CONNECTICUT
GREEN BANK SM

Board of Directors

Meeting Date

April 24, 2020

Board of Directors

Lonnie Reed
Chair

Binu Chandy
Deputy Director
DECD

Mary Sotos
Senior Policy Advisor for
DEEP

Shawn Wooden
Treasurer
State of Connecticut

Thomas Flynn
Managing Member
Coral Drive Partners

Matthew Ranelli
Partner
Shipman & Goodwin

Eric Brown
Vice President
CT Business and Industry Association

Kevin Walsh
Senior Operating Partner
Stonepeak Infrastructure Partners

John Harrity
Chair
CT Roundtable on Climate and Jobs

Brenda Watson
Executive Director
Operation Fuel

845 Brook Street, Rocky Hill, CT 06067
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ctgreenbank.com

CONNECTICUT GREEN BANK

April 17, 2020

Dear Connecticut Green Bank Board of Directors:

We have a regular meeting of the Board of Directors scheduled on **Friday, April 24, 2020 from 9:00-11:00 a.m.**

Please take note that this will be an online meeting only! Given the need to maintain "social distancing" and "shelter in place" policies in the face of COVID-19, we are holding this meeting online only.

We have an extensive agenda, including the following:

- **Consent Agenda** – approval of meeting minutes for March 25, 2020, progress to target updates for the Green Bank through Q3 of FY 2020 and IPC through Q2 of FY 2020, and, for those interested, a breakdown of the Green Bank's communications to our stakeholders during this COVID-19 crisis.

- **Financing Programs** – recommendations on the following:

    1. **COVID-19 Impacts** – quick update on how COVID-19 is impacting our financing programs; and

    2. **Green Bank Solar PPA: Lead by Example** – recommendation to enable the Green Bank to support the State of Connecticut's "Lead by Example" program for solar PV on state facilities.

- **Incentive Programs** – recommendations on the following:

    1. **COVID-19 Impacts** – quick update on how COVID-19 is impacting our incentive programs;

    2. **Extension of the RSIP** – recommendation for the support of the Board of Directors for the Green Bank to request an extension of the RSIP to the legislative leadership from 350 to 450 MW in order to "foster the sustained orderly development of local solar industry" as we manage through COVID-19; and

    3. **Grid Modernization Docket** – an update on the Green Bank's response to the Public Utility Regulatory Authority's Docket No. 17-12-03 on an Equitable Modern Grid.

- **Investments** – recommendations on the following:

    1. **COVID-19 Impacts** – quick update on how COVID-19 is impacting our investments;

2. **Loan Loss Decision Framework** – recommendation to amend the Loan Loss Decision Framework to allow for COVID-19 related transaction restructurings, as well as a proposal to increase the Green Bank's Provision for Loan Losses. We have provided a lot of documentation here, including the original framework from June 13, 2018, proposed COVID-19 revisions of April 24, 2020, an update memo on loan losses in FY 2020 and; and

3. **Skyview Ventures** – an update on the transaction recently approved, and a proposal to increase our investment.

- **Committee Recommendations** – recommendations from the Audit, Compliance and Governance Committee on the following:

  1. **Revisions to Bylaws** – to improve the bylaws taking "best practices" from other quasi-public agencies; and

  2. **Revisions to Ethical Conduct Policies** – to improve the ethical conduct policies taking "best practices" from other quasi-public agencies.

- **Other Business** – the Green Bank, working in collaboration with the Connecticut Department of Banking, submitted comments into the Office of Comptroller of the Currency (OCC) and the Federal Deposit Insurance Corporation (FDIC) with regards to changes to the Community Reinvestment Act (CRA). We have also provided some recent developments in terms of a filing with PURA by the Connecticut industrial Energy Consumers. And we will provide an update on the SHREC – Green Liberty Bond if there is time.

And lastly, if you haven't submitted your State of Financial Interests (SFI), please coordinate with Brian Farnen and submit them by May 1, 2020.

If you have any questions, comments or concerns, please feel free to contact me at any time.

Until then, be safe, be well, and enjoy the upcoming weekend!

Sincerely,

Bryan Garcia
President and CEO

AGENDA

Board of Directors of the
Connecticut Green Bank
845 Brook Street
Rocky Hill, CT 06067

Friday, April 24, 2020
9:00-11:00 a.m.

Dial (571) 317-3122
Access Code: 347-293-597

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

1. Call to order

2. Public Comments – 5 minutes

3. Consent Agenda – 5 minutes

4. Financing Programs Recommendations – 30 minutes

   a. Update on COVID-19 Impacts to Financing Programs
   b. Green Bank Solar PPA – Lead by Example

5. Incentive Programs Recommendations and Updates – 30 minutes

   a. Update on COVID-19 Impacts to Incentive Programs
   b. Residential Solar Investment Program
   c. Grid Modernization Docket

6. Investment Recommendations – 30 minutes

   a. Update on COVID-19 Impacts on Investments
   b. Loan Loss Decision Framework
   c. Skyview Ventures – Update

7. Committee Recommendations and Updates – 15 minutes

   a. Audit, Compliance, and Governance Committee – 15 minutes

      i. Proposed Revisions to Bylaws
      ii. Proposed Revisions to Ethics Policies

8. Other Business – 5 minutes

9. Adjourn

Join the meeting online at https://global.gotomeeting.com/join/347293597

Or call in using your telephone:
Dial (571) 317-3122
Access Code: 347-293-597

Next Regular Meeting: Friday, June 26, 2020 from 9:00-11:00 a.m.
Connecticut Green Bank, 845 Brook Street, Rocky Hill, CT

RESOLUTIONS (REVISED)

Board of Directors of the
Connecticut Green Bank
845 Brook Street
Rocky Hill, CT 06067

Friday, April 24, 2020
9:00-11:00 a.m.

Dial (571) 317-3122
Access Code: 347-293-597

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

1. Call to order

2. Public Comments – 5 minutes

3. Consent Agenda – 5 minutes

Resolution #1

Motion to approve the meeting minutes of the Board of Directors for March 25, 2020.

4. Financing Programs Recommendations – 30 minutes

   a. Update on COVID-19 Impacts to Financing Programs
   b. Green Bank Solar PPA – Lead by Example

Resolution #2

WHEREAS, Connecticut Green Bank ("Green Bank") staff has been working with State of Connecticut ("State") agencies to develop certain pilot solar projects ("State Pilot Projects") identified in the Memorandums dated October 18, 2019 and April [], 2020 (the "State Solar Memos") and submitted to the Green Bank Board of Directors (the "Board");

WHEREAS, Green Bank has been providing assistance in site feasibility analysis, ZREC procurement, and facilitating a procurement process for construction and financing of the State Pilot Projects; and

WHEREAS, Green Bank desires to make temporary advances of costs associated with the Pilot Projects and reimburse itself in the future by the issuance of bonds, other obligations or other term financing to repay the temporary advances.

NOW, therefore be it:

RESOLVED, that the Board of Directors approves funding, in a total not-to-exceed amount of $19,500,000 in new credit for the continued development of the State Pilot Projects, to be utilized for the following purposes:

1. Development capital; and
2. Construction financing.

RESOLVED, that the Green Bank Board of Directors hereby declares the Green Bank's official intent that payment of Project construction and financing costs may be made from temporary advances of other available funds of the Green Bank, and that the Green Bank reasonably expects to reimburse such advances from the bonds or other obligations in an amount not to exceed $19,500,000;

RESOLVED, that the President of Green Bank; and any other duly authorized officer of Green Bank, is authorized to execute and deliver, any contract or other legal instrument necessary to continue to develop and finance the State Pilot Projects materially consistent with the memoranda submitted to the Board on October 18, 2019 and April 17, 2020; and

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

5. Incentive Programs Recommendations and Updates – 30 minutes

   a. Update on COVID-19 Impacts to Incentive Programs
   b. Residential Solar Investment Program

<u>Resolution #3</u>

WHEREAS, the Connecticut Green Bank, per CGS Section 16-245ff, is responsible for implementing the Residential Solar Investment Program (RSIP) to administer a declining incentive schedule that supports the deployment of no more than three-hundred and fifty megawatts of new residential solar PV, while fostering the sustained orderly development of a local solar industry;

WHEREAS, the Department of Energy and Environmental Protection plays an important role in the implementation of the RSIP by reviewing and approving the schedule of incentives;

WHEREAS, the Public Utilities Regulatory Authority plays an important role in the implementation of the RSIP by reviewing and approving that systems are qualified as Class I renewable energy sources, approving the Master Purchase Agreement between the utilities and the Connecticut Green Bank for the sale of renewable energy certificates; and for transitioning the market from net metering to a tariff through CGS 16-243h and 16-244z;

WHEREAS, the Connecticut Green Bank, provided verbal and written testimony before the Energy & Technology Committee on March 5, 2020 expressing a position that extending the RSIP was not necessary, but that instead support for a battery storage incentive program was more important in terms of fostering the sustained orderly development of a local solar industry as the market transitions from net metering to a tariff-based compensation structure;

WHEREAS, the Connecticut Green Bank, provided the Energy & Technology Committee on March 10, 2020 with additional written testimony in response to public comments made on March 5, 2020, acknowledging that the market risk of COVID-19 presents a potentially serious external risk to destabilizing the market and therefore preventing the achievement of the policy objective of fostering the sustained orderly development of a local solar industry; and

WHEREAS, of the date of this memo, the COVID-19 crisis has had extreme deleterious impacts on public health and the destabilization of the economy, including the residential solar PV industry in Connecticut.

NOW, therefore be it:

RESOLVED, that the Board of Directors supports the recommendation of the staff of the Connecticut Green Bank, in light of the COVID-19 crisis, to propose an increase in the RSIP of one-hundred megawatts for a total of four-hundred and fifty megawatts in order to revitalize, recover and stabilize the local solar industry prior to its transition from net metering to a tariff per the changes proposed in Appendix A of the memo presented to the Board of Directors on April 24, 2020.

c. Grid Modernization Docket

6. Investment Recommendations – 30 minutes

a. Update on COVID-19 Impacts on Investments
b. Loan Loss Decision Framework

Resolution #4

WHEREAS, pursuant to Section 5.3.1 of the Connecticut Green Bank (Green Bank) Bylaws, the Audit, Compliance & Governance (ACG) Committee is charged with the review and approval of, and in its discretion recommendations to the Board regarding, all governance and administrative matters affecting the Green Bank, including but not limited to matters of corporate governance and corporate governance policies;

WHEREAS, the Board of Directors authorized 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 Green Bank 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;

WHEREAS, the Board approved and authorized the Green Bank staff to implement the Loan Loss Decision Framework and Process for managing assets requiring restructuring or write-off from the Green Bank's balance sheet and consistent with the memorandum to the Board dated June 13, 2018 ("Loan Loss Decision Framework and Process "); and

WHEREAS, in response to the COVID-19 pandemic, the staff of the Green Bank are proposing a modification to the Loan Loss Decision Framework and Process with regards to restructuring transactions, as well as the Green Bank's provision for loan losses, in order to help families and businesses manage through this public health crisis.

NOW, therefore be it:

RESOLVED, that the Board approves of the Staff proposed changes to the Loan Loss Decision Framework and Process as more described in the memorandum to the Board dated April 24, 2020;

RESOLVED, that the Board approves of the Staff proposed increase to the Provision of Loan Losses by $4.1 million;

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.

c. Skyview Ventures – Update

Resolution #5

WHEREAS, the Connecticut Green Bank ("Green Bank") has significant experience in the development and financing of commercial solar PPA projects in Connecticut;

WHEREAS, the Green Bank continually seeks new ways to work with private sector partners to meet the demonstrated need for flexible capital to continue expanding access to financing for commercial-scale customers looking to access solar and savings via a PPA;

WHEREAS, the Green Bank has established a working relationship with a private sector Connecticut solar developer, Skyview Ventures ("Skyview"), and through that relationship the Green Bank has an opportunity to deploy capital for the development of clean energy in Connecticut;

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

WHEREAS, based on diligence of Green Bank staff of the proposed senior secured loan facility ("Term Loan") in an amount not to exceed $3.5M to a Special Purpose Vehicle ("SPV") wholly owned by Skyview confirming that the Term Loan transaction meets Green Bank underwriting criteria, the Green Bank Deployment Committee (the "Deployment Committee") passed resolutions at its meeting held on February 27, 2020 to recommend to the Green Bank Board of Directors (the "Board") the approval of the Term Loan transaction in an amount not to exceed $2.3M as a Strategic Selection and Award pursuant to the Green Bank Operating Procedures Section XII; and

WHEREAS, the Board passed resolutions at its meeting held on March 25, 2020 to approve the Term Loan transaction in an amount not to exceed $2.3M as a Strategic Selection and Award pursuant to the Green Bank Operating Procedures Section XII given the special capabilities, uniqueness, strategic importance, urgency and timeliness, and multi-phase characteristics of the Term Loan transaction.

NOW, therefore be it:

RESOLVED, that the Board hereby amends and restates its approval of the Term Loan transaction as described in the Project Qualification Memo submitted by the staff to the Board and dated April 17, 2020 (the "Memorandum") and on terms and conditions substantially consistent with those described in the Memorandum as a Strategic Selection and Award pursuant to the Green Bank Operating Procedures Section XII given the special capabilities, uniqueness, strategic importance, urgency and timeliness, and multi-phase characteristics of the Term Loan transaction; and

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

7. Committee Recommendations and Updates – 15 minutes

a. Audit, Compliance, and Governance Committee – 15 minutes

i. Proposed Revisions to Bylaws

Resolution #6

WHEREAS, pursuant to Section 5.2.1 of the Connecticut Green Bank ("Green Bank") Bylaws, the Audit, Compliance & Governance (ACG) Committee is charged with the review and approval of, and in its discretion recommendations to the Board of Directors ("Board") regarding, all governance and administrative matters affecting the Green Bank, including but not limited to matters of corporate governance and corporate governance policies;

WHEREAS, the Audit, Compliance and Governance Committee recommends to the Board for approval the proposed draft revisions to the Green Bank Bylaws.

NOW, therefore be it:

RESOLVED, that the Board hereby approves the attached revised Green Bank By-Laws dated April 24, 2020. Second. Discussion. Vote

ii. Proposed Revisions to Ethics Policies

Resolution #7

WHEREAS, pursuant to Section 5.2.1 of the Connecticut Green Bank ("Green Bank") Bylaws, the Audit, Compliance & Governance (ACG) Committee is charged with the review and approval of, and in its discretion recommendations to the Board of Directors ("Board") regarding, all governance and administrative matters affecting the Green Bank, including but not limited to matters of corporate governance and corporate governance policies;

WHEREAS, the Audit, Compliance and Governance Committee recommends to the Board for approval the proposed draft revisions to the Board of Directors and Advisory Committee Members Ethic Conduct Policy.

NOW, therefore be it:

RESOLVED, that the Board hereby approves the attached revised Green Bank BOD Ethical Conduct Policy dated April 24, 2020.

8. Other Business – 5 minutes

9. Adjourn

Join the meeting online at https://global.gotomeeting.com/join/347293597

Or call in using your telephone:
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Access Code: 347-293-597

Next Regular Meeting: Friday, June 26, 2020 from 9:00-11:00 a.m.
Connecticut Green Bank, 845 Brook Street, Rocky Hill, CT

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** – per Executive Order 7B (i.e., suspension of in-person open meeting requirements), we need to record and post this board meeting.
- **State Your Name** – for those talking, please state your name for the record.
- **Modification to the Agenda** – given that we have a limited time with quorum, we want to modify the agenda by moving Agenda Item 6 in front of Agenda Item 5 (i.e., Resolutions #4 and #5 before #3)

Board of Directors Meeting

April 24, 2020

Online Meeting

Board of Directors

Agenda Item #1

Call to Order

Board of Directors

Agenda Item #2

Public Comments

Board of Directors

Agenda Item #3

Consent Agenda

Consent Agenda
Resolution #1

1. **Meeting Minutes** – approve meeting minutes of March 25, 2020

- **Progress to Targets** – provided Green Bank progress to targets through Q3 of FY 2020 (Note – can potentially still meet most of the targets despite COVID-19 crisis)
- **IPC Progress to Targets** – provided IPC progress to targets through Q2 of FY 2020 (Note – making excellent progress on FY targets)
- **Communications** – provided COVID-19 communications from President and CEO to stakeholders (Note – does not include program channel communications)

Board of Directors

Agenda Item #4a

Financing Programs Recommendations

Update on COVID-19 Impacts

Update on COVID-19
Financing Programs

C-PACE

- July payment deferrals available at customer request for CGB-funded projects
- Executive Order 7S creates relief options for property taxes and tax assessments including C-PACE

SBEA

- 90-day payment deferrals available at customer request through Eversource
- Program shutdown

PPA

- Payment deferrals available at customer request

Solar Leases + CT Solar Loan

- SL1, SL2 and CT Solar Loan 90-day payment deferrals available at customer request

Multifamily

- 90-day payment deferrals available at customer request
- Pipeline at a standstill – affordable housing market is preparing for significant shocks

Update on COVID-19
Preliminary Survey Finding

SBEA

- Program was shutdown on 3/16
- Impact has been severe on companies
  - Not able to do on-site visits and line up new business. Average response rate on new business down was 72%
  - Halt to any new installations and average of 73% of existing projects were affected
  - Almost 100% of respondents have laid off, furloughed or reduced hours for employees

Commercial Solar

- Projects stalled mainly due to customers no longer ready to move forward
- New business down by 61% for solar
- 75% of solar contractors say it will take at least 6 months after reopening for their business to recover
- CGB took action with PURA on ZREC relief

REFERENCES

Connecticut Clean Energy Industry Survey in Response to COVID-19 issued on April 15, 2020

Board of Directors

Agenda Item #4b

Financing Programs Recommendations

Green Bank Solar PPA – Lead by Example

Lead By Example

Solar Pilot

- 11 projects totaling 11 MW of Solar PV projects at Department of Administrative Services (DAS), DEEP, and Department of Correction (DOC).
- Progress achieved to date:

Site feasibility analysis

Interconnection application submitted

ZRECs secured

EPC RFP and selected EPC bidder

Contract negotiation with EPC

Lead By Example
Solar Pilot

- Originally Green Bank envisioned issuing a financing RFP shortly after the EPC RFP and transferring ownership of the projects immediately after execution and prior to construction
- Due to timing, Green Bank suggests continuing development, finalizing PPA/EPC negotiations/execution and starting construction
- In parallel, Green Bank is evaluating potential ownership structures without delaying construction
  - ❑ Issue RFP to pre-qualified owners and sell projects to those owners
  - ❑ Potentially issue New Clean Renewable Energy Bonds (CREBs), if made available through COVID stimulus

Lead By Example

Solar Pilot - Request

- Increase the NTE amount for development and capital finance from $5M to $19.5M to allow for flexibility and adequate coverage;
- Allow for temporary advances of costs associated with the Pilot Projects that could be reimbursed in the future by the issuance of bonds or other term financing to repay the temporary advances; and,
- To enter into contracts associated with the final ownership of the Pilot Projects, subject to coming back for Board approval prior to execution (only if necessary with respect to Green Bank bond financing)

Lead By Example
Resolution #2

NOW, therefore be it:

RESOLVED, that the Board of Directors approves funding, in a total not-to-exceed amount of $19,500,000 in new credit for the continued development of the State Pilot Projects, to be utilized for the following purposes:

- Development capital; and
- Construction financing.

