CONNECTICUT
GREEN BANK

Board of Directors

Meeting Date

March 25, 2022

Board of Directors

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

75 Charter Oak Avenue, Suite 1 - 103, Hartford, CT 06106
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CONNECTICUT
GREEN BANK

March 18, 2022

Dear Connecticut Green Bank Board of Directors:

Happy Spring!

We have a meeting of the Board of Directors scheduled for **Friday, March 25, 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 January 21, 2022
    - FuelCell Energy Groton Project extension to close
    - Less than $500,000 and No More in Aggregate than $1,000,000 – C-PACE transaction of approximately $115,000

  You will note that I have also included the Green Bank's public comments into the U.S. Department of Energy's "Regional Clean Hydrogen Hubs" Request for Information, and a quarterly update from Inclusive Prosperity Capital ("IPC") through Q2 of FY22 for your information.

- **Investment Updates and Recommendations** – an update on our 1st Green Liberty Notes issuance and a prelude to the upcoming issuance on Earth Day, and clarification per the Loan Loss Decision Framework on transactions involving accrued default interest, penalties, or fees.

- **Financing Program Updates and Recommendations** – staff recommendation to renew our financing facility with Eversource Energy and Amalgamated Bank for three (3) additional years and revisions to C-PACE new construction guidelines.

- **Incentive Program Updates and Recommendations** – updates on the Energy Storage Solutions program, Deployment Committee recommendation to restructure the remaining American Recovery and Reinvestment Act ("ARRA") funds from Loan Loss Reserves ("LLR") to Interest Rate Buydowns ("IRB") for Smart-E Loan financed "clean energy" projects, and Deployment Committee recommendation to expand the Smart-E Loan program to include "environmental infrastructure" measures per CGS 16-245n.

- **Federal Opportunities** – following our last board meeting presentation on "regional clean hydrogen hubs" by the Connecticut Hydrogen Fuel Cell Coalition, we look forward to continuing the conversation to learn more about the opportunities presented by the Infrastructure Investment and Jobs Act ("IIJA"). We have invited Robert Edwards, Jr., Director of the Outreach and Business Development Division of the Department of Energy's ("DOE") Loan Program Office ("LPO") to provide an update on the IIJA impacts on the DOE, with a focus on the LPO and its programs.

We have a jampacked agenda! We may need to go an additional 15 minutes over, but that would be optional for those who are interested in hearing the presentation by the DOE.

And lastly, you should be receiving your annual Statement of Financial Interest request from the Office of State Ethics. If you can complete that request, that would be great! If you have any questions, comments or concerns, please contact me or Brian Farnen.

Until then, enjoy the weekend.

Sincerely,

Bryan Garcia
President and CEO

AGENDA

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

Friday, March 25, 2022
9:00 a.m.– 11:00 p.m.

Dial (872) 240-3412
Access Code: 712-680-589

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. Investment Updates and Recommendations – 15 minutes

   a. Green Liberty Notes Issuance
   b. Late Fees and Penalties Forgiveness Process

5. Financing Programs Updates and Recommendations – 35 minutes

   a. SBEA Facility Renewal
   b. C-PACE New Construction

6. Incentive Programs Updates and Recommendations – 30 minutes

   a. Energy Storage Solutions
   b. Smart-E Loan – ARRA Restructuring from Loan Loss Reserves to Interest Rate Buydowns
   c. Smart-E Loan – Expansion to include Environmental Infrastructure Measures

7. Infrastructure Investment and Jobs Act Opportunity: Department of Energy Loan Programs Office – 30 minutes

8. Adjourn

Join the meeting online at

https://global.gotomeeting.com/join/712680589
Or call in using your telephone:
Dial (872) 240-3412
Access Code: 712-680-589

Next Regular Meeting: Friday, April 22, 2022 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, March 25, 2022
9:00 a.m.– 11:00 p.m.

Dial (872) 240-3412
Access Code: 712-680-589

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 form January 21, 2022.

Resolution #2

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 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 in July 2021 to October 29, 2021, which was further extended by the Board in October 2021 to December 31, 2021, which was further extended by the Board in December 2021 to January 31, 2022, and which was further extended by the Board in January 2022 to March 31, 2022;

WHEREAS, Green Bank has further advised the Board that the Credit Facility is now expected to close by the end of May 2022 and to accommodate the additional time needed to execute the Credit Facility requests the permitted time to execute the credit facility be increased from not later than 468 days from the original date of authorization by the Board (March 31, 2022) to not later than 529 days from the date of authorization by the Board (i.e., to May 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 529 days from the original date of authorization by the Board (i.e., not later than May 31, 2022); and

RESOLVED, that the President of the Green Bank and any other duly authorized officer is authorized to take appropriate actions to provide the Credit Facility to FCE (or a special purpose entity wholly-owned by FCE) in an amount not to exceed $8,000,000 with terms and conditions consistent with the memorandum submitted to the Board dated December 18, 2020 (the "Memorandum"), and as he or she shall deem to be in the interests of the Green Bank and the ratepayers; 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.

<u>Resolution #3</u>

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 March 25, 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 March 25, 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.

4. Investment Updates and Recommendations – 10 minutes

   a. Green Liberty Notes Issuance
   b. Late Fees and Penalties Forgiveness Process

<u>Resolution #4</u>

WHEREAS, On June 13, 2018 the Connecticut Green Bank (“Green Bank”) Board of Directors (“BOD”) authorized and approved a framework and process for funding the provisional loss reserve, restructuring, and writing-off transactions on the Green Bank balance sheet, the process was amended by the BOD on April 24, 2020, and on June 26, 2020 it was approved by the BOD for transactions on the balance sheet of Green Bank’s subsidiaries (taken together, all such BOD approvals being the “Loan Loss Decision Process”;

WHEREAS, the Staff of the Green Bank propose in a memorandum to the BOD dated March 18, 2022 (the “Memorandum”) an amendment to the Loan Loss Decision Process to address the process for modifying or waiving default interest, penalties and fees.

NOW, therefore be it:

RESOLVED, that the BOD approves of the Staff proposed amendment to the Loan Loss Decision Process to address the process for modifying or waiving default interest, penalties and fees, as more particularly described in the Memorandum; and

RESOLVED, that the BOD authorizes Green Bank staff to evaluate and approve the modification or waiver of default interest, penalties and fees in accordance with the process and limits set forth in the Memorandum.

5. Financing Programs Updates and Recommendations – 35 minutes

   a. SBEA Facility Renewal

<u>Resolution #5</u>

WHEREAS, the CEFIA Holdings LLC (a Connecticut Green Bank subsidiary), Eversource Energy and Amalgamated Bank Small Business Energy Advantage (SBEA) financing facility, pursuant to that certain Second Amended and Restated Master Purchase and Servicing Agreement dated September 30, 2020 (as amended, the "MPA"), expired on March 20, 2022; and

WHEREAS, the parties have agreed on terms set forth in a memorandum to the Green Bank Board of Directors (the "Board") dated March 18, 2022 (the "MPA Memo") to renew and extend the MPA and expand the availability of financing for energy efficiency.

NOW, therefore be it:

RESOLVED, that the Board authorizes the Green Bank to renew and extend the MPA to December 31, 2024 substantially in accordance with the terms of the existing MPA with modifications as set forth in the MPA 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.

b. C-PACE New Construction

Resolution #6

WHEREAS, Conn. Gen. Stat. Section 16a-40g (the "Authorizing Statute") authorizes what has come to be known as the Commercial Property Assessed Clean Energy Program ("C-PACE"), the Authorizing Statute designates the Connecticut Green Bank ("CGB") as the state-wide administrator of the program;

WHEREAS, the Authorizing Statute charges CGB to develop program guidelines (the "Program Guidelines") governing the terms and conditions under which state and third-party financing may be made available to C-PACE;

WHEREAS, CGB staff drafted proposed changes to the Program Guidelines, which among other things, would supersede the New Construction Program Pilot which was approved by the Board on January 26, 2018 (the "New Construction Pilot"); and

WHEREAS, The proposed changes to the Program Guidelines went through a thirty-day public comment period in accordance with Conn. Gen. Stat. Section 1-120 et seq, and staff has made further changes to the Guidelines to address certain public comments which were received, as more particularly described in that memorandum to the Board dated March 22, 2022 (the "Memorandum").

NOW, therefore be it:

RESOLVED, the CGB Board of Directors (the "Board") approves the proposed changes to Program Guidelines, substantially in the form of attached to the Memorandum. The updated Program Guidelines shall supersede the New Construction Pilot;

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

6. Incentive Programs Updates and Recommendations – 30 minutes

a. Energy Storage Solutions
b. Smart-E Loan – ARRA Restructuring from Loan Loss Reserves to Interest Rate Buydowns

<u>Resolution #7</u>

WHEREAS, at a Special Meeting of the Connecticut Green Bank's ("Green Bank") Deployment Committee ("the Deployment Committee") held on November 30, 2012, the Deployment Committee passed **resolutions** to approve the Smart-E Loan Program (originally called the "CT HELPs Program");

WHEREAS, in February of 2013, the Connecticut Department of Energy and Environmental Protection released the Comprehensive Energy Strategy ("CES") for Connecticut that includes developing financing programs that leverage private capital to make clean energy investments more affordable, including the pilot Smart-E Loan residential financing program;

WHEREAS, in May of 2013, the Green Bank launched the Smart-E Loan program, operating statewide, with nine local lenders providing low cost and long-term financing for measures that are consistent with the state energy policy and the implementation of the CES;

WHEREAS, in October of 2013, the Green Bank's Board of Directors ("Board") approved full use of $8,361,620 of American Recovery and Reinvestment Act State Energy Program ("ARRA-SEP") funds across a mix of Loan Loss Reserves, Interest Rate Buydowns, and Third Party Insurance Products – credit enhancements for the Green Bank's newly developed residential financing products;

WHEREAS, in March of 2017, the Board approved the Green Bank's request to repurpose ARRA-SEP funds across loan loss reserves and interest rate buydowns ("Credit Enhancements") for the Green Bank's Cozy Home Loans, Smart-E Loans, CT Solar Lease, CT Solar Loan, and LIME Loan programs (the "Programs") in amounts materially consistent with the Memorandum presented to the Board dated March 3, 2017;

WHEREAS, in March of 2017, the Board approved replacing ARRA-SEP funds with Green Bank balance sheet funds for certain program Loan Loss Reserves in amounts materially consistent with the Memorandum presented to the Board dated March 3, 2017;

WHEREAS, staff request that $300,000 of the $600,000 in ARRA-SEP funds currently allocated to loan loss reserves be repurposed with Green Bank balance sheet funds and that ARRA-SEP funds be reallocated to Smart-E loan loss reserves and for future interest rate buydowns, as more fully explained in the memorandum to the Board dated March 18, 2022;

WHEREAS, the Deployment Committee recommended approval by the Board of this request at their February 23, 2022 meeting.

NOW, therefore be it:

RESOLVED, that the Board approves payment of approximately $164,927.82 in ARRA-SEP funds to Smart-E lenders for loan losses.

RESOLVED, that the Board approves repurposing $300,000 in ARRA-SEP funds currently allocated to the LIME Loan program's loan loss reserves with Green Bank funds.

RESOLVED, that the Board of approves reallocating ARRA-SEP funds from various programs to the Smart-E Loan program to be deployed and expended through loan loss reserves and interest rate buydowns that support the state's clean energy policy, as more fully explained in the memorandum to the Board dated March 18, 2022.

c. Smart-E Loan – Expansion to include Environmental Infrastructure Measures

Resolution #8

WHEREAS, at a Special Meeting of the Connecticut Green Bank's (Green Bank) Deployment Committee ("the Deployment Committee") held on November 30, 2012, the Deployment Committee passed **resolutions** to approve the Smart-E Loan Program (originally called the "CT HELPs Program");

WHEREAS, in February of 2013, the Connecticut Department of Energy and Environmental Protection released the Comprehensive Energy Strategy ("CES") for Connecticut that includes developing financing programs that leverage private capital to make clean energy investments more affordable, including the pilot Smart-E Loan residential financing program;

WHEREAS, in May of 2013, Green Bank launched the Smart-E Loan program, currently operating statewide, with nine local lenders providing low cost and long-term financing for measures that are consistent with the state energy policy and the implementation of the CES;

WHEREAS, in March of 2014, the Deployment Committee approved revisions to the Smart-E lender term sheet regarding program loan amounts and loan duration, and certain incremental program upgrades from Smart-E's first 15 months;

WHEREAS, in October of 2015 and January 2017, the Board of Directors (Board) approved an alternate underwriting term sheet which expanded the Smart-E Loan applicant pool beyond the standard underwriting criteria, so as to include credit-challenged borrowers;

WHEREAS, program staff request that the term sheet be further enhanced to allow for the addition of environmental infrastructure measures to the list of "eligible improvements" and to increase the maximum loan amount from $45,000 to $75,000 to accommodate larger projects and to raise the Green Bank approval threshold from $40,000 to $50,000, as it applies to "clean energy" projects, as more fully explained in a memorandum to the Board dated March 18, 2022.

NOW, therefore be it:

RESOLVED, that the Board approves amending the Smart-E "eligible improvements" category to include residential "environmental infrastructure" improvements as defined in Public Act 21-115 and authorizes the Deployment Committee to determine the specific measures by segment (e.g., water, waste and recycling, etc.) to be supported through the Smart-E program; and

RESOLVED, that the Board approves amending the Smart-E maximum loan amount from $45,000 to $75,000 and raising the Green Bank approval threshold from $40,000 to $50,000, as it applies to "clean energy" projects.

7. Infrastructure Investment and Jobs Act Opportunity: Department of Energy Loan Programs Office – 30 minutes

8. Adjourn

Join the meeting online at
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Or call in using your telephone:
Dial (872) 240-3412
Access Code: 712-680-589

Next Regular Meeting: Friday, April 22, 2022 from 9:00-11:00 a.m.
Colonel Albert Pope Room at the
Connecticut Green Bank, 75 Charter Oak Avenue, Hartford

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Board of Directors of the Connecticut Green Bank

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JAN
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Fri

Gotomeeting
Friday, 1/21/2022 9:00AM - 11:00AM Eastern Time (US & Canada)

My Time Zone: Friday, 1/21/2022 9:00AM - 11:00AM Eastern Time (US & Canada)

Gotomeeting
75 Charter Oak Avenue
Suite 1 - 103
Hartford, CT 06106
US

Directions

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.

Board of Directors Meeting

March 25, 2022

Online Meeting

Board of Directors

Agenda Item #1

Call to Order

Board of Directors

Agenda Item #2

Public Comments

Introduction

New Board Member

Matthew Dayton

Undersecretary of Legal Affairs

Office of Policy and Management

Board of Directors

Agenda Item #3

Consent Agenda

Consent Agenda
Resolutions #1 through #3

1. **<u>Meeting Minutes</u>** – approve meeting minutes of January 21, 2022
2. **<u>Groton Subbase FuelCell Energy Project</u>** – extension of time to close the project by May 31, 2022
3. **<u>Less than $500,000 and No More in Aggregate than $1,000,000</u>** – staff approval of C-PACE transaction totaling approximately $115,000

- **<u>Regional Clean Hydrogen Hubs</u>** – submitted Green Bank response to the DOE RFI

- **<u>Progress to Targets</u>** – update on IPC progress to targets through Q2 of FY22

Board of Directors

Agenda Item #4a

Investments

Green Liberty Notes

Round 1 – Closed January 13th

- $190,400 Raised from 114 investors

- 55% CT Residents (63)

- 52% < $1000 (59)

- Certificate in development

Round 2 – April 13th

- Launch just before Earth Week
- $250,000 Goal
- Possible Rating from S&P
- Learning from Round 1 to reach more investors

Board of Directors

Agenda Item #4b

Investments

Late Fees and Penalties Forgiveness Process

Loan Loss Decision Process
2018 – 2020

- Framework and process for funding the provisional loss reserve, restructuring, and writing-off transactions
- Applies to Green Bank (2018) and Subsidiaries (2020) balance sheets
- Approved in 2020 and by the BOD in April 2020 (COVID) and in June 2020 (to cover subsidiaries)
- Process does not specifically address situations in which a transaction has accrued default interest, penalties or fees which need to be either enforced modified or waived pursuant to the applicable transaction documents and restructuring negotiations with the borrower
- Staff seeks BOD approval to clarify the Loan Loss Decision Process

Resolution #3

NOW, therefore be it:

RESOLVED, that the Connecticut Green Bank ("Green Bank") Board of Directors ("BOD") approves of the Staff proposed amendment to the Loan Loss Decision Process to address the process for modifying or waiving default interest, penalties and fees, as more particularly described in a memorandum to the BOD dated March 18, 2022 (the "Memorandum"); and

RESOLVED, that the BOD authorizes Green Bank staff to evaluate and approve the modification or waiver of default interest, penalties and fees in accordance with the process and limits set forth in the Memorandum.

Board of Directors

Agenda Item #5a

Financing Programs

SBEA Facility Renewal

SBEA/BEA Loan Purchase Facility

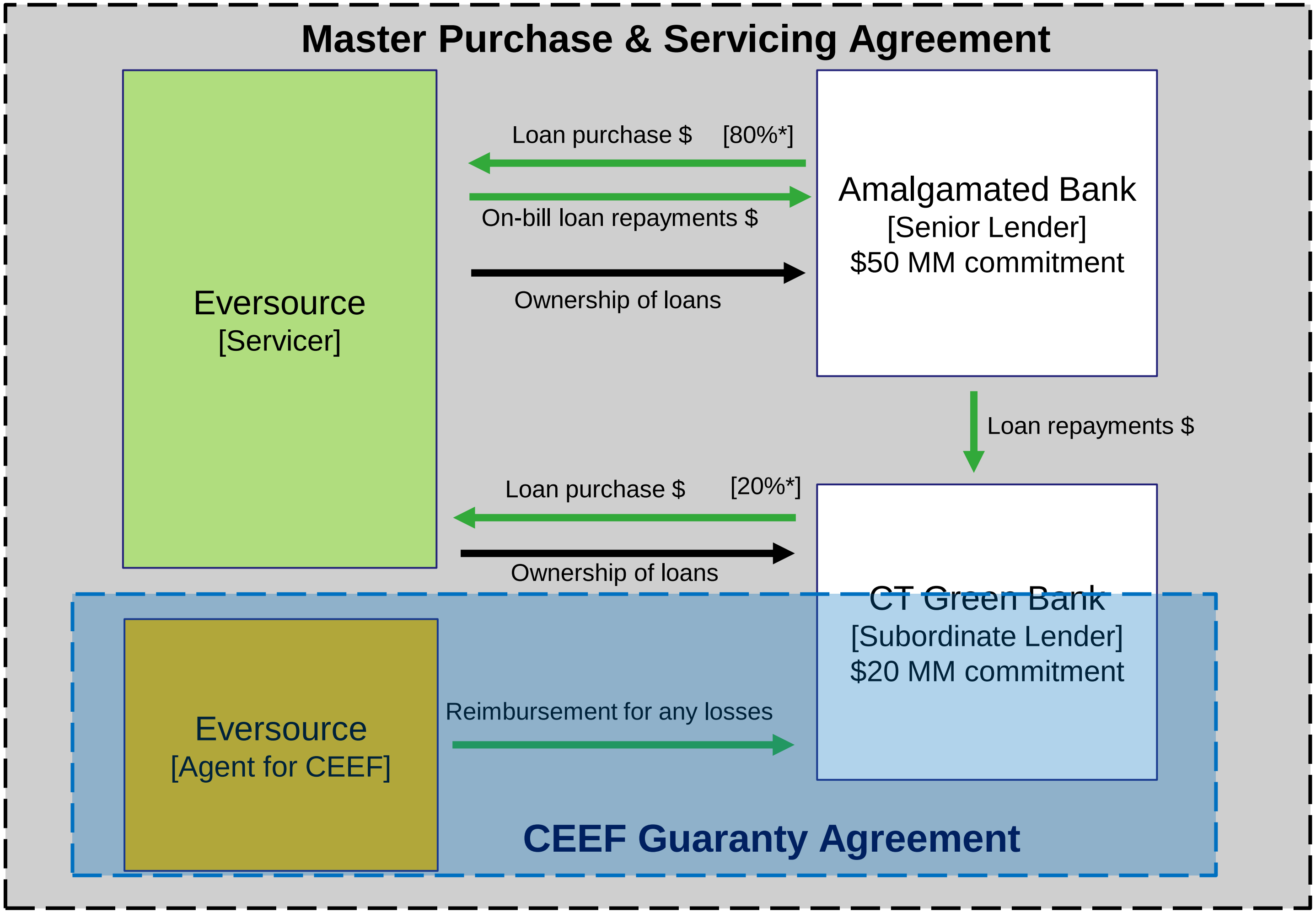
Investment Summary

- **<u>Opportunity</u>**: Renew the agreement to purchase Eversource SBEA & BEA Loans using facility funded with Amalgamated Bank and Green Bank capital
- **<u>Terms & Rate</u>**: 3-year commitment to purchase Eversource "Qualifying Loans" at an equivalent rate to the greater of (a) 3% or (b) the two year Treasury rate plus [redacted]% for loans of 4 years or the five year Treasury rate plus [redacted]% for loans of greater than 4 years
- **<u>Green Bank Participation</u>**: See next slide (moving from flat 10% to 20% + flexibility)
- **<u>Green Bank Exposure</u>**: Green Bank investment will be protected against losses by guaranty from Eversource (as an agent of CEEF)
- **<u>Green Bank Strategic Selection (via Eversource RFP)</u>**:
  - Originally sourced via an RFP issued by Eversource
  - Addressed EEB and Green Bank Joint Committee shared goal "to identify and engage alternative capital sources to lower the cost of and increase opportunities for project financing."
  - Reduced the cost to CEEF of SBEA financing for Eversource customers and makes capital currently deployed in SBEA loans available for CEEF programs to the benefit of ratepayers
  - Established a valuable and collaborative relationship between Green Bank and Eversource
  - Amalgamated Bank is America's largest B Corporation bank with $4 billion in assets

SBEA Loan Purchase Facility

Structure Diagram

5,900 loans purchased = >$75,500,000



*with flexibility for CGB to purchase up to 100%

Small Business Energy Advantage

Renewal Request

CONNECTICUT GREEN BANK

- Extend agreement to 12/31/2024
- Increase CGB's share of the loans from 10% to 20%
- Increase CGB's commitment to $20m
- Increase maximum term length from 4 years to 7 years to allow longer payback measures and more comprehensive projects
- Increase access to capital for all eligible borrowers
    - Increase business customer loan limit to $1m. Individual loan limit would remain $100k but businesses with multiple properties could undergo projects across more of their portfolio
    - Increase most municipal individual and aggregate loan balance to $5m from $1m
    - For the state of Connecticut, increase individual loan balance to $5m and remove aggregate loan balance cap
- Clarify and simplify underwriting requirements
- Incorporate language on Eversource's servicing role that would likely improve bond ratings on issuances backed by the loans and associated revenues.

Resolution #5

NOW, therefore be it:

RESOLVED, that the Board authorizes the Green Bank to renew and extend the MPA to December 31, 2024 substantially in accordance with the terms of the existing MPA with modifications as set forth in the MPA 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 #5b

Financing Programs

C-PACE New Construction

C-PACE New Construction

Pilot History

- Launched in 2018 as a C-PACE New Construction Pilot to gather feedback on the CT new construction market
- Proposed using a whole building energy model to demonstrate energy performance
- Min. of 10% energy performance above code was required to qualify
- Total Eligible Construction Cost (TECC) of construction budget determined
- 10% energy performance above code = 10% of TECC in C-PACE financing
- Each additional 1% improvement in energy performance above code = an additional 1% of TECC in C-PACE financing, up to 20% max

C-PACE New Construction
Pilot Performance

Loan Originator	Property Type	Project Amt
CastleGreen Finance	Multifamily	$13,767,000
Greenworks Lending	Office	$483,196
Greenworks Lending	Hotel	$6,452,348
Greenworks Lending	Multifamily	$1,771,684
Greenworks Lending	Hotel	$2,300,000
PACE Loan Group	Multifamily	$2,500,000
		$27,274,228

C-PACE New Construction

Initial Program Recommendation

- Reduced the minimum energy performance % above code to be eligible to access C-PACE financing
- Increased % of TECC eligible for C-PACE financing
- Added HERS Index Rating as an alternative path for Multifamily properties to demonstrate energy performance above code
- Added "Bonus Technologies" as a way to unlock additional C-PACE financing
- Added an option to for even more C-PACE financing by designing for an all-electric net zero building

C-PACE New Construction
Board & Public Comments

- Use Loan-to-value (LTV) as opposed to Total Eligible Construction Cost (TECC) as the basis to determine eligible % of C-PACE financing.
- Add additional higher levels of energy performance to access higher amounts of C-PACE financing
- Increase the % of C-PACE financing available across all energy performance levels
- Explore alternative standards for building performance such as LEED Certification & EnergyStar Score

C-PACE New Construction

Final Recommendation

GOAL: to give developers, capital providers, and borrowers a simplified and more accessible way to C-PACE for new construction financing while still preserving the program's public policy aspects

- Simplified determining eligible amount of TECC to be financed by decoupling energy performance % above code from directly corresponding to the same % of TECC in financing
- Added option for eligible multifamily properties to use the HERS Index as a pathway to demonstrate energy performance
- Added options to access additional 5% or 10% of TECC in financing by incorporating 2 or 4 bonus technologies that promote emerging clean energy technologies, resiliency, state policy goals, and energy transition goals
- Added option for all-electric net zero projects to access highest % of TECC in financing at 35%

C-PACE New Construction
Amendments & New Additions

Whole Building Energy Model Path

IECC Code Year	Min. Energy Performance Above Code to be eligible for C-PACE Financing	C-PACE Financed Amt. of TECC	C-PACE Financed Amt. after Addition of Min. 2 Bonus Technologies	C-PACE Financed Amt. after Addition of Min. 4 Bonus Technologies	C-PACE Financed Amt. Designed for Net Zero
2021	5%	20%	25%	30%	35%
2021	10%	25%	30%	35%	

HERS Index Multifamily Path

IECC Code Year	Weighted HERS Index Rating*	Min. Common Area and Commercial Space equip. efficiency requirement	C-PACE Financed Amt. of TECC	C-PACE Financed Amt. after Addition of Min. 2 Bonus Technologies	C-PACE Financed Amt. after Addition of Min. 4 Bonus Technologies	C-PACE Financed Amt. Designed for Net Zero
2021	35 and under	Meets code	20%	25%	30%	35%
	36-40	5% > code	20%	25%	30%	
2021	30 and under	Meets code	25%	30%	35%	
	31-35	10% > code	25%	30%	35%	

Resolution #6

NOW, therefore be it:

RESOLVED, the CGB Board of Directors (the "Board") approves the proposed changes to Program Guidelines, substantially in the form of attached to the Memorandum. The updated Program Guidelines shall supersede the New Construction Pilot;

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

Board of Directors

Agenda Item #6a

Incentive Programs

Energy Storage Solutions

Energy Storage Solutions

Deployment Targets

- Statewide goal of 1000 MW, including front-of-the-meter
- 9-year program – Goal of 580 MW behind-the-meter storage for residential and non-residential end-use customers

CUSTOMER CLASS	2022-2024	2025-2027	2028-2030	TOTAL
Residential	50 MW	100 MW	140 MW	290 MW
Non-Residential	50 MW	100 MW	140 MW	290 MW
Total	**100 MW**	**200 MW**	**280 MW**	**580 MW**

Energy Storage Solutions

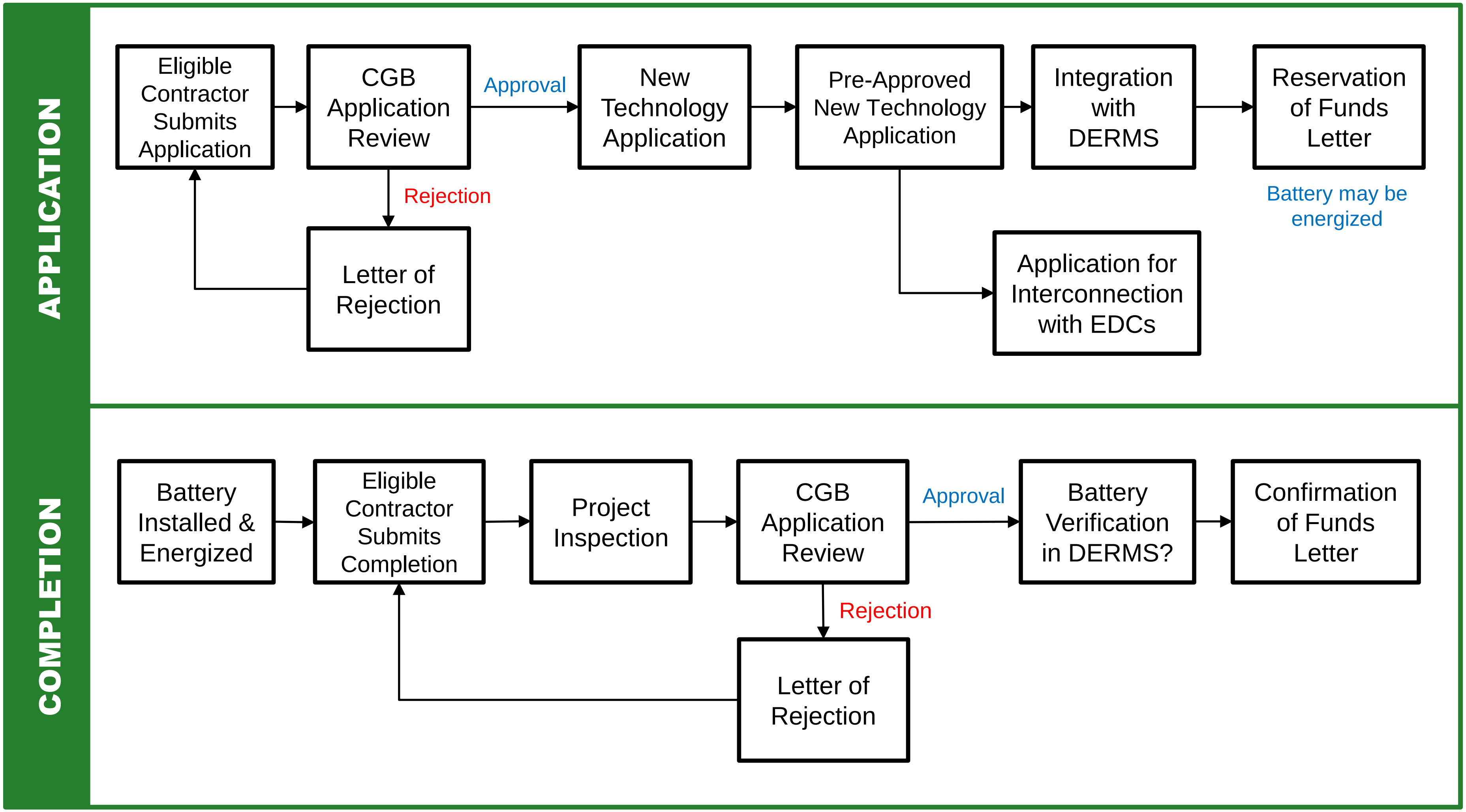
Roles and Responsibilities

The Connecticut Green Bank, Eversource and United Illuminating are be co-administrators of the Energy Storage Solutions Program.

