491,688</b>	<b>(4,644,717)</b>	<b>6,433,254</b>	<b>(3,586,283)</b>
<b>Total Expenses</b>		<b>7,336,013</b>	<b>14,016,676</b>	<b>(6,680,663)</b>	<b>11,162,001</b>	<b>(3,825,988)</b>
<b>Net Margin (\$) - All Revenues (*)</b>		<b>7,428,916</b>	<b>199,655</b>	<b>7,229,261</b>	<b>2,693,508</b>	<b>4,735,408</b>
<b>Net Margin (%) - All Revenues</b>		<b>50.3%</b>	<b>1.4%</b>		<b>19.4%</b>	

\* 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.

## 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, 2022**

	FYTD 9/30/22 Actual	FYE 6/30/22 Actual	FYE 6/30/21 Actual	FYE 6/30/20 Actual	FYE 6/30/19 Actual	FYE 6/30/18 Actual
<b>Compensation:</b>	\$ 1,410,784	\$ 4,813,293	\$ 4,476,214	\$ 3,931,596	\$ 4,204,855	\$ 5,154,021
<b>Employee Benefits:</b>						
State Retirement Plan Contributions	\$ 943,088	\$ 3,317,054	\$ 2,903,780	\$ 2,411,864	\$ 2,869,823	\$ 3,013,747
Medical Dental Rx Premiums	166,789	610,627	625,480	553,908	545,779	678,633
<b>Total Employee Benefits</b>	<b>1,109,877</b>	<b>3,927,681</b>	<b>3,529,260</b>	<b>2,965,772</b>	<b>3,415,602</b>	<b>3,692,380</b>
<b>Total Compensation and Benefits</b>	<b>\$ 2,520,661</b>	<b>\$ 8,740,974</b>	<b>\$ 8,005,474</b>	<b>\$ 6,897,368</b>	<b>\$ 7,620,457</b>	<b>\$ 8,846,401</b>
* Retirement Plan Contributions as a % of Salary	66.85%	68.91%	64.87%	61.35%	68.25%	58.47%
Medical Dental Rx Premiums as a % of Salary	11.82%	12.69%	13.97%	14.09%	12.98%	13.17%
<b>Total Benefits and Taxes as a % of Salary</b>	<b>78.67%</b>	<b>81.60%</b>	<b>78.84%</b>	<b>75.43%</b>	<b>81.23%</b>	<b>71.64%</b>
<b>*** State of CT Comptroller Employer SERS Rate</b>	<b>67.40%</b>	<b>65.90%</b>	<b>64.14%</b>	<b>59.99%</b>	<b>64.30%</b>	<b>56.58%</b>
* 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	<b>35%</b> 493,774	1,684,653	1,566,675	1,376,059	1,471,699	1,803,907
<b>Actual Total Compensation and Benefits</b>	2,520,661	8,740,974	8,005,474	6,897,368	7,620,457	8,846,401
<b>Less Total Compensation and Benefits @ Hypothetical Rate</b>	<b>(1,904,558)</b>	<b>(6,497,946)</b>	<b>(6,042,889)</b>	<b>(5,307,655)</b>	<b>(5,676,554)</b>	<b>(6,957,928)</b>
Incremental HR cost due to State Benefits Charge	616,103	2,243,028	1,962,585	1,589,713	1,943,903	1,888,473



# Connecticut Green Bank

September 2022 Quarterly Financial Package  
(Comprehensive)

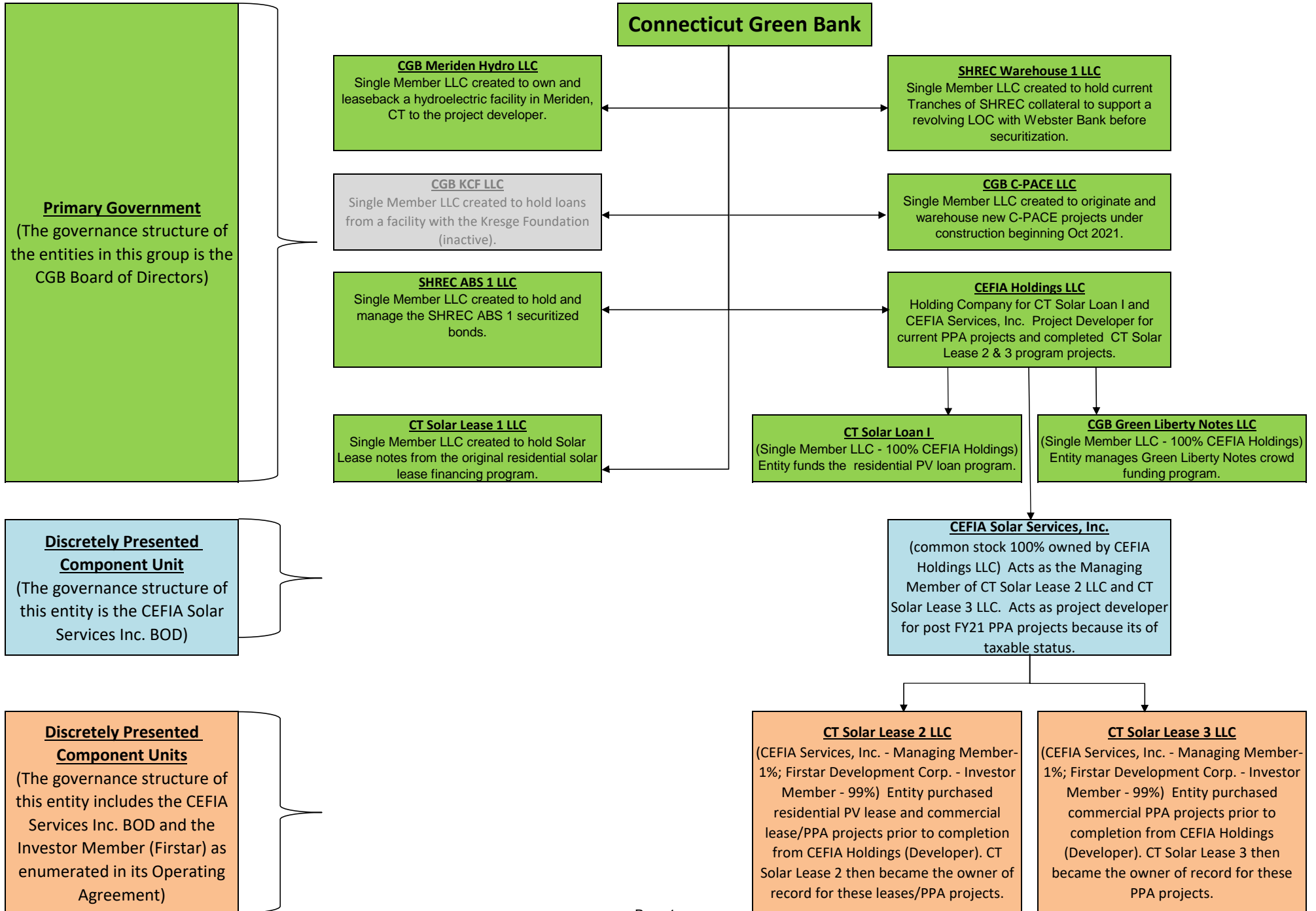
Connecticut Green Bank  
**September 2022 Financial Package**  
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# The Connecticut Green Bank and its Component Units (as of 9/30/2022)

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



**Connecticut Green Bank**  
**Executive Summary**  
September 2022

**Overview**

This financial package contains financial information for the Connecticut Green Bank (CGB) for Fiscal Year ending June 30, 2023 through September 30, 2022 with comparisons to June 30, 2022 for balance sheet, comparisons to the same period ended September 30, 2021 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 \$16.0M compared to June 2022. which is mostly due to a function of timing of reporting current portions of loans/notes receivable (done for ACFR purposes annually at fiscal year end). Taking out the \$11.7M decrease in current assets related to this, the remaining current assets decreased \$4.3M in the first quarter of FY23. This is due mostly to cash and cash equivalents decreasing \$4.2M. The cash decrease is due to an approx. \$10M repayment of the SHREC ABS 1 bonds in Q1 of FY23 being offset by income of \$7.4M. Noncurrent assets increased \$14.4M compared to June 30, 2022, due in part to the aforementioned reclassification of \$11.7M done for fiscal year end, as well as a \$2.7M increase in due from component units due to advances sent to SL2 and CSS of \$1.5M and \$1.2M, respectively in the quarter. As of September 30, 2022, 99.2% of accounts receivable is aged 30 days or lower - 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 \$9.1M compared to June 30, 2022, mostly attributable to approx. \$10M of payments made on Long-Term debt in Q1 of FY23.
- ✓ Net Position for the Primary Government has increased \$7.4M due to the fiscal year'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 the first quarter of FY23 was approximately \$7.4M of Income.

- ✓ Operating Revenues increased \$0.7M from the same quarter of the prior year and Operating expenses decreased \$3.8M from the same quarter of the prior year, resulting in Operating income increasing \$4.5M from the prior year. The revenue increase is mostly due to the \$0.8M increase in RGGI auction proceeds compared to the same quarter of the prior year, due to record demand and clearing prices of RGGI allowances continuing through calendar year 2022.
- ✓ Apart from the RGGI Auction Proceeds, operating revenues had an increase of \$0.2M in utility remittance revenue offset by a decrease of \$0.4M in energy system sales compared to the same quarter of the prior year.
- ✓ Operating Expenses had decreases of \$3.6M in grants and incentive payments (due to substantially lower PBI and EPBB incentives paid in the first quarter of FY23), and \$0.4M in costs of energy system sales (due to no sales of systems occurring in Q1 of FY23) offset by increases of \$0.2M in G&A expenses and \$0.1M in provision for loan losses compared to the same period of the prior year.
- ✓ Nonoperating Revenues (expenses) showed a decrease in expenses of \$0.2M compared to the same period of the prior year mostly due to interest income increasing \$0.1M and interest expense decreasing \$0.1M from the same quarter of the prior fiscal year.

**Statement of Revenues and Expenditures vs. Budget - Primary Government**

Fiscal Year to Date Net Revenues Over Expenses of \$7.4M was \$7.2M better than budget.

- ✓ Revenues were \$0.5M higher than budget mostly due to \$0.4M higher utility customer assessments revenue than budget.
- ✓ Operating Expenses were \$2.0M below budget due to \$1.0M lower program development and administration expenses, \$0.5M lower compensation and benefits, \$0.3M lower consulting and professional fees and \$0.1M lower marketing expenses than budget. See breakout of budget to actual for financing programs, incentive programs and environmental infrastructure programs for more details.
- ✓ EPBB/PBI incentives paid out were approx. \$3.7M lower than budget during the first quarter of the fiscal year due to true-ups of 2022 Q1 and Q2 PBI estimates and timing of EPBB payments.
- ✓ ARRA Interest Rate Buydowns are \$0.3M lower than budget during the first quarter of the fiscal year due to timing of expenses.

**Unfunded Commitments**

CGB has a total of \$78.1M in unfunded commitments at September 30, 2022, a decrease of \$3.3M from June 30, 2022. The decrease is seen mostly in an decreased commitment to the multifamily/LMI solar PV group due to an advance on a previously unfunded commitment going out in the period.

## CGB-Primary Government Balance Sheet

	CGB-Primary Government 9/30/2022	CGB-Primary Government 6/30/2022	CGB-Primary Government \$ Change
<b>Assets</b>			
<b>Current Assets</b>			
Cash and Cash Equivalents	46,070,575	50,243,875	(4,173,300)
Accounts Receivable	3,646,560	4,072,651	(426,091)
Utility Remittance Receivable	2,362,839	2,041,786	321,053
Interest Receivable	908,685	1,167,400	(258,715)
Other Receivables	4,634,928	4,398,795	236,133
Prepaid Expenses and Other Assets	1,101,922	1,135,532	(33,610)
Current Portion of Solar Lease Notes	0	1,016,267	(1,016,267)
Current Portion of SBEA Promissory Notes	0	1,129,900	(1,129,900)
Current Portion of Program Loans, Net of Reserves	0	9,547,825	(9,547,825)
<b>Total Current Assets</b>	<b>58,725,509</b>	<b>74,754,031</b>	<b>(16,028,522)</b>
<b>Noncurrent Assets</b>			
Restricted Assets	18,533,895	17,002,056	1,531,839
Investments	912,218	912,218	0
Program Loans, net of reserves	90,842,654	82,287,432	8,555,222
Solar Lease I Promissory Notes, net of reserves	2,746,243	1,987,394	758,849
Renewable Energy Certificates	229,019	229,019	0
SBEA Promissory Notes, net of reserves	2,254,863	1,275,487	979,376
Due From Component Units	50,520,809	47,802,865	2,717,944
Investment in Component Units	100	100	0
Capital Assets, net	15,860,629	16,028,071	(167,442)
<b>Total Noncurrent Assets</b>	<b>181,900,430</b>	<b>167,524,642</b>	<b>14,375,788</b>
<b>Total Assets</b>	<b>240,625,939</b>	<b>242,278,673</b>	<b>(1,652,734)</b>
<b>Deferred Outflows of Resources</b>			
Deferred Amount for Pensions	6,439,478	6,439,478	0
Deferred Amount for OPEB	5,172,871	5,172,871	0
<b>Total Deferred Outflows of Resources</b>	<b>\$ 11,612,349</b>	<b>\$ 11,612,349</b>	<b>\$ 0</b>
<b>Liabilities</b>			
<b>Current Liabilities</b>			
Accounts Payable	331,793	592,637	(260,844)
Accrued Payroll and Related Liabilities	1,296,862	1,296,862	0
Accrued Expenses	9,210,757	7,838,819	1,371,938
Notes Payable- Green Liberty Notes	554,735	304,735	250,000
Current Maturities of Long-Term Debt	214,144	15,450,938	(15,236,794)
Custodial Liability	1,318,101	1,386,450	(68,349)
<b>Total Current Liabilities</b>	<b>12,926,392</b>	<b>26,870,441</b>	<b>(13,944,049)</b>
<b>Noncurrent Liabilities</b>			
Due to Component Units	59,399	120,000	(60,601)
Bonds Payable-SHREC ABS 1	21,301,596	19,894,301	1,407,295
Bonds Payable-CREBs	9,966,230	9,272,525	693,705
Bonds Payable-Green Liberty Bonds	39,985,000	37,163,000	2,822,000
Lease Liability, less current maturities	2,313,242	2,313,242	0
Pension Liability	21,273,373	21,273,373	0
OPEB Liability	20,516,564	20,516,564	0
<b>Total Noncurrent Liabilities</b>	<b>115,415,404</b>	<b>110,553,005</b>	<b>4,862,399</b>
<b>Total Liabilities</b>	<b>128,341,796</b>	<b>137,423,446</b>	<b>(9,081,650)</b>
<b>Deferred Inflows of Resources</b>			
Deferred Pension Inflow Liability	5,424,891	5,424,891	0
Deferred OPEB Inflow Liability	9,694,281	9,694,281	0
<b>Total Deferred Inflows of Resources</b>	<b>15,119,172</b>	<b>15,119,172</b>	<b>0</b>
<b>Net Position</b>			
Net Investment in Capital Assets	15,860,630	16,028,071	(167,441)
Restricted-Energy Programs	18,533,895	17,002,056	1,531,839
Unrestricted Net Position	74,382,795	68,318,277	6,064,518
<b>Total Net Position</b>	<b>108,777,320</b>	<b>101,348,404</b>	<b>7,428,916</b>

## CGB-Primary Government Statement of Revenues and Expenditures

	CGB-Primary Government Fiscal YTD 9/30/2022	CGB-Primary Government Fiscal YTD 9/30/2021	CGB-Primary Government \$ Change
<b>Change in Net Position</b>			
Operating Income (Loss)			
Operating Revenues			
Utility Remittances	7,443,191	7,248,914	194,277
Interest Income-Promissory Notes	1,726,404	1,630,524	95,880
RGGI Auction Proceeds	2,909,040	2,083,289	825,751
Energy System Sales	0	451,093	(451,093)
REC Sales	2,271,275	2,218,617	52,658
Other Income	275,529	236,604	38,925
Total Operating Revenues	<u>14,625,439</u>	<u>13,869,041</u>	756,398
Operating Expenses			
Cost of Goods Sold-Energy Systems	0	451,092	(451,092)
Provision for Loan Losses	550,566	413,095	137,471
Grants and Incentive Payments	1,674,372	5,312,243	(3,637,871)
Program Administration Expenses	3,384,447	3,441,909	(57,462)
General and Administrative Expenses	1,133,384	901,894	231,490
Total Operating Expenses	<u>6,742,769</u>	<u>10,520,233</u>	(3,777,464)
Operating Income (Loss)	<u>7,882,670</u>	<u>3,348,808</u>	4,533,862
Nonoperating Revenue (Expenses)			
Interest Income-Short Term Cash Deposits	152,836	10,107	142,729
Interest Income-Component Units	17,944	17,509	435
Interest Expense-ST Debt	0	(1,048)	1,048
Interest Expense-LT Debt	(622,034)	(681,913)	59,879
Debt Issuance Costs	(2,500)	0	(2,500)
Unrealized Gain (Loss) on Investments	0	45	(45)
Total Nonoperating Revenue (Expenses)	<u>(453,754)</u>	<u>(655,300)</u>	201,546
<b>Change in Net Position</b>	<b><u>7,428,916</u></b>	<b><u>2,693,508</u></b>	<b><u>4,735,408</u></b>

**CT Green Bank Primary Government  
Budget to Actual Financial Analysis  
September 2022**

	CGB Primary Government 07/01/2022 Through 9/30/2022			Incentive Programs 07/01/2022 Through 9/30/2022			Financing Programs 07/01/2022 Through 9/30/2022			Environmental Infrastructure 07/01/2022 Through 9/30/2022		
	Actual	Budget	Variance	Actual	Budget	Variance	Actual	Budget	Variance	Actual	Budget	Variance
<b>Revenue</b>												
Operating Income												
Utility Customer Assessments	7,443,191	7,040,700	402,491	0	0	0	7,443,191	7,040,700	402,491	0	0	0
RGGI Auction Proceeds-Renewables	2,909,041	2,856,497	52,544	0	0	0	2,909,041	2,856,497	52,544	0	0	0
CPACE Closing Fees	4,660	30,750	(26,090)	0	0	0	4,660	30,750	(26,090)	0	0	0
REC Sales	2,185,976	2,401,079	(215,103)	2,185,976	2,401,079	(215,103)	0	0	0	0	0	0
Grant Income-Federal Programs	1,048	10,000	(8,952)	0	0	0	1,048	10,000	(8,952)	0	0	0
PPA Income	166,061	155,563	10,498	0	0	0	166,061	155,563	10,498	0	0	0
LREC/ZREC Income	85,299	55,717	29,582	0	0	0	85,299	55,717	29,582	0	0	0
<b>Total Operating Income</b>	<b>12,795,276</b>	<b>12,550,306</b>	<b>244,970</b>	<b>2,185,976</b>	<b>2,401,079</b>	<b>(215,103)</b>	<b>10,609,300</b>	<b>10,149,227</b>	<b>460,073</b>	<b>0</b>	<b>0</b>	<b>0</b>
Interest Income	1,619,494	1,615,525	3,969	48,361	14,700	33,661	1,571,133	1,600,825	(29,693)	0	0	0
Interest Income, Capitalized	246,400	12,000	234,399	0	0	0	246,399	12,000	234,400	0	0	0
Other Income	103,759	38,500	65,260	0	0	0	103,760	38,500	65,259	0	0	0
<b>Total Revenue</b>	<b>\$ 14,764,929</b>	<b>\$ 14,216,331</b>	<b>\$ 548,598</b>	<b>\$ 2,234,337</b>	<b>\$ 2,415,779</b>	<b>\$ (181,442)</b>	<b>\$ 12,530,592</b>	<b>\$ 11,800,552</b>	<b>\$ 730,039</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>
<b>Operating Expenses</b>												
Compensation and Benefits	2,630,194	3,148,419	(518,224)	756,937	906,190	(149,252)	1,822,165	2,077,328	(255,163)	51,092	164,901	(113,809)
Program Development & Administration	478,692	1,496,709	(1,018,018)	215,658	952,255	(736,599)	201,920	444,454	(242,533)	61,114	100,000	(38,887)
Lease Origination Services	723	1,000	(277)	0	0	0	723	1,000	(277)	0	0	0
Marketing Expense	239,664	384,911	(145,247)	90,342	117,325	(26,982)	149,323	267,586	(118,264)	0	0	0
E M & V	154,766	240,750	(85,984)	129,040	195,750	(66,710)	25,725	45,000	(19,275)	0	0	0
Research and Development	89,068	50,000	39,068	13,750	0	13,750	75,318	25,000	50,318	0	25,000	(25,000)
Consulting and Professional Fees	223,959	494,025	(270,066)	94,503	145,025	(50,522)	129,456	349,000	(219,543)	0	0	0
Rent and Location Related Expenses	255,660	259,608	(3,947)	36,841	37,974	(1,133)	216,131	214,682	1,448	2,688	6,951	(4,262)
Office, Computer & Other Expenses	416,316	449,566	(33,251)	215,138	128,301	86,837	197,884	311,326	(113,442)	3,294	9,940	(6,647)
<b>Total Operating Expenses</b>	<b>4,489,042</b>	<b>6,524,988</b>	<b>(2,035,946)</b>	<b>1,552,209</b>	<b>2,482,820</b>	<b>(930,611)</b>	<b>2,818,645</b>	<b>3,735,376</b>	<b>(916,731)</b>	<b>118,188</b>	<b>306,792</b>	<b>(188,605)</b>
<b>Program Incentives and Grants</b>	<b>\$ 1,674,372</b>	<b>\$ 5,868,402</b>	<b>\$ (4,194,030)</b>	<b>\$ 1,763,862</b>	<b>\$ 5,808,402</b>	<b>\$ (4,044,540)</b>	<b>\$ (89,490)</b>	<b>\$ 60,000</b>	<b>\$ (149,490)</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>
<b>Operating Income/(Loss)</b>	<b>\$ 8,601,516</b>	<b>\$ 1,822,941</b>	<b>\$ 6,778,575</b>	<b>\$ (1,081,734)</b>	<b>\$ (5,875,443)</b>	<b>\$ 4,793,709</b>	<b>\$ 9,801,436</b>	<b>\$ 8,005,176</b>	<b>\$ 1,796,260</b>	<b>\$ (118,188)</b>	<b>\$ (306,792)</b>	<b>\$ 188,605</b>
<b>Non-Operating Expenses</b>	<b>\$ 1,172,599</b>	<b>\$ 1,623,286</b>	<b>\$ (450,686)</b>	<b>\$ 589,621</b>	<b>\$ 912,069</b>	<b>\$ (322,447)</b>	<b>\$ 582,978</b>	<b>\$ 711,217</b>	<b>\$ (128,239)</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>
<b>Net Revenues Over (Under) Expenses</b>	<b>\$ 7,428,916</b>	<b>\$ 199,655</b>	<b>\$ 7,229,261</b>	<b>\$ (1,671,355)</b>	<b>\$ (6,787,512)</b>	<b>\$ 5,116,156</b>	<b>\$ 9,218,458</b>	<b>\$ 7,293,959</b>	<b>\$ 1,924,499</b>	<b>\$ (118,188)</b>	<b>\$ (306,792)</b>	<b>\$ 188,605</b>

**Connecticut Green Bank  
September 2022 Financial Package  
Analysis of Compensation and Benefits**

	FY 2023 YTD		Budget Variance	FY 2022 YTD	Prior Year
	Actual	Budget		Actual	Variance
<b>Compensation:</b>					
Full Time Employees	\$ 1,348,776	\$ 1,600,190	\$ (251,414)	\$ 1,248,596	\$ 100,180
Interns	57,818	100,380	(42,562)	9,800	48,018
Temporary Employees	-	-	-	-	-
Overtime	4,190	-	4,190	4,504	(314)
<b>Total Compensation</b>	<b>\$ 1,410,784</b>	<b>\$ 1,700,570</b>	<b>\$ (289,786)</b>	<b>\$ 1,262,900</b>	<b>\$ 147,884</b>
<b>Employee Benefits:</b>					
State Retirement Plan Contributions	\$ 943,088			\$ 862,460	\$ 80,628
Medical Dental Rx Premiums	166,789			175,143	(8,354)
Payroll and Unemployment Taxes	102,560			90,739	11,820
Life, Disability & WC Premiums	6,974			8,885	(1,911)
<b>Total Employee Benefits</b>	<b>1,219,411</b>	<b>1,447,850</b>	<b>(228,439)</b>	<b>1,137,228</b>	<b>82,183</b>
<b>Total Compensation and Benefits</b>	<b>\$ 2,630,194</b>	<b>\$ 3,148,420</b>	<b>\$ (518,225)</b>	<b>\$ 2,400,128</b>	<b>\$ 230,067</b>
<b>Benefits and Taxes as a % of Salary</b>	86.43%	85.14%		90.05%	

**Actual vs. Budget**

Total Employee compensation and benefit costs were \$518k under budget. Full time employee costs are \$251k under budget mostly due to \$227k of budgeted open positions and \$10k of timing differences due to start and end times of employees joining and leaving the Green Bank compared to budget. Additionally, Interns were \$43k under budget due to only 5 summer interns being hired compared to 7 budgeted positions being available in the summer of 2022. Benefits and Taxes are approx. \$228k less than budget due mostly to the favorable employee compensation variances previously noted. Additionally, Actual benefits and taxes were 86.43%, slightly higher than a budgeted 85.14% of total compensation for the period to date.

**Actual vs. Prior Year**

Compensation costs increased \$148k and benefit costs increased \$82k, respectively over the same period of the prior year. The Compensation increase is due to the 5% Cost-of-Living Adjustment (COLA) each employee received effective 7/1/22, as well as the addition of three new employees in pay periods 3&4 of FY22. The Benefit increase is mostly in-line with the increase in total compensation for the reasons previously noted. Actual benefit percentages decreased over the prior period from 90.1% to 86.4% of employee compensation. Additionally, actual contributions to the State employee retirement plan increased from 69.1% to 69.9% of full time employee compensation, year over year.

For detailed staffing, please refer to FY23 Budget.

**Connecticut Green Bank  
September 2022 Financial Package  
Historical Analysis of Compensation and Benefits**

	FYE 9/30/22 YTD Actual	FYE 6/30/22 Actual	FYE 6/30/21 Actual	FYE 6/30/20 Actual	FYE 6/30/19 Actual	FYE 6/30/18 Actual
<b>Compensation:</b>						
Full Time Employees	\$ 1,410,784	\$ 4,813,293	\$ 4,476,214	\$ 3,929,354	\$ 4,195,593	\$ 5,136,066
Temporary Employees	-	-	-	2,242	9,262	17,955
<b>Total Compensation</b>	<b>\$ 1,410,784</b>	<b>\$ 4,813,293</b>	<b>\$ 4,476,214</b>	<b>\$ 3,931,596</b>	<b>\$ 4,204,855</b>	<b>\$ 5,154,021</b>
<b>Employee Benefits:</b>						
State Retirement Plan Contributions	\$ 943,088	\$ 3,317,054	\$ 2,903,780	\$ 2,411,864	\$ 2,869,823	\$ 3,013,747
Medical Dental Rx Premiums	166,789	610,627	625,480	553,908	545,779	678,633
Payroll and Unemployment Taxes	102,560	353,405	305,032	269,295	306,091	347,070
Life, Disability & WC Premiums	6,974	28,223	23,840	27,567	46,944	102,225
<b>Total Employee Benefits</b>	<b>1,219,411</b>	<b>4,309,308</b>	<b>3,858,132</b>	<b>3,262,634</b>	<b>3,768,636</b>	<b>4,141,675</b>
<b>Total Compensation and Benefits</b>	<b>\$ 2,630,194</b>	<b>\$ 9,122,602</b>	<b>\$ 8,334,346</b>	<b>\$ 7,194,230</b>	<b>\$ 7,973,491</b>	<b>\$ 9,295,696</b>
<b>Medical Dental Rx Premiums as a % of Salary</b>	11.82%	12.69%	13.97%	14.09%	12.98%	13.17%
* <b>Retirement Plan Contributions as a % of Salary</b>	66.85%	68.91%	64.87%	61.35%	68.25%	58.47%
<b>Total Benefits and Taxes as a % of Salary</b>	86.43%	89.53%	86.19%	82.98%	89.63%	80.36%
*** <b>State of CT Comptroller Employer SERS Rate</b>	67.40%	65.90%	64.14%	59.99%	64.30%	56.58%
* 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	<b>35%</b> 493,774	1,684,653	1,566,675	1,376,059	1,471,699	1,803,907
<b>Actual Total Compensation and Benefits</b>	2,630,194	9,122,602	8,334,346	7,194,230	7,973,491	9,295,696
<b>Less Total Compensation and Benefits @ Hypothetical Rate</b>	(1,904,558)	(6,497,946)	(6,042,889)	(5,307,655)	(5,676,554)	(6,957,928)
Incremental HR cost due to State Benefits Charge	725,636	2,624,656	2,291,457	1,886,575	2,296,937	2,337,768

**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 accross 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 15 Tier 3 and 17 Tier IV employees of the total 40 full-time employees of the Green Bank at 6/30/22 (where Tier III and Tier IV are lower cost pension arrangements than Tier IIa and Tier II where the Green Bank only has 10 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. **\$2M per year**.

**Connecticut Green Bank**  
**Summary of Unfunded Commitments**  
**As of September 30, 2022**

(In thousands)

	EPBB	PBI	PBI-Solar Lease 2	CPACE Loans	Non CPACE Loans	All Projects	Balance	Increase / (Decrease)
	Balance	Balance	Balance	Balance	Balance	Balance	6/30/2022	
	9/30/2022	9/30/2022	9/30/2022	9/30/2022	9/30/2022	9/30/2022	9/30/2022	9/30/2022
Solar - SHREC Eligible	2,114	23,678	90	0	0	25,882	26,324	(442)
Solar - Not SHREC Eligible	5	1,202	88	0	0	1,296	1,368	(73)
CPACE	0	0	0	2,228	0	2,228	1,783	446
Multifamily/LMI Solar PV & EE	0	0	0	0	13,580	13,580	16,087	(2,507)
SBEA	0	0	0	0	17,672	17,672	17,480	191
Solar PPAs/IPC	0	0	0	0	12,102	12,102	12,989	(886)
Fuel Cells	0	0	0	0	5,000	5,000	5,000	0
Hydropower	0	0	0	0	330	330	330	0
<b>Total Unfunded Commitments</b>	<b>\$ 2,119</b>	<b>\$ 24,880</b>	<b>\$ 178</b>	<b>\$ 2,228</b>	<b>\$ 48,684</b>	<b>\$ 78,090</b>	<b>\$ 81,361</b>	<b>\$ (3,271)</b>



**Connecticut Green Bank  
Summary of Loan Guarantees  
As of September 30, 2022**

<b>Guarantor</b>	<b>Issuer</b>	<b>Beneficiary</b>	<b>Relationship of guarantor to Issuer</b>	<b>Type of obligation guaranteed</b>	<b>Maximum amount of guaranty</b>	<b>Obligations guaranteed as of 9/30/2022</b>	<b>Obligations guaranteed as of 6/30/2022</b>
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	\$ 3,555,822	\$ 3,448,384
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	1,342,862	1,366,560
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	500,000	500,000	500,000
					<b>\$ 7,695,807</b>	<b>\$ 5,698,684</b>	<b>\$ 5,614,944</b>

**Connecticut Green Bank**  
**Program Loans, Notes and Loan Loss Reserve Analysis**  
As of September 30, 2022

Legal Entity	Loan Program	Project	Loan Portfolio Balance 7/1/2022	FY23 YTD Investments	FY23 YTD Repayments	Loan Portfolio Balance As of September 30, 2022	Loan Loss Reserve Balance 7/1/2022	FY23 YTD Increase / Decrease to Reserve	Loan Loss Reserve Balance As of September 30, 2022	Reserve as a % of Portfolio Balance	Loan Portfolio Carrying Value As of September 30, 2022
CGB	CPACE Program	Various	\$ 52,649,614	\$ 341,744	\$ (3,371,855)	\$ 49,619,502	\$ (5,264,961)	\$ (127,500)	\$ (5,392,461)	10.9%	\$ 44,227,041
CGB	Fuel Cell Projects	Fuel Cell Energy	3,715,899		(208,832)	3,507,067	(371,590)		(371,590)	10.6%	3,135,477
		FEC-Bridge Loan	1,800,000			1,800,000	(180,000)		(180,000)	10.0%	1,620,000
		FEC-Bridge Loan	3,000,000			3,000,000	(300,000)		(300,000)	10.0%	2,700,000
CGB	CHP Pilot	Bridgeport MicroGrid	403,910		(5,543)	398,367	(20,196)		(20,196)	5.1%	378,171
CGB	Anaerobic Digester	Quantum Biopower	1,253,925		(33,290)	1,220,635	(62,696)		(62,696)	5.1%	1,157,939
		Fort Hill Ag-Grid LLC	662,475		(13,496)	648,979	(33,124)		(33,124)	5.1%	615,855
CGB	Other Loans	Nu Power Thermal	427,000			427,000	(427,000)		(427,000)	100.0%	-
		Terrace Heights Condos	77,899		(8,475)	69,424	(7,790)		(7,790)	11.2%	61,634
CGB	Multifamily / Affordable Housing / Credit Challenged / LMI	Capital for Change	3,672,898		(49,959)	3,622,939	(367,290)		(367,290)	10.1%	3,255,649
		CEEFCo	2,656,000			2,656,000	(265,600)		(265,600)	10.0%	2,390,400
		Pre-Dev Loans	266,236		(7,686)	258,550	(53,247)		(53,247)	20.6%	205,302
		Posigen	10,849,941	2,507,137	(483,354)	12,873,724	(1,084,994)		(1,084,994)	8.4%	11,788,730
CGB	Energy Efficiency Financing	RENEW Energy Efficiency Bridgeport	108,675		(9,895)	98,779	(10,867)		(10,867)	11.0%	87,912
CGB	Alpha Program	Anchor Science	150,000			150,000	(75,000)		(75,000)	50.0%	75,000
CGB	Op Demo Program	New England Hydropower Co.	500,000			500,000	(499,999)		(499,999)	100.0%	1
CGB	Wind Financing	Wind Colebrook	1,474,232		(27,563)	1,446,669	(147,423)		(147,423)	10.2%	1,299,246
CGB	Hydro Projects	Canton Hydro	704,827			704,827	(35,241)		(35,241)	5.0%	669,586
CGB	Sunwealth Note	Sunwealth	846,941		(12,778)	834,162	(42,347)		(42,347)	5.1%	791,815
CGB	IPC Note Receivable	IPC	1,000,000			1,000,000	-		-	0.0%	1,000,000
CGB	Budderfly	Budderfly	5,014,583	44,987		5,059,570	(501,458)		(501,458)	9.9%	4,558,112
CGB	Budgeted LLR Adj (to be adjusted at fiscal year end)	Various	-	-	-	-	-	(571,217)	(571,217)	0.0%	(571,217)
CEFIA Holdings	Sunwealth Note	Sunwealth	761,915		(16,069)	745,846	(38,096)	(6,023)	(44,119)	5.9%	701,727
CEFIA Holdings	Skyview Notes	Skyview	6,197,860		(97,184)	6,100,677	(309,893)	125,024	(184,869)	3.0%	5,915,808
CEFIA Holdings	SBEA Loans	SBEA	54,147		(16,236)	37,911	-	-	-	0.0%	37,911
CEFIA Holdings	Inclusive Solar Manager	IPC	1,012,318	886,470		1,898,787	(20,246)	20,246	-	0.0%	1,898,787
CEFIA Holdings	Inclusive Solar Developer	IPC	445,169			445,169	(8,903)	8,903	-	0.0%	445,169
CT Solar Loan 1	Solar Loans	CT Solar Loan 1	865,378	688	(127,449)	738,617	(43,269)	-	(43,269)	5.9%	695,348
CT Solar Lease 1	Solar Lease Notes	CT Solar Lease 1	3,345,991	14,478	(271,896)	3,088,574	(342,330)	-	(342,330)	11.1%	2,746,244
CGB CPACE LLC	CPACE Program	Various	1,488,794	338,075	(87,709)	1,739,161	-	-	-	0.0%	1,739,161
CGB Green Liberty Notes LLC	SBEA Loans	SBEA	2,465,810	35,011	(210,564)	2,290,257	-	-	-	0.0%	2,290,257
<b>Total:</b>			<b>\$ 107,872,438</b>	<b>\$ 4,168,588</b>	<b>\$ (5,059,833)</b>	<b>\$ 106,981,192</b>	<b>\$ (10,513,562)</b>	<b>\$ (550,566)</b>	<b>\$ (11,064,128)</b>	<b>10.3%</b>	<b>\$ 95,917,064</b>
<b>CGB:</b>											
<b>CPACE Loans</b>			\$ 52,649,614	\$ 341,744	\$ (3,371,855)	\$ 49,619,502	\$ (5,264,961)	\$ (127,500)	\$ (5,392,461)	10.9%	\$ 44,227,041
<b>Posigen</b>			\$ 10,849,941	\$ 2,507,137	\$ (483,354)	\$ 12,873,724	\$ (1,084,994)	\$ -	\$ (1,084,994)	8.4%	\$ 11,788,730
<b>Sunwealth</b>			\$ 846,941	\$ -	\$ (12,778)	\$ 834,162	\$ (42,347)	\$ -	\$ (42,347)	5.1%	\$ 791,815
<b>Program Loans</b>			\$ 26,888,560	\$ 44,987	\$ (364,740)	\$ 26,568,807	\$ (3,358,522)	\$ (571,217)	\$ (3,929,739)	14.8%	\$ 22,639,068
<b>Total CGB:</b>			\$ 91,235,056	\$ 2,893,867	\$ (4,232,727)	\$ 89,896,195	\$ (9,750,824)	\$ (698,717)	\$ (10,449,541)	11.6%	\$ 79,446,654
<b>CEFIA Holdings</b>			\$ 8,471,409	\$ 886,470	\$ (129,489)	\$ 9,228,389	\$ (377,138)	\$ 148,151	\$ (228,988)	2.5%	\$ 8,999,402
<b>CT Solar Loan 1</b>			\$ 865,378	\$ 688	\$ (127,449)	\$ 738,617	\$ (43,269)	\$ -	\$ (43,269)	5.9%	\$ 695,348
<b>CT Solar Lease 1</b>			\$ 3,345,991	\$ 14,478	\$ (271,896)	\$ 3,088,574	\$ (342,330)	\$ -	\$ (342,330)	11.1%	\$ 2,746,244
<b>CGB CPACE LLC</b>			\$ 1,488,794	\$ 338,075	\$ (87,709)	\$ 1,739,161	\$ -	\$ -	\$ -	0.0%	\$ 1,739,161
<b>CGB Green Liberty Notes LLC</b>			\$ 2,465,810	\$ 35,011	\$ (210,564)	\$ 2,290,257	\$ -	\$ -	\$ -	0.0%	\$ 2,290,257
			<b>\$ 95,917,064</b>								

**Connecticut Green Bank - Primary Government  
Consolidated Balance Sheet  
As of September 30, 2022**

	Connecticut Green Bank As of 9/30/2022	CGB Meriden Hydro LLC As of 9/30/2022	CGB KCF LLC As of 9/30/2022	SHREC ABS 1 LLC As of 9/30/2022	SHREC Warehouse 1 LLC As of 9/30/2022	CT Solar Lease 1 LLC As of 9/30/2022	CGB C-PACE LLC As of 9/30/2022	CT Solar Loan 1 LLC As of 9/30/2022	CEFIA Holdings LLC As of 9/30/2022	CGB Green Liberty Notes LLC As of 9/30/2022	Eliminations As of 9/30/2022	CGB-Primary Government As of 9/30/2022
<b>Assets</b>												
<b>Current Assets</b>												
Cash and Cash Equivalents	40,158,641	62,857	-	1,624,546	182,225	-	254,263	1,755,147	632,307	1,400,589	-	46,070,575
Accounts Receivable	3,626,442	-	-	-	-	-	5,543	-	14,576	-	-	3,646,560
Current Portion of Program Loans, Net of Reserves	-	-	-	-	-	-	-	-	-	-	-	-
Utility Remittance Receivable	2,362,839	-	-	-	-	-	-	-	-	-	-	2,362,839
Current Portion of Solar Lease Notes	-	-	-	-	-	-	-	-	-	-	-	-
Current Portion of SBEA Promissory Notes	-	-	-	-	-	-	-	-	-	-	-	-
Current Portion of Lease Receivable	-	-	-	-	-	-	-	-	-	-	-	-
Interest Receivable	759,491	-	-	-	-	-	50,740	4,036	94,419	-	-	908,685
Other Receivables	234,654	-	-	-	-	82,364	-	224	4,317,685	-	-	4,634,928
Prepaid Expenses and Other Assets	307,836	70,488	-	30,333	-	-	-	-	693,266	-	-	1,101,923
Current Portion of Prepaid Warranty Management	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Current Assets</b>	<b>47,449,902</b>	<b>133,345</b>	<b>-</b>	<b>1,654,879</b>	<b>182,225</b>	<b>82,364</b>	<b>310,545</b>	<b>1,759,407</b>	<b>5,752,253</b>	<b>1,400,589</b>	<b>-</b>	<b>58,725,510</b>
<b>Noncurrent Assets</b>												
<b>Restricted Assets</b>												
Cash and Cash Equivalents	15,063,697	-	-	1,075,402	2,285,192	-	-	84,399	25,205	-	-	18,533,896
Investments	912,217	-	-	-	-	-	-	-	-	-	-	912,217
Program Loans, net of reserves	79,446,653	-	-	-	-	-	1,739,161	695,348	8,961,491	-	-	90,842,653
Solar Lease 1 Promissory Notes, net of reserves	-	-	-	-	-	2,746,244	-	-	-	-	-	2,746,244
Renewable Energy Certificates	229,019	-	-	-	-	-	-	-	-	-	-	229,019
SBEA Promissory Notes, net of reserves	-	-	-	-	-	-	-	-	36,469	2,218,394	-	2,254,863
Lease Receivable, less current portion	-	-	-	-	-	-	-	-	-	-	-	-
Due From Component Units	68,739,492	-	-	25,663,204	3,784,455	-	-	-	8,959,126	-	(56,625,468)	50,520,809
Investment in Component Units	100,100	-	-	-	-	-	-	-	100	-	(100,100)	100
Prepaid Warranty Management, less current portion	-	-	-	-	-	-	-	-	-	-	-	-
Fair Value - Interest Rate Swap	-	-	-	-	-	-	-	-	-	-	-	-
Capital Assets, net	12,084,982	3,775,648	-	-	-	-	-	-	-	-	-	15,860,630
<b>Total Noncurrent Assets</b>	<b>176,576,161</b>	<b>3,775,648</b>	<b>-</b>	<b>26,738,606</b>	<b>6,069,647</b>	<b>2,746,244</b>	<b>1,739,161</b>	<b>779,747</b>	<b>17,982,391</b>	<b>2,218,394</b>	<b>(56,725,568)</b>	<b>181,900,430</b>
<b>Total Assets</b>	<b>224,026,063</b>	<b>3,908,993</b>	<b>-</b>	<b>28,393,485</b>	<b>6,251,872</b>	<b>2,828,608</b>	<b>2,049,706</b>	<b>2,539,154</b>	<b>23,734,644</b>	<b>3,618,983</b>	<b>(56,725,568)</b>	<b>240,625,939</b>
<b>Deferred Outflows of Resources</b>												
Deferred Amount for Pensions	6,439,478	-	-	-	-	-	-	-	-	-	-	6,439,478
Deferred Amount for OPEB	5,172,871	-	-	-	-	-	-	-	-	-	-	5,172,871
Deferred Amount for Asset Retirement Obligations	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Deferred Outflows of Resources</b>	<b>11,612,349</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>11,612,349</b>
<b>Liabilities</b>												
<b>Current Liabilities</b>												
Accounts Payable	330,112	-	-	-	-	-	-	1,681	-	-	-	331,793
Accrued payroll and related liabilities	1,296,862	-	-	-	-	-	-	-	-	-	-	1,296,862
Accrued Expenses	9,091,472	-	-	46,103	-	-	-	90	71,980	1,112	-	9,210,758
Notes Payable-Green Liberty Notes	-	-	-	-	-	-	-	-	-	554,735	-	554,735
Line of Credit-Amalgamated	-	-	-	-	-	-	-	-	-	-	-	-
Current Maturities of Long-Term Debt	214,144	-	-	-	-	-	-	-	-	-	-	214,144
Custodial Liability	221,701	-	-	-	-	-	-	-	1,096,400	-	-	1,318,101
Deferred Revenue	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Current Liabilities</b>	<b>11,154,290</b>	<b>-</b>	<b>-</b>	<b>46,103</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,771</b>	<b>1,168,381</b>	<b>555,847</b>	<b>-</b>	<b>12,926,392</b>
<b>Noncurrent Liabilities</b>												
Due to Component Units	29,507,058	5,709,180	21,918	-	-	2,935,703	1,935,000	2,215,000	11,336,952	3,024,057	(56,625,468)	59,399
Asset Retirement Obligation	-	-	-	-	-	-	-	-	-	-	-	-
Long-term debt	52,264,472	-	-	21,301,596	-	-	-	-	-	-	-	73,566,068
Pension Liability	21,273,373	-	-	-	-	-	-	-	-	-	-	21,273,373
OPEB Liability	20,516,564	-	-	-	-	-	-	-	-	-	-	20,516,564
Warranty management, less current maturities	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Noncurrent Liabilities</b>	<b>123,561,467</b>	<b>5,709,180</b>	<b>21,918</b>	<b>21,301,596</b>	<b>-</b>	<b>2,935,703</b>	<b>1,935,000</b>	<b>2,215,000</b>	<b>11,336,952</b>	<b>3,024,057</b>	<b>(56,625,468)</b>	<b>115,415,404</b>
<b>Total Liabilities</b>	<b>134,715,757</b>	<b>5,709,180</b>	<b>21,918</b>	<b>21,347,700</b>	<b>-</b>	<b>2,935,703</b>	<b>1,935,000</b>	<b>2,216,771</b>	<b>12,505,332</b>	<b>3,579,904</b>	<b>(56,625,468)</b>	<b>128,341,796</b>
<b>Deferred Inflows of Resources</b>												
Deferred Pension Inflow Liability	5,424,891	-	-	-	-	-	-	-	-	-	-	5,424,891
Deferred OPEB Inflow Liability	9,694,281	-	-	-	-	-	-	-	-	-	-	9,694,281
Deferred Lease Inflow Liability	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Deferred Inflows of Resources</b>	<b>15,119,172</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>15,119,172</b>
<b>Net Position</b>												
Net Investment in Capital Assets	12,084,982	3,775,648	-	-	-	-	-	-	-	-	-	15,860,630
Restricted-Energy Programs	15,063,697	-	-	1,075,402	2,285,192	-	-	84,399	25,205	-	-	18,533,896
Unrestricted Net Position	59,654,804	(5,575,835)	(21,918)	5,970,384	3,966,879	(107,095)	114,706	237,984	11,204,106	39,079	(100,100)	74,392,795
<b>Total Net Position</b>	<b>85,803,483</b>	<b>(1,800,187)</b>	<b>(21,918)</b>	<b>7,045,786</b>	<b>6,251,872</b>	<b>(107,095)</b>	<b>114,706</b>	<b>322,383</b>	<b>11,229,312</b>	<b>39,079</b>	<b>(100,100)</b>	<b>108,777,320</b>

**Connecticut Green Bank  
Consolidated Balance Sheet  
As of September 30, 2022**

	CGB-Primary Government As of 9/30/2022	CT Solar Lease 2 LLC As of 9/30/2022	CT Solar Lease 3 LLC As of 9/30/2022	CEFIA Solar Services Inc. As of 9/30/2022	Eliminations As of 9/30/2022	Consolidated As of 9/30/2022	Consolidated As of 6/30/2022	Consolidated YOY Change
<b>Assets</b>								
<b>Current Assets</b>								
Cash and Cash Equivalents	46,070,575	987,260	2,618,985	604,489	-	50,281,309	61,848,445	(11,567,137)
Accounts Receivable	3,646,560	87,869	25,715	762	-	3,760,907	2,697,386	1,063,521
Current Portion of Program Loans, Net of Reserves	-	-	-	-	-	-	-	-
Utility Remittance Receivable	2,362,839	-	-	-	-	2,362,839	2,443,870	(81,032)
Current Portion of Solar Lease Notes	-	-	-	-	-	-	-	-
Current Portion of SBEA Promissory Notes	-	-	-	-	-	-	-	-
Current Portion of Lease Receivable	-	984,926	-	2,550	-	987,476	1,058,634	(71,158)
Interest Receivable	908,685	1,105	-	-	-	909,790	645,686	264,104
Other Receivables	4,634,928	698,758	324,602	1,362,688	-	7,020,976	5,549,528	1,471,448
Prepaid Expenses and Other Assets	1,101,923	289,134	22,225	-	-	1,413,282	1,110,250	303,032
Current Portion of Prepaid Warranty Management	-	-	-	-	-	-	-	-
<b>Total Current Assets</b>	<b>58,725,510</b>	<b>3,049,052</b>	<b>2,991,528</b>	<b>1,970,490</b>	<b>-</b>	<b>66,736,579</b>	<b>75,353,801</b>	<b>(8,617,221)</b>
<b>Noncurrent Assets</b>								
<b>Restricted Assets</b>								
Cash and Cash Equivalents	18,533,896	3,421,844	-	383,026	-	22,338,765	18,708,774	3,629,992
Investments	912,217	-	-	-	-	912,217	1,231,792	(319,575)
Program Loans, net of reserves	90,842,653	-	-	-	-	90,842,653	81,541,904	9,300,750
Solar Lease I Promissory Notes, net of reserves	2,746,244	-	-	-	-	2,746,244	3,728,576	(982,332)
Renewable Energy Certificates	229,019	-	-	-	-	229,019	348,716	(119,697)
SBEA Promissory Notes, net of reserves	2,254,863	-	-	-	-	2,254,863	1,975,447	279,416
Lease Receivable, less current portion	-	16,215,051	-	66,268	-	16,281,319	17,049,036	(767,717)
Due From Component Units	50,520,809	59,511	-	7,688,371	(58,268,691)	-	-	-
Investment in Component Units	100	-	-	31,264,299	(31,264,399)	-	-	-
Prepaid Warranty Management, less current portion	-	3,417,096	-	-	-	3,417,096	3,660,948	(243,852)
Fair Value - Interest Rate Swap	-	93,107	-	-	-	93,107	(699,023)	792,130
Capital Assets, net	15,860,630	49,218,158	9,777,988	399,837	85,279	75,341,891	78,818,993	(3,477,102)
<b>Total Noncurrent Assets</b>	<b>181,900,430</b>	<b>72,424,766</b>	<b>9,777,988</b>	<b>39,801,801</b>	<b>(89,447,811)</b>	<b>214,457,174</b>	<b>206,365,162</b>	<b>8,092,012</b>
<b>Total Assets</b>	<b>240,625,939</b>	<b>75,473,818</b>	<b>12,769,516</b>	<b>41,772,291</b>	<b>(89,447,811)</b>	<b>281,193,753</b>	<b>281,718,963</b>	<b>(525,210)</b>
<b>Deferred Outflows of Resources</b>								
Deferred Amount for Pensions	6,439,478	-	-	-	-	6,439,478	4,550,879	1,888,599
Deferred Amount for OPEB	5,172,871	-	-	-	-	5,172,871	5,238,343	(65,472)
Deferred Amount for Asset Retirement Obligations	-	1,833,461	483,943	-	-	2,317,404	2,487,824	(170,420)
<b>Total Deferred Outflows of Resources</b>	<b>11,612,349</b>	<b>1,833,461</b>	<b>483,943</b>	<b>-</b>	<b>-</b>	<b>13,929,753</b>	<b>12,277,046</b>	<b>1,652,707</b>
<b>Liabilities</b>								
<b>Current Liabilities</b>								
Accounts Payable	331,793	-	-	-	-	331,793	973,590	(641,797)
Accrued payroll and related liabilities	1,296,862	-	-	-	-	1,296,862	1,139,857	157,005
Accrued Expenses	9,210,758	285,190	24,433	38,770	-	9,559,151	9,733,002	(173,852)
Notes Payable-Green Liberty Notes	554,735	-	-	-	-	554,735	-	554,735
Line of Credit-Amalgamated	-	-	-	-	-	-	-	-
Current Maturities of Long-Term Debt	214,144	-	-	-	-	214,144	152,035	62,109
Custodial Liability	1,318,101	-	-	6,383	-	1,324,484	1,587,820	(263,336)
Deferred Revenue	-	(12,179)	17,309	-	-	5,130	32,414	(27,284)
<b>Total Current Liabilities</b>	<b>12,926,392</b>	<b>273,010</b>	<b>41,742</b>	<b>45,153</b>	<b>-</b>	<b>13,286,297</b>	<b>13,618,717</b>	<b>(332,420)</b>
<b>Noncurrent Liabilities</b>								
Due to Component Units	59,399	18,474,339	(114)	39,735,067	(58,268,691)	-	-	-
Asset Retirement Obligation	-	3,408,428	709,908	-	-	4,118,336	4,018,011	100,325
Long-term debt	73,566,068	10,303,769	-	1,342,862	-	85,212,699	108,102,423	(22,889,723)
Pension Liability	21,273,373	-	-	-	-	21,273,373	20,268,725	1,004,648
OPEB Liability	20,516,564	-	-	-	-	20,516,564	23,688,513	(3,171,949)
Warranty management, less current maturities	-	-	-	-	-	-	1,358,476	(1,358,476)
<b>Total Noncurrent Liabilities</b>	<b>115,415,404</b>	<b>32,186,536</b>	<b>709,795</b>	<b>41,077,929</b>	<b>(58,268,691)</b>	<b>131,120,973</b>	<b>157,436,147</b>	<b>(26,315,175)</b>
<b>Total Liabilities</b>	<b>128,341,796</b>	<b>32,459,546</b>	<b>751,537</b>	<b>41,123,082</b>	<b>(58,268,691)</b>	<b>144,407,270</b>	<b>171,054,864</b>	<b>(26,647,594)</b>
<b>Deferred Inflows of Resources</b>								
Deferred Pension Inflow Liability	5,424,891	-	-	-	-	5,424,891	5,071,624	353,267
Deferred OPEB Inflow Liability	9,694,281	-	-	-	-	9,694,281	7,227,544	2,466,737
Deferred Lease Inflow Liability	-	16,987,117	-	68,819	-	17,055,935	18,372,781	(1,316,845)
<b>Total Deferred Inflows of Resources</b>	<b>15,119,172</b>	<b>16,987,117</b>	<b>-</b>	<b>68,819</b>	<b>-</b>	<b>32,175,107</b>	<b>30,671,949</b>	<b>1,503,159</b>
<b>Net Position</b>								
Net Investment in Capital Assets	15,860,630	49,218,158	9,777,988	399,837	85,279	75,341,891	78,818,993	(3,477,102)
Restricted-Energy Programs	18,533,896	3,421,844	-	383,026	-	22,338,765	18,708,774	3,629,992
Unrestricted Net Position	74,382,795	(24,779,385)	2,723,934	(202,472)	(31,264,399)	20,860,472	(5,258,571)	26,119,044
<b>Total Net Position</b>	<b>108,777,320</b>	<b>27,860,616</b>	<b>12,501,922</b>	<b>580,391</b>	<b>(31,179,120)</b>	<b>118,541,129</b>	<b>92,269,195</b>	<b>26,271,933</b>

**Connecticut Green Bank - Primary Government**  
**Consolidated Statement of Revenues and Expenditures**  
**For the Period July 1, 2022 to September 30, 2022**