RESOLVED, that the Green Bank Board of Directors hereby declares the Green Bank's official intent that payment of Project construction and financing costs may be made from temporary advances of other available funds of the Green Bank, and that the Green Bank reasonably expects to reimburse such advances from the bonds or other obligations in an amount not to exceed $19,500,000;

RESOLVED, that the President of Green Bank; and any other duly authorized officer of Green Bank, is authorized to execute and deliver, any contract or other legal instrument necessary to continue to develop and finance the State Pilot Projects materially consistent with the memoranda submitted to the Board on October 18, 2019 and April 17, 2020; and

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

Board of Directors

Agenda Item #6a and #6b

Investment Recommendations

Update on COVID-19 Impacts and

Loan Loss Decision Framework

Update on COVID-19

Investments & Loan Loss Decision Framework (1)

- **Proposal to modify the Loan Loss Decision Framework and Process**
  - A result of COVID-19's impact on the local clean energy economy
  - Recognizes forbearance / restructuring across several portfolios:
    - Consumer (Solar Lease 1 & 2), Solar Loan 1, Smart-E
    - Multifamily
    - C-PACE (including C-PACE secured PPAs)
    - Non-C-PACE secured PPAs
    - Other commercial loans (PosiGen, wind, AD, hydro, fuel cell)
- **Near-term maximum cash impact for the April-July 2020 period up to $4.1 M**
  - Severe assumption (i.e., 100% of portfolio)
  - Each additional month adds $600,000 to the shortfall
- **More than adequate resources to manage the cash and balance sheet impact**
- **Book a provision for investment impairment of $4.1 M (⬆from $11M to $15.1M)**
  - **This would be 15.8% of invested assets**

Transaction Restructuring Consumer example

CONNECTICUT GREEN BANK

Sample Residential Loan or Lease Restructuring ($10k)
3 payments grace … pay at end of extended contract

Original Schedule

2020									…	2034			
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep		Jan	Feb	Mar	Apr
$75	$75	$75	$75	$75	$75	$75	$75	$75		$75	$75	$75	$75
													Last Pmt

Restructured Schedule

2020									…	2034						
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep		Jan	Feb	Mar	Apr	May	Jun	Jul
$75	$75	$75	~~$75~~	~~$75~~	~~$75~~	$75	$75	$75		$75	$75	$75	$75	$75	$75	$75
														Payments from 2019		

Green Bank Impact

Current Period

- Cash "reduced" by payments not received
- Balance Sheet "static" (loan balance does not change for 3 payment periods)
- Net Assets "lower" due to loan interest or lease revenue that isn't recognized

End of Contract

- Cash "increased" by payments received in excess of what was originally scheduled
- Balance Sheet – loan or lease position "amortizes to zero" 3 payment periods later than originally scheduled)
- Net Assets "restored" as additional loan interest or lease revenue is recognized
- Same "nominal" benefit but loss of "time value of money"

Transaction Restructuring C-PACE example

CONNECTICUT GREEN BANK

(1 quarterly payment grace … make 2+ additional payments at end of extended contract ***with time value of money***)

Original Schedule

2020 - 2022									…	…. -2034					
Jan-20	Apr-20	Jul-20	Oct-20	Jan-21	Apr-21	Jul-21	Oct-21	Jan-22		Jan-33	Apr-33	Jul-33	Oct-33	Jan-34	Apr-34
$20,978	$20,978	$20,978	$20,978	$20,978	$20,978	$20,978	$20,978	$20,978		$20,978	$20,978	$20,978	$20,978	$20,978	$20,978
															Last Pmt

Restructured Schedule

2020 - 2022									…	…. -2035								
Jan-20	Apr-20	Jul-20	Oct-20	Jan-21	Apr-21	Jul-21	Oct-21	Jan-22		Jan-33	Apr-33	Jul-33	Oct-33	Jan-34	Apr-34	Jul-34	Oct-34	Jan-35
$20,978	$20,978	~~$20,978~~	$20,978	$20,978	$20,978	$20,978	$20,978	$20,978		$20,978	$20,978	$20,978	$20,978	$20,978	$20,978	$20,978	$20,978	$4,014
													Payment from 2019 ***+ time value***					Last Pmt

Green Bank Impact

Current Period	
	Cash “reduced” by payments not received
	Balance Sheet “higher” (loan balance increases to account for capitalized interest)
	Net Assets “same” as expected before restructuring due to loan interest recognized on the accrual basis (which is capitalized into the loan balance)

End of Contract	
	Cash “increased” by payments received in excess of what was originally scheduled
	Balance Sheet – loan position “amortizes to zero” 3 payment periods later than originally scheduled)
	Net Assets “higher” as additional loan interest is is recognized
	Same “present value” benefit as the restructured payments account for “time value of money”

Proposed Revisions
As a Result of COVID-19

- **Proposed Changes to "Process #2 – Restructuring Transactions" ("Restructuring Process") within the "Framework" of the Green Bank**
  - **Expand Staff Approval Authority to $1,000,000**

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 (b) below) (2) Board of Directors for all other transactions
Write-Off	Staff	ACG	Board of Directors

  - **ALSO- staff approvals specific to the following programs can be for <u>any amount of principal outstanding</u>:**
    - C-PACE & C-PACE with Green Bank PPA
    - Green Bank Solar PPA projects for municipality, housing authority or school district

Proposed Revisions (cont'd)
As a Result of COVID-19

- **Conditions**
  - **Limited to COVID-19 Circumstances**
  - **Maximum of 6-month deferrals** (except rare cases where C-PACE assessments are collected annually – the accommodation would be for one year)
  - **Process** – follows the existing Loan Loss Decision Framework process
    - Restructuring Calculation – NPV original vs. restructured transaction comparison;
    - Documentation – staff memo, including reason for modification (i.e., COVID-19), description of the project, restructuring calculation, and, 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; and
    - Review and Approval – typical ARS process.
  - **Reporting** – within the quarterly memos on our Framework, the staff would specifically breakout the transactions in the quarterly memo that were restructured as a result of COVID-19 for reporting and tracking purposes.

Proposed Revisions (cont'd)

Resolution #4

NOW, therefore be it:

RESOLVED, that the Board approves of the Staff proposed changes to the Loan Loss Decision Framework and Process as more described in the memorandum to the Board dated April 24, 2020;

RESOLVED, that the Board approves of the Staff proposed increase to the Provision for Loan Losses by $4.1 million;

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

Submitted by: Bryan Garcia, President and CEO, Bert Hunter, EVP and CIO, Brian Farnen, General Counsel and CLO

Board of Directors

Agenda Item #6c

Investment Recommendations

Skyview Ventures – Update

Skyview Ventures

Senior Secured Loan Facility

Overview

- **UPDATES to transaction approved March 25, 2020**
- **Transaction** – senior secured debt facility in an amount not to exceed $3.5M; [redacted] DSCR; 15 year term; [redacted]
- **Security** – Up to 26 commercial solar PPA projects with investment grade, municipal off-takers
- **Use of proceeds** – refinance development capital so that Skyview may continue to develop commercial solar assets in CT

Skyview Ventures
Senior Secured Loan Facility

CONNECTICUT GREEN BANK

Transaction Structure Diagram

[REDACTED]

Skyview Ventures
Senior Secured Loan Facility

*Collateral Snapshot**

[REDACTED]

**Subject to completion of technical due diligence*

Skyview Ventures
Senior Secured Loan Facility

Risks and Mitigants

- **Operational risk** – revenue, and ultimately DSCR, depend on production (kWh) performance
- **Mitigants:**

1. Diligence: 35% of collateral projects have been operational for 3+ years and have achieved [redacted] of expected production yearly
2. Same diligence performed on collateral as on CGB-developed commercial solar assets
3. Stress tested cashflows: even at 90% of expected production, DSCR is [redacted]
4. For a DSCR of [redacted], production would have to be 22% below expectations for duration of the term

Skyview Ventures
Senior Secured Loan Facility

CONNECTICUT GREEN BANK

Risks and Mitigants

- **<u>Default risk</u>** – Skyview fails to make debt repayments
- **<u>Mitigants:</u>**

1. The debt is sized such that DSCR is [redacted], providing a healthy buffer
2. The advance rate is [redacted]
3. Reserves of [redacted] months interest and principal payments must be maintained
4. Downside scenario (CGB takes ownership of the collateral) is within our operational comfort zone (CGB has 20 MW commercial solar assets under management)

Skyview Ventures
Resolution #5

Revised and Restated Resolutions

WHEREAS, the Connecticut Green Bank ("Green Bank") has significant experience in the development and financing of commercial solar PPA projects in Connecticut;

WHEREAS, the Green Bank continually seeks new ways to work with private sector partners to meet the demonstrated need for flexible capital to continue expanding access to financing for commercial-scale customers looking to access solar and savings via a PPA;

WHEREAS, the Green Bank has established a working relationship with a private sector Connecticut solar developer, Skyview Ventures ("Skyview"), and through that relationship the Green Bank has an opportunity to deploy capital for the development of clean energy in Connecticut;

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

WHEREAS, based on diligence of Green Bank staff of the proposed senior secured loan facility ("Term Loan") in an amount not to exceed $3.5M to a Special Purpose Vehicle ("SPV") wholly owned by Skyview confirming that the Term Loan transaction meets Green Bank underwriting criteria, the Green Bank Deployment Committee (the "Deployment Committee") passed resolutions at its meeting held on February 27, 2020 to recommend to the Green Bank Board of Directors (the "Board") the approval of the Term Loan transaction in an amount not to exceed $2.3M as a Strategic Selection and Award pursuant to the Green Bank Operating Procedures Section XII; and

WHEREAS, the Board passed resolutions at its meeting held on March 25, 2020 to approve the Term Loan transaction in an amount not to exceed $2.3M as a Strategic Selection and Award pursuant to the Green Bank Operating Procedures Section XII given the special capabilities, uniqueness, strategic importance, urgency and timeliness, and multi-phase characteristics of the Term Loan transaction.

Skyview Ventures
Resolution #5 (cont'd)

NOW, therefore be it:

RESOLVED, that the Board hereby amends and restates its approval of the Term Loan transaction as described in the Project Qualification Memo submitted by the staff to the Board and dated April 17, 2020 (the "Memorandum") and on terms and conditions substantially consistent with those described in the Memorandum as a Strategic Selection and Award pursuant to the Green Bank Operating Procedures Section XII given the special capabilities, uniqueness, strategic importance, urgency and timeliness, and multi-phase characteristics of the Term Loan transaction; and

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

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CONNECTICUT GREEN BANK

Board of Directors

Agenda Item #5a

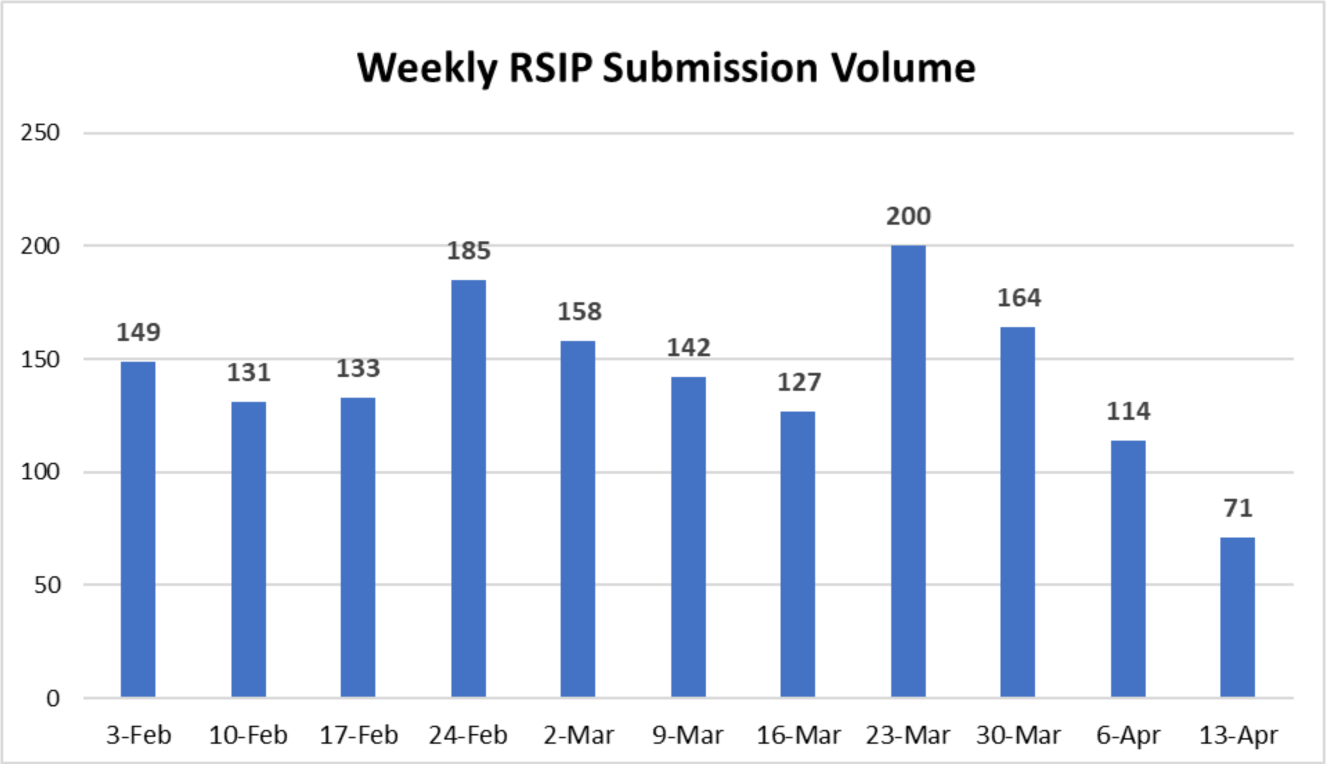
Incentive Programs Recommendations and Updates

Update on COVID-19 Impacts

Update on COVID-19

Incentive Programs - RSIP

- RSIP status: 320 MW and 40,000+ projects approved for incentives.
- Submission volume has slowed since end of March due to COVID-19.
- Due to high volume through Q3 (89% of FY20 target), could still reach 60 MW target if RSIP contractors able to operate at least at partial capacity.



Update on COVID-19

Incentive Programs – Smart-E and Solar for All

Smart-E

- 29 Smart-E Loans closed in March 2020, 43% decrease from February 2020 and 52% decrease from March 2019
- EE is on hold, HVAC and solar slowed down slowed down significantly
- Lenders doing 90-day payment deferrals at customer request
- Smart-E special offer for heat pumps, battery storage and EV chargers delayed but will help with recovery once launched

Solar for All

- Sales have slowed down, in line with overall solar market; future municipal campaigns on hold

Update on COVID-19

Preliminary Survey Finding – Residential Solar

- Sales 100% virtual, demand/new business reduced, customers hesitant to make financial commitments during this time
- Average 63% (range 10-98%) reduction in new business, 56% reduction in existing business (range 5-99%)
- 65-95% of solar installation can be done outside, but challenging and slow due to more planning and safety/PPE, indoor work delayed or on hold
- Permitting and inspection delayed or on hold where municipalities closed or partially operating, utility interconnection slowed, project completion slowed
- Significant impacts include layoffs, furloughs, schedules reduced and/or pay reduced, work stoppage, temporary closings
- 13 out of 20 will need up to 6 months to recover after business resumes
- Most applied to the PPP, only one received funds so far
- Contractors need cash, debt relief, state support, future programs – need RSIP extension, extra incentive to go green with ITC decreasing

REFERENCES

Connecticut Clean Energy Industry Survey in Response to COVID-19 issued on April 15, 2020

CONNECTICUT GREEN BANK

Board of Directors

Agenda Item #5b

Incentive Programs Recommendations and Updates

Residential Solar Investment Program

Public Policy vs. Pandemic

Change in Green Bank Policy Position

CONNECTICUT GREEN BANK

- **Public Policy** – RSIP policy has the following three (3) objectives:
  - ❑ **Declining Incentive Block Structure** – incentives decline over time (i.e., reduced by 85% from \$136/ZREC$_{eq}$ in Step 1 vs. \$21/ ZREC$_{eq}$ in Step 14 – present value of RSIP incentive is less than 10% of the installed cost of solar PV system);
  - ❑ **Capacity Target** – began 30 MW in July 2011, increased to 300 MW in July 2015, and increased to 350 MW in July 2019; or by December 31, 2022, whichever sooner; and
  - ❑ **Economic Development** – "fostering the sustained orderly development of a local solar industry" to ensure long-term marketplace for customers and contractors.
- **Prior Testimony** – an effort by solar industry to increase RSIP by 50 MW to 400 MW during the 2020 legislative session. Green Bank argued that was unnecessary, and that economic development would be supported with a battery storage incentive vs. additional RSIP
- **COVID-19 Crisis** – fundamentally changed the Green Bank position of the stability of the local solar industry

Policy Proposal Recommendation
Ensure Sustained Orderly Development

- **Policy Proposal Objectives** – request for change in policy that would (1) ensure the economic development objective of the public policy was maintained, and (2) support the continued transition from net metering to the tariff
- **Proposed Modifications** – following draft changes developed with PURA and DEEP:
  - ❑ **Net Metering** – flexibility on end of net metering to start of tariff (i.e., until December 31, 2021 or until tariff begins) based on feedback from PURA (p. 1 and 5 of 6)
  - ❑ **Capacity Target** – increase in capacity target by additional 100 MW to 450 MW to allow for more time by the Green Bank to stabilize the market from COVID-19 impacts based on Green Bank judgment (p. 2 and 4 of 6)
  - ❑ **Cost Recovery** – enable all Green Bank approved projects before the start of the tariff are cost recoverable based on green bank judgment (p. 3 and 6 of 6)
  - ❑ **Clean-Up** – policy clean-up based on feedback from PURA (p. 5 of 6)

Policy Proposal Recommendation
Resolution #3

NOW, therefore be it:

RESOLVED, that the Board of Directors supports the recommendation of the staff of the Connecticut Green Bank, in light of the COVID-19 crisis, to propose an increase in the RSIP of one-hundred megawatts for a total of four-hundred and fifty megawatts in order to revitalize, recover and stabilize the local solar industry prior to its transition from net metering to a tariff per the changes proposed in Appendix A of the memo presented to the Board of Directors on April 24, 2020.