CT Green Bank	Joint Responsibilities	EDCs
• Contractor Approval • Customer Enrollment • Marketing and Outreach • Administration of Upfront Incentive • Project Inspections • Data Aggregation and Publication	• Evaluation, Measurement, and Verification (EM&V) • Review and Approval of New Technology Applications	• Passive and Active Dispatch • Administration of Performance Incentive • Management of DERMS platform

Energy Storage Solutions

Project Application and Completion Process



Energy Storage Solutions

Available Capacity

ESS for Residential

RESIDENTIAL

487 kW SUBMITTED

0 kW APPROVED

As of 03/21/22, there are 487 kW of unapproved projects in the residential queue. The current step has 50 MW of capacity

ESS for Non-Residential

NON-RESIDENTIAL

53.3 MW SUBMITTED

0 kW APPROVED

As of 03/21/22, there are 53.3 MW of unapproved projects in the non-residential queue. The current step has 50 MW of capacity

Board of Directors

Agenda Item #6b

Incentive Programs

Smart-E Loan – ARRA Restructuring

Smart-E Loan
Overview

Who is involved?

- Administered by CT Green Bank in partnership with **nine** local lenders and a network of **350+** contractors

What can you finance?

- 40+ energy improvements
  - Solar
  - Battery Storage
  - Health & Safety
  - Home performance
  - HVAC
  - EV chargers

How much can you borrow?

- $500 - $40,000

What are the rates and terms?

- 5 years – 4.49%
- 7 years – 4.99%
- 10 years – 5.99%
- 12 years – 6.99%

Property eligibility?

- Owner-occupied
- 1-4 unit, residential

Other key points?

- Available statewide – not tied to a utility
- No money down, fixed monthly pmts, no prepmt penalty, no contractor fees
- Up to 25% of the loan can be used for "other/related" measures

Smart-E Loan
Borrower Eligibility

CONNECTICUT GREEN BANK

Standard Term Sheet*

- 640+ credit score
- 45% debt-to-income ratio maximum

Credit Challenged Term Sheet*

- 580+ credit score
- 50% debt-to-income ratio maximum
- DTI screen waived for 680+ credit scores

www.ctgreenbank.com/smarte

***Waivers considered "case by case"**

Smart-E Loan
Program to Date

CONNECTICUT GREEN BANK

Launched: May 2013

Total Closed Loans: 5,944

Total Capital Deployed: $90M

Average Loan Amount: $15,222

Average Credit Score: 744

Average Debt-to-Income: 18%

Delinquency Rate: 0.8%

Default Rate: 0.1%

Charge Off Rate: 1.4%

Request

- **Allocate** $214,547 in ARRA-SEP interest and **reallocate** $17,193 in ARRA-SEP funds **from** Cozy Home Loan LLR **to** Smart-E LLR, then make loan loss reserve payments to three Smart-E lenders.

- **Replace** the $300,000 in ARRA-SEP funds currently allocated to the LIME Loan's LLR with Green Bank balance sheet funds.

- **Reallocate**:
  - $311,546 in ARRA-SEP funds **from** the CT Solar Loan's LLR and IRB
  - $300,000 in ARRA-SEP funds **from** the LIME Loan's LLR
  - $11,600 in ARRA-SEP funds **from** the Cozy Home Loan's IRB

  - **to** Smart-E IRBs ($616,416) and
  - **to** Smart-E LLR ($6,730).

Summary of Proposed Changes

Programs	Not-to-Exceed ARRA-SEP Amount	ARRA-SEP LLR Allocation	ARRA-SEP IRB Allocation	Additional Green Bank LLR Funds Required
Cozy Home Loan	$28,793	$17,193	$11,600	
Reallocated	***($28,793)***	***($17,193)***	***($11,600)***	
Smart-E Loan	$7,564,227		$7,564,227	
Reallocated	***$640,339***	***$23,923***	***$616,416***	
Used			***$7,422,427***	
Committed		***$164,928***	***$134,941***	
Solar Loan	$468,600		$157,054	n.a.
Used			***$157,054***	
Reallocated	***($311,546)***			
Solar Lease				
C4C LIME Loan	$300,000			$300,000
Reallocated	***($300,000)***			
Interest	$214,547			
Smart-E Loan		$214,547		
Used		***$73,542***		
Total	**$8,576,167**	**$238,470**	**$8,337,697**	**$300,000**

Resolution #5

NOW, therefore be it:

RESOLVED, that the Board approves payment of approximately $164,927.82 in ARRA-SEP funds to Smart-E lenders for loan losses.

RESOLVED, that the Board approves repurposing $300,000 in ARRA-SEP funds currently allocated to the LIME Loan program's loan loss reserves with Green Bank funds, as more fully explained in the memorandum to the Board dated March 18, 2022.

RESOLVED, that the Board of approves reallocating ARRA-SEP funds from various programs to the Smart-E Loan program to be deployed and expended through loan loss reserves and interest rate buydowns that support the state's clean energy policy, as more fully explained in the memorandum to the Board dated March 18, 2022.

Board of Directors

Agenda Item #6c

Incentive Programs

Smart-E Loan – Environmental Infrastructure

Request

Seeking programmatic approval from the Board of Directors to amend the Smart-E Loan program's underwriting term sheet to:

1) Allow for the addition of environmental infrastructure measures to the list of "eligible improvements"

Eligible Improvements	1) Residential "Clean Energy" improvements as defined by Connecticut General Statutes Section 16-245n Sec. 99, 2) Listed as categorically excluded from the National Environmental Protection Act and eligible activities under the American Recovery and Reinvestment Act of 2009 through the State Energy Program, **3) Residential "Environmental Infrastructure" improvements as defined in Connecticut General Statute 16-245n, and** 4) Recommended by a Program Contractor.

2) Increase the maximum loan amount from $45,000 to $75,000, and raise the Green Bank approval threshold from $40,000 to $50,000, as it applies to "clean energy projects"

Loan Amounts	Preferred Program Range: $500 (minimum) to $50,000 (maximum) Lenders can offer loan amounts higher than $50,000 (up to $75,000) subject to Green Bank approval.

Smart-E and Environmental Infrastructure

An internal working group has formed to assess possible new measures following the process below:

New Measures	Technical Requirements	New Contractors	Licensing and Insurance Requirements	CT Green Bank Inspections
Environmental Infrastructure Category	Research Industry Standards	Outreach to Trade Associations	Ongoing Collaboration with DCP	Project and Inspector Qualifications

New measures will be subject to approval by the Green Bank's Senior Team and Deployment Committee. **No ratepayer (i.e., CEF) or RGGI funds will be used towards Smart-E Loans for environmental infrastructure projects.**

Resolution #6

NOW, therefore be it:

RESOLVED, that the Board approves amending the Smart-E “eligible improvements” category to include residential “environmental infrastructure” improvements as defined in Public Act 21-115 and authorizes the Deployment Committee to determine the specific measures by segment (e.g., water, waste and recycling, etc.) to be supported through the Smart-E program; and

RESOLVED, that the Board approves amending the Smart-E maximum loan amount from $45,000 to $75,000 and raising the Green Bank approval threshold from $40,000 to $50,000, as it applies to “clean energy” projects.

Board of Directors

Agenda Item #7

Infrastructure Investment and Jobs Act Opportunity

Loan Programs Office

Introductions
Department of Energy

Robert H. Edwards, Jr.

Director of Outreach and Business Development

Loan Program Office

An Overview of DOE's Loan Programs Office

Financing American Energy Infrastructure

Connecticut Green Bank
Board of Directors
Meeting

Robert H. Edwards Jr.

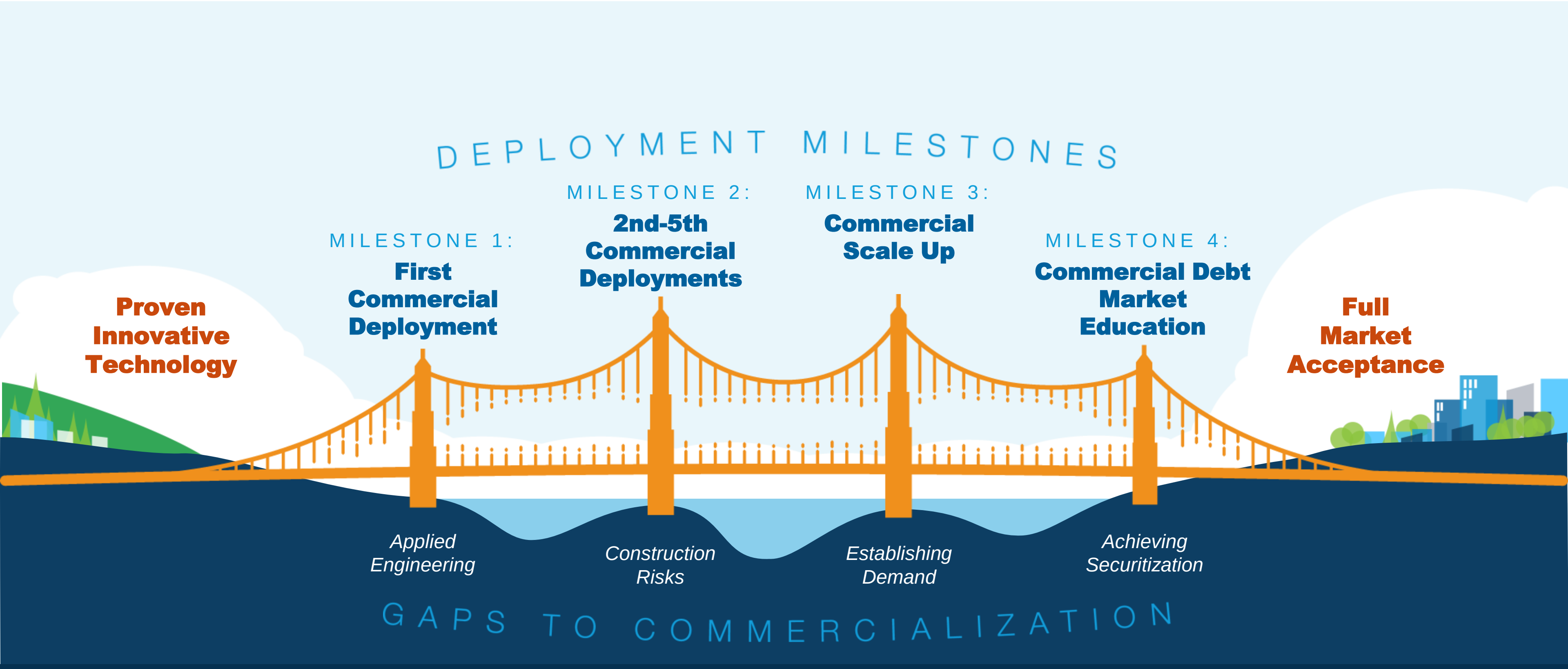
Director, Outreach and
Business Development

March 25, 2022

Agenda

- Value of LPO Financing
- LPO Portfolio
- LPO Programs
- Flexible Financing
- Loan Transaction Process

Bridge to Bankability



LPO can provide access to capital for innovative technologies along all milestones to reaching full market acceptance, overcoming key barriers to bankability.

Monthly Application Activity Report

FEBRUARY 2022

77 ACTIVE APPLICATIONS [1]

$70.8 BILLION IN LOANS REQUESTED [2]

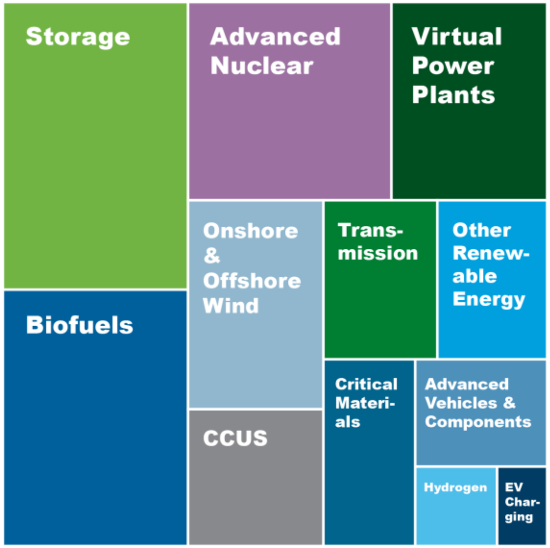
1.6 NEW APPLICATIONS PER WEEK [3]

Notes: *** All data updated through February 28, 2022.**

1) Active applications are defined as completed submissions through LPO's online application portal.
2) Individual requested loan amounts are estimated and potential, subject to change, and not necessarily representative of final financing terms. **Requested loan amounts in current active applications *do not* affect available LPO loan authority.** Figure rounded down to the nearest $0.1 billion.
3) Current rolling average of new active applications per week over the previous 24 weeks. Figure rounded down to the nearest 0.1 application.

$70.8 BILLION

TOTAL AMOUNT OF LOANS REQUESTED BROKEN DOWN BY TECHNOLOGY AREA



Financing American Energy Infrastructure

The Department of Energy's Loan Programs Office (LPO) was established for borrowers seeking access to debt financing for energy infrastructure projects.

With over $40 billion in available debt capital, LPO programs finance high-impact projects and first-time commercializations, partnering with borrowers to customize deal structures.

Access to Debt Capital

that private lenders cannot or will not provide.

Flexible Financing

customized for the specific needs of individual borrowers.

A Committed Partner

offering expertise to borrowers for the lifetime of the project.

Over $35 Billion in Energy Deals Financed

More than 30 projects of broadly distributed technologies across the United States.

Renewables Innovation

Financed large-scale, innovative wind, geothermal, and transmission projects across the West.

Utility-Scale Solar

Financed 11 utility-scale solar projects across the Southwest, catalyzing the industry in the U.S.

Advanced Auto Manufacturing

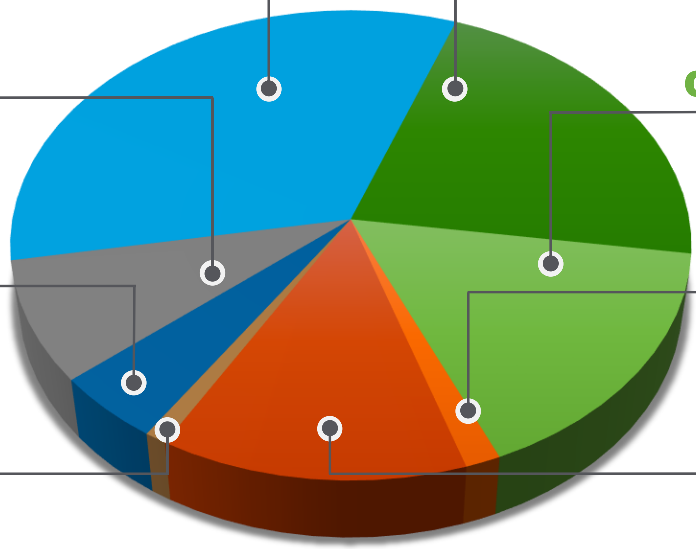
Financed the upgrade of advanced auto manufacturing facilities across the Midwest, creating tens of thousands of jobs.

Advanced Nuclear Energy

Financed the construction of the first new nuclear reactor in the U.S. in 30 years.

A Diverse Portfolio of Innovative Technologies

LPO financed-projects have catalyzed new energy technologies and supported thousands of jobs.



Advanced Nuclear Energy

$12 Billion

First AP1000 reactor in the U.S. **(Vogtle)**

Advanced Fossil Energy

$2 Billion

CO_2 capture and sequestration conditional commitment. **(Lake Charles Methanol)**

Wind Energy

$1.7 Billion

Four onshore farms, including one of the world's largest. **(Shepherds Flat)**

Transmission

$343 Million

Advanced transmission lines for improved grid reliability. **(One Nevada Line)**

Advanced Vehicles Manufacturing

$7.8 Billion

Accelerated domestic electric vehicles manufacturing. **(Nissan, Tesla)**

Concentrating Solar Power

$5.8 Billion

Five CSP plants utilizing diverse technologies.

Geothermal Energy

$546 Million

State-of-the-art thermal extraction, revitalizing the sector.

Photovoltaic Solar

$4.7 Billion

First five utility-scale PV solar projects larger than 100 MW in the U.S.

$40 Billion in Available Debt Capital

LPO offers project financing across energy sectors through three distinct loan programs.

Program	Sector	Available
TITLE 17 Innovative Energy Loan Guarantees	Renewable Energy & Efficient Energy	Up to $4.5 Billion Available
	Advanced Nuclear Energy	$10.9 Billion Available
	Advanced Fossil Energy	$8.5 Billion Available
ATVM Direct Loans	Advanced Technology Vehicles Manufacturing	$17.7 Billion Available
TELGP Partial Loan Guarantees	Tribal Energy Projects	Up to $2 Billion Available

Expanded Authority to Work with State Green Banks

Infrastructure Investment and Jobs Act – Sec. 40401(c)(2)

- Amends 42 U.S.C. 16512 Terms and Conditions of Title 17 loans to:
  - include projects receiving financial support or credit enhancements from state energy financing institutions as eligible projects, in general and for purposes of repayment (42 U.S.C. 16521(a), (d)(1)); and
  - clarifies that such projects **shall not** be required to meet section 1703(a)(2)'s requirement for "new or significantly improved technologies," but **shall** be required to meet 1703(a)(1)'s avoided emission requirement.
- Allows partnerships between State energy financing institutions and private entities, Tribal entities, and Alaska Native corporations in carrying out a project under this title.
- *This expansion of authority not in effect until congressional appropriations*

Renewable Energy & Efficient Energy

Up to $4.5 Billion in Loan Guarantees Available

LPO helps bring renewable & efficient energy projects to commercial scale through its Title 17 Innovative Energy Loan Guarantee Program.

Financing

LPO provides access to debt capital for energy projects using innovative technology when commercial lenders cannot or will not provide financing.

Eligibility

LPO can consider renewable & efficient energy projects that:

1. Use innovative technology.
2. Reduce, avoid, or sequester greenhouse gas emissions.
3. Are located in the U.S.
4. Provide reasonable prospect of repayment.

Technologies

Technology areas of interest include, but are not limited to:

- **Advanced Grid Integration & Storage**
- **Alternative Fuel Vehicle Infrastructure**
- **Distributed Energy Projects**
- **Efficiency Improvements**
- **Enhancement of Existing Facilities**
- **Offshore Wind & Related Infrastructure**
- **Waste-To-Energy**

Advanced Nuclear Energy

$10.9 Billion in Loan Guarantees Available

(Including $**2 Billion** specifically for front-end projects)

LPO helps bring advanced nuclear energy projects to commercial scale through its Title 17 Innovative Energy Loan Guarantee Program.

Financing

LPO provides access to debt capital for energy projects using innovative technology when commercial lenders cannot or will not provide financing.

Eligibility

LPO can consider advanced nuclear energy projects that:

1. Use innovative technology.
2. Reduce, avoid, or sequester greenhouse gas emissions.
3. Are located in the U.S.
4. Provide reasonable prospect of repayment.

Technologies

Technology areas of interest include, but are not limited to:

- **Advanced Nuclear Reactors**
- **Front-End Nuclear**
- **Small Modular Reactors (SMRs)**
- **Uprates & Upgrades at Existing Facilities**

Advanced Fossil Energy

$8.5 Billion in Loan Guarantees Available

(Including $**2 Billion** conditionally committed to Lake Charles Methanol)

LPO helps bring advanced fossil energy projects to commercial scale through its Title 17 Innovative Energy Loan Guarantee Program.

Financing

LPO provides access to debt capital for energy projects using innovative technology when commercial lenders cannot or will not provide financing.

Eligibility

LPO can consider advanced fossil energy projects that:

1. Use innovative technology.
2. Reduce, avoid, or sequester greenhouse gas emissions or air pollutants.
3. Are located in the U.S.
4. Provide reasonable prospect of repayment.

Technologies

Technology areas of interest include, but are not limited to:

- **Advanced Resource Development**
- **Carbon Capture**
- **Efficiency Improvements**
- **Low-Carbon Power Systems**

Advanced Technology Vehicles Manufacturing

$17.7 Billion in Direct Loans Available

The ATVM Direct Loan Program offers low-cost debt capital to the entire automotive value chain to improve the fuel economy of the U.S. fleet.

Financing

LPO provides access to affordable debt capital for vehicles, components, and materials to expand fuel-efficient vehicle and eligible component manufacturing capacity in the United States.

Eligibility

LPO can consider advanced automotive manufacturing projects that:

1. Meet specified fuel economy requirements.
2. Use funds to build new facilities or reequip/modernize/expand existing facilities and/or related engineering integration for eligible vehicles.
3. Are located in the U.S.
4. Provide reasonable prospect of repayment.

Technologies

ATVM financing is available for all levels of the automotive value chain including:

✓ Materials ✓ Components ✓ Suppliers
✓ OEMs ✓ Alternative Fueling Infrastructure

With particular interest in:

- **Efficient Light-Duty or Ultra-Efficient Vehicles Manufacturing**
- **Qualified Component Manufacturing**
- **Engineering Integration**

Tribal Energy Projects

Up to $2 Billion in Partial Loan Guarantees Available

LPO supports all-of-the-above energy development projects and activities through its Tribal Energy Loan Guarantee Program (TELGP).

Financing

LPO provides access to debt capital for tribal ownership of energy projects and activities that support economic development and tribal sovereignty.

Eligibility

LPO can consider tribal energy projects that:

1. Are owned by a tribe or entity that is majority tribally owned and controlled.
2. Are located in the U.S. (project may be single site or distributed portfolio and on non-tribal land).
3. Are financially viable—TELGP is not a grant program and the borrower will be required to invest equity in the project.
4. No innovation requirement, though projects employing commercial technology are preferred.

Technologies

Technology areas of interest include, but are not limited to:

- **Fossil Energy**
- **Renewable Energy**
- **Transmission Infrastructure & Energy Storage**
- **Transportation of Fuels**

Offering Flexible Financing Solutions

LPO can provide affordable, custom financing to meet the specific needs of individual borrowers.

- ✓ **Various Loan Types** | Depending on the program, LPO can offer direct loans from U.S. Treasury's Federal Finance Bank (FFB), 100% guarantee of FFB loans, and partial guarantees of commercial loans. Loan terms are specific to the proposed project and are subject to negotiation.
- ✓ **Affordable Debt & Long Tenor** | Senior secured debt priced competitively with commercial rates.
- ✓ **Flexible Deal Structures** | Structures may include project finance, structured corporate, corporate or warehousing lines.
- ✓ **DOE Role** | Can serve as sole lender or as a co-lender.
- ✓ **Debt Amount Determination** | Based on credit profile, business plan, market risk, technology, cash flows, project risk allocation and other relevant factors.
- ✓ **Viability Standard** | Emphasis placed on certainty of cash flow to the project during initial financial viability review and during subsequent due diligence.

LPO Moves Ideas to Applications to Projects

LPO engages early with applicants and remains a partner throughout the lifetime of the loan.

1 Pre-Application Consultations

Meet with LPO for no-fee, pre-application consultations, including discussions on the application process and the proposed project.

More Variable Timing
Length of these stages varies greatly, depending on project complexity and readiness.

Less Variable Timing
Timing for these stages is largely fixed, with targeted timelines.

2 Formal Application Submission

Title 17: Submit Part I application to determine technical eligibility (innovation and greenhouse gas emissions calculation). There is no review of business plan or financial structure in Part I. If invited, submit more thorough Part II application to deter-mine project viability and ability to move into due diligence. Application fees are paid at loan closing.

ATVM: Submit single application to determine basic eligibility and project viability. No application fees.

TELGP: Tribal borrower engages with a commercial lender. Lender applies for a loan guarantee on behalf of Borrower and project. Requires application fees.

3 Due Diligence & Term Sheet Negotiation

Title 17 & ATVM: Enter confirmatory due diligence and negotiate term sheet.

TELGP: Borrower, Lender, and DOE engage in confirmatory due diligence and term sheet negotiation.

Any third-party advisor costs are paid for by the applicant. For Title 17, costs are due at closing.

4 Credit Approval Process

Formal approval process of the term sheet, including interagency consultations.

5 Loan Closing & Project Monitoring

Negotiate and execute loan documents using the approved term sheet. Loan closing and funding are subject to conditions precedent in the executed loan documents.

Applicant pays applicable costs and fees.

After loan closing, LPO monitors the loan.

Let’s Talk About Your Project

Contact LPO to see what financing options may be available for your project:

Call or write to schedule a no-fee, pre-application consultation: **202-586-8336 | lpo@hq.doe.gov**

Learn more about LPO and all of its lending programs at: **energy.gov/LPO**

Robert H. Edwards Jr.

Director, Outreach and Business Development

Robert.Edwards@hq.doe.gov

Board of Directors

Agenda Item #8

Adjourn

BOARD OF DIRECTORS OF THE
CONNECTICUT GREEN BANK
Special Meeting Minutes

Friday, January 21, 2022
9:00 a.m. – 11:00 a.m.

A special meeting of the Board of Directors of the **Connecticut Green Bank (the "Green Bank")** was held on January 21, 2022.

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

Board Members Present: Jeffrey Beckham, Bettina Bronisz (for Sarah Sanders), Binu Chandy, Dominick Grant, Victoria Hackett, John Harrity, Adrienne Houël, Laura Hoydick, Matthew Ranelli, Lonnie Reed

Board Members Absent:, Thomas Flynn, , Brenda Watson

Staff Attending: David Beech, Shawne Cartelli, Mackey Dykes, Brian Farnen, Bryan Garcia, Sara Harari, Bert Hunter, Ed Kranich, Alysse Lembo-Buzzelli, Cheryl Lumpkin, Desiree Miller, Jane Murphy, Sara Pyne, Ariel Schneider, Eric Shrago, Dan Smith, Mariana Trief, Michael Yu

Others present: Joel Rinebold from the Connecticut Center of Advanced Technology and Connecticut Hydrogen FuelCell Coalition, Claire Sickinger

1. Call to Order

- Lonnie Reed called the meeting to order at 9:04 am.

2. Public Comments

- No public comments.

3. Consent Agenda

a. Meeting Minutes of December 17, 2021

<u>Resolution #1</u>

Motion to approve the meeting minutes of the Board of Directors for December 17, 2021.

b. FuelCell Energy Project

Resolution #2

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 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 in July 2021 to October 29, 2021, which was further extended by the Board in October 2021 to December 31, 2021, and which was further extended by the Board in December 2021 to January 31, 2022;

WHEREAS, Green Bank has further advised the Board that the Credit Facility is now expected to close within the next 60 days and to accommodate the additional time needed to execute the Credit Facility requests the permitted time to execute the credit facility be increased from not later than 409 days from the original date of authorization by the Board (January 31, 2022) to not later than 468 days from the date of authorization by the Board (i.e., to March 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 468 days from the original date of authorization by the Board (i.e., not later than March 31, 2022); and

RESOLVED, that the President of the Green Bank and any other duly authorized officer is authorized to take appropriate actions to provide the Credit Facility to FCE (or a special purpose entity wholly-owned by FCE) in an amount not to exceed $8,000,000 with terms and conditions consistent with the memorandum submitted to the Board dated December 18, 2020 (the "Memorandum"), and as he or she shall deem to be in the interests of the Green Bank and the ratepayers; 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 Binu Chandy and seconded by John Harrity, the Board of Directors voted to approve the Consent Agenda which contains Resolutions 1-2. None opposed and Matt Ranelli abstained. Motion approved.

4. Committee Updates and Recommendations

a. Audit, Compliance, and Governance Committee

i. Auditor Recommendation

- Jane Murphy summarized the process and evaluations for the new audit firm proposals and the recommendation to select PKF O'Connor Davies. The ACG Committee recommended the proposed selection as well.

<u>Resolution #3</u>

RESOLVED, that the Green Bank Board of Directors hereby approves the Audit, Compliance and Governance Committee recommendation for PKF O'Connor Davies to perform professional audit services for the Connecticut Green Bank for the fiscal years 2022, 2023, and 2024.