	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
	9/30/2022	9/30/2022	9/30/2022	9/30/2022	9/30/2022	9/30/2022	9/30/2022	9/30/2022	9/30/2022	9/30/2022	9/30/2022
<b>Operating Income (Loss)</b>											
Operating Revenues											
Utility Remittances	7,443,191	-	-	-	-	-	-	-	-	-	7,443,191
Interest Income-Promissory Notes	1,417,585	-	-	-	46,554	19,090	13,070	189,692	40,412	-	1,726,404
RGGI Auction Proceeds	2,909,041	-	-	-	-	-	-	-	-	-	2,909,041
REC Sales	1,085,583	-	789,247	396,445	-	-	-	-	-	-	2,271,275
Other Income	275,483	-	-	-	-	-	45	1	-	-	275,529
<b>Total Operating Revenues</b>	<b>13,130,883</b>	<b>-</b>	<b>789,247</b>	<b>396,445</b>	<b>46,554</b>	<b>19,090</b>	<b>13,115</b>	<b>189,693</b>	<b>40,412</b>	<b>-</b>	<b>14,625,439</b>
Operating Expenses											
Provision for Loan Losses	698,717	-	-	-	-	-	-	(148,151)	-	-	550,566
Grants and Incentive Payments	1,674,372	-	-	-	-	-	-	-	-	-	1,674,372
Program Administration Expenses	3,090,461	65,172	14,750	78,889	31,290	-	4,804	93,830	5,250	-	3,384,447
General and Administrative Expenses	1,112,385	-	-	11,641	-	394	975	7,990	-	-	1,133,385
<b>Total Operating Expenses</b>	<b>6,575,935</b>	<b>65,172</b>	<b>14,750</b>	<b>90,530</b>	<b>31,290</b>	<b>394</b>	<b>5,780</b>	<b>(46,331)</b>	<b>5,250</b>	<b>-</b>	<b>6,742,770</b>
<b>Operating Income (Loss)</b>	<b>6,554,948</b>	<b>(65,172)</b>	<b>774,497</b>	<b>305,915</b>	<b>15,264</b>	<b>18,696</b>	<b>7,336</b>	<b>236,024</b>	<b>35,162</b>	<b>-</b>	<b>7,882,670</b>
<b>Nonoperating Revenue (Expenses)</b>											
Interest Income-Short Term Cash Deposits	144,479	-	8,274	13	-	-	65	6	-	-	152,836
Interest Income-Component Units	17,944	-	-	-	-	-	-	-	-	-	17,944
Interest Expense-LT Debt	(232,752)	-	(389,281)	-	-	-	-	-	-	-	(622,033)
Debt Issuance Costs	-	-	-	-	-	-	-	-	(2,500)	-	(2,500)
<b>Total Nonoperating Revenue (Expenses)</b>	<b>(70,330)</b>	<b>-</b>	<b>(381,007)</b>	<b>13</b>	<b>-</b>	<b>-</b>	<b>65</b>	<b>6</b>	<b>(2,500)</b>	<b>-</b>	<b>(453,753)</b>
<b>Change in Net Position</b>	<b>6,484,618</b>	<b>(65,172)</b>	<b>393,490</b>	<b>305,928</b>	<b>15,264</b>	<b>18,696</b>	<b>7,400</b>	<b>236,030</b>	<b>32,662</b>	<b>-</b>	<b>7,428,916</b>

**Connecticut Green Bank**  
**Consolidated Statement of Revenues and Expenditures**  
**For the Period July 1, 2022 to September 30, 2022**

	CGB-Primary Government Fiscal YTD 9/30/2022	CT Solar Lease 2 LLC Fiscal YTD 9/30/2022	CT Solar Lease 3 LLC Fiscal YTD 9/30/2022	CEFIA Solar Services Inc. Fiscal YTD 9/30/2022	Eliminations Fiscal YTD 9/30/2022	Consolidated Fiscal YTD 9/30/2022	Consolidated Fiscal YTD 9/30/2021	Consolidated YOY Variance
<b>Operating Income (Loss)</b>								
Operating Revenues								
Utility Remittances	7,443,191	-	-	-	-	7,443,191	7,248,914	194,277
Interest Income-Promissory Notes	1,726,404	-	-	-	-	1,726,404	1,630,524	95,880
RGGI Auction Proceeds	2,909,041	-	-	-	-	2,909,041	2,083,290	825,751
Energy System Sales	-	-	-	696,836	-	696,836	451,092	245,743
REC Sales	2,271,275	182,387	126,000	4,921	-	2,584,582	2,627,421	(42,839)
Lease Income	-	370,184	-	-	-	370,184	373,368	(3,183)
Other Income	275,529	192,429	122,223	59,721	23,135	673,037	581,808	91,230
Total Operating Revenues	14,625,439	745,001	248,223	761,477	23,135	16,403,275	14,996,416	1,406,859
Operating Expenses								
Cost of Goods Sold-Energy Systems	-	-	-	696,836	-	696,836	451,092	245,743
Provision for Loan Losses	550,566	-	-	-	-	550,566	413,095	137,471
Grants and Incentive Payments	1,674,372	-	-	-	60,601	1,734,973	5,008,408	(3,273,435)
Program Administration Expenses	3,384,447	647,528	57,062	83,038	(85,279)	4,086,796	4,318,255	(231,459)
General and Administrative Expenses	1,133,385	47,935	5,000	4,670	(37,466)	1,153,524	922,240	231,284
Total Operating Expenses	6,742,770	695,464	62,062	784,543	(62,144)	8,222,695	11,113,090	(2,890,396)
Operating Income (Loss)	7,882,670	49,537	186,161	(23,066)	85,279	8,180,580	3,883,326	4,297,254
<b>Nonoperating Revenue (Expenses)</b>								
Interest Income-Short Term Cash Deposits	152,836	280	739	26	-	153,882	10,899	142,983
Interest Income-Component Units	17,944	-	-	13,227	(31,171)	-	-	-
Interest Expense-Component Units	-	(31,171)	-	-	31,171	-	-	-
Interest Expense-ST Debt	-	-	-	-	-	-	(1,048)	1,048
Interest Expense-LT Debt	(622,033)	(136,143)	-	(8,442)	-	(766,618)	(895,837)	129,219
Debt Issuance Costs	(2,500)	-	-	-	-	(2,500)	-	(2,500)
Distributions to Member	-	(128,584)	(22,801)	-	-	(151,385)	(151,385)	-
Net change in fair value of investments	-	(11,108)	-	-	-	(11,108)	(72,009)	60,901
Total Nonoperating Revenue (Expenses)	(453,753)	(306,726)	(22,062)	4,811	-	(777,730)	(1,109,381)	331,651
<b>Change in Net Position</b>	<b>7,428,916</b>	<b>(257,189)</b>	<b>164,099</b>	<b>(18,255)</b>	<b>85,279</b>	<b>7,402,851</b>	<b>2,773,945</b>	<b>4,628,905</b>

**Connecticut Green Bank - Primary Government**  
**Consolidated Statement of Cash Flows**  
**For the Period July 1, 2022 to September 30, 2022**

	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 9/30/2022	Fiscal YTD 9/30/2022	Fiscal YTD 9/30/2022	Fiscal YTD 9/30/2022	Fiscal YTD 9/30/2022	Fiscal YTD 9/30/2022	Fiscal YTD 9/30/2022	Fiscal YTD 9/30/2022	Fiscal YTD 9/30/2022	Fiscal YTD 9/30/2022	Fiscal YTD 9/30/2022	
<b>Operating Activities</b>												
Change in Net Position	6,484,618	(65,172)	-	393,490	305,928	15,264	18,696	7,400	236,030	32,662	-	7,428,916
Adjustments to reconcile change in net position to net cash provided by (used in) operating activities												
Depreciation	129,431	38,010	-	-	-	-	-	-	-	-	-	167,441
Provision for Loan Losses	698,717	-	-	-	-	-	-	-	(148,151)	-	-	550,566
Changes in operating assets and liabilities:												
Accounts Receivable	409,644	-	-	-	-	-	16,446	-	-	-	-	426,090
Utility Remittance Receivable	(321,052)	-	-	-	-	-	-	-	-	-	-	(321,052)
Interest Receivables	403,246	-	-	-	-	-	(50,740)	627	(94,419)	-	-	258,715
Other Receivables	(67,705)	-	-	-	-	-	-	(224)	(195,077)	26,873	-	(236,133)
Due from Component Units	(2,227,762)	-	-	9,972,740	-	-	-	-	(1,200,000)	-	-	6,544,979
Prepaid Expenses and Other Assets	(46,083)	32,641	-	13,000	-	-	-	-	34,051	-	-	33,609
Accounts Payable and Accrued Expenses	1,116,255	(31,059)	-	(22,273)	(4,167)	-	-	391	51,946	-	-	1,111,094
Due to Component Units	(10,033,342)	-	-	-	-	(272,682)	200,000	(217,500)	1,000,000	-	-	(9,323,524)
Custodial Liability	(32,356)	-	-	-	-	-	-	-	(35,993)	-	-	(68,349)
<b>Net cash provided by (used in) operating activities</b>	<b>(3,486,389)</b>	<b>(25,581)</b>	<b>-</b>	<b>10,356,957</b>	<b>301,761</b>	<b>(257,418)</b>	<b>184,403</b>	<b>(209,305)</b>	<b>(351,612)</b>	<b>59,535</b>	<b>-</b>	<b>6,572,352</b>
<b>Investing Activities</b>												
Program Loan Disbursements	(2,893,867)	-	-	-	-	-	(250,366)	688	(887,322)	(75,423)	-	(4,106,290)
Return of Principal on Program Loans	4,232,727	-	-	-	-	257,418	-	126,073	129,489	210,564	-	4,956,271
<b>Net cash provided by (used in) investing activities</b>	<b>1,338,861</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>257,418</b>	<b>(250,366)</b>	<b>126,761</b>	<b>(757,833)</b>	<b>135,141</b>	<b>-</b>	<b>849,981</b>
<b>Financing Activities</b>												
Proceeds from Green Liberty Notes	-	-	-	-	-	-	-	-	-	554,735	-	554,735
Repayments of Debt	-	-	-	(10,313,794)	-	-	-	-	-	(304,735)	-	(10,618,529)
<b>Net cash provided by (used in) investing activities</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(10,313,794)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>250,000</b>	<b>-</b>	<b>(10,063,794)</b>
<b>Net increase (decrease) in cash and cash equivalents</b>	<b>(2,147,528)</b>	<b>(25,581)</b>	<b>-</b>	<b>43,163</b>	<b>301,761</b>	<b>-</b>	<b>(65,963)</b>	<b>(82,545)</b>	<b>(1,109,445)</b>	<b>444,676</b>	<b>-</b>	<b>(2,641,461)</b>
<b>Cash and Cash Equivalents, Beginning of Period</b>												
Unrestricted	43,664,058	88,438	-	1,577,523	276,176	-	320,226	1,620,256	1,741,285	955,913	-	50,243,875
Restricted	13,705,808	-	-	1,079,262	1,889,479	-	-	301,834	25,673	-	-	17,002,056
<b>Cash and Cash Equivalents, Beginning of Period</b>	<b>57,369,866</b>	<b>88,438</b>	<b>-</b>	<b>2,656,785</b>	<b>2,165,655</b>	<b>-</b>	<b>320,226</b>	<b>1,922,091</b>	<b>1,766,958</b>	<b>955,913</b>	<b>-</b>	<b>67,245,931</b>
<b>Cash and Cash Equivalents, End of Period</b>												
Unrestricted	40,158,641	62,857	-	1,624,546	182,225	-	254,263	1,755,147	632,307	1,400,589	-	46,070,575
Restricted	15,063,697	-	-	1,075,402	2,285,192	-	-	84,399	25,205	-	-	18,533,896
<b>Cash and Cash Equivalents, End of Period</b>	<b>55,222,338</b>	<b>62,857</b>	<b>-</b>	<b>2,699,948</b>	<b>2,467,417</b>	<b>-</b>	<b>254,263</b>	<b>1,839,546</b>	<b>657,512</b>	<b>1,400,589</b>	<b>-</b>	<b>64,604,470</b>

**Connecticut Green Bank**  
**Consolidated Statement of Cash Flows**  
**For the Period July 1, 2022 to September 30, 2022**

	CGB-Primary Government	CT Solar Lease 2 LLC	CT Solar Lease 3 LLC	CEFIA Solar Services Inc.	Eliminations	Consolidated
	Fiscal YTD 9/30/2022	Fiscal YTD 9/30/2022	Fiscal YTD 9/30/2022	Fiscal YTD 9/30/2022	Fiscal YTD 9/30/2022	Fiscal YTD 9/30/2022
<b>Operating Activities</b>						
Change in Net Position	7,428,916	(257,189)	164,099	(18,255)	-	7,317,572
Adjustments to reconcile change in net position to net cash provided by (used in) operating activities						
Depreciation	167,441	612,881	106,815	3,812	-	890,948
Provision for Loan Losses	550,566	-	-	-	-	550,566
Loss on Fixed Asset Disposals/Solar Lease Buyouts	-	11,108	-	-	-	11,108
Changes in operating assets and liabilities:						
Accounts Receivable	426,090	6,161	15,643	1,287	-	449,181
Utility Remittance Receivable	(321,052)	-	-	-	-	(321,052)
Interest Receivable	258,715	(1,105)	-	-	-	257,610
Other Receivables	(236,133)	37,852	(4,278)	(609,873)	-	(812,432)
Due from Component Units	6,544,979	60,489	-	(13,227)	(6,592,241)	-
Prepaid Expenses and Other Assets	33,609	121,821	14,364	-	-	169,795
Accounts Payable and Accrued Expenses	1,111,094	170,472	37,727	(15,377)	-	1,303,915
Due to Component Units	(9,323,524)	1,531,171	112	1,200,000	6,592,241	-
Custodial Liability	(68,349)	-	-	-	-	(68,349)
Deferred Revenue	-	(12,179)	(6,821)	-	-	(19,000)
<b>Net cash provided by (used in) operating activities</b>	<b>6,572,352</b>	<b>2,281,482</b>	<b>327,661</b>	<b>548,367</b>	<b>-</b>	<b>9,729,861</b>
<b>Investing Activities</b>						
Proceeds from sale of Capital Assets/Solar Lease Buyouts	-	6,232	-	-	-	6,232
Program Loan Disbursements	(4,106,290)	-	-	-	-	(4,106,290)
Return of Principal on Program Loans	4,956,271	-	-	-	-	4,956,271
<b>Net cash provided by (used in) investing activities</b>	<b>849,981</b>	<b>6,232</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>856,212</b>
<b>Financing Activities</b>						
Proceeds from Green Liberty Notes	554,735	-	-	-	-	554,735
Repayments of Debt	(10,618,529)	(1,500,000)	-	(23,698)	-	(12,142,226)
Distributions to Investor Member	-	(255,770)	(45,355)	-	-	(301,125)
<b>Net cash provided by (used in) investing activities</b>	<b>(10,063,794)</b>	<b>(1,755,770)</b>	<b>(45,355)</b>	<b>(23,698)</b>	<b>-</b>	<b>(11,888,616)</b>
<b>Net increase (decrease) in cash and cash equivalents</b>	<b>(2,641,461)</b>	<b>531,944</b>	<b>282,306</b>	<b>524,669</b>	<b>-</b>	<b>(1,302,542)</b>
<b>Cash and Cash Equivalents, Beginning of Period</b>						
Unrestricted	50,243,875	455,596	2,336,679	379,846	-	53,415,997
Restricted	17,002,056	3,421,563	-	83,000	-	20,506,619
<b>Cash and Cash Equivalents, Beginning of Period</b>	<b>67,245,931</b>	<b>3,877,160</b>	<b>2,336,679</b>	<b>462,846</b>	<b>-</b>	<b>73,922,617</b>
<b>Cash and Cash Equivalents, End of Period</b>						
Unrestricted	46,070,575	987,260	2,618,985	604,489	-	50,281,309
Restricted	18,533,896	3,421,844	-	383,026	-	22,338,765
<b>Cash and Cash Equivalents, End of Period</b>	<b>64,604,470</b>	<b>4,409,104</b>	<b>2,618,985</b>	<b>987,515</b>	<b>-</b>	<b>72,620,074</b>





# Memo

**To:** Connecticut Green Bank Senior Team

**From:** Inclusive Prosperity Capital Staff

**Date:** November 14, 2022

**Re:** IPC Quarterly Reporting – Q1 FY23 (July 1, 2022 – September 30, 2022)

## Progress to targets for Fiscal Year 2022, as of 09/30/2022 <sup>1</sup>

Product	Number of Projects	Projects Target	% to goal	Total Financed Amount	Financed Target	% to goal	MW Installed	MW Target	% to goal
<b>Smart-E Loan</b>	302	960	31.5%	\$5,603,917	\$14,994,623	37.4%	0.0	0.2	0%
<b>Multi-Family H&amp;S</b>	0	1	0%	\$0	\$0	0%	n/a	n/a	n/a
<b>Multi-Family Pre-Dev.</b>	0	0	0%	\$0	\$0	0%	0.0	0.0	0%
<b>Multi-Family Term</b>	0	6	0%	\$0	\$1,380,000	0.0%	0.0	0.60	0.0%
<b>Solar PPA</b>	0	19	0.0%	\$0	\$13,710,000	20.7%	0.0	7.6	0.0%

### PSA 5410 – Smart-E Loan

- Volume continued to be strong through the first quarter with 75 loans closed in July, 118 loans closed in August and 109 loans closed in September for a total of \$5,603,917 in funded loan amount. We believe this strong volume is attributed to the rollout of the Summer Special Offer which started July 1, 2022.

<sup>1</sup> Source: CT Green Bank PowerBI

- HVAC projects continue to be the majority of volume as a result of the special offer. However, 84 of the completed projects in the first quarter contained 2 or more measures. Contractor engagement continues to be a priority with a focus on direct contractor meetings, new contractor resources and Smart-E/NGEN webinar monthly trainings.

## PSA 5411 – Multifamily

- **No Projects Closed in Q1 of FY'23.** Supporting the Green Bank, IPC staff continue to shepherd a handful of prospective LIME financing opportunities that are currently at the evaluation/underwriting stage while working in close coordination with Green Bank staff planning for PURA's final rule issuance under the Affordable Multifamily Solar tariff program (additional detail below).
- **The ECT Health & Safety Revolving Loan Fund capital has been fully allocated** to two distressed co-ops, both loans of which have been approved and are anticipated to close in FY'23. (See further details below.)
- **IPC has actively supported design/development of solar programs that will use the new solar tariff incentive.** Supporting the Green Bank, IPC staff have actively provided scenario modeling and participated in CTGB- and DEEP-led policy deliberations to inform PURA decision-making as part of PURA's affordable multifamily solar tariff rule-making docket. Once these are finalized, we will continue to collaborate with CTGB in revisiting program design for this sector, with an eye towards higher volume deployment that leverages the final form of the tariff offering.
- **We continued to provide support for long-term distressed projects, Seabury Co-op in New Haven and Success Village in Bridgeport,** that are being stabilized and preserved as affordable housing by funding energy and health and safety improvements. Seabury is moving towards the end of its respective pre-development processes and securing term financing for project implementation. Success Village's governance and management changes have prevented further involvement/support for this project at this time.

## PSA 5412 – Solar PPA

- 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).
- Formalized use of IPC Salesforce Platform to provide formatted installer/developer pricing responses via Salesforce.
- IPC continues to work with CTGB staff to fund the full suite of Solar MAP Round 1 projects in this year's CT partnership. The first set of five (5) Manchester projects were trached in early September.
- IPC staff is working toward issuance of a new engineering services provider for O&M, project inspection, etc. in CT by early November.
- Staff continues to coordinate as part of the CGB-IPC Storage Product Working Group to identify market opportunities, structures and products to leverage the State of Connecticut's new storage incentive program.

## Use of DEEP Proceeds

### Energize CT Health & Safety Revolving Loan Fund

- The multifamily housing team is in process of finalizing loan documentation and closing two H&S loans to distressed co-ops: Seabury Co-op in New Haven for \$892,500 (in coordination with other funders) and Antillean Manor Co-op in New Haven for \$400,000 (in coordination with CHFA and HUD). Antillean Manor recently closed in Nov of 2022. The Seabury closing remains several months out as emergent HUD REAC health and safety repairs that must be addressed before other the funding partners will close on funding.
- The two loans described above account for the remaining H&S funds available. Once deployed, we will begin funding 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 continues to monitor for favorable conditions for future investment and is evaluating other opportunities to invest the remaining \$900K of funds under the \$5M capital grant from DEEP, including a potential facility to support single-family residential solar and storage loans for LMI and credit-challenged borrowers.

## General Updates

Below are updates for the fourth quarter of FY22:

- **Capital raising:**
  - No capital raising needs at present.
- **Business/Product Development/Initiatives of interest to Connecticut:**
  - Software licensing agreement for the NGEN platform
    - Colorado Energy Office has transferred the program out of the state energy office to the CO Clean Energy Fund (their green bank) for easier contracting. Discussions in advanced stages for licensing NGEN.
    - Advanced discussions for NGEN licensing with CAETFA. Have worked through numerous CA contracting and procurement challenges.
    - Working with Inclusiv on Smart-E launch in NM with AZ to follow later this year and TX 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 IPC being compensated to manage the program. IPC is in legal documentation for a credit enhancement for participating lenders through the Community Investment Guarantee Program.

- Continued work with Inclusiv (the member network of CDFI/community development credit unions) and UNH Carsey (under a DOE grant) 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.
  - Continued 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. Continue to coordinate with CGC on a variety of opportunities.
  - IPC recently joined NASEO as an ally member.
- **Administrative:**
  - Staffing and Recruiting Update – Below are changes to staff:
    - Additions
      - Brian Liechti – July 31st
      - Krystal Velez – August 15th
      - Kyara Wiggins – August 22nd
      - Grady Bailey – September 6th
    - Departures
      - Michael Solazzo – October 5th
  - Accounting and Operations: Shortly after learning of his departure in July, we began recruiting for a replacement for Justin Rice, which resulted in the hiring of Kyara Wiggins. We also completed the recruiting effort started in July for a part-time administrative assistant, Krystal Velez. In late August, we began recruiting for a Human Resources Manager. Roughly 115 people applied for the position. During the hiring process, we had the benefit of a consulting session with a ProInspire consultant to evaluate our process to date and provide suggestions on ways we could be more successful, particularly with respect to attracting BIPOC candidates. In October, we narrowed down the pool of candidates to six highly qualified individuals, and ultimately made an offer to Carmen Carson, who will be joining us as Senior Manager of People and Culture on November 28.
  - Smart-E: With Brian Liechti joining as the Senior Manager, Market Engagement on July 29th, Madeline Priest transitioned to overseeing the national expansion of Smart-E full-time and hired Grady Bailey as Southwest Regional Manager on September 6th to begin filling out the region. Grady's position will initially be supported by funds received from the Wells Fargo Foundation/Inclusiv grant. In addition, a program operations staff will be hired with these funds to support Grady and the Southwest region sometime in November.
  - Finance: The posting for a VP/Director level in the Finance department continues to be a struggle, as it has been posted since 2021. With the departure of Michael Solazzo, many of staff-level responsibilities of that role have been distributed amongst members of the Transactions team in the short term. A posting for a replacement in Finance at the

Analyst/Senior Analyst level is on the horizon, while the VP/Director level continues to remain open. In the interims, consulting resources are being utilized.

- **Fall Staff Offsite** – We held our IPC Corporate Offsite Retreat in Hartford during the week of October 12 where we focused on connection, building relationships, and discussion of the culture survey, as well as a review of the IRA and strategic impacts on IPC’s products and business lines.
- **JEDI-B Updates** – Four IPC staff continue to participate in Kresge’s Fostering Urban Equitable Leadership (FUEL) program, which began in March and continues through November. As previously reported, the team is learning best practices from the program’s leaders (ProInspire) and other cohort participants on how to operationalize our [JEDI-B statement](#) and ingrain it into company culture. We are seeking to expand the membership of our JEDI-B working group in the near term and will be refreshing our JEDI-B statement as 2 years have passed with some notable progress on diversifying our staff. The ProInspire group reported out on their findings from the first six 3-hour sessions at the fall offsite. Three members of the ProInspire group also attended an in-person event in Washington, D.C. with other members of the program during the week of October 18.



## 62 Maritime Dr.: A C-PACE Project in Mystic, CT

<b>Address</b>	62 Maritime Dr., Mystic, CT 06106	
<b>Owner</b>	Enko Realty., LLC	
<b>Proposed Assessment</b>	\$2,958,385	
<b>Term (years)</b>	17	
<b>Term Remaining (months)</b>	Pending construction completion	
<b>Annual Interest Rate<sup>1</sup></b>	5.60%	
<b>Annual C-PACE Assessment</b>	\$272,058	
<b>Savings-to-Investment Ratio</b>	1.32	
<b>Average DSCR</b>	██████████	
<b>Lien-to-Value</b>	████	
<b>Loan-to-Value</b>	████	
<b>Projected Energy Savings (mmBTU)</b>		Total
	First year	5,406.40
	Over EUL	81,886
<b>Estimated Cost Savings (incl. ZRECs and tax benefits)</b>	Per year	\$334,032
	Over EUL	\$6,102,036
<b>Objective Function</b>	27.68 kBTU / ratepayer dollar at risk	
<b>Location</b>	Mystic	
<b>Type of Building</b>	Industrial	
<b>Year of Build</b>	1992	
<b>Building Size (sf)</b>	88,258	
<b>Year Acquired by Owner</b>	2020	
<b>As-Complete Appraised Value<sup>2</sup></b>	██████████	
<b>Mortgage Lender Consent</b>	██	
<b>Proposed Project Description</b>	New and Retrofit Lighting, <a href="#">Insulation, HVAC &amp; Controls</a>	
<b>Est. Date of Construction Completion</b>	Pending closing	
<b>Current Status</b>	Awaiting Board of Directors Approval	
<b>Energy Contractor</b>	██	
<b>Notes</b>		

<sup>1</sup> Nominal rate unadjusted for actual/360 calculation







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## C-PACE TECHNICAL REVIEW REPORT

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**TO:** Alysse Lembo-Buzzelli, CT Green Bank  
**FROM:** Khusbu Modi, DNV  
**CC:** Mackey Dykes, CT Green Bank  
**RE:** Redding Life Care – C-PACE Project Technical Review Report

<b>Report Date</b>	12/7/2022
<b>Customer Name</b>	Redding Life Care
<b>Address</b>	100 Redding Road, Redding, CT 06896
<b>Property Type</b>	Commercial
<b>Property Size (sq. ft.)</b>	Unknown
<b>Contractor(s)</b>	Verogy

### EXECUTIVE SUMMARY

This report provides a summary of the technical review conducted by Khusbu Modi of DNV for the solar PV project located at Redding Life Care, or known as Meadow Ridge, a commercial building in Redding, CT. The contractor provided DNV with the required project documentation for review. The proposed project includes the installation of a 732.48 kW DC solar PV system.

DNV was provided with fifty-two Eversource electric bills. Ten of the most recent electric bills for ten electric meters, which contained one year of historical usage, was used. DNV calculated an annual energy consumption of 5,512,930 kWh. DNV reviewed the contractor-provided solar production analysis and associated documents and found that the contractor's estimate of 858,827 kWh is reasonable. One ZREC contract at \$45 per ZREC was secured for this project.

Table 1 lists the project level financial summary. Based on a finance term of 20 years, this project has an overall SIR of 1.02.

**Table 1. Project Financial Summary**

Savings to Investment Ratio (SIR)	1.02
Project cost	\$3,143,135
Amount financed	\$3,213,498
Gross total cost savings over EUL	\$5,599,921
Total PACE + O&M payments over EUL	\$5,515,058
% financed	100%
Owner equity contribution	\$0
Interest rate	5.750%
Finance term, years	20

## PROJECT ENERGY SAVINGS AND TAX CREDITS/INCENTIVES SUMMARY

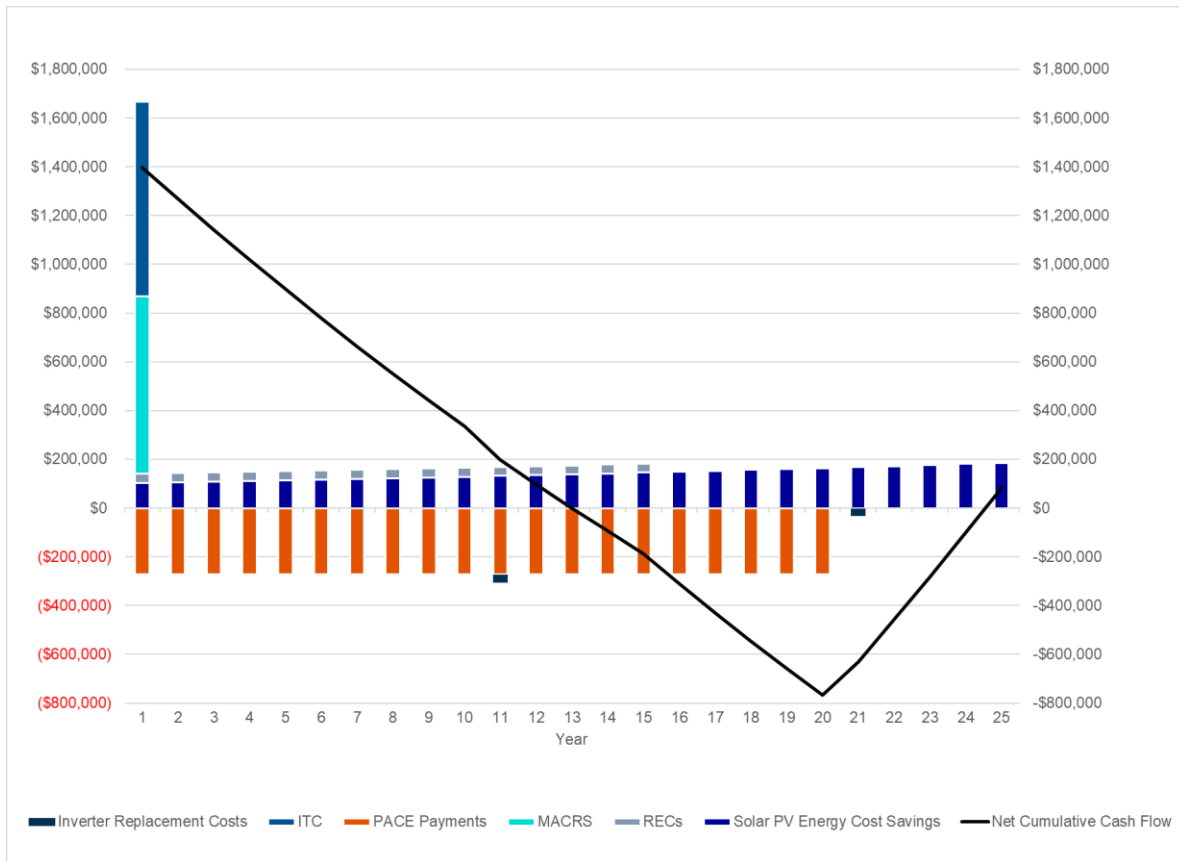
The project scope includes the installation of a solar PV array with a total capacity of 732.48 kW (DC) at the facility. The project measure level energy and cost savings, and tax credits summary is presented in Table 2. More information on the rate is discussed in the Utility Rates Summary section.

**Table 2. Measure Energy Savings Summary**

Effective useful life – EUL (years)	25
Gross project cost	\$3,143,135
Energy on the Line Grant Amount (EOTL)	\$0
Closing Costs	\$70,363
Financed amount (including closing costs & EOTL)	\$3,213,498
First year electric energy savings (kWh/yr)	858,827
First year electric energy savings (MMBtu/yr)	2,931
Total electric savings over EUL (MMBtu)	69,047
First year energy cost savings (\$/yr)	\$103,205
EUL energy cost savings (\$)	\$3,513,896
Federal ITC	\$800,441
MACRS for solar (total over 6 years)	\$725,733
ZRECs (total over 15 years) (\$)	\$559,852

Figure 1 shows the plot of cash flows over the life of this project.

**Figure 1. Project Lifetime Cash Flow Plot Over EUL**



### TECHNICAL REVIEW SUMMARY

Below is the project summary checklist that DNV staff referenced to confirm that the C-PACE program guidelines are met for this project.

#### Project Checklist

- Energy assessment included – **Energy generation analysis inputs provided**
- Roof structural approval letter provided – **Roof improvement costs are included in the project costs.**
- Minimum 12 months of utility data used to establish baseline – **12 months of historical usage included.**
- Copy of utility bills included – **DNV was provided with fifty-two Eversource electric bills.**
- No major renovation took place in baseline period – **N/A**
- Baseline building energy use consistent with ASTM BEPA E2797-15, per ICP protocol – **N/A**
- Measure life is within industry practice – **25 years is within industry practice**

- Measure life exceeds finance term – **Measure life is greater than the finance term**
- Local weather data used for normalization – **Stratford CT (appropriate)**
- Energy production for renewable energy system is reasonable – **Confirmed with PVWatts**
- Project cost estimate is reasonable – **\$3.64 per Watt is higher than typical but still within a reasonable range.**
- Projected energy cost escalation is reasonable – **2.99% per year**
- Projected annual performance degradation is reasonable – **0.5% per year based on industry standard.**
- Commissioning plan has been addressed – **Not addressed**
- M&V plan has been addressed – **Not addressed**
- Projected SIR > 1

The following sections discuss the measure specific findings from the technical review.

### **Solar Photovoltaic System**

A PV system totaling 732.48 kW DC in capacity is proposed to be installed at Redding Life Care shown in Photo 1. (1344) 545 W Phono Solar modules are proposed to be installed with twelve 40 kW CPS inverters. The azimuth angle was estimated to be 61°, 37°, -52°, and -53° using Google Maps. The tilt angle of the PV system is estimated to be 7° and 18°. The tilt angles would be best verified during the commissioning verification visit. The contractor's analysis estimated the annual production from the solar PV arrays to be 858,827 kWh. DNV used PVWatts to verify this estimate and found it to be reasonable. One ZREC contract at \$45 per ZREC has been secured for this project. Photo 1 shows the overhead view of the proposed PV arrays.

**Photo 1. Overhead View (provided by contractor)**



The solar PV project system specifications are listed in Table 3.

**Table 3. Solar PV Analysis Specifications**

<b>Azimuth Angle</b>	<b>-52°</b>	<b>-53°</b>	<b>37°</b>	<b>61°</b>	<b>Total</b>
PV system capacity (DC)	122	104.6	52.3	453	732
No. of modules	224	192	96	832	1344
Location	Roof-mounted				
PV module model	PS545M8GFH-24/TH				
Module efficiency	Premium (21.14%)				
Inverter model	(3) SE120KUS/SE80KUS-480 (2) CPS SCA50KTL-DO/US-480				
Inverter efficiency	98.5%				
System loss	11.23%				
DC to AC sizing ratio	1.29				
Tilt angle	7°, 18°				

### Potential Savings Impacts

Based on our review of the system specifications, the installation of the proposed solar PV system is expected to meet the predicted electrical generation. The following factors could affect the electric generation from the PV system and the predicted SIR:

- Angle of tilt: The angle of tilt, if modified, could change the expected energy generation from the PV system. This will be verified during the commissioning site visit.
- Inverter and PV panel make and model: The calculations for this measure are based on the efficiency and specifications of the proposed make and model for the inverters and PV panels. If the make and model changes, the generation would need to be recalculated.

### Utility Rates Summary

The site's electric utility is Eversource. The details of the tariffs are listed in Table 4.

**Table 4. Utility Rate Tariff Summary**

<b>Electric Rates</b>	
Electric utility	Eversource
Electric rate	Rate 30, 56
Electric energy rate (\$/kWh) – Weighted Average	\$0.12

Note: In the SIR analysis, we did not include the peak demand charges in the cost savings when calculating the SIR because solar PV production is highly weather dependent. As a result, there is a chance during any billing cycle that the solar PV panels may not produce power during any one of the on peak hours, thereby negating the peak demand savings that would be associated with avoiding the electric demand related charges.



# Memo

**To:** Connecticut Green Bank Board of Directors

**From:** Mackey Dykes, VP Financing Programs and Officer; Bert Hunter, EVP and CIO

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

**Date:** December 9, 2022

**Re:** C-PACE New Construction Financing Co-Investment with Nuveen Green Capital for 237 Hamilton St, Hartford

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## Summary

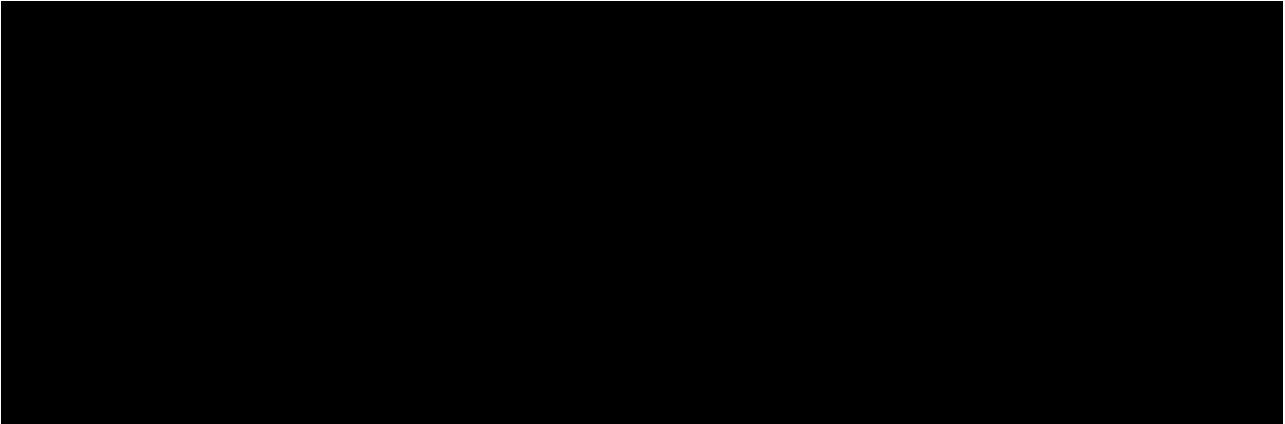
Parkville Management, a Hartford-based real estate development and management company headed by Carlos Mouta, is seeking C-PACE financing for the adaptive rehabilitation and reuse of the former Whitney Manufacturing Company industrial complex at 237 Hamilton Street in Hartford into a mixed-use commercial and residential complex. The project will include 189 rental apartment units and 80,000 square feet of commercial space. Based on an energy model of the project, the property will qualify for up to \$26,395,850 in C-PACE financing. As this exceeds the \$5,000,000 maximum new construction loan policy of the Green Bank, Parkville Management has asked that we partner with Nuveen Green Capital (“Nuveen”) to offer a joint C-PACE financing proposal. Staff is requesting in principle approval for its participation in and support of a lending partnership, subject to underwriting of the project and a final approval of terms for the co-investment with Nuveen.

## Company and Project Background

Parkville Management was founded in 1989 by Carlos Mouta. Under his continued leadership, it has grown its holdings to over one million square feet of residential and commercial properties, with a majority of its holdings in Hartford’s Parkville neighborhood. This includes Pope Commons, Whitney Manufacturing, and Parkville Market, Connecticut’s first food hall. The Hartford Business Journal recently named Mouta one of its top innovators thanks to his work in the Parkville neighborhood and vision for its transformation (see attached article at Exhibit A).

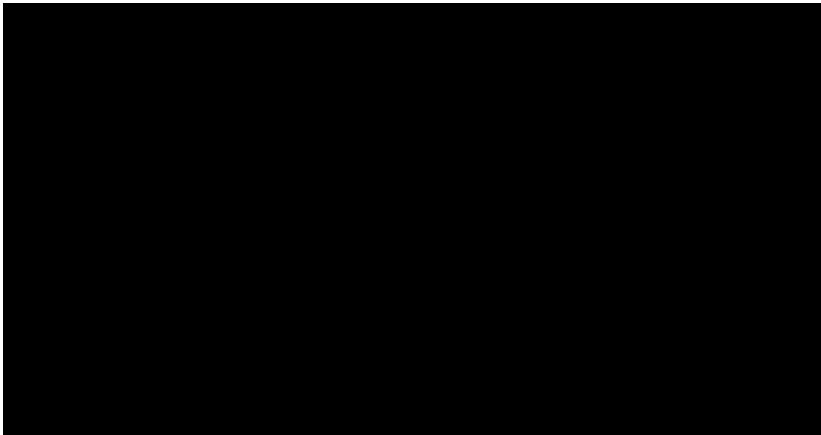
Part of this vision is the development at 237 Hamilton Street, located at the southwest corner of Hamilton Street and Bartholomew Avenue. The mixed-use facility would contain 189 market-rate rental apartment units and 80,000 square feet of commercial space. The proposed plan consists of a ground floor space allocated for business, mercantile, and restaurant use. Floors two through five

contain a mix of residential apartment units. Numerous residential amenities will be provided such as fitness and business centers, smaller event spaces, a large interior community room, and outdoor roof terraces.



**Summary Financing Proposal**

The overall project cost is [REDACTED]. Parkville Management’s preliminary summary of sources is outlined in table 1. In their proposal, Parkville Management requested \$33,500,000 in C-PACE financing.



Based on an energy model assessment conducted by [REDACTED], the completed project will exceed the code requirements by 15.5%. That, combined with the inclusion of two C-PACE for New Construction bonus technologies, makes the project eligible for 30% C-PACE financing of its total eligible construction cost. The Green Bank, as administrator of the program, has determined that eligible cost at [REDACTED], which yields an eligible C-PACE financing amount at 30% of [REDACTED]. This exceeds the \$5,000,000 on new construction financing that the Green Bank typically limits itself based on risk exposure as well as market competition. Parkville Management has requested that we partner with Nuveen to offer a joint CPACE financing proposal.



## **Conclusion**

This project represents an opportunity for the Green Bank to play a role in the redevelopment of a vital Hartford neighborhood, in partnership with an experienced developer. Assuming a favorable underwrite, it also represents an attractive C-PACE asset for the Green Bank and an opportunity to support a C-PACE capital provider (Nuveen).

Staff is requesting in principle approval for its participation in and support of a C-PACE lending co-investment with Nuveen Green Capital for 237 Hamilton Street, Hartford, CT, subject to underwriting of the project and a final approval by the Green Bank Board of Directors (the "Board") of terms for the participation with Nuveen at a future meeting of the Board.

## **Resolutions**

**RESOLVED**, that the Connecticut Green Bank ("Green Bank") is authorized in principle to enter into negotiations and documentation for co-investment in up to \$26,395,850 in C-PACE financing for 237 Hamilton Street, Hartford, CT as more fully explained in the memorandum to the Green Bank Board of Directors (the "Board") dated December 9, 2022; provided, however, that authorization to enter into definitive documentation is pending further diligence by staff and approval by the Board at a future meeting.

Submitted by: Mackey Dykes, VP Financing Programs and Bert Hunter, EVP and CIO



**Connecticut Green Bank  
Summary of Proposed Terms and Conditions for Proposed C-PACE Financing  
For 237 Hamilton Street, Hartford, CT**

---

The Connecticut Green Bank (“Green Bank”) hereby presents this Term Sheet, which summarizes the primary terms and conditions under which the Green Bank, or any of its subsidiaries or affiliates, may provide C-PACE funding for construction and term financing for the Project to be located at the Property (as defined below) and to be owned and operated by the Borrower (as defined below along with all other capitalized terms).

This Term Sheet is intended as an outline of the key material terms of the financing for the Benefit Assessment Advance proposed by Lender. This Term Sheet is only valid until the Expiration Date. A complete description of all terms, conditions and other provisions would be contained in a Finance Agreement executed by and between Lender and Borrower relating to the Benefit Assessment Advance.

**THIS TERM SHEET IS NOT A CONTRACT TO EXTEND FINANCING** nor an offer to enter into a contract for such financing nor a commitment to obligate Green Bank or other Lenders in any way with respect to any financing proposal summarized herein and the parties to the proposed transactions should not rely upon it as such.

The transactions contemplated by this Term Sheet are subject to all necessary Green Bank and Lender approvals, including but not limited to board of directors or other governing body approval, bylaws, and (in respect of Green Bank) Sections 16-245n and 16a-40g of the Connecticut General Statutes (“CGS”).

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**Signed on behalf of Borrower:**

**By:** \_\_\_\_\_

**Name:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Date:** \_\_\_\_\_

## **Appendix A**

### Documents Required for Underwriting

#### Construction Documents

- Construction Budget by Trade
- Construction Renderings
- Construction MEP Drawings
- Construction Schedule

#### Corporate Documents

- Articles of Organization
- Operating Agreement
- W9/EIN

#### Customer Financials

- Project NOI Projections (5-year)
- Project Sources and Uses
- Equity Sources – Engagement Documents
- Appraisal, Market Study, and/or Feasibility Study within 12 months of closing
- First Mortgage Term Sheet

#### Environmental Reports

- Phase I Environmental Report within 24 months of closing
- Phase II (if required)

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## Connecticut Municipal Electric Energy Cooperative (CMEEC) & US Naval Submarine Base – Groton, CT Fuel Cell Project

A Fuel Cell Debt Financing Strategic Selection  
Green Bank Term Loan Facility Extension Request  
December 9, 2022



**Document Purpose:** This document contains background information and due diligence on a proposed credit facility for the FuelCell Energy, Inc. (“FCE” and NASDAQ: FCEL) fuel cell project under a power purchase agreement between FCE and the Connecticut Municipal Electric Energy Cooperative (“CMEEC”) and located at the US Naval Submarine Base – Groton, 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.

# Strategic Selection Financing Extension Memo

**To:** Connecticut Green Bank Board of Directors  
**From:** Bert Hunter, EVP & CIO  
**Cc:** Bryan Garcia, President & CEO; Brian Farnen, General Counsel & CLO; Sergio Carrillo, Director, Incentive Programs; Jane Murphy, EVP of Finance and Administration  
**Date:** December 9, 2022  
**Re:** FuelCell Energy / US Navy / CMEEC / Groton Fuel Cell Project  
Term Loan Facility Update & Extension Request

---

At the October 2022 meeting of the Connecticut Green Bank (“Green Bank”) Board of Directors (the “Board”), the Board approved an extension to complete the financing for a term loan facility to finance the 7.4 megawatt FuelCell Energy, Inc. (“FCE”) fuel cell at the US Naval Submarine Base, Groton, CT (the “Navy Project”) in partnership with and subordinated to loans (the “Senior Loans” and together with Green Bank’s loan, the “Term Loans”) from two bank lenders: Liberty Bank and Amalgamated Bank (the “Senior Lenders” and together with Green Bank, the “Lenders”).

The senior lenders and FCE have previously entered into a commitment for the financing, subject to finalization of diligence and credit approval, both of which are in progress.

As noted to the Board in a memo dated October 14, 2022 submitted in connection with the October 2022 extension by the Board, on September 8, FCE filed its quarterly report with the Securities and Exchange Commission, including an update regarding the progress with the Groton Project as follows:

**The Groton Project.** In July 2021, the Company achieved mechanical completion, executed the interconnect agreement, and commenced the process of commissioning the 7.4 MW platform at the U.S. Navy Submarine Base in Groton, CT (the “Groton Project”). On September 14, 2021, the Company disclosed that the process of commissioning the Groton Project was temporarily suspended due to a needed repair. Following the completion of that repair, the Company resumed commissioning of the Groton Project. During the resumed commissioning process, the Company observed operating parameter data from one of the two fuel cell platforms installed at the project site that indicated a mechanical component was not performing according to engineered specifications. The Company subsequently determined that component should be removed from the project site to facilitate the necessary repair and upgrade. On April 7, 2022, the Company announced that it had completed the necessary repairs and upgrades to the mechanical component, reinstalled the mechanical component at the project site, and restarted the process of commissioning. During the restarted commissioning process, the Company encountered performance anomalies primarily in the mixer eductor oxidizer (“MEO”) which is a sophisticated piece of equipment specific to the Groton Project designed to optimize fuel and air flows. The Company is considering operating the project at a reduced output of 3 MW per platform at the start of commercial operations in order to optimize performance of each of the two MEO units. Over a period of approximately one year, the Company anticipates implementing upgrades to each of the two MEO units in order to bring the platform to its rated capacity of 7.4 MW. Under extensions previously received from the U.S. Navy, the deadline by which commercial operations are to



be achieved is September 30, 2022. We expect that the Groton Project could be commercially operational by September 30, 2022 at a reduced power output of approximately 6 MW. However, commencement of operations at a reduced output of approximately 6 MW requires approval by the Connecticut Municipal Electric Energy Cooperative (“CMEEC”) and the U.S. Navy. Although the Company is in discussions with CMEEC and the U.S. Navy, no assurance can be given that CMEEC and the U.S. Navy will provide such approval.

This platform is expected to highlight the ability of FuelCell Energy’s platforms to perform at high efficiencies and provide low CO2 to MWh output. Incorporation of the platform into a microgrid is expected to demonstrate the capacity of FuelCell Energy’s platforms to increase grid stability and resilience while supporting the U.S. military’s efforts to fortify base energy supply and demonstrate the U.S. Navy’s commitment to clean, reliable power with microgrid capabilities.

In October, based on discussions with FCE management, considered that project financing for the fuel cell was capable of closing by year end. However, certain project documentation is not in a position for the lenders to close by December 31. In an abundance of caution (in case the transaction doesn’t close by late January), staff requests the original approval “execute by date” be extended to March 31, 2023).

## Resolutions

**WHEREAS**, FuelCell Energy, Inc., of Danbury, Connecticut (“FCE”) has requested financing support from the Green Bank to develop a 7.4 megawatt fuel cell project in Groton, Connecticut located on the U.S. Navy submarine base and supported by a power purchase agreement (“PPA”) with the Connecticut Municipal Electric Energy Cooperative (“CMEEC”) (the “Navy Project”);

**WHEREAS**, staff has considered the merits of the Navy Project and the ability of FCE to construct, operate and maintain the facility, support the obligations under the Loan throughout its 20-year term, and as set forth in the due diligence memorandum (the “Board Memo”) dated December 18, 2020, recommended this support be in the form of a term loan not to exceed \$8,000,000, secured by the developer’s equity in the project company (which controls all project assets, contracts and revenues) as well as a pledge of revenues from an unencumbered project as explained in the Board Memo (the “Credit Facility”);

**WHEREAS**, on the basis of that recommendation, the Green Bank Board of Directors (“Board”) approved of the Credit Facility, in an amount not to exceed \$8,000,000 with the provision that the Credit Facility be executed no later than 315 days from the date of authorization by the Board (June 16, 2021), which was further extended by the Board on a number of occasions, including in July 2022 to October 31, 2022;

**WHEREAS**, Green Bank staff has further advised the Board that the closing for the Credit Facility is expected to close by March 31, 2023 and to accommodate the additional time that might be needed to execute the Credit Facility requests the permitted time to execute the credit facility be increased from not later than October 31, 2022 to not later than March 31, 2023;

**NOW**, therefore be it:

**RESOLVED**, that the Green Bank Board hereby approves the extension of time for the execution of the Credit Facility to not later than March 31, 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 and instruments as they shall deem necessary and desirable to effect the Term Loan and participation as set forth in the Memorandum.

Submitted by: Bryan Garcia, President and CEO; Bert Hunter, EVP and CIO;



# Memo

**To:** Connecticut Green Bank (“Green Bank”) Board of Directors (the “Board”)

**From:** Bert Hunter, EVP & Chief Investment Officer

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

**Date:** December 9, 2022

**Re:** Extension Request - Capital 4 Change (“C4C”) for \$4.5M Medium Term Revolving Loan (secured & subordinated) to CEEFCo (100%-owned subsidiary of C4C) for Funding CEEFCo’s investment in Energy Efficiency Loans (including Smart-E Loans) in partnership with Amalgamated Bank

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## Background & Summary of Request for Approval

At the September 12, 2019 meeting of the Connecticut Green Bank (the “Green Bank”) Board of Directors (the “Board”), the Board approved \$4.5M for a Medium Term Revolving Loan (secured & subordinated – the “Existing C4C Loan”) to CEEFCo (a 100%-owned subsidiary of Capital for Change (“C4C”)) for Funding CEEFCo’s investment in Energy Efficiency Loans (including Smart-E Loans) in partnership with a private capital source. The private capital source, Amalgamated Bank (presently providing up to \$22.5 million in funding), and CEEFCo / C4C closed that transaction in December 2019 and the facility has functioned as intended – affording CEEFCo with a flexible facility to draw and repay funding associated with its energy efficiency loans.

At the October 21, 2022 meeting of the Board, the Board approved a requested modification of the Existing C4C Loan (see attached as Appendix A the memorandum to the Board dated October 18, 2022 – the “Modified C4C Loan”). However, we have been advised by Amalgamated Bank that documentation of the Modified C4C Loan will not be completed until the first calendar quarter of 2023. Accordingly, Amalgamated Bank, C4C and Green Bank have agreed (subject to our relevant approvals) to extend the Existing C4C Loan to March 31, 2023 (from its current expiration later this month).

The borrower, CEEFCo/C4C, is in compliance with all of the terms and conditions of the Existing C4C Loan. Accordingly, staff requests Board approval of the extension to allow the needed time for the documentation of the Modified C4C Loan.

## Resolutions

**WHEREAS**, the Connecticut Green Bank (“Green Bank”) entered into a Smart-E Loan program financing agreement with CEEFCo/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 substantially completed negotiations for modification to the medium term loan facility to fund C4C’s Smart-E Loan and other residential energy efficiency loan portfolio growth on revised terms as explained in the memorandum dated October 18 to the Connecticut Green Bank (“Green Bank”) Board of Directors (the “Board”) (the “Modification Memo”); and

**WHEREAS**, Green Bank staff has advised the Board that documentation of the modification of the C4C medium term loan facility will not be completed until the first calendar quarter of 2023 and recommends approval by the Board of an extension of the existing medium term revolving loan facility until a date not to exceed March 31, 2023.

**NOW**, therefore be it:

**RESOLVED**, that the Board approves the extension of the existing medium term revolving loan facility until a date not to exceed March 31, 2023 generally consistent with the memorandum submitted to the Board dated December 9, 2022 (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 extension of the existing medium term revolving loan facility until a date not to exceed March 31, 2023 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 and Bert Hunter, EVP and CIO

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 T 860.563.0015  
 ctgreenbank.com



# Memo

**To:** Connecticut Green Bank (“Green Bank”) Board of Directors (the “Board”)

**From:** Bert Hunter, EVP & Chief Investment Officer

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

**Date:** October 18, 2022

**Re:** Modification Request - Capital 4 Change (“C4C”) for \$4.5M Medium Term Revolving Loan (secured & subordinated) to CEEFCo (100%-owned subsidiary of C4C) for Funding CEEFCo’s investment in Energy Efficiency Loans (including Smart-E Loans) in partnership with Amalgamated Bank

---

## Background & Summary of Request for Approval

At the September 12, 2019 meeting of the Connecticut Green Bank (the “Green Bank”) Board of Directors (the “Board”), the Board approved \$4.5M for a Medium Term Revolving Loan (secured & subordinated) to CEEFCo (a 100%-owned subsidiary of Capital for Change (“C4C”)) for Funding CEEFCo’s investment in Energy Efficiency Loans (including Smart-E Loans) in partnership with a private capital source. The private capital source, Amalgamated Bank (presently providing up to \$22.5 million in funding as explained later), and CEEFCo / C4C closed that transaction in December 2019 and the facility has functioned as intended – affording CEEFCo with a flexible facility to draw and repay funding associated with its energy efficiency loans. This was of particular importance during the initial months of COVID when the portfolio was contracting. This was followed by an expansionary phase as contractors resumed their work. As of September 30, Green Bank advances total approximately \$2.6 million (17% of the facility) and Amalgamated’s advances total approximately \$13.2 million (83%). CEEFCo has maintained a flawless interest payment and principal repayment record.