Submitted by: Bryan Garcia, President and CEO, Matt Macunas, Legislative Liaison, and Selya price, Director of Incentive Programs

Board of Directors

Agenda Item #5c

Incentive Programs Recommendations and Updates

Grid Modernization Docket

Grid Modernization Docket
Update

- **Docket No 17-12-03 (RE01-RE06)** – regulatory framework for PURA to address the following:
  - ❑ Energy Affordability (RE01) – Isabelle Hazlewood is Green Bank lead
  - ❑ Advanced Metering Infrastructure (RE02) – Alex Kovtunenko is Green Bank observer
  - ❑ Electric Storage (RE03) – Bryan Garcia is Green Bank lead
  - ❑ Zero Emission Vehicles (RE04) – Matt Macunas is Green Bank lead
  - ❑ Innovative Technology (RE05) – Bryan Garcia is Green Bank lead
  - ❑ Interconnection (RE06) – Alex Kovtunenko is Green Bank observer
- **Draft RFPs** – sought comments on draft RFPs for each reopener by April 21, 2020
- **RFP Submissions** – planning to initiate several RFPs to support programs due by July 31, 2020
  - ❑ Consistent with Comprehensive Plan, Green Bank likely to submit in RE03 (Electric Storage) and RE04 (Zero Emission Vehicles) with to be identified partners

Board of Directors

Agenda Item #7ai

Committee Recommendations and Updates

Audit, Compliance, and Governance Committee

Proposed Revisions to Bylaws

Proposed Revisions to Bylaws

In response to Governor's Office meetings with quasi-public agencies and the independent audit of the Connecticut Port Authority in 2019, we propose the following revisions to the Bylaws:

1. Adding the purpose and function of CGB;
2. Adding Treasurer to the BOD;
3. Adding the requirement BOD members to take an oath, which is already done in practice;
4. Renaming the Budget and Operations Committee to the Budget, Operations and Compensation Committee;

Proposed Revisions to Bylaws

CONNECTICUT GREEN BANK

5. Based on the "Loan Loss Decision Framework and Process" approved by the Board of Directors on June 13, 2018, inclusion of additional language in the bylaws to reflect the importance of the establishment and modification of such process;

6. Expanding Conflicts of Interest to include immediate family members of BOD;

7. adding "Restrictions on Directors and Employees Leaving Green Bank"; and

8. Adding "Clean Energy" to definitions.

Proposed Revision to Bylaws

Resolution #6

WHEREAS, pursuant to Section 5.2.1 of the Connecticut Green Bank ("Green Bank") Bylaws, the Audit, Compliance & Governance (ACG) Committee is charged with the review and approval of, and in its discretion recommendations to the Board of Directors ("Board") regarding, all governance and administrative matters affecting the Green Bank, including but not limited to matters of corporate governance and corporate governance policies;

WHEREAS, the Audit, Compliance and Governance Committee recommends to the Board for approval the proposed draft revisions to the Green Bank Bylaws.

NOW, therefore be it:

RESOLVED, that the Board hereby approves the attached revised Green Bank By-Laws dated April 24, 2020. Second. Discussion. Vote

Board of Directors

Agenda Item #7aii

Committee Recommendations and Updates

Audit, Compliance, and Governance Committee

Proposed Revisions to Ethics Policies

Proposed Revisions to BOD
Ethical Conduct Policy

CONNECTICUT GREEN BANK

In response to the independent audit of the Connecticut Port Authority in 2019, we propose the following revisions to the BOD Ethical Conduct Policy:

1. Adding language for possible consequences to ethics violations;

2. Adding an acknowledgment section for all Directors to sign.

Proposed Revision to Bylaws

Resolution #7

WHEREAS, pursuant to Section 5.2.1 of the Connecticut Green Bank ("Green Bank") Bylaws, the Audit, Compliance & Governance (ACG) Committee is charged with the review and approval of, and in its discretion recommendations to the Board of Directors ("Board") regarding, all governance and administrative matters affecting the Green Bank, including but not limited to matters of corporate governance and corporate governance policies;

WHEREAS, the Audit, Compliance and Governance Committee recommends to the Board for approval the proposed draft revisions to the Board of Directors and Advisory Committee Members Ethic Conduct Policy.

NOW, therefore be it:

RESOLVED, that the Board hereby approves the attached revised Green Bank BOD Ethical Conduct Policy dated April 24, 2020.

Board of Directors
Agenda Item #8
Other Business

Other Business

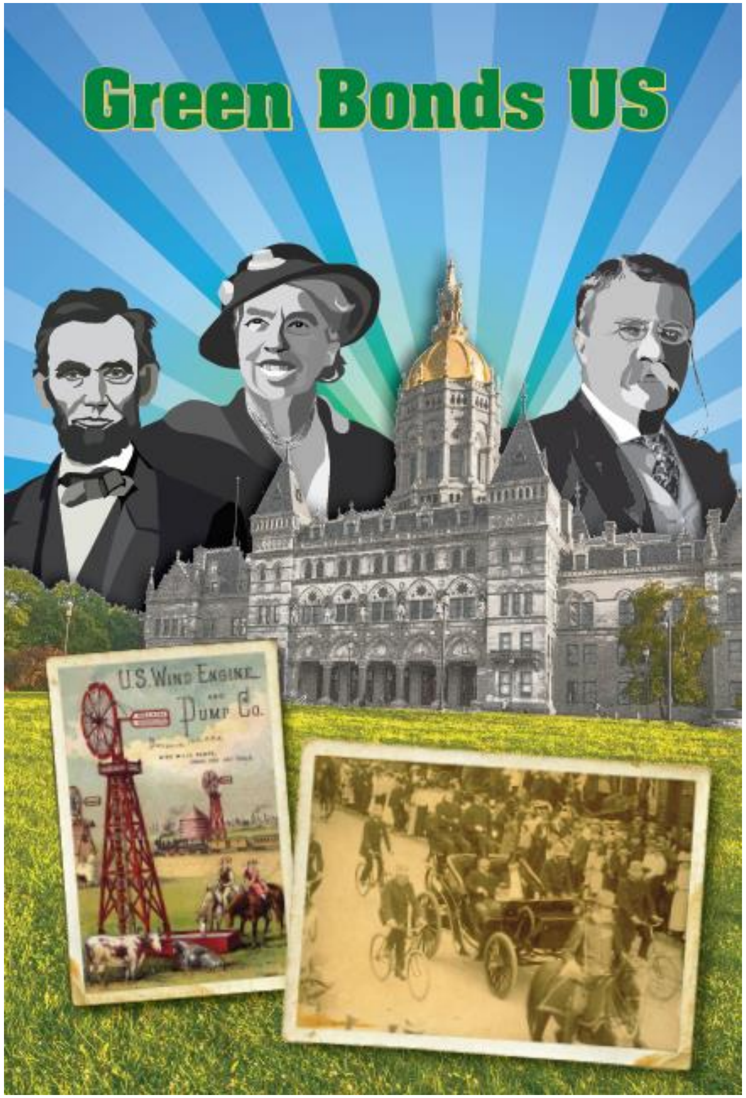
Key Regulatory Filings

- **Community Reinvestment Act** – worked with the Connecticut Department of Banking to file comments in support of (1) state role in determining "qualifying activities," (2) specifying essential energy, environmental and resiliency infrastructure as "qualifying activities," and (3) CT Green Bank investments as "qualifying activities".
- **Connecticut Industrial Energy Consumers** – filed with PURA a response opposing the CIEC motion to suspend CEF and CAM during COVID-19 crisis due to lack of statutory basis, standing, substance (e.g., Green Bank is "Open for Business" – construction workers deploying clean energy are deemed "essential"), and any work stoppage would automatically result in less system benefit funds being collected.
- **Statement of Financial Interest** – please get in your information in by May 1, 2020…if you have any questions, contact Brian Farnen

Other Business (cont'd)

SHREC – Green Liberty Bond Update

- **SHREC – Green Liberty Bond Update**
  - Completed Master Trust Indenture and SHREC Indenture
  - Meeting set with OPM / OTT (April 29th)
  - Completed Independent Engineer's Report
  - Substantially complete Preliminary Official Statement
    - Timeline for State Continuing Disclosure update
      - April 30 – consensus revenue forecast
      - Week of May 4 – updated Disclosure on GO POS
      - May 11/12 – Rating Agency calls on GO credit
      - May 13/14 – Due diligence calls on GO bond sale
  - Ongoing discussions and diligence with S&P to procure rating
  - Marketing of the Bonds: July 1 (est)
  - Pricing of the Bonds: July 7 (est)



Board of Directors

Agenda Item #9

Adjourn

BOARD OF DIRECTORS OF THE
CONNECTICUT GREEN BANK
Regular Meeting Minutes

Wednesday, March 25, 2020
2:00 – 3:30 p.m.

A regular meeting of the Board of Directors of the **Connecticut Green Bank (the "Green Bank")** was held on March 25, 2020.

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

Board Members Present: Bettina Bronisz, Binu Chandry, Thomas Flynn, John Harrity, Michael Li, Matt Ranelli, Lonnie Reed, Kevin Walsh, Brenda Watson

Board Members Absent: Eric Brown

Staff Attending: Emily Basham, Brian Farnen, Louise Della Pesca, Bryan Garcia, Bert Hunter, Jane Murphy, Selya Price, Cheryl Samuels, Eric Shrago, Ariel Schneider, Michael Yu, Nicholas Zuba

Others present: Al Quintero, Patty McGrorry, and Brad Friedman from Ramirez and Co., Bruce Chudwick from Shipman and Goodwin, Eric McKean from Stifel, Bob Lamb from Lamont Financial, Mariana Trief from Monte Verde Consulting..

1. Call to Order

- Lonnie Reed called the meeting to order at 2:00 pm.

2. Public Comments

- No public comments.

3. Consent Agenda

a. Meeting Minutes from January 24, 2020

<u>Resolution #1</u>

Motion to approve the meeting minutes of the Board of Directors for January 24, 2020.

- Bryan Garcia summarized the Harvard grant, USDOE grant and how IPC would be applicable in issuing sub-grants to them.

Upon a motion made by John Harrity and seconded by Binu Chandry, the Board of Directors voted to approve Resolutions 1. Brenda Watson abstained. Motion approved by all other members present by voice vote.

Resolution #2

WHEREAS, Green Bank is a subrecipient to the Clean Energy States Alliance for U.S. Department of Energy Award No. DE-EE0008758, in support of Bringing Low and Moderate Income households (LMI) Solar Financing Models to Scale ("Project"); and

WHEREAS, Green Bank is the recipient of grant funds awarded by the Ash Center of Democratic Government and Innovation at the John F. Kennedy School of Government at Harvard University ("Ash Center") for the Innovations in American Government Award ("IAGA funds"); and

WHEREAS, the Green Bank has applied and received approval from the Ash Center to re-grant a portion of its IAGA funds to the Consultant for initiatives that further the innovation and programs of the Green Bank ("Initiative"); and

WHEREAS, the Initiative and the Project require the expertise of individuals with experience in the Connecticut Green Bank Model and specifically the Green Bank's LMI single-gamily solar homes program; and

WHEREAS, certain tasks to be conducted as part of the Initiative and the Project relate to work that is focused outside of the state of Connecticut that the Green Bank is unable to perform; and

WHEREAS, the staff of the Consultant are intimately familiar with the Green Bank's model and the Green Bank's initiatives in the LMI market segment and have the capacity and authority to work outside of Connecticut.

NOW, therefore be it:

RESOLVED, that the President, Chief Investment Officer and the General Counsel of Green Bank, and any other duly authorized officer of Green Bank, is authorized to execute and deliver on behalf of Green Bank any of the definitive agreements related to the Consultant PSA and any other agreement, contract, legal instrument, or document as he or she shall deem necessary or appropriate and in the interests of Green Bank and the ratepayers in order to carry out the intent and accomplish the purpose of the foregoing resolutions.

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

Upon a motion made by John Harrity and seconded by Binu Chandry, the Board of Directors voted to approve Resolution 2. Bettina Bronisz abstained but none opposed either. Motion approved.

The Agenda was taken out of order. Items 6a, 6b, and 6c were addressed first. Then 5c, then 4a and 4b, then 5a and 5b were addressed last.

4. Other Business

a. COVID-19 Response – Operations and Stakeholder Impacts

- Bryan Garcia summarized the Green Bank's primary concerns pertaining to COVID-19. Staff are on mandatory telecommuting policy and the Green Bank is now looking at cash flows internally. Externally, staff are looking at "3 Cs": customers, contractors, and capital providers, to support communications and give appropriate responses given the circumstances. Some responses may require presentation to the Board for approval, but there haven't been any yet.
- The Green Bank is also now looking at the next fiscal year's planning and is acting as voice of leadership at the State level with regards to public policy. There is a job study underway which is examining the employment effects of COVID-19 in real time. Staff are also looking ahead and trying to anticipate the changes.

b. COVID-19 Market Outlook

- Al Quintero, Patty McGrorry, and Brad Friedman from Ramirez and Co. presented the information.
- Patty summarized financial effects on the global and municipal market, including a timeline of events from March 9 to March 20. They concluded that primary issuance is not viable at this time.
- Al noted that the impact on utilities might not be as severe as other sources, so given these are bonds related to utilities, the Green Bank might not be hit so hard.
- Bert Hunter wanted to make sure the Board has appreciation that the Green Bank staff is looking at this COVID-19 situation holistically for both our investment portfolio and how it's impacting our clients. He summarized the COVID-19 global impact in terms of active COVID-19 cases and economy. The Federal Reserve Bank of St. Louis estimates the loss of economic output to be $1.5 trillion for Quarter 2. However, James Bullard, President of the Federal Reserve Bank of St. Louis has said "This is a planned, organized, partial shut-down of the US Economy," and that this shutdown is unavoidable in order to contain the virus and protect US citizens.
- Bert Hunter summarized the consumer sentiment and confidence in US in response to COVID-19 which is at an understandable but unfortunately low, with trends continuing to decline.
- Bert Hunter concluded by noting that the COVID-19 situation will stress the fiscal situation of all impacted states, including Connecticut, with revenues being impaired and expenditures being increased, in particular for COVID-19 related expenditures for public health, unemployment insurance, small business assistance and other targeted economic support.
- Lonnie Reed asked if there is anything being discussed in terms of the stimulus package that might be directed towards the Energy industry. Bryan Garcia noted that construction and financing sectors are deemed essential, and the Green Bank and its financing partners are included in all that, so on the federal side he aims to connect with people to see how green energy will be impacted. He recently spoke on federal impact and the

need for a Green Bank stimulus via an online Congressional hearing, and thinks America is becoming more open to those ideas, but there is more advocacy that is needed. Brian Farnen also noted ACORE is pursuing for an extension of the federal investment tax credit, so many different angles are being examined. Lonnie Reed asked for an Executive Summary to be made to help the Board as they speak to federal legislators and delegators. Bryan agreed.

There were no Resolutions for items 4a and 4b.

Lonnie Reed requested meeting extension to cover items 5a and 5b. Matt Ranelli and Thomas Flynn had to leave but it did not affect the quorum. Meeting set to end at 4:00 p.m.

5. Investment Recommendations

a. Master Trust Indenture

- Bryan Garcia, Bert Hunter, and Bob Lamb summarized master bond indenture framework.
- Mike Yu further clarified that the credit enhancement provided by the MTI is at the Green Bank's option, that bond holders wouldn't have rights to call on the Master Trust Indenture to flow into their debt service.

b. Financing Indenture – Green Liberty Bonds: Series 2020

- Mike Yu summarized the structure of the SHREC Taxable Municipal Bond issuance. The Green Bank has decided SCRF was most appropriate. The original timeline is being adhered to, despite COVID-19, as closely as possible. The Earth Day launch may be postponed depending on the market, but staff want to be market ready by then. The Green Bank will be monitoring capital markets closely to determine when best to execute.
- Mike explained the SHREC Bond transaction flow and structure. It will be a $16 million to $19 million bond issuance keyed off a DSCR of 1.15x.
- Bettina Bronisz asked why the PAR amount was not downsized instead of setting up a reserve account. Bert Hunter answered that the choice was due to time constraints to enable the underwriter, Ramirez & Co., to optimize the appropriate bond sizes given the various scenarios, but either are possible. He stated it would be more efficient to find the optimal size of the bond, and this was an exercise to show the Green Bank can satisfy the constraint for self-sufficiency for cash flows. Mike Yu then summarized the self-sufficiency findings.
- John Harrity asked if the terms of the retail bonds are known and what the interest will be. Al Quintero answered that they do not know yet as they can't solicit any information from the market until closer to launch. Once it opens, there will be a couple weeks of solicitation to get a clear sense.

<u>Resolution #3</u>

WHEREAS, Connecticut Green Bank ("Green Bank") is authorized pursuant to Sections 16-245 and 16-245kk through 16-245mm of the Connecticut General Statutes (the "Act"), to finance and support financing or other expenditures that promote investment in sources of clean energy, as defined in the Act, by issuing its bonds, notes or other obligations in accordance with the Act; and

WHEREAS, the Act provides that, at the discretion of the Green Bank, any bonds issued under the Act may be secured by a trust agreement by and between Green Bank and a corporate trustee or trustees, and such trust agreement or the resolution providing for the issuance of such bonds may secure bonds by a pledge or assignment of any revenues to be received, any contract or proceeds of any contract, or any other property, revenues, moneys, or funds available to the Green Bank for such purpose; and

WHEREAS, a master trust agreement entered into by Green Bank and a master trustee will allow Green Bank to scale-up investment in and expand deployment of clean energy financing and infrastructure development, lower the cost of capital for such financing and development, deploy funding beyond the current revenue sources available to Green Bank, and provide for citizen engagement as retail purchasers of Green Bank bonds to provide such financing, all to achieve the greater societal benefits of Green Bank's programs (the "Green Bank Financing Goals"); and

WHEREAS, pursuant to Connecticut's Residential Solar Incentive Program ("RSIP"), Green Bank provides incentives to homeowners and third-party system owners ("TPOs") to deploy residential photovoltaic ("PV") systems (each, a "SHREC System"); and

WHEREAS, pursuant to Public Act No. 16-212 ad Public Act No. 15-194, Green Bank acquires a specific type of renewable energy credit called a "solar home renewable energy credit" and the related environmental and energy attributes (collectively, a "SHREC") from the homeowners and TPOs receiving RSIP incentives and producing PV energy, and then sells such SHRECs to each of The Connecticut Light and Power Company d/b/a Eversource Energy ("Eversource") and The United Illuminating Company ("United Illuminating" and together with Eversource, each a "Utility" and together, the "Utilities") pursuant to two 15-year contacts dated as of February 7, 2017 and amended as of July 30, 2018 (each a "Master Purchase Agreement and together the "Master Purchase Agreements"); and

WHEREAS, the SHRECs are divided into tranches based on the calendar year in which the related SHREC System was installed (each, a "SHREC Tranche"), and the revenue received from the Utilities under each Master Purchase Agreement from SHRECs actually produced at the price determined by Green Bank for each SHREC (the "SHREC Receivables") is established for each SHREC Tranche; and

WHEREAS, the SHRECs related to SHREC Systems for which a tranche was created in 2017 are referred to as "SHREC Tranche 1", and the SHRECs related to SHREC Systems for which a tranche was created in 2018 are referred to as "SHREC Tranche 2"; and

WHEREAS, as Green Bank acquires the SHRECs from the homeowners and TPOs and related to SHREC Systems for which a tranche was created in 2019 (the "SHREC Tranche 3") before selling the SHRECs to the Utilities, Green Bank desires to fund its cost recovery under the RSIP by selling bonds secured by the SHREC Receivables related to the SHREC Tranche 3 under the Master Purchase Agreements and other revenues of Green Bank; and

WHEREAS, Green Bank considers it necessary, appropriate and desirable to offer for sale, and to sell its Solar Home Renewable Energy Credit, Green Liberty Bonds, Series 2020, in an aggregate principal amount not to exceed $25,000,000 (the “Bonds”) in a public offering intended to be exempt from registration under the Securities Act of 1933, as amended (the “Securities Act”) by virtue of the exemption from such registration under Section 3(a)(2) of the Securities Act; and

WHEREAS, it is in the best interests of Green Bank to sell the Bonds and enter into an indenture of trust with a trustee that will allow Green Bank to pledge the SHREC Receivables and other revenues related to the SHREC Tranche 3, and if so determined as provided herein, to use the State’s Special Capital Reserve Fund (the “SCRF”), as security for the payment of the Bonds and interest thereon; and

WHEREAS, the Board of Directors of Green Bank (the “Board”) has determined that it is in the best interests of Green Bank to enter into and approve the issuance of the Bonds.