Upon a motion made by John Harrity and seconded by Matt Ranelli, the Board of Directors voted to approve Resolution 3. None opposed or abstained. Motion approved unanimously.

b. Budget, Operations, and Compensation Committee

i. Proposed Revisions to FY22 Targets and Budget

- Eric Shrago reviewed the proposed revisions to the FY22 Targets and Budget which was also recommended by the BOC Committee. Incentive Programs will have an overall increase due to some RSIP projects which were previously excluded erroneously. Bryan Garcia commented that the battery storage program is a new market, so the target changes are reflective of the process to understand the market. Financing Programs have an overall decrease due to the forecasts around the SBEA program as well as some projects which are not expected to finish this fiscal year. Mackey Dykes gave an update as to the changes in commercial project targets.

- Eric Shrago summarized the Revenue changes which includes a $3.3 million revenue increase driven primarily by the RGGI Auctions. Operating Expenses are overall increasing by $448,000 and Program Incentives and Grants are increasing by $1.2 million which is primarily driven due to the award of the battery storage program by PURA. He reviewed the different changes in more detail.
- The three Strategic partner contracts that also need updates are due to the new inclusion of the battery storage program.
  - John Harrity asked if the coalition looking to raise or remove the solar cap in the legislative session were to be successful, how would that affect the budget. Bryan Garcia answered that the cap of 50 MW per year for 6 years established for non-residential stakeholders, though there was not one for residential customers. The concern about the removal or raising of the cap might also raise ratepayer costs, but that is to be discussed in legislative session. If it were to occur, more projects could be awarded tariffs however and so those would increase the Green Bank's opportunities to cover those. Mackey Dykes agreed and explained a bit more as to how it would affect larger projects.

Resolution #4

WHEREAS, the Budget, Operations, and Compensation (BOC) Committee, pursuant to Section 5.2.2 of the Bylaws of the Connecticut Green Bank's (Green Bank) has recommended the accompanying adjustments to Fiscal Year 2022 targets and budget to the Green Bank Board of Directors;

NOW, therefore be it:

RESOLVED, the Green Bank Board of Directors of the Connecticut Green Bank authorizes Green Bank staff to enter into new or amend existing professional services agreements (PSAs) with the following, contingent upon a competitive bid process having occurred in the last three (3) years (except Craftsman Technology Group):

I. Craftsman Technology Group
II. Guidehouse (f.k.a. Navigant)
III. Stark Raving

For fiscal year 2022 with the amounts of each PSA not to exceed the applicable approved budget line item

RESOLVED, the Green Bank Board of Directors approves the fiscal year 2022 budget and target adjustments outlined in the accompanying memorandum.

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

5. Finance Programs Updates and Recommendations

a. C-PACE Transaction – Southington

- Mackey Dykes reviewed how the Green Bank interacts with C-PACE projects on a high level and then Alysse Lembo-Buzzelli summarized the proposed Southington project of $1,382,419 for a 449.8 kW roof-mounted and carport solar PV system. The loan would be over a 25-year term with a 5% construction loan interest rate and a 5.95% set term loan interest rate. The loan-to-value ratio is standard to the Green Bank's underwriting criteria though the lien-to-value ratio is a bit higher than normal at 52.5%. There are exceptions which this project falls under to justify that lien-to-value ratio, and it has a good DSCR. Alysse Lembo-Buzzelli then explained the details of the project including key financial metrics and noted it will receive an Energy on the Line grant as it is on a manufacturer.

- Matt Ranelli asked if commercial projects with environmental exposure are examined for compliance history as a risk factor. Alysse Lembo-Buzzelli answered that an environmental risk rating is performed on every project for property issues. Mackey Dykes added that in relation to regulatory compliance in related to a given company's operations, it is not something examined unless disclosed, such as in the financial records for fines paid. It could be done through reaching out to DEEP, but for this system there could be something developed and incorporated as part of the project application process. Lonnie Reed asked what the current contractual relationship is between a company and the Green Bank. Matt Ranelli said he doesn't believe there would be a risk for the Green Bank, but it may affect a given company's into becoming a non-performing asset via a Super Lien. Bert Hunter agreed that a Super Lien would be considered the dominant lien, but it is a valid point that it should be examined in the future. He noted there may be broad terms in the financial agreement, and Brian Farnen added that there are terms which extend into environmental compliance in the financial documents. Bert Hunter stated more work could be done to ensure environmental compliance, however. Victoria Hackett offered her assistance in working with DEEP.
- Matt Ranelli clarified that his concerns were not in relation to this particular company or project but was a general concern that came to mind.

<u>Resolution #5</u>

WHEREAS, pursuant to Conn. Gen. Stat. Section 16a-40g (the "Authorizing 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 **$1,382,419** construction and (potentially) term loan under the C-PACE program to The F&F Concrete Corporation, the building owner of 110 West Main St, Southington, 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

WHEREAS, the Green Bank may also provide a short-term unsecured loan (the "Feasibility Study Loan") from a portion of the Loan amount, to finance the feasibility study or energy audit required by the C-PACE authorizing statute, and such Feasibility Study Loan would become part of the Loan and be repaid to the Green Bank upon the execution of the Loan documents.

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 and, if applicable, a Feasibility Study 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 January 18, 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 Authorizing 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.

Upon a motion made by Matt Ranelli and seconded by Adrienne Houël, the Board of Directors voted to approve Resolution 5. None opposed and Victoria Hackett abstained. Motion approved unanimously.

b. C-PACE for New Construction Program Update

- Alysse Lembo-Buzzelli reviewed the C-PACE New Construction pilot history and requirements for participation. Mackey Dykes clarified that previously, projects were done on buildings with history so determining a baseline to measures savings against was easier, but this is the pilot for determining project loans for entirely new buildings. Alysse Lembo-Buzzelli stated there were 6 closed projects totaling just over $27 million through three different lenders and three different property types.
- For amendments and new additions to the guidelines, the idea was to give all external partners a simplified way to access C-PACE New Construction Financing while continuing to adhere to the public policy requirements. Alysse Lembo-Buzzelli reviewed the proposed changes which include determining the eligible amount that can be financed, adding an option for eligible multifamily properties to demonstrate energy performance, adding an option to access an additional percentage of the financing by incorporating bonus technologies that further clean energy and other Green Bank goals, and adding an option for all-electric net zero projects to access a higher percentage of financing.
- The initial stakeholder feedback has been proactive and clear about their desires for process simplification, more financing, and to explore other building performance standards.
- Mackey Dykes commented that the C-PACE market is growing incredible fast, with lenders looking for large-scale projects. There is a strong focus on new construction, though there is tension in capital providers wants to deploy the greatest amount of capital possible versus the state receiving the greatest energy impact from an investment.
    - Laura Hoydick asked what other building performance standards could be used,

such as Energy Star. Mackey Dykes answered that Energy Star is one and the other is Lead Certification. More research will be done into those options, though in many cases the code for building construction is already in align with Energy Star, so piggybacking off of existing standards would be the ideal solution.
- Laura Hoydick asked which other capital providers are involved and Mackey Dykes answered that it is mostly other C-PACE administrators by learning from their experiences.
- Victoria Hackett commented that DEEP is very focused on whole-building energy retrofits to incorporate as many beneficial technologies as possible, and as well much work is being done on building standards, so coordinating with the Green Bank and C-PACE could be beneficial.
- Adrienne Houël asked if the large builders feel about the opportunities that C-PACE provides. Mackey Dykes answered that the builders contacted like the pilot tool but they tend to do the types of buildings which would have already met the requirements, so the challenge is to get feedback on projects and developers that would not have normally sought it out. Alysse Lembo-Buzzelli added that using HERS, if added into the program, should open the opportunity for more developers.
- Matt Ranelli commented that the balance should be made in favor of energy efficiency, and so contacting and working with DEEP first should be done before a vote on this Resolution is made. As well, perhaps doing outreach with OPM and other high performance building developers. As well, he agreed with looking at add-on technologies more thoroughly.

Jeffrey Beckham left the meeting at 10:12 am.

Voting on Resolution 6, which was included in the board packet and related to the approval of the C-PACE Program guidelines was postponed until after the comment period.

6. Incentive Programs Updates and Recommendations

a. RSIP and RSIP-E Closeout

- Sara Pyne summarized RSIP and RSIP-E's status, which are both currently closed to new applications. RSIP is expected to reach capacity in the next few weeks. As the RSIP program reaches capacity, the sixth SHREC Tranche will be created.in total SHREC of just over 300 MW.

b. RGM Replacement Status

- Sara Pyne reviewed the RGM upgrade progress, which is currently about 22% completed. Approval was given by NEPOOL GIS to use the Solar PV Production Data Estimation formula while the upgrades complete after the 3G shutdown.

c. Energy Storage Solutions Launch

- Ed Kranich summarized the Energy Storage Solutions progress to date which just recently launched. As of January 20, 2022, 20 applications were received and 8 were approved. All applicants are expected to be approved soon. The contractors' customer enrollment platform was launched on January 14, 2022. So far 1 residential and 11 commercial and industrial applications have been received.

- In the next 3-6 months, the customer enrollment portal will be fully completed, and much work is planned to meet with contractors, stakeholders, and others to discuss expectations, make outreach campaigns, finalize the financing process, and develop related programs. This is all in the perspective of supporting underdeveloped and grid-edge customers as well.
  - Adrienne Houël asked how the target to reach LMI communities will be reached specifically. Bryan Garcia answered that there are single-owner LMI families that qualify for solar, but also reaching single-family renters. The tariff program may enable some of that. For affordable housing, work has been done with DEEP to amend the tariff policy to allow affordable housing to participate. There is also a strong focus on targeting LMI and underserved customers in the marketing strategy.

7. Investment Updates and Recommendations

a. Canton Hydro COVID Extension

- Mariana Trief summarized the background of the Canton Hydro project and stated the reason for another requested extension to the final completion date due to travel restrictions associated withCOVID-19, change in subcontractor, and FERC associated requirements. Despite the delays, most of the construction was completed and only the crest gates are left to complete. However, the cold weather and high has impeded that construction. Borrower has asked for an extension to install crest gages once the weather has warmed and river flow is lower. The turbine itself is operational and producing energy. As well, once the final construction is complete, the Green Bank and other stakeholders will have a ribbon cutting, signage, and media coverage.

<u>Resolution #7</u>

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;

WHEREAS, Developer has requested to extend the Project's completion of construction date until October 31, 2022;

NOW, therefore be it:

RESOLVED, that the Green Bank Board of Directors hereby authorize staff to execute amend the Loan agreement materially based on the terms and conditions set forth in this board memo dated January 14, 2022 to extend the Project's construction completion date to October 31, 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 Matt Ranelli and seconded by Bettina Bronisz, the Board of Directors voted to approve Resolution 7. None opposed or abstained. Motion approved unanimously.

b. Green Liberty Notes Update

- David Beech summarized the history of the Green Liberty Notes done through Raise Green. There was a total investment of $185,900 through 114 investors, including 63 from Connecticut and 59 which were below $1000. The Green Liberty Notes was featured in a Bond Buyer article and received high praise.
    - Bettina Bronisz asked if more Green Liberty Notes offerings will be made and what the future schedule may be. Bert Hunter answered that the Board approved quarterly issuances, so minimum of 2-years and up to $2 million. All the bonds are a 1-year maturity. The notes are not currently rated through one is being sought through Lamont Financial.
    - Lonnie Reed asked if, from a marketing perspective, any physical certificates are being issued in tandem with the notes. Eric Shrago stated there is something being developed that was based on the Green Liberty Bonds.

8. Infrastructure Investment and Jobs Act Opportunity: Clean Hydrogen Hub

- Joel Rinebold summarized the Infrastructure Investment and Jobs Act provisions and targets. He stated Connecticut would be a good applicant for a hydrogen hub under the renewable energy banner given a number of key focal statistics about the state. He reviewed Connecticut's clean energy market development and how the different markets interact with each other as well as the value chain for having a hydrogen hub. Joel Rinebold reviewed the proposed actions that would result from a hydrogen hub which include advancing domestic research, expand markets for power and motive applications, refine integrity management for blending in natural gas, and create opportunities for skilled training and job creation, among others.
- Joel Rinebold summarized the drivers for hydrogen in comparison to offshore wind energy, which though offshore wind provides a lot of energy it does so only about 40% of the time, and so hydrogen is another viable option. He stated Connecticut could become a major user and exporter of hydrogen-based energy because of its research manufacturing market. There is large opportunity for deployment of energy to hundreds or even thousands of sites resulting in a potential impact of $600 million revenue, about 600 supply chain companies, over 2,800 in direct, indirect, and induced jobs, and about $300 million in labor income to be gained for Connecticut specifically. The goal could be to make Connecticut a major hub for this energy and hydrogen hubs. He reviewed some of the key metrics of a hydrogen hub project as well as potential strengths, weaknesses, opportunities, and threats.
- Joel Rinebold reviewed the proposed next steps to gain support to pursue a hydrogen hub, though he does not believe Connecticut can do it alone. Working with Massachusetts, Rhode Island, and maybe even New York to coordinate would better

secure the application for a hydrogen hub over other regions such as Texas and California.

- Lonnie Reed asked if any environmental groups are on board with a hydrogen hub, given the difficulty of such a proposal. Joel Rinebold answered engagement hasn't been made yet but is needed, especially to combat the misunderstanding of how hydrogen can be produced because resources other than fossil fuels can in fact be used to make green hydrogen.
- John Harrity suggested that the Connecticut Roundtable on Climate and Jobs would be a good group to work with to develop a coalition among labor and environmental groups. Joel Rinebold responded that he doesn't have the resources alone, and so those network connections are greatly appreciated.
- Victoria Hackett commented that DEEP will be exploring the potential for hydrogen in Connecticut for various reasons but said there are a lot of questions on use-cases, wind incorporation possibilities, and other technical matters. Joel Rinebold thanked her for the invitation to present more information at future meetings and work with others to iron out the details as to the process and system.

9. Adjourn

Upon a motion made by Laura Hoydick and seconded by Adrienne Houël, the Board of Directors Meeting adjourned at 11:15 am.

Respectfully submitted,

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Lonnie Reed, Chairperson

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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

March 18, 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: March 18, 2022

Re: FuelCell Energy / US Navy / CMEEC / Groton Fuel Cell Project
Term Loan Facility Update & Extension Request

At the January 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 entered into a commitment for the financing, subject to finalization of diligence and credit approval, both of which are in progress. The project financing is now expected to close by mid-May and legal meetings between the lenders have commenced. Accordingly, staff requests the original approval "execute by date" be extended to 529 days from its original approval date (to May 31, 2022).

Resolutions

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 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 in July 2021 to October 29, 2021, which was further extended by the Board in October 2021 to December 31, 2021, which was further extended by the Board in December 2021 to January 31, 2022, and which was further extended by the Board in January 2022 to March 31, 2022;

WHEREAS, Green Bank has further advised the Board that the Credit Facility is now expected to close by the end of May 2022 and to accommodate the additional time needed to execute the Credit Facility requests the permitted time to execute the credit facility be increased from not later than 468 days from the original date of authorization by the Board (March 31, 2022) to not later than 529 days from the date of authorization by the Board (i.e., to May 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 529 days from the original date of authorization by the Board (i.e., not later than May 31, 2022); and

RESOLVED, that the President of the Green Bank and any other duly authorized officer is authorized to take appropriate actions to provide the Credit Facility to FCE (or a special purpose entity wholly-owned by FCE) in an amount not to exceed $8,000,000 with terms and conditions consistent with the memorandum submitted to the Board dated December 18, 2020 (the “Memorandum”), and as he or she shall deem to be in the interests of the Green Bank and the ratepayers; 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;

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CONNECTICUT GREEN BANK

Memo

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

From: Bryan Garcia (President and CEO)

Date: March 25, 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 $115,593. 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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280 Rock Lane: A C-PACE Project in Milford, CT

Address	280 Rock Lane, Milford, CT 06460			
Owner	Black Pearl Real Estate Holding Company, LLC			
Proposed Assessment	$115,593			
Term (*years*)	15			
Term Remaining (*months*)	Pending construction completion			
Annual Interest Rate	5.00%			
Annual C-PACE Assessment	$11,046			
Savings-to-Investment Ratio	1.56			
Average DSCR	1.34x			
Lien-to-Value	23.5%			
Loan-to-Value	80.8 %			
Projected Energy Savings (mmBTU)		EE	RE	Total
	Per year	-	173	173
	Over EUL	-	3,303	3,303
Estimated Cost Savings (incl. ZRECs and tax benefits)	Per year	-	$5,362	$5,362
	Over EUL	-	$134,506	$134,506
Objective Function	1.50 kBTU / ratepayer dollar at risk			
Location	Milford			
Type of Building	Commercial			
Year of Build	1961			
Building Size (*sf*)	6,900			
Year Acquired by Owner	2020			
As-Complete Appraised Value[1]	$491,415			
Mortgage Outstanding	$281,388			
Mortgage Lender Consent	Milford Bank			
Proposed Project Description	44.16 kW rooftop solar PV			
Est. Date of Construction Completion	Pending closing			
Current Status	Awaiting Staff Approval			
Energy Contractor	Smart Roofs Solar			

[1] Assessor card appraisal value ($431,280), plus 50% of the $120,270 CPACE investment hard costs

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 March 25, 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 March 25, 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.

March 22, 2022

U.S. Department of Energy
Offices of EERE, Electricity, Policy, Fossil Energy and Carbon
Management, and Economic Impact and Diversity
Communities LEAP Pilot
CommunitiesLEAPInfo@hq.doe.gov

SUBJECT: Comments from the Connecticut Green Bank – Regional Clean Hydrogen Hubs Implementation Strategy Request for Information - #DE-FOA-0002664.0002

To Whom it May Concern:

The Connecticut Green Bank ("Green Bank") appreciates the U.S. Department of Energy's ("DOE") efforts through the Office of Energy Efficiency and Renewable Energy ("EERE"), Hydrogen and Fuel Cell Technologies Office ("HFTO"), Office of Fossil Energy and Carbon Management ("FECM"), Office of Nuclear Energy ("NE"), and the new Office of Clean Energy Demonstration ("OCED") issuing this request for Information ("RFI") – Regional Clean Hydrogen Hubs ("H2Hubs") Implementation Strategy – which will provide $8 billion from FY22-FY26 for the development of at least four (4) regional clean hydrogen hubs[1] that demonstrate production,[2] processing, delivery, storage, and end-use of clean hydrogen. The successful implementation of the H2Hubs supports the Biden Administration's goal to achieve a carbon free electric grid by 2035, net zero carbon economy by 2050, and creating good-paying domestic manufacturing jobs – while delivering on the Hydrogen Earth Shot goal of producing clean hydrogen at $1 per 1 kilogram in 1 decade ("111").

Connecticut is excited by the prospect of continuing to build on the Northeast region's clean hydrogen and fuel cell industries. The presence of Connecticut's defense industry has created a strong and vibrant hydrogen and fuel cell manufacturing industry and supply chain. Fuel cells manufactured in Connecticut have been present on NASA's Apollo and space shuttle missions since the 1960's and innovative applications of fuel cells manufactured in the state have demonstrated the ability to produce electricity, waste heat, and hydrogen.[3] Connecticut is a global center for clean hydrogen and fuel cell innovation.

[1] A network of clean hydrogen producers, potential clean hydrogen consumers, and connective infrastructure located in close proximity.

[2] Standard for the carbon intensity of clean hydrogen production equal to or less than 2 kilograms of carbon dioxide-equivalent produced at the site of production per kilogram of hydrogen produced (kg CO_2e/kg H_2)

[3] "Energy Department Applauds World's First Fuel Cell and Hydrogen Energy Station in Orange County" (August 16, 2011)

Connecticut Governor Ned Lamont has set a public policy goal of a zero-carbon electric sector by 2040,[4] which would be supported by various public policies.[5][6] The executive order is now Governor Bill No. 10 "An Act Concerning Climate Change Mitigation," which would expand the bipartisan-supported Public Act 08-98 "An Act Concerning Global Warming Solutions" and Public Act 18-82 "An Act Concerning Climate Change Planning and Resiliency" that established greenhouse gas emission reduction targets for 2010, 2020, 2030, and 2050, and proposes the establishment of a zero-emission electricity sector by 2040. Connecticut has ambitious clean energy[7] and climate change policies consistent with the Biden Administration's goals, including proposed legislation focused on clean hydrogen to unify the public and private sectors.[8]

Connecticut's clean energy policies will demonstrate the production of clean hydrogen from all of the H2Hub recognized feedstocks, including zero-emission renewable energy resources (e.g., solar PV, offshore wind), low-emission renewable energy resources (e.g., biogas,[9] natural gas[10]), and carbon-free nuclear power; and many of the H2Hub end-uses, including electric power generation, residential and commercial heating sector, and transportation sector. Connecticut's hydrogen and fuel cell industry contains 10 OEMs, over 600 supply chain companies, nearly 3,000 direct, indirect and induced jobs, over $600 million in investment, including nearly $300 million in labor income.[11]

Connecticut looks forward to working with its Northeast regional partners to submit a proposal into the pending DOE H2Hubs request for proposals to continue to build on our nation-leading clean hydrogen and fuel cell industries.

With respect to the RFI, the following are comments by the Green Bank broken down into the four (4) categories within the RFI. Please note that the Green Bank did not respond to every question, but instead focused on those areas of competence.

<u>Category 1— Regional Clean Hydrogen Hub Provisions and Requirements</u>

- **<u>Question 1</u>** —The Northeast Electrochemical Energy Storage Cluster ("NEESC"),[12] funded by the United States Small Business Administration to drive economic development, innovation, and job creation in the nation's increasingly important energy sector, may be instructive in providing some practical guidance to this question.[13] NEESC consists of New England, New Jersey, and New York, and comprises over 6,500 jobs, $1.4 billion of total revenues-investment, $620 million in OEM revenues-investment, and a supply chain consisting of nearly 1,200 companies within the hydrogen and fuel cell cluster. In terms of (a) close proximity, it should be "demonstrably evident" when the OEMs, suppliers, producers, and end-users are mapped, what constitutes a

[4] Executive Order 3
[5] Public Act 17-3 "An Act Concerning Zero Carbon Solicitation Procurement" (i.e., nuclear power)
[6] Public Act 19-71 "An Act Concerning the Procurement of Energy Derived from Offshore Wind
[7] CGS 16-245a Renewable Portfolio Standards
[8] Representative David Arconti (Co-Chair of the Energy & Technology Committee) has proposed House Bill 5200 "An Act Establishing a Task Force to Study Hydrogen Power"
[9] Proposed House Bill 5118 "An Act Concerning Waste Management and Anaerobic Digestion" would allow for the procurement of renewable natural gas from anaerobic digestion facilities
[10] Given the strength of fuel cell manufacturing in Connecticut, fuel cells are recognized as clean renewable energy resource per the state's Class I RPS. Delaware, Indiana, Maine, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, and Utah are the only other states that recognize fuel cells powered by natural gas within their RPS.
[11] Connecticut Hydrogen Fuel Cell Coalition "2021 Annual Report" (March 2022)
[12] Administered by the Connecticut Center for Advanced Technology
[13] Northeast Electrochemical Energy Storage Cluster —Annual Report (2015-2016)

hub, (b) pipelines and storage, including production facilities and end-uses (i.e., deployment of fuel cells) should be existing facilities and infrastructure that can be leveraged by H2Hub, (c) no comment, and (d) in addition to those noted, state and regional policies, and financial services (including green banks) in support of clean hydrogen production and end-uses should be a primary supportive activity to make H2Hubs successful and sustainable.

- **Question 2 —** (a) consideration should be given to investigating the lifecycle analysis of measuring CO_2 equivalent emissions by the various energy sources producing hydrogen, (b) no comment, (c) 6-10 H2Hubs of varying sizes would be more effective to support a national clean hydrogen network to facilitate a clean hydrogen economy, (d) several federal policy initiatives will support H2Hubs develop into national clean hydrogen network including continuing investment tax credits (as well as enhancement of these credits for investment in underserved communities to achieve EEEJ priorities) and enabling increased resilience for state and local hubs for critical facilities (e.g., fuel cells at town halls), perhaps with an across federal government approach (e.g., including FEMA); a national price for carbon or other national "cap and invest" system integrating clean hydrogen – leveraging off of the success of models like the Northeast and Mid-Atlantic Regional Greenhouse Gas Initiative ("RGGI") which was developed more than a decade ago by environmental leaders like then Connecticut Department of Environmental Protection Commissioner Gina McCarthy (President Biden's National Climate Advisor and former EPA Administrator); and a national hydrogen pipeline system which could well leverage the existing network of aging natural gas pipelines, and (e) the Hydrogen Earth Shot is an excellent way to measure progress (i.e., by various clean energy input resources), as is CO_2/kWh of electricity production or CO_2/MMBtu of heat generation from end-uses.

- **Question 3 —** demonstrating not only how H2Hubs can demonstrate the production of clean hydrogen from fossil fuels, renewable energy, and nuclear energy individually is important, but so too is demonstrating how collectively such resources can be produced all together within an H2Hub (e.g., Northeast). (a) No comment, (b) no comment, in terms of (c) the energy project should contain the associated environmental attributes (e.g., renewable energy credit, zero-emission credit) in order for the clean hydrogen to be considered as such, (d) including biogas (e.g., anaerobic digester gas from food and farm waste, and wastewater treatment facilities injected into natural gas pipelines) should be considered alongside solar, wind, and nuclear power, (e) no comment, and (f) H2Hub funding should be made available to upgrade or develop new dedicated clean electric or heat generating energy resources to generate clean hydrogen as long as there is as associated non-DOE match.

- **Question 4 —** again, demonstrating not only how H2Hubs can demonstrate the end-use diversity of electric power generation, use in the industrial sector, use in the residential and commercial heating sector, and the transportation sector individually is important, but so too is demonstrating how collectively these end-uses are being demonstrated all together within an H2Hub (e.g., Northeast). (a) No comment, in terms of (b), long-term agreements for renewable energy credits between a developer and utility or power purchase agreements between a developer and off-taker should be an approach, and (c) if clean hydrogen is used in multiple ways (e.g., combined heat and power), then its associated benefits should be appropriately valued (e.g., displacing consumption of fossil fuel, reducing air emissions, avoided adverse health impacts, etc.).

- **Question 5 —** the Northeast is an existing regional H2Hub, and therefore (a) the term "region" feels more appropriate for states (i.e., multi-state efforts) as opposed to a region within a state, however, one can see how a large state like California or Texas could have several "regions," and (b) end-uses that increase a regions resilience against the impacts of climate change (e.g., prevent power outages, resilient transmission infrastructure from localized distributed energy resources).

Category 2 – Solicitation Process, FOA Structure, and H2Hubs Implementation Strategy

- **Questions 6-8** – no comment

- **Question 9 —** to ensure the long-term viability and sustainability of H2Hubs given the importance of public and private partnerships, key review criteria should also include "current market context" (including existence of OEMs, supply chain, and deployment of clean hydrogen and fuel cell technologies — as well as local and state policies and financial services industry to support deployment of such technologies).

- **Question 10 —** local, state, and regional clean hydrogen economies are ready for the full regional clean hydrogen hub solicitation to come out. Those who have existing hydrogen and fuel cell clusters (e.g., Northeast) are ready to compete. Phase 1 of planning, leading to Phase 2 of deployment, can be done together under one solicitation as opposed to having multiple launches. Having multiple Launches feels like it would create a "race to the bottom" effect.

- **Questions 11-12** – no comment

- **Question 13** —the proposed funding levels for Phase 1 and Phase 2 are appropriate. However, successful proposals in the $1 billion area should be unique, sustainable, and incredibly impactful so as to garner a majority of the resources from the program.

- **Questions 14-18** – no comment

- **Question 19** – DOE's Communities Local Energy Action Plan ("LEAP") Program

- **Question 20** – no comment

- **Question 21** — a 50% cost share is reasonable, although proposals that submit greater cost share should be provided better scoring, and it is feasible for projects to meet the cost share target on an invoice-by-invoice basis as long as the regular invoicing of funds to the DOE is equally as responsive. Cost share should include the value of local and state policies.

- **Questions 22-23** – no comment

- **Question 24** – DOE's Communities LEAP Program

- **Questions 25-26** – no comment

Category 3 – Equity, Environmental and Energy Justice ("EEEJ") Priorities

- **Question 27** — the eight (8) EEEJ policy priorities the DOE has identified to guide the implementation of Justice 40 are appropriate. In terms of strategies, policies and practices that H2Hubs can deploy, the DOE should press H2Hub recipients to collect and analyze data and report out on all of the EEEJ policy priority areas noted above. Transparency is always good strategy, policy and practice — and an independent perspective (or audit) is even better.

- **Question 28** —the Green Bank would prioritize the EEEJ policies in the following order:

    1. Increase energy democracy, including community ownership
    2. Decrease environmental exposure and burdens
    3. Increase parity in clean energy technology access and adoption
    4. Increase access to low-cost capital
    5. Decrease energy burden
    6. Increase energy resilience
    7. Increase clean energy job pipeline and job training for individuals
    8. Increase clean energy enterprise creation

- **Question 29** – no comment

- **Questions 30** – seek technical assistance (e.g., Communities LEAP Program)

- **Question 31** — ongoing engagement with leaders within relevant disadvantaged communities through peer-to-peer networks (e.g., HUD Partnership for Sustainable Communities[14] and Solar Market Pathways[15]).