As a refresher, Capital for Change (formerly, the Connecticut Housing Investment Fund) (“C4C”), in partnership with the Green Bank, provides loans to Connecticut single family property owners seeking to finance solar PV and other renewable energy systems and energy efficiency upgrades under Green Bank’s Smart-E loan program.<sup>1</sup> C4C is Green Bank’s largest and most active Smart-E lender with

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<sup>1</sup> Pursuant to the Green Bank Sustainability Plan passed by the Board in December 2017 and to a Professional Services Agreement, beginning August 3, 2018, certain aspects of the Smart-E Loan program are being managed by Inclusive Prosperity Capital, Inc. (“IPC”)

nearly 3,800 loans with an original originated amount of nearly \$47 million (remaining balance \$29 million).

When the parties closed the funding facility in December 2019, the rate base (the Prime Rate or “Prime”) was stabilizing at 4.75%. This soon changed when the COVID pandemic caused the Federal Reserve (the “Fed”) to drop the Federal Funds rate to 0% which lowered Prime to 3.25% where it remained for two years until March of this year when the Fed commenced its tightening process at the fastest rate in history. Today, Prime is 6.25% will most assuredly rise as further increases in interest rates have been promised by the Fed (0.75% expected at its next announcement on November 3, with a further increase expected for December 15 with an increase of between 0.50% and 0.75% being most likely). These increases in interest rates by the Fed are expected to push Prime to 7.50 – 7.75% by the end of 2022. These increases are captured on the chart below.

**IMAGE REDACTED**

The impact of these interest rate increases on C4C has not been lost on the Green Bank and Amalgamated – as we have been in discussions since July about an approach to fix interest rates at a level that will enable C4C / CEEFCo to continue the superior deployment of Smart-E loan in the state. Smart-E loans are from 4.99% to 6.99% but most lending by CEEFCo is at the 5.99% level. Unlike other Smart-E lenders, CEEFCo / C4C does not have depository account relationships. Other lenders are still benefitting from core deposits on which they pay their depositors anywhere from 0% to 0.50% for regular checking balances and barely more than this level for savings balances. While roughly 50% of the CEEFCo portfolio is funded via equity, servicing costs erode this “zero cost” funding benefit over time – which is why Amalgamated, Green Bank and C4C have now reached a structure which for a three year period would stabilize CEEFCo’s cost of funds at about █%. This would be accomplished with the following adjustment in lending levels and interest rate charges by Amalgamated and Green Bank:

**IMAGE REDACTED**

The change is accomplished by Amalgamated agreeing to fix its interest rate on the facility at █% for a three year period with the first year being the “draw period” and the last two years being an interest only period (or a repayment period if justified by lower portfolio / collateral levels). Amalgamated would also reduce its advance rate from 83.3% to a maximum of 60% - which would reduce its outstanding loans from about \$13.2 million to \$9.5 million. At the same time, Green Bank would agree to a concessional █% rate for this period and would lend at least 40% of the portfolio value, up from 16.7% under the existing facility% - which would increase its outstanding loans from about \$2.6 million to \$6.4 million. If, during the last two years of the three year facility when Amalgamated is no longer making advances, Green Bank would make additional advances provided Green Bank’s total advances didn’t exceed \$10 million. These changes result in a blended cost of funds to CEEFCo of █%.

## C4C Financial Condition

C4C is in good financial health. Represented below is the parent-level company on a consolidated basis. CEEFCo loan quality is good with approximately █% of loans outstanding in the >90 days past due category – roughly in line with energy efficiency loans more generally. These delinquencies are more than supported by the level of CEEFCo equity (approximately \$15 million).

**IMAGE REDACTED**

## Request

Green Bank staff requests:

Approval for up to a \$10 million secured and subordinated medium term revolving loan to CEEFCo in partnership with Amalgamated Bank (with Green Bank funding not less than 40% of advances and Amalgamated funding not more than 60% of advances) which will satisfy C4C/CEEFCo's funding needs for energy efficiency and Smart-E loans booked by CEEFCo ("CEEFCo Revolving Loan"). The CEEFCo Revolving Loan will be a 3 year medium term revolving loan facility. As at present, the sole source of repayment for the CEEFCo Revolving Loan will be the proceeds from consumer loan payments of the CEEFCo loan portfolio and CEEFCo equity. Pricing is to be █% as explained above. (see the draft proposal in Appendix 1).

## Green Bank Financial Statements

How is the project investment accounted for on the balance sheet?

Green Bank's advances lead to a reduction in cash and cash equivalents on the asset side of the Green Bank's balance sheet and a concomitant increase in short-term loans.

## Resolutions

**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 substantially completed negotiations for modification to the medium term loan facility to fund C4C's Smart-E Loan and other residential energy efficiency loan portfolio growth on revised terms as explained in the memorandum dated October 18 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 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 \$10 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;

**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 effect the above-mentioned legal instrument.

Submitted by: Bryan Garcia, President and CEO and Bert Hunter, EVP and CIO

October 14, 2022

PRELIMINARY TERM SHEET

**(REDACTED)**

[REDACTED]

Borrower	CEEFCo
[REDACTED]	



<p>[REDACTED]</p>	<p>[REDACTED]</p> <p>[REDACTED]</p>
<p>[REDACTED]</p>	<p>[REDACTED]</p>
<p>[REDACTED]</p>	<p>[REDACTED]</p>
<p>[REDACTED]</p>	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>
<p>[REDACTED]</p> <p>[REDACTED]</p>	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>

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[REDACTED]	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED]	[REDACTED]
[REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED] [REDACTED]
[REDACTED]	[REDACTED]

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## PosiGen

### Green Bank Term Loan Facility Modification Request

December 9, 2022



**Document Purpose:** This document contains background information and due diligence on modification of existing credit facilities for PosiGen Inc. (“PosiGen”) collateralized by residential solar PV facilities located within and outside of Connecticut and by the future performance-based incentive (“PBI”) payments PosiGen will earn from various residential solar PV projects in Connecticut. 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.

# Investment Modification Memo

**To:** Connecticut Green Bank Board of Directors  
**CC:** Bryan Garcia, President and CEO; Jane Murphy, Executive Vice President of Accounting and Financial Reporting; Brian Farnen, General Counsel and CLO; Eric Shrago, Managing Director of Operations; Sergio Carrillo, Director of Incentive Programs  
**From:** Bert Hunter, EVP and CIO  
**Date:** December 9, 2022  
**Re:** PosiGen Back Leverage Modification and ITC Bridge Loan

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## Background

PosiGen, Inc. (together with its subsidiaries, “PosiGen”) currently has a first lien asset-backed facility led by Forbright Bank (“Forbright”) with a total commitment of \$[REDACTED] million. In turn, the Connecticut Green Bank (“Green Bank”) – in order to continue to support PosiGen as our strategic partner for low to moderate income (“LMI”) solar, battery storage, and energy efficiency – provides a “2<sup>nd</sup> Lien” facility subordinated to Forbright (the second lien credit facility, or “SLCF”) with a total commitment of \$11.25 million. Of this amount, the Green Bank’s maximum exposure is set at \$4.5 million, with the remaining \$6.75 million provided by a variety of mission aligned investors. PosiGen’s portfolio of solar leases, both in Connecticut and nationally, serve as the collateral for these two facilities.

Additionally, the Green Bank has a first lien commitment to PosiGen associated with the now-closed Residential Solar Investment Program, lending against the Performance Based Incentive (“PBI”) that PosiGen systems earn as they generate clean energy and deliver Solar Home Renewable Energy Credits (“SHRECs”) to the Green Bank. That is now a static pool of projects, and the Green Bank’s current exposure has successfully amortized down to ~\$7.5 million in principal outstanding (from an original commitment of \$10 million). Finally, in April, the Board approved an \$8 million facility to support the rollout of battery storage systems under the Energy Storage Solutions (ESS) program for LMI families in the state (\$2 million revolver for purchasing the batteries and associated equipment from Generac (their strategic partner for the ESS program) and \$6 that will be funded by payments from Eversource and UI as well as customer lease payments).

Due to PosiGen’s growth in Connecticut and more broadly (detailed further below in this memo), the company is now in a position to exercise the accordion feature of its Forbright facility. This is a \$60 million upsize in the first lien facility, which upsize is currently in process between Forbright and other existing and potential lenders and expected to close by January 2023. While the Green Bank’s Board of Directors (the “Board”) has previously authorized Green Bank proportionally upsizing its SLCF commitment associated with this accordion, staff believes it prudent to adjust and renew that approval with modifications, and requests such in this memo.

Further, an accompanying memo contains a request to embed new collateral and a short-term “tax equity bridge” loan in the Green Bank’s SLCF commitment to PosiGen. Thanks to the passage of the Inflation Reduction Act, PosiGen will be eligible for a variety of Investment Tax Credit “adders” in 2023, focused mainly on the company’s delivery of solar (including battery storage) to LMI communities in specifically eligible census tracts, as well as PosiGen’s use of domestically produced content in the systems they deploy (including in energy communities and for low-income families). These adders have significant value starting

January 1, 2023, but due to the timing of regulatory guidance, such value will not translate into cash until later in the year. To continue to support the company as it invests in vulnerable communities in Connecticut, staff is recommending that the Green Bank provide a bridge facility against the value of those adders, as well as one that can flexibly support PosiGen as it finalizes a new tax equity partnership that will monetize that value.

## PosiGen Updates

With the support of the Board, the Green Bank has supported PosiGen in its growth in Connecticut so as to deliver on our promise to support the equitable development of clean energy across the state. That has translated into meaningful success as the company has continued to invest in our local economy and deploy systems, with an ongoing focus on our most economically distressed communities (e.g., LMI, communities of color). PosiGen has maintained and expanded its northeast headquarters in Bridgeport, has a significant presence in its Hartford office, and is now in the process of opening up a new location in Danbury, as well. As of Q4 2022, PosiGen has over 130 employees in Connecticut, with an average annual salary (prior to incentives or commissions) of \$██████. All PosiGen employees earn a living wage, are eligible for health and retirement benefits, and qualify for employee stock options after a year of service. Further, PosiGen has doubled down on its commitment to Connecticut – and holistically serving residents with its unique solar (including battery storage) plus energy efficiency offering – by purchasing local HES contractor New England Conservation Services this past August, and bringing their entire team into the fold.

In terms of project deployment, PosiGen has now installed over 5,000 systems in the state (not all yet fully operating) and is targeting 2,000+ new systems in Connecticut in 2023 as growth accelerates. PosiGen installed over 1,500 systems in Connecticut in 2021, and while that number will be somewhat lower in 2022 due to the challenges associated with the transition to the new solar tariff program administered outside of the Green Bank, the company should end this year with close to 2,500 sales in Connecticut and a healthy backlog of projects heading into the new year. PosiGen systems, on average, save participating families in Connecticut \$0.09/kWh of production after the lease payment.<sup>1</sup> With rising electricity rates in Connecticut, these families will save even more as a result of the innovative solar PV financing.

At a national level, the company now has an active presence, either organically or through channel partners, in 10 states, but Connecticut has emerged as its biggest and most important market (surpassing even PosiGen’s home state of Louisiana), which is a reflection of the focus from the Green Bank – and state policymakers more generally – on ensuring that equity is a key theme of all Connecticut state clean energy policy. And PosiGen has worked to ensure its performance in serving LMI customers is consistently improving, investing new dollars in both operational and customer service capabilities. The below represents a snapshot of recent customer feedback PosiGen has received through the end of Q3:

**IMAGE REDACTED**

Finally, from a loan performance standpoint, PosiGen remains in good standing with the Green Bank, and collections on its portfolio of leases remains strong<sup>2</sup>:

**IMAGE REDACTED**

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<sup>1</sup> Asset Management Savings for PosiGen customers within Green Bank’s Power BI

<sup>2</sup> **Standard Collection:** Collected payments (incl. deferred payments in numerator)

**Active Collection:** Adjusted for deferred payments collectible (added to denominator)

**Fleet Collection:** Adjusted for removals and redeploys (added to denominator)

## Forbright Facility Upsize

For reference purposes, attached as Exhibit A are the full terms of the existing 1<sup>st</sup> lien facility with Forbright (f/k/a Congressional) Bank. When the Board previously approved the Green Bank's participation in this transaction, the following limits were set:

- "A Pre-Accordion Cap advance limit of \$11.25 million (Green Bank limit \$4.5 million) for the modified Green Bank SLCF and an Accordion Cap of \$16 million (Green Bank limit \$6.4 million)"

The above approved limits anticipated ongoing participation in the SCLF from a variety of mission aligned investors principally sourced by PosiGen, which has indeed been the case. A number of foundations, including [REDACTED]

[REDACTED] have all joined the facility, providing not only fee income to the Green Bank but also demonstrating our ability to crowd in not just commercial but also concessionary capital to advance the Green Bank's objectives.

In addition to existing participants aligned aside Green Bank, on December 8, the US Department of Energy's Loan Program Office announced new opportunities for projects funded by "State Energy Financing Institutions" or "SEFIs." This new authority waives the innovative technology requirement in Title 17 for projects receiving financial support or credit enhancements from a SEFI. Connecticut Green Bank qualifies as a SEFI according to the DOE-LPO press release (see Exhibit B1 attached). Previously, all projects funded under Title 17 were required to employ technologies that were new or significantly improved compared to commercially available technologies. Now, projects that reduce greenhouse gas emissions without using an innovative technology may be eligible for loans under Title 17, so long as the projects receive qualifying funding from a SEFI (e.g., a state green bank or other qualifying state entities) and fall into one of the categories of eligible projects under Title 17 (as we understand Title 17, PosiGen's projects should be eligible). By providing loan guarantees to SEFI-supported projects (which can include guarantees of loans made by eligible private lenders such as under the 1<sup>st</sup> Lien Credit Facility for PosiGen), the Loan Programs Office (LPO) can now offer project financing to a wider range of borrowers under Title 17, including small, rural, and underserved communities. This authority will remain available through September 30, 2026. The SEFI-related authority broadens the scope of projects LPO can finance under Title 17 and will further advance private sector-led, government-supported efforts to reduce greenhouse gas emissions. Given this new DOE-LPO authority, staff will prioritize exploring the possibility for enhancing the PosiGen facility with DOE-LPO support which could involve support from other State Energy Financing Institutions, such as NY Green Bank, DC Green Bank and potentially the Philadelphia Green Capital Corporation. At DOE-LPO's urging, PosiGen has in fact already communicated its intentions to take advantage of this expanded authority (see Exhibit B2 – PosiGen T17 Draft Executive Summary - REDACTED) and plans to submit a full Part I Application within the next several weeks.

While Green Bank staff anticipates further growth in participant capital associated with the upsize of our position relative to PosiGen (either through existing participants or potentially via state energy financing institutions as explained above), it would be helpful to adjust the previously approved Accordion Cap (while otherwise maintaining all other terms) to enable the Green Bank to continue to fund its position and then enable participants to join the facility as their commitments come in over time. Specifically, the proportional requirements of the SLCF are such that an additional \$2.9 million in cap space (above the existing approved \$6.4 million "Accordion Cap") would enable the Green Bank to stay in sync with the first lien lender(s), while of course allowing participants to provide some or all of that capital as available:

	<b>PosiGen Asset Backed Facility</b>		
Timing	Pre-Accordion Approved	Post-Accordion Approved	Post-Accordion Requested
Borrowing Base	\$168,006,720	\$240,009,600	\$240,009,600
First Lien Advance	██████████	██████████	██████████
Second Lien Advance	6.67%	6.67%	6.67%
First Lien Amount	██████████	██████████	██████████
Second Lien Amount	\$11,206,048	\$16,008,640	\$16,008,640
Green Bank Max Exposure	\$4,500,000	<b>\$6,400,000</b>	<b>\$9,302,592</b>

- Overall exposure

	<u>Previous</u>	<u>Proposed</u>	<u>Repayment Source</u>
2 <sup>nd</sup> Lien Credit Facility	\$ 6,400,000	\$ 9,302,592	- Customer Leases
PBI Facility	\$ 10,000,000	\$ 7,500,000	- CGB PBI sweep
ESS/Generac	\$ 8,000,000	\$ 8,000,000	- CGB/ES/UI incentive sweep w/ Generac performance gtee
Capital Solutions 2 Yr Bridge	\$ <u>0</u>	\$ <u>6,000,000</u>	- Tax equity funding
Max Exposure	\$24,400,000	\$30,802,592	
<b>Est Exposure Dec 2023</b>	<b>\$15,500,000</b>	<b>\$18,500,000<sup>3</sup></b>	

## Risk Assessment

PosiGen's portfolio performance remains strong and the lease structure aligns well with customers' benefits of electric bill savings which are only increasing with higher rates from Eversource & UI.

PosiGen's capital raising activities are strong as well. In addition to the expansion of the Forbright accordion, which represents a \$████ million capital raise of first lien capital (in addition to the increment of second lien capital being considered by the Green Bank Board) PosiGen's new investor base plans to inject another \$████ million of corporate capital into the company in early 2023, which the company projects to take it through to breakeven and parent level profitability by 2023 H2. This is in addition to tax equity capital, where the company is currently in documentation with ██████████ for a \$████ million commitment closing in January.

With the approval being sought today by staff, Green Bank's overall facility exposure would increase from \$24.4 million to \$30.8 million. At the same time, Green Bank's exposure is well diversified and structured. Repayment exposure is spread across customer leases (30%), Green Bank PBI payments (24%), CGB/Eversource and UI ESS incentive payments (with a Generac performance guarantee) (26%) and future institutional tax equity funding which is being documented presently (20%). Furthermore, the exposure is amortizing lower and is being participated to others where PosiGen and Green Bank have a good track

<sup>3</sup> Assumes net exposure for SLCF of \$6.4m + PBI amortizes to \$5.1m + ESS of \$4.0m + max Bridge \$3.0m



record of attracting additional lenders to the 2nd Lien Credit Facility (“SLCF”) to bring our net exposure to \$6.4 million in this facility. The Capital Solutions Tax Equity bridge facility will, from a duration perspective, be reduced to 1 year (from 2) if PosiGen and Green Bank are not successful in attracting additional participants in the SLCF. Taken together, staff is confident that Green Bank’s net exposure (net of amortization and participations) will not exceed \$23 million and will fall below \$20 million by December 31, 2023.

## Recommendation

In partnership with the Green Bank, PosiGen has continued to make Connecticut a leader in the equitable deployment of clean energy. The company’s model (based on underwriting to customer savings rather than FICO or income thresholds) is increasingly gaining acceptance in the market, but public-private investment partnerships continue to be critical to supporting growth and achieving scale. As such, Green Bank staff recommends approval of the increase in the post-accordion cap – from \$6,400,000 to \$9,302,592 described in this memo.

## Resolutions

**WHEREAS**, the Connecticut Green Bank (“Green Bank”) has an existing partnership with PosiGen, Inc. (together with its affiliates and subsidiaries, “PosiGen”) to support PosiGen in delivering a solar lease (including battery storage) and energy efficiency financing offering to LMI households in Connecticut;

**WHEREAS**, the Green Bank Board of Directors (“Board”) previously authorized and later amended the Green Bank’s participation in a back leverage credit facility (the “BL Facility”) collateralized by all of PosiGen’s solar PV system and energy efficiency leases in the United States as part of PosiGen’s strategic growth plan, as well as a facility to finance performance based incentives earned by PosiGen on its solar PV portfolio in Connecticut;

**WHEREAS**, PosiGen is now in the process of upsizing its BL Facility, as explained in the memorandum to the Board dated December 9, 2022 (the “Board Memo”);

**WHEREAS**, PosiGen repayment performance is satisfactory;

**NOW**, therefore be it:

**RESOLVED**, that the Board authorizes the Green Bank to amend its existing 2<sup>nd</sup> lien facility to allow for an upsized Green Bank position, as set forth in the Board Memo;

**RESOLVED**, that the Green Bank may advance up to \$9.3 million in 2<sup>nd</sup> lien financing associated with the BL Facility, in addition to serving as an agent for third-party participation to increase those participations to reduce Green Bank’s exposure as explained in the Board Memo;

**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

**Exhibit A-  
Terms of the Existing 1st Lien Facility**

**REDACTED**

## Exhibit B1

### LPO Offers New Opportunities for Projects Funded by State Energy Financing Institutions (DECEMBER 8, 2022)

A new authority waives the innovative technology requirement in Title 17 for projects receiving financial support or credit enhancements from a **state energy financing institution (SEFI)**. Previously, all projects funded under Title 17 were required to employ technologies that were new or significantly improved compared to commercially available technologies. Now, projects that reduce greenhouse gas emissions without using an innovative technology may be eligible for loans under Title 17, so long as the projects receive qualifying funding from a SEFI (e.g., a state green bank or other qualifying state entities) and fall into one of the categories of eligible projects under Title 17.

Congress [enacted this change](#) to Title 17 in part to provide access to debt for borrowers seeking to deploy already commercialized clean energy technologies. By providing loan guarantees to SEFI-supported projects (which can include guarantees of loans made by eligible private lenders), the Loan Programs Office (LPO) can now offer project financing to a wider range of borrowers under Title 17, including small, rural, and underserved communities.

The expanded authority was established by the Bipartisan Infrastructure Law and funded by the Inflation Reduction Act (IRA). The IRA provided an additional \$40 billion of loan authority for projects eligible for loan guarantees under section 1703 of the Energy Policy Act of 2005, and that authority will remain available through September 30, 2026.

The SEFI-related authority broadens the scope of projects LPO can finance under [Title 17](#) and will further advance private sector-led, government-supported efforts to reduce greenhouse gas emissions.

#### *HYPOTHETICAL PROJECT APPLICATIONS*

*The following scenarios represent example projects and funding structures that might be eligible for a loan from LPO under this authority.*

**Example 1:** A private lender provides debt financing and servicing to small businesses that acquire, renovate, and rent or re-sell mid-market single-family homes. The small businesses use the proceeds to install on-site renewable energy generation, build EV infrastructure, and improve the overall energy efficiency of the homes. Several state energy offices provide subordinated debt capital or loan loss reserves for the project. The lender seeks a loan guarantee from LPO for senior debt used to originate or purchase the portfolio of small business loans.

**Example 2:** A community solar developer is constructing multiple solar facilities. The project portfolio has SEFI funding in the form of up-front state grants, which the developer receives for serving certain geographic areas of the state. The developer may be eligible to receive additional state grants if it serves lower- and moderate-income and disadvantaged communities. The developer applies for an LPO SEFI loan guarantee to support deployment of solar facilities. The developer repays the loans for facility construction through customer

subscriptions. The developer would like LPO to guarantee a multi-draw construction loan or similar facility used to finance the portfolio.

**Example 3:** A state has invested in a project to transport natural gas for use in production of blue ammonia. The developer secured SEFI support for electrolyzer facilities to complement existing state-backed blue ammonia infrastructure. Because the project receives SEFI support, the developer explores a guarantee for the new infrastructure under Title 17. In addition to providing financing for the electrolyzers, a loan guarantee from LPO would come with valuable technical expertise.

**Example 4:** A private developer builds residential housing projects to high energy efficiency standards. As a result, the state housing finance agency provides grants and credit enhancement for the construction, potentially making the developer's projects eligible for a loan from LPO under Title 17. The developer mentions this to the state housing finance authority, which also supports dozens of other developers. The SEFI decides to bundle projects from multiple developers into a single application to LPO. The SEFI seeks a loan guaranteed by LPO to further incentivize developers to prioritize energy efficiency in new buildings.

**Example 5:** A company finances the purchase of energy-efficient appliances through an online utility marketplace platform and provides point-of-sale rebates for customers throughout the United States. In several states, the company developed loan-loss reserve (LLR) programs with state energy offices. The LLR programs cover a significant portion of qualifying losses resulting from consumer loan defaults, which are infrequent. The company seeks a loan guaranteed by LPO to scale up its service offerings and make more loans available to consumers in states where it receives SEFI funding.

## WHAT IS A "SEFI" ?

### Examples of State Energy Financing Institutions (SEFI)

- Housing Finance Agencies
- Economic Development Authorities
- State Green Banks
- State Energy Offices



### WHAT QUALIFIES AS A SEFI?

The provision defines a SEFI as a quasi-independent entity or an entity within a state agency or financing authority established by a State to satisfy two broad functions:

1. Provide financing support or credit enhancements, including loan guarantees and loan loss reserves, for eligible projects under Title 17.
2. Create liquid markets for eligible projects, including warehousing and securitization, or take other steps to reduce financial barriers to the deployment of existing and new eligible projects.

Examples of SEFIs may include, but are not limited to:

- Housing Finance Agencies.

- Economic Development Authorities.
- State Green Banks.
- State Energy Offices.

Note that for the provision to apply, the project must receive financing or credit enhancement from a SEFI.

#### *WHAT QUALIFIES AS FINANCING OR CREDIT ENHANCEMENT FROM A SEFI?*

Qualifying SEFI support can take many forms. Until a rulemaking and related guidance are issued, LPO will assess applications on a case-by-case basis to determine whether the project funding structure meets the criteria.

Examples of qualifying funding may include, but are not limited to:

- State providing equity/subordinate portion of capital stack.
- State providing loan loss reserve with respect to junior portion of capital stack.
- State or SEFI co-lending with LPO (pari passu or mezzanine).
- State backstop of specific key project elements that may be subject to regulatory or local market risk.

#### *HOW TO APPLY*

**Potential applicants should become familiar with requirements applicable to all loans and loan guarantees issued under Title 17.** These requirements can be found in the Title 17 Innovative Clean Energy (section 1703) solicitation [here](#). Further guidance for potential applicants to apply under the SEFI authority will be provided in an upcoming Title 17 rulemaking and subsequent guidance.

To apply using the SEFI authority, potential applicants should follow these additional instructions for Part I:

- Replace “Eligible Project” Condition 2 (New or Improved Technology) with “Receives qualifying support from a qualifying SEFI.”
- Applicants **should** fill out Attachment A with the following two updates:
  - In addition to providing the information requested in Section C/Part 1 (Executive Summary), applicants **should also** explain how the proposed project meets the SEFI funding requirements defined in this provision.
  - In Section D/Part 2 (Description of New or Significantly Improved Technology), applicants **should** describe the technology being deployed but **are not required** to explain how it is new or significantly improved.

LPO’s Outreach and Business Development team will provide guidance regarding potential eligibility and work with applicants to prepare applications. Applicants will have ample opportunity and support to refine their initial applications to ensure they comply with the requirements set forth in any rulemaking.

LPO encourages interested parties to begin the application process as soon as possible by calling 202-586-8336 or writing to [lpo@hq.doe.gov](mailto:lpo@hq.doe.gov) to schedule a no-fee, pre-application consultation.

Exhibit B2

**REDACTED**

TERM SHEET

|



























**REDLINES ARE INTENTIONAL**  
**DO NOT REMOVE REDLINES**

## Memo

**To:** ~~Board of Directors, Deployment Committee,~~ Connecticut Green Bank  
**From:** ~~Bert Hunter, EVP and CIO &~~ Desiree Miller, Senior Manager, Clean Energy Finance  
**CC:** Bryan Garcia, President and CEO; ~~Bert Hunter, EVP and CIO;~~ Brian Farnen, General Counsel and CLO; Mackey Dykes, Vice President, Financing Programs  
**Date:** ~~November 14~~December 9, 2022  
**Re:** Capital Solutions RFP: \$2.5 Million Debt Facility for Energy Resources USA to Finance Energy Efficiency Retrofits at Bradley International Airport

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### Background for the Board

At the November 16, 2022 meeting of Deployment Committee, the Committee approved a \$2.5 million construction debt facility (the "Debt Facility") for Energy Resources USA LLC ("Energy Resources"), which has been awarded a \$2,862,502 contract with Eversource under the Small Business Energy Advantage ("SBEA") program to install energy efficiency ("EE") retrofits at Bradley International Airport. The balance of this memorandum to the Board is substantially the same as presented to the Committee with the following adjustments:

1. Staff intended for the Debt Facility to be a "revolving" facility for the term of the facility. As this key term was omitted from the Committee approval which was granted, staff comes to the Board for approval of this change which is in the process of being documented by staff with legal counsel (Day Pitney).
2. Subsequent to the Committee approval, staff agreed a change in the up-front fee (lower) and the legal expense cap (higher) which is redlined in the attached term sheet.

(Text of the Deployment Committee memo follows below)

### Investment Summary

This credit memorandum sets out the rationale for creating a \$2.5 million construction debt facility for Energy Resources USA LLC ("Energy Resources"), which has been awarded a \$2,862,502 contract with Eversource under the Small Business Energy Advantage ("SBEA")

program to install energy efficiency (“EE”) retrofits at Bradley International Airport. Energy Resources submitted an application under the Green Bank’s Capital Solutions Open RFP (“Capital Solutions”) program (approved by the Board in July 2021). Bradley is owned and operated by the Connecticut Airport Authority and funds from the proposed debt facility would specifically be earmarked for equipment and labor in the Bradley energy efficiency retrofit and any other state energy efficiency project approved by Green Bank.

Thanks to Green Bank’s expansion of financing availability for the state through the SBEA program, Energy Resources has or will be contracting for several large EE projects at state facilities. These projects are larger than the scope of their normal projects and will strain their financial resources. Eversource doesn’t pay out the financing and incentives until the project is complete and equipment suppliers that vendors like Energy Resources rely upon for the EE measures to install are requiring more and more money up front. Bank financing is too costly and the advance rate (the percentage advanced against the receivables) too low.

According to the project agreement between Energy Resources and Eversource, Energy Resources would install a total of 12 energy efficiency measures across Bradley International Airport, including lighting, refrigeration and HVAC retrofits. The retrofits are expected to save the Connecticut Airport Authority \$5,131,137 over the measures’ effective useful lives. Under its contract with Eversource, Energy Resources would not be paid until completion and final approval of the energy efficiency installation. As the project is expected to take approximately 18 months from commencement of installation, with full payment coming at the end of installation completion following successful inspection, Energy Resources faces a clear need for construction financing.

## Open RFP Capital Solutions Request

Energy Resources is currently under contract with the State of CT to complete a large energy efficiency project at Bradley Airport. They are also in the process of finalizing another large project with the Dept of Correction (DOC). These projects are facilitated through the Master Agreement between the State of CT and Eversource, which leverages the SBEA program. The airport project is approximately \$■M, and the DOC is approximately \$■M.

In the case of Bradley Airport, the project will generate almost 4M kWh in annual savings. Full project payment will be made to Energy Resources directly from Eversource. Eversource has indicated a willingness to assign these payments to facilitate Green Bank financing. This project is based on the utility program providing the incentives and interest free financing, in accordance with the Master Agreement and SBEA program, to fund the projects. The project has many components, including a large mechanical portion, and will take approximately 18 months to complete. The same circumstances exist for the pending DOC project. This creates a cash flow challenge since Eversource’s flexibility with partial payments has constraints associated with the comprehensive bonus aspect of the incentive.

Energy Resources has been a financially self-sustainable company for many years. As a CT small business, supporting these projects, along with the many small to medium sized energy efficiency projects they complete, will create a major strain on its balance sheet. The

debt facility under consideration by the Deployment Committee will enable Energy Resources to keep paying all of its vendors in a timely manner. The State is eager to get these projects completed in a timely manner to start enjoying the large amount of energy savings. The market is experiencing increased lead times and increased material/equipment costs. Energy Resources needs to start purchasing equipment as soon as possible. There will be a cost of waiting based on lost energy savings and increased material costs. Energy Resources is appealing to the Green Bank because, as opposed to a commercial lender, Green Bank can offer a reasonable rate and recognizes the sense of urgency behind the work to be performed and streamline the approval process. Commercial banks have recently tightened credit standards in response to expectations for a contraction in economic conditions. These increased standards make it much more difficult to secure credit on reasonable terms. Also, with every increase in the federal funds rate – the “prime rate” which is available to borrowers like Energy Resources (plus a spread over this rate) – increases in lock-step. This makes it increasingly uneconomic for companies like Energy Resources trying to help the state reduce energy consumption to do its job affordably. Finally, Energy Resources has requested the Green Bank advance 100 cents on the dollar – as these funds will be repaid to us 100 cents on the dollar by the utilities. Commercial banks, in contrast, will lend only a fraction of this – often 60 cents or possibly 70 cents. Accordingly, Energy Resources has requested approval from the Green Bank for a \$█M loan with an initial closing of \$█M, with the ability to increase up to a total of \$█M.

## Transaction Structure

Under the proposed \$2.5 million revolving debt facility, Energy Resources would have up to one draw per month, up to approximately █% of the value of the Eversource receivables as explained below. As proposed, the debt facility would target closing on December 1, 2022, and would be repaid potentially in uneven installments (should Eversource make a partial payment) or in full at maturity (discussed later). Given the uncertainty of payment flow until project final completion, the Green Bank has proposed a bullet loan, where principal and all interest are due at maturity but with a “cash sweep” of Eversource payments to Energy Resources should these payments come in sooner than following the completion of all projects and upon final inspection. Accordingly, staff will model the loan advances, repayments and the applicable interest rate to determine the level of advance supported by the Eversource receivable. Based on a forecast Energy Resources has supplied Green Bank, staff estimates the advance rate could be in the █% range. The debt facility would mature ~~on the sooner to occur of (a) disbursement by Eversource of total funding associated with the Bradley project or (b) two years from the closing date of the facility (approximately November 30, 2024).~~<sup>1</sup> Interest would be assessed on the outstanding balance in a given month at a fixed █% per annum rate (360-day basis) with any unpaid interest being capitalized into the loan monthly. At its choice, Energy Resources may make early interest and/or principal payments. Energy Resources would be permitted to enter into the financing facility with Green Bank with a minimum \$█ MM facility size with the ability to request increases in the facility in increments

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<sup>1</sup> ~~As the facility will be a revolving facility, staff is eliminating the provision that the facility would terminate if the the Borrower pays the facility down to zero in advance of the hard maturity date (2 years from the closing date).~~

of \$ [REDACTED] (up to a maximum facility of \$ [REDACTED] MM) in the sole discretion of Green Bank and subject to an additional facility fee.

**IMAGE REDACTED**

Eversource is funding the \$2.8 million installation costs through a combination of \$1,860,626 of state incentives and an 84-month 0% loan to the Connecticut Airport Authority in the amount of \$1,001,876 under the SBEA program. In total, the energy efficiency retrofits are expected to save the Connecticut Airport Authority \$4,129,262, on net. The incentives are funded by the State of Connecticut Energy Efficiency Fund. The energy efficiency retrofit is part of a larger master agreement (MA 9PSX0026) where Eversource manages the installation of energy efficiency products and services at various Connecticut state agencies.

### Overview of Energy Resources USA

Based in Thomaston, CT, Energy Resources is an energy efficiency and solar installer, with commercial-scale customers in state, municipal, industrial, retail, and non-profit sectors. For over 10 years, Energy Resources has been a contractor for Eversource and United Illuminating in Connecticut, as well as NGRID and Eversource in Massachusetts. Energy Resources has completed projects for Connecticut state agencies including DAS, DOC, DOL, DOT, Dept of Mental Health, CT State Police, and CT State Library. Since 2017, Energy Resources has completed seven C-PACE projects in the State of Connecticut. The projects range in size from \$ [REDACTED] to \$ [REDACTED] million. Three of the projects were financed directly by the Connecticut Green Bank, while the other four were financed by third party C-PACE capital providers.

Staff examined the past three years of Energy Resources' IRS Form 1065 (partnership returns, including summary financial accounts), which showed steadily improving net income both on a financial book basis as well as their tax books adjusted for tax anomalies, such as the Section 481(a) adjustment and 179D deductions<sup>2</sup>. Gross profit over the past three years increased steadily from \$ [REDACTED] million in 2019 to \$ [REDACTED] million in 2021. EBITDA, too, steadily improved, from a [REDACTED] million in 2019, to [REDACTED] million in 2020, and [REDACTED] million in 2021. In all three years, Energy Resources took advantage of IRC Section 179D Deduction to reduce net income and its tax liability.

On the balance sheet, tracking the improvement in book income, Partners' Capital Accounts improved from [REDACTED] in 2019 to [REDACTED] million in 2021. Energy Resources' current ratio excluding the impact of the PPP loan in 2020, steadily improved from [REDACTED]% in 2019 to [REDACTED]% in 2020 and [REDACTED]% in 2021. [REDACTED]

[REDACTED]

<sup>2</sup> Under the general rule of section 481, a taxpayer that changes from the cash method of accounting to an accrual method of accounting is permitted to take into account ratably over four taxable years any positive section 481(a) adjustment (i.e., an adjustment that increases taxable income). The Section 179D deduction allows for up to \$1.80 per square foot for taxpayers — or the designer if the building is government-owned—that improve the efficiency of their commercial and residential rental buildings that are four stories high or more, above certain thresholds.



## Risks and Mitigants

The main project risk is that Energy Resources does not complete the work in a manner deemed successful to Eversource inspectors before the loan's maturity date. Multiple factors could cause this scenario to occur, including large shipping delays in equipment, bankruptcy or closing of operations of Energy Resources, or workmanship which Eversource inspectors deem unsatisfactory. Under any of these scenarios, Eversource would not be obligated to pay Energy Resources for the work completed, and the Green Bank loan would likely go into default. However, given the lengthy and successful track record of Energy Resources as an SBEA vendor and as a C-PACE contractor over many projects, as well as staff's familiarity with the principals of Energy Resources, staff is comfortable that the risks associated with the completion of the project for "organic" Energy Resources reasons is quite limited. Staff deems other risks (such as supply chain) as more of a timing issue which is remediable with the passage of time and should not lead to non-payment (but could in some cases result in delays associated with completion by Energy Resources and payment by Eversource).

To mitigate any payment risks, under the assumption that completion risks are acceptable, Green Bank has negotiated the following measures with Eversource:

- 1) Eversource will allow Energy Resources to assign ultimate payment to the Green Bank (similar to what Eversource does with its ZREC payments) and then after approving the energy efficiency installations, pay the Green Bank directly. Green Bank would then use the payment to reduce (or eliminate) the Green Bank's outstanding loan to Energy Resources with any excess (of the Eversource payment over the loan and accrued but unpaid interest balance) being paid by Green Bank to Energy Resources.
- 2) In the event that Energy Resources does not successfully complete the entire project, Eversource is willing to pay for the completed and inspected measures of the master project directly to the Green Bank provided that the agreed "phases" of work have been completed.

## 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?*

The energy efficiency measures are expected to save 845,624 mmBTU of energy over their effective useful life, and the debt facility is up to \$2.5 million. The mmBTU/\$ ratepayer funds at risk is forecast to be 0.33825.

## 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 \$2.5 million.

## Capital Solutions RFP Evaluation

Capital Solutions RFP Proposals are evaluated on the following criteria:

### A. Meeting Green Bank Goals

Providing the capital necessary for Energy Resources to complete the energy efficiency retrofit of Bradley International airport, will help the Green Bank achieve the following goal formalized in the Comprehensive Plan:

- **Scaling Up Investment and Impact in Connecticut and Beyond** – in order to achieve the climate change goals set forth, more investment from private capital sources leveraged by innovative public sector financing will be needed to scale-up and scale-out the Green Bank model's impact.

### B. Green Bank Essentiality – to what extent is participation by the Green Bank essential to the success of the project?

Green Bank staff sees its participation as supplementary and complementary to the existing financial support from other Connecticut government funding (i.e., State of Connecticut Energy Efficiency Fund and Connecticut Airport Authority) in order to achieve a quick payback energy efficiency project at Bradley Airport. As explained by the applicant (see: "Open RFP Capital Solutions Request" earlier in this memo) the size of the project relative to the applicant's financial resources and the tightened credit standards and terms and conditions of bank financing, and given the urgent timing of the funding for ordering equipment so that the state project at Bradley Airport can stay on track speaks to the essentiality of Green Bank financing.

### C. Project Feasibility – How feasible is the project to achieve its stated goals?

Barring the scenarios outlined above in the Risk Section, Energy Resources is expected to successfully install the energy efficiency measures promised in the agreement. Energy Resources has a successful history in installing extensive energy efficiency retrofits in large government buildings as well as several C-PACE projects.

### D. Project Replicability – Could a similar project be replicated in Connecticut or elsewhere, or is this a unique opportunity?

Staff believes the structure it has designed with Eversource and Energy Resources is replicable for other strong vendors like Energy Resources for Eversource and UI service areas. Energy Resources is already in the contracting process with the Department of Corrections for another energy efficiency retrofit. If this application is approved and the loan is successful, it is possible the Green Bank could expand the offering into a formal program and seek private capital partners as necessary.

E. Project timetable – total development and construction timeline.

Construction is expected to take 18 months. The Green Bank has built in an extra 6 months of contingency until the debt facility matures.

F. Relevant Experience – Does the proposer offer relevant and sufficient experience for the type of project being proposed?

Yes. As explained elsewhere in this memo, Energy Resources has been operational for over 10 years and specializes in performing large energy efficiency retrofits for government entities and for C-PACE.

G. References

The Connecticut Green Bank has had positive experiences working with Energy Resources on its four C-PACE projects.

H. Pending Litigation

[REDACTED]

I. Energy Resources management and character review

[REDACTED]

### Recommendation

Based on the diligence of the proposed debt facility transaction meeting Green Bank underwriting and program criteria, Staff recommends approval of this transaction by the ~~Deployment Committee~~. Board of Directors.

### Resolutions

**WHEREAS**, the Connecticut Green Bank (“Green Bank”) has significant experience in the development and financing of commercial energy efficiency projects in Connecticut;



**WHEREAS**, the Green Bank continually seeks new ways to facilitate the deployment of energy efficiency and renewable energy in the State; and

**WHEREAS**, the Green Bank has established the Capital Solutions Open RFP Program (the “Capital Solutions Program”) to accommodate clean energy and environment infrastructure capital needs not met by other existing Green Bank programs; and

**WHEREAS**, Energy Resources USA LLC (“Energy Resources”) has applied to the Capital Solutions Program and staff is recommending approval of Energy Resources’ application for a revolving construction loan facility (the “Construction Loan”), substantially on the terms and conditions explained in a memorandum to the ~~Deployment Committee of the~~ Green Bank Board of Directors (the “~~Board Deployment Committee~~”) dated ~~Nov~~December 14, 2022 (the “~~Deployment Committee Board~~ Memo”);

**NOW**, therefore be it:

**RESOLVED**, that the Green Bank approves the Capital Solutions application of Energy Resources and the establishment of a revolving construction line of credit for funding its obligations under contracts for energy efficiency retrofits for state projects pursuant to the Eversource Small Business Energy Advantage program in an amount not to exceed \$2.5 million on terms substantially similar to those described in the ~~Deployment Committee Board~~ Memo; 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 ~~and Desiree Miller, Sr Manager, Clean Energy Finance~~

Appendix A: Term Sheet

**REDACTED**

## Appendix B: Financials

**REDACTED**

## Appendix C: Summary of Energy Efficiency Measures

**REDACTED**

## Appendix D: Proposed Loan Disbursement Schedule

**REDACTED**

## Appendix E: Energy Resources Organizational Chart

**REDACTED**

[Type here]

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## Capital Solutions RFP

A Funding Facility for PosiGen, Inc.  
Senior Secured Revolving Bridge Loan Facility

December 9, 2022



**Document Purpose:** This document contains background information and due diligence on a proposed \$6.0 million funding facility for PosiGen, 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

**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:** December 9, 2022

**Re:** PosiGen, Inc. Capital Solutions Open RFP Proposal

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## Summary

PosiGen has been a strategic partner with the Connecticut Green Bank (“Green Bank”) in solar PV, energy efficiency and shortly battery storage in conjunction with the Energy Storage Solutions program. PosiGen has applied to Green Bank via its Capital Solutions Open RFP program for a 2-year \$6 million loan facility to bridge certain tax equity investments for its solar funds as well as to bridge certain tax benefits associated with the recently passed Inflation Reduction Act.

## Company Background

Headquartered in New Orleans, LA, PosiGen is the nation's leading residential solar, battery storage, energy efficiency, and energy education provider for low-to-moderate income (“LMI”) families. PosiGen has more than [REDACTED] residential customers, over [REDACTED] direct employees, and supports another several hundred employees through its contractors in 10 states, principally Louisiana, Mississippi, Connecticut, New Jersey, New York, Pennsylvania, Massachusetts, Maryland, Washington, D.C., and California. PosiGen's unique services and products make solar energy affordable to homeowners of all income levels, and offer individuals, families, and businesses the opportunity to achieve greater fiscal autonomy, energy independence as well as substantial cost savings, to families in historically underserved areas.

With the support of the Board, the Green Bank has supported PosiGen in its growth in Connecticut so as to deliver on our promise to support the equitable development of clean energy across the state. That has translated into meaningful success as the company has continued to invest in our local economy and deploy systems, with an ongoing focus on our most economically distressed communities. PosiGen has maintained and expanded its northeast headquarters in Bridgeport, has a significant presence in its Hartford office, and is now in the process of opening up a new location in Danbury, as well. As of Q4 2022, PosiGen has over 130 employees in Connecticut, with an average annual salary (prior to incentives or commissions) of \$[REDACTED]. All PosiGen employees earn a living wage, are eligible for health and retirement benefits, and qualify for employee stock options after a year of service. Further, PosiGen has doubled down on its commitment to Connecticut – and holistically serving residents with its unique solar (including battery storage) plus energy efficiency offering – by purchasing local HES contractor New England Conservation Services this past August, and bringing their entire team into the fold.





In terms of project deployment, PosiGen has now installed over 5,000 systems in the state (not all yet fully operating) and is targeting 2,000+ new systems in Connecticut in 2023 as growth accelerates. These 2,000+ systems plus the value of systems in backlog for Connecticut, when accounting for the value of the PV systems, the value of the energy efficiency measures and planned deployment of Generac battery storage systems, represent over 20% of capital to be deployed throughout the PosiGen portfolio in 2023. PosiGen installed over 1,500 systems in Connecticut in 2021, and while that number will be somewhat lower in 2022 due to the challenges associated with the transition to the new solar tariff program administered outside of the Green Bank, the company should end this year with close to 2,500 sales in Connecticut and a healthy backlog of projects heading into the new year. PosiGen systems, on average, save participating families in Connecticut \$0.09/kWh of production after the lease payment.<sup>1</sup> With rising electricity rates in Connecticut, these families will save even more as a result of the innovative solar PV financing.

At a national level, PosiGen now has an active presence, either organically or through channel partners, in 10 states, but Connecticut has emerged as its biggest and most important market (surpassing even PosiGen's home state of Louisiana), which is a reflection of the focus from the Green Bank – and state policymakers more generally – on ensuring that equity is a key theme of all Connecticut state clean energy policy. And PosiGen has worked to ensure its performance in serving LMI customers is consistently improving, investing new dollars in both operational and customer service capabilities. The below represents a snapshot of recent customer feedback PosiGen has received through the end of Q3:

**IMAGE REDACTED**

Finally, from a loan performance standpoint, PosiGen remains in good standing with the Green Bank, and collections on its portfolio of leases remains strong<sup>2</sup>:

**IMAGE REDACTED**

PosiGen's capital raising activities are strong as well. In addition to the expansion of the Forbright accordion, which represents a \$■ million capital raise of first lien capital (in addition to the increment of second lien capital being considered by the Green Bank Board) PosiGen's new investor base plans to inject another \$■ million of corporate capital into the company in early 2023, which the company projects to take it through to breakeven and parent level profitability by ■■■■■. This is in addition to tax equity capital, where the company is currently in documentation with ■■■■■ for a \$■ million commitment closing in January.

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<sup>1</sup> Asset Management Savings for PosiGen customers within Green Bank's Power BI

<sup>2</sup> **Standard Collection:** Collected payments (incl. deferred payments in numerator)

**Active Collection:** Adjusted for deferred payments collectible (added to denominator)

**Fleet Collection:** Adjusted for removals and redeploys (added to denominator)

## Tax Equity Bridge (and Capital Solutions RFP Evaluation)

With the passage of the Inflation Reduction Act (“IRA”) earlier this year, the landscape for clean energy investment in United States has improved considerably. In particular, beyond the overall increase in federal commitment to the sector, IRA represents a clear shift in priorities, echoing the leadership of the Green Bank, so as to ensure equitable participation in the clean energy transition by LMI communities and households. Amongst other language in the legislation, the various tax credit adders that are now available to enhance the value of the Section 48 Investment Tax Credit (“ITC”) are a clear example of this shift, with PosiGen well situated to benefit – and share such benefit with the customers it serves.

For simplicity, the key adders that PosiGen expects to take advantage of are as follows:

- “Low Income Communities” – in qualifying census tracts that more or less follow those where New Markets Tax Credits are available, a 10% adder (with 20% available for certain project types)
- “Energy Communities” – in qualifying and adjacent census tracts associated with the retirement of various types of fossil fuel facilities and elevated unemployment, a 10% adder
- “Domestic Content” – for using at least 40% domestically manufactured content in a qualifying clean energy project, a 10% adder

To translate the above into real numbers, take an average residential system in Connecticut and consider the implications:

- System size: █ kW
- System Fair Market Value: \$█/W
- System purchase price / tax basis: \$█

So with a standard ITC of 30%, that would be \$█ in tax credit value, but it becomes \$█ *more* with a 40% ITC and \$█ *more* with a 50% ITC. Given current economic conditions, this extra value is critical to helping companies like PosiGen compensate for increasingly challenging inputs when it comes to cost (both due to global supply constraints and the cost of capital), and it also allows the company to maintain favorable customer pricing relative to the higher cost of electricity our state’s residents are now facing.

PosiGen expects to take advantage of these adders as they become available in January 2023, per statute, but the process of regulatory guidance from Treasury and the subsequent approval of documentation by tax equity investors is likely to take at least six months, if not more. As such, so as to maintain the company’s ability to quickly incorporate these favorable economics into its projects, Green Bank staff proposes to provide a revolving tax equity bridge against this value, with the following key terms:

- Green Bank commitment of \$6 million, on a delayed draw basis, with a total commitment inclusive of third-party capital / participants not to exceed \$12 million

- Potential participants include [REDACTED], both of which organizations have prior or existing exposure to PosiGen and have expressed significant interest in joining this facility
- For the avoidance of doubt, the Green Bank would be able to fund in advance of participant commitments, in line with precedent transactions, but then bring in those participant dollars on a follow-on basis, reducing Green Bank's exposure
- Advances to be provided against projects expected to qualify for the various ITC adders, at a [REDACTED]% advance rate
- Maturity on the bridge not to exceed [REDACTED]
- Interest rate of [REDACTED]%, with a minimum multiple on invested capital to the Green Bank of at least [REDACTED]x
- [REDACTED] closing fee [REDACTED]

In line with the above, and as previously mentioned, PosiGen expects to close on \$[REDACTED] million in new tax equity capacity with [REDACTED] shortly after the new year (see term sheet in the Board folder at item "5f" - **REDACTED**). However, given that its current tax equity commitments expire this month, there is the potential for a short-term funding gap. Staff therefore proposes that the same \$6 million referenced above be made available to fund against tax equity proceeds that PosiGen would expect to receive as part of its first tranche of capital from its new provider. Once repaid, these funds could then revolve for the purpose of bridging ITC adders for the remainder of the year.

Because this tax equity bridge is a new type of capital commitment to PosiGen, staff has evaluated the proposed additional transaction according to our Capital Solutions RFP criteria:

**IMAGE REDACTED**

Project timetable – total development and construction timeline

The proposed maturity of the bridge facility is 2 years (12/31/2024).

### Scoring Summary

At this time, staff is suggesting a threshold score to warrant consideration for submission to the Board for approval to be 4 "High" scores and 4 "Medium" scores across the 8 criteria. This results in a minimum score required for recommendation of "20". Including the earning of 1 "bonus point" (for LMI project benefits or for underserved communities, PosiGen attains a total score of 25 which strongly supports a recommendation to the Board. However, even with a score of 20, other transactions could have business model flaws that could weaken a project's chances for Green Bank support. Staff will continue to evolve the scoring process as more and more projects are considered.

### Recommendation

In partnership with the Green Bank, PosiGen has continued to make Connecticut a leader in the equitable deployment of clean energy. The company's model (based on underwriting to customer



savings rather than FICO or income thresholds) is increasingly gaining acceptance in the market, but public-private investment partnerships continue to be critical to supporting growth and achieving scale. As such, Green Bank staff recommends approval of the tax equity bridge described in this memo.

## Resolutions

**WHEREAS**, the Connecticut Green Bank (“Green Bank”) has an existing partnership with PosiGen, Inc. (together with its affiliates and subsidiaries, “PosiGen”) to support PosiGen in delivering a solar lease (including battery storage) and energy efficiency financing offering to LMI households in Connecticut;

**WHEREAS**, the Green Bank Board of Directors (“Board”) previously authorized and later amended the Green Bank’s participation in a back leverage credit facility (the “BL Facility”) collateralized by all of PosiGen’s solar PV system and energy efficiency leases in the United States as part of the company’s strategic growth plan, as well as a facility to finance performance based incentives earned by PosiGen on its solar PV portfolio in Connecticut;

**WHEREAS**, PosiGen repayment performance is satisfactory;

**WHEREAS**, the passage of the federal Inflation Reduction Act of 2022 (the “IRA”) creates a variety of new tax credit value streams that are available in early 2023 but likely to be delayed in terms of monetizable cash flow as explained in the memorandum to the Board dated December 9, 2022 (the “Board Memo”);

**WHEREAS**, PosiGen is currently documenting a new tax equity facility that will incorporate that additional value from IRA and has applied under the Capital Solutions Open RFP program for a revolving loan facility to bridge this value to be derived from the IRA provisions being included in the Internal Revenue Code, as further explained in the Board Memo; and

**NOW**, therefore be it:

**RESOLVED**, that the Green Bank may advance up to \$6 million in 1<sup>st</sup> lien financing associated with tax equity cash flows under a revolving loan facility as further explained in the Board Memo; 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



# Memo

**To:** Connecticut Green Bank Board of Directors

**From:** Mariana Trief, Consultant, Clean Energy Finance 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 13, 2022

**Re:** Request for Approval to Change Collateral and Partially Unlock Guaranty

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## Background and Project Description

Connecticut Green Bank's ("Green Bank") Board of Directors ("Board") approved on October 26, 2018 a not-to-exceed \$1.2 million subordinate loan ("Loan") and \$500,000 limited guaranty (Guaranty) from the Green Bank to finance through construction and operation a 1 MW hydroelectric facility located at the Upper Collinsville Dam ("Dam"), on the Farmington River, in Canton, Connecticut (the "Project"). The Loan closed on May 17, 2019 and was leveraged by a ~\$2.8 million term loan from Provident ("Provident Loan"), as well as an approximately \$1.9 million note supported by the US Small Business Administration ("SBA") 504 program ("SBA Loan") that a local community development lender will fund upon construction completion (jointly, the "Senior Loans"). There is also a \$650,000 bridge loan and \$300,000 in-kind contribution from equipment supplier and turnkey provider WWS Wasserkraft GmbH ("Wasserkraft"), along with \$675,000 in equity from Canton Hydro LLC, the project's developers (the "Developer"). On October 21, 2022 the Board approved amending Green Bank's documentation (loan and Guaranty) to accommodate a potential take out of the SBA Loan by Inclusive Prosperity Capital ("IPC")

## Project Update

As had been previously shared, Wasserkraft (the EPC contractor responsible for construction) and the Developers are in the process of resolving differences about the additional cost incurred by Wasserkraft to complete the Project, the plant's strategy for operations and equity distribution (after debt payments) to Wasserkraft. Wasserkraft is not willing to sign a final lien waiver and has threatened a mechanics lien on the Project. The lien waiver is a requirement for Final Completion (as defined in the Loan documents) and for the Green Bank Guaranty to commence benefit to the senior lenders.