NOW, therefore be it:

RESOLVED, that in order to achieve the Green Bank Financing Goals, Green Bank shall enter into a master trust indenture with The Bank of New York Mellon Trust Company, N.A., as master trustee (the “Master Trust Indenture”) to provide the structure and mechanism for financing Green Bank’s programs, and the pledge or assignment of Green Bank’s revenues as provided wherein is hereby approved; and

RESOLVED, that in order to finance the SHREC Receivables and other revenues related to SHREC Tranche 3 under Green Bank’s RSIP program, Green Bank shall enter in to an indenture of trust with The Bank of New York Mellon Trust Company, N.A., as trustee (the “Indenture of Trust”) to finance said SHREC Receivables, and the pledge or assignment of Green Bank’s revenues as provided therein is hereby approved; and

RESOLVED, that to accomplish the financing of the SHREC Receivables for SHREC Tranche 3 and to fund its cost recovery under the RSIP and provide for long term financing of the SHRECs, the issuance of the Bonds by Green Bank is hereby authorized and approved. The Bonds shall be in an aggregate principal amount not to exceed $25,000,000 and the redemption provisions, if any, sinking fund installment payments, if any, interest rates, maturity dates (not to exceed twenty years from the date of the Bonds) and other terms of the Bonds shall be determined and/or approved by an Authorized Representative (as hereinafter defined) within such limitations permitted herein and by the Act, and the execution of the Purchase Contract (as defined herein) reflecting such terms by an Authorized Representative shall constitute conclusive evidence of such determination; and

RESOLVED, that the Bonds shall be special obligations of Green Bank, payable solely by a pledge or assignment of any revenues to be received, any contract or proceeds of any contract, or any other property, revenues, moneys or funds available to Green Bank for such purpose as described in the Indenture of Trust. Neither the State of Connecticut nor any political subdivision thereof shall be obligated to pay the principal of or the interest on the Bonds except from revenues of SHREC Receivables and other revenues pledged therefor under the Indenture of Trust. Neither the full faith and credit nor the taxing power of the State of Connecticut or any political subdivision thereof, including the Green Bank, is pledged to the payment of the principal of or interest on the Bonds; and

RESOLVED, that the Findings of Self Sufficiency Report (the “Report”) presented to the Board at this meeting, including each of the Findings and the Determination herein, is hereby approved and adopted, and an Authorized Representative (as defined herein) is (a) authorized to make revisions to the Report, provided such revisions do not materially change the Findings and Determination contained therein, and such Report as revised shall be and is hereby deemed approved by the Board, and (b) authorized to take appropriate actions to secure the SCRF for the Bonds when and if he or she determines, in his or her discretion, that it is in the best interests of Green Bank to secure the SCRF in connection with the issuance of the Bonds, and provided Green Bank complies with all statutory requirements for the SCRF, which will require among other things (1) State of Connecticut Office of Policy and Management approval, and (2) approval by the Office of the State Treasurer and other documentation required under the Act; and

RESOLVED, that the interest on the Bonds shall be includable in the gross income of the holders thereof for federal income tax purposes under the Internal Revenue Code of 1986, as amended, it being hereby found and determined by Green Bank that such issuance is necessary, is in the public interest, and is in furtherance of the purposes and powers of Green Bank; and

RESOLVED, that the Master Trust Indenture and the Indenture of Trust, substantially in the forms presented to this meeting, are hereby approved; provided, that if an Authorized Representative determines, as provided herein, that it is not in the best interests of Green Bank to secure the SCRF in connection with the issuance of the Bonds, the Master Trust Indenture and the Indenture of Trust may be revised to reflect any changes to the form, terms and provisions thereof, as determined by an Authorized Representative; and

RESOLVED, that the Bonds shall be sold to the Ramirez & Co., for itself and as representative for Stifel & Co., as the initial purchaser (the “Initial Purchaser”), under the terms and conditions of a bond purchase contract (the “Purchase Contract”) and subject to certain continuing disclosure requirements as provided in a continuing disclosure agreement (the “Continuing Disclosure Agreement”) entered into by Green Bank in connection with the issuance of the Bonds; and

RESOLVED, that the form, terms and provisions of the Preliminary Official Statement for the Bonds dated on or about April 9, 2020 as presented to the Board at this meeting be, and they hereby are, approved; provided, that if an Authorized Representative determines, as provided herein, that it is not in the best interests of Green Bank to secure the SCRF in connection with the issuance of the Bonds, the Preliminary Official Statement may be revised to reflect any changes to the form, terms and provisions thereof, as determined by an Authorized Representative; and further

RESOLVED, that in connection with the Bonds, the President and any Officer of Green Bank (each, an “Authorized Representative”) be, and each of them acting individually hereby is, authorized and directed in the name and on behalf of Green Bank, to prepare and deliver, or cause to be prepared and delivered, a final Official Statement relating to the Bonds, including any revisions thereof and amendments and supplements thereto, to execute and deliver the Bonds, the Master Trust Indenture, the Indenture of Trust, the Purchase Contract, the Continuing Disclosure Agreement, and any other documents or instruments, with such changes, insertions and omissions as may be approved by an Authorized Representative, as he or she deems advisable for the purpose of issuing the Bonds (collectively, the “Financing Documents”) and the execution and delivery of said Financing Documents shall be conclusive evidence of any approval required by this Resolution; and

RESOLVED, that to the extent that any act, action, filing, undertaking, execution or delivery authorized or contemplated by this Resolution has been previously accomplished, all of the same are hereby ratified, confirmed, accepted, approved and adopted by the Board as if such actions had been presented to the Board for its approval before any such action's being taken, agreement being executed and delivered, or filing being effected.

Upon a motion made by Binu Chandry and seconded by John Harrity, the Board of Directors voted to approve Resolution 3. Bettina Bronisz abstained but none opposed. Motion approved.

c. Green Bond Framework

- Eric Shrago summarized the Green Bond framework which was presented to and recommended by the Audit, Compliance, and Governance Committee. He noted the Green Bank's track record for transparency and establishment of a best in class evaluation regime. Eric walked through the hierarchy of standards for certification proposed and the efficiency gains of establishing a programmatic certification.
- Bettina Bronisz asked why the Green Bank was choosing the Climate Bond Route instead of Green Bond Route for certification. Eric answered that based on the technology that is associated with projects, the Climate Bond standard seemed the more mission-aligned choice due to its focus on carbon savings goals. Some of the Green Bank's projects might not meet those standards based on available metering information, or if the Climate Bonds Initiative has established standards, so those projects would then fall back on the Green Bank's own standard.
- Bettina Bronisz asked what the cost of this framework is. Eric answered that once framework in place, the Green Bank will be working w Kestrel and for the initial certification which will cost less than an individual verification for each. The programmatic framework allows the Green Bank to pay once then Kestrel does an annual review, and it covers all issuances. Bettina agreed that it sounded like a much more efficient structure.

Resolution #4

WHEREAS, The Connecticut Green Bank seeks to provide transparency to the general public and set the standard in impact assessment;

WHEREAS, The Connecticut Green Bank intends to issue bonds with greater frequency and wishes to do so more efficiently; and

WHEREAS, the Audit, Compliance and Governance Committee reviewed on March 11, 2020 and recommends the Green Bond Framework to the Board of Directors for approval.

RESOLVED, that the Board of Directors approves the proposed Green Bond Framework.

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

6. Financing Programs Recommendations and Updates

a. Skyview Ventures

- Louise Della Pesca summarized an overview of Skyview Ventures and the transaction, including that it was presented to and recommended by the Deployment Committee. The goal is to refinance Skyview Venture's development capital to allow them to continue to develop more commercial solar assets.
- The structure is that CEFIA Holdings would be setting up an SPV term loan, which would be used in the long run repay CEFIA Holdings based on its structure.
- The collateral snapshot of the loan would be for 20 projects, a portfolio consisting of 1,503kW in capacity, with a weighted remaining PPA term of 18 years but the debt facility would be for 15 years. This would allow the Green Bank to not be in a position where any debt is outstanding beyond the life of the PPA contracts.
- Ms. Della Pesca explained that while there is an operational risk, the Green Bank staff reviewed the projects thoroughly and many have been in operation for 3 or more years, so the data shows they are successful projects. They perform at 95% to 105% expected production yearly. Production would have to drop 20% below expectation to break even, so the Green Bank is very comfortable with this portfolio.
- As for the risk of Skyview Ventures failing to make debt repayments, the DSCR is 1.30x so there is a healthy buffer with an advance rate of 70%. Also, staff is requiring 3 months interest and principal payments to be maintained in a reserve. If the worst happened, the Green Bank would take ownership of the collateral, but in staff's experience this seems unlikely to happen.
- Tom Flynn asked since last few days, given COVID-19 and the global market, will there be any risk or impact to this project? Tom Flynn said many of his clients are hesitant due to the uncertainty of the world. Ms. Della Pesca said the Green Bank did check in with Skyview Ventures when COVID-19 policies began, and they have an active pipeline to develop and continue to do business. Tom Flynn asked what happens if they give pause. Ms. Della Pesca clarified for this specific transaction, it is secured by existing and operational projects, so that shouldn't have an impact. Tom Flynn asked if the Green Bank gets paid by the existing facilities should the worst happen. Ms. Della Pesca answered yes. Bert Hunter reassured the Board that the Green Bank, as Ms. Della Pesca noted, also did extensive diligence on these projects as if they were being taken into the Green Bank's own portfolio directly and that they are stable.
- Kevin Walsh stated he is supportive of the project but noted that one of the transaction points mentioned is that the loan term is not longer than the life of the PPAs. He went on to explain that typically loan terms are shorter than the life of the underlying PPAs to provide a buffer for problems that might occur. Also, he asked if the projects are being financed as a portfolio or individually. Ms. Della Pesca clarified that the loan term is 15 years and the life remaining on the PPAs is about 18 years, which is a good buffer. The intent is to advance funds all at once, but they are secured by all of the assets they are advanced against. Kevin Walsh expressed his appreciation for the clarification and had no additional questions.

<u>Resolution #5</u>

WHEREAS, the Connecticut Green Bank ("Green Bank") has significant experience in the development and financing of commercial solar PPA projects in Connecticut;

WHEREAS, the Green Bank continually seeks new ways to work with private sector partners to meet the demonstrated need for flexible capital to continue expanding access to financing for commercial-scale customers looking to access solar and savings via a PPA;

WHEREAS, the Green Bank has established a working relationship with a private sector Connecticut solar developer, Skyview Ventures ("Skyview"), and through that relationship the Green Bank has an opportunity to deploy capital for the development of clean energy in Connecticut;

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

WHEREAS, based on diligence of Green Bank staff of the proposed senior secured loan facility ("Term Loan") in an amount not to exceed $2.3M to a Special Purpose Vehicle ("SPV") wholly owned by Skyview confirming that the Term Loan transaction meets Green Bank underwriting criteria, the Green Bank Deployment Committee (the "Deployment Committee") passed resolutions at its meeting held on February 27, 2020 to recommend to the Green Bank Board of Directors (the "Board") the approval of the Term Loan transaction as a Strategic Selection and Award pursuant to the Green Bank Operating Procedures Section XII.

NOW, therefore be it:

RESOLVED, that the Board hereby approves the Term Loan transaction as described in the Project Qualification Memo submitted by the staff to the Board and dated March 18, 2020 (the "Memorandum") and on terms and conditions substantially consistent with those described in the Memorandum as a Strategic Selection and Award pursuant to the Green Bank Operating Procedures Section XII given the special capabilities, uniqueness, strategic importance, urgency and timeliness, and multi-phase characteristics of the Term Loan transaction; and

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

Upon a motion made by Bettina Bronisz and seconded by John Harrity, the Board of Directors voted to approve Resolution 5. Brenda Watson and Matt Ranelli abstained but none opposed. Motion approved.

b. Expansion of Green Bank Solar PPA Program

- Louise summarized CGB's commercial solar assets, whether they are owned or developed then sold.
- Ms. Della Pesca summarized opportunity to expand the commercial solar investment program to include debt facilities secured by CT commercial solar PPA assets that have been developed by third parties. This expansion represents a way to bring capital and further scale to the development of commercial solar projects in CT. This is a good market role for the Green Bank, she explained, because smaller scale projects in need of refinancing may not attract private financiers where CGB is well positioned to do so through its diligence process and understanding of the market. At the same time, this situation offers the Green Bank a chance to do more secured-debt transactions against

we would could raise capital once we aggregate them together. Also, she noted, there is a bit of urgency due to federal tax investment credit being on a declining path. The Skyview transaction which the Board just approved gives the Green Bank a precedential process to help build the framework for project criteria. This type of program was discussed by the board at least 2 times, most recently in July 2019, and this is an extension and expansion of that to do repeat transactions.

Resolution #6

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

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

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

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

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

NOW, therefore be it:

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

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

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

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

Upon a motion made by John Harrity and seconded by Bettina Bronisz, the Board of Directors voted to approve Resolution 6. Brenda Watson and Matt Ranelli abstained but none opposed. Motion approved.

c. PosiGen

- Bert Hunter summarized PosiGen as the Green Bank's strategic partner. The Board last visited the PosiGen relationship in December 2019 when the structure for back leverage facility changed to Ares Capital and New Island Capital. Bert Hunter summarized the backleverage Financing Facility which is collateralized by a solar lease and energy efficiency financing agreement cash flows, which intentionally excluded PBI cash flows.
- Bert Hunter then summarized the restructuring of the PosiGen Backleverage Facility. The Green Bank sub-debt is to be taken out by a new lending party at the same time the corporate capital raise is implemented. New Island Capital, the senior lender on the REA portfolio (to which Green Bank is subordinated) is seeking to exit the REA backleverage facility and apply that same money into the corporate capital raise The Green Bank has offered in return for getting out of the sub-debt position on both back leverage facilities to be the sole financier of the REA backleverage facility which would affor the Green Bank its own discreet control of those cash flows. Finally, Inclusive Prosperity Capital ("IPC") has requested permission to withdraw from the PBI facility participation in order to free up capital for other transactions it anticipates closing over the next few months. Such permission would entitle the Green Bank to remove IPC as the senior lender of PBI debt, if the refinancing goes forward. IPC would like to redeploy their funds into other projects, and the Green Bank would be happy to do this for IPC if given approval by the Board.
- Bert Hunter explained the Backleverage facility and PBI facility structure changes, which includes a reduction in size overall from $19 million to $16.7 million. While it would increase Green Bank exposure in the PBI facility, this exposure amortizes over a 6-year period. Because the Green Bank is moving into a senior position, the rate would also decrease from 7.5% to 6.25%.
- Bettina Bronisz asked for clarification that IPC's portion is being removed and why. Bert Hunter answered that IPC has limited free capital and this investment in the PosiGen transaction is a portion of that, approximately $6 million total. They have other projects that they want to put that money towards. Bert Hunter expanded on the nature of those projects.
- Matt Ranelli asked whether the new funding is secured by PBI payments which originate from the Green Bank. Bert Hunter answered yes, the Green Bank would basically pay itself back over time. As the projects are generating energy, the Green Bank pays incentives based on their output which has been verified by independent engineers as part of the SHREC issuance process.
    - Matt asked if regardless of the 3,000 homes' repayment status, if the PBI payment will still be due to PosiGen. Bert Hunter said that is correct. So long as

the refinancing goes ahead, even given the market turmoil, PosiGen has good confidence this is all going to come together. With the additional capital, PosiGen are confident they will be able to continue to do good business and grow.

- Bettina Bronisz asked how PosiGen is fairing through the changes due to COVID-19. Bert Hunter stated very well. They have been closing transactions even this week at a good pace. They have a pipeline of transactions in the mid-400s currently and they will continue to close through March. Bettina Bronisz stated she is just concerned of what they have in the pipeline, as homeowners get laid off, etc. Bert Hunter answered that it's for sure a short-term concern, but the refinancers are fully aware of the situation. But due to that they are willing to help PosiGen get through any slow periods. In terms of actual transactions, on the PBI side the Green Bank is looking at payments related to generation from the Green Bank itself, and so the only exposed portion is the backleverage side, which this resolution aims to dramatically reduce.