Category 4 – Market Adoption and Sustainability of Hubs

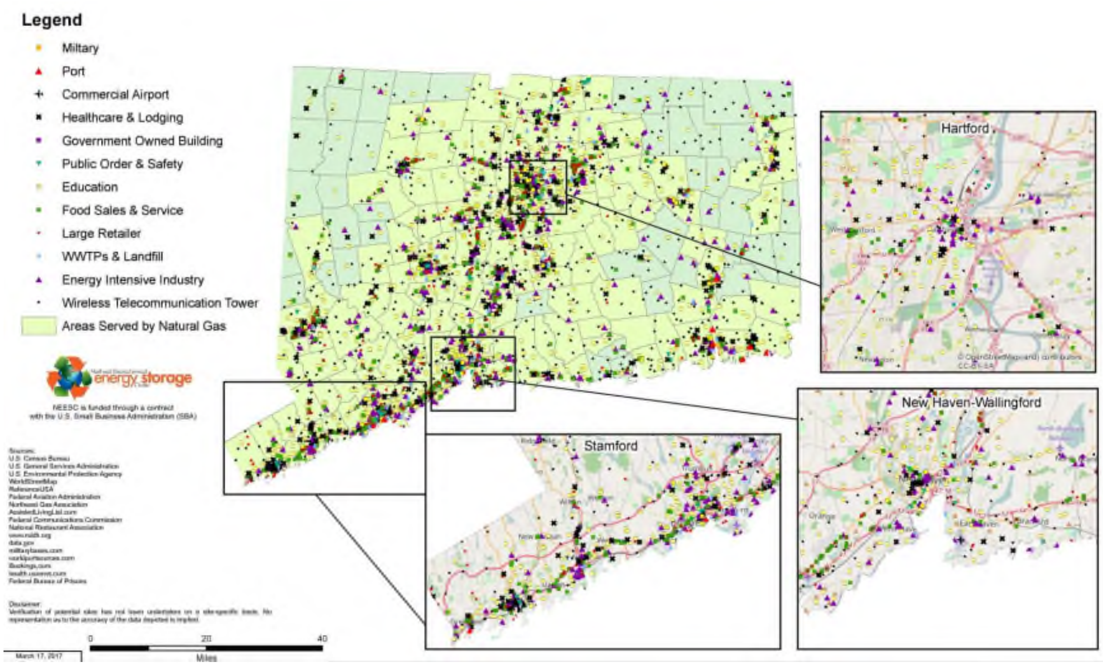
- **Question 32 —** beyond the importance of federal tax credits and local offtake structures, the USDA's "Partnership for Climate-Smart Commodities" Notice of Funding Opportunity (i.e., USDA-NRCS-COMM-22-NOF0001139), provides another useful example of a mechanism that can be used to measure, certify, and verify "clean hydrogen" co-benefits (e.g., emission reductions, resilience, social determinants of health, etc.) from the supply of and demand for clean hydrogen could be valued through upfront and ongoing performance-based incentive structures (e.g., renewable energy credits, renewable natural gas).

- **Question 33**— if the DOE could set a floor price on such "clean hydrogen" co-benefit commodities as noted above (e.g., clean hydrogen gas credits), or procure "clean hydrogen" through long-term contracts from the natural gas infrastructure. Using the purchasing power of the federal government, would go a long way to securing the supply of "clean hydrogen" knowing that there is a market demand for its production.

[14] https://sustain.org/program/scln/
[15] https://sustain.org/program/solar-market-pathways/

- **Question 34** — in the least, the market analysis should include the market potential for clean hydrogen and fuel cell applications showing various locations for production and end-use applications, as well as proximity within the cluster — see Figure 1.[16]

Figure 1. Connecticut: Market Potential for Hydrogen and Fuel Cell Stationary Applications



The analysis should also look at state and local policies and incentives.

- **Question 35 —** the DOE's Loan Program Office, in collaboration with state-level "green banks," can partner to unlock regional private investment from the financial services industry in clean hydrogen production facilities and end-use applications.

- **Questions 36-38** – no comment

- **Question 39 —** it is important for the DOE to recognize that H2Hubs exist in the United States today. For example, in the Northeast, as a result of decades of industrial investment in the defense industry, in conjunction with local, state, and federal policies, New England, New Jersey, and New York have industrial scale hydrogen and fuel cell clean energy economies. If the DOE were to pick H2Hubs that aren't as mature, then it is "picking winners" that can have a profound impact on the H2Hubs that have developed over the past 50+ years, and an adverse impact on the long-term viability of the clean hydrogen and fuel cell industries in the United States.

Category 5 – Other

- **Question 40 —** Together with our recommendation that the DOE would be well-served focusing on mature H2Hubs in existence today, it should also be appreciated that as state-

[16] "2020 Hydrogen and Fuel Cell Development Plan – Connecticut Hydrogen Economy: Economic Development, Environmental Performance, and Energy Reliability" by the Northeast Electrochemical Energy Storage Cluster

level cost share through Phase 1 and Phase 2 could easily exceed $1 billion, consideration should be afforded to those regions that have demonstrated exceptional financial capacity to invest in other forms of clean energy. In Connecticut, for instance, our Green Bank has raised nearly $1 billion from the private sector for a variety of clean energy technologies such as solar PV, wind, hydro, fuel cells, anaerobic digestors and microgrids as well as funding programs for energy efficiency and EV charging networks. In 2021, our legislature gave us authority to issue green bonds up to 50 years in maturity for environmental infrastructure which could assist in the deployment of H2Hub projects. We are the first (and only) green bank in the world to have securitized revenue streams to support solar PV deployment, and we accomplished this in the asset backed securities market and the municipal bond market with investment grade ratings from Kroll and S&P. New York also has exceptional green investment capacity – with its billion dollar green bank and NYSERDA agency which has issued bonds for a variety of purposes including its solar and Green Jobs Green New York program. The importance of the H2Hubs that will be brought forward must be capable not only of development of clean hydrogen, but also of deployment to the end-users identified for Phase 2. This will require harnessing the capability of green banks and other state-level financing authorities to leverage public resources with private investment capital that green banks, such as the Connecticut Green Bank and the New York Green Bank, have demonstrated they can accomplish.

The Green Bank appreciates the DOE's efforts to solicit public comment on the pending H2Hub request for proposals. We look forward to working with our state and regional partners to submit an application for consideration into the Regional Clean Hydrogen Hubs solicitation.

Sincerely,

Bryan Garcia
Bryan Garcia
President and CEO

Bert Hunter
Bert Hunter
Chief Investment Officer

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 $2.14 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 CO_2 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.

Attachments

Green Bank – Fact Sheet
Decennial Societal Impact Report – Fact Sheet
The Impact of Federal Funds in Connecticut – Fact Sheet

CONNECTICUT
GREEN BANK

Connecticut Green Bank is the nation's first green bank. Our mission is to confront climate change and provide all of society with a healthier and more prosperous future by increasing and accelerating the flow of private capital into markets that energize the green economy. 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.

CONNECTICUT GREEN BANK
HOME SOLUTIONS

homes

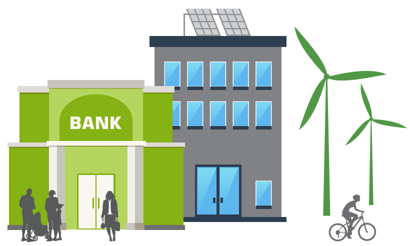
Empowering all Connecticut families and households with accessible and affordable green solutions that bring them comfort and security. Find incentives for battery storage or use the Green Bank's flexible financing to reduce costs with health and safety improvements and the newest energy efficient technologies.

CONNECTICUT GREEN BANK
BUILDING SOLUTIONS

buildings

Creating stronger, more resilient communities with green solutions for buildings of all types, from businesses and nonprofits to multifamily housing and local government. Leverage Green Bank financing to save money and realize the benefits of more modern, sustainable buildings.

CONNECTICUT GREEN BANK
INVESTMENT SOLUTIONS



investments

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.

Get Started. Call 860.563.0015 or visit ctgreenbank.com

08-21

CONNECTICUT GREEN BANK

Decennial Societal Impact Report

FY12
FY21

Since the Connecticut Green Bank's inception through the bipartisan legislation in July 2011, we have mobilized more than **$2.14 billion of investment** into the State's green economy. To do this, we used **$288.4 million** in Green Bank dollars to attract $1.85 billion in private investment, a leverage ratio of **$7.40 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 2021).

ECONOMIC DEVELOPMENT

JOBS The Green Bank has supported the creation of more than **25,612** direct, indirect, and induced job-years.

TAX REVENUES The Green Bank's activities have helped generate an estimated **$107.4** million in state tax revenues.

$52.8 million individual income tax

$27.5 million corporate taxes

$27.1 million sales taxes

ENERGY

ENERGY BURDEN The Green Bank has reduced the energy costs on families, businesses, and our communities.

57,000+ families

6,000+ businesses

DEPLOYMENT The Green Bank has accelerated the growth of renewable energy to more than **494 MW** and lifetime savings of over **64.1 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 **9.3** million pounds of SOx and **10.7** million pounds of NOx.

9.9 MILLION tons of CO_2 : EQUALS

163 MILLION tree seedlings grown for 10 years

OR

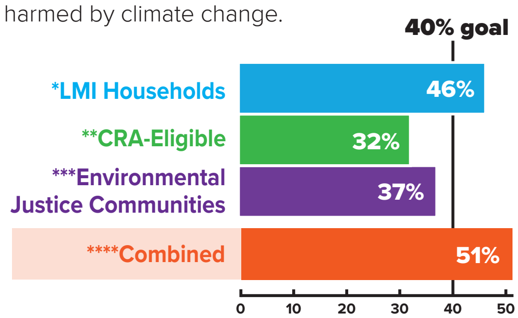
2.1 MILLION passenger vehicles driven for one year

PUBLIC HEALTH The Green Bank has improved the lives of families, helping them avoid sick days, hospital visits, and even death.

$298.1 – $674.1 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 Households – households 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

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.

Sources: Connecticut Green Bank Annual Comprehensive Financial Reports.

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)

CONNECTICUT GREEN BANK

Environment

ARRA funds helped to avoid **596,382 tons of CO_2,** which is equal to:

8.9 million tree seedlings grown for 10 years

removing 117,663 passenger cars from the road for one year

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.

Equity

14% of **investments**

21% 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

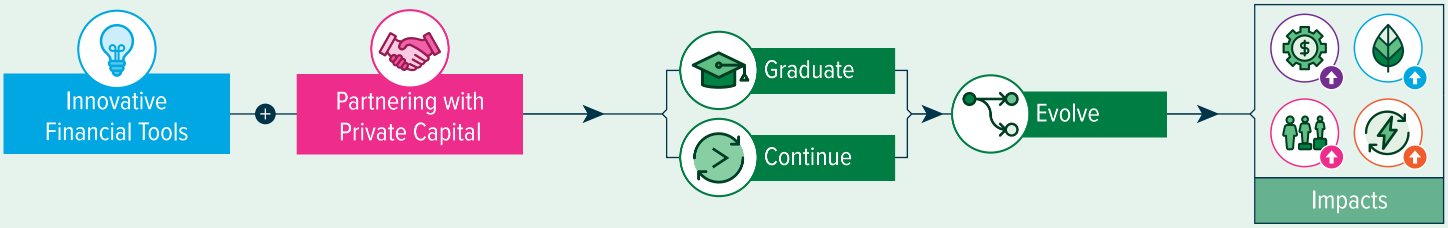
The use of ARRA funds supported

- 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.

CT SOLAR LEASE

Allowed homeowners to access the benefits of solar through a lease option.

- Leveraged $3.5M in ARRA funds as a **lease loss reserve** and $7.1M in Green Bank Subordinated Debt and Sponsor Equity.
- Raised $15.0M of **tax equity investment** and $16.9 million of senior debt through a **syndicate of local lenders**.

The success of this model led to the creation of **"Solar For All"**: 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

A **loan loss reserve** is a pool of money set aside to cover a prespecified amount of loan losses, providing partial risk coverage to lenders.

CT SOLAR LOAN

Enabled homeowners of varying financial means to own their systems at affordable rates without a lien.

- Used $517,000 in ARRA funds for a **loan loss reserve (LLR)** to allow for the creation of the **first-ever crowd- sourced portfolio of solar loans**.
- Partnered with Sungage Financial and The Reinvestment Fund to generate $8.3M in lifetime savings.

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.

SMART-E LOAN

Offers flexible financing for upgrades to home energy performance.

- ARRA funds used as **LLR and interest rate buydowns (IRB)** to offer homeowners low-interest financing to improve their home's energy performance.
- Provided in partnership with 13 local community banks and credit unions, 500+ contractors, and 5,923 families for $108.7 million in total investment.

Originally focused on clean energy, this program is **expanding to support environmental infrastructure.**

The program is transitioning from ARRA supported LLR to LLR on the Green Bank's balance sheet using IRBs from ARRA funds.

An **interest rate buydown** is when capital is deployed to pay a portion of the interest on borrowers' loans to decrease their costs.

LOW INCOME MULTI-FAMILY ENERGY (LIME) LOAN

Unsecured low interest loans serving properties where at least 60% of units serve renters at 80% or lower of Area Median Income.

- ARRA funds used as LLR and **projected energy savings are used to cover the debt service of the loan.**
- Offered through a partnership with Capital For Change (C4C), a community development financial institution (CDFI) that provides financial **products and services that support an inclusive and sustainable economy**.

Using $300,000 in ARRA funds as LLR, LIME projects have a combined lifetime energy cost savings of over $117.6M.

845 Brook Street, Rocky Hill, CT 06067
T 860.563.0015
InclusiveProsperityCapital.org

INCLUSIVE
PROSPERITY CAPITAL

Memo

To: Connecticut Green Bank Senior Team

From: Inclusive Prosperity Capital Staff

Date: March 16, 2022

Re: IPC Quarterly Reporting – Q2 FY22 (October 1, 2021 – December 31, 2021)

Progress to targets for Fiscal Year 2021, as of 12/31/2021 [1]

Product	Number of Projects	Projects Target	% to goal	Total Financed Amount	Financed Target	% to goal	MW Installed	MW Target	% to goal
Smart-E Loan	483	800	60.4%	$7,479,022	$11,200,000	66.8%	0.2	0.8	20%
Multi-Family H&S	0	0	0%	$0	$0	0%	n/a	n/a	n/a
Multi-Family Pre-Dev.	0	0	0%	$0	$0	0%	0.0	0.0	0%
Multi-Family Term	2	2	100%	$160,000[2]	$300,000	53.3%	0.04	0.20	41.1%
Solar PPA	3	23	13.0%	$1,338,753	$6,457,000	20.7%	0.7	3.4	8.8%
Solar For All	364	96	379.2%	$10,049,065	$2,478,528	405.4%	2.4	0.7	343%

(Report continues next page)

[1] Source: CT Green Bank PowerBI
[2] 100% of the financed amount was energy financing.

PSA 5410 – Smart-E Loan

- FY22 continued with steady progress in Q2 despite the conclusion of the special offer the quarter prior. 62 loans closed in October, 60 in November, and 57 in December.
- Volume continued to be buoyed largely by HVAC projects (84%), then home performance (insulation and windows – 13%) and solar (3%).
- IPC staff worked with the CGB Accounting team to process 294 interest rate buydown requests, totaling $700,404 of ARRA-SEP funds. We anticipate that the total IRB spend for the two special offers that ran in FY21 will equal approximately $1.56M across about 725 loans. Remaining IRB payments should be processed in Q3.
- IPC staff coordinated calls with several contractors who are active in both the Smart-E Loan and Energize CT Home Energy Solutions program in an effort to better understand their customer engagement strategies (particularly with LMI customers) and to solicit feedback on their experience working with Smart-E. Conversations with additional contractors will take place in Q3 with a goal of assessing Smart-E marketing and outreach, particularly for LMI homeowners.
- IPC staff continued to work with the CGB Incentives Team to discuss Smart-E expansion beyond clean energy to environmental infrastructure. An initial plan was presented to the Green Bank's Deployment Committee in November 2021 around how measures would be assessed, contractors sourced, and inspections completed. A more detailed presentation to the Deployment Committee was set for their Q3 meeting (February 2022).

PSA 5411 – Multifamily

- **No projects closed in Q2**. Supporting the Green Bank, IPC staff continue to shepherd a handful of prospective LIME financing opportunities that are currently at the evaluation/underwriting stage.
- **The ECT Health & Safety Revolving Loan Fund capital has been fully allocated** to two distressed co-ops that we are in the process of underwriting and approving. (See further details below.)
- We are **anticipating clarification from PURA and DEEP on the full suite of multifamily incentives** and corresponding requirements that will become available for multifamily properties serving low- and moderate-income residents (LMI) in CT. Once these are released, we will be revisiting program design for this sector, with an eye towards higher volume deployment that takes advantage of incentives that are more generous than previous years.
- **We continue to provide support for long-term 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. Both projects are moving towards the end of their respective pre-development processes and are getting closer to seeking/securing term financing for project implementation. The CT Green Bank and our funding partners continue to play a critical role as lenders of last resort in these projects.

PSA 5412 – Solar PPA

- Mandell JCC of West Hartford executed a PPA with CGB for $744K for the installation of a 374.8 kW solar PV system.
- IPC staff responded to PPA pricing requests received by CGB staff, particularly extensive scenarios to support the Solar MAP initiative.
- In consideration of a range of market intelligence regarding the maturity and competitiveness of the CT solar market, IPC has pivoted to a tighter approach on PPA pricing, which will be reflected in existing and future projects as directed in consultation with CGB.
- Fully integrated use of IPC Salesforce Platform into pricing request process with developers.
- IPC is working to set up the 2022 tax equity partnership with Greenprint Capital. IPC expects to fund the full suite of Solar MAP Round 1 projects in this year's CT partnership.

PSA 5413 – Investment Management (LMI Solar and Green and Healthy Homes)

PosiGen Solar for All Program Management

- The PosiGen Solar for All Norwalk and Branford campaigns wrapped up.
- Process improvements and staffing increases have assisted in reducing the extended installation timelines due to pandemic related delays. Overall project timelines remain stalled from HES/HES-IE backlog.
- Despite challenges reaching typical campaign volume, monthly sales numbers have been achieved or exceeded with help from community marketing opportunities from legacy campaign partners.
- The CGB-IPC team has been focused on PosiGen's transition out of RSIP.

Green and Healthy Homes Project

- As noted in previous updates, the final report on the CT Medicaid ROI analysis and pilot design remains with the project team state agencies, including the CT Department of Public Health, for review and final sign-off. Currently waiting for the final partner sign off before releasing findings publicly. The CT Department of Public Health has been understandably focused on the pandemic and has not yet revisited the subject.

Investment Management

IPC staff supported Green Bank staff on the following financings:

- **PosiGen**:
    - IPC took itself out of its participation with CGB for the PBI facility and was repaid ~$1.8M of principal. This will provide much needed operating capital for IPC.

- **Residential SL2 and CT Solar Loan**:
    - An IPC staff member continued to assist with the management of CT Solar Lease 2 ("SL2") and CT Solar Loan tasks, though in an advisory role as many of the administrative tasks have been transitioned to a junior CGB employee.
    - The IPC staff member managed the transition of the SL2 lease servicing agreement from Renew Financial to Concord Servicing, including the writing and revisions of both the Renew termination agreements and new agreements with Concord for SL1 and SL2.

- The IPC staff member managed the revisions to an amended and restated PSA with Assurant for SL2 warranty management. The PSA was executed and remaining funds were paid to Assurant, concluding a significant effort of time and attention between Green Bank and IPC staff.

Use of DEEP Proceeds

Energize CT Health & Safety Revolving Loan Fund

- The multifamily housing team continued to work on approving and closing two H&S loans to distressed co-op's: 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). This is taking some time because of the complexity of both projects and approvals required from all funders.
- 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 will continue to monitor for favorable conditions for future investment.

General Updates

Below are updates for the first quarter of FY21:

- **Capital raising**:
  - Continue to operationalize the $25M credit facility with New York Green Bank, the first credit facility that accesses the Kresge Guarantee.
  - Executed loan documents with MacArthur Foundation and McKnight Foundation for $5M each of PRI; processed initial draws under the loans. A signed term sheet with another senior lender was a condition to close, which was secured from a senior lender for $15M of senior debt against our Kresge Guarantee, which is expected to close in April.
  - The Kresge Foundation allowed IPC to covert the $3M PRI for solar + storage in urban LMI communities to a general use PRI as long as we drew the remaining amount by the end of the calendar year, which was completed.
  - The Kresge Foundation invited IPC to apply for a $200,000 operating and was awarded that amount.
  - Continued diligence with additional capital providers, including impact investors.

- **Business/Product Development/Initiatives of interest to Connecticut**:
  - Software licensing agreement for the NGEN platform

- Colorado Energy Office has hit a snag with state procurement and is now considering transferring the program out of the state energy office to the CO Clean Energy Fund (their green bank) for easier contracting. This will take time.
    - Continued work with Inclusiv (the member network of CDFI/community development credit unions) and UNH Carsey (under a DOE grant) on a potential launch of a Smart-E programs in various geographies, many led by lender interest, some by green bank or state/local government interest.
    - **$1.5M Wells Fargo Grant Application** – Inclusiv was asked by Wells Fargo Foundation to apply for a $1.5M grant for IPC and Inclusiv to launch a Smart-E program in AZ, NM and 4 cities in TX. This grant was approved, but at a lower amount, supporting 2 years of operation. 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. The partners are in the process of applying for a credit enhancement for participating lenders through the Community Investment Guarantee Program.
- Continued to work with a number of green banks, local governments, etc. on leveraging IPC's products and financing strategies. Launched multifamily lending products to Philadelphia Green Capital Corp., continuing to work with MI Saves and DC Green Bank; continue to coordinate with CGC on a variety of opportunities.
- IPC continues to participate in the following advisory councils/initiatives related to DOE grants or programs for expanded access to solar/solar financing:
    - Achieving Cooperative Community Equitable in Solar Sources (ACCESS) Stakeholder Group – National Rural Electric Cooperative Association (NRECA) is partnered with National Rural Utilities Cooperative Finance Corporation, CoBank and GRID Alternatives to make solar energy more affordable for LMI members of cooperatives. The project is engaging community and regional financial institutions.
    - NREL/NYSERDA Solar Finance Inclusion Initiative – focused on new financial products for solar energy. The financial products, described as flexible financial credit agreements (FFCAs), are focused on enabling greater participation in solar energy by LMI customers. The goal of the joint initiative is to devise ways to address persistent barriers by LMI customers solar such as income fluctuations, housing transitions or other issues.
    - Inclusive Shared Solar Initiative (ISSI) Advisory Board – the National Association of State Energy Officials (NASEO) and the National Energy Assistance Directors' Association (NEADA) seek to advance strategies that increase the scalability of LMI) community solar programs. The basis for ISSI is the NYS Solar for All program, a pilot sponsored by the NYSERDA, which improves access to community solar facilities for LMI households.
    - National Community Solar Partnership – a learning network of over 300 devoted to the expansion of community solar across the US.
- IPC was asked to join a project team led by NRDC and including CT Green Bank, NYCEEC, Inclusiv, Opportunity Finance Network, Coalition for Green Capital and Forsyth Street Advisors. The project would expand on work conducted in 2019-2020 to explore whether the CDFI infrastructure/regulatory framework could be leveraged as a scaled source of low-cost, long-term capital for green banks – and now to include other CDFIs.

- **Administrative**:
    - IPC successfully recruited for several new positions. One new hire joined the organization in Q1, one staff member transitioned out, and four other offers were accepted with Q2 start dates.
        - Racquel Hall joined as Accounting Manager in December 2021 – based in Hartford, CT
        - Musa Collidge-Asad joined on a PSA in December 2021 but will transition to IPC's Chief Investment Officer in January 2022 – based in Bethesda, MD
        - David Ryan accepted as Associate Director, Clean Energy Transactions – based in Dallas, TX
        - Claire Getman accepted as Associate, Operations to support IPC's work on the Green Bank's Smart-E Loan program – based in Hartford, CT
        - Michael Solazzo accepted as Investment Analyst, Clean Energy Finance – based in NYC
    - IPC continued to recruit for additions to the Clean Energy Transactions teams.

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CONNECTICUT GREEN BANK

Memo

To: Board of Directors of the Connecticut Green Bank

From: Alex Kovtunenko (Associate General Counsel), Bryan Garcia (President and CEO), Jane Murphy (EVP of Finance), Bert Hunter (EVP and CIO)

CC: Eric Shrago (Managing Director of Operations), Mackey Dykes (VP of Financing Programs), Brian Farnen (General Counsel and CLO)

Date: March 18, 2022

Re: Loan Loss Approval Policy Updated - Late Fees and Penalties Forgiveness Process

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Introduction

On June 13, 2018 the Connecticut Green Bank ("Green Bank") Board of Directors ("BOD") authorized and approved a framework and process for funding the provisional loss reserve, restructuring, and writing-off transactions on the Green Bank balance sheet, the process was amended by the BOD on April 24, 2020, and on June 26, 2020 it was approved by the BOD for transactions on the balance sheet of Green Bank's subsidiaries (taken together, all such BOD approvals being the "Loan Loss Decision Process").

The Loan Loss Decision Process does not specifically address situations in which a transaction has accrued default interest, penalties or fees which need to be either enforced, modified or waived pursuant to the applicable transaction documents and restructuring negotiations with the borrower. The restructure process therein is not applicable in such situations because there is no modification to principal, scheduled interest, term, and other components of a transaction being sought.

Therefore, staff seeks BOD approval to clarify the Loan Loss Decision Process with respect to default interest, penalties or fees. Since this request is seeking clarification and there are pending transactions which brought this issue to staff's attention, staff in not seeking ACG Committee or Deployment Committee review of the edits proposed in this memorandum.

Recommendation

Staff recommends that the BOD approve the amendments to the Loan Loss Decision Process attached to this memorandum and summarized below.

Add the following language into the "Loan Loss Decision Process" Section:

Modification or waiver of default interest, penalties or fees for any transaction should be handled in a manner depending upon the value of the modified or waived amount of such default interest, penalties or fees, as set forth in the table below.

Table 3. Loan Loss Decision Process for Modification or Waiver of Default Interest, Penalties or Fees

Amount of Default Interest, Penalties and Fees Modified or Waived		
<$100,000	**$100,000 – $1,000,000**	**>$1,000,000**
Staff	Deployment	Board of Directors

Add the following language into the "Applying Loan Loss Decision Process" Section:

Modification or Waiver of Default Interest, Penalties or Fees

A transaction undergoing a modification or waiver of any default interest, penalties or fees should undergo the following process:

1. **Modification or Waiver Calculation** – staff requesting a modification or waiver of default interest, penalties or fees in a previously approved transaction, must calculate the amount of default interest, penalties and fees being modified or waived (the "Modified/Waived Amount").

2. **Documentation** – staff requesting a modification or waiver must document the reason for the modification or waiver including a description of the project, the calculation showing the value of the modification or waiver, and preventative measures for mitigating the likelihood of occurrence of such issues in the future.

3. **Review and Approval** – the documentation must be reviewed and approved by the appropriate authority, including:

   a. **Staff** – for Modified/Waived Amounts less than $100,000, senior staff would review and approve modification or waiver and document through its standardized approval release statement (ARS) internal process;

   b. **Audit, Compliance and Governance Committee** – for Modified/Waived Amounts greater or equal to $100,000 and up to $1,000,000, Deployment Committee would review and approve the modification or waiver; or

   c. **Board of Directors** – for Modified/Waived Amounts greater than $1,000,000, the Board of Directors would review and approve the modification or waiver

4. **Reporting** – if a transaction receives the approval from the appropriate authority to modify or waive default interest, penalties or fees, then the details should be reported in a quarterly memo and made available on an ongoing basis to the Deployment Committee and/or the Board of Directors, and staff will report out more frequently to the Board of Directors on COVID-19 related transactions.

Resolution

WHEREAS, On June 13, 2018 the Connecticut Green Bank ("Green Bank") Board of Directors ("BOD") authorized and approved a framework and process for funding the provisional loss reserve, restructuring, and writing-off transactions on the Green Bank balance sheet, the process was amended by the BOD on April 24, 2020, and on June 26, 2020 it was approved by the BOD for transactions on the balance sheet of Green Bank's subsidiaries (taken together, all such BOD approvals being the "Loan Loss Decision Process";

WHEREAS, the Staff of the Green Bank propose in a memorandum to the BOD dated March 18, 2022 (the "Memorandum") an amendment to the Loan Loss Decision Process to address the process for modifying or waiving default interest, penalties and fees.

NOW, therefore be it:

RESOLVED, that the BOD approves of the Staff proposed amendment to the Loan Loss Decision Process to address the process for modifying or waiving default interest, penalties and fees, as more particularly described in the Memorandum; and

RESOLVED, that the BOD authorizes Green Bank staff to evaluate and approve the modification or waiver of default interest, penalties and fees in accordance with the process and limits set forth in the Memorandum.

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Loan Loss Decision Process

Note: This document incorporates the Connecticut Green Bank ("Green Bank") Board of Directors ("BOD") approved framework and process for funding the provisional loss reserve, restructuring, and writing-off of transactions, as approved by the BOD on June 13, 2018 for transaction on Green Bank's balance sheet, amended by the BOD on April 24, 2020, and further approved by the BOD on June 26, 2020 for transactions on the balance sheet of Green Bank's subsidiaries (taken together, all such BOD approvals being the "Loan Loss Decision Process"). Changes in red reflect Green Bank staff's recommended amendments to the Loan Loss Decision Process as described in memorandum to the BOD dated March 18, 2022.