The Provident and SBA Loans are structured as one mortgage that secures both loans and would be senior to any mechanics lien given the timing of the work. At the time of the closing of the senior loan, minimal onsite work had been performed by Wasserkraft outside of the EPC contract so attorneys feel confident that the mortgage would be senior to any mechanics lien, if one were to be filed. At the same time, as explained in the prior memo to the Board (included with this memo as Exhibit A) IPC was set to refinance the SBA Loan before the Wasserkraft dispute and potential mechanic's lien were disclosed by the Developer. In light of these developments, IPC and Provident Bank are considering a short-term participation by IPC (taking out the SBA Loan but without disturbing the

existing mortgage and security package) to close before year-end (the “IPC Participation”). The Participation would be fully refinanced (i.e., a new mortgage and security package – the same as existing but with IPC in place as a lender) upon the earlier of [REDACTED].

Provident Bank is also changing covenant compliance reporting, debt service reserve funding and payment waterfall – from starting upon Final Completion (which is delayed given the need to wait for more river flow to complete performance testing and receipt of the lien waiver from Wasserkraft) to starting at 12/30/2022. Therefore, Provident Bank has asked Green Bank to change the terms of the Guaranty to be triggered when the IPC Participation is finalized and the SBA exits (expected on or by 12/30/22) instead of when the Final Completion conditions are completed and after a lien waiver would have been in place. To do so and given the potential risk with the Project associated with a potential mechanics lien, the following is suggested (as negotiated with Provident Bank and the Developer):

- Unlock 50% of the Guaranty by the requested date to senior lenders (Provident and IPC as participant)
- Remaining 50% of the Guaranty to be unlocked when short-term IPC Participation is fully refinanced and Green Bank’s intended security position of a perfected security interest in all project assets, subordinate only to the senior lenders (Provident and IPC) is obtained, subject to satisfaction of Green Bank due diligence including outside counsel review (collectively, the amended security package being the “Green Bank Security Amendment”). Green will maintain a collateral position in the sponsor equity. Upon closing of the Green Bank Security Amendment, Green Bank’s collateral position in the sponsor equity will be subordinate only to the senior lenders (Provident and IPC).
- For providing this accommodation and to encourage the parties to restore the security positions as originally intended, the interest rate on the Green Bank Loan will be increased by 1.00% until closing of Green Bank Security Amendment.

Given the foregoing, staff recommends approval by the Board to:

- (1) amend the current Green Bank Loan documentation to (a) change in the trigger to 50% of the Guaranty as described above, (b) increase interest rate by 1.00% until closing of Green Bank Security Amendment, and (c) extend the Project’s Construction Completion date to June 30, 2023;
- (2) Enter into the Green Bank Security Amendment and amend the loan and Guaranty documents in accordance with the terms of this memorandum.

## Resolutions

**WHEREAS**, Canton Hydro, LLC (“Developer”) was awarded exclusivity by the Town of Canton to redevelop a 1 MW hydroelectric facility located at the Upper Collinsville Dam (“Dam”), on the Farmington River, in Canton, Connecticut (the “Project”) and the Connecticut Green Bank (“Green Bank”) Board (the “Board”) approved approve subordinate debt financing in an amount to exceed \$1,200,000 (the “Loan”) along with an unfunded guaranty, in an amount not to exceed \$500,000 to support the Project (“Guaranty”);

**WHEREAS**, Green Bank’s debt was leveraged by a term loan from Provident (“Provident Loan”), as well as loan supported by the US Small Business Administration (“SBA”) 504 program (“SBA Loan”).

**WHEREAS**, the Project Developers are seeking to replace the SBA Loan with new funding or a new loan from Inclusive Prosperity Capital (“IPC Loan”) and are seeking Green Bank’s approval to trigger the benefit of 50% of the Guaranty before final completion of the Project and to extend the Project’s completion of construction date until June 30, 2023, as more fully explained in a memorandum to the Board dated December 13, 2022 (the “Board Memo”);

**WHEREAS**, to accommodate the Project Developers’ and senior lenders requests, Green Bank would increase the interest rate on the Loan by 1% until it receives a restructured security package for the Loan as described in the Board Memo.

**NOW**, therefore be it:

**RESOLVED**, that the Green Bank Board of Directors hereby authorize staff to execute an amendment of the Loan agreement and Guaranty materially based on the terms and conditions set forth in the Board Memo;

**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 affect the above-mentioned legal instruments.

Submitted by: Bryan Garcia, President and CEO; Bert Hunter, EVP and CIO.

# Memo

**To:** Connecticut Green Bank Board of Directors

**From:** Mariana Trief, Consultant, Clean Energy Finance and Bert Hunter, EVP & CIO

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

**Date:** October 14, 2022

**Re:** Request for Approval to

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## Background and Project Description

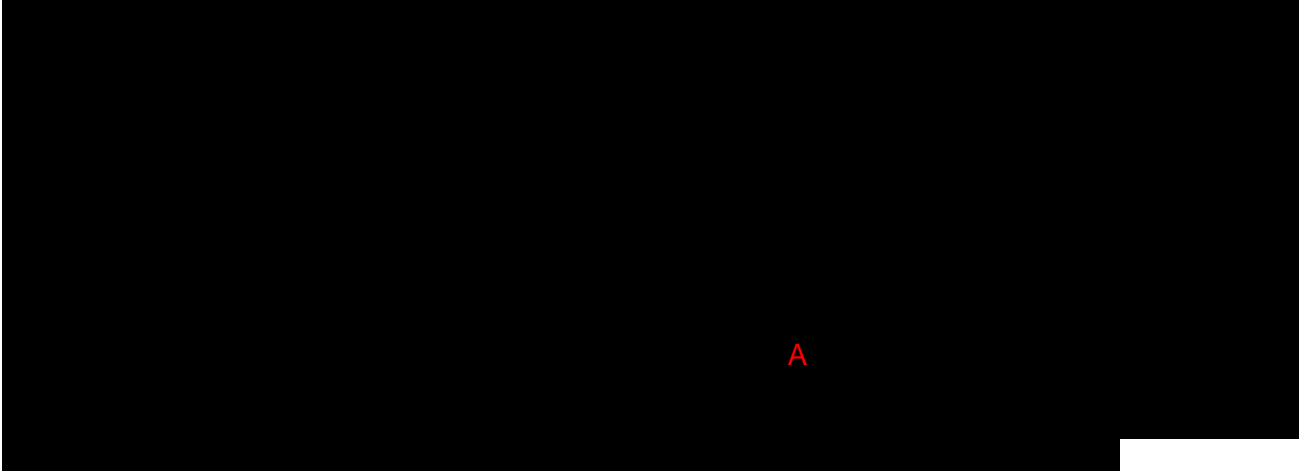
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## Project Update

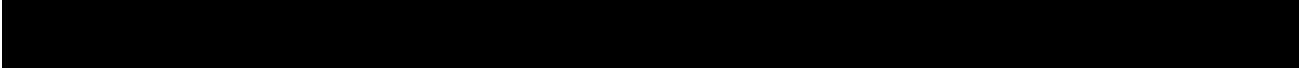
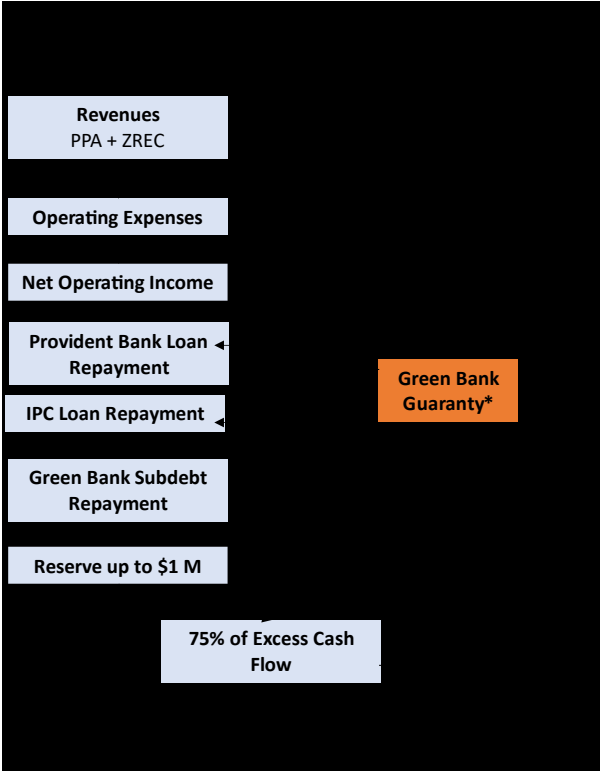
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1 [REDACTED]

## Resolutions

**WHEREAS**, Canton Hydro, LLC (“Developer”) was awarded exclusivity by the Town of Canton to redevelop a 1 MW hydroelectric facility located at the Upper Collinsville Dam (“Dam”), on the Farmington River, in Canton, Connecticut (the “Project”) and the Connecticut Green Bank (“Green Bank”) Board approved approve subordinate debt financing in an amount to exceed \$1,200,000 (the “Loan”) along with an unfunded guaranty, in an amount not to exceed \$500,000 to support the Project (“Guaranty”);

**WHEREAS**, Green Bank’s debt was leveraged by a term loan from Provident (“Provident Loan”), as well as loan supported by the US Small Business Administration (“SBA”) 504 program (“SBA Loan”).

**WHEREAS**, the Project Developers are seeking to replace the SBA Loan with a new loan from Inclusive Prosperity Capital (“IPC Loan”) and are seeking Green Bank’s approval to extend the Guaranty to the new IPC Loan, with such Guaranty to be on the same terms with IPC as lender as apply to the current SBA Loan.

**WHEREAS**, to complete the change in lenders the Developer is requesting to extend the Project’s completion of construction date until December 31, 2022;

**NOW**, therefore be it:

**RESOLVED**, that the Green Bank Board of Directors hereby authorize staff to execute an amendment of the Loan agreement materially based on the terms and conditions set forth in this board memo dated October 14, 2022;

**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 affect the above-mentioned legal instruments.

Submitted by: Bryan Garcia, President and CEO; Bert Hunter, EVP and CIO.





# Memo

**To:** Board of Directors of the Connecticut Green Bank  
**From:** Sergio Carrillo, Bryan Garcia and Alex Kovtunenکو  
**Cc:** Mackey Dykes, Brian Farnen, Bert Hunter, Jane Murphy, and Eric Shrago  
**Date:** December 9, 2022  
**Re:** Energy Storage Solution Program – Upfront Incentive Approval Procedure

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## A. Background

The Energy Storage Solutions (ESS) Program was established by PURA in Docket No. 17-12-03RE03, PURA Investigation into Distribution System Planning of the Electric Distribution Companies – Electric Storage. In its Final Decision<sup>1</sup> in this docket, issued July 28, 2021, PURA appointed The Connecticut Light and Power Company d/b/a Eversource Energy (Eversource), The United Illuminating Company (UI), and the Connecticut Green Bank (Green Bank) as co-administrators of the Program.

The Green Bank's responsibilities include customer enrollment, administration of the upfront incentive, communication and promotion of the Program, and data aggregation and publication, among others.

## B. Administration of the upfront incentive

The Green Bank proposes to administer the upfront incentives in two steps:

(1) the issuance of a Reservation of Funds (ROF) letter, provided to the project developer and customer upon verification that the Battery Energy Storage System (BESS) meets the minimum technical requirements necessary to participate in the Program, including equipment roundtrip efficiency and warranty, ability to comply with passive and active dispatch modes, and demonstrated ability to communicate with the dispatch platforms; and

(2) issuance of a Confirmation of Funds (COF) letter, once the BESS is fully operational, meaning that the installation is complete and the equipment received all town and utility permits required for operations, and verification of connectivity with the dispatch platforms. Following COF letter, upfront incentive payments will be processed.

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<sup>1</sup> <https://tinyurl.com/2p8v4cwa>

### **C. Calculation of upfront incentive**

The calculation of the upfront incentive is primarily based on the usable energy capacity (kWh) of the BESS, with some limiting factors.

For residential customers, the upfront incentive is calculated based on the minimum of the following three formulas:

- Residential Formula 1: BESS rated energy capacity (kWh) \* applicable incentive level
- Residential Formula 2: 50% of BESS total installed cost
- Residential Formula 3: Maximum per project incentive of \$7,500

For multi-family affordable housing, which PURA has approved to be treated as residential customers under the “Underserved Community” category, the upfront incentive is calculated using the formulas above and multiplied by the number of units.

For non-residential customers, the upfront incentive is calculated based on the minimum of the following two formulas:

- Non-Residential Formula 1: BESS rated energy capacity (kWh) \* applicable incentive level
- Non-Residential Formula 2: 50% of BESS total installed cost.

While the upfront incentive for residential customers is capped at a relatively low number, the upfront incentive for multi-family affordable housing and non-residential customers is not, and there are instances when the upfront incentive may surpass \$500,000, which per the bylaws of the Green Bank,<sup>2</sup> require approval by the Board of Directors (the “Board”) or the Deployment Committee (the “DC”) of the of Board.

### **D. Upfront incentive approval process**

#### **1. Residential Customers (Non-multi-family affordable housing)**

Incentives for residential customers (maximum per project incentive of \$7,500, based on current ESS program rules) will be administrated and issued by Green Bank staff similar to how Green Bank administrated the Residential Solar Investment Program (RSIP). Green Bank staff will issue ROFs, COFs, and incentive payments to residential customers in accordance with the ESS program rules and this Memo. Green Bank staff will periodically report out to the Board on the progress to targets and incentives issued to such residential customers.

#### **2. Multi-Family Affordable Housing and Non-Residential Customers**

Incentives below \$500k for multi-family affordable housing and non-residential customers will be administrated pursuant to the “Under \$500,000 and No More in Aggregate than \$1,000,000” process.<sup>3</sup> Incentives under \$500,000 will be approved by Green Bank staff, and will be issued a ROF letter upon approval. Projects which were approved and issued an ROF letter will be

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<sup>2</sup> [https://www.ctgreenbank.com/wp-content/uploads/2021/11/5ai\\_Green-Bank\\_Revised-Bylaws\\_CLEAN.pdf](https://www.ctgreenbank.com/wp-content/uploads/2021/11/5ai_Green-Bank_Revised-Bylaws_CLEAN.pdf) - see Section 5.2.3 Deployment Committee

<sup>3</sup> <https://www.ctgreenbank.com/wp-content/uploads/2022/02/Funding-Requests-Below-500000.pdf>

reflected in the “Under \$500k” memo to the Board or DC, as may be applicable. Projects will receive COF letters and incentives pursuant to the staff approvals. If constrained by the \$1,000,000 cap between Board and DC meetings, staff may also elect to present the incentives below \$500k to the Board or DC for approval in accordance with the (above \$500k) process below.

For multi-family affordable housing and non-residential customer projects with estimated upfront incentive greater than \$500,000, the Green Bank proposes to follow a process similar to the one used by the C-PACE program, to present such projects for approval to either the Board or DC, subject to applicable limitations. Green Bank staff will prepare a tear sheet (“Tear Sheet”) outlining key characteristics of the project, including customer, project, and site information; priority customer eligibility criteria, BESS characteristics, ratepayer and societal benefits generated by the program as represented by benefit-cost analysis ratios, and information related to the estimated upfront incentive – Please refer to the board package that shows a template of the project Tear Sheet, documentation collected for each incentive application, and an example of the ROF letter to be provided to project developers and customers.

Within the existing Board and DC meeting schedule, the Green Bank staff will seek Board or DC approval of these upfront incentives via consent agenda, and only after the upfront incentives are approved by the Board or DC, Green Bank staff will issue ROF letters. The subsequent COF letters and incentives will be issued in accordance with such Board or DC approval.

Green Bank staff will periodically report out to the Board the actual incentives issued, highlighting any differences between the Board-approved ROF letter incentive and the final incentive amount, and the reason for the difference.

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## Resolution

**WHEREAS**, the Connecticut Green Bank (“Green Bank”) was appointed Co-Administrator to the Energy Storage Solutions (ESS) Program (“Program”) by PURA pursuant its Final Decision, within Docket No. 17-12-03RE0 (PURA Investigation into Distribution System Planning of the Electric Distribution Companies – Electric Storage) on July 28, 2021 (the “Final Decision”);

**WHEREAS**, the Program responsibilities of the Green Bank established by the Final Decision, include customer enrollment, upfront incentive administration, communication and promotion of the Program, and data aggregation and publication;

**WHEREAS**, at the June 24, 2022 meeting the Board of Directors (the “Board”) approved the implementation of a process to approve and issue Program incentives, Green Bank staff seeks to clarify and amend the approval process, as set forth below;

**WHEREAS**, the Green Bank proposes to administer the upfront incentive payments as through (i) the issuance of a Reservation of Funds (ROF) letter, provided to the project developer and customer upon verification that the Battery Energy Storage System (BESS) meets the minimum technical requirements necessary to participate in the Program, including equipment roundtrip efficiency and warranty, ability to comply with passive and active dispatch modes, and demonstrated ability to communicate with the dispatch platforms; (ii) the issuance of a Confirmation of Funds (COF) letter upon the completed installment of all equipment, the



procurement of required utility permits, and the verification of connectivity with dispatch platforms;

**WHEREAS**, incentives for residential customers will be administrated and issued by Green Bank staff similar to how Green Bank administrated the Residential Solar Investment Program (RSIP). Green Bank staff will issue ROFs, COFs, and incentive payments to residential customers in accordance with the ESS program rules and this Memo. Green Bank staff will periodically report out to the Board on the progress to targets and incentives issued to such residential customers.

**WHEREAS**, incentives below \$500k for multi-family affordable housing and non-residential customers will be approved by Green Bank staff, and will be issued a ROF letter upon approval. Projects which were approved and issued an ROF letter will be reflected in the “under \$500k” memo to the Board or DC, as may be applicable. Projects will receive COF letters and incentives pursuant to the staff approvals.

**WHEREAS**, incentives equal to or greater than \$500k for multi-family affordable housing and non-residential customer projects shall be presented in accordance with this Memo to the Board or DC, subject to applicable limitations, for approval on the consent agenda. Once approved by the Board or DC, Green Bank staff will issue ROF letters. The subsequent COF letters and incentives will be issued in accordance with such Board or DC approval. Green Bank staff will periodically report out to the Board the actual incentives issued.

**NOW**, therefore be it:

**RESOLVED**, that the Board hereby approves the Green Bank’s proposed changes to the process of administration of upfront Program incentive payments as set forth in the memorandum to the Board dated December 9, 2022 (the “Memorandum”);

**RESOLVED**, that the Board hereby approves the Green Bank staff proposed process for upfront incentive payments under \$500,000 to residential, multi-family affordable housing and non-residential customers in accordance with Memo and existing staff approval processes;

**RESOLVED**, that the Board hereby approves the Green Bank staff proposed process for presenting upfront incentive payments equal to or over \$500,000 to multi-family affordable housing and non-residential customers to the Board or DC for approval, on the consent agenda, in accordance with the Memo.

**RESOLVED**, Green Bank staff will periodically report out to the Board on the progress to targets and incentives issued under the Program, explaining any changes between ROF estimated incentives and actual incentives issued.



# Memo

**To:** Connecticut Green Bank Board of Directors

**From:** Bryan Garcia (President and CEO), Brian Farnen (General Counsel and Chief Legal Officer), and Alex Kovtunenکو (Associate General Counsel, Financing Programs)

**CC:** Bert Hunter (EVP and CIO), Sergio Carrillo (Director of Incentive Programs), and Mackey Dykes (VP of Financing Programs and Officer)

**Date:** December 16, 2022

**Re:** Inflation Reduction Act – Dream Big including Navigating the Incentive Maze and Greenhouse Gas Reduction Fund

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On August 16, 2022, President Biden signed the Inflation Reduction Act (“IRA”), creating the largest investment in the history of the United States to confront climate change by enabling public and private investment, including fulfilling a campaign promise focus on environmental justice, just transition, and domestic manufacturing. Within the IRA are a number of tax credit provisions that provide project developers and end-use customers with a myriad of opportunities to stack and receive federal incentives. Helping developers and customers navigate these federal tax credits, alongside the various state incentive programs, represents an extraordinary opportunity that the staff calls the “Incentive Maze”.

In addition to the tax credits, the IRA includes the creation of the Greenhouse Gas Reduction Fund (“GHGRF”) – a \$27 billion allocation through Sec. 134 of the Clean Air Act to simultaneously reduce GHG emissions and air pollution, while increasing investment in and benefits to low income and disadvantaged communities. The deployment mechanism of the GHGRF is modelled after the Connecticut Green Bank (“Green Bank”) with a key priority to leverage private capital. It should be noted that on September 13, 2022, several staff members of the Green Bank were invited to the White House for the celebration of the signing of the IRA, and its inclusion of the GHGRF.

This memo provides a short overview of the IRA that the staff of the Green Bank believe is a once in a generation opportunity for the Green Bank to unleash its mission to “confront climate change by increasing and accelerating investment in Connecticut’s green economy to create more resilient, healthier, and equitable communities.” This is part of our developing efforts to “Dream Big” with a proposal we intend to bring to the Board of Directors for consideration in January of 2023.

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## **Incentive Maze – Tax Credits**

The IRA includes tax credits that have the potential to increase investment in and deployment of clean energy, especially in vulnerable communities.<sup>1</sup> If the complexity of these federal tax incentives, when combined together with Connecticut incentives (e.g., Home Energy Solutions, Residential Renewable Energy Solutions, Energy Storage Solutions), can be simplified to help project developers and end-use customers navigate the Incentive Maze, then there is the potential for Connecticut to realize significant benefits as a result of the IRA.

These tax credits come in many forms, including additional requirements and adders to promote the Biden administration's values towards climate change and environmental justice (e.g., support for low income and disadvantaged communities (DACs)), and the ability to transfer value (e.g., investment tax credits).

## **Additional (Labor) Requirements**

Reflecting President Biden's commitment to a just transition, in order to receive maximum tax credit value for certain provisions of the tax code (e.g., Section 48 – Energy Investment Credit), prevailing wage and apprenticeship requirements must be included within projects:

- **Prevailing Wage** – With respect to any qualified facility, a taxpayer must ensure that any laborers and mechanics employed by the taxpayer or any contractor or subcontractor in: (i) the construction of such facility, and (ii) the alteration or repair of such facility (for a 10-year period after the facility is placed in service), are paid wages at rates not less than the prevailing rates for construction, alteration, or repair of a similar character in the locality in which such facility is located as most recently determined by the Secretary of Labor. There are also correction and penalty mechanisms for a taxpayer's failure to satisfy these requirements.
- **Apprenticeships** – With respect to the construction of any qualified facility, not less than 10-15% (depending on when construction began) of the total labor hours of the construction, alteration, or repair work (including such work performed by any contractor or subcontractor) must be performed by qualified apprentices, subject to any applicable requirements for apprentice-to-journey worker ratios of the Department of Labor or the CT Department of Labor. Each taxpayer, contractor, or subcontractor who employs four or more individuals to perform construction, alteration, or repair work with respect to the construction of a qualified facility must employ one or more qualified apprentices to perform such work. A taxpayer to satisfy these requirements by a "Good Faith Effort Exception". There are also alternative payments for compliance (\$50/h) and increased payment for intentional disregard (\$500/h).

In the context of renewable energy generation, these labor requirements are only applicable to projects above 1MWac. In most instances if these labor requirements are not met, then project developers will not receive full value of the tax credit (e.g., 30%), but instead a reduced amount (e.g., 6%) creating an incentive to enable a just transition to the clean energy economy. It should be noted, that per Public Act 21-43 "An Act Concerning a Just Transition to Climate-Protective Energy Production and Community Investment," that the threshold for labor requirements for Class I projects in Connecticut is 2 MW.<sup>2</sup>

On November 30, 2022 IRS published Notice 2022-61 which (1) provides general guidance on the prevailing wage and apprenticeship requirements, (2) establishes the 60-day period described in those

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<sup>1</sup> As defined by Public Act 20-05. Within its Comprehensive Plan, a goal of the Green Bank is to direct no less than 40 percent of investment and benefits in vulnerable communities by 2025.

<sup>2</sup> <https://www.cga.ct.gov/2021/act/Pa/pdf/2021PA-00043-R00SB-00999-PA.PDF>

provisions of the IRA with respect to the applicability of the prevailing wage and apprenticeship requirements, and (3) provides guidance for determining the beginning of construction or installation of projects which is necessary for credit calculation and applicability of requirements.<sup>3</sup>

### **Adders**

Reflecting President Biden's commitment to environmental justice and manufacturing in the United States, there are additional incentives for some project developers and end-use customers, including:

- **Energy Communities** – 10% adders for projects located on: (i) a brownfield site; (ii) a metropolitan or non-metropolitan statistical area which (A) has, or had any time during the period beginning in 2010, 0.17% or more direct employment or 25% or more local tax revenues, in either case related to the extraction, processing, transport, or storage of coal, oil or natural gas, or (B) has an unemployment rate above the national average for the previous year; or, (iii) a census tract, or a census tract that is adjoining to a census tract, in which a coal mine has closed after 1999 or a coal-fired electric generating unit was retired after 2009.
- **Low Income** – 10% adder for a qualifying project (less than 5MWac) in a low-income community (as defined in the IRA) or on Indian land, 20% adder if the project is part of a qualified low-income residential building project (as defined in the IRA) or qualified low-income economic benefit project (as defined in the IRA).
- **Domestic Content** – 10% adders for qualifying facility if (i) 100% of any steel or iron that is a component of the facility was produced in the United States, and (ii) 40% of manufactured products that are components of the facility were produced in the United States. The required percentage of domestic manufactured products for offshore wind facilities is 20%. The required percentage of domestic content included in a facility increases each year.

Project developers and end-use customers that are able to take advantage of both the additional requirements and adders, can stack federal tax credit incentives. For example, a commercial, nonprofit or third-party owned residential solar PV project in the South End of Bridgeport, CT, has the potential to receive a federal tax credit of up to 60% by meeting prevailing wage and apprenticeship requirements (i.e., 30%), being located in an energy community next to a former coal fired power plant (i.e., 10%), and on the roof of a low-income household (i.e., 10-20%) – a significant opportunity to enable federal investment in and deployment of clean energy towards vulnerable communities of Connecticut.

Many provisions of the IRA, such as for labor requirements noted above, require guidance from IRS before they can be implemented, estimated or priced by the various market participants. The adders described in this section are among the most critical sections that require IRS guidance. On October 5, 2022 IRS Treasury/IRS published general request for comments on different aspects of extensions and enhancements of energy tax benefits in the IRA.<sup>4</sup> Green Bank submitted comments to IRS, focusing on elective payment (“direct pay”) provisions, the “energy communities” adder definition, and the “low-income” adder definition. Green Bank’s submitted comments were shared with the Board together with this memorandum. As of the date of this memorandum, subsequent IRS guidance (other than the labor requirements guidance discussed above) has not been issued.

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<sup>3</sup> [IRS Notice 2022-61](#)

<sup>4</sup> [October 5, 2022 IRS Notices](#)

## Tax Credits

There are a number of tax credits within the IRA that provide incentives for project developers and end-use customers for buildings, vehicles, and other types of projects that are relevant to the Comprehensive Plan of the Green Bank, including:

- **Energy Efficient Home Improvement Credit** (25C) – 30% credit for building envelope components and qualified energy property to a residence by the taxpayer, regardless of whether the taxpayer owns the dwelling unit or is the taxpayer’s principal residence. Annual limit of \$1,200 (and a \$600-per-item limit, with exceptions, heat pumps limit is \$2,000).
- **Residential Clean Energy Credit** (25D) – 30% credit to homeowners who install eligible technologies (i.e. solar, geothermal, fuel cells, storage) on their own home, whether it is their principal residence or a vacation home. Standalone storage now qualifies.
- **Previously Owned Clean Vehicles** (25E) – Credit for used EVs and fuel cell vehicles, lesser of \$4,000 or 30% of the sale price. MAGI limits and other restrictions.
- **Alternative Fuel Vehicle Refueling** (30C) – 30% credit for qualified alternative fuel vehicle refueling property, subject to annual limits, placed in service in low-income census tracts or non-urban locations. Subject to labor requirements.
- **Clean Vehicle Credit** (30D) – \$7,500 credit for new EVs and fuel cell vehicles. No per-manufacturer cap, as previously existed. MAGI limits and other restrictions.
- **Renewable Electricity Production Credit** (45) – Production credit for 10 years, for wind solar and other technologies, up to 2.5¢/kWh (plus inflation adjustment, published each year by the IRS, with a base year of 1992) for projects meeting labor requirements.
- **New Energy Efficient Home Credit** (45L) – Credits for a new construction residential subject to Energy Star Residential New Construction Program or the Energy Star Manufactured New Homes program requirements. Limits: Single family: \$2,500 or \$5,000, Multifamily: \$500 or \$1,000 per unit.
- **Qualified Commercial Clean Vehicle Credit** (45W) – 30% (limited to \$7,500 for vehicles less than 14,000 pounds, and \$40,000 for all other vehicles) credit for purchasing new commercial EVs and fuel cell vehicles.
- **Clean Electricity Production Credit** (45Y) – Starts in 2025, a technology-neutral production credit for generating facilities that have a greenhouse gas emissions rate of not greater than zero. Replaces section 45 credit. Credits for up to ten years. Subject to labor requirements.
- **Energy Investment Credit** (48) – 30% for solar, geothermal and wind energy property serving environmental justice populations for business taxpayers for projects beginning construction no later than December 31, 2024. Subject to possible adders. Projects above 1MWac are subject to labor requirements. Stand-alone storage and interconnection costs (below 5MWac) now qualify.
- **Advanced Energy Projects** (48C) – 30% credit, limited to \$10 billion of new funding. Credits are competitively awarded by Treasury/DOE to ‘qualified advanced energy projects’ which (1) re-equip an industrial or manufacturing facility with equipment designed to reduce greenhouse

gas emissions by at least 20% through the installation of certain property; or (2) re-equip, expand, or establish an industrial or manufacturing facility for the processing, refining, or recycling of defined critical materials. Subject to labor requirements.

- **Clean Electricity Investment Credit** (48E) – Starts in 2025, technology neutral credit for generating facilities that have a greenhouse gas emissions rate of not greater than zero. Will replace the Section 48 credit. Subject to possible adders. Projects above 1MWac are subject to labor requirements.
- **Energy Efficient Commercial Buildings Deduction** (179D) – Up to \$5 per square foot deduction for commercial buildings that achieve certain energy costs savings. Replaces lifetime cap with a 3 or 4-year lookback period. Now assignable and may be used by nonprofits. Subject to labor requirements.

And there are other tax credits that although not directly relevant to the Comprehensive Plan of the Green Bank, are potentially relevant to the State of Connecticut at large, including:

- **Carbon Capture and Sequestration Credit** (45Q) – tax credit for carbon oxide sequestration, computed per metric ton of qualified carbon oxide captured and sequestered. The amount of the credit, as well as various features of the credit, vary by year.
- **Zero Emission Nuclear Production Credit** (45U) – Production credit for electricity produced at a qualified nuclear power facility and sold by the taxpayer to an unrelated person in taxable years 2023 to 2033.
- **Clean Hydrogen Production Credit** (45V) – Production credit for clean hydrogen produced at qualified facilities for a 10-year period. Credit: \$3/kg (subject to wage and labor requirements). The tax credit value is derated to the degree to which emitting resources are used to power the electrolysis used to create eligible clean hydrogen.
- **Advanced Manufacturing Production Credit** (45X) – Production credit for eligible components (e.g., solar, wind, storage, inverter components and critical minerals), amount varies by component. Subject to labor requirements.
- **Clean Fuel Production Credit** (45Z) – Production credit bases on applicable fuel emissions factor, maximum \$1.00/gallon (\$1.75/gallon for aviation fuel). Subject to labor requirements.

In addition to the credits set forth above there are additional rebates that are going to be made available under the IRA, including:

- **Residential Efficiency and Electrification Rebates** (Sec. 50121) - DOE will disburse to energy offices (i.e., DEEP) to establish rebates for a variety of home energy upgrades under the Home Owner Managing Energy Savings (“HOMES”) rebate program. Rebates for home energy retrofits up to the lesser \$8,000 per home or 80% of project cost if the project saves at least 35%. Lesser amounts available if projects save less than 35%. Multi-family rebates are also supported with different rebate amounts. Caps can increase for low- and moderate-income families with approval of the Secretary.
- **High-Efficiency Electric Home Rebate Program** (50122) - DOE will disburse to energy offices (i.e., DEEP) for rebates to low-income single and multi-family homes which meet low-

income eligibility criteria. Limits set by eligible measures and limits rebates to no more than \$14,000 per participant for either new construction, replacement of nonelectric appliances, or first-time appliance purchase.

Successfully navigating the tax credits and rebates within the IRA and coordinating these incentives with existing state policy, can bring extraordinary value to Connecticut, and advance and accelerate the mission of the Green Bank. For a “cheat sheet” of these additional requirements, adders, and tax credits – see Attachment A.

These federal incentives, in combination with the various state incentives, represent the Incentive Maze for Connecticut that we need to help project developers and end-use customers more easily and successfully navigate. If the Green Bank and its partners (e.g., DEEP, PURA, utilities, grassroots stakeholders) can simplify the process for project developers and end-use customers to access federal and state incentives, including access to capital to finance such projects, then significant benefits can be achieved for Connecticut, and its efforts to confront climate change, while increasing investment in and benefits to vulnerable communities.

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### **Funding and Financing – Greenhouse Gas Reduction Fund**

Within the IRA is a \$27 billion appropriation to the Environmental Protection Agency (“EPA”) for the GHGRF, which modifies Sec. 134 of the Clean Air Act, including:

- **Zero Emission Technologies** (Sec. 134(a)(1)) – led by Senator Sanders, \$7 billion appropriation for zero emission technologies (e.g., residential rooftop solar) for low income and disadvantaged communities; and
- **National Climate Bank** (Sec. 134(a)(2-3)) – led by Congresswoman Dingell, Senator Markey, and Senator Van Hollen, ~\$20 billion appropriation for qualified projects, including at least \$8 billion for low income and disadvantaged communities.

Each of these sections has a political history with various leaders of Congress, and the involvement of the Green Bank along the way. The Green Bank continues to engage at the federal level, except now with the EPA.

#### Green Bank History with Sec. 134(a)(1)

In September of 2021, the Congressional negotiation team of Senator Sanders sought information from the Coalition for Green Capital (“CGC”) on how green banks put solar PV on residential rooftops. At CGC’s request, the Green Bank provided a two-page description called “Residential Solar and Green Banks – Towards an Inclusive, Just, and Resilient Green Economy in Connecticut,” which featured an overview of the Residential Solar Investment Program (“RSIP”),<sup>5</sup> including its impacts<sup>6</sup> and effects from its financing programs – see Attachment B.

Subsequently, Senator Sanders led an effort to include \$7 billion within the \$27 billion GHGRF with the following features:

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<sup>5</sup> CGS 16-245ff

<sup>6</sup> \$1.4 billion of public and private investment reaching over 45,000 households, deploying nearly 370 MW of residential rooftop solar, creating over 16,000 job-years in our communities, avoiding the emissions of nearly 6 MMTCO<sub>2</sub> over the life of the projects, avoiding \$180 MM to \$400 MM of public healthcare costs as a result of cleaner air, and reaching no less than 40% of investment in vulnerable communities.

- Making grants on a competitive basis to states, municipalities, and tribal governments, and eligible recipients;<sup>7</sup>
- Providing grants, loans, or other forms of financial and technical assistance as the purpose; and
- Focusing on low-income and disadvantaged communities.

Although the EPA is seeking public comment on the sorts of distributed technologies to include as “qualified projects” under the GHGRF, Senator Sanders has made his intentions clear to the EPA that Sec. 134(a)(1) of the GHGRF is to focus exclusively on residential solar PV by holding back his vote for presidential nominees to the EPA.<sup>8</sup> The Green Bank is aware of Senator Sanders public policy intentions because, as we note above, we were requested to provide information to his team over a year ago on Connecticut’s RSIP.

#### Green Bank History with Sec. 134(a)(2-3)

On June 26, 2009, the American Clean Energy and Security Act (“ACES”), led by Congressmen Ed Markey and Henry Waxman, passed the House by a slim margin.<sup>9</sup> Within ACES, was a bipartisan-supported Clean Energy Development Administration (“CEDA”) introduced by Congressman Chris Van Hollen within the Committee on Energy and Commerce – a provision that would have created a national climate bank. Although ACES passed the House, it was never voted on in the Senate, and thereby never became law.

The proponent of CEDA, within ACES, was Reed Hundt,<sup>10</sup> CEO of the Coalition for Green Capital (“CGC”), a nonprofit organization whose mission is to halt climate change by accelerating investment in clean energy technologies.<sup>11</sup> The concept of a “green bank” having failed to be supported at the national level through ACES, was introduced at the state level in Connecticut in 2011. In June of 2011, Governor Malloy and DEEP Commissioner Dan Esty, with legal support from CGC,<sup>12</sup> and nearly unanimous bipartisan support from the Connecticut General Assembly, created the nation’s first state-level green bank (i.e., Connecticut Green Bank)<sup>13</sup> within Section 99 of Public Act 11-80 (i.e., CGS 16-245n).

The Green Bank would become the national example for smarter government using a limited amount of public funds to mobilize multiples of private investment in clean energy. For its innovation and impact, the Green Bank was awarded the “Innovations in American Government Awards” by the Ash Center of the Kennedy School of Government at Harvard University for “Sparking the Green Bank Movement”.<sup>14</sup> Local (e.g., Montgomery County Green Bank, District

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<sup>7</sup> Eligible recipients means a nonprofit organization that is (a) designed to provide capital, including by leveraging private capital, and other forms of financial assistance for the rapid deployment of low- and zero-emission products, technologies, and services, (b) does not take deposits other than deposits from repayments and other revenue received from financial assistance provided using grant funds under this section, (c) is funded by public or charitable contributions, and (d) invests in or finances projects alone or in conjunction with other investors.

<sup>8</sup> “Struggle Over EPA Air Nominee Foreshadows Future Fights” in E&E News (December 2, 2022) – [click here](#)

<sup>9</sup> [https://ballotpedia.org/American\\_Clean\\_Energy\\_and\\_Security\\_Act](https://ballotpedia.org/American_Clean_Energy_and_Security_Act)

<sup>10</sup> Yale University (BA, JD) and former Chairman of the Federal Communication Commission under President Clinton

<sup>11</sup> <https://coalitionforgreencapital.com/>

<sup>12</sup> Reed Hundt, Ken Berlin, and Alex Kragie

<sup>13</sup> Originally called the Clean Energy Finance and Investment Authority, but subsequently renamed the Connecticut Green Bank

<sup>14</sup> <https://ash.harvard.edu/news/connecticut-green-bank-wins-top-prize-harvard%E2%80%99s-innovations-american-government-awards>



of Columbia Green Bank), state (e.g., New Jersey, New York, Rhode Island), and national (e.g., New Zealand Green Investment Finance, Rwanda Catalytic Green Investment Bank) governments created green banks as a result of Connecticut's innovation and leadership. Bills were being introduced at the national level again, including by members of the Connecticut Congressional Delegation.<sup>15</sup>

The \$20 billion National Climate Bank provision within the GHGRF was supported by Congresswoman Debbie Dingell, Senator Markey, and Senator Van Hollen,<sup>16</sup> and the White House,<sup>17</sup><sup>18</sup> but modified from its original form as the Clean Energy and Sustainability Accelerator ("CESA"), in order to meet the rules of budget reconciliation by the Parliamentarian. And, again, although the EPA is seeking public comment on Section 134(a)(2-3), Congresswoman Dingell, Senator Markey, and Senator Van Hollen have made their intentions clear to the EPA that these sections of the GHGRF are to focus on the creation of a single National Climate Bank – see Attachment C. The Green Bank is aware of their intentions because we have been involved in hearings and reviews of proposed legislation by Congressional leaders over the years.

#### Green Bank Engagement with EPA

Gina McCarthy – former Climate Advisor to President Biden, former Administrator of the EPA, former Commissioner of Connecticut Department of Environmental Protection, and former member of the Board of Directors of the Green Bank – is a supporter of the green bank model.<sup>19</sup> In support of President Biden's efforts to confront climate change and environmental justice, her team supported the green bank model from the White House by advancing the CESA.<sup>20</sup> And now, her predecessor, EPA Administrator Michael Regan, is responsible for implementing the GHGRF. The Green Bank is now engaged with the EPA to continue to position Connecticut, and its Green Bank, to receive funding through the GHGRF to support the successful achievement of climate change policies in Connecticut. It should be noted that in June 2021, a decade following the creation of the Green Bank, that Governor Lamont and DEEP Commissioner Katie Dykes, with a recommendation from the Governor's Council on Climate Change, and bipartisan support from the Connecticut General Assembly, expanded the scope of the Green Bank to include "environmental infrastructure," including the creation of an "environmental infrastructure fund," set up to receive federal funding through the GHGRF.

The EPA has initiated an extensive public comments process on the GHGRF, which the Green Bank has been actively engaged in, including:

- **National Listening Sessions** – verbal comments delivered on November 9, 2022;<sup>21</sup>

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<sup>15</sup> For example, Congressman Jim Himes and Rosa DeLauro and Senators Murphy and Blumenthal sponsored or co-sponsored various bills in the House (i.e., Green Bank Act of 2014 (H.R.4522), Green Bank Act of 2016 (H.R.5802), Green Bank Act of 2017 (H.R.2995), National Green Bank Act of 2019 (H.R.3423), and National Green Bank Act of 2021 (H.R.2656)) and the Senate (i.e., Green Bank Act of 2014 (S.2271), Green Bank Act of 2016 (S.3382), Green Bank Act of 2017 (S.1406), National Green Bank Act of 2019, National Climate Bank Act of 2021 (S.283), and National Green Bank Act of 2021 (S.1208)).

<sup>16</sup> [https://debbiedingell.house.gov/uploadedfiles/dingmi\\_120\\_xml\\_final.pdf](https://debbiedingell.house.gov/uploadedfiles/dingmi_120_xml_final.pdf)

<sup>17</sup> <https://www.whitehouse.gov/briefing-room/statements-releases/2021/11/01/fact-sheet-president-biden-renews-u-s-leadership-on-world-stage-at-u-n-climate-conference-cop26/>

<sup>18</sup> It should be noted that Gina McCarthy, White House National Climate Advisor, served on the Board of Directors of the Connecticut Green Bank. And, Jahi Wise, Special Assistant to the President (and Yale SOM and Law school graduate), is now overseeing the implementation of the GHGRF.

<sup>19</sup> Earth Day Remarks from Gina McCarthy (April 22, 2021) – [click here](#)

<sup>20</sup> <https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/23/fact-sheet-biden-administration-outlines-key-resources-to-invest-in-coal-and-power-plant-community-economic-revitalization/>

<sup>21</sup> <https://www.youtube.com/watch?v=ppwMggfbXZg&t=1s>

- **Environmental Finance Advisory Board Public Comments** – public comments submitted on December 1, 2022 (comments available upon request); and
- **EPA Public Comments** – public comments submitted on December 5, 2022 – see Attachment D.

The Green Bank staff<sup>22</sup> is working hard to successfully compete for and win federal resources for Connecticut through the GHGRF.

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### **Dream Big**

In order to successfully navigate the Incentive Maze of federal tax credits and incentives, and compete for and win additional resources for Connecticut through the GHGRF, the Green Bank team is thinking ahead about a “Dream Big” strategy to build onto the FY23 Comprehensive Plan and Budget. We are exploring the six (6) P’s – including Products, Promotion, People, Place, Policy, and Politics – to identify what areas can be enhanced to increase and accelerate investment in clean energy and climate change projects in vulnerable communities to advance our mission. Working through the Budget, Operations, and Compensation Committee, we intend to bring a set of recommendations to the Board of Directors at the January 20, 2023 meeting.

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<sup>22</sup> Bryan Garcia (President and CEO), Bert Hunter (EVP and CIO), Eric Shrago (VP of Operations), Sara Harari (Associate Director of Innovation and Senior Advisor to the President and CEO), and Ashley Stewart (Manager of Community Engagement)

**ATTACHMENT A**

“Cheat Sheet” of Federal Tax Credits Under the IRA  
[see attached]

## ATTACHMENT B

### Residential Solar and Green Bank

#### Towards an Inclusive, Just, and Resilient Green Economy in Connecticut

### BACKGROUND

Through CGS 16-245ff, the Connecticut Green Bank (“Green Bank”) was assigned the public policy responsibility of enabling the deployment of 350 MW of residential solar by the end of 2022, while also fostering the sustained orderly development of a local solar industry. As the nation’s first green bank, it has implemented the most successful residential solar program in the northeastern U.S. (see Table 1 in Appendix I). In so doing, it has also ensured that vulnerable communities (i.e., low-income families and communities of color), have had easy and affordable access to solar through innovative financing mechanisms<sup>23</sup> that have made Connecticut among the few recognized “solar with justice” states.<sup>24</sup>

### IMPACT – SOCIAL AND ENVIRONMENTAL

As of June 30, 2021,<sup>25</sup> the Green Bank’s efforts have resulted in the following social and environmental benefits:

- **Investment** – \$1.4 billion of total investment, comprising \$1.246 billion of private investment and \$0.154 billion of public investment, a leverage ratio of 9:1
- **Deployment** – 45,530 projects totaling 368.9 MW of installed capacity, which will produce about 420,000 MWh of zero emission renewable energy per year, or about 1.6% of Connecticut’s RPS
- **Jobs** – through the investment in and deployment of residential solar in Connecticut, there has been 16,060 job-years created, including 6,591 direct and 9,499 indirect and induced
- **Climate Change and Public Health** – through the production of zero emission renewable energy, 5.8 MTCO<sub>2</sub> are estimated to be avoided over the life of the systems, and as a result of the avoidance of SO<sub>x</sub>, NO<sub>x</sub>, and PM, between \$180.6-\$408.4 MM of public health costs (e.g., hospitalizations, sick days) will be avoided
- **Vulnerable Communities** – with the goal of by 2025, no less than 40% of investment and benefits (e.g., projects, deployment) directed to vulnerable communities,<sup>26</sup> \$640.7 MM of investment (i.e., 46%), 22,873 projects (i.e., 50%), and 169.1 of the installed capacity (i.e., 46%) has been achieved for such communities (see Table 2 – Appendix I), resulting in part from innovative financing that eliminates the energy affordability gap<sup>27</sup>

As a result of the successful implementation of public policy on residential solar in Connecticut,<sup>28</sup> including financing programs (see Table 3 – Appendix I), the Green Bank will be administering battery storage incentive and financing programs to improve resilience from the impacts of climate change, especially with vulnerable communities.<sup>29</sup>

### TOWARDS AMERICA

In 2020, of the 19.2 GW of solar deployed in America, 3.2 GW (or over 400,000 projects and a \$9.1 B market) was residential – the largest year on record despite COVID-19. Double-digit growth is expected, leading to 4.7 GW in 2023 and 7.0 GW by 2030 with 23% of those systems expected to include battery

<sup>23</sup> “Performance of Solar Leasing for Low- and Moderate-Income Customers in Connecticut” by Lawrence Berkeley National Laboratory (May 2021).

<sup>24</sup> “Solar with Justice: Strategies for Powering Up Under-Resourced Communities and Growing an Inclusive Solar Market” by the Clean Energy States Alliance (December 2019).

<sup>25</sup> Comprehensive Annual Financial Report of the Connecticut Green Bank for FY21 (forthcoming)

<sup>26</sup> Per PA 20-05, including Community Reinvestment Act Eligible and Environmental Justice Communities per CGS 22a-20a.

<sup>27</sup> “Connecticut Green Bank Low and Moderate Income Solar Program Savings Analysis” by VEIC (October 2020).

<sup>28</sup> Public Act 21-53 “An Act Concerning Energy Storage” and Docket No. 17-12-03RE03

<sup>29</sup> “Connecticut Powers into the Lead with Breakthrough Customer Battery Program” by the Clean Energy Group (August 2021)

storage. As installed costs for residential solar continue to decline, innovation in consumer finance inspired by green banks,<sup>30</sup> in collaboration with private capital will continue, making residential solar more affordable and accessible to all.

## APPENDIX I

### Data

**Table 1. Comparison of Residential Solar Deployment in the Northeast (2016-2020)<sup>31</sup>**

	CT	MA	ME	NH	NJ	NY	RI	VT
Installed Capacity (MW)	311.2	527.7	29.5	63.2	736.0	716.7	53.8	49.5
Cumulative Watts/Capita	87.3	75.9	21.9	46.5	82.9	36.8	50.8	79.3

**Table 2. Residential Solar Investment in Vulnerable Communities in Connecticut**

Fiscal Year	Not Vulnerable	Vulnerable	Total	% Vulnerable
2012	\$7,675,503	\$2,226,008	\$9,901,511	22%
2013	\$27,476,228	\$7,949,815	\$35,426,043	22%
2014	\$51,493,616	\$22,622,847	\$74,116,463	31%
2015	\$137,616,423	\$76,361,115	\$213,977,538	36%
2016	\$117,360,251	\$100,049,058	\$217,409,309	46%
2017	\$53,452,499	\$66,338,590	\$119,791,089	55%
2018	\$66,334,127	\$80,613,565	\$146,947,692	55%
2019	\$93,396,871	\$102,485,609	\$195,882,480	52%
2020	\$105,333,570	\$101,566,914	\$206,900,484	49%
2021	\$99,770,722	\$80,491,746	\$180,262,468	45%
<b>Total</b>	<b>\$759,909,811</b>	<b>\$640,705,265</b>	<b>\$1,400,615,076</b>	<b>46%</b>

**Table 3. Connecticut Green Bank Financing Programs to Support Residential Solar**

Product	Total Investment (\$MM's)	Private Investment (\$MM's)	Green Bank Investment (\$MM's)	Projects	Installed Capacity (MW)	Energy Costs Avoided <sup>32</sup> (\$MM's)
CT Solar Loan <sup>33</sup>	\$9.1	\$8.6	\$0.5	279	2.2	-
CT Solar Lease <sup>34</sup>	\$46.3	\$36.8	\$9.5	1,189	9.6	\$3.9
Solar for All <sup>35</sup>	\$118.3	\$96.9	\$21.5	4,292	28.5	\$4.0
<b>Total</b>	<b>\$173.7</b>	<b>\$142.3</b>	<b>\$31.5</b>	<b>5,760</b>	<b>40.3</b>	<b>\$7.9</b>

<sup>30</sup> "Connecticut's Solar Lease Program Demonstrates High Borrower Fidelity" by Bethany Speers (October 2012)

<sup>31</sup> Solar data from "U.S. Solar Market Insight" (March 2021)

<sup>32</sup> To date, through June 30, 2021

<sup>33</sup> In collaboration with Sungage, a solar loan program that graduated in 2015. Resulted in Sungage receiving a \$100 MM pool of capital to originate residential solar loans across the U.S. based on the success in Connecticut.

<sup>34</sup> In collaboration with US Bank, Webster Bank, and KeyBank, a solar lease program that graduated in 2016. The predecessor to the CT Solar Lease was done in 2007-2011 by the Connecticut Clean Energy Fund as the first public-private tax equity-backed residential solar lease program in the U.S. and recognized by CESA with the State Leadership in Clean Energy (SLICE) Award in 2012.

<sup>35</sup> In collaboration with PosiGen, a solar and energy efficiency lease program targeted at LMI families and communities of color

## ATTACHMENT C

Letter from Congressional Leaders to Administrator Regan

### Congress of the United States Washington, DC 20515

September 9, 2022

The Honorable Michael Regan  
Administrator  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

Dear Administrator Regan,

As the lead sponsors of the *National Climate Bank Act* (S. 283) and the *Clean Energy and Sustainability Accelerator Act* (H.R. 806) in the Senate and House of Representatives, we worked to include the Greenhouse Gas Reduction Fund (GHGRF) in the *Inflation Reduction Act* (Pub. L. 117-169) to provide resources to fulfill the mission of our legislation. Therefore, we write to encourage you to rapidly invest maximum funding from the GHGRF to capitalize a national climate bank that will support an equitable transition to a clean-energy economy and fund a nationwide network of state and local climate banks, which will turn the challenge of climate change into an opportunity for prosperity. As the GHGRF intentionally dedicates \$8 billion to the “purposes of providing financial assistance and technical assistance in low-income and disadvantaged communities,” the swift and successful disbursement of this funding will further the Biden administration’s environmental justice goals, which you have been a strong advocate for within the Environmental Protection Agency (EPA). An effective national climate bank program will build generational climate-friendly wealth in communities that have the least access to clean energy capital and are most at risk from environmental harm.

We have long championed the concept of a single, independent, non-profit national climate bank that would maximize the leveraging of private capital investment, ensure the efficient distribution of funds within a growing green bank network, and create opportunities for large scale, transformational investments—particularly in environmental justice communities – and it is critical to the country’s ability to reduce emissions of GHGs at the levels called for by the President. The GHGRF is poised to accomplish that goal as it intentionally includes as an eligible recipient a nonprofit organization that:

*“is designed to provide capital, leverage private capital, and provide other forms of financial assistance for the rapid deployment of low- and zero-emission products, technologies, and services; does not take deposits other than deposits from repayments and other revenue received from financial assistance provided using grant funds under this section; is funded by public or charitable contributions; and invests in or finances projects alone or in conjunction with other investors.”*

The provision also instructs eligible recipients to use grant funding to make direct investments which:

*“provide financial assistance to qualified projects at the national, regional, state, and local levels; prioritize investment in qualified projects that would otherwise lack access to financing; and retain, manage, recycle, and monetize all repayments and other revenue received from fees, interest, repaid loans, and all other types of*

*financial assistance provided using grant funds under this section to ensure continued operability.”*

Furthermore, the GHGRF requires recipients to make indirect investments to promote climate finance efforts throughout the country by:

*“provid[ing] funding and technical assistance to establish new or support existing public, quasi-public, not-for-profit, or nonprofit entities that provide financial assistance to qualified projects at the State, local, territorial, or tribal level or in the District of Columbia, including community- and low-income-focused lenders and capital providers.”*

A national climate bank is uniquely structured to meet all of the requirements of the GHGRF. It will bring together a comprehensive, diverse, and inclusive network of state and local financing entities in the public and non-profit sectors. We have championed the effectiveness of a standalone national institution that is authorized to capitalize both current and newly formed state and local banks, along with all other entities eligible to receive indirect assistance through our legislation. This approach allows these subnational entities, nonprofits, and lenders to make their own investments tailored to the needs of their communities, with the financial and technical support of the national climate bank. In the aggregate, a national climate bank and its network is expected to produce \$10 billion of public-private investment over a decade for every \$1 billion in initial capital.<sup>1</sup>

The GHGRF will provide a national climate bank with the funding it needs to immediately begin investing in qualified projects that would otherwise lack access to financing on favorable terms. There are \$200 million worth of projects targeting low-and-moderate income communities, nonprofits, public schools, and affordable housing that are shovel-ready, in addition to the \$21 billion in clean technology projects that are in the larger pipeline.<sup>2</sup> With so many projects ready to go, it is vital that we establish an organized central entity that is able to fund qualified large-scale projects and coordinate downstream financial entities to implement a system that efficiently reduces emissions and supports disadvantaged communities in those efforts.

As a centralized institution, a national climate bank will reduce costs for financial entities, attract private capital investments, and support a more efficient project-financing pipeline, while also seeding and providing technical support to state and local climate banks, minority depository institutions, community development financial institutions (CDFIs), and other nonprofits. Green banks have already proven successful on the local and state level, and a national bank would support those efforts while providing additional coordination for larger projects at the regional and national level. Green banks have been established or are being considered for development in 37 states and in Washington, DC, and are supported by governors of both parties.<sup>3</sup> A national climate bank will optimize our federal investment and provide a unified national approach to climate mitigation, while supporting state and local banks’ abilities to meet their individual needs. A green bank network will be able to rise to the challenge that climate change presents with the leadership and guidance of a national climate bank.

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<sup>1</sup> “Supporting a Clean Energy Recovery: Jobs and Emissions Impacts of a \$100 Billion Clean Energy and Sustainability Accelerator” (Vivid Economics Limited, December 18, 2020).