Resolution #7

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

WHEREAS, the Green Bank Board of Directors ("Board) previously authorized and later amended the Green Bank's participation in a credit facility (the "BL Facility") encompassing all of PosiGen's solar PV system and energy efficiency leases in the United States as part of the company's strategic growth plan, in an amount not to exceed $14 million;

WHEREAS, the Board previously authorized and later amended the Green Bank's ability to lend additional funds to PosiGen under the separate PBI-only facility (the "PBI Facility") in addition to the BL Facility, provided that Inclusive Prosperity Capital ("IPC") would participate in said PBI Facility and Green Bank capital outstanding under the PBI facility (net of IPC's participation) would not exceed $5 million total;

WHEREAS, PosiGen intends to refinance the existing BL Facility by replacing mezzanine capital sourced from the Green Bank with capital sourced from another capital provider, and plans to attract equity investors including New Island Capital ("New Island") (collectively, the mezzanine refinancing and the preferred financing referred to as the "PosiGen Refinancing") as explained in the memorandum to the Board dated March 23, 2020 (the Board Memo");

WHEREAS, in order to participate in the PosiGen Refinancing, New Island seeks to liquidate its senior loan to PosiGen secured by the REA portfolio and the Green Bank staff has recommended that the Green Bank redeploy a portion of the capital returned to the Green Bank by way of the PosiGen Refinancing into the senior lending position against the REA portfolio held by New Island;

WHEREAS, in order to make efficient use of performance based incentive collateral (the "PBI Collateral") and to redeploy a portion of the capital returned to the Green Bank by way of the PosiGen Refinancing, staff recommends (a) increasing the PBI Facility supported by the PBI Collateral to permit additional advances by Green Bank that can be supported by the PBI Collateral and (b), if requested (on one or more occasions) by IPC within ninety (90) days of these resolutions and provided the PosiGen Refinancing takes place in its entirety as explained in the Board Memo, the Green Bank may fund additional investment against the PBI Collateral in order to reduce IPC's participation, as it may request, to zero.

NOW, therefore be it:

RESOLVED, that the Board approves of the PosiGen Refinancing provided that Green Bank capital outstanding under the BL Facility does not exceed $6.8 million;

RESOLVED, that the Green Bank Board authorizes the Green Bank to lend additional funds to PosiGen under the PBI Facility provided that Green Bank capital outstanding under the PBI Facility does not exceed $10 million;

RESOLVED, that the Green Bank Board authorizes the Green Bank to consent to an increase in the advance rate by Ares Capital against the back leverage portfolio as explained in the Board Memo;

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

Upon a motion made by Matt Ranelli and seconded by Binu Chandry, the Board of Directors voted to approve Resolution 7. None abstained or opposed. Motion approved unanimously. (Note: Due to a technical issue with the conference call system, questions from Kevin Walsh concerning the propose transaction were addressed by Bert Hunter after the meeting. Kevin Walsh confirmed to the Chair he is a yes vote for the resolutions provided appropriate cash sweep mechanisms are put in place for the PBI Facility loan given it has only 1.05x coverage which, he observes, is quite low for senior debt.)

7. Adjourn

Upon a motion made by John Harrity and seconded by Bettina Bronisz, the Board of Directors Meeting adjourned at 3:58 pm.

Respectfully submitted,

____

Lonnie Reed, Chairperson

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CONNECTICUT GREEN BANK

Memo

To: Connecticut Green Bank Board of Directors

From: Eric Shrago, Managing Director of Operations

CC: Bryan Garcia, President and CEO

Date: April 24, 2020

Re: Fiscal Year 2020 Progress to Targets through Q3

The following memo outlines Connecticut Green Bank (CGB) progress to targets for Fiscal Year (FY) 2020 as of March 31, 2020[1].

Infrastructure Sector

Table 1. Infrastructure Sector FY 2020 Progress to Targets

	Projects			Capital Deployed			Capacity (MW)		
Product/Program	**Closed**	**Target**	**% to Target**	**Closed**	**Target**	**% to Target**	**Closed**	**Target**	**% to Target**
RSIP	6,402	7,059	91%	$189,921,666	$214,200,000	89%	53.3	60.0	89%
Infrastructure Total	**6,402**	**7,059**	**91%**	**$189,921,666**	**$214,200,000**	**89%**	**53.3**	**60.0**	**89%**

- RSIP had approved incentives for approximately 319 MW or 91% of its statutory goal of 350 MW of deployed residential solar PV by the end of Q3 of FY20. The program reached higher volumes in the last four quarters than in any other quarters since the beginning of the program, including the first two quarters of FY20 being the highest volume at over 18 MW each, and Q3 volume of almost 16 MW, the highest Q3 in the history of the program. As a result, the program had reached 91% of the FY20 target by volume and 89% of the target by capital deployed and capacity by the end of Q3, ahead of schedule in achieving the 60 MW target.
- Reasons for the high volume in FY20 through Q3 included contractors rushing to secure the 30% Investment Tax Credit before the stepdown January 1, 2020 and the anticipated end of the RSIP, previously estimated for Q1 FY21 but now likely to be delayed into Q2 or Q3 of FY21 due to the COVID-19 pandemic.
- Because of COVID-19 and associated stay at home orders and social distancing, the residential solar industry started to experience slow-downs in March 2020. Because of the high volume already achieved, RSIP could still reach its FY20 target if solar contractors are able to operate at even partial capacity for the remainder of FY20. Thus far, COVID-19 impacts to the residential solar industry have included: a switch to remote

[1] Power BI data source: https://app.powerbi.com/groups/289235dd-d77d-4043-8dae-d232a51a116a/reports/b24ec66b-a2c1-49f0-9a62-3f7443077b3f/ReportSection13c15e79a907a30b650e

sales, some companies shutting down temporarily and some laying off staff, closures or reduced operations and delays with municipal permitting and inspection, installation delays in particular with indoor aspects such as electrical work, and slower interconnection approvals. The Green Bank will continue to monitor these impacts, which are predicted to reduce solar industry deployment and jobs nationwide by 34% and 50%, respectively, this calendar year.

- While the Green Bank was approved by PURA as a partner under the Electric Efficiency Partners (EEP) Program, the proposed EEP program for battery storage was not approved. The Green Bank expects to submit an application for a residential battery storage incentive program to the PURA RFP under Docket No. 17-12-03 (RE03) – Electric Storage in FY 2021.

Residential Sector

Table 2. Residential Sector FY 2020 Progress to Targets

	Projects			Capital Deployed			Capacity (MW)		
oduct/Program	**Closed**	**Target**	**% to Target**	**Closed**	**Target**	**% to Target**	**Closed**	**Target**	**% to Target**
art-E[2]	608	540	113%	$8,315,902	$7,182,000	116%	0.8	0.5	[illegible]
w Income Loans/Leases	466	615	76%	$11,830,385	$17,202,165	69%	2.9	4.2	[illegible]
lti-Family H&S	0	2	0%	0	$110,000	0%	0	0	[illegible]
lti-Family Pre-Dev.	4	2	200%	$998,036	$140,000	713%	0	0	[illegible]
lti-Family Term[3]	12	9	133%	$7,202,629	$1,493,000	482%	1.7	0.3	553%
sidential Total	**1,090**	**1,168**	**93%**	**$28,346,952**	**$26,127,165**	**108%**	**5.4**	**5.0**	[illegible]

- Smart-E exceeded its FY20 target in Q3, finishing the quarter with 608 of 540 expected closed loans, equaling $8.3M of private capital deployed across 9 lenders. Most loans continued to be for HVAC upgrades, with a smaller number of home performance (windows and insulation) and solar projects.
  - Due to impacts of COVID-19, the program delayed its plans to launch a 2.99% reduced interest rate special offer for battery storage, EV chargers and heat pumps.
  - Program staff communicated to contractors that Smart-E remains open for business during COVID-19 and worked with lenders to begin tracking 90-day deferral / forbearance requests, confirming that those accommodations would not negatively impact the lenders' loan loss reserve accounts. March volume is down ~35% year over year.
- PosiGen is presently 76% of the way to the FY20 target on leases, 69% on capital deployed, making up for last quarter's lag. Delay in energy efficiency installs for two months due to cash flow issues impacted timelines. Mid-quarter revisions in the sales compensation structure to increase allowances and focus on LMI sales helped reinvigorate sales efforts.
  - All four scheduled spring Solar for All campaigns are postponed indefinitely due to COVID-19, which has also impacted numerous points in the project development timeline (catching up on energy efficiency installs, scheduling

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[2] Preliminary Results
[3] Adjusted to include only Energy Capital Deployed.

municipal and utility inspections, etc.), but a transition to remote sales was successfully completed and resulted in an increase in sales. PosiGen has experienced sales appointment cancellations and are concerned about economics impacts of the pandemic on their customer base, anticipating stimulus relief going to mortgages.

- Staff communicated with partners administering the CT Solar Loan and CT Solar Lease regarding allowing for 90-day deferrals for hardship upon request by customer and monitors weekly activity.
- Multifamily Predevelopment loans have exceeded the fiscal year targets for number of loans and capital deployed.
  - An expanded predevelopment loan for Seabury Cooperative that has been in the works for years finally closed this year in addition to energy analysis and design loans for senior living and low-income projects in Hamden and Meriden, respectively.
  - In line with limited state funding for affordable housing, new pre-development loan requests have been sparse thus far this fiscal year (with none currently submitted for consideration).
- Multifamily Term Lending has exceeded the fiscal year targets for number of loans, capital deployed, and capacity.
  - The Green Bank recapitalized the LIME loan facility for Capital for Change for $3 million allowing the program to continue lending.
  - The Green Bank continues to see a steady stream of interest in permanent financing for energy improvement projects across its product offerings. However, the onset of the COVID-19 outbreak has interrupted the immediate advancement of many projects and Capital for Change has already received requests for deferrals under the LIME Loan program. Staff is monitoring impacts across the portfolio.

Table 3. Smart-E Channels

Smart-E Loan Channels	Closed	% of Loans
Health and Safety	1	0%
Home Performance	48	8%
HVAC	410	67%
Solar	81	13%
[blank]	68	11%
Total	**608**	**100%**

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Table 4. Multi-Family Units

MFH # of Units	Closed
Affordable	963
Market Rate	114
Total	**1,077**

Commercial, Industrial, & Institutional Sector

Table 5. Commercial, Industrial and Institutional Sector FY 2020 Progress to Targets

	Projects			Capital Deployed			Capacity (MW)		
Product/Program	**Closed**	**Target**	**% to Target**	**Closed**	**Target**	**% to Target**	**Closed**	**Target**	**% to Target**
Commercial Lease	2	19	11%	$611,456	$23,625,000	3%	0.2	10.7	2%
CPACE	35	41	85%	$17,034,361	$23,625,000	72%	5.2	10.7	49%
CPACE backed Commercial Lease	3	15	20%	$1,363,766	$4,500,000	30%	0.4	2.0	21%
SBEA	471	1,000	47%	$8,402,867	$20,000,000	42%	0.0	0.0	0%
CI&I Total	**511**	**1,075**	**48%**	**$27,412,450**	**$71,750,000**	**38%**	**5.9**	**23.4**	**25%**

- CPACE continued its progress to meet its fiscal year goals. But due to expected seasonal decline in activity that typically occurs during this point in the fiscal year, new project closures were lower in this quarter. In addition, anticipated project closures and progress in the development of projects in our pipeline have slowed due to property owner decisions to put their projects on hold due to COVID-19. Their decisions to postpone their projects are caused by business or organizational closures mandated by state guidelines, or a decline in revenue-generating activities.
- The Green Bank Solar PPA is behind targets due to timing on state solar projects. These have been in development during the first half of the year and are expected to close in the second half of the fiscal year.
- SBEA is on target for the year having had two loan purchases this fiscal year.

CGB Total

Table 6. CGB FY 2020 Progress to Targets

	Projects			Capital Deployed			Capacity (MW)		
Sector	**Closed**	**Target**	**% to Target**	**Closed**	**Target**	**% to Target**	**Closed**	**Target**	**% to Target**
Infrastructure	6,402	7,059	91%	$189,921,666	$214,200,000	89%	53.3	60.0	89%
Residential	1,090	1,168	93%	$28,346,952	$26,127,165	108%	5.4	5.0	
CI&I	511	1,075	48%	$27,412,450	$71,750,000	38%	5.9	23.4	
Strategic Investments	-	2	-	-	$7,500,000	-	-	-	
CGB Total[4]	**7,337**	**8,630**	**80%**	**$223,9747,440**	**$294,075,000**	**75%**	**59.0**	**74.3**	

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[4] CGB Totals have been adjusted to avoid double counting RSIP projects using residential financing products and commercial solar lease projects using CPACE.

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InclusiveProsperityCapital.org

INCLUSIVE
PROSPERITY CAPITAL

Memo

To: Bryan Garcia and Eric Shrago, Connecticut Green Bank

From: Inclusive Prosperity Capital Staff

Date: February 4, 2020

Re: IPC Quarterly Reporting – Q2 FY20 (October 1, 2019 – December 31, 2019)

Progress to targets for Fiscal Year 2020, as of 12/31/2019

Product	Number of Projects	Projects Target	% to goal	Total Financed Amount	Financed Target	% to goal	MW Installed	MW Target	% to goal
Smart-E Loan	459	540	85.0%	$6,644,353	$7,182,000	92.5%	0.6	0.5	120%
Multifamily Pre-Development	4	2	200%	$9,980,036	$140,000	713%	n/a	n/a	n/a
Multifamily Term	7	9	78%	$5,490,892[1]	$2,500,000	82%	1.34	0.1	447%
Solar PPA	2	19	11%	$611,455	$23,625,000	3%	0.2	10.7	1%
Low income single family (PosiGen)	234	615	38.0%	$6,288,439	$17,202,165	36.6%	1.6	4.2	38%

(report continues on next page)

[1] This figure represents energy financing only and excludes the $13.3M in CT Solar Lease financing.

PSA 5410 – Smart-E Loan

- Volume
    - Volume is on track to exceed targets. Closed loans broken out as 61% HVAC, 15% solar, 8% home performance and 16% other.
        - Note: this "other" figure is likely a data error due to the Smart-E platform transition that took place mid-Q1 and will be corrected for the next quarterly report.
        - Solar volume was largely attributed to 1) a contractor who self-funded interest rate buydowns with Capital for Change and 2) the January 1, 2020 decrease of the federal ITC.
- Program Updates
    - Health & Safety
        - IPC program staff worked with CGB marketing staff on a press release focused on single- and multifamily financing opportunities to address health and safety issues.
        - In Q1, one Smart-E Loan closed related to asbestos removal. The project met the required "nexus to energy" because the homeowner was also installing new heating units financed through the CT Heat Loan.
        - Program staff presented to the Energize CT Home Energy Solutions ("HES") Principals' meeting in December on Smart-E and provided an overview on the health and safety measures.
            - One HES contractor raised a concern about knob-and-tube removal not being re-classified as a standalone measure, saying that it was also a barrier for insulation projects. Program staff recommended that the contractor provide additional information on the request.
    - Contractor Conference
        - IPC staff supported CGB's Contractor Conference including design, development, outreach and panels.
    - 2.99% IRB Special Promotion
        - IPC staff worked with CGB to develop a $1M IRB promotion for certain technologies that support the state's climate change mitigation wedges, to be launched in March 2020.

PSA 5411 – Multifamily

- Mid-way through the fiscal year, the Multifamily team has achieved its aggregate project count and deployment targets. Through the end of December 2019, the program team had closed 4 pre-development loans, exceeding the annual FY'20 target of 2 loans. Seven (7) term loans closed using CGB or other funding against an annual FY'20 target of 9 loans. Of note:
    - Seabury Coop, a project we have been working on for about 5 years to help stabilize and preserve as affordable housing, received 2 pre-development and 2 term loans during Q1. These loans included funding from CGB, HDF/MacArthur Foundation, Capital for Change, and the Urban Homesteading Assistance Board (UHAB).

    - Financing for the fuel cell at Cherry Street Lofts in Bridgeport closed in Q2 with funding from Capital for Change and Amalgamated bank. This was made possible by several years of technical assistance from the CGB finance and program teams who developed the financial structure and completed significant technical and financial diligence necessary to advance this project to closing.
- Although the bench of multifamily projects in the pipeline is not as strong as previous years, the program continues to receive interest in its permanent financing such that the team anticipates an additional 3-4 projects to close this fiscal year. Uncertainty and cuts to the state housing budget continues to be a barrier in advancing such opportunities for high performance energy financing.
- Given the weak bench of projects and the reality that it often takes several years for loans to close, the multifamily team has been working to build pipeline on multiple fronts:
    - With Capital for Change (C4C), preparing for launch of the expanded LIME loan program that now serves all multifamily properties. LIME will no longer be limited to properties that serve low- and moderate-income residents. We anticipate a need for LIME loans among market rate properties because utility incentives are lower for market rate properties than they are for properties serving low- and moderate-income residents and therefore have a larger funding gap between incentives provided and total project costs.
    - Partnering with CHFA and DOH to analyze and reach properties in the State Sponsored Housing Portfolio (SSHP) that need, but have not received, state funding for capital improvements, and may benefit from CGB programs.
    - Continued technical assistance to and market development of the coop sector in partnership with UHAB.
    - Consistently getting the word out using newsletters, press-releases, webinars, trainings – with promotional support from partners/ collaborators including: AHA, C4C, HDF, CT Department of Housing, CHFA, HUD, CONN-NAHRO, CT Apartment Association, Office of the Chief State's Attorney and CT Association of Housing Code Enforcement Officials (CAHCEO), CTGBC, CT Passive House Assn, NESEA, and others.
    - Continued support of the Multifamily Peer-to-Peer network, in partnership with AHA, to build market awareness, capacity and demand for future projects.
- Members of the multifamily team from IPC and CGB continue to sit on partner boards including C4C, Housing Development Fund (HDF), and the Affordable Housing Alliance (AHA). These leadership activities enable us to ensure program success and help mainstream energy, health and safety, and resiliency priorities into state housing policy and programs.
- Product development continues on quarterly M&V performance reports being piloted on the LIME loan portfolio and using the WegoWise platform. Development of a cost-effective QA/QC process as well as more customer friendly and transparent processes and materials also continues.
- IPC staff continues to work with CGB to provide guidance on separately reporting total energy project costs and financing costs (this is in addition to total project costs and financing currently reported by PowerBI).

PSA 5412 – Solar PPA

- IPC staff developed the Sourcing and Servicing Agreement and Definitive PPA Documentation with CGB (e.g., PPA, EPC agreements).
- Worked to source tax equity solutions for the Q2 FY20 solar pipeline
- Responded to PPA pricing requests received by CGB staff
- Developed an outreach plan with CGB staff for CT solar developers
- Worked with CGB staff to migrate onto IPC's Salesforce platform
    - Target launch of February 2020, including for developers working via a Salesforce Communities portal

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

PosiGen Solar for All Program Management

- The PosiGen Solar for All partnership fell behind progress to targets in the second quarter with only 40 closed projects which is significantly off from the 150 projected. PosiGen continues to struggle with funding and operational issues which led to this lag in projects.
- IPC and CGB staff are looking to launch new Solar For All Campaigns after wrapping up the Middletown campaign. Waterbury, Bristol, Mansfield/Windham, West Haven and Norwalk are also potential locations for future campaigns.
- The Solar for All program continued to struggle in reaching LMI market segment in Q2 but saw an increase in customers verified as low income since last quarter, up to 62.5% from 50.

Green and Healthy Homes Project

- The CT-specific Medicaid ROI analysis for the Green and Healthy Homes project has been approved by the Department of Social Services (DSS) and Department of Public Health for the Trips and Falls and Asthma data.
- The project was not selected for the Robert Wood Johnson Foundation grant, and additional funding remained an issue in Q2.