Governance

The bylaws of the Green Bank provide guidance in terms of managing transactions, and their potential restructuring or write-off. Specifically, the Deployment Committee of the Board of Directors, as outlined in Section 5.3.3 is responsible for:

- "(ii) with respect to loans, loan guarantees, loan loss reserves, credit enhancements… between three hundred thousand dollars ($300,000) and two million five hundred thousand dollars ($2,500,000), evaluation and approval of such requests on behalf of the Board so long as such approval is within the Green Bank's approved Operations and Program Budget,"

- "(iv) oversight of policies and practices relating to the evaluation and recommendation of initial investments, follow-on investments, *investment modifications and restructurings*, and the sale or other disposition of investments by the Authority's professional investment staff,"

- "(v) oversight of policies and practices relating to investment management by the Authority's professional investment staff, including implementation of investment exit strategies,"

- (vi) except to the extent of any investment powers expressly reserved to the Board itself in any resolution of the Board, to approve on behalf of the Board investments, follow-on investments, investment modifications and restructurings, and the sale or other disposition of investments," and

- (viii) the exercise of such authority as may from time to time be delegated by the Board to the Deployment Committee within its areas of cognizance.[1]

The bylaws of the Green Bank serve as the foundation to establishing the Loan Loss Decision Process, not only for the organization, but also its subsidiaries. Such Loan Loss Decision Process should be reviewed, revised (as appropriate) by the Deployment Committee, reviewed and recommended for approval by the Audit, Compliance, and Governance (ACG) Committee, and approved by the Board of Directors of the Green Bank.

Accounting

On an annual basis the accounting team prepares a detailed analysis of portfolio loans by program. This analysis includes a historical analysis of prior year loan write-offs, if any, by program, repayment delinquencies and inquiries of program and finance staff as to current developments with borrowers that could affect future repayments.[2] Based upon these inquires the accounting team assigns a loan loss reserve percentage to the balance of loans for each program to arrive at a total loan loss reserve for the loan portfolio. Currently these percentages range from 5-20% based on the project, product, or program.

The annual loan loss reserve calculation is reviewed for reasonableness by the Green Bank's audit firm as part of the annual audit process.

Here are a few examples for how loan losses are reserved for specific products and programs on the balance sheet of the Green Bank and its subsidiaries:

- **C-PACE** – through a benefit assessment on a property in a C-PACE participating community, capital providers finance clean energy projects on commercial, industrial, multifamily, and nonprofit buildings for measures consistent with the Comprehensive Energy Strategy. These assessments average $300,000, with interest rates up to 6.5 percent, and terms up to 25 years.

  Loan losses are reserved for C-PACE transactions by currently allocating 10% of the principal value outstanding of the C-PACE portfolio at the end of the fiscal year.

- **Project Finance** – there are transaction opportunities for clean energy investment in specific projects that the Green Bank provides a loan for, including fuel cells, wind, hydro, and anaerobic digesters to name a few.

  Loan losses are reserved for special projects by allocating a range of 5%-20% of the principal value outstanding of the various project loans at the end of the fiscal year.

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[1] The Board of Directors may also delegate certain responsibilities to the President and the other officers of the Green Bank as they believe are desirable to permit the timely performance of the functions of the Green Bank and to carry out the policies of the Board – See Green Bank Bylaws Sections 2.5 (Delegation of Powers) and 3.2 (President). For example, on October 20, 2017, per the memo dated October 13, 2017, the Board of Directors delegated the power for officers to approve transactions up to $500,000 in value as long as they are consistent with the Comprehensive Plan and Budget.

[2] It should also be noted that the Comprehensive Annual Financial Review (CAFR) also includes a "high level" breakdown of delinquencies and defaults by financing product or program.

- **Smart-E Loan** – through the Energize CT initiative with Eversource Energy and Avangrid, in collaboration with Connecticut's community banks, credit unions, and community development financial institutions, the Green Bank provides a second loan loss reserve of up to 7.5 percent of principal for residential loans in projects that support the Comprehensive Energy Strategy. These loans are up to $40,000 in principal, with interest rates not to exceed 6.99 percent, and terms of up to 20 years.

  Loan losses are reserved for the Smart-E Loan by setting aside 7.5% of the original principal value of the Smart-E Loan portfolio as restricted cash. Also, when 1.5% of losses are exceeded with the program partner lenders, then the Green Bank accesses the restricted cash to pay up to 7.5% of additional losses within their portfolio.

- **SBEA** – through an on-bill loan program administered by Eversource Energy, capital provided by Amalgamated Bank (i.e., 80-90% of the capital structure) and the Green Bank (i.e., 10-20% of the capital structure), small businesses are provided 0% interest rate loans (i.e., interest rate bought down to zero to the customer). Through FY 2019, there were 4,339 loans totaling $43.2 million (i.e., of which $4.5 million is from the Green Bank), with an average loan size of about $10,000 with up to 4-year terms.

  These loans are protected from losses by the Conservation and Load Management Plan.

- **Solar Loan** – through a residential solar loan product in partnership with Sungage Financial, the Green Bank provided low-cost and long-term debt to financial residential rooftop solar PV. Of the $6.0 million in assets supported through this product on nearly 300 homes, $3.6 million have been sold to various third parties (i.e., Mosaic and The Reinvestment Fund).

  These loans have no loan loss reserve.

- **Solar PPA** – through a power purchase agreement (PPA), the Green Bank provides debt into the capital structures for commercial-scale solar PV projects (e.g., municipal, schools, nonprofits, etc.). The PPA price for these projects is typically 20-30% less than the retail rate of electricity paid by the end-use customers. Through FY 2019, there were 123 projects totaling $102.6 million (i.e., of which $28.0 million is from the Green Bank), with an average investment of $835,000 for 20-year PPAs.

  These PPAs have no loan loss reserve.

Loan Loss Decision Process

In order to develop processes for determining how losses will be determined with regards to transactions on the Green Bank balance sheet and the balance sheets of its subsidiaries, there are two (2) key components – value of the modification and the type of loss anticipated that help formulate the process.

In assessing the threshold of the value of the modification, the Green Bank staff identified the following options:

- **Principal Outstanding** – the type of loss anticipated should apply to only the amount of the principal outstanding of the transaction;

- **Original Principal Value** – the type of loss anticipated should apply to the original principal value of the transaction; or

- **Value of the Modification** – the type of loss anticipated should apply only to the proposed value of the modification of the transaction.

To be consistent with the Loan Loss Decision Process, the Green Bank staff recommends that the value of the modification to assets should apply to the principal outstanding of the transaction as opposed to the (i) value of the original principal, or (ii) value of the modification.

The Green Bank staff has identified three different types of losses anticipated, including:

- **Provisional Loss Reserve** – as determined by the Budget and Operations Committee through the annual budget and targets process and reported in the annual audited financial statements;

- **Restructuring** – a unique action or decision to modify the principal, interest, term, and/or other relevant component of a transaction; and/or

- **Write-Off** – a policy or procedural determination that an asset is impaired as a result of it being delinquent and subsequently in default where it is deemed that it is unlikely for a material recovery of the principal.

Each of these types of losses should be handled in a specific manner depending upon the value of the principal outstanding amount of the transaction, as well as whether or not the transaction was restructured as a result of the COVID-19 pandemic – see Table 2.

Table 2. Loan Loss Decision Process based on Principal Amount Outstanding vs. Type of Loss Anticipated

Type of Loss Anticipated	**Amount of Principal Outstanding**		
	<$100,000	**$100,000 – $1,000,000**	**>$1,000,000**
Provisional Loss Reserve	Staff (with review and reporting from the Auditor)		
Restructuring	Staff	Deployment	Board of Directors
Restructuring COVID-19	Staff		(1) Staff for certain program transactions (see below) (2) Board of Directors for all other transactions

Write-Off	Staff	ACG	Board of Directors

The proposed amount of principal outstanding value for Staff approval of provisional, restructuring, and write-offs is intended to be overly conservative with respect to Staff authority, while appropriately reporting out any unusual activity or trends to the Deployment Committee and Board of Directors.

In between report outs, staff will only be able to review and approve in aggregate up to $500,000 of adjustments. In other words, the Loan Loss Decision Process allows staff to review and approve of transaction modifications "Up to $100,000 and No More in Aggregate than $500,000" between report outs to the Deployment Committee. Given that the Deployment Committee approves of transactions greater than $500,000 and less than $2,500,000, and the ACG Committee oversees the accounting and auditing of assets on the financial statements of the Green Bank, transactions requiring a write-off would be thro
ugh the ACG Committee after legal remedies have been pursued by staff on the impaired asset in question.

It should be noted, that as a result of the COVID-19 pandemic, that transactions requiring restructuring, follow this process:

a) Notwithstanding the proposed $1,000,000 staff approval limit above, given the strength and security of the asset class, staff approvals specific to the following programs can be for any amount of principal outstanding:

- C-PACE
- C-PACE with Green Bank PPA
- Green Bank Solar PPA projects for municipality, housing authority or school district

b) All COVID-19 staff restructurings are limited to a maximum of 6-month deferrals except in rare cases of certain towns where C-PACE assessments are collected annually – the accommodation in such cases would be for one year.

Modification or waiver of default interest, penalties or fees for any transaction should be handled in a manner depending upon the value of the modified or waived amount of such default interest, penalties or fees, as set forth in the table below.

Table 3. Loan Loss Decision Process for Modification or Waiver of Default Interest, Penalties or Fees

Amount of Default Interest, Penalties and Fees Modified or Waived		
<$100,000	**$100,000 – $1,000,000**	**>$1,000,000**
Staff	Deployment	Board of Directors

This is the Staff proposed Loan Loss Decision Process for the transaction of Green Bank and its subsidiaries for consideration by the Deployment Committee, Audit Compliance and Governance Committee, and the Board of Directors.

Example Transaction Application to the Loan Loss Decision Process

To apply the Loan Loss Decision Process, here are a few example transactions.

<u>Example Transaction #1 – Smart-E Loan</u>

The first example transaction is a residential loan through the Smart-E Loan Program that is in default – see Table 4.

Table 1. Smart-E Loan – Write-Off

Program	Smart-E Loan
Original Principal	$34,000
Outstanding Principal	$25,000
Type of Loss Anticipated	Write-Off
Approving Authority	Staff

Since the amount of the principal outstanding is less than $100,000, then the Staff would be approving this type of loss. In this situation, with regards to the Smart-E Loan, as long as the partner lender has exceeded their 1.5% of losses within their loan portfolio and is seeking to access the 7.5% second loss from the Green Bank per our agreement, then the Staff can write-off the outstanding principal amount of the transaction by paying off the loss through the use of restricted cash in the loan loss reserve account set aside for the Smart-E Loan program.

<u>Example Transaction #2 – C-PACE</u>

The second example transaction is a C-PACE benefit assessment that requires restructuring – see Table 5.

Table 5. C-PACE – Restructure

Program	C-PACE
Original Principal	$1,250,000
Outstanding Principal	$1,100,000
Type of Loss Anticipated	Restructuring
Approving Authority	Deployment Committee

Since the amount of principal outstanding is greater than $1,000,000, then this transaction would have to be reviewed and approved by the Board of Directors.

Example Transaction #3 – Onsite Distributed Generation Grant by the Connecticut Clean Energy Fund

The third example transaction is a grant provided by the Green Bank predecessor, the Connecticut Clean Energy Fund. In this example, a project host has committed to onsite clean energy for a contractual period of time, however, it may seek to modify that preexisting agreement. There are no assets on the balance sheet from this transaction – see Table 6.

Table 6. Onsite Distributed Generation Grant Program – Restructuring

Program	Onsite DG Program
Original Principal	$250,000
Outstanding Principal	$75,000
Type of Loss Anticipated	Restructuring
Approving Authority	Staff

Since the project is not an asset on the balance sheet of the Green Bank, and the principal outstanding value is less than $100,000, then the staff could review and approve of this transaction modification. Had the principal value of the outstanding principal in the contract exceeded the Staff authority to restructure, the proposed revision would have had to have been approved by the Deployment Committee or the Board of Directors.

Example Transaction #4 – Fuel Cell Project

The fourth example transaction is a loan for a fuel cell project that is a write-off – see Table 7.

Table 7. Fuel Cell Project – Write-Off

Program	Fuel Cell
Original Principal	$5,000,000
Outstanding Principal	$2,750,000
Type of Loss Anticipated	Write-Off
Approving Authority	Board of Directors

Given that all projects greater than $1,000,000 have to be reviewed and approved the Board of Directors, the write-off of this transaction, whose principal balance outstanding is $2,750,000, this would have to go to the Board of Directors for review and approval.

Example Transaction #5 – Multifamily Predevelopment Loans

The fifth example transaction is a predevelopment loan for a multifamily project that is a restructuring or write-off – see Table 8.

Table 8. Multifamily Predevelopment Loan Project – Restructuring or Write-Off

Program	Multifamily
Original Principal	$50,000
Outstanding Principal	$50,000
Type of Loss Anticipated	Restructuring or Write-Off
Approving Authority	Staff

The Multifamily predevelopment programs lend funds to identify and build out project plans. The funds are typically not repaid until a term loan to cover the actual project is in place and the predevelopment loan is repaid with the proceeds of the term loan. On some occasions, the outstanding balance of the predevelopment loan is written off or restructured as the term loan is agreed to ensure that the economics of a project work by staff. Given the size of the loan, the restructuring and loan forgiveness is handled by staff.

Example Transaction #6 – CT Solar Loan

The first example transaction is a residential loan through the CT Solar Loan Program that is in default – see Table 9.

Table 9. CT Solar Loan – Write-Off

Program	CT Solar Loan
Original Principal	$30,000
Outstanding Principal	$22,500
Type of Loss Anticipated	Write-Off
Approving Authority	Staff

Since the amount of the principal outstanding is less than $100,000, then the Staff would be approving this type of loss. In this situation, with regards to the CT Solar Loan, as long as all legal remedies have been pursued to collect the loan, then the Staff can write-off the outstanding principal amount of the transaction by paying off the loss through the use of restricted cash in the loan loss reserve account set aside for the CT Solar Loan.

Example Transaction #7 – Solar PPA Project during COVID-19 Secured by C-PACE

The second example transaction is a Solar PPA (i.e., secured by C-PACE), that requires restructuring as a result of the COVID-19 pandemic – see Table 10.

Table 10. Solar PPA – Restructure

Program	Solar PPA
Original Principal	$1,250,000
Outstanding Principal	$1,100,000
Type of Loss Anticipated	Restructuring – COVID-19

Approving Authority	Staff

Since this transaction has been adversely impacted by the COVID-19 pandemic, and the PPA is secured by C-PACE, then this transaction would be reviewed and approved by the Staff (i.e., instead of the Board of Directors) and reported out to the Board of Directors.

Had this transaction restructuring not been secured by C-PACE, then the review and approval of the Board of Directors would have been required.

Example Transaction #8 – Hydroelectric PPA during COVID-19

The third example transaction is the issuance of a Clean Renewable Energy Bond (CREB) to finance a 193-kW hydroelectric facility. In this example, the purchaser of the power is unable to pay its PPA due to the impact of COVID-19 – see Table 11.

Table 11. Hydroelectric Facility PPA with Bond Financing – Restructuring

Program	Project Finance – Bond
Original Principal	$3,000,000
Outstanding Principal	$2,798,331
Type of Loss Anticipated	Restructuring – COVID-19
Approving Authority	Board

Despite the town being adversely impacted by COVID-19, since the principal outstanding on the bond is greater than $1,000,000, any restructuring of the transaction would require the review and approval of the Board of Directors. And since the bond uses the Special Capital Reserve Fund (SCRF) of the State of Connecticut, additional steps will be required to support self-sufficiency if the PPA payment is forgiven due to COVID-19.

Example Transaction #9 – State of Connecticut PPA

The fourth example transaction is the issuance of a CREB to finance a portfolio of solar PV projects on state facilities. In this example, the purchaser of the power is unable to pay its PPA – see Table 12.

Table 12. Solar PV Facilities PPA with Bond Financing – Restructuring

Program	Project Finance – Bond
Original Principal	$9,350,000
Outstanding Principal	$9,101,729
Type of Loss Anticipated	Restructuring
Approving Authority	Board of Directors

Since the principal outstanding on the bond is greater than $1,000,000, any restructuring of the transaction would require the review and approval of the Board of Directors. And since the bond uses the Special Capital Reserve Fund (SCRF) of the State of Connecticut, additional steps will be required to support self-sufficiency if the PPA payment is forgiven.

Applying Loan Loss Decision Process

The following is a breakdown of the proposed processes for using the Loan Loss Decision Process for Green Bank and its subsidiaries:

Process #1 – Provisional Loss Reserve

On an annual basis the accounting team prepares a detailed analysis of portfolio loans by program. This analysis includes a historical analysis of prior year loan write-offs, if any, by program, repayment delinquencies and inquiries of program and finance staff as to current developments with borrowers that could affect future repayments. Based upon these inquires the accounting team assigns a loan loss reserve percentage to the balance of loans for each program to arrive at a total loan loss reserve for the loan portfolio. Currently these percentages range from 0-20% based on the project, product, or program.

The annual loan loss reserve calculation is reviewed for reasonableness by the Green Bank's audit firm as part of the annual audit process.

On a quarterly basis, with the assistance of Program and Finance Staff, the Accounting Team would make appropriate interim adjustments to the provisional loss reserve.

Process #2 – Restructuring Transactions

A transaction undergoing a restructuring would undergo the following process:

1. **Restructuring Calculation** – staff requesting a change in a previously approved transaction, must calculate the following:

    a. **Original Investment** – show the cash flow of expected principal and interest payments over the term of the transaction, including the calculation of the net present value of the transaction;

    b. **Proposed Restructured Investment** – show the cash flow of expected principal and interest payments over the term of the transaction, including the calculation of the net present value of the transaction; and

    c. **Comparison** – compare the original to the restructured investment to document any changes in cash flow and net present value.

2. **Documentation** – staff requesting a change must document in a memo the reason for the proposed modification (i.e. COVID-19), a description of the project, the calculation showing the original and restructured investment and their comparisons, and preventative measures for avoiding such issues in the future (for COVID-19 related restructurings, rather than a description of preventative measures for avoiding such issues in the future, the staff includes a signed letter from the borrower requesting the restructuring due to COVID-19);.

3. **Review and Approval** – the documentation must be reviewed and approved by the appropriate authority, including:

a. **Staff** – for principal balances less than $100,000 (unless a COVID-19 related transaction, then up to $1,000,000 for specific types of transactions), senior staff would review and approve and documented through the ARS process;

b. **Deployment Committee** – for principal balances greater or equal to $100,000 and less than $1,000,000, Deployment Committee would review and approve the transaction; or

c. **Board of Directors** – for principal balances greater than $1,000,000, the Board of Directors would review and approve the transaction.

4. **Reporting** – if a transaction receives the approval from the appropriate authority to be restructured, then the details should be reported in a quarterly memo and made available on an ongoing basis to the Deployment Committee and/or the Board of Directors. If the restructured transaction was related to COVID-19, then staff would specifically breakout the transactions in the quarterly memo that were restructured as a result of COVID-19 for reporting and tracking purposes, and staff will report out more frequently to the Board of Directors on COVID-19 related transaction restructurings.

Process #3 – Write-Off Transactions

A transaction undergoing a write-off would undergo the following process:

1. **Write-Off Calculation** – staff requesting a write-off in a previously approved transaction, must calculate the following:

    a. **Project Finance** – the amount of outstanding principal and lost interest revenue from the original transaction.

    b. **Smart-E Loan** – the amount of first losses (i.e., up to 1.5% of their portfolio) incurred by the participating lender, and the amount of second loan loss reserves (i.e., up to 7.5% of their portfolio) available through the Green Bank.

2. **Documentation** – staff requesting a write-off must document the reason for the write-off including a description of the project, the calculation showing the value of the write-off, and preventative measures for avoiding such issues in the future.

3. **Review and Approval** – the documentation must be reviewed and approved by the appropriate authority, including:

    a. **Staff** – for principal balances less than $100,000, senior staff would review and approve and documented through the ARS process;

    b. **Audit, Compliance and Governance Committee** – for principal balances greater or equal to $100,000 and less than $1,000,000, ACG Committee would review and approve the transaction; or

    c. **Board of Directors** – for principal balances greater than $1,000,000, the Board of Directors would review and approve the transaction.

4. **Reporting** – if a transaction receives the approval from the appropriate authority to be written off, then the details should be reported in a quarterly memo and made available on an ongoing basis to the Deployment Committee and/or the Board of Directors, and staff will report out more frequently to the Board of Directors on COVID-19 related transaction restructurings.

Modification or Waiver of Default Interest, Penalties or Fees

A transaction undergoing a modification or waiver of any default interest, penalties or fees should undergo the following process:

5. **Modification or Waiver Calculation** – staff requesting a modification or waiver of default interest, penalties or fees in a previously approved transaction, must calculate the amount of default interest, penalties and fees being modified or waived (the "Modified/Waived Amount").

6. **Documentation** – staff requesting a modification or waiver must document the reason for the modification or waiver including a description of the project, the calculation showing the value of the modification or waiver, and preventative measures for mitigating the likelihood of occurrence of such issues in the future.

7. **Review and Approval** – the documentation must be reviewed and approved by the appropriate authority, including:

    d. **Staff** – for Modified/Waived Amounts less than $100,000, senior staff would review and approve modification or waiver and document through its standardized approval release statement (ARS) internal process;

    e. **Audit, Compliance and Governance Committee** – for Modified/Waived Amounts greater or equal to $100,000 and up to $1,000,000, Deployment Committee would review and approve the modification or waiver; or

    f. **Board of Directors** – for Modified/Waived Amounts greater than $1,000,000, the Board of Directors would review and approve the modification or waiver

8. **Reporting** – if a transaction receives the approval from the appropriate authority to modify or waive default interest, penalties or fees, then the details should be reported in a quarterly memo and made available on an ongoing basis to the Deployment Committee and/or the Board of Directors, and staff will report out more frequently to the Board of Directors on COVID-19 related transactions.

Process for Reporting

Above and beyond applying the Loan Loss Decision Process to various transactions of the Green Bank and its subsidiaries, there is a need to frequently report out to the Deployment Committee and/or the Board of Directors. The following reporting on loan losses should begin in FY 2019 for Green Bank transactions and FY 2021 subsidiary transactions:

- **Monthly Financial Statements** – within the monthly financial statements provided to the Board of Directors, there should be a separate section that provides an overview of the provisional loan loss reserves noted for the fiscal year, along with any transactions that have been restructured or written-off through this Loan Loss Decision Process; and

- **<u>Quarterly Reports</u>** – provided to the Deployment Committee on a quarterly basis, this memo should provide further detail on loss transactions by program or product to assess trends, including:

    - Number of transactions lost;
    - Amount of loss;
    - Frequent of losses;
    - Percentage of losses; and
    - Thresholds of losses reached consistent with the provisional loss reserve.

Reporting is an essential aspect of the Loan Loss Decision Process.

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CONNECTICUT
GREEN BANK

Memo

To: Connecticut Green Bank Board of Directors

From: Mackey Dykes, Vice President, Financing Programs; Bert Hunter, EVP & Chief Investment Officer

CC: Bryan Garcia, President & CEO; Alex Kovtunenko, Associate General Counsel, Financing Programs; Jane Murphy, EVP Finance & Administration

Date: March 18, 2022

Re: Small Business Energy Advantage Master Agreement 3 Year Renewal

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Three years ago, the Connecticut Green Bank (Green Bank) formed a partnership with Amalgamed Bank and Eversource to provide private and Green Bank capital for Eversource's Small Business Energy Advantage (SBEA) program. This program offers energy audits, incentives and financing to eligible small business, municipalities, and state agencies for energy efficiency projects. The partnership provides capital for the financing aspect of the program, which offers on-bill, 0% financing for up to 4 years (with terms up to 7 years available for state agencies). The intent was to both reduce the cost of capital for the program as well as expand the availability of capital. Prior to Green Bank's efforts to form this public-private partnership, capital for the program was provided substantially with funds from Eversource which was compensated for these funds with regulatory rate of return that had exceeded 10%.

The partnership has been a success in both areas. Under the Master Purchase and Servicing Agreement ("Master Agreement") Amalgamed Bank and CEFIA Holdings LLC (a Green Bank subsidiary) have purchased over $72 million of loans, representing over 5,700 projects. With a rate of 2.33% for the last purchase of loans from Eversource, the capital is significantly cheaper than the rate of between more than 10% that the program was paying for Eversource shareholder capital. Eversource has also been able to expand the amount of capital that municipalities and state agencies can access through the program as well as making more businesses eligible for financing through expanding the offering to the Business Energy Advantage Program (BEA).

The current Master Agreement was scheduled to expire on December 20, 2021. In December, the Green Bank Board of Directors ("Board") approved a short-term extension to the Master Agreement to give the parties additional time to finalize the terms for a longer-term renewal. In addition to renewing the facility for a (nearly) 3-year additional period, the intent of the parties was to make several changes to the facility that will further increase customer access to financing for energy efficiency projects as well as improve the Green Bank's position. Staff is pleased to report that the parties have agreed on terms that achieve these goals. Therefore, staff is requesting permission to move forward to renew the facility for three years from the original expiration date of the Master Agreement that does the following:

- *Expands the Green Bank's share of future loan purchases from 10% to 20%.* The Green Bank bears much of the administrative burden of the partnership. This will double our share of each loan and increase interest revenue.

- *Changes the discount rate*. Rather than charge the SBEA program a cost of capital in arrears on loan balances purchased (bearing in mind the loans themselves to the businesses are 0% loans), to reduce repayment risk associated with loan yield, the lenders (AB & Green Bank) purchase the loans at a discount to the loan amount outstanding using an agreed interest rate (the "discount rate"). The previous agreement used a LIBOR as a benchmark to determine the discount rate, which is phasing out. The new agreement would establish the discount rate as follows:

    - the greater of either (i) 3.00%, or (ii) the sum of the two-year Treasury Rate plus 2.10% for loans with an original repayment period of 4 years or less; and

    - the greater of either (i) 3.00%, or (ii) the sum of the five-year Treasury Rate plus 2.10% for loans with an original repayment period of greater than 4 years.

- *Expands the maximum term from 4 to 7 years for all customers.* Longer term loans will improve the cashflow from energy efficiency projects with longer payback measures, making comprehensive projects more attractive to building owners.

- *Increases individual and aggregate loan cap to $5 million for municipalities with a credit rating of A or above.*

- *Increases the individual loan cap for the state of Connecticut to $5 million (as exists today – there is no aggregate cap under the Master Agreement for loans to the state).*

- *Gives the Green Bank the option to purchase loans that don't meet the qualifying criteria.*

- *Increases Green Bank's commitment to $20 million*. This is an increase from the current commitment of $6,555,556. The increase is due to greater percentage of each loan that the Green Bank will be purchasing as well as to provide flexibility to purchase loans on an exception basis pursuant to the aforesaid option.

- *Makes other minor updates and changes*. Most notably, the new agreement would incorporate language on Eversource's servicing role that would likely improve bond ratings on issuances backed by the loans and associated revenues.

Staff is requesting permission to move forward with documentation to extend the agreement until December 31, 2024.

Resolution

WHEREAS, the CEFIA Holdings LLC (a Connecticut Green Bank subsidiary), Eversource Energy and Amalgamated Bank Small Business Energy Advantage (SBEA) financing facility, pursuant to that certain Second Amended and Restated Master Purchase and Servicing Agreement dated September 30, 2020 (as amended, the "MPA"), expired on March 20, 2022; and

WHEREAS, the parties have agreed on terms set forth in a memorandum to the Green Bank Board of Directors (the "Board") dated March 18, 2022 (the "MPA Memo") to renew and extend the MPA and expand the availability of financing for energy efficiency.

NOW, therefore be it:

RESOLVED, that the Board authorizes the Green Bank to renew and extend the MPA to December 31, 2024 substantially in accordance with the terms of the existing MPA with modifications as set forth in the MPA 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.

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CONNECTICUT GREEN BANK

Memo

To: Connecticut Green Bank Board of Directors

From: Mackey Dykes, Vice President, Financing Programs, Alex Kovtunenko, Associate General Counsel, and Alysse Lembo-Buzzelli, Associate Director, Financing Programs

Date: March 22, 2022

Re: C-PACE Program Guidelines Update

Overview

Conn. Gen. Stat. Section 16a-40g authorizes what has come to be known as the Commercial Property Assessed Clean Energy Program ("C-PACE"), designates the Connecticut Green Bank ("CGB") as the state-wide administrator of the program and charges CGB to "develop program guidelines governing the terms and conditions under which state and third-party financing may be made available to the commercial sustainable energy program." Since 2013, CGB has developed and maintained the "Program Guidelines" for the C-PACE program in accordance with this statutory requirement.

CGB Staff is seeking approval for an update to the Program Guidelines, which include: 1) incorporating the New Construction Program Pilot (as defined below) into the Program Guidelines as an appendix thereto, and 2) amending the New Construction Program Pilot as set forth herein and more particularly described in the attached "New Construction Technical Standards" appendix.

C-PACE New Construction Pilot History & Performance

Currently the technical review requirements for new consultation projects seeking C-PACE financing are described in the guidelines which were approved by the Board on January 26, 2018 (the "New Construction Program Pilot" or "Pilot"). The New Construction Program Pilot was published separately from the Program Guidelines. The Pilot was implemented as a way for Staff to explore how offering a financing solution to the Connecticut market for new construction, repositioning, and gut rehabilitation could promote more energy efficient building design. Given the lack of a pre-improvement energy baseline against which to measure energy savings and the difficulty of isolating and assigning portions of new construction costs to particular energy savings, the Pilot proposed using a whole building energy model as an alternate methodology to the traditional savings-to-investment ratio (“SIR”) calculation to demonstrate a certain level of energy performance above code. A minimum threshold of 10% energy performance above code was required to qualify for C-PACE financing. Working with the C-PACE Technical Administrator, the Green Bank would then determine Total Eligible Construction Cost (“TECC”) by reviewing the project’s construction budget and including hard and soft costs directly related to a building’s design and construction. The C-PACE Eligible Finance Amount for a building that demonstrated a 10% improvement over the code baseline was 10% of the TECC. For each additional 1% improvement in performance over baseline, an additional 1% of TECC was made available for financing up to a maximum of 20% of TECC.