<sup>2</sup> “National Green Bank: Project Ready Day One - Conversations with the American Green Bank Consortium,” July 7, 2021, <http://coalitionforgreencapital.com/wp-content/uploads/National-Green-Bank-Project-Ready-Day-One.pdf>.

<sup>3</sup> Nevada’s green bank, the Nevada Clean Energy Fund, was [signed into law by Republican Governor Sandoval](#).

To carry out the requirement that 40 percent of funds within the GHGRF be dedicated in support of environmental justice communities, a national climate bank can use trusted community partners, such as local green banks and CDFIs, to target investments within disadvantaged communities. These partnerships will allow the benefits of clean technologies to reach communities that have been left behind for too long. Moreover, the national climate bank will lower costs for all consumers, including low-to-moderate income households, by deploying tested financial instruments that will reduce energy consumption, costs, and emissions for everyday activities.<sup>4</sup>

Capitalizing a national climate bank will provide long-term, comparatively low-cost solution to reduce our reliance on fossil fuels and greenhouse gas emissions, while decreasing families' energy bills and creating new clean energy jobs. As authors of the legislation upon which the GHGRF is based, we urge you to maximize the impact of these funds through the capitalization of a national climate bank which will have the capacity to make direct investments in qualified projects at the national and regional levels and provide funding and technical assistance to state and local financing entities. We look forward to working together as EPA establishes the implementation procedures for the GHGRF, per the statute and intent of the *Inflation Reduction Act*, and thank you for your efforts on this historic project.

Sincerely,



Chris Van Hollen  
United States Senator



Edward J. Markey  
United States Senator



Debbie Dingell  
Member of Congress

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<sup>4</sup> [The Climate Access Fund of Maryland](#) is developing, managing, and financing a community solar array on the rooftop of the Henderson-Hopkins School in Baltimore, MD. This project will be open to 175 low-to-moderate-income households in East Baltimore, and will save each subscriber [an estimated \\$200 annually on electricity](#).



**ATTACHMENT D**

Connecticut Green Bank Comments provided to EPA on the GHGRF (December 5, 2022)

**ATTACHMENT A**  
**"Cheat Sheet" of Federal Tax Credits Under the IRA**

#	Name	Type	Description of Credit	Additional Requirements		ADDERS			TRADING VALUE	
				Prevailing Wage	Apprenticeship	Domestic Content 10%	Energy Community 10%	Low Income 10 or 20%	Direct Payment 6417	Transfer 6418
25C	Energy Efficient Home Improvement Credit	Home Energy Efficiency and HVAC	tax credit = % of investment, subject to limits based on improvements.							
25D	Residential Clean Energy Credit	Home Renewable Energy & Storage	tax credit = % of investment.							
25E	Previously Owned Clean Vehicles (Used)	Vehicle	Lesser of (a) \$4,000 or (b) 30% of the sale price. MAGI thresholds and other restrictions.							Option to transfer credit to dealer in exchange for cash/partial payment/down payment (\$ 25E(f))
30C	Alternative Fuel Vehicle Refueling	Vehicle	Limited to property placed in service in certain low-income census tracts or non-urban locations	X	X				Yes; but limited to tax-exempt entities.	X
30D	Clean Vehicle Credit (New)	Vehicle	\$3,750 for critical minerals requirement + \$3,750 for battery component requirement (max credit = \$7,500). MAGI thresholds and other restrictions.							Option to transfer credit to dealer in exchange for cash/partial payment/down payment (\$ 30D(g))
45	Renewable Electricity Production Credit	Renewable Energy	tax credit = \$/kwh of electricity production	X	X	X	X		Yes; but limited to tax-exempt entities.	X
45L	New Energy Efficient Home Credit	New Residential Homes	Single family: \$2,500 or \$5,000, Multifamily: \$500 or \$1,000 per unit. Based on Energy Star program requirements.	X						
45Q	Carbon Capture and Sequestration Credit	Carbon Capture	tax credit = \$/ton of CO2e	X	X				Yes; <u>not</u> limited to tax-exempt entities during first five years of the credit period.	X
45U	Zero Emission Nuclear Production Credit	Nuclear Power	tax credit = \$/kwh of nuclear power production	X					Yes; but limited to tax-exempt entities.	X
45V	Clean Hydrogen Production Credit	Clean Hydrogen	tax credit = \$/kilogram of clean hydrogen produced	X	X				Yes; <u>not</u> limited to tax-exempt entities during first five years of the credit period.	X
45W	Credit for Qualified Commercial Clean Vehicles	Commercial Vehicle	Tax Credit = 15 or 30% of vehicle cost <i>or</i> , the incremental value						Yes; but limited to tax-exempt entities.	
45X	Advanced Manufacturing Production Credit	Manufacturing	tax credit = various \$/unit amounts depending on the product.	X	X				Yes; <u>not</u> limited to tax-exempt entities for any consecutive five-year period elected by taxpayer within the credit period	X
45Y	Clean Electricity Production Credit	Renewable Energy	tax credit = fixed \$/kwh of electricity production	X	X	X	X		Yes; but limited to tax-exempt entities.	X
45Z	Clean Fuel Production Credit	Fuel Production	tax credit = \$/gallon of clean fuel production	X	X				Yes; but limited to tax-exempt entities.	X
48	Energy Investment Credit	Renewable Energy	tax credit = % of investment.	X	X	X	X	X	Yes; but limited to tax-exempt entities.	X
48C	Advanced Energy Projects	Building	tax credit = % of investment. \$10B total, at least \$4B for projects in underserved communitie	X	X				Yes; but limited to tax-exempt entities.	X
48E	Clean Electricity Investment Credit	Renewable Energy	Technology Neutral Tax Credit starting in 2025	X	X	X	X	X	Yes; but limited to tax-exempt entities.	X
179D	Energy Efficient Commercial Buildings Deduction	Building	Tax <u>Deduction</u> = \$/sf of commercial building	X	X				See note	



December 5, 2022

Michael S. Regan  
Administrator  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue NW  
Washington, DC 20004  
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**SUBJECT: Public Comments from the Connecticut Green Bank – Request for Information:  
Greenhouse Gas Reduction Fund – Docket ID No. EPA-HQ-OA-2022-0859**

Dear Administrator Regan:

The Connecticut Green Bank (“Green Bank”) values the U.S. Environmental Protection Agency’s (“EPA”) Request for Information regarding the Greenhouse Gas Reduction Fund (“RFI GHGRF”). The RFI GHGRF invites public comment on the design and implementation of the Greenhouse Gas Reduction Fund (“GHGRF”). The fund was created to deploy competitive grants that mobilize financing and leverage private capital for clean energy and climate projects that reduce or avoid greenhouse gas emissions, especially in low-income and disadvantaged communities. These are the public comments of the Green Bank, a quasi-public entity<sup>1</sup> of the State of Connecticut.

As the nation's first state-level green bank, the Green Bank leverages the limited public resources it receives to attract multiples of private investment to scale up clean energy deployment. Since its inception, the Green Bank has mobilized \$2.26 billion of investment into Connecticut's clean energy economy at a 7 to 1 leverage ratio of private to public funds. The Green Bank has supported the creation of 27,720 direct, indirect and induced jobs, reduced the energy burden on over 66,500 families and businesses, deployed nearly 510 MW of clean renewable energy, helped avoid 10.4 million tons of CO2 emissions over the life of the projects, and generated \$113.6 million in individual income, corporate, and sales tax revenues to the State of Connecticut.

For a more complete overview of the Green Bank, and its solutions – see Attachment A.

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<sup>1</sup> The Connecticut Green Bank is hereby established and created as a body politic and corporate, constituting a public instrumentality and political subdivision of the state of Connecticut established and created for the performance of an essential public and governmental function. The Connecticut Green Bank shall not be construed to be a department, institution or agency of the state.

The Green Bank applauds Democratic Congressional leadership and staff, specifically Senator Sanders,<sup>2</sup> and Congresswoman Dingell, Senator Markey, and Senator Van Hollen,<sup>3</sup> for working with the White House<sup>4</sup> team to advance the \$27 billion GHGRF as part of the Inflation Reduction Act (“IRA”). The Green Bank is gratified that Connecticut’s Congressional delegation, and specifically Senators Murphy and Blumenthal,<sup>5</sup> and Representatives Himes and DeLauro,<sup>6</sup> who have been instrumental in advancing, for nearly a decade, the national debate at the federal level on a climate bank. And lastly, the Green Bank salutes Reed Hundt and the Coalition for Green Capital for their work with the Connecticut General Assembly (“CGA”) in 2011 to pass a nearly unanimous bipartisan bill creating the nation’s first state-level green bank;<sup>7</sup> for assisting other state and local governments in the creation of their green banks; and for their nearly 15 years of leadership advocating for a national climate bank.

### **Background**

There are numerous public policies in Connecticut that support the Biden Administration’s public policies, including:

- **GHG Reduction Targets** – Public Act 08-98 “An Act Concerning Connecticut Global Warming Solutions,” established GHG emission reduction targets for 2010, 2020, 2030,<sup>8</sup> [2040]<sup>9</sup> and 2050. Connecticut’s GHG emission reduction target for 2030 is consistent with President Biden’s 50-52% reduction from 2005 levels by 2030.
- **Resilience and Vulnerable Communities** – Public Act 20-05 “An Act Concerning Emergency Response by Electric Distribution Companies, the Regulation of Other Public Utilities and Nexus Provisions for Certain Disaster-Related or Emergency-Related Work Performed in the State,” established definitions for resilience<sup>10</sup> and vulnerable communities,<sup>11, 12</sup> that are consistent with President Biden’s Justice 40 efforts to increase resilience of those populations disproportionately impacted by the effects of climate change.

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<sup>2</sup> Sec. 134(a)(1)

<sup>3</sup> Sec. 134(a)(2-3)

<sup>4</sup> <https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/23/fact-sheet-biden-administration-outlines-key-resources-to-invest-in-coal-and-power-plant-community-economic-revitalization/>

<sup>5</sup> Sponsor and/or Co-Sponsor under Green Bank Act of 2014 (S.2271), Green Bank Act of 2016 (S.3382), Green Bank Act of 2017 (S.1406), National Green Bank Act of 2019, National Climate Bank Act of 2021 (S.283), and National Green Bank Act of 2021 (S.1208)

<sup>6</sup> Sponsor and/or Co-Sponsor under Green Bank Act of 2014 (H.R.4522), Green Bank Act of 2016 (H.R.5802), Green Bank Act of 2017 (H.R.2995), National Green Bank Act of 2019 (H.R.3423), and National Green Bank Act of 2021 (H.R.2656)

<sup>7</sup> [https://www.cga.ct.gov/current/pub/chap\\_283.htm#sec\\_16-245n](https://www.cga.ct.gov/current/pub/chap_283.htm#sec_16-245n)

<sup>8</sup> Through Public Act 18-82, “An Act Concerning Climate Change Planning and Resiliency,” a 45% reduction of GHG emissions from 2001 levels by 2030 was established – [click here](#).

<sup>9</sup> Through Public Act 22-5, “An Act Concerning Climate Change Mitigation,” a 100% zero carbon electric sector by 2040 was established – [click here](#).

<sup>10</sup> “Resilience” means the ability to prepare for and adapt to changing conditions and withstand and recover rapidly from deliberate attacks, accidents or naturally occurring threats or incidents, including, but not limited to, threats or incidents associated with the impacts of climate change.

<sup>11</sup> “Vulnerable communities” means populations that may be disproportionately impacted by the effects of climate change, including, but not limited to, low and moderate income communities, environmental justice communities pursuant to section 22a-20a, communities eligible for community reinvestment pursuant to section 36a-30 and the Community Reinvestment Act of 1977, 12 USC 2901 et seq., as amended from time to time, populations with increased risk and limited means to adapt to the effects of climate change, or as further defined by the Department of Energy and Environmental Protection in consultation with community representatives.

<sup>12</sup> Connecticut’s analog to the U.S. Department of Energy’s “disadvantaged communities” definition

- **Just Transition Requirements** – Public Act 21-43 “An Act Concerning a Just-Transition to Climate-Protective Energy Production and Community Investment,” established requirements for Community Benefit Agreements (“CBAs”) for certain renewable energy projects that are consistent with President Biden’s Just Transition efforts, including workforce development and prevailing wages.
- **Renewable Portfolio Standards** – Public Act 18-50 “An Act Concerning Connecticut’s Energy Future,” builds on the Renewable Portfolio Standard (“RPS”) and established a 40% by 2030 target.
- **Weatherization** – Public Act 11-80 “An Act Concerning the Establishment of the Department of Energy and Environmental Protection (“DEEP”) and Planning for Connecticut’s Energy Future,” included a weatherization target of eighty percent of the state’s residential units by 2030.
- **Zero Emission Buses** – Public Act 22-25 “An Act Concerning the Connecticut Clean Air Act,” established a 100% zero-emission target for school buses in environmental justice communities by 2030, all school districts by 2040, and at least 30% of transit buses purchased or leased by the state must be zero-emission by 2030.
- **Green Bank** – Public Act 11-80 established the nation’s first state-level green bank – Connecticut Green Bank. The Green Bank over the last decade has pioneered the green bank model<sup>13</sup> with its mission to “confront climate change by increasing and accelerating investment into Connecticut’s green economy to create more resilient, equitable, and healthy communities” and vision of “a planet protected by the love of humanity”.

For an overview of the green bank model – see Attachment B.

The Green Bank shares EPA’s goals to reduce or avoid GHG emissions and air pollution, especially in low-income and disadvantaged communities by investing public funds to mobilize and leverage private investment in clean energy and climate projects.

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<sup>13</sup> In 2017, the Connecticut Green Bank received the Innovations in American Government Award from the Harvard Kennedy School Ash Center for Democratic Governance and Innovation for their “Sparking the Green Bank Movement” nomination.

### **A Vision for a National Climate Bank**

The GHGRF presents a generational opportunity to establish a durable and expansive clean energy and climate financial platform – via a national climate bank (“NCB”) – that is built to be financially strong and sustainable through the 2030s and 2040s. Having capital available through a NCB to support work through upcoming decades will be essential to fully transition our country to a carbon-neutral economy by 2050. To be maximally effective, and to achieve both environmental as well as energy justice goals for low-income and disadvantaged communities, the NCB must *ab initio* demonstrate a strong, transparent, representative, and accessible governance structure with board and organizational leadership which represents the diversity of the populations it will serve.

To succeed, the NCB must have a strong, transparent, representative, and accessible governance structure to assure States, minority-owned institutions, and disadvantaged communities that essential balance is maintained to protect, preserve, and enhance over time equitable funding disbursement among regions, states, and communities with an emphasis on frontline, low-income and environmental justice communities that have borne the brunt of our carbon intensive economy.

States, minority-owned institutions, and disadvantaged communities need to have direct input into funding prioritization policies to ensure equitable funding disbursement among regions, states, and communities. Such a structure will engender the trust and confidence of a wide cross-section of market participants and social actors that will be needed to reach deeply into low-income, low-wealth communities where so much environmental and energy injustice exists and persists. Resting upon a durable capital base and a strong and representative governance and diverse organizational leadership structure, the NCB will be an unparalleled hub for leveraging, deploying, and recycling capital; a sustainable source of grant funding; and a center for technical resources and assistance.

### **Current actors are undercapitalized.**

The overwhelming proportion of State, community, and local capital actors in the clean energy finance space (green banks, Community Development Financial Institutions (“CDFI”) and Community Development Credit Unions (“CDCU”)) are undercapitalized entities that operate independently of each other throughout the United States, although many collaborate via trade bodies and networks such as the American Green Bank Consortium<sup>14</sup>, Opportunity Finance Network<sup>15</sup>, and Inclusiv<sup>16</sup>. With the exception of green banks, clean energy and climate finance is not the key focus of their investment activities, although some CDFIs (such as Reinvestment Fund) and credit unions (such as Clean Energy Federal Credit Union) have a substantial focus on investments directed at clean energy, climate, and sustainability as well as social equity. In short – capital, liquidity, and access to capital markets (a key barrier to scale at present) are urgently needed.

### **The NCB would facilitate the participation of private-sector participants.**

The NCB would solve the perennial issues faced by an ecosystem of state and local community actors that have been deprived of access to needed investment capital, liquidity for originated transactions, secondary markets access and funding for education, market-building, community engagement and technical assistance. The NCB would immediately work as the principal intermediary among these state, local and community entities, organizations and enterprises and vast pools of private-sector investment capital. Included would be Wall Street and global banks, private equity, institutional investors such as pension funds, endowments, insurance companies and family offices, and public and private capital

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<sup>14</sup> <https://greenbankconsortium.org/>

<sup>15</sup> <https://www.ofn.org/>

<sup>16</sup> <https://inclusiv.org/>

markets. All would be attracted to the NCB's clean energy, climate, and sustainability purposes, substantial capital base, market reach, collaboration with an array of green finance entities (i.e., green banks, CDFIs, CDCUs, Minority Depository Institutions ("MDI"), etc.) and anticipated AA/AAA credit rating. This substantial capital base and anticipated credit rating would allay concerns from the traditional financial community, investors and capital markets participants around issuer risk, liquidity risk and operational risk. At the same time, in furtherance of the goals of the GHGRF to promote direct investment in projects that maximize emissions reduction and spur substantial economic development, a substantially capitalized NCB will be capable of co-investment with institutional private capital for larger projects of importance regionally or nationally.

**Leveraging private markets through a NCB would expand the scope of impact.**

The climate challenge isn't going to be solved with \$27 billion – and it will take many years to achieve the transition to a carbon-neutral economy. A key benefit of the NCB will be the ability to scale its balance sheet which will increase the amount of capital to be deployed beyond its initial grant from EPA. A study by the Coalition for Green Capital suggests balance sheet leverage of between 3 and 4 to one is a reasonable expectation for what the NCB could achieve.<sup>17</sup> A review of credit ratings of certain development banks with AA (or better) credit ratings suggests a similar balance sheet leverage is attainable. Even at the low end of this scale, for every \$1 billion of grant capital \$3 billion could be made available to an array of green financing institutions such as green banks, CDFIs, CDCUs, MDIs, etc. These entities, in turn, have their own capacity to leverage their balance sheets – on the scale of 3-10x (with the higher end attributable to capital used by depository institutions like credit unions or green banks using such funds for loan loss reserves).

This translates into \$1 billion of grant capital being transformed into \$30 billion (or more) of capital deployed at the community level (\$1 billion X 3x NCB leverage X 10x entity leverage). Depending upon how quickly this capital "recycles" (i.e., loans repaid and reinvested) – the ability to fund transactions over a 10-year period could be doubled (or more), which could result in more than \$50 billion of funded activity over the next decade for every \$1 billion of original EPA grant (assuming cash flows from a typical 10-year loan is reinvested in new loans).

More financing available for more projects would unlock considerable social benefits. The recently released study by the Regional Greenhouse Gas Initiative ("RGGI") concludes that the benefits of programs funded in 2020 by \$196 million in RGGI investments are projected to avoid the release of 6.6 million short tons of carbon emissions while returning an estimated \$1.9 billion in lifetime energy bill savings – a 10:1 benefit.<sup>18</sup> Using the RGGI experience as a benchmark together with NCB and entity leverage – a \$1 billion investment in the NCB could very well translate into more than half a trillion dollars of lifetime energy savings for residential and business energy users providing for significant inflation reduction. The scale effects of the NCB together with leverage from green banks, CDFIs, CDCUs and MDIs, etc., are indisputable and must be realized.

**The NCB would provide the flexibility and reliability needed for long-term impact.**

With the ability to scale its balance sheet and achieve a high credit rating, the NCB will be able to issue commitments over a series of years to an array of state, local and community institutions and organizations. This will provide much needed surety for lending institutions that they will be able to rely on the funding commitments being made available as and when needed. In the existing, poorly capitalized system of existing clean energy, climate and sustainability financing institutions, entities

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<sup>17</sup> <http://coalitionforgreencapital.com/wp-content/uploads/2019/09/1T-investment-white-paper.pdf>

<sup>18</sup> [https://www.rggi.org/sites/default/files/Uploads/Proceeds/RGGI\\_Proceeds\\_Report\\_2020.pdf](https://www.rggi.org/sites/default/files/Uploads/Proceeds/RGGI_Proceeds_Report_2020.pdf)

often must secure more capital than they can reasonably deploy over a given period of time to avoid the risk of not being able to reliably source incremental funding as needed. This will especially be true of entities that will be established to participate in the GHGRF in the years to come. While these new entities may offer valuable, creative ways to deliver benefits, it will take time to get staffing in place, establish solid governance, processes and procedures, develop a pipeline of deal flow, that ultimately will result in investments in communities. The NCB would solve this dilemma and grossly inefficient practice of capital sourcing by providing “capital as a service.” The NCB will deliver capital on demand – as and when needed by these local market building and capital deployment organizations.

Providing capital as a service would unlock several benefits:

- (1) The entities needing the capital can devote maximum attention to solving the climate challenge – not solving the capital challenge. The Green Bank has first-hand experience of several market actors being strung along for months on end, spending tens of thousands of dollars chasing sorely needed capital, only to end up with high-priced capital, burdened with a bevy of fees that include charges for sourcing the capital, more fees for not using the capital, and even fees for prepaying capital borrowed. The NCB would put an end to this grossly inefficient and punitive practice of capital procurement.
- (2) Owing to the capital strength of the NCB – these entities will no longer need to “hoard cash” fearing capital won’t be available when needed. These entities will apply for capital on a rolling basis and will have their capital allocations paid out on a schedule that lines up with their ability to invest and deploy. Should the entity have greater success – the NCB would step up to allocate more capital. Should the entity fail to need its capital allocation or deploy more slowly, the NCB could easily adjust the deployment schedule and reallocate the capital released to other entities that are ahead of schedule or that have identified incremental needs. It will be an efficient and dynamic process of capital investment which is not dissimilar to the way traditional banks all over the country operate for their borrowing customers.

**The NCB would ensure that funding is available for the critical decades to come.**

The climate challenge will take many years to resolve and future federal support for funding our country’s transition to a carbon neutral economy is uncertain. Any initial grant sought from EPA for an NCB must demonstrate that through its leverage, direct investment, and indirect investment activities – earning a wide range of returns on its investments – that it is capable of being financially sustainable – throughout the 2020s, the 2030s and into the 2040s. The successful NCB candidate must present a credible program for such sustainable operations. It must demonstrate that it has the experienced staff to manage operational and credit risks, and a robust system of financial controls and risk management. The NCB’s ability to withstand existential exposure to borrower defaults must be incontestable.

The NCB must also be capable of managing capital grants and loans over a multi-year period and to provide funding and technical assistance to establish new public, quasi-public, not-for-profit, or nonprofit entities that provide financial assistance to qualified projects, the NCB must have a program design that allows funding for innovation and new business models. The NCB’s capacity to fund capital and grant requests on a continuous and uninterrupted basis must be clear and substantiated.



The Green Bank provides the following public comments in response to the RFI GHGRF for Sec. 134.

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### **Section 1: Low-Income and Disadvantaged Communities**

- 1. What should EPA consider when defining “low income” and “disadvantaged” communities for purposes of this program? What elements from existing definitions, criteria, screening tools, etc., – in federal programs or otherwise – should EPA consider when prioritizing low-income and disadvantaged communities for greenhouse gas and other air pollution reducing projects?**

#### **Response**

The Green Bank’s response applies to Sec. 134(a)(1) and Sec. 134(a)(3) of the GHGRF that specifically address low income and disadvantaged communities.

The Green Bank has several recommendations for EPA’s consideration in defining “low income” and “disadvantaged” communities, including aligning to appropriate federal and state definitions and non-locational community definitions.

#### **Federal and State Definitions**

Consistency in the definition of “distressed”, “low income”, “disadvantaged”, and “structurally marginalized communities” across federal agencies and state agencies (e.g., state energy offices, departments of health and departments of housing) would support the successful deployment of capital to these high interest communities. In Connecticut there are two (2) definitions of relevance – environmental justice community and vulnerable communities.

- **Environmental Justice Community** – the definition of an *environmental justice community* (Connecticut General Statutes “CGS” 22a-20a)<sup>19</sup> consists of (A) a United States census block group, as determined in accordance with the most recent United States census, for which thirty percent or more of the population consists of low-income persons, not including institutionalized individuals, that are 200% below the Federal poverty level, or (B) a “distressed municipality”<sup>20</sup> (CGS 32-9p).

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<sup>19</sup> <https://portal.ct.gov/-/media/DOT/CGSSec22a20aEnvironmentalJusticeCommunitypdf.pdf>

<sup>20</sup> “Distressed municipality” means, as of the date of the issuance of an eligibility certificate, any municipality in the state which, according to the United States Department of Housing and Urban Development meets the necessary number of quantitative physical and economic distress thresholds which are then applicable for eligibility for the urban development action grant program under the Housing and Community Development Act of 1977, as amended, or any town within which is located an unconsolidated city or borough which meets such distress thresholds. 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 as a distressed municipality, by vote of its legislative body, not later than September 1, 1985, or not later than three months after receiving notification from the commissioner that it no longer meets such thresholds, whichever is later. In the event a distressed municipality elects to terminate its designation, the municipality shall notify the commissioner and the Secretary of the Office of Policy and Management in writing within thirty days. In the event that the commissioner determines that amendatory federal legislation or administrative regulation has materially changed the distress thresholds thereby established, “distressed municipality” means any municipality in the state which meets comparable thresholds of distress which are then applicable in the areas of high unemployment and poverty, aging housing stock and low or declining rates of growth in job creation, population and per capita income as established by the commissioner, consistent with the purposes of subdivisions (59) and (60) of section 12-81 and sections 12-217e, 32-9p to 32-9s, inclusive, and 32-23p, in regulations adopted in accordance with chapter 54. For purposes of sections 32-9p to 32-9s, inclusive, “distressed municipality” also means any municipality adversely

- **Vulnerable Communities** – the definition of *vulnerable communities* (Public Act 20-05)<sup>21, 22</sup> builds on the environmental justice community definition to also incorporate the disproportionate impacts of climate change for low- and moderate-income communities, environmental justice communities, communities eligible for the Community Reinvestment Act (“CRA”) of 1977 and allows for further changes in the definition by DEEP in consultation with community representatives.

The Department of Energy (“DOE”) has led a Justice 40 Initiative which identifies and prioritizes serving disadvantaged communities (“DACs”). The DOE defines DACs as people groups with cumulative burden over a broad list of indicators, including types of socio-economic vulnerability, environmental and climate hazards, etc. The DOE definition of DACs also references the Office of Management and Budget’s Interim Guidance definition of a community: a community is a geographic location (i.e., census tract) and can be a people group not physically in the same area with a shared-common experience.

Connecticut’s public policy definitions of environmental justice communities and vulnerable communities as described above are consistent with the DOE’s Justice 40 Initiative, as well as the intent of the GHGRF’s low-income and disadvantaged communities.

If EPA were to align the GHGRF definitions to appropriate, existing state (e.g., environmental justice communities, vulnerable communities) and federal definitions (e.g., DOE’s Justice 40 Initiative’s DACs), it would have an amplifying impact on where and how these funds reach this critical audience. EPA should consider such state and federal definitions for low income and disadvantaged communities for the GHGRF where appropriate.

In reference to possible criteria or tools, another consideration for EPA in prioritizing greenhouse gas emissions and other air pollution reduction efforts is the tie between low-income and disadvantaged communities and the geographic location of historic industrial land use. Connecting with research support can help to identify specific locations and quantify the impact of potential or historic air polluting facilities. Dr. Robert Bullard, Dr. Beverly Wright, and scholars within topics of environmental justice and distributive justice have researched the connections between marginality and transportation access and emitting facilities. In Connecticut, those cities identified as DACs using DOE’s definitions align with historic industrial cities with aging infrastructure (e.g. Bridgeport, Harford, Waterbury) and compounding environmental impact on natural resources (e.g. air quality,

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impacted by a major plant closing, relocation or layoff, provided the eligibility of a municipality shall not exceed two years from the date of such closing, relocation or layoff. The Commissioner of Economic and Community Development shall adopt regulations, in accordance with the provisions of chapter 54, which define what constitutes a “major plant closing, relocation or layoff” for purposes of sections 32-9p to 32-9s, inclusive. “Distressed municipality” also means the portion of any municipality which is eligible for designation as an enterprise zone pursuant to subdivision (2) of subsection (b) of section 32-70.

<sup>21</sup> “An Act Concerning Emergency Response by Electric Distribution Companies, the Regulation of Other Public Utilities and Nexus Provisions for Certain Disaster-Related or Emergency-Related Work Performed in the State” – [click here](#).

<sup>22</sup> “Vulnerable communities” means populations that may be disproportionately impacted by the effects of climate change, including, but not limited to, low and moderate income communities, environmental justice communities pursuant to section 22a-20a, communities eligible for community reinvestment pursuant to section 36a-30 and the Community Reinvestment Act of 1977, 12 USC 2901 et seq., as amended from time to time, populations with increased risk and limited means to adapt to the effects of climate change, or as further defined by the Department of Energy and Environmental Protection in consultation with community representatives.

emissions, water quality). This will likely look different across the nation, but in the northeast, GHGRF can support these types of low-income distressed areas, including those with brownfields.

EPA should consider state-determined brownfields within its definition of low income and disadvantaged communities.

#### **Non-Locational Community Definitions**

Incorporating a non-location community definition would allow EPA to develop programing that is adaptable to changing community dynamics, such as indigenous populations that may or may not be co-located. Although low income and disadvantaged community designations are noted in the GHGRF, the alignment to support distressed and marginalized communities is shared across the federal and some state governments.

#### **Key Takeaway:**

- EPA should look to existing state definitions, like Connecticut’s definitions of *Environmental Justice Community* and *Vulnerable Community*, but also look to other federal agencies, such as the DOE’s definition of *Disadvantaged Communities*.

- 2. What kinds of technical and/or financial assistance should the Greenhouse Gas Reduction Fund grants facilitate to ensure that low-income and disadvantaged communities can participate in and benefit from the program?**

#### **Response**

The Green Bank’s response applies to Sec. 134(a)(1), Sec. 134(a)(2), and Sec. 134(a)(3) of the GHGRF.

See the Green Bank’s response to Section 4 (i.e., Eligible Recipients) and Question 5 (i.e., technical and financial assistance grants).

- 3. What kinds of technical and/or financial assistance should the Greenhouse Gas Reduction Fund grants facilitate to support and/or prioritize businesses owned or led by members of low-income or disadvantaged communities?**

#### **Response**

The Green Bank’s response applies to Sec. 134(a)(1), Sec. 134(a)(2), and Sec. 134(a)(3) of the GHGRF.

Although not an area of expertise, the Green Bank proposes several things for EPA’s consideration in providing technical and/or financial assistance to support and/or prioritize businesses owned or led by members of low-income or disadvantaged communities, including prioritizing supplier diversity, expanding the scope of existing workforce training initiatives, and providing small business financing and working capital for such businesses.

#### **Prioritizing Supplier Diversity**

Connecticut has a Supplier Diversity Program that was established to ensure that women and minority-owned small businesses have an opportunity to bid on a portion of the State’s purchases. The program requires agencies and political subdivisions (e.g., quasi-public agencies) to set aside 25% of their annual budgets for construction, housing rehabilitation, and purchasing of goods and

services,<sup>23</sup> to be awarded to certified small businesses, with 25% of this amount to be awarded to certified minority business enterprises. The Green Bank has followed such practices that were once compliance and now voluntary – see Table 1.<sup>24</sup>

**Table 1. Small and Minority Owner Business Enterprise Procurement**

	<b>Goal</b> (\$MM's)	<b>Actual</b> (\$MM's)	<b>Percentage</b>
Small Business Procurement	\$3.6	\$4.4	120%
Minority Business Enterprise Procurement	\$0.9	\$1.0	105%

Alongside government procurement standards, CBAs can also be a supplier diversity mechanism to prioritize businesses owned or led by members of low-income or disadvantaged communities. As a major component of President Biden’s Justice 40 Initiative and Just Transition, CBAs could be instituted to ensure such prioritization.

**Expanding Scope of Existing Workforce Development Programs**

Connecticut’s Office of Workforce Strategy (“OWS”) was awarded \$23.9 MM from the American Rescue Plan (“ARP”) Good Jobs Challenge grants from the U.S. Department of Commerce to support the creation of the Strengthening Sectoral Partnerships Initiative. The initiative provides resources to support ten (10) Regional Sector Partnerships (“RSPs”) across Connecticut to train and place more than 2,000 people – particularly from historically-underserved communities – in high-demand jobs in four priority sector areas, including manufacturing, healthcare, information technology, bioscience. OWS subsequently launched a \$70.0 MM job training program to fill more than 6,000 skilled jobs in businesses around the state that faced ongoing challenges hiring new workers by creating CareerConneCT through ARP. Several of the awardees were within the clean energy sector.<sup>25</sup>

The Green Bank acknowledges the importance of workforce development (e.g., apprenticeship programs) and prevailing wages as not only consistent with climate change policy in Connecticut (e.g., Public Act 21-43), but also future requirements under Section 48 of the Investment Tax Credit in order for projects to receive the full 30%.

**Small Business Financing and Working Capital**

Through a partnership with Eversource Energy<sup>26</sup> and Amalgamated Bank,<sup>27</sup> the Green Bank supports the Small Business Energy Advantage (“SBEA”) program – an on-bill, zero-percent interest, revolving fund program for small businesses (i.e., commercial and industrial, non-profits, municipalities and state agency customers that use less than 1,000,000 kWh a year across all their properties) pursuing energy efficiency. SBEA provides financing for up to 7 years for up to \$1.0 MM per business customer. The Connecticut Energy Efficiency Fund<sup>28</sup> provides funds for credit enhancements (i.e., interest rate buydown and loan guarantee). Over the past four (4) years, SBEA, through utility managed installation contractors, has provided over 6,000 projects with on-bill financings totaling

<sup>23</sup> Following approved exemptions from the Department of Administrative Services

<sup>24</sup> Annual Comprehensive Financial Report for FY22 of the Connecticut Green Bank (pp. 124)

<sup>25</sup> Northwest Regional Workforce Investment Board, CT Building Trades Training Institute, and Efficiency for All to expand existing and develop new programs in energy efficiency, solar, offshore wind, energy management, and seeking unionized building trades and registered apprenticeships.

<sup>26</sup> [www.eversource.com](http://www.eversource.com)

<sup>27</sup> [www.amalgamatedbank.com](http://www.amalgamatedbank.com)

<sup>28</sup> Statutorily established fund replenished by a small recurring charge on electric and gas utility ratepayer bills.

\$79.3 MM (of which 80-90% is financed by Amalgamated Bank and 10-20% is from the Green Bank) with an estimated 2,035.6 GWh of energy savings over the life of the measures.

In addition to SBEA, through the Green Bank's Capital Solutions program (i.e., an open RFP for project developers), a construction loan is being provided to a small business contractor performing the energy efficiency work for a large government project being supported by the SBEA program. By aligning public policy objectives with local incentives, the Green Bank is able to apply the tools of the green bank model, to provide small business contractors with the capital they need to develop and deploy clean energy projects for small business end-use customers.

### **Recommendations**

Increasing technical and financial assistance for such supplier diversity initiatives (e.g., CBA), workforce development programs, and access to low-cost capital, would further prioritize businesses owned or led by members of low-income or disadvantaged communities.

If a National Climate Bank was established, it could facilitate sharing of best practices across the diverse participating institutions.

### **Key Takeaways:**

- Requiring supplier diversity through mechanisms such as Community Benefit Agreements can ensure that projects created through the GHGRF prioritize businesses owned or led by members of low-income or disadvantaged communities.
- Expanding existing workforce development programs will not only support members of low-income or disadvantaged communities, but also will allow eligible projects to maximize their Investment Tax Credit value.
- The Green Bank model can enable financing for projects that directly benefit minority-owned businesses, including capital for small businesses seeking to benefit from and/or install projects.

## **Section 2: Program Design**

### **1. What should EPA consider in the design of the program to ensure Greenhouse Gas Reduction Fund grants facilitate high private-sector leverage (i.e., each dollar of federal funding mobilizes additional private funding)?**

#### **Response**

The Green Bank's response applies to Sec. 134(a)(1), Sec. 134(a)(2), and Sec. 134(a)(3) of the GHGRF.

The capital required to address federal and state goals for carbon reduction, together with the particular emphasis for environmental justice for low-income and disadvantaged communities, far outstrips the \$27 billion of funding available under the GHGRF. As such, it is indisputable that higher private-sector leverage, as well as the ongoing sustainability of grant funds once issued by EPA, is a particularly desirable criteria for GHGRF grant awards. At the same time, EPA's program should appreciate that:

- (1) Leverage can be a challenging metric to define and measure – particularly across different activities (lending vs. market building for instance)
- (2) Certain financial institutions may have an inherent advantage over other financial institutions in leveraging grants with the private-sector
- (3) Some institutions that will be potential GHGRF program applicants will be “non-financial” entities (such as States, municipalities, and Tribal governments pursuant to Sec. 134(a)(1)) – and may find strict requirements for private-sector leverage a challenging barrier – but should still qualify for grants
- (4) Still other worthy institutional applicants or indirect recipients may yet exist (as suggested in Sec. 134(b)(2)) and their ability to achieve private-sector leverage upon commencement of operations could be limited for a prolonged period.

These considerations are explored in depth below.

#### **Defining and Measuring Leverage**

EPA should use leverage as a criteria for GHGRF awards. A variety of green financing organizations, such as green banks, identify the financing activities supported through their capital investments, establish outcomes and metrics to measure progress and leverage additional capital for clean energy, climate, and sustainability investing. (For an example, see the Connecticut Green Bank's Annual Comprehensive Financial Report for FY2022 – “Measures of Success” P.127<sup>29</sup>.) How leverage for investing is calculated and the range of outcomes will differ depending upon the types of institutions and activities financed.

For some institutions, leverage will be relatively straightforward to assess. For those that opt to use GHGRF grants to leverage private capital by crowding in these funds to the overall capital stack in a large project financing or establish sizeable financing facilities to fund hundreds or even thousands of individual projects (such as for households or small businesses), the leverage ratio should be easily identifiable, such as by comparing the amount of public funds in a project or a group of projects to non-public funds attracted.<sup>30</sup> In Connecticut, the Green Bank has also leveraged our funding through green bond issuances in the public markets by securitizing future revenue streams

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<sup>29</sup> <https://www.ctgreenbank.com/wp-content/uploads/2022/10/Connecticut-Green-Bank-FY22-ACFR-FINAL-2022.10.21.pdf>

<sup>30</sup> [https://www.prnewswire.com/news-releases/posigen-and-forbright-bank-partner-to-expand-clean-energy-options-in-underserved-communities-301395331.html?tc=eml\\_cleartime](https://www.prnewswire.com/news-releases/posigen-and-forbright-bank-partner-to-expand-clean-energy-options-in-underserved-communities-301395331.html?tc=eml_cleartime)

associated with clean energy projects, where leverage can also be clearly defined as the ratio of the issuance value of the bonds to the amount of the excess of the issuance value over the value of the collateral offered by the public entity as security.<sup>31</sup>

Other institutions (particularly intermediaries serving depository institutions) calculate leverage by the amount of capital that can be leveraged by the direct lender on the ground through deposits. In these cases, measuring leverage (dollars mobilized per dollar of federal funding) is more straightforward. Metrics that measure the value of projects deployed vs. the dollars used by the grantee in that activity can be determined and tracked.

However, to create the generational change envisioned by the GHGRF, it is likely that some organizations will be involved in capacity building, market building, education, or technical assistance. In these cases, how each dollar of federal funding mobilizes additional private funding could be far less clear, yet the activities undertaken as important as the financing activity associated with ultimate deployment of GHG reduction measures.

EPA should carefully weigh these differences and provide room for a variety of activities, a range of private-sector leverage outcomes, and suitable methods to measure and track private-sector leverage against outcome goals for the reduction of GHGs and other forms of air pollution.

### **Variations in Leverage**

Across a wide swath of financial institutions that participate in the green financing space, there are considerable disparities in observed levels of leverage. These disparities can be due to a variety of factors including:

- The mix of financial products underwritten by these organizations.
- The type of institution including green banks, CDFI loan funds, CDCUs, MDIs, etc.
- The size of institutions. Smaller CDFI loan funds generally leverage 2-3x or less while larger institutions generally leverage ratios of 3-4x or more. Institutions with a depository base (e.g., CDCUs) generally have the highest leverage ratios (~\$10 in deposits for \$1 of capital).<sup>32</sup> Green banks that have a growing portfolio of transactions or a steady revenue stream (e.g., system benefit charges, RGGI funds, etc.) will have a higher leverage (2-3x their capital base and 4-7x contributed public capital) than entities like some green banks where the capital can be more static or contributed to the institution on an inconsistent basis (i.e., closer to 1x the capital base has been typical).

### **Leverage and “Non-Financial” Actors**

Entities such as States, municipalities, and Tribal governments (identified in the GHGRF under Sec. 134(a)(1)), don't usually consider private-sector leverage as a metric of success, although it is increasingly common for state and local governments to address the benefits of “public private partnerships”. More recently, several states and municipalities have established or designated green banks as mechanisms used to leverage the impact of scarce public dollars with private-sector investment. Connecticut's green bank tracks private-sector to public dollars leverage and notes this ratio approximates 7:1 across all activities spanning its organizational lifetime (i.e., 11 years). Michigan Saves, the designated green bank for Michigan, attains leverage of 20:1 for its residential

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<sup>31</sup> <https://www.ctgreenbank.com/cgb-sells-38m-in-shrecs/>

<sup>32</sup> <https://www.cdfifund.gov/sites/cdfi/files/documents/carsey-report-pr-042512.pdf>

loan program. Other green banks range generally from 2:1 to 3:1 or so depending upon their portfolio's mix of business, maturity of the organization and capital structure and funding sources.

As with the range of leverage ratios cited above for CDFIs and credit unions, EPA will find considerable disparity in attained leverage ratios, and most States, municipalities and Tribal governments have yet to establish green banks. Even where green banks exist, States, municipalities and Tribal governments may ultimately target most or all funds applied for towards incentives, education, capacity and market building activities (though many may emphasize the need to leverage these funds with the private-sector). Used in this way – some outcomes, such as with incentives, can often be clearly tracked, but outcomes due to education, capacity and market building activities can be inherently difficult to quantify.

In considering the concept of private-sector leverage, EPA should afford states broad latitude to support established state and federal equity goals as well as existing climate strategies, adapt to market differences among states, regions, and communities, and further unlock financing and private capital for project types and communities experiencing barriers not addressable by financing alone.

#### **De novo indirect recipients**

EPA faces the challenge of a limited time frame for disbursement of GHGRF grants while being directed in statute to (emphasis added):

*“...provide funding and technical assistance to establish new or support existing public, quasi-public, not-for-profit, or nonprofit entities that provide financial assistance to qualified projects...”*

As new institutions form in response to the availability of the GHGRF, it will be challenging for EPA to navigate how to assess these new institutions against existing ones on the basis of leverage. Innovative models which could be more effective in deploying capital to and achieving climate justice goals in low-income and disadvantaged communities are likely to appear over the next few years as the benefits of potential funding for these activities are increasingly appreciated by the marketplace.

#### **Recommendations**

While the Green Bank feels that leverage should be an essential criteria for GHGRF awards, awards should consider a series of factors – such as the demonstrated ability of an organization to reach and serve their designated market area, deploy capital into GHG reducing activities, attain carbon reductions, reduce energy burdens (with additional credit for serving low-income customers and disadvantaged or underserved / underbanked communities). EPA would be better served by appreciating the diverse capabilities of different market actors and using criteria which enables EPA to allocate grants and establish deliverables or outcomes based on: a demonstrated track record of GHG reducing activities; pathways to local communities, either directly or via active partnership activities; clear coordination with state energy, housing and transportation policies for climate action; and robust systems to track capital deployment and environmental outcomes.

To accommodate new participants without a track record of success but that may still be essential in the transition to a green economy, EPA should invite applicants to provide a process that embraces and provides access to funding for innovative models on the horizon while respecting the need for



these new players to demonstrate outcomes that satisfy GHG, climate justice and economic development goals.

As discussed, a National Climate Bank would address many of the concerns of quantifying and evaluating the leverage of disparate institutions. It would also have an amplifying effect of crowding in additional capital at the national level, thus increasing leverage ratios, potentially up to 30x.

**Key Takeaways:**

- Leverage is an essential criteria for awards, however:
  - It is not straightforward to assess: recipient organizations may rightly pursue activities, such as capacity building or technical assistance, that do not directly attract private capital.
  - Different types of institutions may have disparate leverage profiles and prioritizing leverage as a criteria could inherently skew towards certain types of recipients.
  - Non-financial actors such as States, municipalities, and Tribal Governments, as identified in GHGRF under Sec. 134(a)(1), do not typically consider leverage and have diverse experience with green banking.
  - New entrants spurred by the creation of the GHGRF may offer valuable methods to achieve decarbonization goals but will not have a clear leverage history to evaluate.
- Leverage should be considered as one of many criteria including: demonstrated ability of an organization to reach and serve their designated market area; and deploy capital into GHG and air pollution reducing activities.

**2. What should EPA consider in the design of the program to ensure Greenhouse Gas Reduction Fund grants facilitate additionality (i.e., federal funding invests in projects that would have otherwise lacked access to financing)?**

**Response**

The Green Bank’s response applies to Sec. 134(a)(1), Sec. 134(a)(2), and Sec. 134(a)(3) of the GHGRF.

The Green Bank supports the GHGRF policy to facilitate additionality but emphasizes that demonstrating additionality can be challenging. The program should prioritize grants for GHG reduction purposes which, in the absence of the grants, would not have occurred. However, in practice it can be difficult to attribute causation to a particular intervention.

Today, access to capital for GHG reduction projects can be constrained by several barriers such as a lack of willingness of capital providers to fund certain technologies, types of end users (e.g., LMI customers or multifamily affordable housing situations), or certain geographies. Increased costs for capital can also be a barrier to financing such as a disparity between perceived vs. actual risk, market failures, or constrained supply of a particular source of capital (e.g. tax equity). The time required to source capital for projects or the scale of the activity may be yet another barrier.

While the funding available through the GHGRF may allow projects to address these barriers and develop projects that otherwise would not be realized, demonstrating this may be a barrier. In considering additionality, we recommend EPA take a holistic approach such that GHGRF scale, impact, efficiency, and equity are not sacrificed for a strict ability to evidence additionality.

**Key Takeaway:**

- While the Green Bank supports an additionality policy, it can be challenging to demonstrate and should be part of a holistic approach to distributing funding.

**3. What should EPA consider in the design of the program to ensure that revenue from financial assistance provided using Greenhouse Gas Reduction Fund grants is recycled to ensure continued operability?**

**Response**

The Green Bank’s response applies to Sec. 134(a)(1), Sec. 134(a)(2), and Sec. 134(a)(3) of the GHGRF.

The Green Bank has first-hand experience in the burdens of ongoing reporting responsibility for American Recovery and Reinvestment Act (“ARRA”) funds. The Green Bank has accounted for these funds for more than 12 years (and will continue accounting for several hundred thousand dollars of ARRA funds that remain). As we are well capitalized with a robust staff devoted to accounting and data management, this burden is manageable. But grantees with far less robust systems may face an undue burden in evidencing recyclability of GHGRF grants. A National Climate Bank could provide some of the accounting infrastructure that these smaller, less capable organizations can't independently manage, facilitating proper reporting to EPA’s requirements. EPA might consider that grant awards (or sub-grant awards) below a particular break point be required to provide suitable evidence of initial use or investment of federal funds toward qualified projects while exempting such grant recipients (or subrecipients) below such breakpoint from ongoing reporting of recycling. As for large awardees, ongoing evidence of the recycling of grant funds should be required for the duration of the grant agreement.

If a National Climate Bank was established, it could ensure the continued operability of funds throughout the decades to come as explained above under: “A Vision for a National Climate Bank.”

**Key Takeaway:**

- While the Green Bank supports a policy of recycling grants to ensure continued operability, smaller grantees may find the associated accounting and reporting requirements overly burdensome. Larger awardees should be required to provide ongoing evidence of recycling grant funds.

**4. What should EPA consider in the design of the program to enable Greenhouse Gas Reduction Fund grants to facilitate broad private market capital formation for greenhouse gas and air pollution reducing projects? How could Greenhouse Gas Reduction Fund grants help prove the “bankability” of financial structures that could then be replicated by private sector financial institutions?**

**Response**

The Green Bank’s response applies to Sec. 134(a)(1), Sec. 134(a)(2), and Sec. 134(a)(3) of the GHGRF.

For a portion of the response, see the Green Bank’s response below to Section 2 (i.e., Program Design) and Question 6 (i.e., federal government program design features) focusing on credit enhancements have pertinent points here.

A key part of the green bank model is working with community and private sector financial institutions to address gaps in the market as well as to demonstrate profitable models and structures to the private sector. The Green Bank would suggest that the program be structured in a way that also encourages recipients to partner with private sector financial institutions to leverage the public funds. It is through these partnerships, as the Green Bank has demonstrated, that private sector organizations will gain comfort with clean energy and climate finance. In Connecticut, the Green Bank has addressed several market gaps in the residential solar market with a variety of tools that have sparked private sector investment. In the early days of the residential solar market, the Green Bank identified a lack of options for residential consumers in terms of financing these systems. Our predecessor organization, the Connecticut Clean Energy Fund, pioneered the solar lease with the launch of Solar Lease I. As the market matured and demand increased, the Green Bank noticed persistent gaps in financing options and launched the CT Solar Loan product and the CT Solar Lease II product. Both products relied on the private market not only for contractors to install the solar but also on private sector capital to finance the installations. Both served as ways to educate private financiers on how these structures could work and demonstrated profitability for the financiers and a reduction in energy burden for the homeowners. After the initial run of both offerings, there existed in the market enough competing offers that the Green Bank felt that we did not need to continue to offer a solar loan or lease product.

Similarly, as the market matured, the Green Bank observed a market gap regarding where the solar adoption was taking place. To address slower rates of adoption in disadvantaged communities, the Green Bank issued an RFP looking for an installer with experience reaching similar communities and worked to create an added income-based incentive. The Green Bank selected Posigen as a partner and provided financing to support their activities in the disadvantaged communities in the state. As a result, the gap that existed between affluent and disadvantaged communities in terms of solar adoption has now been closed and Connecticut is now installing solar at higher rates in disadvantaged communities than in affluent ones thereby achieving the status of a solar with justice state. The financing provided by the Green Bank has not just helped the initially targeted communities (participating homeowners have seen a reduction in their energy burdens) but has also proven that investment in these communities is profitable.

For details on the Green Bank's efforts to advance distributed technologies on residential rooftops through administering a pay for performance incentive program and green bond issuance – see Attachment C.

**Key Takeaway:**

- A variety of financial interventions are needed when looking to address financing gaps in clean energy. Partnering with and including private sector players in transactions that are targeted to address specific gaps is an effective tool in terms of educating the private sector and demonstrating bankability.

**5. Are there best practices in program design that EPA should consider to reduce burdens on applicants, grantees, and/or subrecipients (including borrowers)?**

**Response**

The Green Bank's response applies to Sec. 134(a)(1) of the GHGRF only.

The Green Bank proposes several things for EPA’s consideration in best practice program design to reduce burdens on not only applicants, grantees, and/or subrecipients, but also EPA’s administration of the GHGRF, including states climate change application and equitable, competitive distribution of funds.

### **States Climate Change Application**

EPA should allow a State to apply on behalf of a number of States, to reduce the administrative burden on EPA and State applicants, grantees, and subrecipients. For example, the Green Bank could be an applicant on behalf of a number of other States (and Territories). Such partnering states would each have demonstrated climate change and public policy alignment with the GHGRF (see “Background” section above), along with programmatic and allocation structures in support of such policies, which would ease the collective administrative burden on all parties.

### **Equitable Competitive Distribution of Funds**

As EPA begins to layout a process for determining how the GHGRF will be distributed, it need not look beyond the best practices it has already established through the State Revolving Funds (“SRF”) and Water Infrastructure Finance and Innovation Act (“WIFIA”) funds. The SRF has provided nearly \$190 billion of low-cost financing for a wide range of water quality and drinking water infrastructure projects since inception – 43,000 water quality and 16,300 drinking water projects.<sup>33</sup> Within the Bipartisan Infrastructure Law (“BIL”) (or Infrastructure Investment and Jobs Act (“IIJA”)), EPA will allocate \$44 billion in dedicated SRF to States, Tribes, and Territories with nearly half of this funding available as grants or principal forgiveness loans that remove barriers to investing in essential water infrastructure in underserved communities. And WIFIA, has provided more than \$13 billion in 72 loans to accelerate investment in the nation’s water infrastructure by providing long-term, low-cost supplemental credit assistance for regionally and nationally significant projects.<sup>34</sup> By combining the allocation approach of SRF, with the competitive approach of WIFIA, EPA has a proven and transparent process for implementing Sec. 134(a)(1) of the GHGRF that would result in an **equitable, competitive distribution of funds**.

For example, the BIL provided an SRF allocation to States, Tribes, and Territories for both clean water (“CWSRF”) and drinking water (“DWSRF”). EPA should apply this allocation formula (e.g., CWSRF and/or DWSRF). And then, per the competitive approach of WIFIA, States, Tribes, and Territories would submit a letter of interest in such allocation, and then submit an application (including a plan for reaching low-income and disadvantaged communities) to compete for such funds. A State, Tribe, or Territory could request funds greater than their CWSRF and/or DWSRF allocation, or the EPA could establish a floor allocation (e.g., \$100 MM) for smaller states (e.g., Connecticut, Hawaii, Puerto Rico, Rhode Island), however, they will only receive such additional funds beyond their allocation if there aren’t enough strong applications for such funds or if allocation fails to be used in a timely manner in accordance with the terms of the grants (i.e., such funds could be redeployed to other allocatees).

In addition, states working together within an EPA region, could request additional funds for regionally significant projects.

The GHGRF should not be looked at as a one-time investment. Instead, if invested properly, then perhaps there could be an annual recurring source of funding approved by Congress. EPA should

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<sup>33</sup> EPA Press Release of February 16, 2022 ([click here](#))

<sup>34</sup> EPA Press Release of March 24, 2022 ([click here](#))

prepare for success in investing funds, just as it has done with the SRF and WIFIA funds and follow its own best practices towards the **equitable, competitive distribution of funds**.

**Key Takeaway:**

- EPA should follow best practices established in the allocation of both the SRF and WIFIA to create an equitable, competitive distribution of funds.

**6. What, if any, common federal grant program design features should EPA consider or avoid in order to maximize the ability of eligible recipients and/or indirect recipients to leverage and recycle Greenhouse Gas Reduction Fund grants?**

**Response**

The Green Bank’s response applies to Sec. 134(a)(1), Sec. 134(a)(2), and Sec. 134(a)(3) of the GHGRF.

The Green Bank proposes several common federal grant program features for EPA’s consideration to maximize the ability to leverage and recycle grants, including the “best practices” and “lessons learned” from the American Recovery and Reinvestment Act (“ARRA”).

**Best Practices**

EPA should consider “best practice” program design features from ARRA, which taught many state and local governments how financial assistance can increase and accelerate the investment in and deployment of clean energy, including, but not limited to:<sup>35</sup>

- **Loan Loss Reserves** – by providing community development financial institutions, credit unions, and community banks with loan loss reserves, the Green Bank was able to stretch public resources further; and
- **Interest Rate Buydowns** – by initiating special offers to lower interest rates to encourage new technology adoption (e.g., solar PV, air source heat pumps, ground source heat pumps), the Green Bank was able to increase and accelerate the investment in and deployment of clean energy.

The Green Bank invested \$8.3 million of financial assistance from ARRA, in combination with \$16.5 million of its own resources, to mobilize \$158.1 million of private capital investment in clean energy.

For details on the financing products and the social impact resulting from resources provided through ARRA – see Attachment D.