Investment Management

IPC staff supported Green Bank staff on the following financings:

- PosiGen:
    - Ongoing portfolio monitoring, payment verification and processing, and diligence/analysis on a refinancing with a 3rd party capital source on Green Bank collateral which will result in additional 3rd party capital being driven into PosiGen investment structures (expected to close the first calendar quarter of 2020).
    - IPC continues to monitor, administer, and support the Green Bank's investment position in PosiGen through IPC's non-controlling participation in the Green Bank financing facility.

- Residential SL2:
    - An IPC staff member provided input into the hiring of a fulltime CGB employee to take over IPC's management of administrative SL2 tasks.
    - The new CGB FTE started in November 2019 and IPC staff began transitioning tasks to her, with a plan to provide ongoing oversight at a decreasing scale through Q3.
        - Of note, the new CGB FTE shows tremendous potential to succeed in this position. She came to CGB with customer experience from both Eversource and a local HVAC company (a Smart-E contractor!), but with no previous solar experience; however, she seems very eager to learn and support the SL2 team.
    - IPC Staff continued to manage all aspects of the residential CT Solar Lease portfolio, under the guidance of CGB's Accounting, Finance, Legal and Incentives teams.
        - Ongoing management includes: management of program partnerships with Assurant (warranty management), Renew Financial (servicing) and co-management of monitoring and technical support partners, Locus-SunSystem Technology, with CGB's S&I team. Specific tasks include weekly, sometimes daily, processing of UCC-1 subordination agreements, managing the pipeline of lease transfers, and steady flow of customer service issues from homeowners, contractors, and other stakeholders.

Use of DEEP Proceeds

Energize CT Health & Safety Revolving Loan Fund

- In Q1, funds for pilot asbestos remediation of 5 Success Village Association buildings were drawn equaling $95,307.60 of an authorized $165,000. Success Village has indicated that the remediation for these 5 buildings is complete and, in Q2, IPC converted the loan to in repayment.
- No new closed loans or approvals were given during Q2.

$5M Capital Grant

- A reminder that in Q1, 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. The transaction is expected to close in February 2020 under a master facility construct with CGB where CGB will also invest additional capital into the program.

General Updates

Below are updates for the second fiscal quarter of FY20:

- Capital raising:
    - Continued diligence process with New York Green Bank for first credit facility that will access the Kresge Guarantee, target close of 3rd fiscal quarter.
    - Approved of the assumption and assignment of a $3M solar + storage PRI from the Green Bank to IPC, closed January 21, 2020.
    - Continued conversations with the next set of capital providers, including impact investors, foundations and tax equity for the solar ownership platform.

- Business/Product Development of interest to Connecticut:
  - Continued conversations with Colorado Energy Office to be the first client of NGEN for the Smart-E program model. Expected to contract in 3rd fiscal quarter.
  - Developing a software licensing agreement for the NGEN platform and procured Cyber/Tech E&O insurance, to support being in the software licensing business for the NGEN platform for Smart-E.
  - Will now own community solar assets, especially with LMI subscribers, in the IPC solar ownership platform.
  - Continued to work with a number of green banks, local governments, etc. on leveraging IPC's products and financing strategies. Working to bring multifamily lending products to Philadelphia Energy Authority and SELF, working with Montgomery County Green Bank, Rhode Island Infrastructure Bank, and CGC on a variety of opportunities.
- Administrative:
  - We filled a new financial analyst position based in IPC's NYC office.
  - IPC completed its first ever audit with Blum Shapiro, including a state audit, and delivered the state audit to DEEP and OPM.

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CONNECTICUT GREEN BANK

Memo

To: Connecticut Green Bank Board of Directors

From: Bryan Garcia (President and CEO)

CC: Senior Staff of the Green Bank

Date: April 17, 2020

Re: COVID-19 and CARES Act Communications to Green Bank Stakeholders

---

As we are all experiencing the dramatic life-changing effects of COVID-19, we wanted to share with you the communications we have been having with our various stakeholders.

In general, our communication strategy has focused on three (3) areas, including:

1. **Public Health Crisis** – ensuring that our stakeholders are informed of the public health impacts of and preventative measures to address COVID-19, and specifically relevant Executive Orders and guidance from Governor Lamont;

2. **Economic Assistance** – providing our stakeholders with information on state and federal resources (e.g, CARES Act, Paycheck Protection Program, etc.) to assist them in accessing financial resources to help them manage through the economic impacts of "social distancing" and "shelter in place" policies to confront COVID-19; and

3. **Understanding Current and Future Needs** – continuing to initiate ongoing conversations and feedback to better understand our stakeholders' needs, including issuing our first survey to gather information on what can be done to ensure a faster recovery once COVID-19 subsides.[1]

We began our communications a month ago on Wednesday, March 18th and issued our most recent communication on April 15th – see Appendices I through VII. As you can see, and again, as we have all been experiencing, things are changing dynamically – literally day-by-day! There were also a number of program communications directly through our channels to contractors, capital providers, and customers. We will continue to be guided by Governor Lamont – who, as of Wednesday, April 15, 2020, has issued his 28th Executive Order on COVID-19 since March 12, 2020. And we will continue to coordinate with our agency (i.e., DEEP, DECD, and others) and utility (i.e., Eversource and Avangrid) partners to ensure to the best of our abilities, that we are communicating effectively during this time of crisis.

[1] The "Connecticut Clean Energy Industry Survey in Response to COVID-19" was put together by the Connecticut Green Bank and the Connecticut Department of Energy and Environmental Protection, in collaboration with the Governor's Office and AdvanceCT, with assistance from Eversource, Connecticut Natural Gas, Southern Connecticut Gas and United Illuminating. The purpose of this survey is to assess the impacts of COVID-19 on Connecticut's clean energy industry, and to increase our understanding of how the recovery, revitalization, and stabilization of the industry can be expedited once COVID-19 subsides.

APPENDIX I
1st Communication
Wednesday, March 18, 2020

Is this email not displaying correctly?
View it in your browser.

Communication

CONNECTICUT GREEN BANK

Hello Connecticut Green Bank friends, lenders, partners, contractors, and consumers:

In the midst of rapidly changing COVID-19 circumstances, we wanted to update you on the steps that the Green Bank is taking to keep our team and our communities healthy and safe.

We are following the guidance of Governor Lamont and his team of public health officials. All Green Bank staff have been working remote since Friday, March 13, but we are still “Open for Business” and are available to answer questions, provide information, manage transactions, and participate in remote meetings as normal. While many of our planned in-person meetings and trainings have been cancelled, we anticipate rescheduling these when appropriate.

We are also reaching out directly to close partners to determine how best to proceed in the weeks ahead. As a result of COVID-19, we are in a unique period of time, however, we remain committed to strengthening Connecticut’s communities by supporting job creation and making the benefits of the green economy inclusive and accessible to all individuals, families, and businesses.

We are here to be of continued service to you and our communities during this challenging time.

Thank you,

Bryan Garcia
President & CEO, Connecticut Green Bank

Our mailing address is:
Connecticut Green Bank
845 Brook Street
Rocky Hill, CT 06067

APPENDIX II
2nd Communication
Monday, March 23, 2020

Communication

CONNECTICUT GREEN BANK

Dear Valued Connecticut Green Bank Stakeholders:

In this challenging, rapidly-changing time, we wanted to again assure you that the Green Bank is doing its best to support the essential contractors, communities, customers and capital providers that we do business with, and our teams are available to answer questions, provide information, manage transactions, and participate in remote meetings and calls.

We expect to continue to operate remotely through April 22, 2020, in line with Governor Lamont's **Executive Order 7H**, and until further notice. We would advise all of our Connecticut-based stakeholders to remain updated on COVID-19 through the **Office of Governor Lamont** as well as the official **COVID-19 state website**.

We will continue to follow Governor Lamont's instructions during this pandemic.

Also, in order to assist our heroic public health workers during this period of time, we wanted to see if any contractors have any Personal Protective Equipment (e.g., N95 respirators, face and surgical masks, face shields, gloves, protective clothing, etc.). There are shortages of PPE, which can protect our public health workers who are providing healthcare during this COVID-19 epidemic. If you can help, please do so **(click here)**.

We continue to assess the Connecticut market and beyond to better understand and anticipate potential impact, problems and solutions, as we all manage through the COVID-19 situation. We remain committed to strengthening our communities by supporting your businesses that are critical to making the benefits of the green economy inclusive and accessible to all individuals, families, and organizations.

Our stakeholders, including essential contractors, customers, and capital providers, may receive emails dealing with specific programmatic details shortly from specific Green Bank teams with whom you work directly.

In the meantime, remember that we can work through this together in the days ahead. Feel free to reach out with any questions or contact your Green Bank program teams (see email addresses below).

Thank you,

Bryan Garcia
President & CEO, Connecticut Green Bank

Green Bank program email addresses:

- **C-PACE:** c-pace@ctgreenbank.com
- **Green Bank PPA:** commercialsolar@ctgreenbank.com
- **Multifamily:** multifamily@ctgreenbak.com
- **RSIP:** smallsolar@ctgreenbank.com
- **Smart-E:** smarte@ctgreenbank.com

Our mailing address is:
Connecticut Green Bank
845 Brook Street
Rocky Hill, CT 06067

APPENDIX III
3rd Communication
Tuesday, March 31, 2020

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Communication

CONNECTICUT GREEN BANK

Connecticut's Clean Energy Contractors and Vendors:

The Governor of Connecticut has declared a state of emergency and governments, schools, businesses and citizens are all taking action to limit interaction and spread of the virus. We recognize the challenges your energy efficiency and renewable energy businesses are enduring and the difficult decisions that you are making during this COVID-19 emergency.

With the passage of the Coronavirus Aid, Relief, and Economic Security Act ("CARES Act") by Congress and signed by the President last Friday, there are a variety of federal programs with substantial resources that could benefit you and your business. We encourage you to consider these programs:

- **Paycheck Protection Program (PPP) Loans** – provide cash-flow assistance through federally-guaranteed loans to employers who maintain their payroll during this emergency. If employers maintain their payroll, the loans will be forgiven.

- **Economic Injury Disaster Loans & Emergency Injury Grants** – an emergency advance of up to $10,000 to small businesses and private nonprofits harmed by COVID-19 within three days of applying for an SBA Economic Injury Disaster Loan (EIDL). Grants and loans may be used to keep employees on payroll, pay for sick leave, meet increased production costs due to supply chain disruptions, or pay business obligations, including debts, rent and mortgage payments.

- **Small Business Debt Relief Program** – provides immediate relief to small businesses with non-disaster SBA loans, in particular 7(a), 504, and microloans. Under this program, the SBA will cover all loan payments on previously secured SBA loans, including principal, interest, and fees, for six months.

Additional Resources:

- Small Business Owner's Guide to the CARES Act
- Small Business Administration loans: Federal assistance will be channeled through the Small Business Administration ("SBA"), including its lenders.
  - Visit this link for a list of SBA lenders in Connecticut who can help you access the federal assistance
    - If your business banks with one of these SBA lenders, you should contact them about submitting an application for PPP and other resources under the CARES Act.
    - If you do not currently bank with an SBA lender, you may want to contact one or more SBA lenders to get into their queue.

In collaboration with Eversource Energy, Connecticut Natural Gas, Southern Connecticut Gas, United Illuminating, DEEP, DECD, and Connecticut Green Bank, we are co-hosting several webinars regarding the CARES Act.

Please join us for any of the following three (3) webinars:

Friday, April 3, 2020 – from 12:00 to 1:00 p.m.
Registration: https://go.ctgreenbank.com/e/26582/rt-7178362178966567438/717tds/777423623?h=UTJ5n_fvTw7w4Pg0VyME6tf2YK5CvXfeBiwDuc-FH1M

Monday, April 6, 2020 – from 12:00 to 1:00 p.m.
Registration: https://go.ctgreenbank.com/e/26582/rt-6530071431549833740/717tdv/777423623?h=UTJ5n_fvTw7w4Pg0VyME6tf2YK5CvXfeBiwDuc-FH1M

Tuesday, April 7, 2020 – from 12:00 to 1:00 p.m.
Registration: https://go.ctgreenbank.com/e/26582/rt-1662121138525071628/717tdx/777423623?h=UTJ5n_fvTw7w4Pg0VyME6tf2YK5CvXfeBiwDuc-FH1M

For additional information, visit the DECD Business Resources page as well as the Energize CT COVID-19 Information for Contractors page.

Sincerely,

Eversource Energy, United Illuminating, DEEP, DECD, and the Connecticut Green Bank

Our mailing address is:
Connecticut Green Bank
845 Brook Street
Rocky Hill, CT 06067

APPENDIX IV
4th Communication
Wednesday, April 1, 2020

Communication

CONNECTICUT GREEN BANK

Connecticut's Clean Energy Contractors and Vendors:

Many of you have already read through yesterday's communication and are now registering for the upcoming informational webinars on federal assistance through the CARES Act later in the week and early next week.

As we prepare for those informational webinars, we would ask that you do the following three (3) steps immediately, so that you can get a "head start" on assistance through the Paycheck Protection Program (PPP):

1. **Read the Following Information** – as a potential PPP borrower, review the following one-page program fact sheet and the four-page borrower information sheet;

2. **Complete the Application** – if the information on the PPP is of interest to your small business as you confront COVID-19, the easy two-page application form is on the treasury.gov website; and

3. **Apply to Your Bank** – it is likely that your Connecticut bank is participating in the PPP. If you decide PPP is for you and your business, you should apply to your bank for PPP assistance. We understand from the banking community that due to the overwhelming interest in PPP, as well as their own staff resource issues (remember – many are now working remotely), taking care of existing customers will be their first priority. So, if you apply, complete the application and reach out immediately to your bank. If your bank is not participating in the PPP, then we will discuss other options during the webinars. Applications open officially on Friday, April 3, 2020 for small businesses and sole proprietorships, and on Friday, April 10, 2020 for independent contractors and self-employed individuals.

The PPP is a $349 billion loan program (with options for loan forgiveness) for small businesses to pay their employees and take care of other expenses during the COVID-19 crisis. We expect that small businesses across this country will be seeking assistance from the PPP, therefore, **for those interested, we suggest that you apply immediately with your local bank**. We anticipate that the federal resources in support of the PPP could be exhausted fairly quickly!

We look forward to providing you more information during the upcoming webinars.

Sincerely,

Connecticut Green Bank, DEEP, DECD, Eversource, Connecticut Natural Gas, Southern Connecticut Gas and United Illuminating

Our mailing address is:
Connecticut Green Bank
845 Brook Street
Rocky Hill, CT 06067

APPENDIX V
5th Communication
Friday, April 3, 2020

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Communication

CONNECTICUT GREEN BANK

Connecticut's Clean Energy Contractors and Vendors:

Good evening.

Thank you to all of those who attended today's webinar on "Federal Assistance for Your Business through the CARES Act."

Here are some key materials from the webinar, including:

- **Presentation** – the slides from the webinar
- **Webinar** – recording of the webinar
- **FAQ** – frequently asked questions from the webinar

For those who were unable to attend, you can either review the materials above, or participate in the webinar at 12:00 p.m. on Monday, April 6 or Tuesday, April 7, 2020.

- **Monday, April 6, 2020** – from 12:00 to 1:00 p.m. - **Register Here**
- **Tuesday, April 7, 2020** – from 12:00 to 1:00 p.m. - **Register Here**

IMPORTANT – we have learned that before the start of our webinar, the PPP had already topped $1 billion of approvals, and that it is expected a lot more will be approved by days end! This is consistent with what we have heard – that it is likely that the PPP could be oversubscribed within one week!

So, for those interested in the PPP, we suggest if you qualify and decide to take advantage of this Federal program that you apply immediately with your local bank! Here is information to help you with the application process:

1. **Read the Following Information** – as a potential PPP borrower, review the following one-page program fact sheet and the four-page borrower information sheet;
2. **Complete the Application** – if the information on the PPP is of interest to your small business as you confront COVID-19, the two-page application form is on the treasury.gov website; and
3. **Apply to Your Bank** – it is likely that your Connecticut bank is participating in the PPP. If you decide PPP is for you and your business, you should apply immediately to your bank for PPP assistance!

We look forward to providing you more information during the next webinars.

Sincerely,

Connecticut Green Bank, DEEP, DECD, Eversource, Connecticut Natural Gas, Southern Connecticut Gas and United Illuminating

Our mailing address is:
Connecticut Green Bank
845 Brook Street
Rocky Hill, CT 06067

APPENDIX VI
6th Communication
April 15, 2020

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Communication

CONNECTICUT GREEN BANK

Connecticut's Clean Energy Contractors and Vendors:

Please see below for updates on new guidelines from Governor Lamont for essential employers and workplace safety, the CARES Act/PPP, and a link to an important contractor survey.

COVID-19 Update for Essential Employers

As the COVID-19 pandemic continues its rise to a peak here in Connecticut, we all need to continue to remain vigilant in following the "shelter in place," "social distancing," and other guidelines set by our leaders to slow the spread of the virus.

For essential employers, Governor Lamont recently released Safe Workplace Rules for Essential Employers. We encourage everyone to follow these guidelines.

CARES Act Webinars and Local PPP Support

Thank you to all who attended one of our three webinars on "Federal Assistance for Your Business through the CARES Act."

The webinar recordings can be found in this Youtube playlist. You can also access the webinar slides here and the Frequently Asked Questions from the sessions here.

It is important to know that the following Smart-E Loan program lenders are supporting applications to the Paycheck Protection Program (PPP):

Supporting existing and new clients:

- Ion Bank
- Nutmeg State Financial Credit Union

Supporting existing clients only:

- Union Savings Bank

Although the PPP is a large federal emergency assistance program to help small businesses manage through the COVID-19 pandemic, Connecticut businesses are encouraged to act now to secure access to these funds. Through Monday, April 13, 2020, in two weeks the PPP has provided over 1 million loans for small businesses assistance totaling nearly $250 billion of the $349 billion currently available under the CARES Act. Click here to read our full press release on lender support of the PPP.

Clean Energy Industry Survey in Response to COVID-19

The Green Bank and our partners at DEEP, DECD, and the utilities invite you to **please complete our Clean Energy Industry Survey**. The purpose of the survey is to assess the impacts of COVID-19 on the industry and your business. It will also help increase our understanding of how the recovery, revitalization, and stabilization of the industry can be expedited once COVID-19 subsides.

Please take a few minutes to complete this survey! Surveys are due by Friday, April 24, 2020 at 5 pm.

Survey link

Thank you in advance for your valuable input.