Since the New Construction Pilot’s adoption, 3 different approved C-PACE Capital Providers have closed a total 6 New Construction projects for a total of over $27M in financing. The 6 closed projects included 3 multifamily, 2 hotels, and 1 office building.

Pilot Feedback

Based on feedback from the market and our C-PACE Capital Provider partners, as well as research of new construction programs in other C-PACE jurisdictions, one of the main goals of the New Construction Technical Standards was to simplify the implementation of the program. There was uncertainty around how much C-PACE financing could potentially be accessed until time and money was spent performing a whole building energy model and determining the anticipated energy performance above code. The minimum threshold of energy performance 10% above code also seemed to be higher than the minimum of other C-PACE New Construction programs. Even though 6 projects were closed under this Pilot design, the determination of eligible C-PACE financing and the minimum threshold of 10% above code seemed to be barriers for other projects to pursue C-PACE financing, especially given more stringent building codes that have been implemented since launching the pilot and even more stringent codes to come.

Public Comments Received

As discussed during the January 26, 2022 Board meeting, the draft revised new construction section of the program guidelines and Appendix N were posted for a public comment period. The public comment period ran for 30 days, ending on March 4, 2022. During the public comment period, CGB Staff received 1 comment submitted by The C-PACE Alliance (CPA). CPA is an organization that consists of 23 total members, including 13 capital provider partners that are eligible or applying to become eligible to lend in CT's C-PACE program. CPA's full document of comments can be found in Exhibit A of this memo, but are summarized below, along with a summary of CGB Staff's responses. CGB Staff has addressed CPA's comments through various virtual meetings, phone calls, and email communications:

- Use Loan-to-value (LTV) as opposed to Total Eligible Construction Cost (TECC) as the basis to determine eligible % of C-PACE financing. This would result in an overall higher amount of C-PACE financing becoming available
  - CGB RESPONSE: CGB staff understands the desire to access higher amounts of C-PACE financing, as well as conforming to a familiar way to determine financing eligibility when planning a construction project. While this is an area staff will continue to review and discuss with our external stakeholder partners, capital provider partners, and other C-PACE program administrators to understand best practices, we decided to continue to use TECC as the basis for determining eligible % of C-PACE financing. However, staff has increased the % of TECC that can be accessed across all energy performance levels, as well as added an additional option to incorporate 4 Bonus Technologies as a way to unlock additional % of TECC
- Add additional higher levels of energy performance to access higher amounts of C-PACE financing
  - CGB RESPONSE: Staff added an additional higher level of energy performance above code as a way to both encourage more efficient building designs, as well as a way to access a higher amount of C-PACE financing
- Increase the % of C-PACE financing available across all energy performance levels
  - CGB RESPONSE: Per the response above, staff has increased the % of TECC that can be accessed across all energy performance levels, as well as added an additional option to incorporate 4 Bonus Technologies as a way to unlock additional % of TECC
- Add LEED Certification as a pathway to determine energy performance
  - CGB RESPONSE: As an alternative to the traditional SIR analysis, for new construction project, we have made the determination that, at a minimum, the energy performance of the project must exceed the applicable building energy code. Since LEED Certification does not corelate to energy performance above code, there is no way to apply this standard within our methodology.
- Add EnergySTAR Score as a pathway to determine energy performance
  - CGB RESPONSE: Similar to the response regarding using LEED Certification, an EnergySTAR Score is the result of the comparison of the building's energy performance as designed to the energy performance of similar existing buildings, and therefore does not corelate to energy performance above code.

New Additions & Amendments

In order to give developers, capital providers, and borrowers a simplified and more accessible way to use C-PACE for new construction financing while still preserving the program's public policy aspects, Staff has made the following changes:

- Determining the eligible amount of TECC that can be financed with C-PACE has been simplified to say that a minimum energy performance above code (either 5% above IECC 2021 or 10% above IECC 2018 & prior), is required to be eligible for a C-PACE financed amount of 20% of the TECC. This change both lowered the minimum energy performance threshold to access C-PACE financing, as well as decoupled the energy performance % above code from directly corresponding to the same % of TECC eligible for financing. An additional, more rigorous option has also been added to promote even higher energy performance above code. Either 10% above IECC 2021 or 20% above IECC 2018 & prior is required to be eligible for a C-PACE financed amount of 25% of the TECC
- Added the ability for eligible multifamily properties to use the HERS Index as a pathway to demonstrate the project meets minimum required levels of energy performance to be eligible for financing
- Added an option to access an additional 5% of TECC in financing by incorporating 2 bonus technologies into the project design, as well as a further option to access an additional 10% of TECC in financing by incorporating 4 bonus technologies. These bonus technologies were chosen to promote emerging clean energy technologies, resiliency, state policy goals, and energy transition goals
- Added an option for projects designed to be all-electric and to achieve net zero to access 35% of TECC in financing
- A list of supporting documents needed for project review, along with exhaustive defined lists of both eligible and ineligible TECC costs were added

Recommendation

Staff recommends that the Green Bank Board (the "Board") recommend approval of the amended C-PACE Program Guidelines in accordance with this memorandum and as more particularly described in the attached "New Construction Technical Standards" appendix. The previously drafted Program Guidelines have already gone through a thirty-day public comment period, and changes have been made as a result of comments received. If approved by the Board, CGB staff with proceed with implementation of such C-PACE Program Guidelines. Additionally, once the updated Program Guidelines are implemented, they will supersede the New Construction Program Pilot, which will then be terminated.

Resolution

WHEREAS, Conn. Gen. Stat. Section 16a-40g (the "Authorizing Statute") authorizes what has come to be known as the Commercial Property Assessed Clean Energy Program ("C-PACE"), the Authorizing Statute designates the Connecticut Green Bank ("CGB") as the state-wide administrator of the program;

WHEREAS, the Authorizing Statute charges CGB to develop program guidelines (the "Program Guidelines") governing the terms and conditions under which state and third-party financing may be made available to C-PACE;

WHEREAS, CGB staff drafted proposed changes to the Program Guidelines, which among other things, would supersede the New Construction Program Pilot which was approved by the Board on January 26, 2018 (the "New Construction Pilot"); and

WHEREAS, The proposed changes to the Program Guidelines went through a thirty-day public comment period in accordance with Conn. Gen. Stat. Section 1-120 et seq, and staff has made further changes to the Guidelines to address certain public comments which were received, as more particularly described in that memorandum to the Board dated March 22, 2022 (the "Memorandum").

NOW, therefore be it:

RESOLVED, the CGB Board of Directors (the "Board") approves the proposed changes to Program Guidelines, substantially in the form of attached to the Memorandum. The updated Program Guidelines shall supersede the New Construction Pilot;

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

C-PACE ALLIANCE

February 18, 2022

Ms. Alysse A. Lembo-Buzzelli
Associate Director, Financing Programs
Connecticut Green Bank

Dear Ms. Lembo-Buzzelli:

Thank you again for the opportunity to comment on the revisions to the Connecticut Green Bank's (CTGB) New Construction Technical Standards and Approval Process. The C-PACE Alliance (CPA) appreciates its partnership with CTGB, and we recognize the CTGB ss a leader in the C-PACE industry. We thank you for establishing a public process for accepting industry feedback before taking further action on adopting these guidelines.

The following detailed comments are proposed to you with input from across the C-PACE industry and incorporating ideas that are seen in new construction programs nationally. Therefore, these recommendations are made with current practices and precedents in mind and our recommendations for Connecticut's program is not a departure from what we see in other C-PACE markets. As more and more developers and property owners see the value of including C-PACE financing in their financing capital stacks, they want to unlock as much low-cost capital as possible. Adding more C-PACE financing can lower the overall cost of capital and the total interest paid on a developer's construction capital stacks. This becomes a win-win-win proposition for developers and property owners, capital providers, and C-PACE programs across the country in encouraging sustainable building design in more commercial properties.

Once you have had an opportunity to review our recommendations, we would be happy to schedule a call with you to discuss our recommendations in detail.

Sincerely,

Clifton G. Kellogg
Executive Director

CTGB C-PACE New Construction Guidance Outline
Recognizing that there are multiple ways to qualify and certify sustainable buildings today, the C-PACE capital provider industry wishes to propose multiple pathways to qualify projects for C-PACE for New Construction financing in Connecticut. In addition, in recognizing that more project developers and property owners are seeing the value C-PACE can provide in filling out a construction capital stack, we have consulted other C-PACE programs and determined that the amount of C-PACE financing should be based upon the property's appraised value, as opposed to limiting it to the construction costs of the project.
Below is a matrix that shows the multiple pathways for a new construction project to qualify for C-PACE for New Construction financing:
Whole Building Eligibility Matrix:

Qualification Level*	25% LTV***	30% LTV	35% LTV
Option 1 - Exceed Energy Code**	5% Better Than Code	10% Better Than Code	15% Better Than Code
Option 2 Energy Star Score	Energy Star Score 75 or Higher	Energy Star Score 80 or Higher	Energy Star Score 85 or Higher
Option 3 HERS Rating	51 or Under	46 or Under	41 or Under
Option 4 LEED Certification	LEED Silver	LEED Gold	LEED Platinum

*Natural Gas Backup Generation or incidental gas usage for aesthetic purposes allowed
** Energy code chosen for baseline should be the one that was enacted and enforced at the time when the permit was issued for construction
*** The LTV levels proposed are without adding bonus technologies to the project

Bonus Technologies:

- Electric vehicle charging stations (Level 2 or better)
- Battery storage systems (behind the meter)
- High-efficiency heat pumps (air, ground, or water source, better than code)
- Networked lighting controls
- Hard wired smart plug load controls
- Heat pump water heaters
- Passive window shading system
- Solar

Projects who implement two of any of the above technologies will be eligible for an additional 5% LTV on top of the LTV amounts allowed for the whole building performance level achieved (irrespective of the option chosen in the matrix above), up to 40% LTV total.

Illustrative Examples:

- A developer uses Option 1 and the building is designed 10% better than code and they implement a solar system and a heat pump water heater, they would be eligible for 35% LTV.

- A developer uses Option 4 and the building is designed to achieve LEED Platinum certification level, and the developer adds in electric vehicle charging stations and a battery storage system, they would be eligible for 40% LTV

Option 1 – Exceed Energy Code:
A New Construction Project using this path must use a whole building energy model to demonstrate that the proposed building's energy performance will exceed, to a minimum level, a baseline building energy performance. The baseline building energy performance is based on a building that is designed and built to meet Connecticut building and energy code requirements applicable at the time building permits are obtained (https://portal.ct.gov/DAS/Office-of-State-Building-Inspector/Connecticut-State-Building-Code). All C-PACE New Construction projects can use this path, including projects for commercial, industrial, multifamily, and other C-PACE eligible properties, as well as gut rehabilitation or repositioning to change the use of an existing facility at C-PACE eligible properties.

The following energy modeling software can be used to model the baseline and proposed buildings' energy performance. Software other than those outlined below can be utilized upon review and approval by the Technical Administrator:

- eQuest
- Energy Plus (Open Studio)
- Trane Trace or Trace 3D
- Design Builder

Submittals made to the Connecticut public utilities Energy Conscious Blueprint Program in support of energy efficiency program incentives would be acceptable documentation to provide in support of the C-PACE technical requirements. The Connecticut public utilities energy modeling guidelines can be found here (https://energizect.com/your-business/solutions-list/Energy-Conscious-Blueprint). These submittals will be subject to the review of the technical administrator to ensure conformity with the C-PACE program guidelines.

Option 2 – Energy Star Score
Using construction documents the building must receive Designed to Energy Star Certification and report the designed energy star score to the CTGB for review. The process of Achieving a designated level can be accessed here:
https://www.energystar.gov/sites/default/files/tools/DEES_HowToGuide_May%202021_FINAL.pdf

Option 3 – HERS Rating
C-PACE New Construction projects for multifamily properties, or eligible mixed-use properties which include multifamily, can use this path to demonstrate that the proposed building's energy performance will exceed, to a minimum level, a baseline building energy performance through the Home Energy Rating System ("HERS") Index. The HERS index is a nationally recognized system for inspecting, calculating, and estimating residential and multifamily energy performance (https://www.hersindex.com/). The HERS index rating is determined by a certified Home Energy Rater, who assesses the energy efficiency of a residence or multifamily dwelling unit and assigns it a relative performance rating. Every point below 100 on the HERS index translates to roughly 1% energy savings compared to a IECC 2006 code-built residence or multifamily dwelling unit. The lower the rating, the more efficient the dwelling unit. For multifamily buildings, each unique dwelling unit type receives a HERS index rating. After a rating is determined for each dwelling unit type, a weighted average of the total units is calculated based on the quantity of each dwelling unit type. This weighted average is used as the overall HERS index rating. For example, if there 3 unit types (A with a HERS index rating of 40, B with a HERS index rating of 45, and C with a HERS index rating of 60) and there are 10 each of A and B, and 20 of C (for a total of 40 units), then the weighted average HERS index rating would be 51.25.

For the purposes of the HERS Index Multifamily Path, only corridors, stairwells, exterior lighting, and lobbies are considered to be common areas in multifamily buildings (collectively being "Common Areas"). All other spaces, including but not limited to, clubhouses, gymnasiums, enclosed parking areas, swimming pools, etc. will be considered commercial spaces (collectively being "Commercial Spaces").

For Common Areas and Commercial Spaces for mixed-use facilities, the Technical Administrator will provide data collection sheets for commonly applicable energy technologies/measures. These completed data collection sheets need to be provided by the applicant along with the other relevant project documentation, including the HERS index rating analyses. The data collection sheets will be used to compare the specifications of proposed equipment in non-residential spaces to code-compliant or industry standard practice baseline equipment.

The following tools, accredited by the Residential Energy Services Network (RESNET), can be used to determine the HERS index rating including:

- REM/Rate
- EnergyGauge® USA
- Ekotrope

Energy efficiency incentive submittals made to the Connecticut utilities Residential New Construction Program would be acceptable documentation to provide in support of the C-PACE technical requirements (https://energizect.com/your-home/solutions-list/residential-new-construction-program). These submittals will be subject to the review of the technical administrator to ensure conformity with the C-PACE program guidelines.

The following multifamily properties are NOT eligible to use the HERS Index Multifamily Path. These properties would need to use the "Whole Building Energy Model Path" as outlined above in Section 4a.. Please contact the Technical Administrator in situations that need further clarification:

- Multifamily facilities with dwelling units served by central plants (including geothermal)
- Mixed-use facilities with significant process loads such as refrigeration, compressed air, manufacturing processes, etc.
- Mixed-use facilities where the commercial space, as referenced earlier in this section, is greater than 20% of total occupied space
- Historic buildings as designated by the state of CT (https://portal.ct.gov/DECD/Content/Historic-Preservation/01_Programs_Services/Historic-Designations/State-Registry-of-Historic-Places)

Option 4 - LEED Certification
Using construction documents the building must receive the appropriate LEED level for the desired proceeds amount and report the certification for the CTGB to review. The process of Achieving a designated level can be accessed here: https://www.usgbc.org/leed/rating-systems/new-buildings

Measure by Measure Incremental Cost Eligibility (Also available for Retrofit/Gut Rehabilitation)**:**
For projects that do not want to pursue a path of whole building qualification or modeling, individual measures can be qualified using an SIR calculation. For individual systems that exceed the applicable state energy code, the cost savings will then be calculated using the applicable utility rate class and structure, alongside the energy reduction produced by that system's performance above code.
The project engineer, using industry standard practice, must then estimate the incremental cost of the proposed building design vs a minimally code compliant system design. An SIR (savings to investment ratio) must then be calculated as follows:

- Lifetime Dollar Savings / Incremental Cost of Installed measures

Dollar Savings can include:

- Energy cost savings including utility cost escalation
- The value of tax credits and asset depreciation.

If the result of the above is an SIR > 1, than all hard and soft costs related to the installation of the measures included in the above calculation are eligible for C-PACE.

Eligible Costs
Eligible costs that can be financed by C-PACE for New Construction would include, but not limited to, the following hard

and soft costs:

- Engineering and design services
- Energy modeling services
- Building core and shell
- Energy consuming equipment and energy saving measures
- Renewable energy sources
- Permits
- Insurance
- Building safety systems such as sprinklers and fire alarms
- Legal and accounting fees
- Construction period interest
- Financing fees
- Operating losses during construction
- Contingencies

Appendix N[1]: C-PACE NEW CONSTRUCTION, REPOSITIONING AND GUT REHABILITATION TECHNICAL STANDARDS AND APPROVAL PROCESS

1. Overview

Given the lack of a pre-improvement energy baseline against which to measure energy savings and the difficulty of isolating and assigning portions of new construction, repositioning and gut rehabilitation project (each being a "New Construction Project") costs to particular Energy Improvements, the Standard SIR Technical Review process (described in Article IV, Section 2 of the Program Guidelines) is not applicable. C-PACE eligibility for New Construction Projects will instead be determined by the overall energy performance of the property above the applicable building energy code. New Construction Projects must demonstrate a minimum level of energy performance, above the applicable building energy code, using one of the two paths outlined below. Based on that determination, a percentage of the project's TECC will be eligible for C-PACE financing ("C-PACE Eligible Finance Amount"). Fees and interest associated with the C-PACE financing can be added to the C-PACE Eligible Finance Amount to determine the total C-PACE benefit assessment amount.

2. Supporting Documentation

The applicant must submit the following documents to the Green Bank and the Technical Administrator, in a form acceptable to both in their discretion:

- Narrative describing the New Construction Project and scope (typically prepared by the modeler)
- Energy modeling input and output files
- Supporting spreadsheet calculations, if any
- Design drawings
- Equipment cutsheets and AHRI certificates
- Detailed construction budget
- Letter of agreement from utility programs, if applicable

[1] This is an appendix to the C-PACE Program Guidelines

- For projects opting to use the HERS Index Multifamily path (as described in Section 4(b) below):
  - HERS Index Rating analyses
  - Data collection sheets for non-residential spaces

3. Total Eligible Construction Cost (TECC) Determination

For a New Construction Project, the sum of construction hard and soft costs directly related to a building's design and construction (the "Total Eligible Construction Cost" or "TECC"), shall be determined by the Green Bank and Technical Administrator pursuant to this Section. The applicant must submit a detailed construction budget that includes the itemized hard costs and soft costs in an .xls or .csv format. The Technical Administrator will review the budget and send comments and questions to the applicant regarding specific line items to determine eligibility. Based on the applicant's submitted materials and responses, the Technical Administrator will provide a final TECC determination.

The following list contains examples of eligible costs that may be included in the TECC calculation. The Green Bank and Technical Administrator will ultimately determine the maximum TECC for each New Construction Project:

- Architectural, engineering, and design services
- Energy modeling services
- Construction hard costs
- Environmental studies
- Plumbing
- Landscaping
- Energy consuming equipment and energy saving measures
- Permits
- Administrative fees and project management
- Developer fees
- Appraisal costs
- Lender inspection costs
- General liability Insurance
- Builder's risk insurance
- Building safety systems such as sprinklers and fire alarms
- Utility connection and impact fees
- Legal and accounting fees
- Construction period interest
- Financing fees
- Operating losses during construction
- Interest reserves
- Contingencies

The following costs are NOT eligible to be included in the TECC calculation. The Green Bank and Technical Administrator will ultimately determine the maximum TECC for each New Construction Project:

- Costs related to land acquisition
- Marketing expenses
- Plug-in equipment (appliances, bulbs, etc.)
- Furniture, fixtures, and equipment
- Interior decorations such as artwork
- Any items not affixed to the property

4. Energy Performance Determination

There are two paths that a New Construction Project can use to demonstrate it meets a required levels of energy performance:

(a) Whole Building Energy Model Path, and

(b) HERS Index Multifamily Path

Applicants are strongly encouraged to discuss and review their projects with the Green Bank and Technical Administrator before applying for project approval. This step will help the applicant determine which path may be best for a New Construction Project and answer any questions related to the requirements set forth below.

Technical review of a New Construction Project must be completed by the Technical Administrator.

a. Whole Building Energy Model Path

A New Construction Project using this path must use a whole building energy model to demonstrate that the proposed building's energy performance will exceed, to a minimum level, a baseline building energy performance. The baseline building energy performance is based on a building that is designed and built to meet Connecticut building and energy code requirements applicable at the time building permits are obtained (https://portal.ct.gov/DAS/Office-of-State-Building-Inspector/Connecticut-State-Building-Code). All C-PACE New Construction projects can use this path, including projects for commercial, industrial, multifamily, and other C-PACE eligible properties, as well as gut rehabilitation or repositioning to change the use of an existing facility at C-PACE eligible properties.

For projects using IECC 2021 as the baseline code, a minimum improvement in energy performance of 5% over the baseline building is required to be eligible for C-PACE financing. The C-PACE Eligible Finance Amount for such a building that demonstrates a 5% improvement over the baseline will be 20% of the TECC. Buildings that demonstrate an energy performance of 10% over the baseline will be eligible for 25% of the TECC (as summarized in Table 1 below).

For projects using a baseline of IECC 2018 or prior, a minimum improvement in energy performance of 10% over the baseline building is required to be eligible for C-PACE financing. The C-PACE Eligible Finance Amount for such a building that demonstrates a 10% improvement over the baseline will be 20% of the TECC. Buildings that demonstrate an energy performance of 20% over the baseline will be 25% of the TECC (as summarized in Table 1 below).

The following energy modeling software can be used to model the baseline and proposed buildings' energy performance. Software other than those outlined below can be utilized upon review and approval by the Technical Administrator:

- eQuest
- Energy Plus (Open Studio)
- Trane Trace or Trace 3D
- Design Builder

Submittals made to the Connecticut public utilities Energy Conscious Blueprint Program in support of energy efficiency program incentives would be acceptable documentation to provide in support of the C-PACE technical requirements. The Connecticut public utilities energy modeling guidelines can be found here (https://energizect.com/your-business/solutions-list/Energy-Conscious-Blueprint). These submittals will be subject to the review of the technical administrator to ensure conformity with the C-PACE program guidelines.

An example of a project using the Whole Building Energy Model Path can be found in Section 8 (Project Examples).

b. HERS Index Multifamily Path

C-PACE New Construction projects for multifamily properties, or eligible mixed-use properties which include multifamily, can use this path to demonstrate that the proposed building's energy performance will exceed, to a minimum level, a baseline building energy performance through the Home Energy Rating System ("HERS") Index.

The HERS index is a nationally recognized system for inspecting, calculating, and estimating residential and multifamily energy performance (https://www.hersindex.com/). The HERS index rating is determined by a certified Home Energy Rater, who assesses the energy efficiency of a residence or multifamily dwelling unit and assigns it a relative performance rating. Every point below 100 on the HERS index translates to roughly 1% energy savings compared to a IECC 2006 code-built residence or multifamily dwelling unit. The lower the rating, the more efficient the dwelling unit. For multifamily buildings, each unique dwelling unit type receives a HERS index rating. After a rating is determined for each dwelling unit type, a weighted average of the total units is calculated based on the quantity of each dwelling unit type. This weighted average is used as the overall HERS index rating. For example, if there 3 unit types (A with a HERS index rating of 40, B with a HERS index rating of 45, and C with a HERS index rating of 60) and there are 10 each of A and B, and 20 of C (for a total of 40 units), then the weighted average HERS index rating would be 51.25.

For the purposes of the HERS Index Multifamily Path, only corridors, stairwells, exterior lighting, and lobbies are considered to be common areas in multifamily buildings (collectively being "Common Areas"). All other spaces, including but not limited to, clubhouses, gymnasiums, enclosed parking areas, swimming pools, etc. will be considered commercial spaces (collectively being "Commercial Spaces").

For Common Areas and Commercial Spaces for mixed-use facilities, the Technical Administrator will provide data collection sheets for commonly applicable energy technologies/measures. These completed data collection sheets need to be provided by the applicant along with the other relevant project documentation, including the HERS index rating analyses. The data collection sheets will be used to compare the specifications of proposed equipment in non-residential spaces to code-compliant or industry standard practice baseline equipment.

For projects using IECC 2021 as the baseline code, a maximum weighted HERS index rating of 40 is required to be eligible for C-PACE financing. For projects where the weighted HERS index rating is 35 and under, the equipment serving the Common Areas and Commercial Spaces would need to meet IECC 2021 code requirements, at minimum. For projects where the weighted HERS index rating is between 36 and 40, the efficiencies of the equipment serving the Common Areas and Commercial Spaces would need to exceed IECC 2021 code requirements by at least 5%. For such projects, the C-PACE Eligible Finance amount is of 20% of the TECC. For projects where the weighted HERS index rating is 30 and under, the equipment serving the Common Areas and Commercial Spaces would need to meet IECC 2021 code requirements, at minimum. For projects where the weighted HERS index rating is between 31 and 35, the efficiencies of the equipment serving the Common Areas and Commercial Spaces would need to exceed IECC 2021 code requirements by at least 10%. For such projects, the C-PACE Eligible Finance amount is of 25% of the TECC.

For projects using a baseline of IECC 2018 or prior, please refer to Table 2 below for the weighted HERS index rating required to be eligible for C-PACE financing.

The following tools, accredited by the Residential Energy Services Network (RESNET), can be used to determine the HERS index rating including:

- REM/Rate
- EnergyGauge® USA
- Ekotrope

Energy efficiency incentive submittals made to the Connecticut utilities Residential New Construction Program would be acceptable documentation to provide in support of the C-PACE technical requirements (https://energizect.com/your-home/solutions-list/residential-new-construction-program). These submittals will be subject to the review of the technical administrator to ensure conformity with the C-PACE program guidelines.

The following multifamily properties are NOT eligible to use the HERS Index Multifamily Path. These properties would need to use the "Whole Building Energy Model Path" as outlined above in Section 4a. Please contact the Technical Administrator in situations that need further clarification:

- Multifamily facilities with dwelling units served by central plants (including geothermal)
- Mixed-use facilities with significant process loads such as refrigeration, compressed air, manufacturing processes, etc.
- Mixed-use facilities where the commercial space, as referenced earlier in this section, is greater than 20% of total occupied space
- Historic buildings as designated by the state of CT (https://portal.ct.gov/DECD/Content/Historic-Preservation/01_Programs_Services/Historic-Designations/State-Registry-of-Historic-Places)

An example of a project using the HERS Index Multifamily Path can be found in Section 8 (Path Examples).

5. Bonus Technologies & Net Zero Design Determination

a. Bonus Technologies

In order to promote emerging clean energy technologies, resiliency, state policy goals, and energy transition goals, if a New Construction Project design contains at least two of the technologies listed below (each being a "Bonus Technology" and collectively being "Bonus Technologies"), an additional 5% of C-PACE financing is made available. If a New Construction Project design contains at least four of the technologies listed below, an additional 10% of C-PACE financing is made available (as summarized in Table 1 & Table 2).

- Electric vehicle charging stations (Level 2 or better)
- Battery storage systems sized appropriately for the project (behind the meter)
- High-efficiency heat pumps (air, ground, or water source, better than code & facility-wide)
- Networked lighting controls (facility-wide)
- Hard wired smart plug load controls (facility-wide)
- Heat pump water heaters (facility-wide)
- Passive window shading system, sized appropriately for the project
- Fuel cell, sized appropriately for the project, in combined heat and power mode (please note that these systems can either be included as a Bonus Technology under the Whole Building Energy Model path OR as a clean energy electric generation measure as defined in Section 7)
- Solar PV, sized appropriately for the project (please note that these systems can either be included as a Bonus Technology under the Whole Building Energy Model path OR as a clean energy electric generation measure as defined in Section 7)

b. Net Zero Design

If a New Construction project is designed to be all-electric and to achieve net zero, as defined by the New Buildings Institute (NBI), the C-PACE Eligible Finance amount is 35% of the TECC (as summarized in Table 1 & Table 2). Table 3 in the NBI document titled "Zero Energy Commercial Building Targets" (https://newbuildings.org/wp-content/uploads/2019/09/ZeroEnergyCommercialBuildingTargets.pdf) specifies the energy use intensity (EUI) that needs to be achieved for various building types prior to the implementation of on-site renewables. Connecticut falls under climate zone 5A and should be referenced when determining the desired EUI. If a building type is not specified or clearly identified in the referenced NBI document, please reach out to the Green Bank and Technical Administrator for guidance on how to determine the appropriate target EUI. A detailed review of project documentation and proposed designs would be conducted by the Technical Administrator in order to approve a net zero design and eligibility to receive 35% of the TECC.

6. Total Eligible C-PACE Financed Amount Determination

Based on determinations made by the Green Bank and Technical Administrator pursuant to the requirements above, the total eligible C-PACE financed amounts for New Construction Projects are set forth in tables 1 and 2.