This investment resulted in supporting over 9,000 families reducing energy burden from clean energy deployment, while creating over 2,000 jobs, reducing nearly 600,000 tons of CO<sub>2</sub> emissions, and reaching over 50% of the projects with nearly 40% of investment in vulnerable communities. Several of the residential financing programs supported by ARRA, including new programs created as a result of ARRA from “lessons learned” (e.g., Solar for All), led to significant investment and projects directed at vulnerable communities – see Table 2.

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<sup>35</sup> It should be noted that the use of ARRA funds for “third party insurance” was not pursued by the Green Bank, however, given the increasing impacts of climate change, such an approach could be useful in the future.

**Table 2. Green Bank Residential Clean Energy Financing Programs by Investment and Projects for Vulnerable Communities**

Program	Investment (\$MM's)			# of Projects		
	Not Vulnerable Communities	Vulnerable Communities	% Vulnerable Communities	Not Vulnerable Communities	Vulnerable Communities	% Vulnerable Communities
Smart-E Loan <sup>36</sup>	\$75.1	\$41.3	34%	3,689	2,627	42%
CT Solar Loan	\$6.7	\$2.4	26%	197	82	29%
CT Solar Lease <sup>37</sup>	\$30.2	\$16.1	35%	746	443	37%
Solar for All <sup>38</sup>	\$27.9	\$90.5	76%	929	3,363	78%

**Lessons Learned**

One of the many benefits supporting ARRA implementation, specifically as it applied to residential clean energy financing and deployment, was categorical exemptions for Davis Bacon, National Environmental Policy Act (“NEPA”), and historical preservation. Recognizing the importance of a just transition and the need for CBAs, the Green Bank would suggest that EPA consider similar treatment as ARRA for eligible projects (e.g., not applying to projects with construction costs less than \$5 MM) for residential customers supported by the GHGRF, including those residing in single family homes and multifamily affordable housing.

**Key Takeaways:**

- Loan loss reserves and interest rate buydowns (such as those enabled by the American Recovery and Reinvestment Act or “ARRA”) have led to significant investment and projects directed at vulnerable communities.
- Creating categorical exemptions for projects with construction costs less than \$5 MM from existing federal standards that may be overly prescriptive (as done through ARRA) can accelerate financing activity and provide easier and more affordable access to low-income customers and DACs.

**7. What should EPA consider in the design of the program, in addition to prevailing wage requirements in section 314 of the Clean Air Act, to encourage grantees and subrecipients to fund projects that create high quality jobs and adhere to best practices for labor standards, consistent with guidance such as Executive Order 14063 on the Use of Project Labor Agreements and the Department of Labor's Good Jobs Principles?**

**Response**

The Green Bank’s response applies to Sec. 134(a)(1), Sec. 134(a)(2), and Sec. 134(a)(3) of the GHGRF.

EPA should incorporate and prioritize the creation of quality jobs within grantees and subrecipients projects. There is a need across the nation, and specifically within Connecticut, for quality jobs that support a thriving and growing middle-class. This must include jobs that build professional skills, trades, and access to wealth building in a field that will shape the Nation’s climate future. One way

<sup>36</sup> Annual Comprehensive Financial Report for FY22 (270) – [click here](#)

<sup>37</sup> Ibid (354)

<sup>38</sup> Annual Comprehensive Financial Report for FY21 (266) – [click here](#)

that EPA can support this through the GHGRF is to link certification, trades, and higher education to the project opportunities to invest in building the workforce we, as a nation, will need.

There are several ways to shape the future workforce from partnerships with State community colleges and universities to supporting labor transition and re-training programs. Connecticut has taken steps to ensure that our transition to a clean-energy economy will benefit our workforce as well. For instance, the Connecticut State Building Trades Training Institute (“BTTI”) is a state-wide apprentice readiness program that prepares individuals that are interested in careers in state-certified apprentice programs within the unionized construction industry. The BTTI was launched in September of 2022 and provides workforce development in eight communities across Connecticut. Two communities have already successfully graduated cohorts, while the remaining six are preparing for their first trainees. The graduates from this program have either enrolled in Building Trades Apprentice Programs or are in the process of applying to the unions Joint Apprentice Training Committees. Once enrolled into one of these programs, the apprentice will be trained in all of the facets of the trade which includes many hours of training in the renewable energy field.

**Key Takeaway:**

- EPA should work with State community colleges, universities, and training/apprenticeship programs to support the creation of quality jobs within grantees and subrecipients projects.

**8. What should EPA consider when developing program guidance and policies, such as the appropriate collection of data, to ensure that greenhouse gas and air pollution reduction projects funded by grantees and subrecipients comply with the requirements of Title VI of the Civil Rights Act, which prohibits discrimination on the basis of race, color, and national origin in programs and activities receiving federal financial assistance?**

**Response**

The Green Bank’s response applies to Sec. 134(a)(1), Sec. 134(a)(2), and Sec. 134(a)(3) of the GHGRF.

EPA should seek to capture as much data as possible with regards to the ultimate borrowers and their use of funds. EPA should require recipients to collect this information and house it securely to protect Personal Identifiable Information (“PII”). Regularly auditing this data and looking for areas that are being underserved should be a fundamental part of any program.

However, EPA should go beyond just auditing data and identifying problems. They should look to recipients to specifically target communities of color. Lack of minority-owned businesses and contractors of color are recognized issues in many areas when it comes to clean energy installation and having additional owners and contractors in general, especially those who look like the communities that we are trying to reach, will be essential in combatting climate change. EPA should value recipients who are actively engaged with workforce development especially in communities of color.

**Key Takeaway:**

- EPA should track information, including demographic and socioeconomic profiles of the ultimate borrowers, and their use of funds, as well as data about the workforce providing the construction and operational support of GHG reducing projects.

**9. What should EPA consider when developing program policies and guidance to ensure that greenhouse gas and air pollution reduction projects funded by grantees and subrecipients comply with the requirements of the Build America, Buy America Act that requires domestic procurement of iron, steel, manufactured products, and construction material?**

**Response**

The Green Bank has no constructive response to this question except to note the following:

- **Tax Credit Adders** – within the IRA are “domestic content” provisions that provide for additional tax credits that should help enable market forces; and
- **Community-Based Campaigns** – the Green Bank has experience supporting community-based campaigns (e.g., Solarize Connecticut), including through the DOE’s SunShot Initiative, that provided participating households with the option to pay more for hardware “Made in America”.

These are two examples of existing processes within the GHG reduction industry that could be considered when developing program policies and guidance around American-made hardware.

**Key Takeaway:**

- EPA should investigate other processes in the GHG reduction industry that prioritize American-made products such as the IRA Tax Credit Adders and Community-Based Campaigns such as Solarize.

**10. What federal, state and/or local programs, including other programs included in the Inflation Reduction Act and the Infrastructure Investment and Jobs Act or “Bipartisan Infrastructure Law,” could EPA consider when designing the Greenhouse Gas Reduction Fund? How could such programs complement the funding available through the Greenhouse Gas Reduction Fund?**

**Response**

The Green Bank’s response applies to Sec. 134(a)(1), Sec. 134(a)(2), and Sec. 134(a)(3) of the GHGRF.

For Sec. 134(a)(1), EPA should consider the alignment of an applicant’s projects with or advancement of state and federal equity goals such as location-specific pollution reductions, the projects’ alignment with or advancement of state decarbonization and/or resilience plans, and a portfolio’s likelihood and scale of financial standing improvement for disadvantaged communities. EPA should allow grants to act as flexible, gap-filling monies to complement other sources of funding (i.e. BIL or state incentive programs) and to unlock private-sector investment not only for projects that need credit enhancement but also for projects and communities, particularly environmental justice and vulnerable communities, that currently have limited access to financial markets due to systemic inequities.

The same can be said for application of GHGRF grants pursuant to Sec. 134(a)(1), (2) and (3), toward projects benefitting from rebates, tax credits and other support from the IRA, the BIL, or ARP. The BIL offers a myriad of opportunities to advance GHG reduction priorities. Various Connecticut state agencies have already participated in dozens of RFIs, FOAs, and RFPs issued in support of the BIL. The Green Bank has participated in these activities as they align to our mission of supporting Connecticut to achieve our policy goals of a 45% reduction from 2001 levels by 2030 (equivalent to



50-52% reduction from 2005 levels by 2030). We provide support to these requests by: sharing lessons learned from our decade of work in the clean energy space and ensuring that environmental justice community leaders are aware and have the resources to participate in these activities.

To achieve federal, state, and local GHG reduction targets, GHGRF grants need to be as flexible as possible – particularly when used to advance investment in low-income and disadvantaged communities – to be gap-filling and catalytic funds to complement increased investment in qualified projects.

**Key Takeaway:**

- GHGRF grants need to be as flexible as possible – particularly when used to advance investment in low-income and disadvantaged communities – to be gap-filling and catalytic funds to complement increased federal, state, and/or local investment in qualified projects.

**11. Is guidance specific to Tribal and/or Territorial governments necessary to implement the program? If so, what specific issues should such guidance address?**

**Response**

The Green Bank’s response applies to Sec. 134(a)(1), Sec. 134(a)(2), and Sec. 134(a)(3) of the GHGRF.

Guidance specific to Tribal and/or Territorial governments (e.g., Puerto Rico) is necessary to implement the program. The following are some specific issues the guidance should address:

- **Clarify Treatment Under IRA** – as clarity is being sought in Question #10 above, with respect to GHGRF alignment to the IRA, EPA should consult with Treasury to be clear about all of the credits, direct payment, transferability and other benefits available under the IRA (e.g., 25C, 25D, 45, 45L, 45Y, 48, 48C, 48E, and others), and communicate which ones (if not all) of them are appropriate for Tribal and/or Territorial governments to rely on to finance such projects within their jurisdiction.
- **Increase Awareness of GHGRF** – EPA should increase its efforts to raise awareness about the GHGRF to Tribal and/or Territorial governments. For example, the Green Bank recently participated in the Solar and Energy Storage Association of Puerto Rico’s annual summit<sup>39</sup> and met with the Board of Directors of the Puerto Rico Green Energy Trust (a.k.a. Puerto Rico Green Bank). In order to raise awareness about the opportunities presented by the GHGRF, the Green Bank spoke about its importance to Puerto Rico’s efforts, especially rooftop solar and battery storage for low-income and disadvantaged communities.

These are a few suggestions for EPA’s consideration to provide additional support to Tribes and/or Territorial governments in order to mobilize more public and private investment in and deployment of “qualified projects” to benefit these communities.

If the Green Bank can be of assistance, please let us know.

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<sup>39</sup> <https://www.sesapr.org/summit> from November 1-3, 2022

If a National Climate Bank was established, it could assume the responsibilities of ensuring that Tribal and Territorial governments were aware of the GHGRF and provide assistance as needed to develop financing programs for these entities.

**Key Takeaways:**

- EPA should clarify treatment of Tribal and Territorial governments under the Inflation Reduction Act.
  - EPA should dedicate resources to increase awareness of and encourage participation in the GHGRF in Tribal and Territorial governments.
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### **Section 3: Eligible Projects**

**1. What types of projects should EPA prioritize under sections 134(a)(1)-(3), consistent with the statutory definition of “qualified projects” and “zero emissions technology” as well as the statute’s direct and indirect investment provisions? Please describe how prioritizing such projects would:**

- a. maximize greenhouse gas emission and air pollution reductions;**
- b. deliver benefits to low-income and disadvantaged communities;**
- c. enable investment in projects that would otherwise lack access to capital or financing;**
- d. recycle repayments and other revenue received from financial assistance provided using the grant funds to ensure continued operability; and**
- e. facilitate increased private sector investment.**

#### **Response**

The Green Bank’s response applies to Sec. 134(a)(1), Sec. 134(a)(2), and Sec. 134(a)(3) of the GHGRF.

In addition to “distributed technologies on residential rooftops,” in terms of “qualified projects”<sup>40</sup> and “zero emissions technology,”<sup>41</sup> the Green Bank would suggest that EPA look to the Clean Energy and Sustainability Accelerator (“Accelerator”),<sup>42</sup> passed out of the House of Representatives, National Climate Bank Act introduced in the Senate,<sup>43</sup> and state level projects (e.g., environmental infrastructure) consistent with the intent of the GHGRF for additional guidance.

#### **Accelerator and National Climate Bank**

The Green Bank, supporting work being led by the Coalition for Green Capital, assisted Congresswoman Dingell with the drafting of the Accelerator, including the definition of “qualified projects” with a focus on “confronting climate change” by avoiding or reducing GHG emissions, and increasing resilience against its impacts.

Within the Accelerator, the following “qualified projects” were included:

- Renewable energy generation (e.g., solar, wind, geothermal, hydropower, ocean and hydrokinetic, and fuel cells<sup>44</sup>)
- Building energy efficiency, fuel switching and electrification
- Industrial decarbonization
- Grid technology such as transmission, distribution and storage to support clean energy distribution, including smart grid applications<sup>45</sup>
- Agriculture and forestry projects that reduce net greenhouse gas emissions

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<sup>40</sup> Includes any project, activity, or technology that (A) reduces or avoids greenhouse gas emissions and other forms of air pollution in partnership with, and by leveraging investment from, the private sector; or (B) assists communities in the efforts of those communities to reduce or avoid greenhouse gas emissions and other forms of air pollution.

<sup>41</sup> Means any technology that produces zero emissions of (A) air pollutant that is listed pursuant to section 108(a) (or any precursor to such an air pollutant); and (B) any greenhouse gas.

<sup>42</sup> <https://www.congress.gov/bill/117th-congress/house-bill/806/text>

<sup>43</sup> Included within the Senate proposed National Climate Bank Act of 2021 (i.e., not the Accelerator)

<sup>44</sup> In Connecticut, given its leading global hub for manufacturing, stationary fuel cells are within the Class I RPS

<sup>45</sup> In Connecticut, there are efforts by the electric distribution companies to install advanced metering infrastructure as the backbone to its clean energy future, including, but not limited to distributed energy resources (e.g., behind-the-meter renewable energy, demand response, battery storage, electric vehicles), improved measurement and verification, on bill financing, etc.

- Clean transportation (e.g., battery electric vehicles, plug-in hybrid electric vehicles, hydrogen vehicles, other zero emissions fueled vehicles)
- Related vehicle charging and fueling infrastructure<sup>46</sup>
- Climate resilient infrastructure

In addition to the Accelerator, the following “qualified projects” could be considered within the context of the National Climate Bank Act:

- Water efficiency, including residential, commercial, and industrial

The Green Bank would recommend that EPA consider all “qualified projects” outlined within the Accelerator, and consideration of measures within the Climate Bank Act, to apply to the GHGRF for direct and indirect investments.

In addition to these “qualified projects,” the Green Bank suspects that there will be preexisting health and safety issues (e.g., lead, mold, asbestos) on properties, especially within low-income and disadvantaged communities, that prevent the deployment of projects. Because such preexisting issues are a barrier to deployment, the Green Bank would recommend that a portion of the GHGRF be allocated to support preexisting health and safety issues on properties as they too, should be considered “qualified projects” as long as there is a nexus with other projects supporting the GHGRF.

### **Environmental Infrastructure**

Following the passage of the Accelerator by the House of Representatives, in June 2021 Connecticut Governor Lamont led a bipartisan effort to expand the scope of the Green Bank beyond “clean energy”<sup>47</sup> to include “environmental infrastructure”<sup>48</sup> through the passage of Public Act 21-115.<sup>49</sup> The Act seeks to apply the green bank model to environmental infrastructure, while advancing the capabilities of the Green Bank, including, but not limited to:

- **Environmental Infrastructure Fund** – establishing a fund within the Green Bank that can receive funding from federal sources (e.g., Accelerator, GHGRF) to be invested in environmental infrastructure.

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<sup>46</sup> It should be noted that the Green Bank led an effort of multiple stakeholders to develop the voluntary carbon offset standard for electric vehicle charging stations – <https://verra.org/methodology/vm0038-methodology-for-electric-vehicle-charging-systems-v1-0/>

<sup>47</sup> “Clean energy” means solar photovoltaic energy, solar thermal, geothermal energy, wind, ocean thermal energy, wave or tidal energy, fuel cells, landfill gas, hydropower that meets the low-impact standards of the Low-Impact Hydropower Institute, hydrogen production and hydrogen conversion technologies, low emission advanced biomass conversion technologies, alternative fuels, used for electricity generation including ethanol, biodiesel or other fuel produced in Connecticut and derived from agricultural produce, food waste or waste vegetable oil, provided the Commissioner of Energy and Environmental Protection determines that such fuels provide net reductions in greenhouse gas emissions and fossil fuel consumption, usable electricity from combined heat and power systems with waste heat recovery systems, thermal storage systems, other energy resources and emerging technologies which have significant potential for commercialization and which do not involve the combustion of coal, petroleum or petroleum products, municipal solid waste or nuclear fission, financing of energy efficiency projects, projects that seek to deploy electric, electric hybrid, natural gas or alternative fuel vehicles and associated infrastructure, any related storage, distribution, manufacturing technologies or facilities and any Class I renewable energy source, as defined in section 16-1.

<sup>48</sup> “Environmental Infrastructure” means structures, facilities, systems, services, and improvement projects related to water, waste and recycling, climate adaptation and resiliency, agriculture, land conservation, parks and recreation, and environmental markets (e.g., carbon offsets, ecosystem services).

<sup>49</sup> “An Act Concerning Climate Change Adaptation” – [click here](#)

- **Bonding** – enables the Green Bank to issue revenue bonds for up to 50 years for environmental infrastructure.
- **Expanding Reporting Requirements** – expands the Green Banks reporting requirements beyond the Energy and Technology Committee and Commerce Committee, to also include the Environment Committee and Banking Committee of the CGA to increase accountability.

The Green Bank has been anticipating the passage of the GHGRF (i.e., Accelerator) in its efforts to support the passage of Public Act 21-115 in Connecticut.

In 2022, the Green Bank conducted stakeholder outreach to understand the various components of environmental infrastructure. With its mission to “confront climate change” through the cross-cutting issues of reducing greenhouse gas emissions, increasing climate adaptation and resilience, and enabling investment in vulnerable communities, there were several primers produced on land conservation,<sup>50</sup> parks and recreation,<sup>51</sup> and agriculture<sup>52</sup> reflecting the observations, findings, and initial recommendations from stakeholders.

In addition to the “qualified projects” included within the Accelerator and Climate Bank, and in support of “environmental infrastructure” to “confront climate change” within Connecticut, the Green Bank would recommend the following additional “qualified projects” be considered:

- Water
- Waste and Recycling
- Climate Adaptation and Resiliency
- Agriculture
- Land Conservation
- Parks and Recreation
- Environmental Markets (including, ecosystem services and carbon offsets)

EPA should consider “qualified projects” that can be supported through the GHGRF from the perspectives of state and local government if those governments have climate change policies consistent with the intentions of the GHGRF.

#### Key Takeaways:

- EPA should consider all qualified projects outlined within the Clean Energy and Sustainability Accelerator passed out of the House of Representatives, as well as measures within the National Climate Bank Act introduced by the Senate.
- EPA should allow GHGRF to be used to support preexisting health and safety concerns that may otherwise be a barrier to deployment of clean energy, especially in low-income and disadvantaged communities.
- EPA should consider environmental infrastructure projects as qualified projects so long as they are reducing GHG emissions or air pollution.

<sup>50</sup> Land Conservation Primer – [click here](#)

<sup>51</sup> Parks and Recreation Primer – [click here](#)

<sup>52</sup> Agriculture Primer – [click here](#)

**2. Please describe what forms of financial assistance (e.g. subgrants, loans, or other forms of financial assistance) are necessary to fill financing gaps, enable investment, and accelerate deployment of such projects.**

**Response**

The Green Bank's response applies to Sec. 134(a)(1), Sec. 134(a)(2), and Sec. 134(a)(3) of the GHGRF.

In the experience of the Connecticut Green Bank, we have found that having a creative, flexible, and innovative approach to creating financing products allows us to have the greatest impact. Different market failures (e.g. underserved customer segments, high capital costs, etc.) require customized forms of intervention. The local government (State, municipal, Tribal/Territorial government) will likely be the party best suited to match the financing tool to the need identified within their geography. The following are the primary forms of financial assistance the Green Bank has used to create impact:

- Direct Lending/Investment – Lending to sub-recipients or to organizations in support of further development of clean energy assets. This activity includes but is not limited to equity investments, working capital loans, secured warehouse facilities, and other forms of debt. This approach works best when there is a substantial number of standardized contracts with downstream borrowers, such as homeowners and small businesses, with a sufficient history of loan performance of at least 5 years.

In Connecticut, we have created loan facilities that increase low-income adoption of solar by lending to PosiGen and we have increased residential access to loans for energy efficiency by directly lending to a CDFI partner in support of their lending to homeowners. Further, through our Commercial Property Assessed Clean Energy offering, we have issued loans to hundreds of commercial property owners for energy efficiency and distributed generation projects.

- Credit Enhancements/Credit Support/Guarantees – Financial vehicles that de-risk the activities performed by others.

The Green Bank has used a loan loss reserve for our Smart-E program (which lends to homeowners for energy efficiency or distributed generation) that effectively insures the lenders in the program against certain losses, thereby mitigating much of their risk and allowing them to lend money at lower rates. Rather than use cash for these loan loss reserves, a more efficient way to offer credit enhancements is to use a green bank (or national climate bank) guarantee backed by the entity's balance sheet, which the Green Bank has done successfully for the Smart-E program.

- Project Finance – Participating as part of the capital stack for a project, typically in the form of debt. The Green Bank has provided project financing for specific projects where our participation can lower the risk and overall cost of capital to the project by joining others in the financing.

For example, the Green Bank worked with a community bank to repower a 1 megawatt hydroelectric facility. A Green Bank subordinate loan of \$1.2 million plus a \$500,000 limited guarantee enabled a \$4.4 million senior loan from the bank in addition to \$1 million in equity and Small Business Administration support.

- Grants – Providing financial assistance to help nascent or expanding organizations build their capacity and to expand to reach their targets. However, grants should be performance based, limited in size, and designed in a way that does not create organizational dependence on them in the long term.

The Green Bank has provided grants to Sustainable Connecticut, a community-based organization that partners with towns to improve the sustainability in their communities. The Green Bank has provided grants that have allowed the organization’s match fund to facilitate sustainability projects. This has effectively acted as a lead generation for the Green Banks’s Solar Marketplace Assistance Program which targets municipal buildings for PPA projects.

- Secondary Markets/Securitization - Through securitizations and the selling of loans in the secondary market, recipients will be able to recapitalize themselves so that they may continue their other activities. Accessing the secondary market is a key part of the Green Bank model and should be a crucial activity for the long-term success of any organization receiving funds from the GHGRF.

The Green Bank has participated in secondary markets by securitizing income streams from our Renewable Energy Credits through the issuance of 3 bonds, allowing for a more timely cost-recovery of the Residential Solar Incentive Program and effective management of the organization’s balance sheet. Additionally, the Green Bank has had sold Commercial Property Assessed Clean Energy loans in the secondary market for similar purposes. Further, the Green Bank has worked in a secondary markets capacity with Eversource, one of the Investor Owned Utilities in the state, by buying small business energy efficiency loans originated by Eversource as the Green Bank and our financing partner can do so at a lower cost of capital than can Eversource.

- Creation of Leverage – As discussed in Section 2, Question 1, leveraging public funding to crowd in private sector lenders will stretch the funds received from the GHGRF as far as possible. Recipients will need to balance the need to build their balance sheet with assets that help them achieve fiscal sustainability and the need to maximize impact as possible by leveraging the GHGRF funds.

The Green Bank operates a variety of products and programs designed to support the transition to the green economy, each with a different leverage ratio. At a portfolio level, the Green Bank is currently investing at around a 1:7 public to private ratio.

If a National Climate Bank was established, it could provide both technical assistance to local entities interested in establishing one or all of these tools, as required by the need in their specific geography.

**Key Takeaways:**

- There are a diverse set of financing tools that can support the transition to a green economy and selecting the appropriate tool is specific to the need of each geography/market.

**3. Beyond financial assistance for project financing what other supports – such as technical assistance -- are necessary to accelerate deployment of such projects?**

**Response**

The Green Bank's response applies to Sec. 134(a)(1), Sec. 134(a)(2), and Sec. 134(a)(3) of the GHGRF.

In the experience of the Green Bank, there are forms of assistance beyond project financing that are needed to accelerate deployment of clean energy projects. This assistance generally centers around project opportunity assessment, project acquisition and market development. First, there will be the need to design and implement community focused campaigns that increase the awareness of energy efficiency and distributed generation. These campaigns will need staff and marketing assets that will potentially need some financial support to develop, although the cost of this should be recovered through financing activities in the long term. In some areas, with some technologies, there will be a need to support workforce development to meet the demand for qualified contractors to do the required installations. When evaluating initial investments in customer acquisition and administration, the Green Bank has typically looked at the interest generated by assets and determine if those will cover the initial expenses over the life of the financing activity. For example, if we are looking to launch a new program that will necessitate an initial expense of \$200,000 for marketing and setup, then approximately \$4 million must be lent over a 10-year term at 1% interest rate, to achieve a present value of interest income equivalent to the marketing and setup expenses.

Technical assistance will like be required for particular project types (e.g. more complex building energy efficiency in the multifamily, commercial, industrial and institutional sectors). Building owners will need technical assistance to identify and plan for projects before they come to the traditional first stage of development. Where possible, the costs for technical assistance provided in identifying projects should be recouped through subsequent financing for resulting projects.

**Key Takeaway:**

- To establish successful programs will likely require funding for project opportunity assessment, project acquisition, market development, and technical assistance. The cost of this support should be recovered through financing activities (i.e., interest income) in the long term.



## **Section 4: Eligible Recipients**

- 1. Who could be eligible entities and/or indirect recipients under the Greenhouse Gas Reduction Fund consistent with statutory requirements specified in section 134 of the Clean Air Act? Please provide a description of these types of entities and references regarding the total capital deployed by such entities into greenhouse gas and air pollution reducing projects.**

### **Response**

The Green Bank's response applies to Sec. 134(a)(1), Sec. 134(a)(2), and Sec. 134(a)(3) of the GHGRF.

EPA has been allocated a limited amount of funds to administer and oversee the GHGRF program. Therefore, as a practical matter, EPA will need to constrain grants to a limited number of ultimate recipients and should therefore solicit applications whereby the ongoing access to financial and technical assistance can be assured over many years. The suggestion earlier in this RFI response that EPA solicit proposals for a substantially capitalized national clean energy financing platform – a national climate bank (NCB) funded via grants sourced under Sec. 134(a)(2), and Sec. 134(a)(3) – could fulfill this need for ongoing access to financial and technical assistance for a wide range of applicants over many years to come.

For Sec. 134(a)(1), the statute is clear, but the Green Bank suggests that States be given preference over a substantial amount of the funds, with the balance allocated to Tribal governments and municipalities (particularly those municipalities with acute environmental and energy justice issues to address and where the impact from such grants would be substantial). Given that States, municipalities, and Tribal governments are *not* permitted to apply for grants available under Sec. 134(a)(2), and Sec. 134(a)(3), we would recommend “eligible recipients” be ascribed a lower priority here as these entities have exclusive access to grants pursuant to Sec. 134(a)(2) and Sec. 134(a)(3) without competition from States, municipalities, and Tribal governments.

### **Key Takeaways:**

- EPA should consider proposals for a national climate bank funded via grants provided under Sec. 134(a)(2), and Sec. 134(a)(3) to provide ongoing access to financial and technical assistance for a wide range of applicants over many years to come.
- For grants provided under Sec.134(a)(1), EPA should prioritize States, Tribal governments, and municipalities with acute environmental and energy justice issues and policies consistent with the GHGRF.

- 2. What types of entities (as eligible recipients and/or indirect recipients) could enable Greenhouse Gas Reduction Fund grants to support investment and deployment of greenhouse gas and air pollution reducing projects in low-income and disadvantaged communities?**

### **Response**

The Green Bank's response applies to Sec. 134(a)(1), Sec. 134(a)(2), and Sec. 134(a)(3) of the GHGRF.

**Public Policy Created Green Banks**

An “eligible recipient”<sup>53</sup> and/or “indirect recipient,”<sup>54</sup> such as a statutorily created state or local green bank, working in concert with community development financial institutions and other local lenders, could enable GHGRF grants to support investment in and deployment of GHG and air pollution reducing projects in low-income and disadvantaged communities. For example, the Green Bank is a quasi-public agency created through an act of legislation by the CGA with the mission to “confront climate change by increasing and accelerating investment into Connecticut’s green economy to create more resilient, healthier, and equitable communities”. As a quasi-public agency, the Green Bank is a nonprofit organization that supports the State of Connecticut in confronting climate change by reducing GHG emissions by 45% and no less than 80% from 2001 levels by 2030 and 2050, respectively, through the investment in and deployment of clean energy and environmental infrastructure.

Within its Comprehensive Plan, the Board of Directors of the Green Bank, established a goal that by 2025, no less than 40% of investment and benefits from the Green Bank be directed to vulnerable communities. Since its inception, the Green Bank has made progress towards this goal – see Table 3.<sup>55</sup>

**Table 3. Investment in and Deployment of Clean Energy in Environmental Justice Communities in Connecticut with Support from Green Bank (2012-2022)**

Investment		Deployment		Projects	
\$MM's	%	MW	%	#	%
\$787.0	36	162.2	32	23,648	39

The investment in and deployment of clean energy will avoid the emissions of GHGs and air pollution – see Table 4.<sup>56</sup>

**Table 4. Emissions Avoided from Investment in and Deployment of Clean Energy in Connecticut**

CO <sub>2</sub> Emissions (lifetime tons)	NO <sub>x</sub> Emissions (lifetime pounds)	SO <sub>2</sub> Emissions (lifetime pounds)	PM <sub>2.5</sub> Emissions (lifetime pounds)
10,432,372	11,148,904	9,657,105	857,422

**Key Takeaway:**

- Statutorily created state and/or local green banks are entities in direct congruence with the GHGRF with a focus to increase and accelerate investment in low-income and disadvantaged communities.

<sup>53</sup> Means a nonprofit organization that (A) is designed to provide capital, leverage private capital, and provide other forms of financial assistance for the rapid deployment of low- and zero-emission products, technologies, and services; (B) does not take deposits other than deposits from repayments and other revenue received from financial assistance provided using grant funds under this section; (C) is funded by public or charitable contributions; and (D) invests in or finances projects alone or in conjunction with other investors.

<sup>54</sup> Undefined under Sec. 134

<sup>55</sup> Annual Comprehensive Financial Report for FY22 of the Green Bank (155)

<sup>56</sup> Ibid (147-149)

**3. What types of entities (as eligible recipients and/or indirect recipients) could be created to enable Greenhouse Gas Reduction Fund grants to support investment in and deployment of greenhouse gas and air pollution reducing projects in communities where capacity to finance and deploy such projects does not currently exist?**

**Response**

The Green Bank’s response applies to Sec. 134(a)(1), Sec. 134(a)(2), and Sec. 134(a)(3) of the GHGRF.

EPA should prioritize applicants that can leverage their existing capabilities and experience with green financing to reach communities to deploy funds. While there are a wide variety of existing organizations operating today that have such a track record, there are parts of the country without established green financing or community financial institutions. For some of these uncovered areas, it may appropriate to expand the coverage of existing entities but for others, it is likely that new community lenders and Green Banks will need to be formed. These new green banks can either be the creations and instruments of states and municipalities or other mission-aligned entities and will take a broad view on green financing gaps in the geographies they operate. They will be best poised to identify these geographic-specific gaps and to address them. As the Connecticut Green Bank, and other Green Banks have demonstrated, we are adept at identifying market gaps (i.e. low-income solar adoption) and partnering with organizations who can address those gaps.

The new green banks will also need to recruit community lenders, developers, and contractors among others to address those gaps. There will also potentially be a need for additional community-focused financial institutions such as CDFI’s to be created to reach communities where no such organization works or where one does not have the capacity to do the necessary type of lending.

If a National Climate Bank was established, it could provide the technical and financial support to both expand the reach of existing organizations, and to establish new entities to address geographic-specific gaps.

**Key Takeaway:**

- EPA should prioritize existing entities, such as green banks, and expand their coverage where applicable.
- In areas that are not currently served by a green financing institution, EPA should support the development of new entities to address geographic-specific needs.

**4. How could EPA ensure the responsible implementation of the Greenhouse Gas Reduction Fund grants by new entities without a track record?**

**Response**

The Green Bank’s response applies to Sec. 134(a)(1), Sec. 134(a)(2), and Sec. 134(a)(3) of the GHGRF.

The Environmental Protection Agency should seek to acquire as much data as possible as frequently as possible without creating an undue burden on recipients so that they can monitor the progress of funds being deployed. In the agreements with recipients and subrecipients, EPA should set targets and milestones regarding volume and impact. There should be strong claw back provisions that allow EPA to take back funds should milestones not be met. EPA should request that the recipients have in place within 180 days a data collection and evaluation plan that addresses the following:

- Which data that is to be collected, its sources, controls, and privacy safeguards
- Frequency of data collection
- An evaluation framework that speaks to how the recipients' activities are creating additionality and impact
- Impact methodologies that will be used to quantify societal impacts resulting from the recipient's activities

EPA should also look for the recipients to budget for and engage with established evaluation, measurement, and verification (“EM&V”) consultants with longstanding experience in this space.

When evaluating recipients with no track records, EPA should look for specific skillsets and experience amongst the recipient's staff. Having the following skills will position and organization to deploy funds quickly and efficiently:

- Program Design & Administration – effectively build, implement, and manage a program/product in the clean energy and community lending spaces
- Deal Origination – source transactions and projects to finance
- Underwriting – verify and review of the financials of a project or loan application.
- Structuring – arrange and execute transactions, preferably demonstrate the inclusion of multiple parties
- Portfolio Risk Management – ongoing monitoring and controls of a group of loans to minimize defaults and losses
- Asset Management – ongoing monitoring of the physical and financial performance of assets owned or supported by the organization with the view of minimizing losses and maximizing returns
- Liability Management/Capital Markets – ongoing review of invested assets with the perspective of identifying opportunities to sell investments to recapitalize a balance sheet to do more lending and securitize income streams in the capital markets
- Loan Servicing – collect and monitor of individual loans and handle of resulting workouts and restructurings.
- Other Support functions:
  - Marketing/Outreach – management of the organization's brand, the public's awareness of the brand and its products as well as how potential deals are brought into the organization
  - Community Engagement – working together with target populations in the community to further support marketing and outreach efforts but with a more community driven approach that addresses community specific needs and barriers
  - Policy – advocacy at local, state, and federal levels for policy solutions that will enhance the speed of deployment of clean energy
  - Legal – legal advice for loan documentation, closings, and collections as well as support for activities in the secondary markets such as securitization
  - Compliance – the monitoring and fulfillment of contractual obligations as both a lender and as a borrower
  - EM&V/Data – ensuring that the data on each loan is collected and handling any impact reporting and evaluation on programs
  - Finance, Accounting, and Administration – The management of the accounting for these financing activities as well as the cash management for them, both of which are specific to the clean energy space

**Key Takeaways:**

- All entities (new or existing) should be subject to data and reporting requirements.
- New entities should demonstrate staff expertise in all areas critical to establishing and maintaining financing products and programs and in terms of their ability to partner with the community.

**5. What kinds of technical and/or financial assistance could Greenhouse Gas Reduction Fund grants facilitate to maximize investment in and deployment of greenhouse gas and air pollution reducing projects by existing and/or new eligible recipients and/or indirect recipients?****Response**

The Green Bank’s response applies to Sec. 134(a)(1), Sec. 134(a)(2), and Sec. 134(a)(3) of the GHGRF.

As discussed in Section 3, Question 3, it is likely that many forms of assistance will be required to successfully support the deployment of the GHGRF. Existing and/or new “eligible recipients” and/or “indirect recipients” of GHGRF grants could provide a variety of technical and/or financial assistance to maximize investment in and deployment of GHG and air pollution reducing projects, including to ensure that low-income and disadvantaged communities can participate in and benefit from the GHGRF.

**Technical Assistance**

Several DOE technical assistance programs, present “best practice” models for community engagement, including, but not limited to:

- **National Laboratories** – the DOE has an extraordinary resource in its seventeen (17) national laboratories that can provide various forms of technical assistance. For example, the National Renewable Energy Laboratory (“NREL”) provided rigorous, integrated engineering-economic analysis to the Los Angeles Department of Water and Power through the Los Angeles 100% Renewable Energy Study (“LA100”).<sup>57</sup> NREL is doing something similar with PR100 in Puerto Rico.<sup>58</sup>
- **Communities LEAP**<sup>59</sup> – a pilot technical assistance program that brings together resources from the nation’s premier national laboratories with disadvantaged communities across the country to develop or implement local clean energy plans. Grounded in the eight (8) policy principles of the DOE’s Justice 40 Initiative, resources from the GHGRF should be provided for Communities LEAP to be replicated and scaled-up across the country to support more low-income and disadvantaged communities.
- **SunShot Initiative** – a program to reduce “soft costs” from the deployment of solar PV, the SunShot Initiative provided technical assistance resources to communities to reduce permitting and zoning barriers, reduce customer acquisition costs through community-

<sup>57</sup> <https://www.nrel.gov/analysis/los-angeles-100-percent-renewable-study.html>

<sup>58</sup> <https://www.nrel.gov/news/program/2022/doe-launches-study-to-consider-equitable-pathways-to-power-puerto-rico-with-100-renewable-energy.html>

<sup>59</sup> It should be noted that the Green Bank, working in collaboration with the Greater Bridgeport Community Enterprises and Operation Fuel, were among the awardees for Communities LEAP technical assistance pilot.

based marketing campaigns (e.g., Solarize,<sup>60</sup> Solar for All<sup>61</sup>), and increase information on financing to enable investment in and deployment of clean energy. The GHGRF should provide technical assistance resources to replicate and scale-up such community-based activities with a focus on low-income and disadvantaged communities.

Such technical assistance in community action planning, implementation, and engagement, with support to remove local barriers and increase customer adoption of technology through marketing and financing, while meeting the needs of the community, will maximize investment in and deployment of GHG and air pollution reducing projects, especially in low-income and disadvantaged communities.

### **Financial Assistance**

In addition to the financial assistance examples learned from ARRA as noted above, there is also a need for continuous and ongoing financial assistance training and certification of workers. For example, there are several “best practice” certificate programs, including, but not limited to:

- **Financing and Deploying Clean Energy Certificate Program**<sup>62</sup>— a year-long online admissions-based certification program offered by Yale for working professionals who seek to accelerate the transition to a clean economy. The key objective of this program is to help professionals understand the interplay of the financial, technological, and socioeconomic drivers in financing and deploying clean energy.
- **Solar Lending Professional Training and Certification**<sup>63</sup>— an online program offered by Inclusiv, designed to increase the capacity of community-based lenders (credit unions, community development financial institutions (“CDFIs”), and community banks) to offer solar financing. The training is offered free of charge to cohorts of lending professionals who have high capacity to implement solar loan programs at their institutions.

Such financial assistance should be encouraged and scaled up through funding from the GHGRF, which will not only maximize investment in and deployment of GHG and air pollution reducing projects, especially in low-income and disadvantaged communities, but also provide useful workforce development and credentials to support the advancement of people of color within financial services.

#### **Key Takeaways:**

- Several DOE programs, such as the National Labs, Communities LEAP, and the SunShot Initiative, have created technical assistance programs that have been immensely supportive of clean energy financing initiatives.
- Financial education assistance programs can support the development of a skilled green financing workforce to deliver the impact envisioned in the GHGRF.

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<sup>60</sup> <https://cbey.yale.edu/sites/default/files/2019-09/Solarize%20Your%20Community%20Rev1%20Dig.pdf>

<sup>61</sup> <https://www.ctgreenbank.com/solarforall/>

<sup>62</sup> <https://cbey.yale.edu/financing-and-deploying-clean-energy-certificate-program/about-the-certificate>

<sup>63</sup> <https://inclusiv.org/inclusiv-center-for-resiliency-and-clean-energy-free-solar-lending-professional-training-certificate/>

## **Section 5: Oversight and Reporting**

- 1. What types of governance structures, reporting requirements and audit requirements (consistent with applicable federal regulations) should EPA consider requiring of direct and indirect recipients of Greenhouse Gas Reduction Fund grants to ensure the responsible implementation and oversight of grantee/subrecipient operations and financial assistance activities?**

### **Response**

The Green Bank's response applies to Sec. 134(a)(1), Sec. 134(a)(2), and Sec. 134(a)(3) of the GHGRF.

The GHGRF provides a significant amount of public funds with various uses and recipients to invest in qualified projects. Given the magnitude of the public funds, especially for those direct or indirect recipients (i.e., grantees, subrecipients) that receive a large amount of funds (e.g., \$25 MM or more), the highest standards for governance structures, reporting requirements, and audit requirements must be considered by EPA. The Green Bank would like to share information that it believes to be up to this standard of accountability given the use of public funds it invests on behalf of Connecticut ratepayers, except applied in this case to the American taxpayers for the GHGRF.

### **Governance Structures**

In terms of governance structure, pursuant to CGS 16-245n, the powers of the Green Bank are vested in and exercised by a Board of Directors that is comprised of twelve (12) voting and one non-voting members<sup>64</sup> each with the knowledge and expertise in matters related to the purpose of the organization – see Table 5.

**Table 5. Governance Structure of the Green Bank**

<b>Position</b>	<b>Status</b>	<b>Appointer</b>
Commissioner of DECD (or designee)	Ex Officio	Governor
Commissioner of DEEP (or designee)	Ex Officio	Governor
Secretary of OPM (or designee)	Ex Officio	Governor
State Treasurer (or designee)	Ex Officio	Treasurer
Finance of Renewable Energy	Appointed	Governor
Finance of Renewable Energy	Appointed	Governor
Labor Organization	Appointed	Governor
R&D or Manufacturing	Appointed	Governor
Investment Fund Management	Appointed	Minority Leader of the House
Environmental Organization	Appointed	President Pro Tempore of the Senate
Finance or Deployment of Renewable Energy	Appointed	Minority Leader of the Senate
Residential or Low Income	Appointed	Speaker of the House
President of the Green Bank	Ex Officio	Board of Directors

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<sup>64</sup> President and CEO of the Green Bank

The Board of Directors of the Green Bank is governed through statute, as well as an Ethics Statement,<sup>65</sup> Ethical Conduct Policy,<sup>66</sup> Resolution of Purpose,<sup>67</sup> Bylaws,<sup>68</sup> Operating Procedures,<sup>69</sup> and Comprehensive Plan,<sup>70</sup> all of which are provided publicly on the governance section of its website.<sup>71</sup>

The Board of Directors also has four (4) committees, including:

- Audit, Compliance, and Governance Committee
- Budget, Operations, and Compensation Committee
- Deployment (Investment) Committee
- Joint Committee<sup>72</sup>

The Board of Directors and Committee meetings are noticed to the Secretary of State,<sup>73</sup> open to the public, recorded and made available following the meeting, and meeting materials are accessible online.<sup>74</sup> For recipients of large amounts of funds through the GHGRF, either directly or indirectly, such accountability and transparency with governance should be the baseline.

### **Reporting and Auditing Requirements**

The Green Bank also adheres to the highest standard of reporting and auditing, ensuring public transparency,<sup>75</sup> including, but not limited to:

- **Annual Reports** – issued by the Green Bank to the DEEP, committees of cognizance of the CGA,<sup>76</sup> and local elected officials in cities and towns throughout Connecticut.<sup>77</sup>
- **Annual Comprehensive Financial Reports** (“ACFR”) – compiled by the accounting staff of the Green Bank and audited by an external certified public accounting firm in accordance with Generally Accepted Accounting Principles (“GAAP”), the report is submitted to the Government Finance Officers Association (“GFOA”) to seek awarding of a “Certificate in Achievement for Excellence in Financial Reporting” – the highest award in government financial reporting. Within the ACFR are both the financial report, as well as the non-financial public benefit report demonstrating the results achieved from the investment of public funds.<sup>78</sup>
- **Auditors of Public Account** (“APA”) – the office of the APA, is a legislative agency of the State of Connecticut whose primary mission is to conduct audits of all state agencies,

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<sup>65</sup> [https://www.ctgreenbank.com/wp-content/uploads/2017/02/Green-Bank\\_Ethics-Statement-CLEAN-REVISED-102214.pdf](https://www.ctgreenbank.com/wp-content/uploads/2017/02/Green-Bank_Ethics-Statement-CLEAN-REVISED-102214.pdf)

<sup>66</sup> [https://www.ctgreenbank.com/wp-content/uploads/2022/09/Green-Bank\\_Ethical-Conduct-Policy\\_BOD\\_102221.pdf](https://www.ctgreenbank.com/wp-content/uploads/2022/09/Green-Bank_Ethical-Conduct-Policy_BOD_102221.pdf)

<sup>67</sup> [https://www.ctgreenbank.com/wp-content/uploads/2021/11/5ai\\_Green-Bank-Resolution-of-Purpose-CLEAN-REVISED.pdf](https://www.ctgreenbank.com/wp-content/uploads/2021/11/5ai_Green-Bank-Resolution-of-Purpose-CLEAN-REVISED.pdf)

<sup>68</sup> [https://www.ctgreenbank.com/wp-content/uploads/2021/11/5ai\\_Green-Bank\\_Revised-Bylaws\\_CLEAN.pdf](https://www.ctgreenbank.com/wp-content/uploads/2021/11/5ai_Green-Bank_Revised-Bylaws_CLEAN.pdf)

<sup>69</sup> [https://www.ctgreenbank.com/wp-content/uploads/2022/09/5ai\\_Green-Bank-Operating-Procedures-10-22-2021.pdf](https://www.ctgreenbank.com/wp-content/uploads/2022/09/5ai_Green-Bank-Operating-Procedures-10-22-2021.pdf)

<sup>70</sup> [https://www.ctgreenbank.com/wp-content/uploads/2022/08/Comprehensive-Plan\\_FY-2023\\_FINAL\\_080122-1.pdf](https://www.ctgreenbank.com/wp-content/uploads/2022/08/Comprehensive-Plan_FY-2023_FINAL_080122-1.pdf)

<sup>71</sup> <https://www.ctgreenbank.com/about-us/governance/>

<sup>72</sup> Members of the Green Bank Board of Directors and the Energy Efficiency Board (i.e., utility-administered incentive programs) for the purposes of coordination of programs and activities consistent with respective strategic plans to reduce long-term costs, environmental impacts, and security risks of energy in the state.

<sup>73</sup> <https://portal.ct.gov/SOTS/Legislative-Services/Public-Meeting-Notice-Calendar>

<sup>74</sup> <https://www.ctgreenbank.com/about-us/governance/>

<sup>75</sup> <https://www.ctgreenbank.com/strategy-impact/reporting-transparency/>

<sup>76</sup> Energy and Technology, Commerce, Environment, Banking Committees

<sup>77</sup> For example, FY21 Annual Report – [click here](#)

<sup>78</sup> For example, FY22 Annual Comprehensive Financial Report – [click here](#)



including quasi-public agencies. The office is under the direction of two state auditors appointed by the state legislature. The APA audits certain operations to ensure that the Connecticut Green Bank is meeting its duties under CGS 1-122 and 2-90.<sup>79</sup>

- **Open Connecticut – Payroll** – centralizes state financial information on payroll to make it easier to follow state dollars expended on operations and compensation.<sup>80</sup>
- **Open Connecticut – Checkbook** – centralizes state financial information on transactions or expenditures to make it easier to follow state dollars for goods or services.<sup>81</sup>

And lastly, the Green Bank, as a quasi-public entity of Connecticut, adheres to the Connecticut Freedom of Information Act.<sup>82</sup>

For those entities that directly or indirectly receive substantial funding through the GHGRF, ensuring accountability and transparency with the administration and investment of such funds should be of paramount importance to EPA.

**Key Takeaway:**

- Given the magnitude of the public funds, especially for those direct or indirect recipients that receive a large amount of funds (e.g., \$25 MM or more), the highest standards for governance structures, reporting requirements, and audit requirements must be considered by EPA. The Connecticut Green Bank has such protocols and can be looked to as a go-by for the level of review and oversight prudent for entities that are allocated funds through the GHGRF.

**2. Are there any compliance requirements in addition to those provided for in Federal statutes or regulations (e.g., requirements related to administering federal grant funds) that EPA should consider when designing the program?**

**Response**

The Green Bank’s response applies to Sec. 134(a)(1), Sec. 134(a)(2), and Sec. 134(a)(3) of the GHGRF.

Recipients of funds have a responsibility to ensure that personal identifiable information (“PII”) collected as part of these activities is kept confidential and that there are appropriate controls in place. The Green Bank recommends that EPA require all recipients to have in place completed a Systems and Organization type II (“SOC2”) audit every 12 to 18 months. Recipients should demonstrate ongoing certification while they are in possession of these funds.

**Key Takeaway:**

- EPA should require all recipients to complete a Systems and Organization Type II (SOC2) audit every 12 to 18 months with no gaps in certification to ensure that personal identifiable information collected as part of these activities is kept confidential.

<sup>79</sup> For example, State of Connecticut Auditors’ Report for FY19 and FY20 – [click here](#)

<sup>80</sup> <https://openquasi.ct.gov/payroll>

<sup>81</sup> <https://openquasi.ct.gov/checkbook>

<sup>82</sup> <https://portal.ct.gov/FOI/Quick-Links/The-FOI-Act>

3. **What metrics and indicators should EPA use to track relevant program outcomes including, but not limited to, (a) reductions in greenhouse gas emissions or air pollution, (b) allocation of benefits to low-income and disadvantaged communities, (c) private sector leverage and project additionality, (d) number of greenhouse gas and air pollution reduction projects funded and (f) distribution of projects at the national, regional, state and local levels?**

**Response**

The Green Bank’s response applies to Sec. 134(a)(1), Sec. 134(a)(2), and Sec. 134(a)(3) of the GHGRF.

With the mission to “confront climate change by increasing and accelerating investment in Connecticut’s green economy to create more resilient, healthier, and equitable communities,” the Green Bank has three (3) goals, including:

- 1) To leverage limited public resources to scale-up and mobilize private capital investment in the green economy of Connecticut.
- 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.
- 3) To pursue investment strategies that advance market transformation in green investing while supporting the organization’s pursuit of financial sustainability.

Progress towards the achievement of these goals, are tracked through an Evaluation Framework<sup>83</sup> to guide the assessment, monitoring, and reporting of program impacts and processes arising from clean energy investment and deployment. This framework provides the foundation for determining the e<sup>4</sup> impact (i.e., economy, equity, energy, and environment) the Green Bank is enabling from its investment. Increasing and accelerating investment in the green economy leads to greater e<sup>4</sup> benefits to society.

For a summary of the Green Bank’s social impacts – see Attachment E.

**Reductions in Greenhouse Gas Emissions or Air Pollution**

Working in consultation with EPA and DEEP, the Green Bank devised a methodology<sup>84</sup> that takes the reduction in consumption of energy and increase in production of renewable energy, to reasonably estimate the air emission (i.e., CO<sub>2</sub>, NO<sub>x</sub>, SO<sub>2</sub>, and PM<sub>2.5</sub>) avoidances resulting from clean energy deployment. The methodology uses EPA’s Avoided Emissions and Generation Tool (“AVERT”).

**Allocation of Benefits to Low-Income and Disadvantaged Communities**

With the passage of Public Act 20-05, and its inclusion of “vulnerable communities,” along with the goal from the Board of Directors of the Green Bank to ensure that no less than 40 percent of investment and benefits from its programs be directed at vulnerable communities, the Green Bank established a methodology for measuring equity.<sup>85</sup> In addition to equity, the Green Bank developed in consultation with NREL, an energy burden reduction methodology resulting from the projects it has financed through its products and programs using actual production data, contracts, and utility

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<sup>83</sup> Evaluation Framework – [click here](#)

<sup>84</sup> <https://www.ctgreenbank.com/wp-content/uploads/2018/01/CGB-Eval-IMPACT-091917-Bv2.pdf>

<sup>85</sup> [https://www.ctgreenbank.com/wp-content/uploads/2021/10/Equity\\_Investment\\_in\\_Vulnerable\\_Communities.pdf](https://www.ctgreenbank.com/wp-content/uploads/2021/10/Equity_Investment_in_Vulnerable_Communities.pdf)

rates.<sup>86</sup> It is worth noting that defining “benefits” to low-income and disadvantaged communities may still be an area for exploration. Today, many clean energy and greenhouse gas reduction projects reduce energy burden to these customers. However, the Green Bank recommends that EPA consider a more holistic view of benefits, including building resiliency, workforce development initiatives, etc.

### **Private Sector Leverage and Project Additionality**

Leveraging limited public funds to mobilize multiples of private sector investment, is a fundamental principle of green banks. As a result of providing families and businesses with the capital that they need to finance clean energy, they are able to realize its benefits. In consultation with the Department of Economic and Community Development (“DECD”) and Department of Revenue Services (“DRS”), investment in clean energy deployment creates jobs in our communities<sup>87</sup> and raises tax revenues from sales, individual, and corporate taxes,<sup>88</sup> respectively.

### **Public Health Benefits Generated**

In addition to the methodology to estimate air emissions, in consultation with EPA, DEEP, and Department of Public Health (“DPH”), using EPA’s Co-Benefit Risk Assessment (“COBRA”) tool, the green bank developed a methodology to estimate the public health benefits resulting from cleaner air from energy efficiency and renewable energy projects.<sup>89</sup>

### **Distribution of Projects at the National, Regional, State and Local Levels**

While the Green Bank’s focus is within Connecticut, it does make the information on the distribution of projects, and the associated benefits, available online through its Mapping Analysis of Your Area (“MAYA”) tool.<sup>90, 91</sup> MAYA provides project level data and benefits (i.e., all of the above impact metrics) at the local level, including:

- Municipal
- County
- State Legislature
- Congressional
- Census Tract

These are the metrics and indicators the Green Bank has developed over the years in consultation with a number of state (e.g., DEEP, DECD, DPH, DRS) and federal (e.g., DOE, EPA) government partners.

It is critically important that recipients receiving funds from the GHGRF collect and analyze data on the social and environmental impacts resulting from investments to continuously and effectively communicate benefits to politicians, citizens, and key stakeholders. The Green Bank would emphasize that EPA require that such data must be collected at the project level for all recipients of funds through the GHGRF and made publicly available since taxpayer resources are being used.

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<sup>86</sup> <https://www.ctgreenbank.com/wp-content/uploads/2021/09/CGB-Eval-Solar-Methodology-combined-6-8-2021-final.pdf>

<sup>87</sup> [https://www.ctgreenbank.com/wp-content/uploads/2018/03/CGB\\_DECD\\_Jobs-Study\\_Fact-Sheet.pdf](https://www.ctgreenbank.com/wp-content/uploads/2018/03/CGB_DECD_Jobs-Study_Fact-Sheet.pdf)

<sup>88</sup> <https://www.ctgreenbank.com/wp-content/uploads/2018/09/CGB-Eval-Tax-Methodology-7-24-18.pdf>

<sup>89</sup> <https://www.ctgreenbank.com/wp-content/uploads/2018/03/CGB-Eval-PUBLICHEALTH-1-25-18-new.pdf>

<sup>90</sup> <https://www.ctgreenbank.com/maya/>

<sup>91</sup> MAYA is named after the poet Maya Angelou, who is an inspiration for the Green Bank’s vision statement of “...a planet protected by the love of humanity”.

The following are the key pieces of data that are essential to collect to estimate E<sup>4</sup> impact – see Table 6.