Sincerely,
Bryan Garcia
President and CEO

Our mailing address is:
Connecticut Green Bank
845 Brook Street
Rocky Hill, CT 06067

APPENDIX VII

Overview of Communication Metrics

Metric	1st Comm	2nd Comm	3rd Comm	4th Comm	5th Comm	6th Comm
Date of Comm	March 18	March 23	March 31	April 1	April 3	April 15
E-mails Sent	6,249	6,203	1,729	1,725	1,713	1,706
Open Rate	35.45%	35.44%	38.61%	39.78%	32.92%	34.63%
Distinct Organization Openings	800	800	447	458	380	400
# of PPP Clicks	N/A	N/A	155	317	23	144

It should be noted that the CARES Act was passed on Friday, March 27, 2020, and that the $349 billion Paycheck Protection Program (PPP) was launched on Friday, April 3, 2020. On Thursday, April 16, 2020, the PPP cap was reached – less than two weeks from the launch of the program!

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CONNECTICUT GREEN BANK

Memo

To: Board of Directors of the Connecticut Green Bank

From: Mackey Dykes, Vice President, Commercial, Industrial & Institutional Programs

Cc Bryan Garcia, President and CEO, Brian Farnen, General Counsel and Chief Legal Officer and Bert Hunter, Chief Investment Officer

Date: April 17, 2020

Re: State Solar Pilot Program

Overview

Connecticut Green Bank (Green Bank) has been working for over three years with the Connecticut Department of Energy and Environmental Protection (DEEP) in the development of solar PV projects at state of Connecticut (State) facilities. As part of this effort, Green Bank staff has identified 11 projects totaling 11 MW of solar PV projects (Pilot Projects) at buildings owned by the Connecticut Department of Administrative Services (DAS), DEEP, and the Connecticut Department of Correction (DOC). The Pilot Projects represent the first large-scale deployment of solar at State agencies. Green Bank has extensive experience with originating and deploying commercial solar and has established relationships with more than 24 solar developers and contractors, numerous financing counterparties and technical service providers. Green Bank is able to apply this knowledge base to the benefit of the State in this process.

Green Bank staff presented this opportunity to the Green Bank Board of Directors (Board) on October 25, 2019 which granted approval to expand Green Bank's existing authority for commercial solar projects, including authority:

- To enter PPAs with the State;
- To conduct a "Request for Proposal" (RFP) process for State projects – one RFP for EPC contractors and one for financing;
- To enter into EPC contracts with RFP winner(s);
- To enter into a financing term sheet with financing RFP winner, subject to subsequent Board approval of specific financing terms prior to execution;
- Assign such PPA, EPC contracts and other associated contracts and assets to financing RFP winner;
- Create one or more Green Bank subsidiary(ies) to facilitate the structure outlined above, including to potentially safe harbor Pilot Projects for 2019 Investment Tax Credit;
- To provide development capital and construction financing in a total not-to-exceed (NTE) amount of $5 million in new credit, subject to budget constraints; and
- To enter into any other contracts or agreements ancillary to the foregoing.

Green Bank is coming back to the Board to provide an update on the Pilot Projects and expand Green Bank's authority to enable moving the Pilot Projects from concept to execution as further described in this memo.

Pilot Update
Given Green Bank's experience with solar projects, Green Bank has had an active role in advancing the development of the Pilot Projects, including taking the lead in performing site feasibility analysis through a local solar and engineering firm called CSW Energy and procuring ZRECs. In addition, Green Bank issued a formal Request for Proposals (EPC RFP) from qualified contractors to provide engineering, procurement, and construction (EPC) services for the Pilot Projects. Over 90 contractors were solicited and eight submitted formal RFP submissions. On average, the EPC cost of the Pilot Projects for all submissions was $1.86/w. After a thorough scoring exercise Green Bank selected the preferred bidder (Selected Bidder) based on their qualification, experience, technical proposal, cost, and implementation plan. Green Bank also released a Request for Information (RFI) to identify a pre-qualified group of financiers and project owners (Pre-qualified Owners).

Green Bank has been working with the Selected EPC Bidder to finalize EPC and Operations and Maintenance Agreements for the Pilot Projects, with the goal of signing EPC Agreements once the PPAs have been finalized and signed with the State. Construction on the Pilot Programs will formally begin once these agreements are in place.

In parallel, Green Bank is evaluating if potential ownership structures that had not been discussed and available before may be implemented for the Pilot Projects. For example, as part of the COVID stimulus, there may be the opportunity to once again issue New Clean Renewable Energy Bonds (CREBs). Having issued CREBs before, Green Bank knows this process well and its use could prove to be a low-cost capital source to finance the Pilot Projects. CREBs were sunsetted as a result of tax reform enacted in December 2017 but could reemerge as a result of various COVID-19 stimulus efforts being considered by Congress. Alternatively, Green Bank will issue an RFP to the Pre-qualified Owners to select the owner/counterparty and ultimate PPA price for the State. Green Bank will make Green Bank debt capital available to integrate into the respondents bid, if they so desire.

Need for Expanded Authority
With all of this activity underway, the Green Bank and DEEP are facing logistical issues (including ongoing contractual negotiations, approval of contracts by the various agencies, and review/approval of contracts by the Office of the Attorney General (OAG), etc.). Staff believes the State will benefit by the Green Bank, using its commercial solar development experience to advance progress with the Pilot Projects in a way that still enables private competition (particularly with the Pre-qualified Owners) to proceed in a normal course. Staff believes the State could sacrifice savings if this process were to be accelerated. Moreover, delaying progress could also jeopardize federal investment tax credit (ITC) benefits which are "stepping down" annually. It also allows Green Bank to avoid loss of ZREC revenue associated with construction delays. Allowing Green Bank to put a greater amount of development capital than had originally been approved will allow Green Bank to continue to advance construction of the Pilot Projects, while it continues to work with DEEP and other state agencies on contractual negotiations, documentation and the final ownership structure without delaying construction. All of these steps make it more likely that this modified process together with additional Green Bank capital will secure more competitive PPA rates for the State agencies.

Recommendation
Staff requests the authority to execute the documents which staff deems necessary for the successful procurement and financing of Pilot Projects, including authority:

- Increase the NTE amount for development and capital finance from $5M to $19.5M to allow for flexibility and adequate coverage;
- Allow for temporary advances of costs associated with the Pilot Projects that could be reimbursed in the future by the issuance of bonds or other term financing to repay the temporary advances; and,
- To enter into contracts associated with the final ownership of the Pilot Projects, subject to coming back for Board approval prior to execution (only if necessary with respect to Green Bank bond financing)

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Resolution

WHEREAS, Connecticut Green Bank ("Green Bank") staff has been working with State of Connecticut ("State") agencies to develop certain pilot solar projects ("State Pilot Projects") identified in the Memorandums dated October 18, 2019 and April [], 2020 (the "State Solar Memos") and submitted to the Green Bank Board of Directors (the "Board");

WHEREAS, Green Bank has been providing assistance in site feasibility analysis, ZREC procurement, and facilitating a procurement process for construction and financing of the State Pilot Projects; and

WHEREAS, Green Bank desires to make temporary advances of costs associated with the Pilot Projects and reimburse itself in the future by the issuance of bonds, other obligations or other term financing to repay the temporary advances.

NOW, therefore be it:

RESOLVED, that the Board of Directors approves funding, in a total not-to-exceed amount of $19,500,000 in new credit for the continued development of the State Pilot Projects, to be utilized for the following purposes:

1. Development capital; and
2. Construction financing.

RESOLVED, that the Green Bank Board of Directors hereby declares the Green Bank's official intent that payment of Project construction and financing costs may be made from temporary advances of other available funds of the Green Bank, and that the Green Bank reasonably expects to reimburse such advances from the bonds or other obligations in an amount not to exceed $19,500,000;

RESOLVED, that the President of Green Bank; and any other duly authorized officer of Green Bank, is authorized to execute and deliver, any contract or other legal instrument necessary to continue to develop and finance the State Pilot Projects materially consistent with the memoranda submitted to the Board on October 18, 2019 and April 17, 2020; and

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

Submitted by: Bryan Garcia, President and CEO; Bert Hunter, EVP and CIO; Mackey Dykes, VP, Commercial, Industrial & Institutional Programs

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CONNECTICUT GREEN BANK

Memo

To: Board of Directors

From: Bryan Garcia (President and CEO), Matt Macunas (Legislative Liaison), and Selya Price (Director of Incentive Programs)

CC: Mackey Dykes (VP of Financing Programs and Officer), Brian Farnen (General Counsel and CLO), Bert Hunter (EVP and CIO), Jane Murphy (VP of Finance and Administration), and Eric Shrago (Managing Director of Operations)

Date: April 24, 2020

Re: Seeking Support for a Recommendation to Extend the RSIP due to COVID-19 Threatening the "Sustained Orderly Development of a Local Solar Industry"

As the administrator of the Residential Solar Investment Program ("RSIP")[1], the Green Bank has three primary public policy objectives, including:

1. **Declining Incentive Block Structure** – to successfully administer a declining incentive block structure. Working with DEEP, the RSIP has declined incentives by eighty-five percent since its inception in 2012.[2] It should be noted that the RSIP is significantly more "cost effective" than the incentive provided to commercial end-use customers through the small ZREC.[3]

2. **350 MW Installed Capacity Target** – to successfully deploy no less than 350 MW of new residential solar PV systems by the end of December 2022 (or before the start of the tariff on January 1, 2022). The RSIP is currently at 320 MW and over 40,000 participating households approved for incentives, with 283 MW or over 35,000 projects completed.[4]

3. **Economic Development** – to "foster the sustained orderly development of a local solar industry" in order to ensure a long-term marketplace for solar PV contractors and customers in Connecticut.

As a result of COVID-19, the month of March in the year 2020 may go down as the most devastating economic period in the history of the United States of America.

In just over a month, the Dow Jones Industrial average plummeted by 40 percent to its lowest level in over three years – 18,340 points on March 23, 2020. In conjunction with the downfall of the equity markets, there was an associated meltdown in the bond markets as seen by the spreads in the 10-year U.S. Treasury ("UST") rates of 0.76% versus 10-year Municipal Market Data ("MMD") rates of

[1] Established under Conn. General Statutes Section 16-245ff

[2] The RSIP has gone from $136/ZREC equivalent in Step 1 (i.e., February 2012) to $21/ZREC equivalent in Step 14 (i.e., through June 2019).

[3] The small ZREC is approximately $100/ZREC in 2020.

[4] RSIP data as of 4/13/2020.

2.79% a ratio of 3.7 on March 23, 2020 – in comparison to 0.51% UST to 0.78% MMD a ratio of 1.5 on March 9, 2020.

As a result of the public health response to COVID-19, markets are destabilized causing an adverse impact on jobs across the country. Unemployment claims for the week ending April 10, 2020 saw filing of 5.2 million claims, on top of the week of April 3, 2020 filing of 6.6 million claims, on top of the week ending record filing on March 28, 2020 of 6.9 million claims, on top of the week ending March 21, 2020 filing of 3.3 million claims, shattering the previous record of 700,000 claims in 1982 caused by a global economic recession – for a total of nearly 22 million unemployment filings in four weeks! On March 27, 2020, Congress passed a historic $2 trillion stimulus package aimed at helping American workers, as small businesses and industries manage through the disruption of COVID-19 to help stabilize the economy and jobs.

These abnormal market conditions threaten economic development and jobs, and require stabilization from public policy.

Bloomberg Green

Energy & Science

The Solar Industry Was Poised for a Strong Year, But Now Demand is Plummeting

Some installations have been postponed or canceled, and the market could decline as much as 34% this year, according to a research firm.

By Brian Eckhouse
April 6, 2020 6:00 AM EDT *Updated on April 6, 2020 11:51 AM EDT*

On Monday, April 6, 2020, Bloomberg reported that “the coronavirus pandemic is hobbling residential solar installations just as the sector approaches summer, a peak season.” “Morgan Stanley projects U.S. residential solar volumes may plummet 48% year-over-year in the second quarter, 28% in the third quarter, and 17% in the fourth quarter,” and “Wood Mackenzie, a research firm which had projected 10% residential growth nationally this year, now thinks the market could decline as much as 34% from 2019.” If these market predictions come to pass, then the economic development policy objective of “fostering the sustained orderly development of the local solar industry” in Connecticut is threatened.

Over the past three years, the residential solar PV market in Connecticut has grown by 25% each year from 46.4 MW in 2017 to 72.9 MW in 2019.[5] If the market predictions on the impacts of COVID-19 are correct (i.e., 34% decline), then Connecticut would lose two years of its market progress of increasing deployment from 46.4 MW in 2017 to 72.9 MW in 2019 – or a loss of 24.8 MW – see Figure 1.

A loss of 24.8 MW of residential solar PV deployment would result in the loss of $86.8 million of investment[6] in Connecticut’s clean energy economy, loss of 323 direct and 443 indirect and induced

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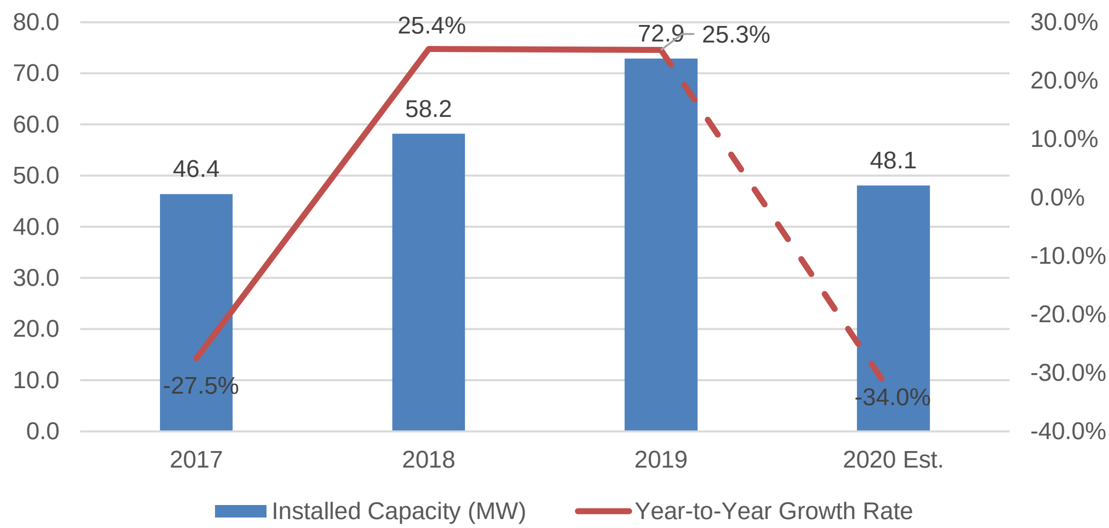
[5] Solar Energy Industry Association (SEIA) Solar PV Data across the United States. Note the Connecticut Green Bank collects project approval and completion data. The Green Bank data differs from SEIA’s data, however, it shows the same general growth trends.

[6] Installed cost of $3.50/W

job-years,[7] and loss of $2.5 million in personal and corporate income tax revenues to the State of Connecticut.[8]

Figure 1. Residential Solar PV Deployment (MW) and Growth Rates (%) in Connecticut (2017 to 2020 Est.)



A weekly national survey called "SolarWakeup Tracking Survey" – conducted since the week of March 16th following the COVID-19 crisis for April 6th – is tracking the overall market sentiment for residential installers as negative and budget forecasts have been cut as follows:

- 12% report no change in their budget forecast
- 15% will reduce their 2020 budget targets by 20%
- 29% will reduce their 2020 budget targets by 30%
- 24% will reduce their 2020 budget targets by 50% or more
- 5% are saying their budget forecast is increasing by 10%
- 15% are unknown

Uncertainty in consumer behavior going forward and lack of progress on government funding is causing reductions in 2020.

The Solar Energy Industries Association (SEIA) has warned that support is needed for approximately 250,000 people that directly work in the US solar industry as COVID-19 could impact as much as 50% of the sector.[9] In the RSIP, we have already begun to see reduction of staff, companies closing at least temporarily, financial strain and slow-downs in most areas of conducting solar business – installation, permitting, inspections, and project completion. Since COVID-19 has destabilized the markets entirely, we expect that the "sustained orderly development of the local solar industry" objective of the public policy is now threatened.

To that end, the Green Bank seeks the support of its Board of Directors to support the following recommended public policy change to the RSIP:

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[7] https://www.ctgreenbank.com/wp-content/uploads/2018/03/CGB_DECD_Jobs-Study_Fact-Sheet.pdf
[8] https://www.ctgreenbank.com/wp-content/uploads/2018/09/CGB-Eval-Tax-Methodology-7-24-18.pdf
[9] https://www.pv-tech.org/news/seia-fears-covid-19-crisis-could-impact-50-of-us-solar-sector

- **Increase Capacity Target** – advocates have been pressing the leaders of the Energy and Technology Committee for a 50 MW increase in the target, while the Green Bank during pre-pandemic circumstances strongly signaled an absence of the need to extend the target.[10]

  In light of COVID-19, the Green Bank now proposes an increase of 100 MW – for a total of 450 MW – in order to provide public policy support for economic stimulus and job stabilization of the residential solar industry. If the tariff policy is ready for full implementation on January 1, 2022, then the RSIP would end on that date if it has not already achieved a deployment level of 450 MW.[11] If it weren't for COVID-19, the Green Bank would not be suggesting this public policy recommendation. Adjustments to the public policy are necessary in order to stabilize, revitalize, and sustain the local solar industry through, and until, the start of the tariff.

The Green Bank is seeking support to approach the leadership of the Energy & Technology Committee and the Governor's Office with this proposal in the event that they "take-up" any public policy proposals related to economic recovery from COVID-19 should there be any regular or special legislative session in 2020.

See the attached proposed statutory changes[12] – Appendix A.

RESOLUTION

WHEREAS, the Connecticut Green Bank, per CGS Section 16-245ff, is responsible for implementing the Residential Solar Investment Program (RSIP) to administer a declining incentive schedule that supports the deployment of no more than three-hundred and fifty megawatts of new residential solar PV, while fostering the sustained orderly development of a local solar industry;

WHEREAS, the Department of Energy and Environmental Protection plays an important role in the implementation of the RSIP by reviewing and approving the schedule of incentives;

WHEREAS, the Public Utilities Regulatory Authority plays an important role in the implementation of the RSIP by reviewing and approving that systems are qualified as Class I renewable energy sources, approving the Master Purchase Agreement between the utilities and the Connecticut Green Bank for the sale of renewable energy certificates; and for transitioning the market from net metering to a tariff through CGS 16-243h and 16-244z;

WHEREAS, the Connecticut Green Bank, provided verbal and written testimony before the Energy & Technology Committee on March 5, 2020 expressing a position that extending the RSIP was not necessary, but that instead support for a battery storage incentive program was more important in terms of fostering the sustained orderly development of a local solar industry as the market transitions from net metering to a tariff-based compensation structure;

WHEREAS, the Connecticut Green Bank, provided the Energy & Technology Committee on March 10, 2020 with additional written testimony in response to public comments made on March 5,

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[10] While also prioritizing support for deployment of battery storage as a strong complementary technology to solar PV to increase benefits to the grid and all ratepayers

[11] It should be noted that, starting January 1, 2021, the ACP of the Class I RPS in Connecticut goes from $55 to $40. This is important because it means that the RSIP incentive to customers (i.e., currently $20/ZREC equivalent) and the associated cost-recovery mechanism for administering the program to the Green Bank of the SHREC (i.e., currently $48/ZREC equivalent and inclusive of the RSIP incentive), will be lowered to $35/ZREC equivalent (i.e., the lesser of the Small ZREC price or $5 below the ACP) – further lowering the public policy cost and increasing the "cost effectiveness" of the policy.