Table 1- Whole Building Energy Model Path Eligible Financed Amount

IECC Code Year	Min. Energy Performance Above Code to be eligible for C-PACE Financing	C-PACE Financed Amt. of TECC	C-PACE Financed Amt. after Addition of Min. 2 Bonus Technologies	C-PACE Financed Amt. after Addition of Min. 4 Bonus Technologies	C-PACE Financed Amt. Designed for Net Zero
2021	5%	20%	25%	30%	35%
2021	10%	25%	30%	35%	
2018 or prior	10%	20%	25%	30%	
2018 or prior	20%	25%	30%	35%	

Table 2- HERS Index Multifamily Path Eligible C-PACE Financed Amount

IECC Code Year	Weighted HERS Index Rating*	Min. Common Area and Commercial Space equip. efficiency requirement	C-PACE Financed Amt. of TECC	C-PACE Financed Amt. after Addition of Min. 2 Bonus Technologies	C-PACE Financed Amt. after Addition of Min. 4 Bonus Technologies	C-PACE Financed Amt. Designed for Net Zero
2021	35 and under	Meets code	20%	25%	30%	35%
	36-40	5% > code	20%	25%	30%	
2021	30 and under	Meets code	25%	30%	35%	
	31-35	10% > code	25%	30%	35%	
2018 & 2015	46 and under	Meets code	20%	25%	30%	
	47-51	10% > code	20%	25%	30%	
2018 & 2015	36 and under	Meets code	25%	30%	35%	
	37-41	20% > code	25%	30%	35%	
2012	55 and under	Meets code	20%	25%	30%	
	56-60	10% > code	20%	25%	30%	
2012	45 and under	Meets code	25%	30%	35%	
	46-50	20% > code	25%	30%	35%	
2009	70 and under	Meets code	20%	25%	30%	
	71-75	10% > code	20%	25%	30%	
2009	60 and under	Meets code	25%	30%	35%	
	61-65	20% > code	25%	30%	35%	
2006	85 and under	Meets code	20%	25%	30%	
	86-90	10% > code	20%	25%	30%	
2006	75 and under	Meets code	25%	30%	35%	
	76-80	20% > code	25%	30%	35%	

Please note: At this time, the values listed as the "Weighted HERS Index Rating" for 2021 in Table 2 above are an **estimate. Once IECC 2021 code has been finalized, we will finalize those values, if needed.*

7. Clean Energy Electric Generation for New Construction

C-PACE financing for Class I Renewable Energy Sources (as defined in Conn. Gen. Stat. Sec. 16-1(a)) as part of a new construction project, can either be included as a Bonus Technology when using the Whole Building Energy Model Path OR as an Energy Improvement using standard SIR methodology. If included using the standard SIR methodology, these costs cannot be included in the TECC or in the energy model as an efficiency measure. The impact of the generation on the associated building's energy performance will not be included in the assessment of energy savings against the Baseline Building Energy Performance. If approved, the total eligible C-PACE-financed cost associated with the clean energy electric generation measure will be added to the C-PACE Eligible Finance Amount allowable under New Construction.

Geothermal systems must be included in a whole building energy model as part of the new construction analysis since they are not electric generation systems and not subject to treatment as clean energy electric generation as outlined in this section.

C-PACE New Construction clean energy electric generation measures shall be reviewed by the Technical Administrator.

8. Project Examples

Whole Building Energy Model Path Example

If a project has a TECC of $10 million and is modeled to have an improvement in energy performance over the IECC 2021 energy code of 7%, it will be eligible for 20% of the TECC in C-PACE financing ($2 million in this case). If that same project also includes four Bonus Technologies, it will be eligible for 30% of the TECC in C-PACE financing ($3 million in this case). If the same project was permitted prior to the Connecticut adoption of IECC 2021, it would need to exceed the applicable IECC code by at least 10%. The percentage of TECC eligibility for C-PACE financing remains the same.

HERS Index Rating Path Example

A 200,000 square foot C-PACE eligible new construction multifamily building consisting of 175,000 square feet of residential space and 25,000 square feet of Common Areas and Commercial Space has a TECC of $20 million. The applicable energy code for the project is IECC 2015. The facility is modeled by a HERS rater to have a weighted HERS index rating of 50. If the Common Area and Commercial Space equipment is at least 10% more efficient than the IECC 2015 code requirements, the project would be eligible for 20% of the TECC in C-PACE financing ($4 million in this case). If the facility had a weighted HERS index rating of 46 or under, then the Common Area and Commercial Space equipment would only need to meet the IECC 2015 code to be eligible for 20% of the TECC in C-PACE financing. If that same project also includes two Bonus Technologies, it will be eligible for 25% of the TECC in C-PACE financing ($5 million in this case).

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CONNECTICUT GREEN BANK

Memo

To: Connecticut Green Bank Board of Directors

From: Bert Hunter, EVP and CIO; Sergio Carrillo, Director of Incentive Programs; Joe Buonannata, Senior Manager, Operations – Inclusive Prosperity Capital

CC: Bryan Garcia, President & CEO, CT Green Bank; Jane Murphy, EVP Finance & Administration, CT Green Bank; Kerry O'Neill, CEO - IPC

Date: March 18, 2022

Re: ARRA-SEP Update and Proposal to Reallocate Funds to Smart-E Loan Program

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Purpose

The purpose of this memorandum is to request approval from the Connecticut Green Bank ("Green Bank") Board of Directors ("Board") to reallocate American Recovery and Reinvestment Act State Energy Program ("ARRA-SEP") funds out of Loan Loss Reserves ("LLR") for various Green Bank residential programs and into the Smart-E Loan program, following a similar process previously approved by the Deployment Committee and Board in 2017. The Deployment Committee recommended approval of this request at their February 23, 2022 meeting.

This request is for approval for staff to 1) use ARRA-SEP funds to make loan loss reserve payments to Smart-E lenders, 2) repurpose ARRA-SEP funds that are currently allocated for the Cozy Home Loan, CT Solar Loan, and Low Income Multifamily Energy ("LIME") Loan programs to Smart-E LLR and interest rate buydowns ("IRBs") to support the state's clean energy goals, and 3) add $300,000 in Green Bank balance sheet funds to the LIME program's loan loss reserve.

Background

The Deployment Committee and Board previously approved $8,361,620 of ARRA-SEP funds to be used as credit enhancements allocated across five residential programs: Cozy Home Loan, CT Solar Loan, CT Solar Lease, Smart-E Loan, and the Low-Income Multifamily Energy ("LIME") Loan.[1]

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[1] Approvals from FY 2012; FY2013; October 18, 2013; adjustments as part of budget approvals in FY 2015, FY 2016 and FY 2017.

Product	Not-to-Exceed ARRA-SEP Amount	Loan Loss Reserve Allocation	IRB Allocation	IRB Expended
Cozy Home Loan	$28,793	$17,193	$11,600	$11,600
Smart-E Loan	$3,422,584	$1,110,608	$2,311,976	$1,007,893[2]
Solar Loan	$468,600	$300,000	$168,600	$168,600
Solar Lease	$3,816,643	$3,500,000	$316,643	$0
C4C LIME Loan	$625,000	$625,000	$0	$0
Total	**$8,361,620**	**$5,552,801**	**$2,808,819**	**$1,188,093**

The ARRA-SEP allocations were amended via a memo to the Deployment Committee dated February 21, 2017 (included here as **Attachment A**) and to the Board dated March 3, 2017. The adjustment was intended to move ARRA-SEP funds from certain programs' loan loss reserves to Smart-E IRBs where they could be deployed into clean energy projects. The loan loss reserve funds were then replaced with Green Bank balance sheet funds. The approved adjustment was:

Programs	Not-to-Exceed ARRA-SEP Amount	ARRA-SEP Loan Loss Reserve Allocation	ARRA-SEP IRB Allocation	Green Bank LLR Funds Required
Cozy Home Loan	$28,793	$17,193	$11,600[3]	$0
Smart-E Loan	$7,564,227	$0	$7,564,227	$1,110,608
Solar Loan	$468,600	$300,000	$168,600	
Solar Lease				$3,500,000
C4C LIME Loan	$300,000	$300,000	$0	$325,000
Total	**$8,361,620**	**$617,193**	**$7,744,427**	**$4,935,608**

The ARRA-SEP funds allocated to loan loss reserves have accrued $214,547.04 in interest to date.

Green Bank Accounting department has provided the following details related to the ARRA-SEP funds.

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[2] As of 12/1/2016.

[3] Returned to Green Bank by lender

ARRA-SEP reconciliation as of January 31, 2022:

- **Original Funds**: $8,361,620.00
- **Interest Income:** $212,723.57
- **Interest Income (CSLN1):** $1,823.47
- **Total Program Funds (original + interest):** $8,576,167.04

Deployed & Committed ARRA-SEP Funds:

- **CT Solar Loan IRBs Paid:** $157,053.71
- **Smart-E IRBs Paid:** $7,422,427.15
- **(NOTE: Smart-E IRBs Committed** (payment pending lender invoices)**:** $134,941.31**)**
- **Smart-E LLR Payments to (2) Lenders for Losses**: $73,541.87
- **Smart-E LLR Committed Payments to (3) Lenders** (payment pending lender invoices)**:** $164,927.82 – *SUBJECT TO COMMITTEE APPROVAL*

Allocated ARRA-SEP Funds in Loan Loss Reserve Accounts:

- **CT Solar Loan**: $300,000
- **LIME Loan**: $300,000

Which, when accounting for the interest and use of funds to date is summarized in the following table:

Programs	Not-to-Exceed ARRA-SEP Amount	ARRA-SEP Loan Loss Reserve Allocation	ARRA-SEP IRB Allocation	Green Bank LLR Funds Required
Cozy Home Loan	$28,793	$17,193	$11,600[4]	$0
Smart-E Loan	$7,564,227		$7,564,227	$1,110,608
Used			***$7,422,427***	
Solar Loan	$468,600	$300,000	$168,600	
Used			***$157,054***	
Solar Lease				$3,500,000
C4C LIME Loan	$300,000	$300,000	$0	$325,000
Interest	$214,547			
Smart-E Loan		$214,547		
Used		***$73,542***		
Total	**$8,576,167**	**$831,740**	**$7,744,427**	**$4,935,608**

[4] Returned to Green Bank by lender

Request

The Board's approval is requested to allow staff to make the following (3) adjustments:

- **Allocate $214,547 in ARRA-SEP interest and $17,193 in ARRA-SEP funds from Cozy Home Loan LLR to Smart-E LLR and make loan loss reserve payments to three Smart-E lenders.** This LLR payment amount is currently estimated to be $164,927.82, though it is subject to change slightly pending confirmation from the lenders.
- **Replace the $300,000 in ARRA-SEP funds currently allocated to the LIME Loan's LLR with Green Bank balance sheet funds**. These $300,000 in Green Bank balance sheet funds would be in addition to the $325,000 approved by the Deployment Committee and Board in 2017, for a total of $625,000 in the program's loan loss reserve.
- **Reallocate $311,546 in ARRA-SEP funds from the CT Solar Loan's LLR and IRB, and $300,000 in ARRA-SEP funds from the LIME Loan's LLR, and $11,600 in ARRA-SEP funds from the Cozy Home Loan's IRB to Smart-E IRBs ($616,416) and to Smart-E LLR ($6,730)**. CT Solar Loan no longer requires their $300,000 loan loss reserve because the loans to Solar Mosaic and The Reinvestment Fund have been repaid, and LIME's LLR would be replaced with Green Bank balance sheet funds. The ARRA-SEP funds would be deployed through Smart-E IRBs supporting the state's clean energy goals.

The proposed changes are summarized here:

Programs	Not-to-Exceed ARRA-SEP Amount	ARRA-SEP LLR Allocation	ARRA-SEP IRB Allocation	Green Bank LLR Funds Required
Cozy Home Loan	$28,793	$17,193	$11,600	
Reallocated	***($28,793)***	***($17,193)***	***($11,600)***	
Smart-E Loan	$7,564,227		$7,564,227	
Reallocated	***$640,339***	***$23,923***	***$616,416***	
Used			***$7,422,427***	
Committed		***$164,928***	***$134,941***	
Solar Loan	$468,600		$157,054	
Used			***$157,054***	
Reallocated	***($311,546)***			
Solar Lease				
C4C LIME Loan	$300,000			$300,000[5]
Reallocated	***($300,000)***			
Interest	$214,547			
Smart-E Loan		$214,547		
Used		***$73,542***		
Total	**$8,576,167**	**$238,470**	**$8,337,697**	**$300,000**

Anticipated Use of Remaining ARRA-SEP Funds

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[5] Approval needed to allocate Green Bank funds to LIME LLR (Green Bank allocation to Smart-E Loan LLR and CT Solar Lease LLR previously approved by the Deployment Committee and Board).

Green Bank proposes deploying the remaining ARRA-SEP funds through the Smart-E Loan program in two ways:

Loan Loss Reserve Payment

Approximately $164,927.82 of the reallocation will be used to fund loan loss reserve payments to three Smart-E lenders with loans in default or charge off status. As of December 31, 2021, these three lenders each have cumulative amounts past due that exceed their obligation to cover a percentage of initial losses, making them eligible to recover a portion of funds from their loss reserve.

Although several other participating lenders have losses, none have enough principal outstanding to surpass their initial obligation threshold, therefore making them ineligible to recover funds from their Smart-E loss reserve at this time.

To date, $73,541.87 in ARRA-SEP funds have been paid to two Smart-E lenders for a total of 10 defaulted Smart-E Loans. Any lenders that may become eligible to recover funds from the loss reserve in the future will be paid with Green Bank funds.

Interest Rate Buydowns

The repurposed ARRA-SEP funds will be used for Smart-E interest rate buydowns supporting the state's clean energy policy, with details to be developed by the program team, reviewed and approved by the Green Bank's Senior Staff, and reported to the Deployment Committee and Board at a future meeting. The ARRA-SEP funds would be expended in accordance with the Memorandum of Agreement between DEEP and the Green Bank (as amended – the "DEEP MOA")) to support the state's clean energy goals.

To date, $7,557,368.46 in ARRA-SEP funds have been deployed or committed through Smart-E IRBs across 2,983 loans and equaling $49,423,042.98 in private capital deployed.

ARRA-SEP funds will **not** be used to fund any projects related to environmental infrastructure, as the guidelines for use of these federal monies are explicit with regards to qualifying measures.

Financial Statements

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

Similar to the 2017 process, the proposed replacement of $300,000 in ARRA-SEP funds with ratepayer funds in the loan loss reserves for the LIME Loan program will require the Green

Bank to reclassify these ratepayer funds out of the “unrestricted” cash category of its balance sheet to the “restricted” cash category (i.e., held for loan loss reserves).

Should a future determination be made that certain loans supported by this loan loss reserve are uncollectable, Green Bank will reimburse the financial institution originating the loan based on program guidelines. The restricted cash balance (i.e., the loan loss reserve) will be reduced by the amount of the reimbursement and the expense of such reimbursement will be recorded in the Green Bank’s statement of revenues and expenses.

Resolution

WHEREAS, at a Special Meeting of the Connecticut Green Bank’s (“Green Bank”) Deployment Committee (“the Deployment Committee”) held on November 30, 2012, the Deployment Committee passed **resolutions** to approve the Smart-E Loan Program (originally called the “CT HELPs Program”);

WHEREAS, in February of 2013, the Connecticut Department of Energy and Environmental Protection released the Comprehensive Energy Strategy (“CES”) for Connecticut that includes developing financing programs that leverage private capital to make clean energy investments more affordable, including the pilot Smart-E Loan residential financing program;

WHEREAS, in May of 2013, the Green Bank launched the Smart-E Loan program, operating statewide, with nine local lenders providing low cost and long-term financing for measures that are consistent with the state energy policy and the implementation of the CES;

WHEREAS, in October of 2013, the Green Bank’s Board of Directors (“Board”) approved full use of $8,361,620 of American Recovery and Reinvestment Act State Energy Program (“ARRA-SEP”) funds across a mix of Loan Loss Reserves, Interest Rate Buydowns, and Third Party Insurance Products – credit enhancements for the Green Bank’s newly developed residential financing products;

WHEREAS, in March of 2017, the Board approved the Green Bank’s request to repurpose ARRA-SEP funds across loan loss reserves and interest rate buydowns (“Credit Enhancements”) for the Green Bank’s Cozy Home Loans, Smart-E Loans, CT Solar Lease, CT Solar Loan, and LIME Loan programs (the “Programs”) in amounts materially consistent with the Memorandum presented to the Board dated March 3, 2017;

WHEREAS, in March of 2017, the Board approved replacing ARRA-SEP funds with Green Bank balance sheet funds for certain program Loan Loss Reserves in amounts materially consistent with the Memorandum presented to the Board dated March 3, 2017;

WHEREAS, staff request that $300,000 of the $600,000 in ARRA-SEP funds currently allocated to loan loss reserves be repurposed with Green Bank balance sheet funds and that ARRA-SEP funds be reallocated to Smart-E loan loss reserves and for future interest rate buydowns, as more fully explained in the memorandum to the Board dated March 18, 2022;

WHEREAS, the Deployment Committee recommended approval by the Board of this request at their February 23, 2022 meeting.

NOW, therefore be it:

RESOLVED, that the Board approves payment of approximately $164,927.82 in ARRA-SEP funds to Smart-E lenders for loan losses.

RESOLVED, that the Board approves repurposing $300,000 in ARRA-SEP funds currently allocated to the LIME Loan program's loan loss reserves with Green Bank funds.

RESOLVED, that the Board of approves reallocating ARRA-SEP funds from various programs to the Smart-E Loan program to be deployed and expended through loan loss reserves and interest rate buydowns that support the state's clean energy policy, as more fully explained in the memorandum to the Board dated March 18, 2022.

Submitted by: Bryan Garcia, President and CEO, Bert Hunter, EVP and CIO, Sergio Carrillo, Director of Incentive Programs.

Attachment A

Memo

To: Connecticut Green Bank Deployment Committee

From: Kerry O'Neill, Vice President, Residential Programs

CC: Bryan Garcia, President and CEO; Bert Hunter, EVP and CIO; Brian Farnen, General Counsel and CLO; Eric Shrago, Director of Operations; George Bellas, VP Finance and Administration

Date: February 21, 2017

Re: ARRA-SEP Update and Proposal to Reallocate Funds to Smart-E Loan Program

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Purpose

The purpose of this memorandum is to request approval from the Connecticut Green Bank ("Green Bank") Deployment Committee to reallocate American Recovery and Reinvestment Act State Energy Program ("ARRA-SEP") funds out of Loan Loss Reserves ("LLR") in several residential products and into Smart-E Interest Rate Buydowns ("IRB"). The ARRA-SEP LLRs would be replaced with Green Bank funds. The goals of reallocating ARRA funds into IRBs is to expend these funds more quickly while catalyzing new markets to support the Governor's Climate Change Council's efforts to reduce GHG emissions. Given the excellent portfolio performance we've seen to date – there have been no draws on loss reserves as of yet.

Background:

The Deployment Committee and the Board of Directors have previously approved $8,361,620 of ARRA-SEP funds to be used as credit enhancements allocated across five residential programs: Cozy Home Loan, CT Solar Loan, CT Solar Lease, Smart-E Loan, and Capital for Change ("C4C") Low Income Multifamily Energy ("LIME") Loan programs[6]. The current not-to-exceed allocations by product are:

Product	Not-to-Exceed ARRA-SEP Amount	Loan Loss Reserve Allocation	IRB Allocation	IRB Expended
Cozy Home Loan	$28,793	$17,193	$11,600	$11,600
Smart-E Loan	$3,422,584	$1,110,608	$2,311,976	$1,007,893[7]
Solar Loan	$468,600	$300,000	$168,600	$168,600
Solar Lease	$3,816,643	$3,500,000	$316,643	$0
C4C LIME Loan	$625,000	$625,000	$0	$0

[6] Approvals from FY 2012; FY2013; October 18, 2013; adjustments as part of budget approvals in FY 2015, FY 2016 and FY 2017.

[7] As of 12/1/2016.

Total	$8,361,620	$5,552,801	$2,808,819	$1,188,093

Request:
Staff proposes to:

- Replace the Smart-E LLR with Green Bank funds and use the ARRA funds for Smart-E IRBs;
- Replace the CT Solar Lease LLR with Green Bank funds and reallocate all CT Solar Lease ARRA funds to Smart-E IRBs; and
- Replace a portion of LIME loss reserve ($325,000 that is approved but not yet committed) with Green Bank funds and reallocate those funds to Smart-E IRBs.

Staff will be pursuing more aggressive IRB special offers in support of the upcoming Comprehensive Energy Strategy and the Governor's Council on Climate Change that references the need for electrification of heating and cooling, deployment of renewable heating and cooling, and promotion of zero emission vehicles (where we can use ARRA funds for IRBs for EV rechargers attached to residential homes). Along with the Smart-E Loan, through the Residential Solar Investment Program (RSIP), staff is also partnering with the utilities on near-net zero home energy retrofits.

The resulting **ARRA-SEP** allocations by product and use of Green Bank funds, if approved, will be:

Programs	Not-to-Exceed ARRA-SEP Amount	ARRA-SEP Loan Loss Reserve Allocation	ARRA-SEP IRB Allocation	Green Bank LLR Funds Required
Cozy Home Loan	$28,793	$17,193	$11,600	$0
Smart-E Loan	$7,564,227	$0	$7,564,227	$1,110,608
Solar Loan	$468,600	$300,000	$168,600	
Solar Lease				$3,500,000
C4C LIME Loan	$300,000	$300,000	$0	$325,000
Total	**$8,361,620**	**$617,193**	**$7,744,427**	**$4,935,608**

Accordingly, staff seeks approval to use **$4,935,608 of non-ARRA Green Bank funds for loan loss reserves** in the following amount by product (as shown in the chart above):

- $1,110,608 for Smart-E (in addition to the already approved $759,276 in the FY17 budget for a total of $1,869,884)
- $3,500,000 for CT Solar Lease
- $325,000 for LIME Loan

Financial Statements

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

The proposed allocation of $4,935,608 in ratepayer monies to fund loan loss reserves for these programs in conjunction with the modification of existing legal agreements between Green Bank and external program partners to reflect the substitution of ratepayer monies for ARRA monies will allow Green Bank to classify these monies out of the "unrestricted" cash category of its balance sheet to the "restricted" cash category. ARRA monies will continue to be classified as restricted cash due to the constraints placed on their use by the federal government.

This accounting treatment is supported by GASB 34 which allows for the classification of assets and net position as restricted when constraints are placed on their use in the following instances:

- "Externally imposed by creditors (such as through debt covenants), grantors, contributors, or laws or regulations of other governments."
- "Imposed by law through constitutional provisions or enabling legislation."

"The basic concept is that restrictions are not unilaterally established by the reporting government itself and cannot be removed without the consent of those imposing restrictions or formal due process."

Source: GASB Implementation Guide No. 2015-1, Section 7.24.1

Should a future determination be made that certain loans supported by these loan loss reserves are uncollectable, Green Bank will reimburse the financial institution originating the loan based on program guidelines. The restricted cash balance will be reduced by the amount of the reimbursement and the expense of such reimbursement will be recorded in the Green Bank's statement of revenues and expenses.

Resolution

WHEREAS, in July of 2011, the Connecticut General Assembly passed Public Act 11-80, "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 in residential projects per the definition of clean energy in CGS Section 16-245n(a);

WHEREAS, in February of 2013, the DEEP released the Comprehensive Energy Strategy ("CES") for Connecticut that includes developing financing programs that leverage private capital to make clean energy investments more affordable, including the pilot Smart-E Loan residential financing program;

WHEREAS, the Governor's Council on Climate Change has identified the need to support renewable heating and cooling and electric vehicles to support the implementation of the Global Warming Solutions Act goal of reducing 80 percent of greenhouse gas emissions from a baseline year of 2001 by the year 2050;

WHEREAS, in May of 2013, Green Bank launched the Smart-E Loan program, currently operating statewide, with 10 credit unions and community banks and one community development financial institution providing low cost and long-term financing for measures that are consistent with the state energy policy and the implementation of the CES. The Smart-E Loan currently includes $4.3 million of credit enhancement, including both repurposed ARRA-SEP and Green Bank funds, to attract nearly $30 million of private investment from local financial institutions.

NOW, therefore be it:

RESOLVED, that the Green Bank Deployment Committee (the "Committee") recommends approval of the request to allow for all current and future community banks, credit unions and community development financial institutions to utilize the Smart-E Loan Program's alternative underwriting option, consistent with the memorandum submitted to the Board dated October 9, 2015 and as modified by the memorandum submitted to the Board January 13, 2017.

RESOLVED, that the Committee recommends funding for loan loss reserves and interest rate buydowns ("Credit Enhancements") through the use of repurposed American Recovery and Reinvestment Act State Energy Program ("ARRA-SEP") program funds be approved for Green Bank's Cozy Home Loans, Smart-E Loans, CT Solar Loan, and LIME Loan programs (the "Programs") in amounts materially consistent with the Memorandum presented to the Committee dated February 21, 2017.

RESOLVED, that the Committee recommends that ARRA-SEP funds are approved for the Programs in the not-to-exceed set forth below and that the President of the Green Bank; and any other duly authorized officer of the Green Bank, is authorized to use their best discretion to utilize the most effective use of the entirety of the ARRA-SEP Credit Enhancements in amounts not to exceed:

a. $28,793 for Cozy Home Loans;
b. $7,564,227 for Smart-E Loans;
c. $468,600 for CT Solar Loan; and
d. $300,000 for LIME Loan.

RESOLVED, that the Committee recommends that Green Bank funds are approved for Loan Loss Reserves for the Smart-E Loan Program in the not-to-exceed amount of $1,869,884 including $1,110,608 of additional funds and $759,276 of already approved FY17 budgeted funds.

RESOLVED, that the Committee recommend to the Board of Directors that the Green Bank funds be approved for Loan Loss Reserves for the CT Solar Lease Program in the not-to-exceed amount of $3,500,000.

RESOLVED, that the Committee recommends that Green Bank funds are approved for Loan Loss Reserves for the LIME Loan Program in the not-to-exceed amount of $325,000.

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)

CONNECTICUT GREEN BANK

Environment

ARRA funds helped to avoid **596,382 tons of CO_2,** which is equal to:

8.9 million tree seedlings grown for 10 years

removing 117,663 passenger cars from the road for one year

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.

Equity

14% of **investments**

21% 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

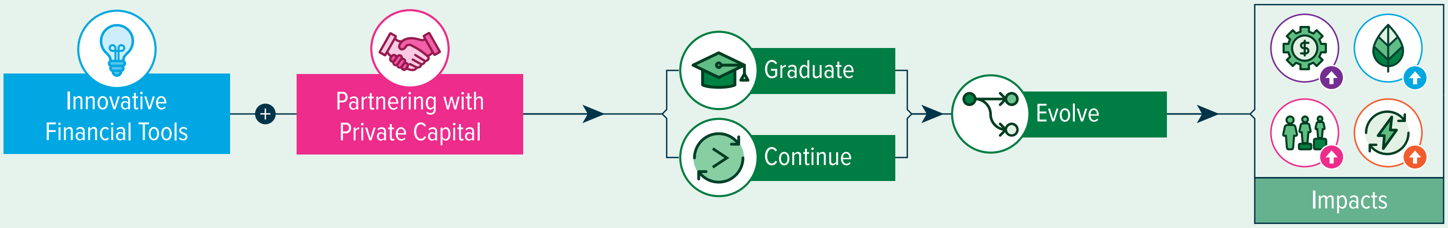
- Deployment of over **24 megawatts** of **clean energy**
- **Lifetime savings of over 3.4 million MMBTUs** through energy efficiency projects, including:
  - Solar panel installation
  - Insulation upgrades
  - Heating and cooling system upgrades

$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.

CONNECTICUT GREEN BANK



Program models, proved successful through the deployment of ARRA funds, evolved to focus on additional markets and larger investment beyond the Green Bank.

CT SOLAR LEASE

Allowed homeowners to access the benefits of solar through a lease option.

- Leveraged $3.5M in ARRA funds as a **lease loss reserve** and $7.1M in Green Bank Subordinated Debt and Sponsor Equity.
- Raised $15.0M of **tax equity investment** and $16.9 million of senior debt through a **syndicate of local lenders**.

The success of this model led to the creation of **"Solar For All"**: 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

A **loan loss reserve** is a pool of money set aside to cover a prespecified amount of loan losses, providing partial risk coverage to lenders.

CT SOLAR LOAN

Enabled homeowners of varying financial means to own their systems at affordable rates without a lien.

- Used $517,000 in ARRA funds for a **loan loss reserve (LLR)** to allow for the creation of the **first-ever crowd- sourced portfolio of solar loans**.
- Partnered with Sungage Financial and The Reinvestment Fund to generate $8.3M in lifetime savings.

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.

SMART-E LOAN

Offers flexible financing for upgrades to home energy performance.

- ARRA funds used as **LLR and interest rate buydowns (IRB)** to offer homeowners low-interest financing to improve their home's energy performance.
- Provided in partnership with 13 local community banks and credit unions, 500+ contractors, and 5,923 families for $108.7 million in total investment.

Originally focused on clean energy, this program is **expanding to support environmental infrastructure.**

The program is transitioning from ARRA supported LLR to LLR on the Green Bank's balance sheet using IRBs from ARRA funds.

An **interest rate buydown** is when capital is deployed to pay a portion of the interest on borrowers' loans to decrease their costs.

LOW INCOME MULTI-FAMILY ENERGY (LIME) LOAN

Unsecured low interest loans serving properties where at least 60% of units serve renters at 80% or lower of Area Median Income.

- ARRA funds used as LLR and **projected energy savings are used to cover the debt service of the loan.**
- Offered through a partnership with Capital For Change (C4C), a community development financial institution (CDFI) that provides financial **products and services that support an inclusive and sustainable economy**.

Using $300,000 in ARRA funds as LLR, LIME projects have a combined lifetime energy cost savings of over $117.6M.