**Table 6. Data Collection to Compute Success and Impact**

	<b>Economy</b>	<b>Energy</b>	<b>Environment</b>	<b>Equity</b>
Installed Cost	x			x
Project Type	x	x	x	x
Installed Capacity		x	x	x
Location	x			x

- **Economy** – per every \$1.0 MM invested in funding (i.e., grants) and financing (i.e., loans) from public and private sources of capital in various clean energy projects (e.g., renewable energy, energy efficiency), the direct, indirect and induced jobs years and sales, property, corporate, and individual tax revenues can be estimated.
- **Energy** – based on the installed capacity of a project, including its estimated production (i.e., kWh) and/or savings (i.e., MMBtu), and the type of clean energy project (e.g., energy efficiency, solar PV), the energy burden reduction can be calculated depending upon the rate structure.
- **Environment** – based on the estimated production and/or savings of such systems, and type of project, using tools developed by EPA, an estimate of GHG and criteria pollutant emissions avoided and the associated public health benefits from cleaner air (e.g., reduced sick days, hospitalizations, deaths) can be estimated.
- **Equity** – if data on income and race is not being collected, then the location of a project with respect to census tract can enable an estimate of what families and businesses are benefitting from such investment in and deployment of various clean energy projects.

### **Data Availability and Accessibility**

Given the use of public funds through the GHGRF, all recipients of such funds should provide to the United States Government (“USG”) all the information, including loan performance data. For example, the Green Bank has provided to the DOE, loan and incentive performance data for residential single-family energy efficiency loans, solar PV leases for low- to moderate-income families, and rooftop solar incentives for scientific research purposes.<sup>92, 93, 94</sup> Research can emphasize how carefully designed and administered financing programs supported by federal funds can exhibit stronger performance than other similar loans and therefore capital providers and lenders should offer better terms (i.e., lower interest rates, longer tenors, or both), and that such lending can help support public policy goals related to equitable access to capital such as Justice 40 and the CRA<sup>95</sup> compliance requirements.

<sup>92</sup> State and Local Energy Efficiency Action Network (SEE Action). (2021). *Long-Term Performance of Energy Efficiency Loan portfolios*. Prepared by: Jeff Deason, Greg Leventis, and Sean Murphy of Lawrence Berkeley National Laboratory.

<sup>93</sup> (May 2021). *Performance of Solar Leasing for Low- and Middle-Income Customers in Connecticut*. Prepared by Jeff Deason, Greg Leventis, and Sean Murphy of Lawrence Berkeley National Laboratory.

<sup>94</sup> (April 2022). *Rooftop Solar Incentives Remain Effective for Low- and Moderate-Income Adoption*. Prepared by Eric O’Shaughnessy of Lawrence Berkeley National Laboratory.

<sup>95</sup> The Community Reinvestment Act (CRA), enacted in 1977, requires the Federal Reserve and other [federal banking regulators](#) to encourage financial institutions to help meet the credit needs of the communities in which they do business, including [low- and moderate-income \(LMI\) neighborhoods](#) (i.e., less than 80% area median income).

Reducing asymmetric information by requiring that all data from federally funded programs such as the GHGRF be collected, made available, and publicly disclosed will reduce the perception of risk by private lenders and encourage more competition in the marketplace. Increased competition is good for borrowers as this should result in increased access to capital, lower interest rates, more term options, better underwriting criteria, greater marketing by financial institutions, and other benefits, including an increase in demand for clean energy projects and measures by consumers.

**Key Takeaways:**

- At a minimum, EPA should require tracking on the following metrics:
  - Reductions in GHG emissions or air pollution
  - Benefits allocated to low-income and underserved communities (e.g. reduction of energy burden)
  - Private sector leverage and additionality
  - Increased jobs
  - Public health benefits
  - Geographic distribution of projects
- Data should be collected at the project level for all recipients of funds through the GHGRF and made publicly available, which will reduce the perception of risk by private lenders and encourage more competition in the marketplace.

**4. What should EPA consider in the design of the program to ensure community accountability for projects funded directly or indirectly by the Greenhouse Gas Reduction Fund? What if any existing governance structures, assessment criteria (e.g., the Community Development Financial Institutions Fund’s Target Market Accountability criteria), rules, etc., should EPA consider?**

**Response**

The Green Bank’s response applies to Sec. 134(a)(1), Sec. 134(a)(2), and Sec. 134(a)(3) of the GHGRF.

The Green Bank has several perspectives with regards to this response, including guidance provided by the CRA, and existence of jurisdictional public policies or corporate structure, as considerations for program design to ensure community accountability for projects funded directly or indirectly by the GHGRF.

**Community Reinvestment Act**

From the perspective of financing, in support of the dual goals “to leverage limited public resources to scale-up and mobilize private capital investment in the green economy of Connecticut” and “strengthen Connecticut’s communities, especially vulnerable communities, by making the benefits of the green economy inclusive and accessible to all individuals, families, and businesses,” the Green Bank tracks CRA eligible investments by location. CRA was enacted by Congress in 1977 to encourage depository institutions to lend in low- (i.e., less than 50% Area Median Income (“AMI”) census tracts) to-moderate-income (i.e., 50-80% AMI census tracts) communities. These lending institutions are rated by regulators as to the volume of their lending to projects in these communities. The more a green bank can partner with such financial institutions that must comply with CRA, the more EPA can use public funds from the GHGRF to mobilize private investment in qualified projects in low-income and disadvantaged communities.

In a recent opportunity to comment on the Federal Reserve System, Office of the Comptroller of the Currency, and the Federal Deposit Insurance Corporation involving revisions to the CRA, the Green

Bank supported the inclusion of “disaster preparedness and climate resiliency” as a new category in community development activities eligible for CRA credit, along with three (3) criteria to qualify for such credit, including that the activities must:

1. benefit or serve residents, including low- or moderate-income residents, in one or more of the targeted census tracts;
2. not displace or exclude low- or moderate-income residents in targeted census tracts; and
3. be conducted in conjunction with a federal, state, local, or tribal government plan, program or initiative focused on disaster preparedness or climate resiliency that includes an explicit focus on benefitting a geographic area that includes the targeted census tracts.

To ensure community accountability, EPA should consider within its design for projects funded directly or indirectly by the GHGRF, as they apply to the financing of such projects within low-income and/or disadvantaged communities, guidance from CRA.

#### **Jurisdictional Public Policy and Corporate Governance**

It should be noted that not all jurisdictions (e.g., municipal, county, or state governments), nor financial institutions, have public policies or corporate structures, respectively, that can support ensuring community accountability to the GHGRF.

As noted above, Connecticut has numerous public policies in place that guide such community accountability (e.g., from statewide targets to reduce greenhouse gas emissions and statutory creation of the Green Bank to public disclosure of compensation and expense information from the Green Bank). Where jurisdictional public policies don’t exist for government, consideration by EPA should include the following:

- **Sub-State Public Policies** – there may be instances where a lack of state public policy, can be augmented by the existence of local public policy (e.g., city or county established renewable energy targets like LA100, or statutorily created green bank like the Montgomery County Green Bank) consistent with the intentions of the GHGRF.
- **Public Facing Initiatives** – there may be Governors of states or Mayors of cities involved in public facing initiatives (e.g., United States Climate Alliance<sup>96</sup> or United States Conference of Mayors Climate Protection Center<sup>97</sup>) consistent with the intentions of the GHGRF.

With respect to financial institutions who receive funds from the GHGRF either directly or indirectly, the Green Bank has experience partnering with mission-aligned investors that may be insightful to ensuring community accountability.<sup>98</sup> Where corporate structure is not as apparent, consideration by EPA should include the following:

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<sup>96</sup> <http://www.usclimatealliance.org/>

<sup>97</sup> <https://www.usmayors.org/programs/mayors-climate-protection-center/>

<sup>98</sup> Amalgamated Bank is such an example, as a B Corporation, they are committed to environmental and social responsibility – net-zero and powered by 100% renewable energy, history of providing affordable access to the banking system, supporting immigrants and affordable housing, and being a champion of workers' rights.

- **Corporate Governance** – Board of Directors of the financial institution adopting environmental, social, and governance (“ESG”) principles consistent with the intentions of the GHGRF.
- **Transparency** – timely and thorough accounting and reporting consistent with the intentions of the GHGRF.

Ensuring community accountability for projects funded directly or indirectly by the GHGRF can be improved through those parties required to adhere to CRA, as well as jurisdictions with strong public policies or corporate governance with demonstrated principles and transparency consistent with the intentions of the GHGRF.

**Key Takeaways:**

- To ensure community accountability, EPA should consider guidance from the Community Reinvestment Act within its design for projects funded directly or indirectly by the GHGRF, as they apply to the financing of such projects within low-income and/or disadvantaged communities.
- Where available, GHGRF recipients should follow protocol established by state and local government to ensure community accountability.
- Financial institutions should adopt environmental, social, and governance (ESG) principles consistent with the intentions of the GHGRF.

## **Section 6: General Comments**

1. Do you have any other comments on the implementation of the Greenhouse Gas Reduction Fund?

### **Response**

State and local green banks, especially those that have been statutorily created and/or provided public funds, and a mission to confront climate change by increasing and accelerating private investment in and deployment of clean energy and climate change projects, especially within low income and disadvantaged communities, are excellent partners for the EPA in its successful and sustainable efforts to implement the GHGRF.

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The Green Bank appreciates EPA's efforts to solicit public comment on the RFI GHGRF. The Green Bank looks forward to working with our partners in Connecticut, and across the country, to submit applications for consideration into the pending solicitations.

Sincerely,

*Lonnie Reed*

Lonnie Reed  
Chair

*Bryan Garcia*

Bryan Garcia  
President and CEO

*Sara Harari*

Sara Harari  
Associate Director of Innovation

*Bert Hunter*

Bert Hunter  
EVP and CIO

*Eric Shrago*

Eric Shrago  
VP of Operations

*Ashley Stewart*

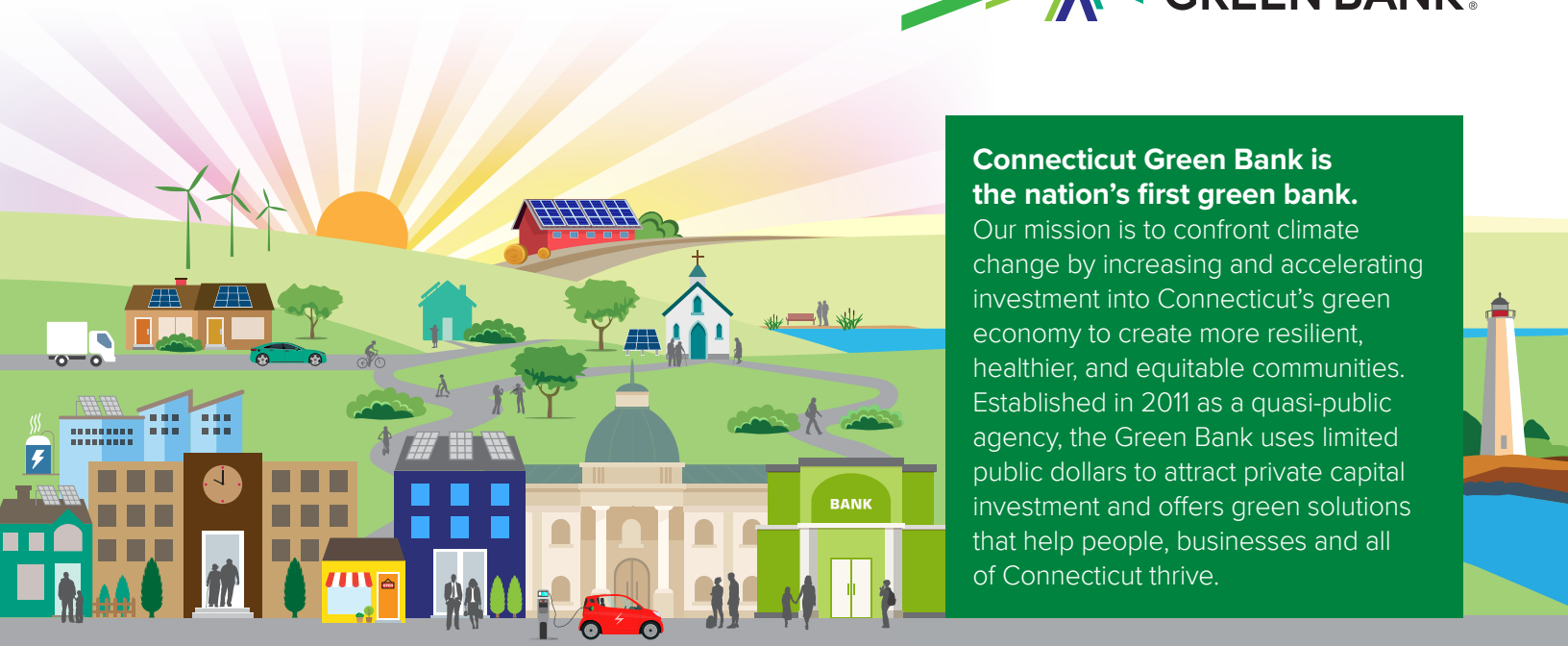
Ashley Stewart  
Manager of Community Engagement

### **Attachments**

- Attachment A – Our Solutions
- Attachment B – Green Bank Model
- Attachment C – Residential Solar Investment Program
- Attachment D – American Recovery and Reinvestment Act
- Attachment E – Social Impact



**ATTACHMENT A**  
Our Solutions



**Connecticut Green Bank is the nation's first green bank.**

Our mission is to confront climate change by increasing and accelerating investment into Connecticut's green economy to create more resilient, healthier, and equitable communities. Established in 2011 as a quasi-public agency, the Green Bank uses limited public dollars to attract private capital investment and offers green solutions that help people, businesses and all of Connecticut thrive.

## our solutions

The Green Bank is helping Connecticut flourish by offering green solutions for homes and buildings, and by creating innovative ways to invest in the green economy.



### home solutions

Empowering all Connecticut families and households with accessible and affordable green solutions that bring them comfort and security. Find incentives for battery storage or use the Green Bank's flexible financing to reduce costs with health and safety improvements and the newest energy efficient technologies.



### building solutions

Creating stronger, more resilient buildings with green solutions for all types of buildings – from businesses and nonprofits to multifamily housing. Leverage Green Bank financing to go solar or retrofit your building with efficiency and resiliency measures, while saving money and realizing the benefits of more modern, sustainable buildings.



### investment solutions

Securing a healthier planet with smart ways for individuals and businesses to invest in green solutions – and our future – while also earning a return. Energize the green economy by investing in it today. Buy a Green Liberty Bond, invest through a crowdfunding offering, or join the movement by finding other ways to invest.



### community solutions

Helping Connecticut thrive and creating stronger towns and cities by offering green solutions for all. From solutions for local and state government properties, to providing support for community leaders in outreach to local businesses and community members – especially the most vulnerable – helping them to access green energy and achieve a more prosperous future.



**ATTACHMENT B**  
Green Bank Model

# The Green Bank Model

*A Planet Protected by the Love of Humanity*

## 1 Attract Private Investment by Leveraging Public Funding



## 2 Apply Innovative Financial Tools to Deploy Investment Towards Our Programs

Generate **credit support** by providing local community banks with loan loss reserves, which allow them to offer affordable financing.

Initiate **co-investment** through public-private partnerships.

Support **performance-based incentives** to increase private investment and capital deployment.

Convert assets into **green bonds** to be bought and sold in the financial markets.

Creating more resilient, healthier, and equitable communities

Our programs are designed for:



Homes



Contractors



Buildings



Communities

## 3 Deliver Social and Environmental Benefits to Connecticut's Families and Businesses



### Economic Development

- Creating thousands of jobs
- Generating millions in tax revenue



### Energy

- Reducing energy burden by deploying clean energy
- Increasing energy security by deploying clean energy



### Environmental Protection

- Reducing greenhouse gas emissions
- Improving the health of our residents by reducing air pollution



### Equity

- No less than 40% of investment and benefits must reach vulnerable communities

**ATTACHMENT C**  
Residential Solar Investment Program



When panels produce electricity to save money, they also create **Solar Home Renewable Energy Credits (SHRECs)**.

Utilities enter into **Master Purchase Agreements (MPAs)** with the Green Bank to buy SHRECs to comply with policy programs.

**Green Bonds** are created via SHREC revenue, and purchased by both individual and institutional buyers.

The **Residential Solar Investment Program (RSIP)** provides rebates and incentives to make rooftop solar more affordable for homeowners.

Revenue from MPAs and Green Bonds support RSIP incentives and cover administrative costs.

## Residential Solar Investment Program (RSIP)

Through a network of contractors, the Green Bank helped **43,000+ households** access solar energy since 2012, surpassing the statutory target of 350 MW one year ahead of the December 2022 deadline.

**\$1.33 billion**  
Total investment

**\$149.7 million**  
Total incentive

**\$0.43/W\***  
Incentive (\$31 per Zero Emission Renewable Energy Credit Equivalent)

**\$3.80/W**  
Installed Cost



### Solar Power Generation

**350 MW** Capacity **9,966,706 MWh** Estimated lifetime generation



### Connecticut's Solar Industry

**15,437** Jobs created **\$41.9 million** Tax revenue generated

**6,291 Direct** **9,146 Indirect and induced**



### Solar and Energy Efficiency for All

- **50%** of RSIP projects have been deployed in **vulnerable communities**
- **98%** of RSIP projects had **energy audits** (i.e., Home Energy Solutions)



### Environmental Impact

Through the production of zero emission renewable energy, the lifetime reduction of greenhouse gases is equivalent to:

**5.5 million** Tons of CO<sub>2</sub> **606,686** Homes energy use

**6.1 million** Acres of forests **12.6 billion** Miles driven

**\$397.8 million** Public health cost reduction from cleaner air



### SHREC Backed Bonds

Consumer demand is greater than the supply of bonds, showing consumers' high interest in supporting investment to confront climate change in Connecticut.

Green bonds are certified and verified by a third-party for consumer protection.

\*Average incentive over life of the program

**ATTACHMENT D**

American Recovery and Reinvestment Act

# The Impact of Federal Funds in Connecticut

Through our partnership with the Department of Energy & Environmental Protection, Connecticut Green Bank deployed \$8.25 million of American Recovery and Reinvestment Act of 2009 (ARRA) funds to create more than \$176.4 million of investments into residential clean energy projects. (All data as of 12-31-2021)



## Economic Development

The Green Bank turned \$8.25 million of federal funds

\$8.25 million → \$174.6 million

into **\$174.6 million in investments**

\$16.5M Green Bank investment

\$158.1M private investment

\$8.25M ARRA Funds



The Green Bank supported the creation of **2,176 job-years of employment** through the use of ARRA funds.



## Environment

ARRA funds helped to avoid **596,382 tons of CO<sub>2</sub>**, which is equal to:

**8.9 million tree seedlings** grown for 10 years

**removing 117,663 passenger cars from the road** for one year



## Equity

**38%** of investments

**53%** of projects

were made in **vulnerable communities**

**\$38.8–87.8M** of lifetime public health value created

**9,434 families supported**

The Green Bank targets 40% of investment and benefits into vulnerable communities



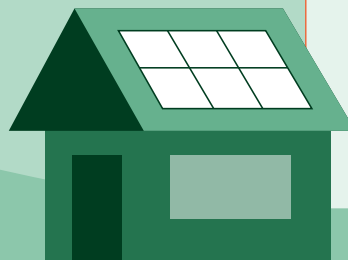
## Energy

The use of ARRA funds supported

- Deployment of over **24 megawatts of clean energy**
- **Lifetime savings of over 3.4 million MMBTUs** through energy efficiency projects, including:

- Solar panel installation
- Insulation upgrades
- Heating and cooling system upgrades

**\$138M** in lifetime energy savings generated

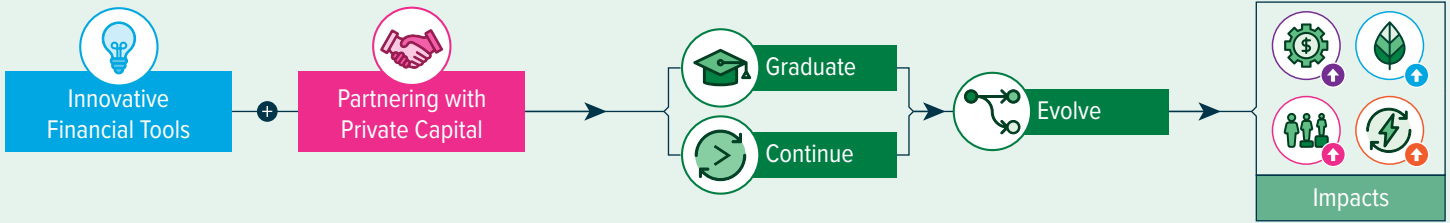




# Financing Programs with Federal Funds



The Green Bank's ARRA funded programs combined innovative financial tools and partnering with private capital to create programs that **promote clean energy, economic growth, a healthier environment, and greater equity** in Connecticut.



Program models, proved successful through the deployment of ARRA funds, evolved to focus on additional markets and larger investment beyond the Green Bank.

<b>CT SOLAR LEASE</b>	<p>Allowed homeowners to access the benefits of solar through a lease option.</p> <ul style="list-style-type: none"> <li>Leveraged \$3.5M in ARRA funds as a <b>lease loss reserve</b> and \$7.1M in Green Bank Subordinated Debt and Sponsor Equity.</li> <li>Raised \$15.0M of <b>tax equity investment</b> and \$16.9 million of senior debt through a <b>syndicate of local lenders</b>.</li> </ul>	<ul style="list-style-type: none"> <li>The success of this model led to the creation of <b>"Solar For All"</b>: a program based on the model that focused on providing residential solar to low-to-moderate income (LMI) families and communities of color — helping Connecticut achieve 41% deployment in LMI communities</li> </ul>
<b>CT SOLAR LOAN</b>	<p>Enabled homeowners of varying financial means to own their systems at affordable rates without a lien.</p> <ul style="list-style-type: none"> <li>Used \$517,000 in ARRA funds for a <b>loan loss reserve (LLR)</b> to allow for the creation of the <b>first-ever crowd-sourced portfolio of solar loans</b>.</li> <li>Partnered with Sungage Financial and The Reinvestment Fund to generate \$8.3M in lifetime savings.</li> </ul>	<p><b>A loan loss reserve</b> is a pool of money set aside to cover a prespecified amount of loan losses, providing partial risk coverage to lenders.</p> <ul style="list-style-type: none"> <li>After this model proved successful, the program expanded to include new partners and a \$100 million pool of capital, without any resources from the Green Bank.</li> </ul>
<b>SMART-E LOAN</b>	<p>Offers flexible financing for upgrades to home energy performance.</p> <ul style="list-style-type: none"> <li>ARRA funds used as <b>LLR and interest rate buydowns (IRB)</b> to offer homeowners low-interest financing to improve their home's energy performance.</li> <li>Provided in partnership with 13 local community banks and credit unions, 500+ contractors, and 5,923 families for \$108.7 million in total investment.</li> </ul>	<p>Originally focused on clean energy, this program is <b>expanding to support environmental infrastructure</b>.</p> <p>The program is transitioning from ARRA supported LLR to LLR on the Green Bank's balance sheet using IRBs from ARRA funds.</p> <p><b>An interest rate buydown</b> is when capital is deployed to pay a portion of the interest on borrowers' loans to decrease their costs.</p>
<b>LOW INCOME MULTI-FAMILY ENERGY (LIME) LOAN</b>	<p>Unsecured low interest loans serving properties where at least 60% of units serve renters at 80% or lower of Area Median Income.</p> <ul style="list-style-type: none"> <li>ARRA funds used as LLR and <b>projected energy savings are used to cover the debt service of the loan</b>.</li> <li>Offered through a partnership with Capital For Change (C4C), a community development financial institution (CDFI) that provides financial <b>products and services that support an inclusive and sustainable economy</b>.</li> </ul>	<ul style="list-style-type: none"> <li>Using \$300,000 in ARRA funds as LLR, LIME projects have a combined lifetime energy cost savings of over \$117.6M.</li> </ul>

**ATTACHMENT E**  
Social Impact

# Societal Impact Report

FY12  
FY22

Since the Connecticut Green Bank's inception through the bipartisan legislation in July 2011, we have mobilized more than **\$2.26 billion of investment** into the State's green economy. To do this, we used **\$322.4 million** in Green Bank dollars to attract \$1.95 billion in private investment, a leverage ratio of **\$7.00 for every \$1**. The impact of our deployment of renewable energy and energy efficiency to families, businesses, and our communities is shown in terms of economic development, environmental protection, equity, and energy (data from FY 2012 through FY 2022).

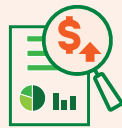
## ECONOMIC DEVELOPMENT

**JOBS** The Green Bank has supported the creation of more than **26,720** direct, indirect, and induced job-years.



### TAX REVENUES

The Green Bank's activities have helped generate an estimated **\$113.6 million** in state tax revenues.

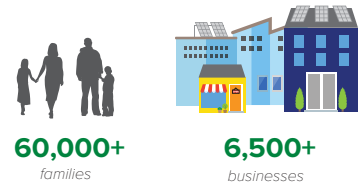


**\$55.3 million** individual income tax  
**\$29.2 million** corporate taxes  
**\$29.1 million** sales taxes

## ENERGY

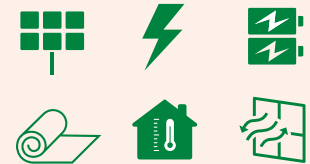
### ENERGY BURDEN

The Green Bank has reduced the energy costs on families, businesses, and our communities.



### DEPLOYMENT

The Green Bank has accelerated the growth of renewable energy to more than **509 MW** and lifetime savings of over **65.6 million MMBTUs** through energy efficiency projects.



## ENVIRONMENTAL PROTECTION

**POLLUTION** The Green Bank has helped reduce air emissions that cause climate change and worsen public health, including **9.6 million pounds** of SOx and **11.1 million pounds** of NOx lifetime.



**10.4 MILLION tons of CO<sub>2</sub>** : **EQUALS**

**156 MILLION** tree seedlings grown for 10 years

OR

**2.1 MILLION** passenger vehicles driven for one year

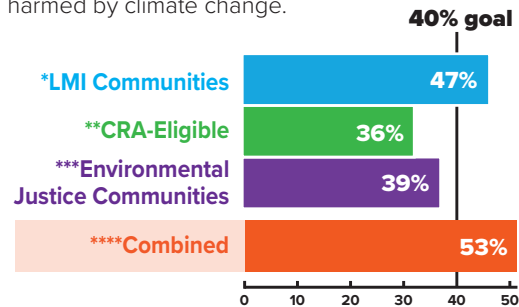
**PUBLIC HEALTH** The Green Bank has improved the lives of families, helping them avoid sick days, hospital visits, and even death.

**\$317.1 – \$717.2 million of lifetime public health value created**



## EQUITY

**INVESTING** in vulnerable communities, The Green Bank has set **goals** to reach **40% investment** in communities that may be disproportionately harmed by climate change.



\*LMI Communities – census tracts where households are at or below 100% Area Median Income.  
\*\*Community Reinvestment Act (CRA) Eligible – households at or below 80% of Area Median Income and all projects in programs designed to assist LMI customers.  
\*\*\*Environmental Justice Community means a municipality that has been designated as distressed by Connecticut Department of Economic and Community Development (DECD) or a census block group for which 30% or more of the population have an income below 200% of the federal poverty level.  
\*\*\*\*Combined Vulnerable Communities include LMI, CRA and EJC.



Learn more by visiting [ctgreenbank.com/strategy-impact/impact](http://ctgreenbank.com/strategy-impact/impact)

Winner of the 2017 Harvard Kennedy School Ash Center Award for Innovation in American Government, the Connecticut Green Bank is the nation's first green bank.

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Sources: Connecticut Green Bank Comprehensive Annual Financial Reports

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RE: Connecticut Green Bank Comments - IRS Notice 2022-49

Connecticut Green Bank (“Green Bank”) respectfully submits the following comments in response to IRS Notice 2022-49 and the changes made to the Internal Revenue Code by the Inflation Reduction Act of 2022 (the “IRA”). As the nation’s first green bank, Green Bank leverages the limited public resources it receives to attract multiples of private investment to scale up clean energy deployment. Since its inception, the Green Bank has mobilized \$2.14 billion of investment into Connecticut’s clean energy economy at a 7.4 to 1 leverage ratio of private to public funds, supported the creation of 25,612 direct, indirect and induced jobs, reduced the energy burden on over 63,000 families and businesses, deployed over 494 MW of clean renewable energy, helped avoid 9.9 million tons of CO2 emissions over the life of the projects, and generated \$107.4 million in individual income, corporate, and sales tax revenues to the State of Connecticut.

Green Bank was authorized pursuant to Connecticut General Statutes Section 16-245n as “a body politic and corporate, constituting a public instrumentality and political subdivision of the State of Connecticut established and created for the performance of an essential public and governmental function. The Connecticut Green Bank shall not be construed to be a department, institution or agency of the state.” Green Bank is granted powers which it may use in furtherance of or in carrying out its purposes, including but not limited to, the ability to:

1. invest in, acquire, lease, purchase, own, manage, hold, sell and dispose of real or personal property or any interest therein, and
2. form subsidiaries, and transfer to any such subsidiary any moneys and real or personal property of any kind or nature. Any subsidiary may be organized as a stock or nonstock corporation or a limited liability company. Each such subsidiary shall have and may exercise such powers of said bank and such other powers provided to it by law.

The IRA contains a number of provisions that are intended to encourage investments in clean energy and that could significantly improve Green Bank’s ability to satisfy its statutory mandate, including the elective payment of applicable credits pursuant to Section 6417 of the Code. Allowing a political subdivision of a State and other tax-exempt entities to benefit from the applicable tax credits could allow the Green Bank to continue to deploy clean energy especially to underserved markets. As the Treasury Department considers additional guidance regarding these provisions we urge you take into account the considerations described below.

## Notice 2022-49

### .06 IRA Addition of Special Programs for Certain Facilities Placed in Service in Connection with Low-income Communities (§§ 48(e) and 48E(h))

**(1) Sections 48(e)(4)(A) and 48E(h)(4)(A) require the Secretary to establish a program to allocate amounts of environmental justice capacity limitation to applicable facilities. In establishing such program, the Secretary must provide procedures to allow for an efficient allocation process. (a) What should the Treasury Department and the IRS consider in providing guidance regarding the application process for taxpayers seeking an allocation of the environmental justice capacity limitation? (b) How can the application procedures and application process be made accessible to taxpayers? 15 (c) How can the process incorporate community input, engagement, and benefit for projects seeking an allocation of the environmental justice capacity limitation?**

Green Bank believes that the overall program structure should first reserve allocations for each state to make sure that this credit is equitably distributed among all states and not just the largest markets. If the allocation is not subscribed in a particular state, it could subsequently become available for facilities in other states.

With regards to IRS guidance regarding the application process for taxpayers, Green Bank urges the IRS to:

1. Make the application process as simple as possible and not overly burdensome, so smaller distributed projects can also benefit
2. Make the application process as frequent as possible to enable more projects to qualify
3. Make the application review process occur at the state level to align with state programs that also seek to promote environmental justice
4. Provide a process that is fair and reasonable to smaller developers so that large developers focusing on larger projects rather than distributed deployment do not have an unfair advantage.

**(2) What stage of completion, if any, should be required of the taxpayer at the time of application for or allocation of amounts of environmental justice capacity limitation (since the taxpayer will have four years to place the facility in service)?**

There should not be a requirement for completion before application. For some projects, the allocation of this credit may be necessary to know if a project will be economically viable. Otherwise only larger and wealthier developers that can put capital at risk and will be in a better position to take advantage of the additional credit.

**(4) What mechanisms exist for a taxpayer to demonstrate that the financial benefits of the electricity produced by an applicable facility are allocated equitably among the occupants of a low-income residential building project and do not impact the occupants' eligibility for their housing? Similarly, what mechanisms exist for a taxpayer to demonstrate that at least 50 percent of the financial benefits of electricity produced by an applicable facility which is part of a low-income economic benefit project are provided to households within certain income thresholds?**

Regarding subsection (i) of the definition, the Treasury Department should include all state affordable housing programs, if they are not otherwise included in the list of covered housing programs, as may be identified from time to time by state agencies.

Regarding subsection (ii) of the definition, the Treasury Department should allow a taxpayer to demonstrate compliance by participation in a state electric tariff, or similar program, which has a requirement to share total financial benefit of the facility with the occupants. In Connecticut, to promote the equitable deployment of clean energy, affordable multifamily properties are eligible to obtain a higher tariff or volumetric compensation provided at least 20% of the total financial benefit is shared with the tenants of the dwelling. Acceptance into similar programs in other states, that align with the requirements of the IRA, should also provide a sufficient mechanism to demonstrate compliance. The same is true for current or future state community wind or solar programs that allocate benefits in alignment with the requirements of a low-income economic benefit project. A taxpayer could demonstrate compliance by providing proof of an accepted award or registration in such a state program.

**(5) Is guidance needed to clarify the meaning of the term “financial benefit”?**

Yes, guidance is needed. In states that have tariff programs for such facilities the financial benefit should include the value of the tariff awarded to such facility.

**(6) What is a financial benefit of the electricity produced by an applicable facility other than electricity acquired at a below-market rate for occupants of low-income residential building projects and low-income economic benefit projects?**

Connecticut has a solar tariff program in which the taxpayer may contract with the utility for the utility to purchase all of the power and renewable energy credits generated by the facility. Because the power is being purchased by the utility, financing such a facility with a power purchase agreement and thereby providing “financial benefit” in the form of discounted electricity is not feasible. Instead, to provide financial benefits to the customer or tenants an annual site lease payment is paid by the system owner to the tenants or customer. Therefore, CGB encourages IRS to adopt a broad definition for “financial benefit” which would satisfy with other monetary benefits to the households (i.e., site lease payments).

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RE: Connecticut Green Bank Comments - IRS Notice 2022-50

Connecticut Green Bank (“Green Bank”) respectfully submits the following comments in response to IRS 2022-50 and the changes made to the Internal Revenue Code by the Inflation Reduction Act of 2022 (the “IRA”). As the nation’s first green bank, Green Bank leverages the limited public resources it receives to attract multiples of private investment to scale up clean energy deployment. Since its inception, the Green Bank has mobilized \$2.14 billion of investment into Connecticut’s clean energy economy at a 7.4 to 1 leverage ratio of private to public funds, supported the creation of 25,612 direct, indirect and induced jobs, reduced the energy burden on over 63,000 families and businesses, deployed over 494 MW of clean renewable energy, helped avoid 9.9 million tons of CO2 emissions over the life of the projects, and generated \$107.4 million in individual income, corporate, and sales tax revenues to the State of Connecticut.

Green Bank was authorized pursuant to Connecticut General Statutes Section 16-245n as “a body politic and corporate, constituting a public instrumentality and political subdivision of the State of Connecticut established and created for the performance of an essential public and governmental function. The Connecticut Green Bank shall not be construed to be a department, institution or agency of the state.” Green Bank is granted powers which it may use in furtherance of or in carrying out its purposes, including but not limited to, the ability to:

1. invest in, acquire, lease, purchase, own, manage, hold, sell and dispose of real or personal property or any interest therein, and
2. form subsidiaries, and transfer to any such subsidiary any moneys and real or personal property of any kind or nature. Any subsidiary may be organized as a stock or nonstock corporation or a limited liability company. Each such subsidiary shall have and may exercise such powers of said bank and such other powers provided to it by law.

The IRA contains a number of provisions that are intended to encourage investments in clean energy and that could significantly improve Green Bank’s ability to satisfy its statutory mandate, including the elective payment of applicable credits pursuant to Section 6417 of the Code. Allowing a political subdivision of a State and other tax-exempt entities to benefit from the applicable tax credits could allow the Green Bank to continue to deploy clean energy especially to underserved markets. As the Treasury Department considers additional guidance regarding these provisions we urge you take into account the considerations described below.

**Notice 2022-50**

**1 Elective Payment of Applicable Credits (§ 6417).**

**(2) With respect to the Secretary’s discretion to determine the time and manner for making an election under § 6417(a):**

**(a) What, if any, issues could arise when an applicable entity described in § 6417(d)(1)(A) makes an election under § 6417(a) and what, if any, guidance is needed with respect to such issues?**

**(b) What factors should the Treasury Department and the IRS consider in determining the time and manner for making the election?**

Green Bank is a political subdivision of the State of Connecticut and qualifies as an applicable entity within the meaning of § 6417. As a political subdivision, Green Bank does not file a federal tax return. Therefore, Green Bank seeks guidance on which IRS return form and submission process it would need to follow to make an election under § 6417(a). The submission process should have clear deadlines and there should be certainty and clarity regarding the processing time to make the applicable payments once forms are received. The submission process and timing for the elective payment to be issued has implications on the financing structure for tax exempt entities and will affect rate of return and viability of projects. Uncertainty regarding timing of payments could create significant barriers for entities like Green Bank who are seeking to finance construction of projects based on the expectation of receiving payment with respect to applicable credits. Green Bank encourages the Treasury Department to provide as much certainty as possible regarding the timing of those payments.

**(5) With respect to the definition of the term “applicable entity” in § 6417(d)(1):**

**(a) What, if any, guidance is needed to clarify which entities are applicable entities for purposes of § 6417(d)(1)(A), and which taxpayers may elect to be treated as applicable entities under § 6417(d)(1)(B), (C), or (D) for purposes of § 6417?**

Consistent with prudent business practices, Green Bank may form subsidiaries (stock or nonstock corporations or a limited liability companies) to own and operate projects. A limited liability company that is wholly owned by Green Bank is classified as a disregarded entity for federal tax purposes. Please confirm that a disregarded entity owned by an applicable entity would be considered an applicable entity for purposes of § 6417(d)(1)(A).

**(b) What types of structures are anticipated to be used by applicable entities, and taxpayers who have elected to be treated as applicable entities under § 6417(d)(1)(B), (C), or (D), when seeking to apply § 6417(a)?**

Green Bank and other applicable entities could be on more equal footing with taxable developers if we were allowed to benefit from increases in tax basis in projects and depreciation deductions on the same basis as taxable entities. This often involves formation of partnerships to hold and operate clean energy projects. We would encourage IRS to provide guidance that would allow Green Bank and similarly situated applicable entities to benefit from payments for applicable credits using these common financing structures. For example, if Green Bank were a partner in a partnership that owned a qualified project, Green Bank should be able to cause the partnership to elect to receive a payment for applicable credits.



**(11) For purposes of § 6417(g), what, if any, guidance is needed to clarify the application of § 50 for credit recapture and basis adjustments to investment credit property?**

Under current recapture authority there is no exception to recapture if a project is destroyed by circumstances beyond the taxpayer's control (e.g. fire or flood). Considering general financing and budgeting concerns relevant to applicable entities, and the potential difficulty raising funds to pay any recapture, Green Bank suggests that IRS provide an exemption to recapture if project for which a payment in lieu of tax credits is received is destroyed by circumstances beyond the applicable entity's control.

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RE: Connecticut Green Bank Comments - IRS Notice 2022-51

Connecticut Green Bank (“Green Bank”) respectfully submits the following comments in response to IRS Notice 2022-51 and the changes made to the Internal Revenue Code by the Inflation Reduction Act of 2022 (the “IRA”). As the nation’s first green bank, Green Bank leverages the limited public resources it receives to attract multiples of private investment to scale up clean energy deployment. Since its inception, the Green Bank has mobilized \$2.14 billion of investment into Connecticut’s clean energy economy at a 7.4 to 1 leverage ratio of private to public funds, supported the creation of 25,612 direct, indirect and induced jobs, reduced the energy burden on over 63,000 families and businesses, deployed over 494 MW of clean renewable energy, helped avoid 9.9 million tons of CO2 emissions over the life of the projects, and generated \$107.4 million in individual income, corporate, and sales tax revenues to the State of Connecticut.

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1. invest in, acquire, lease, purchase, own, manage, hold, sell and dispose of real or personal property or any interest therein, and
2. form subsidiaries, and transfer to any such subsidiary any moneys and real or personal property of any kind or nature. Any subsidiary may be organized as a stock or nonstock corporation or a limited liability company. Each such subsidiary shall have and may exercise such powers of said bank and such other powers provided to it by law.

The IRA contains a number of provisions that are intended to encourage investments in clean energy and that could significantly improve Green Bank’s ability to satisfy its statutory mandate, including the elective payment of applicable credits pursuant to Section 6417 of the Code. Allowing a political subdivisions of a State and other tax-exempt entities to benefit from the applicable tax credits could allow the Green Bank to continue to deploy clean energy especially to underserved markets. As the Treasury Department considers additional guidance regarding these provisions we urge you take into account the considerations described below.

## Notice 2022-51

### .03 Domestic Content Requirement

**(3) Solely for purposes of determining whether a reduction in an elective payment amount is required under § 6417, §§ 45(b)(10)(D) and 45Y(g)(12)(D) provide an exception for the requirements contained in §§ 45(b)(9)(B) and 45Y(g)(10)(B) (respectively) if the inclusion of steel, iron, or manufactured productions that are produced in the United States increases the overall costs of construction of qualified facilities by more than 25 percent or relevant steel, iron, or manufactured products are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality.**

**(a) Does the determination of “overall costs” and increases in the overall costs with regard to construction of a qualified facility need further clarification? If so, what should be clarified?**

The application of a percentage to “overall costs” is subjective because it would be determined at a particular point in time. For example, if at the start of the procurement process the overall costs without meeting domestic content requirements are \$1million, and the increase would be \$300k to meet the requirement, the increase to overall costs at that point is 30%, meaning an exception is allowable. However, clean energy projects have a long procurement and construction cycle, so that \$300k increase could later represent less than 25%, if the overall costs increase over time. It is not useful to consider the exception retroactively because economic feasibility decisions (i.e., whether to construct a project or not) depend on the amount of tax credit available, and these decisions are made at an earlier stage than when final overall costs are known. It would be helpful to have clarity regarding exactly when the overall costs are determined for purposes of applying the domestic content rules (e.g., by obtaining comparable quotes at a point in time for materials that do and do not meet domestic content requirements, and how that impacts overall costs).

**(c) Do the “sufficient and reasonably available quantities” and “satisfactory quality” standards need further clarification? If so, what should be clarified?**

Yes, these terms need clarification. For example, it would be helpful to have clarification regarding who decides what is sufficient and reasonable, and satisfactory quality, and how will that be communicated to parties trying to obtain an exception from domestic content requirements.

### .04 Energy Community Requirement

**(2) Does the determination of a brownfield site (as defined in subparagraphs (A), (B), and (D)(ii)(III) of § 101(39) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601(39))) need further clarification? If so, what should be clarified?**

Yes, this definition needs to be clarified and since the reference in the IRA is not clear (specifically if (i) the subsection (B) exclusions are meant to be included as part of this definition, (ii) the site needs to meet (A), (B), **and** (D)(ii)(III) requirements – effectively this could limit it to mine-scarred land). The Treasury Department should apply the definition as broadly as permissible. Also, EPA currently maintains a list, however this definition does not exactly match the EPA definition (as stated

above, and it excludes petroleum contaminated sites, (D)(ii)(II) of § 101(39)) and therefore a new or modified source for such site listings is necessary.

**(4) Which source or sources of information should the Treasury Department and the IRS consider in determining census tracts that had a coal mine closed after December 31, 1999, or had a coal-fired electric generating unit retired after December 31, 2009, under § 45(b)(11)(B)(iii)? How should the closure of a coal mine or the retirement of a coal-fired electric generating unit be defined under § 45(b)(11)(B)(iii)?**

The Treasury Department should clarify definition of coal-fired electric generating unit, which should include dual-use electric generating units (e.g. municipal waste combustor) as long as coal fuel was allowed in its operating permit.

December 5, 2022

Michael S. Regan  
Administrator  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue NW  
Washington, DC 20004

**Re: Request for Information, Greenhouse Gas Reduction Fund – Docket ID No. EPA-HQ-OA-2022-0859**

Dear Administrator Regan:

The Connecticut Department of Energy & Environmental Protection (CT DEEP) is pleased to submit these comments to the U.S. Environmental Protection Agency (EPA) in response to EPA's Request for Information for the Greenhouse Gas Reduction Fund (GHGRF RFI) pursuant to Section 60103 of Public Law 117-169, 136 Stat. 1818 (the Inflation Reduction Act, or IRA). In addition to joining a multi-state comment submission, CT DEEP offers these additional comments to provide input on key GHGRF implementation issues and considerations.

The State of Connecticut has long been a leader in innovative approaches to greenhouse gas (GHG) mitigation. In 2008, the State enacted the Global Warming Solutions Act, which establishes targets of 80% reduction in GHG emissions economy-wide by 2050 and a 45% reduction by 2030. In 2011, Connecticut established the nation's first state-level green bank, the Connecticut Green Bank, capitalized by a dedicated revenue stream from electric ratepayers; CT DEEP has representation on the CT Green Bank Board and coordinates closely with the CT Green Bank in the implementation of renewable and energy efficiency programs. In that same year, the State reorganized the state's energy and environmental agencies by merging the state energy office and public utility commission with the state's environmental and natural resource agencies. These comments reflect CT DEEP's experience over the past decade of implementing public financing programs; overseeing the state's utility-administered energy efficiency programs; advancing community solar and other renewable programs for underserved communities; implementing regulatory and incentive programs, such as air quality programs, for which GHG reduction is an important co-benefit; engaging on policy and program design for financing tools to accelerate decarbonization; and implementing the state's environmental justice program.

CT DEEP has responded to a few of the GHGRF RFI sections below.

## **Section 2 & 3: Program Design and Eligible Projects**

CT DEEP encourages EPA to preserve as much flexibility as possible in the measures eligible for GHGRF funding. Collectively, the IRA and the Bipartisan Infrastructure Law have authorized an unprecedented amount of federal funding for GHG reduction activities, across an enormous breadth of programs. Section 134(a)(1) funding is unique among these authorizations, as a new source of funding, considerable in size, that allows for a broad range of eligible measures and recipients, and a specific focus on low-income and disadvantaged communities. As such, Section 134(a)(1) funds are uniquely capable of removing barriers, filling in gaps and complementing other federal funding—including funding offered by other federal agencies such as the U.S. Department of Energy, U.S. Department of Agriculture, U.S. Department of Transportation, and others—as well as state-level funding for greenhouse gas mitigation.

One of the key insights of CT DEEP’s more than a decade of work with the CT Green Bank, CT electric distribution utilities, and other organizations on decarbonization initiatives is that financing is an important tool but is rarely the exclusive measure that can be used to motivate or accelerate decarbonization initiatives. To enable a project to move forward, a subsidized-interest loan may need to be paired with an upfront grant; funding for marketing and education for consumers and installers; funding to remedy pre-weatherization barriers (lead, asbestos, mold, etc.) to make a building install-ready; and so on. Focusing funding exclusively on a financing program, without investing in these other elements, will not be optimal for success.

With input from the Equity and Environmental Justice working group of Governor Lamont’s Governor’s Council on Climate Change, CT DEEP has been active in recent years to fund a range of different greenhouse gas mitigation measures intended to benefit low-income and disadvantaged communities. This experience points to a range of different investments and financial supports needed to unlock key mitigation measures in renewables, energy efficiency, natural resource management, transportation, and other sectors, in overburdened and underserved communities. These include:

- *Support for grant writing, community engagement, and project design.* Example: Unprecedented amounts of federal funding are available for climate resilience investments, including in green infrastructure that can reduce flooding risk in low-income communities, but communities are not adequately supported in identifying, with input from community members, and developing federal applications for project funding. In 2022, CT DEEP launched a \$10 million state bond-funded Climate Resilience Fund program to provide grant funding to communities for these pre-application activities, and dedicated 40% of this funding to vulnerable communities. This is an example of pre-application technical assistance that is critical for many types of GHG

mitigation projects and programs as well and could be a model for the measures that the GHGRF could fund through direct grant support.

- *Support for workforce development.* Many federal programs for decarbonization have a required workforce development component. Additionally, in order to meet its carbon and air quality goals, Connecticut will need to increase clean economy jobs. Funding is needed to do so, and to ensure that approaches to workforce development are equitable and inclusive, providing opportunity to those who have been historically overburdened by the impacts of our reliance on fossil fuels.

- *Support for remediation of host sites.* Connecticut has been proudly implementing a community solar program, called the Shared Clean Energy Facilities (SCEF) Program, for several years to provide priority access to the benefits of solar energy to underserved communities. Access to suitable development sites is critical, and many of the same communities are burdened with a legacy of industrial pollution. Therefore, flexibility to utilize GHGRF funds to cover remediation costs antecedent to GHG mitigation projects is recommended.

- *Support for addressing pre-weatherization barriers.* Connecticut's old housing stock is often a barrier to participation in weatherization programs. A large percentage of Connecticut homes contain asbestos, vermiculite, knob and tube wiring, mold, and other barriers that must be remediated before a home can be properly air sealed and insulated. Distressed communities are disproportionately impacted by this, as has been noted by a variety of energy justice stakeholders. DEEP has created the Office of Affordable Housing Energy Retrofits and has launched a weatherization barrier remediation program braiding a limited amount of American Rescue Plan Act and LIHEAP funding to address barriers in homes identified in its federally funded Weatherization Assistance Program and state-funded Conservation and Load Management Program. Additional funding would expand this program to provide pathways to weatherization that would help those most in need to save on energy costs while reducing emissions.

Finally, CT DEEP appreciates that deployment of solar facilities as one potential focus of the GHGRF investments. Connecticut has a long history of programs and efforts to expand access to the benefits of solar for low-income and underserved communities, from the bill savings that accrue to hosts or subscribers of solar facility output; the jobs and economic development benefits that can accrue to developers, installers, and owners of host sites; and the peak shaving and air pollution reduction that can accrue to community members.

To the extent that EPA is considering a special focus on solar in the implementation of this bill, CT DEEP would urge a holistic approach—for example, our experience shows that funding for

“whole home retrofits” that combine solar installation with energy storage, EV charging, weatherization, heat pumps, as well as remediation of weatherization barriers and climate resilience measures for buildings is a more optimal deployment strategy than solar deployed alone, as solar systems can better be sized to the entire suite of beneficial electrification technologies and measures residents and the state will need to achieve our decarbonization targets. And consequently, workforce and business development programs that enable low-income and disadvantaged communities to directly reap the economic benefits of this comprehensive approach will need to provide training and seed funding for a broad array of services beyond solar development and installation. In short, our experience shows that solar deployment is best considered not as a singular objective but part of a comprehensive approach to decarbonization; it’s possible that the GHGRF can advance solar deployment best by not funding it *exclusively*.

#### **Section 4: Eligible Recipients.**

CT DEEP has submitted comments as part of a multi-state comment submission urging EPA to provide an option for a formula distribution of the Section 134(a)(1) funds to states, which a state would then sub-allocate to eligible entities within its borders through a competitive process with appropriate oversight and approval of the sub-allocation process by EPA. CT DEEP strongly believes that this formula opt-in would enable states that wish to do so to play a coordinating role on EPA’s behalf that will enable all eligible entities within a state to propose projects or programs for funding, while allowing a state to optimize funding allocations to avoid duplication and conflict among programs, ensure equitable participation, and even braid together federal and state funding sources. CT DEEP would welcome the opportunity to provide further input on this approach should EPA extend the deadline for comments or provide for additional comment opportunities on program guidance or an implementation framework.

#### **Section 5: Oversight and Reporting.**

CT DEEP is aware that commenters are urging a variety of different deployment mechanisms for GHGRF funds. Specifically, some commenters have advocated for creation of a national green bank to administer GHGRF, while others have encouraged the distribution of funds through community development financing institutions. In moving forward with either or both of these models, CT DEEP would urge EPA to provide for meaningful and permanent opportunities for states to have input as follows:

In CT DEEP’s experience, a very meaningful way to accomplish state agency input and oversight for a national or regional green bank would be to:



1. Require the national or regional bank to develop a draft plan for investment of GHGRF funds (and proceeds) preferably on a biannual basis with an opportunity for input from states. This would enable states to propose investment programs to the GHGRF fund administrator that will best fill gaps, remove barriers, and complement other state or federal funds and policies. CT DEEP also notes that EPA's network of regional offices provides a well-established foundation and network for regional work and coordination among states and EPA personnel; CT DEEP would encourage the use of that regional footprint should EPA opt to fund regional green banks.
2. Establish advisory committees on which state agency personnel could serve, to advise a national or regional green bank on the disbursement of funds. These advisory committees could be organized on a regional basis, by particular sectors, or on an ad hoc basis, to again pursue greater coordination and alignment of GHGRF investments with related state, local, and federal investment programs.

Should EPA allocate GHGRF funds to lender intermediaries for investment, CT DEEP recognizes that the more formal governance and coordination measures for a national or regional green bank would not be feasible. Instead, CT DEEP would encourage EPA to invest time and resources early in the GHGRF implementation period in hosting conferences, roundtables, and other convenings of the key stakeholders that will be involved in GHGRF funding allocation, both at the national and regional level. These types of convenings—involving low-income and underserved community members, workforce participants, state, local, and federal agency partners, lenders, and GHGRF fund recipients—will help to build relationships, foster dialogue, seed best practices, and generate strong connections between the various constituencies that will be involved in GHGRF funding deployment. An intensive emphasis on community building, at the broadest levels, will pay dividends that may be hard to measure, but have proven invaluable in advancing coordination in other federal programs.

In conclusion, CT DEEP encourages EPA to establish collaborative governance and/or implementation structures, preserve flexibility in measure eligibility and program design, and implement a formula distribution of the Section 134(a)(1) funds to states. Thank you for the opportunity to submit comments.

Sincerely,



Katie S. Dykes, Commissioner  
Connecticut Department of Energy & Environmental Protection

The Honorable Michael Regan  
Administrator  
U.S. Environmental Protection Agency  
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The Honorable John Podesta  
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The White House  
1600 Pennsylvania Ave., NW  
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December 5, 2022

**RE: The Inflation Reduction Act of 2022 – Section 60103, Greenhouse Gas Reduction Fund: Joint State Recommendations**

Dear Administrator Regan and Senior Advisor Podesta:

Thank you for the opportunity to provide comments on the program design and implementation of the Greenhouse Gas Reduction Fund (GHGRF) established in Section 60103 of the Inflation Reduction Act (IRA).

As the heads of energy and/or environmental agencies in Connecticut, Colorado, Illinois, Louisiana, Maine, Michigan, Nevada, New Jersey, New Mexico, Pennsylvania, and Vermont we recognize how critical the \$27 billion GHGRF allocation is to expanding and accelerating state climate change mitigation, advancing clean energy markets and reducing costs for our residents and businesses. These funds have the potential to catalyze large numbers of local jobs, substantially lower energy burdens for low-income and disadvantaged communities, and improve environmental and energy justice in our states.

Congress intended states to be key partners in the administration of this program. We stand ready to work collaboratively with you on fund deployment and administration. This letter is specifically focused on the subset of GHGRF monies directly available to states – \$7 billion allocated to zero-emission technologies (ZET funds). However, we are also interested in partnering with you on the equitable allocation of the remaining approximately \$20 billion, as these funds are critical to our state goals and local economies. For this reason, we encourage EPA to establish a strong, transparent, and accessible governance structure through which states and disadvantaged communities can have direct and ongoing input into funding prioritization of the \$20 billion. This governance structure is especially critical if a large portion of funds will flow through a small number of entities.

In parallel, we encourage EPA to treat the \$7 billion in ZET funds separately from other GHGRF monies. By doing so, we believe that EPA can maximize GHGRF impact, efficiency, and equity. Below, we provide recommendations that are intended to help EPA in meeting its short ZET funding allocation timeline while enabling robust disadvantaged community engagement. The recommendations also ensure coordination across proposed projects and investments to avoid unnecessary duplication, leverage existing programs and funding streams to the fullest extent possible, support established state and federal equity goals as well as existing climate strategies, and are competitively selected. Lastly, our ZET funding recommendations emphasize flexibility, to enable the \$7 billion to adapt to market differences among states, regions, and communities, and to further unlock financing and private capital for project types and communities experiencing barriers not addressable by financing alone.

*ZET Funding Recommendations:*

Signatories to this letter recommend the following processes and program implementation strategies for ZET funds.