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InclusiveProsperityCapital.org

INCLUSIVE
PROSPERITY CAPITAL

M E M O

To: Connecticut Green Bank Board of Directors

From: Joe Buonannata, Senior Manager, Operations – Inclusive Prosperity Capital

CC: Kerry O'Neill, CEO (IPC); Connecticut Green Bank Senior Staff

Date: March 18, 2022

Re: Smart-E Loan Program Underwriting Term Sheet Enhancements

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Purpose

The purpose of this memorandum is to request programmatic approval from the Connecticut Green Bank's ("Green Bank") Board of Directors ("Board") to amend the Smart-E Loan program's underwriting term sheet to 1) allow for the addition of environmental infrastructure measures to the list of "eligible improvements" and 2) increase the maximum loan amount from $45,000 to $75,000 to accommodate larger projects, including solar, battery storage and ground source heat pumps. **Attachment A** of this memo includes the term sheet with proposed tracked changes. The Green Bank's Deployment Committee recommended approval of this request and this memo is substantially the same as the memo presented to the Deployment Committee for their recommendation to the full Board.

Background

The Smart-E Loan Program was created to use low-cost and flexible local lenders as a tool to increase the number of homeowners participating in clean energy household improvements consistent with the Green Bank's Comprehensive Plan, the State of Connecticut's Comprehensive Energy Strategy, and the Connecticut Energy Efficiency Fund's Conservation and Load Management Plan. Originally approved by the Green Bank Deployment Committee on November 30, 2012 as the CT Home Energy Loan Program ("CT HELPs"), the Smart-E Loan Program was launched in May 2013 and reached statewide coverage in November 2013. At the time, the Green Bank identified a lack of capital available to homeowners at interest rates that fairly compensate the lender for risk and for maturities that would be more aligned with the expected useful lives of the clean energy improvements. The result was a program that provides long-term (up to 20 years), low-cost (4.49% to 6.99%) financing to single-family homeowners implementing over 40 possible energy efficiency and renewable energy improvement projects by creating a Loan Loss Reserve ("LLR") to leverage unsecured loan capacity from local lending institutions. The program is also contractor-friendly, with a straightforward process and no contractor fees (as contrasted with the high fee offerings that require contractors to pay a "participation" fee to get access to capital as well as "buydown fees" to lower the cost of capital for their customers).

The original lending program was bifurcated into Class A loans (corresponding to a minimum FICO score of 680, a maximum debt-to-income ratio of 45%, a 1.5% retained loss on behalf of the lending institution, and 7.5% loan value credit toward the LLR) and Class B loans (corresponding to a FICO score range of 640 – 679, a maximum debt-to-income ratio of 45%, a 3.0% retained loss on behalf of the lending institution, and 15.0% loan value credit toward the LLR). The targeted loan mix within the original program was at least 80% Class A Loans and not more than 20% Class B Loans.

The program was amended via a memorandum to the Green Bank Board of Directors dated October 9, 2015, in which an alternative underwriting option was introduced[1]. The alternative underwriting option is a variation of the Smart-E Loan Program, intended to expand the Smart-E Loan applicant pool beyond the standard underwriting criteria, so as to include credit-challenged borrowers who are still considered a low default risk. The alternative underwrite allows for more flexibility with respect to FICO and Debt-to-Income ("DTI") criteria, while still providing borrowers the traditional benefits of Smart-E loans in the form of low-cost, long-term financing options.

The program was further amended via a memorandum to the Green Bank Board of Directors dated January 13, 2017, in which an "Alternative Underwriting Term Sheet" was approved. Five of the nine participating Smart-E lenders (three credit unions, one community bank, and the sole community development financial institution) amended their Financing Agreements with the Green Bank to adopt the Alternative Underwriting Term Sheet, while the remaining four community banks remained on the original, more conservative term sheet. Nearly 90% of Smart-E volume is from the lenders on the Alternative Underwriting Term Sheet.

To date, the Smart-E Loan program has succeeded in driving customer demand and matching it with a low-cost, flexible supply of private capital. Through December 31, 2021, participating Smart-E Lenders have closed or funded 5,944 loans for just over $90 million of private capital principal balance. Portfolio performance is strong, with 0.8% delinquency and 1.4% charge-

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[1] The Smart-E program was previously amended via a memo to the Green Bank Deployment Committee dated February 28, 2014, with loans ranging in tenor from 5 – 12 years, in rates not to exceed 4.49% to 6.99% respectively, in amounts from $3,000 to $45,000 (subject to approval), and, pursuant to Public Act 13-298, either serviced directly by the lender, or indirectly by an On-bill Repayment ("OBR") mechanism in conjunction with participating utilities.

off rates, based on originated principal (which principal is also the basis for the calculation of the loan loss reserve (Green Bank) and retained loss (local lender).

Request

Environmental Infrastructure

Both the standard and alternative underwriting term sheets include a category of "eligible improvements" that can be financed using a Smart-E Loan, defined as:

1) Residential "clean energy" improvements as defined by Connecticut General Statutes Section 16-245n Sec 99
2) Listed as categorically excluded from the National Environmental Protection Act and eligible activities under the American Recovery and Reinvestment Act of 2009 through the State Energy Program, and
3) Recommended by a Program Contractor.

Following the bipartisan passage of Public Act 21-115 ("An Act Concerning Climate Change Adaption")[2], which in part expanded the Green Bank's scope beyond "clean energy" to include "environmental infrastructure," the Smart-E Loan program team recommends adding a fourth item to the "eligible improvements" category to allow for the addition of certain environmental infrastructure measures, as approved by the Green Bank's Senior Staff and the Deployment Committee.

The program team has begun researching measures that could be added to the list of eligible improvements and will put each measure through an assessment process, including:

- Determining the measure's fit within an environmental infrastructure segment: 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.
- Setting technical parameters for the measure to ensure the quality of the improvement (similar to the efficiency rating thresholds of the current clean energy measures).
- Working with the State of Connecticut's Department of Consumer Protection (Occupational & Professional Enforcement Unit) and our network of project inspectors to determine contractor license and permitting requirements that may be required for the new measures.
- Identifying trade associations or other groups of contractors that can install the measures – adding to a network of nearly 400 currently eligible companies.

Outreach has also been conducted to key partners, including the Connecticut Department of Energy and Environmental Protection ("DEEP"), Connecticut Department of Insurance,

[2] https://www.cga.ct.gov/2021/ACT/PA/pdf/2021PA-00115-R00HB-06441-PA.pdf

Eversource, United Illuminating, and Operation Fuel, to solicit feedback on measures to be added.

The Deployment Committee recommended that Staff return to future Committee meetings with requests for approval of specific environmental infrastructure measures by segment. Staff are working internally and with program partners, including DEEP, to identify the segments to prioritize, and anticipate requesting approval of a first set of measures at the May 25, 2022 Deployment Committee meeting, then again in September and November.

No ratepayer funds will be used towards Smart-E Loans for environmental infrastructure projects. The loans will be funded using private capital and the lenders will have access to a loan loss reserve provided by the Green Bank, but those loan loss reserve accounts will be funded using interest income and other portfolio earnings that come to the Green Bank. Additionally, funds from the American Recovery and Reinvestment Act will not be used for interest rate buydown campaigns on environmental infrastructure projects. Lenders, contractors and homeowners will be advised that projects that include both a clean energy and environmental infrastructure component should be financed as separate Smart-E Loans in order to qualify for the loan loss reserve.

Loan Amounts

The Smart-E Loan term sheets currently allow for loans up to $40,000, with the option for loans to be considered on an exception basis up to $45,000 with approval from the Green Bank's Senior Staff.

To date, the average loan amount is just over $15,000, as program volume is primarily from efficient HVAC projects (70%), followed by solar (20%), and home performance (10%). The average solar loan is just under $25,000.

Following the January 2022 launch of the Energy Storage Solutions battery incentive program, an increase in solar and storage projects seeking financing through Smart-E is anticipated. With a projected average battery price range of $12,000 - $15,000, and the potential for multiple batteries per household, the program team recommends increasing the loan maximum to $75,000 to accommodate larger loans. This would also help more Connecticut homeowners finance ground source heat pump projects, which to date have often well-exceeded the $40,000 loan maximum, resulting in borrowers having to seek additional or sometimes alternate financing.

Two Smart-E lenders have already expressed interest in lending above $45,000 and have mentioned the possibility of adding a UCC-1 filing to secure the larger loans. Under the guidance of the Green Bank's Chief Investment Officer and Senior Staff, the program team will engage all participating lenders individually to determine their desire to lend above the currently established $45,000 limit and will continue to approve these higher amount loans on a case-by-case basis (with this "required Green Bank approval" limit being increased from $40,000 to $50,000). The Deployment Committee recommended that the increase be restricted to clean energy projects only, for the time being, until specific environmental infrastructure measures are identified and approved.

Of note, under the new solar PV tariff arrangement (successor to RSIP administered by the utilities) and the Energy Storage Solutions incentives program co-administered by Green Bank and the utilities, PURA ordered that the tariff and incentive payments are eligible for direct payment to a lender or capital provider. Green Bank is discussing with local lenders how this direct payment arrangement could allow for a lower interest rate as direct payments would reduce repayment risk associated with the borrower. Green Bank advocated for this "direct payment" policy for Smart-E and other financing programs to ensure easy and affordable access to the benefits of clean energy (e.g., reduced energy burden and increased resilience) particularly for vulnerable communities.

Conclusion

Nearly 10 years after the Deployment Committee's approval to create the Smart-E Loan, the program has helped nearly 6,000 Connecticut households access funds needed to make critical home energy improvements – from small insulation upgrades to whole home electrification including air and ground source heat pumps, solar, battery storage, and electric vehicle charging stations. The program team now seeks the Board's approval to advance Smart-E to its next phase, where homeowners will be able to finance clean energy as well as critical environmental infrastructure improvements focused on water, resiliency and more. And while not feasible for all homeowners, increasing Smart-E Loan amounts will allow those with the means to take on larger projects to do so without the burden of multiple loans.

Resolution

WHEREAS, at a Special Meeting of the Connecticut Green Bank's (Green Bank) Deployment Committee ("the Deployment Committee") held on November 30, 2012, the Deployment Committee passed **resolutions** to approve the Smart-E Loan Program (originally called the "CT HELPs Program");

WHEREAS, in February of 2013, the Connecticut Department of Energy and Environmental Protection released the Comprehensive Energy Strategy ("CES") for Connecticut that includes developing financing programs that leverage private capital to make clean energy investments more affordable, including the pilot Smart-E Loan residential financing program;

WHEREAS, in May of 2013, Green Bank launched the Smart-E Loan program, currently operating statewide, with nine local lenders providing low cost and long-term financing for measures that are consistent with the state energy policy and the implementation of the CES;

WHEREAS, in March of 2014, the Deployment Committee approved revisions to the Smart-E lender term sheet regarding program loan amounts and loan duration, and certain incremental program upgrades from Smart-E's first 15 months;

WHEREAS, in October of 2015 and January 2017, the Board of Directors (Board) approved an alternate underwriting term sheet which expanded the Smart-E Loan applicant pool beyond the standard underwriting criteria, so as to include credit-challenged borrowers;

WHEREAS, program staff request that the term sheet be further enhanced to allow for the addition of environmental infrastructure measures to the list of "eligible improvements" and to increase the maximum loan amount from $45,000 to $75,000 to accommodate larger projects and to raise the Green Bank approval threshold from $40,000 to $50,000, as it applies to "clean energy" projects, as more fully explained in a memorandum to the Board dated March 18, 2022.

NOW, therefore be it:

RESOLVED, that the Board approves amending the Smart-E "eligible improvements" category to include residential "environmental infrastructure" improvements as defined in Public Act 21-115 and authorizes the Deployment Committee to determine the specific measures by segment (e.g., water, waste and recycling, etc.) to be supported through the Smart-E program; and

RESOLVED, that the Board approves amending the Smart-E maximum loan amount from $45,000 to $75,000 and raising the Green Bank approval threshold from $40,000 to $50,000, as it applies to "clean energy" projects.

Attachment A

LOAN REQUIREMENTS

Loan Product Details	Structure/Minimum Standards
Loan type	Unsecured
Program Contractor	Program Contractors are defined as: 1. Home Energy Solutions contractors, 2. Home Performance with ENERGY STAR contractors, 3. Building Performance Institute contractors, or other appropriately licensed and insured contractor, that are registered home improvement contractors with the Connecticut Department of Consumer Protection, 4. or any other Connecticut utility or Green Bank authorized contractor.
Eligible improvements	(1) Residential "Clean Energy" improvements as defined by Connecticut General Statutes Section 16-245n Sec. 99, (2) Listed as categorically excluded from the National Environmental Protection Act and eligible activities under the American Recovery and Reinvestment Act of 2009 through the State Energy Program, , and (4) Recommended by a Program Contractor.
Additional Improvements	25% of the loan amount may be used for related residential construction and home improvements
Loan amounts	Preferred Program Range: $500 (minimum) to $50,000 (maximum) Lenders can offer loan amounts higher than $50,000 (up to $75,000) subject to Green Bank approval.
Loan term	For all loan amounts: up to 240 months.
Loan rates	(Not to exceed) 5 Years - 4.49% 7 Years - 4.99% 10 Years - 5.99% 12 Years - 6.99% Up to 20 years - Negotiable Lending Institutions may offer rates below those shown. Fixed rate with no prepayment penalty.
Eligible properties	Single-family (1-4 unit) homes, primary residence or not used as income property.
Minimum FICO (credit score)	Minimum 580 680 and Above – **CLASS A LOANS** 580-679 – **CLASS B LOANS**

Other alternative underwriting criteria	Judgment of Lending Institution with Green Bank approval
Debt to Income Ratio	
Total monthly obligations	Judgment of Lending Institution with Green Bank approval
Application Processing and Loan Closing	
Application	* The Lending Institution shall establish and implement a loan application intake system. The Lending Institution shall provide Customers the option to apply for the loans using an application form, via the Lending Institution's website (if available), or by telephone. * Once a Customer's Application is complete, the Lending Institution shall either approve or deny the application within [three] business days. *If the Program Loan is approved and accepted by the Customer, Lending Institution shall make available a closing date for the Program Loan within [five] business days.
Total monthly obligations to total monthly income	All qualifying FICO scores – 50% or less, except in cases where the Customer has a FICO score greater than 680, in which case there is no restriction on total monthly obligations to total monthly income

LENDING INSTITUTIONS MAKE ALL FINAL UNDERWRITING DECISIONS. LOANS MAY BE APPROVED, DECLINED, OR SUBJECT TO FURTHER REVIEW IF UNDERWRITER DETERMINES THAT FICO SCORE OR OTHER FACTORS ARE INCONSISTENT WITH ACTUAL CREDIT PROFILE.

LPO
Loan Programs Office

RELIABLE LENDING &
ESTABLISHED EXPERTISE

Financing Options for **Energy Infrastructure**

Through three distinct loan programs, the U.S. Department of Energy's Loan Programs Office (LPO) finances large-scale, all-of-the-above energy infrastructure projects in the United States.

What LPO Can Offer Borrowers

Considering various lending options for your energy infrastructure project?
Here's what makes working with LPO different:

Access to debt capital that private lenders cannot or will not provide.

Flexible financing customized for the specific needs of individual borrowers.

Valuable expertise partnering with borrowers for the lifetime of a project.

$40 Billion in Debt Capital & A Unique Team of Project Experts

With an in-house team of financial, technical, legal, and environmental experts that only the U.S. Department of Energy can provide and **more than $40 billion** in loan and loan guarantee authority currently available, LPO is positioned to help make your energy infrastructure project a success.

Established Lending Expertise: **Over A Decade Of Project Financing**

Since 2009, LPO has issued more than $35 billion in loans & loan guarantees to more than 30 projects across the United States, catalyzing new energy technologies, creating jobs, and building on its deep sector expertise.

Reviving Nuclear Energy Construction in the U.S.

LPO loan guarantees supported the first two nuclear reactors to begin construction in the U.S. in over 30 years. LPO is one of the only lenders in the United States with the debt capacity to support an energy infrastructure project of this scale.

Accelerating the Growth of Utility-Scale Solar & Wind

When lenders were not willing to take the technology risk for the first projects, LPO guaranteed loans to the first five utility-scale photovoltaic solar projects in the U.S. and one of the largest utility-scale wind farms in the world. Solar and wind projects now readily access commercial debt markets.

Expanding Domestic Advanced Vehicles Manufacturing

By providing affordable debt capital, LPO direct loans have helped modernize U.S. automotive manufacturing, leading to the creation of millions of advanced technology vehicles & tens of thousands of American jobs.

LPO

Loan Programs Office

LPO Services:
Offering Financing For Projects Across Energy Sectors

LPO has over $40 billion in available loans and loan guarantees, offering financing for projects focused on a broad range of energy infrastructure technologies:

Advanced Fossil Energy
$8.5 Billion in Loan Guarantees

Advanced Nuclear Energy
$10.9 Billion in Loan Guarantees

Renewable Energy & Efficient Energy
Up to $4.5 Billion in Loan Guarantees

Advanced Technology Vehicles Manufacturing
$17.7 Billion in Direct Loans

Tribal Energy Projects
Up to $2 Billion in Partial Loan Guarantees

LPO

Loan Programs Office

Working With LPO: **Benefits of Partnering**

Access to Capital

LPO can provide first-of-a-kind projects and other high-impact, energy-related ventures with access to debt capital that private lenders cannot or will not provide. LPO has approximately $40 billion in available loan and loan guarantee authority.

Flexible Financing

LPO can provide financing that meets the specific needs of individual borrowers. LPO can be the sole lender to a project or can co-lend with or guarantee loans from private lenders. Additionally, LPO has capacity to finance large projects as a sole lender or to fill gaps in financing as part of a group of lenders.

A Committed Project Partner

Lenders often prefer to engage with a project when the deal is fully formed; however, LPO encourages early engagement during project development. LPO can take the time to dive deep and understand the project and its technology. And after loan closing, LPO remains a valuable partner to borrowers throughout the entire loan term.

Starting the Conversation: **Let's Talk About Your Project**

Contact LPO to see what financing options may be available for your project:

Call or write to schedule a no-fee, pre-application consultation: **202-586-8336** | **lpo@hq.doe.gov**

Learn more about LPO and all of its lending programs at: **energy.gov/LPO**

LPO Loan Programs Office

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For printable PDF files of LPO's portfolio projects and LPO's illustrated poster series highlighting clean energy and advanced vehicles manufacturing technologies from its portfolio, please see the **LPO Publications** page.

PROJECT	LOAN PROGRAM	TECHNOLOGY	OWNER(S)	LOCATION(S)	LOAN TYPE	LOAN AMOUNT	ISSUANCE DATE
AGUA CALIENTE	Title XVII	Photovoltaic Solar Projects	Global Infrastructure Partners & MidAmerican Renewables, LLC	Yuma County, Arizona	Loan Guarantee	$967 Million	August 2011
ALAMOSA	Title XVII	Photovoltaic Solar Projects	KEPCO & COPA Fund	Alamosa, Colorado	Loan Guarantee	$90.6 Million	September 2011
ANTELOPE VALLEY SOLAR RANCH	Title XVII	Photovoltaic Solar Projects	Exelon	Lancaster, California	Loan Guarantee	$646 Million	September 2011
BLUE MOUNTAIN	Title XVII	Geothermal Energy Projects	Cyrq Energy, Inc.	Humbolt County, Nevada	Partial Loan Guarantee	$98.5 Million	November 2010
CALIFORNIA VALLEY SOLAR RANCH	Title XVII	Photovoltaic Solar Projects	Global Infrastructure Partners	San Luis Obispo, California	Loan Guarantee	$1.2 Billion	September 2011
DESERT SUNLIGHT	Title XVII	Photovoltaic Solar Projects	NextEra Energy, Inc., NextEra Energy Partners, Global Infrastructure Partners, Gulf Pacific Power & Sumitomo of America	Riverside County, California	Partial Loan Guarantee	$1.5 Billion	September 2011
FORD	ATVM	Advanced Vehicles Manufacturing Projects	Ford Motor Company	Illinois (Chicago), Kentucky (Louisville), Michigan (Dearborn, Flat Rock, Livonia, Sterling Heights, Wayne, Ypsilanti), Missouri, (Claycomo), New York (Buffalo), Ohio (Brook Park, Cincinnati, Lima)	Direct Loan	$5.9 Billion	September 2009
IVANPAH	Title XVII	Concentrating Solar Power Projects	BrightSource Energy, NRG Energy & Google	Ivanpah Dry Lake, California	Loan Guarantee	$1.6 Billion	April 2011
MESQUITE 1	Title XVII	Photovoltaic Solar Projects	Consolidated Edison Development	Maricopa County, Arizona	Loan Guarantee	$337 Million	September 2011
MOJAVE	Title XVII	Concentrating Solar Power Projects	Atlantica Yield	San Bernardino County, California	Loan Guarantee	$1.2 Billion	September 2011
ONE NEVADA LINE	Title XVII	Storage & Transmission Projects	LS Power Associates, NV Energy & John Hancock	Eastern Nevada	Loan Guarantee	$343 Million	February 2011
ORMAT NEVADA	Title XVII	Geothermal Energy Projects	Ormat Nevada, Inc. & Ormat Technologies	Jersey Valley, McGinness Hills & Tuscarora, Nevada	Partial Loan Guarantee	$350 Million	September 2011
RECORD HILL	Title XVII	Wind Energy Projects	Record Hill Wind & Yale University	Roxbury, Maine	Loan Guarantee	$102 Million	August 2011
SHEPHERDS FLAT	Title XVII	Wind Energy Projects	Caithness Energy, LLC	Gilliam County & Morrow County, Oregon	Partial Loan Guarantee	$1.3 Billion	December 2010
SOLANA	Title XVII	Concentrating Solar Power Projects	Atlantica Yield & Liberty Interactive Corporation	Gila Bend, Arizona	Loan Guarantee	$1.45 Billion	December 2010

PROJECT	LOAN PROGRAM	TECHNOLOGY	OWNER(S)	LOCATION(S)	LOAN TYPE	LOAN AMOUNT	ISSUANCE DATE
USG OREGON	Title XVII	Geothermal Energy Projects	OGP Holdings Corp. & Enbridge (U.S.), Inc.	Malheur County, Oregon	Loan Guarantee	$97 Million	February 2011
VOGTLE	Title XVII	Advanced Nuclear Energy Projects	Georgia Power Company (GPC), Oglethorpe Power Corporation (OPC), Municipal Electric Authority of Georgia (MEAG Power) & City of Dalton, Georgia	Waynesboro, Georgia	Loan Guarantee ####	$5.1 Billion (GPC), $4.3 Billion (OPC), $2.1 Billion (MEAG Power)	February 2014 (GPC and OPC) & June 2015 (MEAG Power); March 2019 (GPC, OPC, MEAG Power)

Loan Amount represents the approximate amount of the loan facility approved at closing including principal and any capitalized interest.

REPAID IN FULL

PROJECT	OWNER(S)	LOAN PROGRAM	LOAN TYPE	TECHNOLOGY	LOCATION(S)	LOAN AMOUNT	DATE REPAID
ABENGOA BIOENERGY	Abengoa, S.A. & Abenoga Bioenergy US Holdings, Inc	TITLE XVII	Loan Guarantee	Bioenergy & Biofuels Projects	Hugoton, Kansas	$132.4 Million	March 2015
GENESIS	Nextera Energy	TITLE XVII	Loan Guarantee	Concentrating Solar Power Projects	Riverside County, CA	$852 Million	December 2019
GRANITE RELIABLE	BAIF Granite Holdings & Freshet Wind Energy	TITLE XVII	Partial Loan Guarantee	Wind Energy Projects	Coos County, New Hampshire	$169 Million	August 2021
KAHUKU	First Wind	TITLE XVII	Loan Guarantee	Wind Energy Projects	Kahuku, Hawaii	$117 Million	February 2015
NISSAN	Nissan North America	ATVM	Direct Loan	Advanced Vehicles Manufacturing Projects	Decherd & Smyrna, Tennessee	$1.45 Billion	September 2017
TESLA	Tesla Motors	ATVM	Direct Loan	Advanced Vehicles Manufacturing Projects	Fremont, California	$465 Million	May 2013

Information up-to-date as of the date of loan repayment. DOE ceases monitoring projects upon full repayment.

Loan Amount represents the approximate amount of the loan facility approved at closing including principal and any capitalized interest.

DISCONTINUED PROJECTS

The following discontinued projects received proceeds of a loan or a loan guarantee from the Department of Energy, but are considered discontinued by LPO for one of several reasons, including (among others) termination of the loan or loan guarantee, borrower bankruptcy protection filing, or sale (or anticipated sale) of the guaranteed note. Projects considered discontinued by LPO are not included in our reports regarding MWs produced, greenhouse gases avoided, annual gasoline displaced, or jobs created.

- Abound Solar
- Crescent Dunes
- Fisker
- Solyndra
- Stephentown Spindle
- VPG

PROJECTS THAT CLOSED ON LOANS BUT RECEIVED NO DISBURSEMENT

The following projects closed on a loan or loan guarantee from the Department of Energy, but never received proceeds from a loan or loan guarantee.

- 1366 Technologies, Inc.
- AES Energy Storage Westover, LLC
- POET Project Liberty, LLC
- ProSun Project Company, LLC (Project AMP)
- SoloPower, Inc.

Office of
Loan Programs Office

Loan Guarantee Program

U.S. Department of Energy LP 10
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LPO Loan Programs Office

Monthly Application Activity Report

February 2022

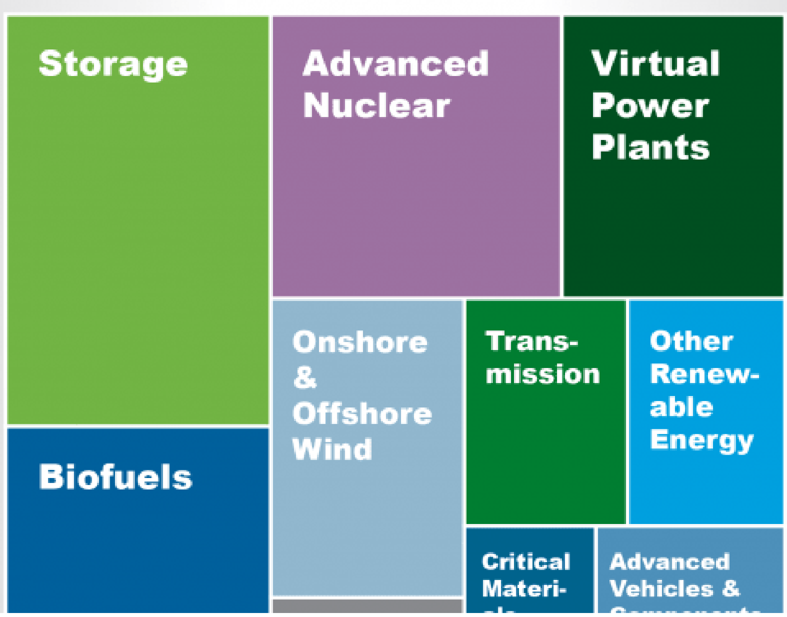
77 ACTIVE APPLICATIONS [1]

$70.8 BILLION IN LOANS REQUESTED [2]

1.6 NEW APPLICATIONS PER WEEK [3]

$70.8 BILLION

TOTAL AMOUNT OF LOANS REQUESTED BROKEN DOWN BY TECHNOLOGY AREA



Notes:

*** All data updated through February 28, 2022.**

1) Active applications are defined as completed submissions through LPO's online application portal.
2) Individual requested loan amounts are estimated and potential, subject to change, and not necessarily representative of final financing terms. **Requested loan amounts in current active applications do not affect available LPO loan authority.** Figure rounded down to the nearest $0.1 billion.
3) Current rolling average of new active applications per week over the previous 24 weeks. Figure rounded down to the nearest 0.1 application.

Each month, this report will update:

1. The total number of current active applications that have been formally submitted to LPO (77)
2. The cumulative dollar amount of LPO financing requested in these active applications ($70.8 billion)
3. The 24-week rolling average of new applications per week as of the close of the previous month (1.6 average applications per week)
4. Technology sectors represented by applications

The report will break down the cumulative loan amount requested of current applications into general technology sectors that are potentially eligible under the Title 17 Innovative Energy Loan Guarantee Program, Advanced Technology Vehicles Manufacturing Loan Program, or Tribal Energy Loan Guarantee Program:

- Advanced Fossil
- Advanced Nuclear
- Advanced Vehicles & Components
- Biofuels
- Carbon Capture, Utilization & Storage (CCUS)
- Critical Materials
- EV Charging (includes deployment and manufacturing)
- Hydrogen
- Onshore & Offshore Wind
- Other Renewable Energy (includes technologies such as advanced manufacturing, geothermal, hydropower, solar, waste-to-energy)
- Storage
- Transmission
- Virtual Power Plants

(These sectors are not an exhaustive list of technologies that may be eligible for LPO's loan programs.)

Submission of an application or approval of an application for purposes of continuing due diligence, underwriting, and negotiations is not an assurance that DOE will offer a Conditional Commitment, a loan, or a loan guarantee. Potential borrowers are encouraged to engage with LPO staff in pre-application consultations to learn more about LPO's programs and processes. Learn more about working with LPO: **energy.gov/LPO/about-us** and more about the LPO application process: **energy.gov/lpo/application-process**.

Previous Monthly Application Activity Reports

January 2022 Monthly Application Activity Report

December 2021 Monthly Application Activity Report

LPO Launches Monthly Application Activity Report

Office of
Loan Programs Office

Loan Guarantee Program

U.S. Department of Energy LP 10
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