- A. **Use a formula-based allocation to states:** We recommend that ZET funding first be offered via formula-based grants to states, with a minimum allocation per state. As a first step in this process, states would need to indicate interest and identify the specific state agency or other state-specific entity that would receive and administer the funds.<sup>1</sup>

Upfront grants received by states would seed the program and provide for administrative functionality.<sup>2</sup> Upon receiving a formula-based grant and prior to awarding funds to eligible projects, states would be required to submit a competitive project selection process to EPA for review and approval. At minimum, EPA-approved project selection processes should create a call for projects (open to all entities within a state that are eligible to receive ZET funds under Section 60103), a competitive ranking process of those projects, and a publication process for a final Intended Use Plan within a specified period of time. Final Intended Use Plans would detail the pipeline of competitively-selected, eligible projects that would receive funds within a state.

Using this allocation method, the EPA could quickly allocate large portions of funding while enabling competitive and equitable project selection, and ensuring coordination among the various entities within a state that are eligible to receive these funds. Requirements issued by the EPA to guide the development of Intended Use Plans should require robust stakeholder engagement, especially with disadvantaged communities, to help determine localized priorities to be reflected in project scoring and ranking processes. Other EPA requirements could establish minimum criteria that must be considered when scoring and ranking project proposals or could be used as minimum requirements for a portfolio of competitively selected projects.

Should a state opt not to receive formula funds, unallocated funds could be reallocated by EPA into a nationally competitive pool. This pool should be used by EPA to fund eligible multi-state, regional, and national projects and coalitions, as well as supplemental individual state applications.<sup>3,4</sup> Applicants for regional and national funds should be required to collaborate with impacted states. In addition, should a state that initially opted to receive formula funds fail to submit an approvable final Intended Use Plan within the specified period of time or not fully allocate all formula-based funds via their final Intended Use Plan, those unallocated funds could also be reallocated to the nationally competitive pool.

Altogether, this proposed allocation method would achieve rapid funding allocation from EPA, robust stakeholder engagement, realistic application development timelines, project alignment with existing

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<sup>1</sup> State climate offices, energy offices, green banks, or non-government entities may have the appropriate resources and expertise to administer these funds. Flexibility for states to choose the most appropriate administrator will maximize deployment efficiency and success.

<sup>2</sup> EPA's current State Revolving Funds (SRF) program, could serve as a model from which to build this type of allocation process

<sup>3</sup> For example, states with greater qualified project demand than available initial grant funding could apply for additional funds from the nationally competitive pool.

<sup>4</sup> EPA's Water Infrastructure Finance and Innovation Act ("WIFIA") program, offers a potential model for such a direct and competitive application process with EPA.

local, state and federal climate and equity strategies, synergies with and leveraging of existing programs (including the ability to address gaps or barriers to deployment of other federal funds under the IRA and the Bipartisan Infrastructure Law), applicant coordination to minimize proposal duplication, and flexible project scoring approaches that can support locally-identified priorities – all of which are critical to advancing equity in funding deployment.

- B. Ensure fund use flexibility:** Significant gaps in climate and clean energy markets are not addressable with financing alone. Financing deployment may be hindered by market failures or inefficiencies such as workforce limitations, inequitable education and career pathways, unequal information and data sharing, or regulatory delays. Each state, market, and disadvantaged community is likely to have its own gaps or market barriers that, if remedied, could unlock significant private investment. By allowing ZET funding to act as flexible, gap-filling monies to complement increased and more accessible financing, EPA can help to unlock private capital for projects and communities that currently experience systemic financial inequities.

Specifically, EPA should permit the \$7 billion of ZET funds to be awarded to projects as grants, rebates, loans, or other financial offerings and products that will best serve a community. EPA guidance should permit the funds to be used for staff, technical assistance such as application assistance, community engagement, project financial management support, long-term project management, operation, monitoring, and evaluation work, and workforce development that enables increased zero-emission technology deployment. Cost-share should not be required since identifying matching funds can be a substantial barrier to many disadvantaged communities.

As states that administer a variety of energy and environmental programs, the signatories of this letter recognize that funding gaps and barriers vary greatly by market, state, and community. For this reason, we encourage EPA to retain the substantial flexibility provided in the ZET statutory language and while ensuring that development of Intended Use Plans engage local, income eligible and disadvantaged communities to determine their specific preferences and fund use priorities.

- C. Permit the use of state-specific definitions:** To further support equitable funding deployment and to enable leveraging of existing programs and funding streams, we recommend EPA provide guidance on how states can utilize any state-specific definitions for “low-income”, “disadvantaged communities” and other related terms such as “environmental justice zones” alongside national tools like the EPA’s EJScreen and CEQ’s Climate & Economic Justice Screening Tool. States have local knowledge of community needs that may be more refined than a national tool, making it especially important that state definitions be permissible for use in GHGRF funding allocation decisions.

Thank you for the opportunity to submit comments on this important program. We look forward to continuing to collaborate with EPA throughout the GHGRF development and implementation phases.

Sincerely,



Katie S. Dykes, Commissioner  
Connecticut Department of Energy &  
Environmental Protection



Will Toor, Executive Director  
Colorado Energy Office

Will Hobert, Chair  
Illinois Finance Authority/Climate Bank

Thomas F. Harris, Secretary  
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David Bobzien, Director  
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New Mexico Energy, Minerals and  
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James Kenney, Cabinet Secretary  
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October 27, 2022

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**SUBJECT:       Comments from the Connecticut Green Bank – Request for Information: Green and Resilient Retrofit Program – Docket ID No. FR-6350-N-01**

To Ms. Lauren Ross:

The Connecticut Green Bank (“Green Bank”) appreciates the U.S. Department of Housing and Urban Development’s (“HUD”) efforts to issue this request for Information for the Green and Resilient Retrofit Program (“GRRP”). GRRP invites public comment on the design and implementation of the \$837.5 million available to HUD under the Inflation Reduction Act of 2022 (“IRA”) for the provision of loans and grants to fund projects that improve energy or water efficiency, enhance indoor air quality or sustainability, implement the use of zero-emission electricity generation, low-emission building materials or processes, energy storage, or building electrification strategies, and/or address climate resilience.

**Background**

There are numerous public policies in Connecticut that support HUD’s goals and the Biden Administration’s policies, including:

- **Reduce Emissions** – Public Act 08-98 “An Act Concerning Connecticut Global Warming Solutions,” establishes greenhouse gas (“GHG”) emission reduction targets for 2010, 2020, [2030, 2040] and 2050.<sup>1</sup>
- **Increase Resiliency** – Public Act 18-82 “An Act Concerning Climate Change Planning and Resiliency,” establishes planning requirements to increase the state’s resilience against the impacts of climate change, and Public Act 20-05 “An Act Concerning Emergency Response by

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<sup>1</sup> It should be noted, that through Public Act 18-82, a 45% reduction of GHG emissions from 2001 levels by 2030 was established. This target is consistent with President Biden’s 50% reduction of GHG emissions from 2005 levels by 2030. And, through the passage of Public Act 22-5, that a 100% zero carbon electric sector by 2040 was established.

Electric Distribution Companies, the Regulation of Other Public Utilities and Nexus Provisions for Certain Disaster-Related or Emergency-Related Work Performed in the State,” establishes definitions for resilience<sup>2</sup> and vulnerable communities,<sup>3</sup> and establishes incentive programs (i.e., Microgrid and Resilience Grant and Loan Pilot Program).

- **Renewable Energy, Energy Efficiency, and Battery Storage Targets** – Connecticut has a Renewable Portfolio Standard (“RPS”) of 40% clean energy (e.g., solar, wind, fuel cells), weatherization target of 80% by 2030, and 1000 MW battery storage target by 2030, including several supportive incentive programs including:
  - **Residential Renewable Energy Solutions** (“RRES”) – incentive program that provides residential participants, including affordable housing properties,<sup>4</sup> with 20-year tariffs (i.e., \$0.294/kWh – payments for electricity and renewable energy credits), with additional adders for low-income residents and affordable housing properties (i.e., between \$0.025-\$0.030/kWh) to encourage the deployment of behind the meter renewable energy. A target of no less than 40% of installations and benefits for low-income families, homes located within distressed communities, or affordable housing has been established by the Public Utilities Regulatory Authority (“PURA”) for the incentive program.
  - **Shared Clean Energy Facilities** – technology-agnostic clean energy incentive program (i.e., similar to community solar) that provides low-to-moderate income families, including low-income tenants within affordable housing properties, with Subscriber Savings (i.e., 20-year credit of \$0.025/kWh) resulting from both the consumption of the Subscriber and the clean energy production of a grid-tied clean energy facility.
  - **Conservation and Loan Management Plan** – various incentive programs for income-eligible energy assessments (e.g., Home Energy Solutions – Income Eligible) and efficient appliances (e.g., weatherization, heat pumps).
  - **Energy Storage Solutions** (“ESS”) – incentive program that provides residential participants, including affordable housing properties, upfront incentives (i.e., \$200-\$400/kWh with a maximum cap of \$7,500 per project) for passive dispatch and ongoing performance-based incentives (e.g., \$225/kW season years 1 through 5, and \$130/kW season years 6 through 10) for active dispatch, to increase resilience of participants and reduce peak demand, and thus reduce ratepayer electricity rates. A target of no less than 40% of installations and benefits for low-income families, homes located within distressed communities, or affordable housing has been established for ESS by PURA for the incentive program.

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<sup>2</sup> "Resilience" means the ability to prepare for and adapt to changing conditions and withstand and recover rapidly from deliberate attacks, accidents or naturally occurring threats or incidents, including, but not limited to, threats or incidents associated with the impacts of climate change.

<sup>3</sup> "Vulnerable communities" means populations that may be disproportionately impacted by the effects of climate change, including, but not limited to, low and moderate income communities, environmental justice communities pursuant to section 22a-20a, communities eligible for community reinvestment pursuant to section 36a-30 and the Community Reinvestment Act of 1977, 12 USC 2901 et seq., as amended from time to time, populations with increased risk and limited means to adapt to the effects of climate change, or as further defined by the Connecticut Department of Energy and Environmental Protection in consultation with community representatives.

<sup>4</sup> Per proposed decision by the Public Utilities Regulatory Authority in Docket No. 22-08-02 (October 12, 2022)

- **Retrofits for Affordable Housing** – Public Act 21-48 “An Act Establishing an Energy Efficiency Retrofit Grant Program for Affordable Housing,” allows Connecticut (i.e., Department of Energy and Environmental Protection (“DEEP”)) to receive funds (e.g., from the federal government) to fund the installation of energy efficient upgrades (e.g., weatherization, solar PV, energy storage, electric vehicle charging infrastructure, heat pumps) including the mitigation of health and safety hazards (e.g., gas leaks, mold, vermiculite, and asbestos, lead and radon) for affordable housing.<sup>5</sup>
- **Green Bank** – Public Act 11-80 “An Act Concerning the Establishment of the Department of Energy and Environmental Protection and Planning for Connecticut’s Energy Future,” established the nation’s first state-level green bank (i.e., Connecticut Green Bank) to receive funds (e.g., from the federal government) to finance the deployment of clean energy<sup>6</sup> and environmental infrastructure.<sup>7</sup>

The Green Bank, along with its partners, are seeking to advance several projects of relevance to the GRRP in Connecticut, including:

- **Climate Smart Technology and Home Medical Devices for Affordable Housing Project** – a research and development project funded by the Robert Wood Johnson Foundation and matched by the Green Bank, for a collaboration including Operation Fuel, Yale Center on Climate Change and Health, and the Clean Energy Group. The project is intended to investigate tenant resilience needs and drive investment in climate smart technology (e.g., solar power, battery storage) and stable indoor temperature (e.g., efficient heating and cooling, weatherization). The deployment of such technologies in affordable housing can increase the resilience of tenants that are reliant on home medical devices for their health, allowing medically vulnerable residents to safely shelter in place during a climate emergency.
- **Home Resiliency Program (Pilot)** – a pilot program in research and development for single-family homeowners (and potentially affordable housing), funded by the Green Bank, including DEEP, Connecticut Insurance Department, and the Connecticut Institute for Resilience and Climate Adaptation (“CIRCA”) at the University of Connecticut, with technical assistance from Climate Finance Advisors, member of WSP, to design a home

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<sup>5</sup> “Affordable Housing” means housing for which persons and families pay thirty per cent or less of their annual income, where such income is less than or equal to the area median income for the municipality in which such housing is located, as determined by the United States Department of Housing and Urban Development.

<sup>6</sup> “Clean Energy” means solar photovoltaic energy, solar thermal, geothermal energy, wind, ocean thermal energy, wave or tidal energy, fuel cells, landfill gas, hydropower that meets the low-impact standards of the Low-Impact Hydropower Institute, hydrogen production and hydrogen conversion technologies, low emission advanced biomass conversion technologies, alternative fuels, used for electricity generation including ethanol, biodiesel or other fuel produced in Connecticut and derived from agricultural produce, food waste or waste vegetable oil, provided the Commissioner of Energy and Environmental Protection determines that such fuels provide net reductions in greenhouse gas emissions and fossil fuel consumption, usable electricity from combined heat and power systems with waste heat recovery systems, thermal storage systems, other energy resources and emerging technologies which have significant potential for commercialization and which do not involve the combustion of coal, petroleum or petroleum products, municipal solid waste or nuclear fission, financing of energy efficiency projects, projects that seek to deploy electric, electric hybrid, natural gas or alternative fuel vehicles and associated infrastructure, any related storage, distribution, manufacturing technologies or facilities and any Class I renewable energy source, as defined in section 16-1.

<sup>7</sup> “Environmental infrastructure” means structures, facilities, systems, services and improvement projects related to (A) water, (B) waste and recycling, (C) climate adaptation and resiliency, (D) agriculture, (E) land conservation, (F) parks and recreation, and (G) environmental markets, including, but not limited to, carbon offsets and ecosystem services.



resiliency program to drive investment and capital access to incentivize homeowners to make their properties and their communities more resilient to the impacts of climate change.

- **Energy Storage Solutions Technical Assistance for Multifamily Affordable Housing** – the Green Bank has contracted with the Clean Energy Group to analyze use cases for deploying battery storage systems in multifamily affordable housing and to identify opportunities for resiliency through energy storage and/or onsite renewable energy. Through this program, the Clean Energy Group will administer financial and site assessments of 24 facilities across the state.

The Green Bank, working with its partners DEEP, PURA, Department of Housing (“DOH”), and the Connecticut Housing and Finance Authority (“CHFA”), share HUDs goals of the GRRP for the HUD-assisted multifamily portfolio to include reducing energy consumption and carbon emissions, improving indoor air quality for residents, reducing residents’ and properties’ exposure to climate hazards, and protecting life, livability, and property when disaster strikes. Enabling more investment in such properties will improve the lives of low-income families.

### **Responses to Specific Information Requested**

1. *HUD is seeking input on program design features, energy-saving measures, low emission technology, and resilience design and measures that have proven effective in affordable multifamily buildings. How might this program help prioritize and scale best practices for reducing energy consumption and carbon emissions, improving indoor air quality for residents, and strengthening climate resilience among affordable multifamily buildings? How can these measures and practices be deployed in a way that preserves affordability of our properties? Eligible uses for project funding and/or financing include:*
  - a. *Improve energy and/or water efficiency*
  - b. *Enhance indoor air quality and/or sustainability*
  - c. *Implement the use of zero-emission electricity generation, low-emission building materials or processes, and/or energy storage, or building electrification strategies*
  - d. *Address climate resilience.*

### **Response**

There are over 500 affordable housing properties funded (including jointly funded)<sup>8</sup> by HUD with nearly 40,000 units in over 80 of Connecticut’s 169 cities and towns. GRRP, in conjunction with Connecticut’s public policies and incentive programs, as well as the various tax credits and rebates within the IRA, has the potential to dramatically improve the lives of tenants residing within such housing by reducing energy costs, reducing GHG emissions, increasing climate resilience, and improving public health outcomes through the deployment of climate smart technologies.

For Connecticut, given currently funded incentive programs, resources from the GRRP would be best served supporting the enhancement of indoor air quality and improving the health and safety of buildings. Investment in HUD administered (or co-administered) properties would be best served being directed towards alleviating existing health and safety issues on properties (e.g., gas leaks,

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<sup>8</sup> Co-funded with properties involving Connecticut Department of Housing (“DOH”), Connecticut Housing and Finance Authority (“CHFA”), Department of Mental Health and Addiction Services (“DMHAS”), and US Department of Agriculture (“USDA”)

mold, vermiculite, and asbestos, lead and radon), including increasing safety against flooding (e.g., inside the property, including elevation of service equipment, sump pumps, French drainage systems, and outside the property, including rain barrels/planters, rain gardens, and planting native trees). The Green Bank would suggest that ensuring affordable housing has a reliable source of heat (as well as electricity) is equally important to ensuring tenant wellbeing.

Ensuring the affordability of HUD properties, while improving the livelihoods of those low-income tenants that reside in such properties, is an imperative. The investment in the improvement of such properties will modernize access and ensure affordability for low-income tenants as long as HUD allows for such investments to not detract from the economic value created for tenants. For example, by lowering energy costs through the installation of clean energy, tenants residing within such HUD properties should not have their housing allowance or utility subsidy offset by the reduction in energy costs as a result of such investment and improvement of the property.

- 2. This program offers owners of HUD-assisted multifamily properties an opportunity to plan comprehensively around energy efficiency and climate resilience. Often, these goals can be interrelated. Materials and technologies that enhance a building's energy efficiency can also make the building more durable and resilient to threats posed by extreme weather events. It is also possible that some energy efficiency and climate resilience improvements may be in tension. HUD would like recommendations for designing the program to meet energy and emissions reduction goals as well as climate resilience. HUD seeks information on how to balance multiple goals (i.e., energy efficiency, decarbonization, and climate resilience). In addition, given the various eligible uses of funds, cost-effectiveness will vary greatly across projects. How might HUD factor in cost-effectiveness when evaluating applications for energy- and/or resilience related projects?*

### **Response**

GRRP should be designed to complement, not duplicate, existing programs operated by states and local governments, which have their own varying public policies and incentives to encourage investment in low-income affordable housing properties. HUD should leave the prioritization of funding to balance multiple goals (i.e., energy efficiency, decarbonization, and climate resilience) to applicants, taking into consideration priorities from state and local governments balancing their own public policies and incentive resources. Technical assistance to support the development of plans (e.g., climate smart technologies) for HUD-assisted properties should always be provided within its programs (e.g., 10% of funds for a project can be used for technical assistance).<sup>9</sup>

If HUD funding can unlock or mobilize additional public (e.g., from state and local government) and/or private investment, then funding from the IRA will achieve greater impact. Consideration should be given to projects that have additional funding matches. For example, a project may seek HUD funding for health and safety improvements specifically, because it already has funding for energy efficiency and climate resilience from other sources (e.g., state and local incentives, federal tax credits). HUD should allow these other sources of funding as a match within the project. This will enable the GRRP to leverage non-federal resources to increase investment in HUD-assisted properties, expanding the impact this program can have to improve people's lives.

Cost-effectiveness tools are not well-developed for use in this space, particularly when looking at chronic impacts of climate change as opposed to catastrophic events. HUD should not make cost-

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<sup>9</sup> An example is the Resilient Power Project Technical Assistance Fund ("TAF") grants provided through the Clean Energy Group – <https://www.cleanenergy.org/ceg-projects/resilient-power-project/technical-assistance-fund/>.

effectiveness evaluation a barrier to deploying measures that address the impacts of chronic flooding and heat impacts. Beyond this, it will be difficult for HUD to evaluate applications requesting funding for different measures (e.g., energy saved or increase in climate resilience per \$1 of HUD investment). The Green Bank recommends considering alternative metrics, such as assessing programs based on the number of people's lives positively impacted by such investments. This would focus cost-effectiveness on investment per person residing in a HUD-assisted property (e.g., \$ of investment per tenant), including match from other sources.

Collecting appropriate data to determine cost-effectiveness will be important to set the stage for future programming. The GRRP could be looked at as a pilot program seeking to understand the landscape of green and resilient retrofit investments with a focus on identifying key impact metrics to discern how future investment could maximize the improvement of people's lives who reside in HUD-assisted properties.

The Green Bank has found that investment is the key variable in delivering societal impact. Increasing and accelerating public and private investment in commercial technology deployment leads to economic development, energy, environmental, and equity benefits (see Attachment A – Societal Impact Report).

3. *States, localities, and utilities administer programs aimed at delivering energy efficiency and electrification to affordable multifamily properties. In addition, the Inflation Reduction Act makes significant funding available for home energy rebates for low- and moderate-income households through the U.S. Department of Energy and expands the renewable energy Investment Tax Credit. How might HUD encourage or require applicants to leverage other funding for projects-- such as owner equity, other federal, state, local, and/or utility grants, loans, rebates, tax credits, and incentives?*

#### **Response**

As detailed in our response to Question 2, HUD-assisted property owners should seek to leverage HUD-funding through the GRRP by mobilizing public and private investment from non-federal sources of funding as well, including support for direct payment of appropriate tax credits. In doing so, it will achieve greater impact and improve more people's lives. For example, HUD policies should not prevent property owners or tenants from pursuing incentives or programs that increase their energy efficiency or deploy clean energy generation provided by state and local governments because they won't be able to receive and financially benefit from such incentives (see Attachment B – HUD Treatment of Community Solar Credits on Tenant Utility Bills and Attachment C – Treatment of Solar Virtual Net Energy Metering Credits on Tenant Utility Bills). The energy bill reductions or revenue received from these programs should not lead to reductions in the tenants' housing allowance or utility subsidy. Standardizing or creating a HUD-wide policy of this nature across the country is an important baseline to establish.

If HUD wants to be effective in helping tenants residing within such affordable housing properties, then it needs to work more closely with state and local government to ensure that more investment is being directed to such properties, while at the same time improving the quality of life of its tenants. HUD's state and regional representatives should assess the benefits of collaboration with state and local government to identify existing programs that HUD could complement to increase and accelerate investment in the modernization of its properties, especially when it comes to energy, climate change, and health and safety, which will improve people's lives.

4. *HUD seeks to design this program to enable deep retrofits of multifamily properties – retrofits that would likely not be possible without this funding. Certain markets are more primed to deploy deep and resilient retrofits in the multifamily sector, while others may lack the state and local infrastructure and workforce for delivering retrofits in this sector. While HUD seeks to maximize impact, how can HUD best ensure that funding is distributed equitably?*

**Response**

The Green Bank recommends that HUD prioritize providing funding where it can have the greatest impact through complementing existing state and/or local funding opportunities. Pursuing this course of action will ensure that the greatest number of lives improved through GRRP.

For example, in Connecticut, the Climate Smart Technology and Home Medical Devices for Affordable Housing research and development project noted above, will target affordable housing properties located in DOE-determined disadvantaged communities. This project includes three (3) parts:

- **Understand Needs** – social science research by Operation Fuel and Yale University to engage 75 to 150 tenants with existing medical conditions requiring home medical devices residing within no less than fifteen (15) low-income affordable housing properties in three (3) DOE-determined disadvantaged communities;
  - **Assess Opportunity** – technical assistance by the Clean Energy Group ascertaining the technical and economic potential of no less than fifteen (15) low-income affordable housing properties located in DOE-determined disadvantaged communities for the deployment of climate smart technology; and
  - **Enable Financing** – demonstrate the ability to weave together local, state, and federal incentives with financing (i.e., Connecticut Green Bank), with an eye towards public-private partnerships (e.g., healthcare and insurance industries) to provide the necessary capital for projects.
5. *HUD’s ability to achieve its goal of benchmarking energy and water use for the majority of HUD-assisted multifamily portfolio rests on the availability and accessibility of whole-building aggregate energy data. What role can HUD play to support greater access to this utility data? What opportunities exist for HUD to engage utilities and/or public utility commissions to make this data readily available to our multifamily building owners? What incentives, financial support, and/or technical support would encourage owners to participate and get their properties benchmarked?*

**Response**

HUD could communicate to electric, natural gas, and water distribution companies that it is the policy of the agency to provide access to consumption data to state and local officials for the purposes of conducting such benchmarking to identify opportunities for investment and deployment of climate smart technologies.

In Connecticut, PURA is currently investigating the business case for statewide deployment of Advanced Metering Infrastructure (“AMI”). As part of this investigation, PURA is working to ensure that the roll out of AMI provides more granular data directly to utility customers. HUD could work

directly with these customers in states with AMI and customer data portals to help aggregate customer data within affordable housing. HUD could also directly participate in AMI regulatory proceedings, such as Connecticut's, to make recommendations regarding data access to help develop the necessary tools, such as disclosure forms, to allow for building owners to receive their tenants' AMI data.

If HUD wants to receive energy or water usage data directly, absent any specific enabling legislation, the alternative is to work directly with utilities to access information that will benefit low-income families residing in affordable housing. Such information would then be used to enable developers an opportunity to advance projects at such properties. If that process proves unsuccessful, HUD may need to petition PUCs to open an investigation into data access of the electric, natural gas, and water distribution companies.

HUD providing technical assistance to benchmark all of its facilities, in terms of energy, water, resilience, and health and safety, would be a substantial and important first step to ascertaining the opportunities available for investment in property improvements to improve people's lives. HUD may want to look to states or cities with successful, existing benchmarking ordinances for data reporting best practices such as using a standardized data reporting process, and providing building owners with technical support. ACEEE<sup>10</sup> and the Better Buildings Energy Data Accelerator<sup>11</sup> provide relevant examples.

6. *What equity considerations should HUD consider when implementing property retrofits and benchmarking? HUD-assisted properties exist nationwide, and they disproportionately serve residents who are otherwise underserved by housing markets, including people with disabilities, older adults, and people from communities of color.*

#### **Response**

For the deployment of a new Climate Resilience Fund in Connecticut, the state has defined metrics to determine vulnerable communities with vulnerable populations. Pursuant to CGS Sec. 16-243y(7), "vulnerable communities" means populations that may be disproportionately impacted by the effects of climate change, including, but not limited to:

- Low- and moderate-income communities,
- Environmental justice communities pursuant to section 22a-20a,
- Communities eligible for community reinvestment pursuant to section 36a-30 and the
- Community Reinvestment Act of 1977, 12 USC 2901 et seq., as amended from time to time,
- Populations with increased risk and limited means to adapt to the effects of climate change, including:
  - Communities of color
  - Children and seniors
  - Low-income communities
  - People with disabilities
  - Pregnant people
  - People with Limited English Proficiency (LEP)
  - Other historically disadvantaged people
  - People impacted by the social determinants of health

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<sup>10</sup> [Benchmarking Initiatives in the Multifamily Market | ACEEE](#)

<sup>11</sup> [Utility Best Practices Case Study - Eversource.pdf \(energy.gov\)](#)

- Populations identified by the American Public Health Association

HUD could facilitate the rapid disbursement of funds and subsequent realization of benefits if they adopted a definition of vulnerable communities that align with existing state definitions.

Alternatively, funds provided by HUD through the GRRP could be targeted at affordable housing properties with a significant number of units (i.e., to maximize investment per tenant), and those located in disadvantaged communities. HUD should evaluate how definitions and metrics used by the agency align with those used by other federal agencies who have also initiated programs for affordable housing, namely the Federal Emergency Management Agency (“FEMA”) and U.S. Department of Energy (“DOE”) and its Justice 40 Initiative. Under the current guidelines, it is possible communities would qualify for preference for funding through Justice40 under one agency, but not another depending on the metric the agencies use.

7. *This will be the first HUD program to target multifamily properties nationwide with property-level resilience interventions at this scale. How can and should HUD evaluate resilience needs and the effectiveness of these interventions, considering the variety of natural hazards and that the effectiveness of many resilience strategies are truly tested only when a disaster event strikes? How should HUD balance geographic disparities in the needs for resilience interventions (i.e., more frequent in coastal areas) and the availability of other funds, from HUD and other agencies, for recovering from disasters?*

#### **Response**

The Green Bank recommends that HUD prioritize addressing chronic impacts of climate change rather than focusing on resilience in the face of catastrophic events as a way to balance against other sources of federal funding. While catastrophic events may be less evenly distributed across the country, chronic climate impacts (such as stormwater flooding and heat impacts) are shared more broadly across regions. Furthermore, measures to address these more chronic impacts of a changed climate are more affordable to address and have shared benefits across energy and resilience for heat and resilience and indoor air quality for chronic flooding.

The Green Bank would recommend that HUD consider the following engagements to further its understanding of how the GRRP can deliver maximum benefit:

- **Engage National Association of Insurance Commissioners** – HUD should engage the state insurance regulators that oversee insurance companies, and leverage the National Association of Insurance Commissioners (“NAIC”) which serves all state insurance regulators, in a conversation about the potential climate change impacts facing its affordable housing. Given the exposure to natural hazards varies by geographic location and has a disparate impact on local communities, such engagement will elucidate localized opportunities for public-private partnerships, including with the healthcare and insurance industries, that will enable greater investment in decarbonization and climate resilience.
- **Engage Insurance Institute for Business and Home Safety** – as the nonprofit science organization supported by property insurers, reinsurers, and others, IBHS’s building safety research leads to real world solutions that creates more resilient communities. For example, their FORTIFIED rating and labeling system, including “FORTIFIED Multifamily,” establishes voluntary construction standards and reroofing approaches to empower

developers, owners, and property managers to take it upon themselves to make their properties more resilient.

- **Engage National Association of State Energy Offices** – as the association of state energy offices, HUD’s engagement of NASEO could identify opportunities for how state and local governments could leverage federal resources to increase investment in the deployment of climate smart technologies.

Improving resilience requires increasing and accelerating public and private investment in affordable housing properties to better prepare for, respond to, and recover from natural hazards induced by climate change. For example, through the use of American Recovery and Reinvestment Act funding, the Green Bank was able to turn \$8.3 million of federal funds, to leverage \$16.5 million of state funds and \$158.1 million of private investment, to enable greater and faster deployment of climate smart technologies for single family homeowners (see Attachment D – The Impact of Federal Funds). The more HUD can enable GRRP to increase public and private partnerships to invest in its affordable housing properties, the more people’s lives will be positively impacted.

The Green Bank, and its state partners (e.g., DEEP, PURA, DOH, CHFA, Insurance), appreciate HUD’s efforts to solicit public comment on the pending GRRP request for proposals (“RFP”). We look forward to working with our public-private partners to submit an application for consideration into a future GRRP RFP.

Sincerely,

*Bryan Garcia*  
Bryan Garcia  
President and CEO

*Sara Harari*  
Sara Harari  
Associate Director of Innovation and Senior Advisor to  
the President and CEO

### **About the Connecticut Green Bank**

As the nation’s first state-level green bank, the Connecticut Green Bank leverages the limited public resources it receives to attract multiples of private investment to scale up clean energy deployment. Since its inception, the Green Bank has mobilized \$2.26 billion of investment into Connecticut’s clean energy economy at a 7 to 1 leverage ratio of private to public funds, supported the creation of 27,720 direct, indirect and induced jobs, reduced the energy burden on over 66,500 families and businesses, deployed nearly 510 MW of clean renewable energy, helped avoid 10.4 million tons of CO<sub>2</sub> emissions over the life of the projects, and generated \$113.6 million in individual income, corporate, and sales tax revenues to the State of Connecticut.

### **Attachments**

Attachment A – Societal Impact Report

Attachment B – Treatment of Community Solar Credits on Tenant Utility Bills

Attachment C – Treatment of Solar Virtual Net Energy Metering Credits on Tenant Utility Bills

Attachment D – The Impact of Federal Funds

**Appendix A – Societal Impact Report**



# Societal Impact Report

FY12  
FY22

Since the Connecticut Green Bank's inception through the bipartisan legislation in July 2011, we have mobilized more than **\$2.26 billion of investment** into the State's green economy. To do this, we used **\$322.4 million** in Green Bank dollars to attract \$1.95 billion in private investment, a leverage ratio of **\$7.00 for every \$1**. The impact of our deployment of renewable energy and energy efficiency to families, businesses, and our communities is shown in terms of economic development, environmental protection, equity, and energy (data from FY 2012 through FY 2022).

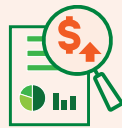
## ECONOMIC DEVELOPMENT

**JOBS** The Green Bank has supported the creation of more than **26,720** direct, indirect, and induced job-years.



### TAX REVENUES

The Green Bank's activities have helped generate an estimated **\$113.6 million** in state tax revenues.



**\$55.3 million**  
individual income tax

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**\$29.2 million**  
corporate taxes

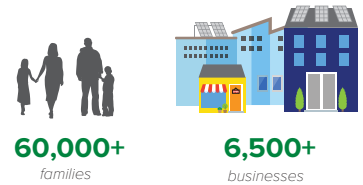
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**\$29.1 million**  
sales taxes

## ENERGY

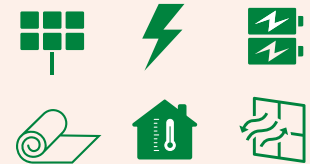
### ENERGY BURDEN

The Green Bank has reduced the energy costs on families, businesses, and our communities.



### DEPLOYMENT

The Green Bank has accelerated the growth of renewable energy to more than **509 MW** and lifetime savings of over **65.6 million MMBTUs** through energy efficiency projects.



## ENVIRONMENTAL PROTECTION

**POLLUTION** The Green Bank has helped reduce air emissions that cause climate change and worsen public health, including **9.6 million pounds** of SOx and **11.1 million pounds** of NOx lifetime.



**10.4 MILLION**  
tons of CO<sub>2</sub> :



**156 MILLION**  
tree seedlings  
grown for 10 years

OR



**2.1 MILLION**  
passenger vehicles  
driven for one year

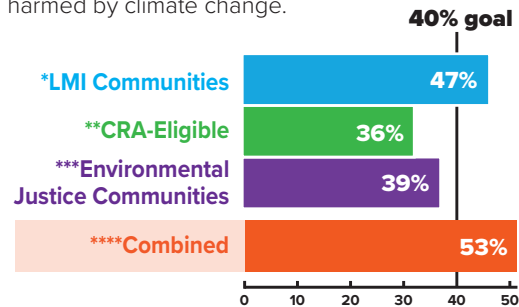
**PUBLIC HEALTH** The Green Bank has improved the lives of families, helping them avoid sick days, hospital visits, and even death.



**\$317.1 – \$717.2 million of lifetime public health value created**

## EQUITY

**INVESTING** in vulnerable communities, The Green Bank has set **goals** to reach **40% investment** in communities that may be disproportionately harmed by climate change.



\*LMI Communities – census tracts where households are at or below 100% Area Median Income.

\*\*Community Reinvestment Act (CRA) Eligible – households at or below 80% of Area Median Income and all projects in programs designed to assist LMI customers.

\*\*\*Environmental Justice Community means a municipality that has been designated as distressed by Connecticut Department of Economic and Community Development (DECD) or a census block group for which 30% or more of the population have an income below 200% of the federal poverty level.

\*\*\*\*Combined Vulnerable Communities include LMI, CRA and EJC.



Learn more by visiting [ctgreenbank.com/strategy-impact/impact](http://ctgreenbank.com/strategy-impact/impact)

Winner of the 2017 Harvard Kennedy School Ash Center Award for Innovation in American Government, the Connecticut Green Bank is the nation's first green bank.

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Sources: Connecticut Green Bank Comprehensive Annual Financial Reports

## **Appendix B – Treatment of Community Solar Credits on Tenant Utility Bills**



## U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

WASHINGTON, DC 20410-8000

OFFICE OF HOUSING

**MEMORANDUM FOR:** Multifamily Regional Directors  
Multifamily Asset Management Division Directors  
Multifamily Owners and Management Agents  
Section 8 Contract Administrators

**FROM:** Tobias Halliday, Director, Office of Asset Management and Portfolio Oversight, HTG

**SUBJECT:** Treatment of Community Solar Credits on Tenant Utility Bills

### **Background**

A growing number of states offer community solar programs. These programs give families who live in properties, including HUD-subsidized properties and private market rental units, access to renewable energy, even though the property itself may not be suitable for solar panels. Community solar arrays have multiple subscribers who receive benefits on utility bills that are directly attributable to the solar project's energy generation. There are no upfront costs to subscribers, and they can receive benefits—typically in the form of an on-electricity bill credit. In the case there are ongoing costs or fees for low-income participants, it is typically mandated that any costs will not be more than 50% of the value participants get from their system.

### **Purpose and Applicability**

The purpose of this notice is to provide guidance to HUD Multifamily Housing (MFH) field staff, owners, and management agents on the treatment of on-bill virtual net energy metering credits that commonly result from a resident's participation in a community solar program. This only applies in the case of tenant-paid electricity and where the solar credit appears as a negative amount on the electricity bill. This guidance does not apply to residents of master-metered multifamily buildings. In addition, this guidance does not change existing rules for utility allowance baseline analyses or income calculations; rather, it provides guidance for how to treat community solar credits within existing rules.

This notice applies to the following Office of Multifamily Housing Programs:

1. Project-based Section 8
  - a. New construction
  - b. State Agency Financed
  - c. Substantial Rehabilitation
  - d. Section 202/8
  - e. Rural Housing Services (RHS) Section 515/8
  - f. Loan Management Set-Aside (LMSA)

- g. Property Disposition Set-Aside (PDSA)
- h. Rental Assistance Demonstration Project Based Rental Assistance (RAD/PBRA)
- 2. Section 202/162 Project Assistance Contracts (PAC)
- 3. Section 202 Project Rental Assistance Contracts (PRAC)
- 4. Section 202 Senior Preservation Rental Assistance Contracts (SPRAC)
- 5. Section 811 PRACs
- 6. Section 811 Project Rental Assistance (PRA)
- 7. Section 236 Subsidized Mortgages

### **Determination of Treatment of Solar Credits in Utility Allowance and Annual Income Calculation**

If these characteristics outlined above apply to residents in a covered program, the following two-step process may be used to determine whether the community solar credits should be included/excluded from the utility allowance baseline analysis or included/excluded from a family's annual income for purposes of rent calculation and/or eligibility determination.

#### *Step One: Determine if Community Solar Credits Affect Utility Allowance Calculation*

Step One is a test for determining the community solar credit's relationship to the utility allowance calculation. To understand the effect of a community solar credit on a unit's utility allowance calculation, you will need a copy of the tenant's electricity bill (this can be accessed by the utility company if it is not already available). Per this guidance, you will not need any additional information as the solar credit will appear as a negative amount on the tenant's electricity bill.

If the credit reduces the cost of energy consumption by lowering actual utility rates, then the owner *is* required to submit a new baseline analysis in accordance with Housing Notice 2015-04, regardless of when the last analysis was submitted to HUD/Contract Administrator for approval.

Factors for determining whether the credit is tied to the cost of consumption:

1. Is the credit a third-party payment (e.g., not from the electricity provider) on behalf of the tenant rather than a reduction in the cost of utilities?
  - a. Yes → Credit is not considered to reduce the cost of energy consumption as the cost for the utility provider to provide the consumed energy does not change. The owner *is not* required to submit a new utility allowance baseline analysis (see example bills with solar credits *not* tied to consumption in the Appendix).
  - b. No → Credit may be tied to the cost of consumption. Proceed to question #2 below.
2. Does the credit amount fluctuate every month and/or does the electric bill show a lowered utility rate per kilowatt-hour?
  - a. Yes → Credit is tied to the cost of utility consumption. The owner *is* required to submit a new utility allowance baseline analysis.

- b. No → Credit is not tied to the cost of utility consumption. The owner *is not* required to submit a new utility allowance baseline analysis.

*Step Two: Determine if Community Solar Credits Should be Considered Annual Income for Rent Calculation or Determining Eligibility for HUD-assisted Multifamily Programs*

The second step is to determine if the credits fall within HUD's definition of annual income.<sup>1</sup> In all foreseeable instances as of the date of this memo, if the solar credit is tied to the cost of consumption (i.e., utility allowance is affected) (addressed in Step One), then credit will not count towards income.

If a community solar benefit appears on a household's electricity bill as an amount credited from the total cost of the bill, HUD has determined that the credit should be treated as a *discount or coupon* to achieve a lower energy bill (rather than a cash payment or cash-equivalent payment being made available to a resident). In this case, the credit *will not* be counted towards income as discounts on items purchased by a tenant are not viewed as "annual income" to the family. Generally, income is not generated when a family purchases something at a cheaper rate than it otherwise would.

Note that if the credits are found to be third-party payments based on Step One, there may be instances when the credits are not mere discounts and must be treated as income. For instance, a recurring monthly utility payment made on behalf of the family by an individual outside of the household is not considered a discount but is considered annual income to the family.

### **Further Information**

If you are evaluating the treatment of solar credits outside the program framework outlined above and require a state specific determination and/or have general questions about this guidance, please email Lauren Ross, Senior Advisor for Housing and Sustainability at [Lauren.Ross@hud.gov](mailto:Lauren.Ross@hud.gov).

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<sup>1</sup> HUD definition of annual income 24 CFR 5.609. 5.609(a) says: "(a) Annual income means all amounts, monetary or not, which: (1) Go to, or on behalf of, the family head or spouse (even if temporarily absent) or to any other family member; or (2) Are anticipated to be received from a source outside the family during the 12-month period following admission or annual reexamination effective date; and (3) Which are not specifically excluded in paragraph (c) of this section. (4) Annual income also means amounts derived (during the 12-month period) from assets to which any member of the family has access."

## Appendix

### Example 1: Utility Bill with Community Solar Credits *not* tied to Consumption

<p><b>PEPCO CUSTOMER</b>  <b>Account number:</b> ██████████</p> <p><b>Details of your Electric Charges</b>          Residential-R - service number 0012 3456 7890 7001 6762 64          Electricity you used this period</p> <table border="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Meter Number Energy Type</th> <th style="text-align: center;">Current Reading</th> <th style="text-align: center;">Previous Reading</th> <th style="text-align: center;">Difference</th> <th style="text-align: center;">Multiplier</th> <th style="text-align: center;">Total Use</th> </tr> </thead> <tbody> <tr> <td>1ND344415274</td> <td style="text-align: center;">May 5 057043 (actual)</td> <td style="text-align: center;">Apr 4 055628 (actual)</td> <td style="text-align: center;">1415</td> <td style="text-align: center;">1</td> <td style="text-align: center;">1415</td> </tr> </tbody> </table> <p>Your next meter reading is scheduled for June 3, 2015</p> <p><b>Delivery Charges:</b> These charges reflect the cost of bringing electricity to you.          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\*In this sample bill, the customer used 1415 kWh that month and they are being fully charged for that usage. The two lines of community net metering (CNM) credits are for -100 kWh and -150 kWh that carry their own kWh charge. Those are not at all connected to the 1415 kWh usage/cost.

Example 2: Utility Bill with Community Solar Credits *not* tied to Consumption

**For Questions, Support, and Outages visit ComEd.com**

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 Español **1.800.95.LUCES (1.800.955.8237)**  
 Hearing/Speech Impaired **1.800.572.5789 (TTY)**  
 Federal Video Relay Services (VRS) **Fedvrs.us/session/new**

**Total Amount Due by 12/2/21 \$18.05**

**METER INFORMATION**

Read Dates	Meter Number	Load Type	Reading Type	Previous	Present	Difference	Multiplier	Usage
10/12-11/10	271741330	General Service	Total kWh	7979	<b>Actual</b> 8061	<b>Actual</b> 82	x 1	<b>82</b>

**RENEWABLE COMMUNITY SUPPLY DETAILS**

Generation Period	Project Name	Phone Number	Generation kWh	Rate	Total
9/29 - 11/1	Bunker Hill 2	866.826.1997	<b>58.6648</b>	-0.05924	<b>-\$3.48</b>

**CHARGE DETAILS**

Residential - Multiple 10/12/21 - 11/10/21 (29 Days)

<b>SUPPLY</b>			<b>\$2.49</b>
Electricity Supply Charge	82 kWh X 0.06424		\$5.27
Transmission Services Charge	82 kWh X 0.01353		\$1.11
Purchased Electricity Adjustment			\$0.41
<b>Renewable Community Supply Credit</b>			<b>-\$3.48</b>

Service Period Total **\$18.05**

**MISCELLANEOUS \$0.00**

Community Supply Generation Credit -\$3.48  
 Thank you for your payment of \$18.00 on October 15, 2021

**Total Amount Due \$18.05**

**UPDATES**

- ComEd**
- **PRICE TO COMPARE:** The ComEd electric supply price to compare is 7.777 cents per kWh. This price does not include a monthly purchased electricity adjustment factor that may range between +\$0.005 and -\$0.005 per kWh. For more information and supplier offers visit <https://www.pluginillinois.org/fixerate.aspx>. For more information on ComEd bill line items go to [ComEd.com/UnderstandBill](http://ComEd.com/UnderstandBill).
  - **WAYS TO PAY:** Looking for ways to pay your bill? Visit [ComEd.com/PAY](http://ComEd.com/PAY)
  - **STOP ENERGY SCAMS:** Scammers may threaten to disconnect service in exchange for immediate payment or personal information. We will never demand payment using prepaid cash cards, third-party banking apps, or cryptocurrency such as Bitcoin. Learn more: [ComEd.com/ScamAlert](http://ComEd.com/ScamAlert).

Amount *not* to be included in utility allowance baseline analysis

<b>DELIVERY - ComEd</b>			<b>\$13.87</b>
Customer Charge			\$7.65
Standard Metering Charge			\$3.70
Distribution Facilities Charge	82 kWh X 0.02948		\$2.42
IL Electricity Distribution Charge	82 kWh X 0.00123		\$0.10

**TAXES & FEES \$1.69**

Environmental Cost Recovery Adj	82 kWh X 0.00022		\$0.02
Renewable Portfolio Standard	82 kWh X 0.00189		\$0.15
Zero Emission Standard	82 kWh X 0.00195		\$0.16
Energy Efficiency Programs	82 kWh X 0.00188		\$0.15
Franchise Cost			\$0.43
State Tax			\$0.27
Municipal Tax			\$0.51

(continued on next page)

**A VARIETY OF METHODS TO PAY YOUR BILL**

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- Mobile App**
- Phone**
- In-Person**

**Attachment C – Treatment of Solar Virtual Net Energy Metering Credits on  
Tenant Utility Bills**





OFFICE OF HOUSING

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT  
WASHINGTON, DC 20410-8000

JUL - 8 2019

**MEMORANDUM FOR:** Multifamily West Regional Center Director, Asset Management  
Division Directors, and Operations Officer  
All Contract Administrators for California properties  
All Owner/Agents of Multifamily assisted housing properties  
located in California

**FROM:** Brian A. Murray, Acting Director, Office of Asset Management and  
Portfolio Oversight, HTG

**SUBJECT:** Treatment of Solar Virtual Net Energy Metering Credits on Tenant  
Utility Bills

### Purpose

The purpose of this memorandum is to provide guidance to HUD Multifamily Housing field staff and owners and management agents on the treatment of on-bill virtual net energy metering (VNEM) credits that may be received by tenants in HUD multifamily housing as a result of an owner's participation in California's Solar on Multifamily Affordable Housing (SOMAH) program.

### Background

In 2015, the California legislature passed legislation (Assembly Bill 693) establishing a new incentive program making \$100 million a year over ten years available to incentivize the installation of solar energy systems benefitting affordable multifamily housing. The statute includes a requirement that tenants receive a direct economic benefit from these new systems, to be delivered in the form of VNEM credits on their utility bills.

### Applicability

This memorandum applies to the following programs:

1. Project-based Section 8
  - a. New Construction
  - b. State Agency Financed
  - c. Substantial Rehabilitation
  - d. Section 202/8
  - e. Rural Housing Services (RHS) Section 515/8
  - f. Loan Management Set-Aside (LMSA)
  - g. Property Disposition Set-Aside (PDSA)
  - h. Rental Assistance Demonstration Project Based Rental Assistance (RAD/PBRA)

2. Section 202/162 Project Assistance Contracts (PAC)
3. Section 202 Project Rental Assistance Contracts (PRAC)
4. Section 202 Senior Preservation Rental Assistance Contracts (SPRAC)
5. Section 811 PRACs
6. Section 811 Project Rental Assistance (PRA)
7. Section 236 Subsidized Mortgages

### **VNEM Credits are Excluded from Annual Income**

Office of Multifamily Housing, with the assistance of the HUD Office of General Counsel, has determined that VNEM credits allocated to tenants under the SOMAH program are an incidental benefit and must not be included as annual income to the household. While these credits appear on individual tenants' utility bills<sup>1</sup>, VNEM credits do not meet the definition of tenant income as they result from the property owners' participation in the SOMAH program and have no relationship to tenants' electricity consumption. Moreover, these benefits stay with the unit and do not follow specific tenants when they terminate their residence in a participating property.

### **VNEM Credits are Excluded when Calculating Utility Allowances**

VNEM credits are issued by the electric utility company to participating properties according to the amount and time of day of the electricity generated by the solar system and exported to the grid. Credits are then allocated in a two-step process: 1) between owner paid utilities, i.e. common areas, and tenant paid utilities, i.e. units; and 2) tenant credits are then distributed between tenant units. Allocations are made in accordance with a formula proposed by the solar system owner (i.e. the property owner) and approved by the utility company. For the purpose of this memorandum, "units" refer to all the physical spaces for which tenants pay electricity bills as contrasted with common areas, for which the owner is responsible for electric bills.

Because there is no connection between the tenant's actual electricity consumption and these credits, owners and management agents must disregard the solar credit when calculating utility allowances.

Owners and management agents should address all property-specific questions to the assigned contract administrator or Multifamily Account Executive. General policy questions may be sent to Annecia Durr, Subsidy Oversight Branch Chief at [Annecia.durr@hud.gov](mailto:Annecia.durr@hud.gov).

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<sup>1</sup> HUD-assisted properties that are master-metered for electricity are not eligible to participate in the SOMAH program.

**Attachment D – The Impact of Federal Funds**

# The Impact of Federal Funds in Connecticut

Through our partnership with the Department of Energy & Environmental Protection, Connecticut Green Bank deployed \$8.25 million of American Recovery and Reinvestment Act of 2009 (ARRA) funds to create more than \$176.4 million of investments into residential clean energy projects. (All data as of 12-31-2021)



## Economic Development

The Green Bank turned \$8.25 million of federal funds

\$8.25 million → \$174.6 million

into **\$174.6 million in investments**

\$16.5M Green Bank investment

\$158.1M private investment

\$8.25M ARRA Funds



The Green Bank supported the creation of **2,176 job-years of employment** through the use of ARRA funds.



## Environment

ARRA funds helped to avoid **596,382 tons of CO<sub>2</sub>**, which is equal to:

**8.9 million tree seedlings** grown for 10 years

**removing 117,663 passenger cars from the road** for one year



## Equity

**38%** of investments

**53%** of projects

were made in **vulnerable communities**

**\$38.8–87.8M** of lifetime public health value created

**9,434 families supported**

The Green Bank targets 40% of investment and benefits into vulnerable communities



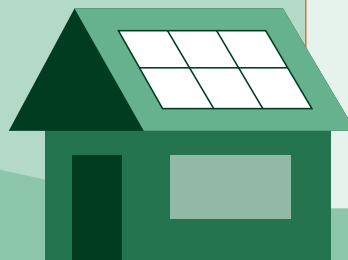
## Energy

The use of ARRA funds supported

- Deployment of over **24 megawatts of clean energy**
- **Lifetime savings of over 3.4 million MMBTUs** through energy efficiency projects, including:

- Solar panel installation
- Insulation upgrades
- Heating and cooling system upgrades

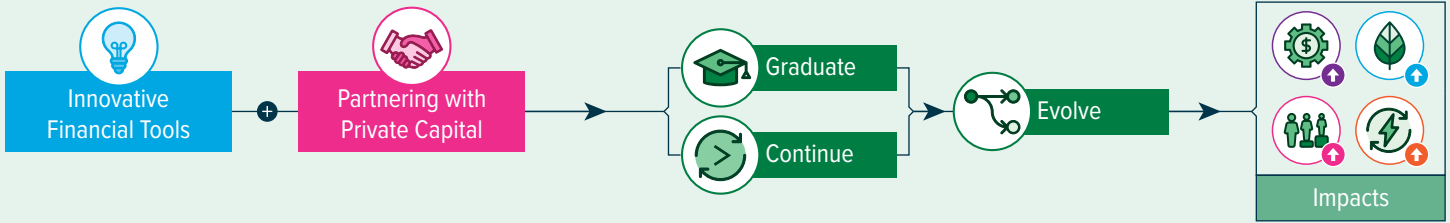
**\$138M** in lifetime energy savings generated



# Financing Programs with Federal Funds



The Green Bank's ARRA funded programs combined innovative financial tools and partnering with private capital to create programs that **promote clean energy, economic growth, a healthier environment, and greater equity** in Connecticut.



Program models, proved successful through the deployment of ARRA funds, evolved to focus on additional markets and larger investment beyond the Green Bank.

<b>CT SOLAR LEASE</b>	<p>Allowed homeowners to access the benefits of solar through a lease option.</p> <ul style="list-style-type: none"> <li>Leveraged \$3.5M in ARRA funds as a <b>lease loss reserve</b> and \$7.1M in Green Bank Subordinated Debt and Sponsor Equity.</li> <li>Raised \$15.0M of <b>tax equity investment</b> and \$16.9 million of senior debt through a <b>syndicate of local lenders</b>.</li> </ul>	<ul style="list-style-type: none"> <li>The success of this model led to the creation of <b>"Solar For All"</b>: a program based on the model that focused on providing residential solar to low-to-moderate income (LMI) families and communities of color — helping Connecticut achieve 41% deployment in LMI communities</li> </ul>
<b>CT SOLAR LOAN</b>	<p>Enabled homeowners of varying financial means to own their systems at affordable rates without a lien.</p> <ul style="list-style-type: none"> <li>Used \$517,000 in ARRA funds for a <b>loan loss reserve (LLR)</b> to allow for the creation of the <b>first-ever crowd-sourced portfolio of solar loans</b>.</li> <li>Partnered with Sungage Financial and The Reinvestment Fund to generate \$8.3M in lifetime savings.</li> </ul>	<p><b>A loan loss reserve</b> is a pool of money set aside to cover a prespecified amount of loan losses, providing partial risk coverage to lenders.</p> <ul style="list-style-type: none"> <li>After this model proved successful, the program expanded to include new partners and a \$100 million pool of capital, without any resources from the Green Bank.</li> </ul>
<b>SMART-E LOAN</b>	<p>Offers flexible financing for upgrades to home energy performance.</p> <ul style="list-style-type: none"> <li>ARRA funds used as <b>LLR and interest rate buydowns (IRB)</b> to offer homeowners low-interest financing to improve their home's energy performance.</li> <li>Provided in partnership with 13 local community banks and credit unions, 500+ contractors, and 5,923 families for \$108.7 million in total investment.</li> </ul>	<p>Originally focused on clean energy, this program is <b>expanding to support environmental infrastructure</b>.</p> <p>The program is transitioning from ARRA supported LLR to LLR on the Green Bank's balance sheet using IRBs from ARRA funds.</p> <p><b>An interest rate buydown</b> is when capital is deployed to pay a portion of the interest on borrowers' loans to decrease their costs.</p>
<b>LOW INCOME MULTI-FAMILY ENERGY (LIME) LOAN</b>	<p>Unsecured low interest loans serving properties where at least 60% of units serve renters at 80% or lower of Area Median Income.</p> <ul style="list-style-type: none"> <li>ARRA funds used as LLR and <b>projected energy savings are used to cover the debt service of the loan</b>.</li> <li>Offered through a partnership with Capital For Change (C4C), a community development financial institution (CDFI) that provides financial <b>products and services that support an inclusive and sustainable economy</b>.</li> </ul>	<ul style="list-style-type: none"> <li>Using \$300,000 in ARRA funds as LLR, LIME projects have a combined lifetime energy cost savings of over \$117.6M.</li> </ul>



CONNECTICUT  
**GREEN BANK**<sup>SM</sup>

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Hartford, CT 06106

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Stamford, CT 06902