[12] Conn. General Statutes Section 16-245ff and Section 16-245gg.

2020, acknowledging that the market risk of COVID-19 presents a potentially serious external risk to destabilizing the market and therefore preventing the achievement of the policy objective of fostering the sustained orderly development of a local solar industry; and

WHEREAS, of the date of this memo, the COVID-19 crisis has had extreme deleterious impacts on public health and the destabilization of the economy, including the residential solar PV industry in Connecticut.

NOW, therefore be it:

RESOLVED, that the Board of Directors supports the recommendation of the staff of the Connecticut Green Bank, in light of the COVID-19 crisis, to propose an increase in the RSIP of one-hundred megawatts for a total of four-hundred and fifty megawatts in order to revitalize, recover and stabilize the local solar industry prior to its transition from net metering to a tariff per the changes proposed in Appendix A of the memo presented to the Board of Directors on April 24, 2020.

APPENDIX A

AN ACT CONCERNING ___ [THE SUSTAINED ORDERLY DEVELOPMENT OF THE STATE SOLAR INDUSTRY?].

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Section 1. Section 16-243h of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

On and after January 1, 2000, and until December 31, 2021 <u>or, for residential customers, the date the electric distribution companies begin offering the renewable energy tariffs pursuant to subsection (b) of section 16-244z of the general statutes</u>, each electric supplier or any electric distribution company providing standard offer, transitional standard offer, standard service or back-up electric generation service, pursuant to section 16-244c, shall give a credit for any electricity generated by a customer from a Class I renewable energy source or a hydropower facility that has a nameplate capacity rating of two megawatts or less for a term ending on December 31, 2041, provided any customer that has a contract approved by the Public Utilities Regulatory Authority pursuant to section 16-244r, as amended by this act, on or before December 31, 2021, shall be eligible for such credit. The electric distribution company providing electric distribution services to such a customer shall make such interconnections necessary to accomplish such purpose. An electric distribution company, at the request of any residential customer served by such company and if necessary to implement the provisions of this section, shall provide for the installation of metering equipment that (1) measures electricity consumed by such customer from the facilities of the electric distribution company, (2) deducts from the measurement the amount of electricity produced by the customer and not consumed by the customer, and (3) registers, for each billing period, the net amount of electricity either (A) consumed and produced by the customer, or (B) the net amount of electricity produced by the customer. If, in a given monthly billing period, a customer-generator supplies more electricity to the electric distribution system than the electric distribution company or electric supplier delivers to the customer-generator, the electric distribution company or electric supplier shall credit the customer-generator for the excess by reducing the customer-generator's bill for the next monthly billing period to compensate for the excess electricity from the customer-generator in the previous billing period at a rate of one kilowatt-hour for one kilowatt-hour produced. The electric distribution company or electric supplier shall carry over the credits earned from monthly billing period to monthly billing period, and the credits shall accumulate until the end of the annualized period. At the end of each annualized period, the electric distribution company or electric supplier shall compensate the customer-generator for any excess kilowatt-hours generated, at the avoided cost of wholesale power. A customer who generates electricity from a generating unit with a nameplate capacity of more than ten kilowatts of electricity pursuant to the provisions of this section shall be assessed for the competitive transition assessment, pursuant to section 16-245g and the systems benefits charge, pursuant to section 16-245l, based on the amount of electricity consumed by the customer from the facilities of the electric distribution company without netting any electricity produced by the customer. For purposes of this section, "residential customer" means a customer of a single-family dwelling or multifamily dwelling consisting of two to four units. The Public Utilities Regulatory Authority shall establish a rate on a cents-per-kilowatt-hour basis for the electric distribution company to purchase the electricity generated by a customer pursuant to this section after December 31, 2041.

Sec. 2. Subsections (b), (c), and (d) of section 16-245ff of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

(b) The Connecticut Green Bank, established pursuant to section 16-245n, shall structure and implement a residential solar investment program established pursuant to this section that shall support the deployment of not more than **[three]** four hundred fifty megawatts of new residential solar photovoltaic installations located in this state **[**on or**]** approved before **[**(1) December 31, 2022, or (2) the deployment of three hundred fifty megawatts of residential solar photovoltaic installation, in the aggregate, whichever occurs sooner**]** the date the electric distribution companies begin offering the renewable energy tariffs pursuant to subsection (b) of section 16-244z of the general statutes, provided the bank shall not approve direct financial incentives under this section for more than one hundred megawatts of new qualifying residential solar photovoltaic systems, in the aggregate, between July 2, 2015, and April 1, 2016. The procurement and cost of such program shall be determined by the bank in accordance with this section.

(c) The Connecticut Green Bank shall offer direct financial incentives, in the form of performance-based incentives or expected performance-based buydowns, for the purchase or lease of qualifying residential solar photovoltaic systems or power purchase agreement from such systems until the **[**earlier of the following: (1) December 31, 2020, or (2) the deployment of three hundred megawatts, in the aggregate, of residential solar photovoltaic installation**]** the date the electric distribution companies begin offering the renewable energy tariffs pursuant to subsection (b) of section 16-244z of the general statutes. The bank shall consider willingness to pay studies and verified solar photovoltaic system characteristics, such as operational efficiency, size, location, shading, and orientation, when determining the type and amount of incentive. Notwithstanding the provisions of subdivision (1) of subsection (h) of section 16-244c, the amount of renewable energy produced from Class I renewable energy sources receiving tariff payments or included in utility rates under this section shall be applied to reduce the electric distribution company's Class I renewable energy source portfolio standard until the Public Utilities Regulatory Authority approves the master purchase agreement pursuant to subsection (e) of section 16-245gg.

(d) The Connecticut Green Bank shall develop and publish on its

Internet web site a proposed schedule for the offering of performance-based incentives or expected performance-based buydowns over the duration of any such solar incentive program. Any such direct financial incentives shall only apply to the first twenty kilowatts of direct current of the qualifying residential solar photovoltaic system. Such schedule shall: (1) Provide for a series of solar capacity blocks the combined total of which shall be a maximum of **[**three**]** four hundred fifty megawatts and projected incentive levels for each such block; (2) provide incentives that are sufficient to meet reasonable payback expectations of the residential consumer and provide such consumer with a competitive electricity price, taking into consideration the estimated cost of residential solar installations, the value of the energy offset by the system, the cost of financing the system, and the availability and estimated value of other incentives, including, but not limited to, federal and state tax incentives and revenues from the sale of solar home renewable energy credits; (3) provide incentives that decline over time and will foster the sustained, orderly development of a state-based solar industry; (4) automatically adjust to the next block once the board has issued reservations for financial incentives provided pursuant to this section from the board fully committing the target solar capacity and available incentives in that block; and (5) provide comparable economic incentives for the purchase or lease of qualifying residential solar photovoltaic systems or power purchase agreements from such systems. The Connecticut Green Bank may retain the services of a third-party entity with expertise in the area of solar energy program design to assist in the development of the incentive schedule or schedules. The Department of Energy and Environmental Protection shall review and approve such schedule. Nothing in this subsection shall restrict the Connecticut Green Bank from modifying the approved incentive schedule to account for changes in federal or state law or regulation or developments in the solar market when such changes would affect the expected return on investment for a typical residential solar photovoltaic system by ten per cent or more. Any such modification shall be subject to review and approval by the department.

Sec. 3. Subsection (b) (2) of section 16-244z of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

(2) On **[**and**]** or after January 1, 2022, at a date determined by the Public Utilities Regulatory Authority, each electric distribution company shall offer the following options to residential customers for the purchase of products generated from a Class I renewable energy source that is located on a customer's own premises and has a nameplate capacity rating of twenty-five kilowatts or less for a term not to exceed twenty years: (A) A tariff for the purchase of all energy and renewable energy certificates on a cents-per-kilowatt-hour basis; and (B) a tariff for the purchase of any energy produced and not consumed in the period of time established by the authority pursuant to subparagraph (C) of subdivision (1) of this subsection and all renewable energy certificates generated by such facility on a cents-per-kilowatt-hour basis. A residential customer shall select either option authorized pursuant to subparagraph (A) or (B) of this subdivision, consistent with the requirements of this section. Such generation projects shall be sized so as not to exceed the load at the customer's individual electric meter from the electric distribution company providing service to such customer, as determined by such electric distribution company. For purposes of this section, "residential customer" means a customer of a single-family dwelling or a multifamily dwelling consisting of two to four units.

Sec. 4. Subsection (a) of section 16-245gg of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

(a) Not later than July 1, 2016, the Connecticut Green Bank shall negotiate and develop master purchase agreements with each electric distribution company. Each such agreement shall require the electric distribution company to purchase, annually, fifteen-year tranches of solar home renewable energy credits produced by qualifying residential solar photovoltaic systems under the residential solar investment program. Each electric distribution company's annual obligation to purchase fifteen-year tranches of solar home renewable energy credits produced by qualifying residential solar photovoltaic systems begins on the date that the Public Utilities Regulatory Authority approves the master purchase agreement pursuant to subsection (e) of this section and the obligation to purchase additional fifteen-year tranches expires on December 31, **[**2022**]** 2024. **[**, or after the deployment of three hundred fifty megawatts of residential solar photovoltaic installation, in the aggregate, whichever occurs earlier.**]**

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Legislative Testimony of the Connecticut Green Bank
Energy and Technology Committee
March 5, 2020

Regarding House Bill 5351
AN ACT CONCERNING CERTAIN PROGRAMS
AND TO INCENTIVIZE AND IMPLEMENT ELECTRIC ENERGY STORAGE RESOURCES

As the nation's first green bank, the Connecticut Green Bank ("Green Bank") leverages the limited public resources it receives to attract multiples of private investment to scale up clean energy deployment. Since its inception, the Green Bank has mobilized nearly $1.7 billion of investment into Connecticut's clean energy economy at nearly a 7 to 1 leverage ratio of private to public funds, supported the creation of over 20,000 direct, indirect and induced jobs, reduced the energy burden on over 40,000 families and businesses, deployed nearly 360 MW of clean energy, helped reduce over 5.8 million tons of CO2 emissions over the life of the projects, and generated nearly $90 million in individual income, corporate, and sales tax revenues to the State of Connecticut through fiscal year 2019.

The Green Bank **supports House Bill 5351.** This bill seeks to establish a battery storage target of 1,000 MW by December 31, 2030, prompt associated PURA proceedings to develop and implement programs to achieve the target and purpose of the policy, and authorize demonstration projects solicited by DEEP.

As the members of the Energy & Technology Committee are aware, through the Residential Solar Investment Program (i.e., CGS § 16-245ff), the Green Bank is responsible for administering an incentive program with the goals of deploying no more than 350 MW of residential solar PV (i.e., energy and environmental policy), and fostering the sustained, orderly development of a state-based solar industry (i.e., economic development policy).

The Green Bank's administration of the RSIP has resulted in the following:

- **<u>Significant Deployment</u>** – as of March 3, 2020, the Green Bank has approved nearly 40,000 projects, totaling 315 MW of residential solar PV systems – of which 33,800 projects, totaling 276 MW of residential solar PV have been commissioned. The Green Bank expects to reach the 350 MW public policy target in Q3 of 2020. The Green Bank's administration of the RSIP policy has led to the deployment of more clean renewable energy than any other policy or program in Connecticut.

- **<u>Equity and Inclusion in Deployment</u>** – the residential solar PV market in Connecticut is one of only a few in the United States that has achieved "solar parity" in reaching low-to-moderate-income ("LMI") families,[1] and made significant progress in reaching communities of color (i.e., Black and Hispanic families).[2] The Green Bank's administration of the RSIP policy has made Connecticut a nationally recognized leader when it comes to "Solar with Justice".[3]

- **Public vs. Private Investment** – through a declining incentive block structure, the Green Bank has provided nearly $140 million in upfront[4] and performance-based[5] incentives[6] – the equivalent to a little over one round of a ZREC auction[7] – that has attracted $1.2 billion in private investment on top of that for a total investment of over $1.3 billion in Connecticut's green economy – an 8.5 to 1 leverage ratio of private to ratepayer funds. The Green Bank's administration of the RSIP policy has provided incentives on average, through the life of the program, equivalent to a $30-$35 ZREC – making the RSIP more efficient than its commercial and industrial counterpart programs (i.e., ZREC-LREC programs).

- **Energy Efficiency Requirement** – since the beginning of its implementation, the RSIP has required a home energy audit (e.g., Home Energy Solutions, Home Energy Scorecard, BPI-certified Audit, etc.) as part of the program for households that want to receive the incentive from the Green Bank. No other state program in the Northeastern U.S. has required energy efficiency to be conducted alongside solar PV as has the Green Bank through the RSIP. The Green Bank's administration of the RSIP has helped support participation in the utility-administered Home Energy Solutions program.

- **Ratepayer Benefits** – beyond reducing the burden of energy costs from participating households, these systems also reduce peak demand for all ratepayers as evidenced by recent summer heatwaves. For example, during the summer heatwave in Connecticut in July of 2019,[8] the fleet of residential solar PV systems operating through the RSIP reduced peak demand by 230 MW, the equivalent to over half the size of the coal-fired Bridgeport Harbor Generating Station – see "Solar Battles the New England Heatwave" fact sheet attached. Each year, as weather gets hotter and more humid in the summer in Connecticut, this portfolio of residential solar PV systems will reduce peak demand and the associated public health risks, and thereby be of continuous and ongoing benefit to all Connecticut ratepayers.

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[1] https://emp.lbl.gov/publications/income-trends-residential-pv-adopters/?utm_source=newsletter98&utm_medium=email&utm_campaign=Constant%20Contact

[2] "Sharing Solar Benefits: reaching Households in Underserved Communities of Color in Connecticut" by the Connecticut Green Bank (May 2019).

[3] Winning the State Leadership in Clean Energy ("SLICE") Award in 2018 from the Clean Energy States Alliance. "Solar with Justice" by the Clean Energy States Alliance (December 2019) – see "Connecticut Green Bank Brings Solar to LMI Homeowners".

[4] Approximately 25% of participating households "own" their solar PV system and receive an upfront incentive.

[5] Approximately 75% of participating households have "third-party owned" solar PV systems through a lease or power purchase agreement and receive a performance-based incentive paid out quarterly for a six-year period.

[6] Associated with 315 MW of completed or approved RSIP projects thus far.

[7] For each round of the ZREC, the policy allocates $8 million of ZREC resources a year for fifteen (15) years to be procured through a competitive auction – or $120 million over 15 years for each round of the ZREC. There are 10 ZREC rounds per statute – or $1.2 billion of ZREC incentives available over the 10-year life of the program.

[8] "July on Track to become Hottest on Record with another Hartford Heat Wave" by Christine Dempsey and Zach Murdock in the Hartford Courant (July 31, 2019)

The Green Bank's administration of the RSIP will achieve the public policy target of 350 MW in the summer or fall of 2020, all the while reaching underserved communities, achieving significant leveraging of ratepayer resources to attract private investment, supporting energy efficiency markets, and socializing the benefits of such investments to all ratepayers by reducing peak demand and reducing risks to public health.

To achieve the final goal of "fostering the sustained, orderly development of a state-based solar industry," the **Green Bank does not support an extension of the RSIP beyond 350 MW** – **instead the Green Bank supports the need for a battery storage incentive program** as contemplated in House Bill 5351. As stated in House Bill 5351, "[t]he Authority [PURA] shall establish a program or programs for the residential class of electric customers," speaking to the objective of "fostering the sustained, orderly development of a state-based electric energy storage industry." The Green Bank believes that ratepayer resources would be better served by prioritizing a new energy storage policy versus extending the RSIP.

In the Green Bank's opinion, the future of residential solar PV – beyond transitioning from net metering to a tariff-based compensation structure (which begins January 1, 2022)[9] – is not REC-based incentives for solar PV through the RSIP, but instead a complementary incentive program administered by the Green Bank, in collaboration with the utility-administrators of the Conservation and Load Management Programs, for the inclusion of battery storage as part of the balance-of-plant of a residential solar PV system. Such a program structure would ensure that the full potential of solar PV production to reduce peak demand is realized and that these benefits are socialized to reduce costs for all ratepayers. The Green Bank envisions implementing a residential energy storage incentive program through solar contractors, in collaboration with the electric utilities and DEEP, that meets the purposes and objectives of the House Bill 5351.

Please find attached the Green Bank's Impact Report for FY 2019, the "Solar Battles the New England Heatwave" fact sheet, and in recognition of the 50th anniversary of Earth Day, a promotion on the Green Liberty Bonds to be marketed by the Green Bank this spring.

Questions on this document may be submitted to the Green Bank's Legislative Liaison Matt Macunas, reachable at matt.macunas@ctgreenbank.com or at (860) 257-2889.

[9] Per PA 18-50 and PA 19-35

Solar Battles the New England Heatwave

Solar Battles the New England Heatwave

Contribution of the Green Bank's Residential Solar Program to the 2019 Summer Peak

Rising Temperatures Lead to Rising Load and Increased Public Health Risks


Hartford Courant

July 31, 2019

July on Track to become Hottest on Record with another Hartford Heat Wave

By Christine Dempsey and Zach Murdock

July is expected to end as the hottest on record in the Hartford area as meteorologists forecast a heat wave to continue into the final day of the month.

July 2019 was the hottest month on record for many New England cities, including Hartford, CT, with temperatures reaching 90°F on an average day that month at Bradley International Airport.[1, 2]

The biggest heatwave of 2019 came on the weekend of July 20-21:[2]

Date	Max Temp	Humidity	Heat Index
July 20	98°F	44%	108°F
July 21	100°F	34%	105°F

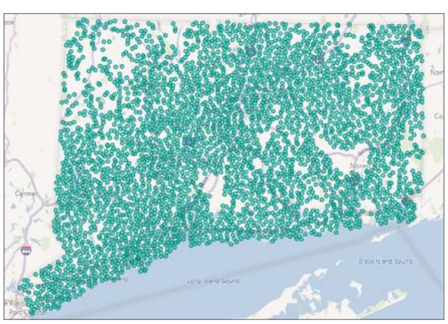
"Tuesday was so hot and humid, authorities warned people about two problems: The excessive heat and bad air." [1]

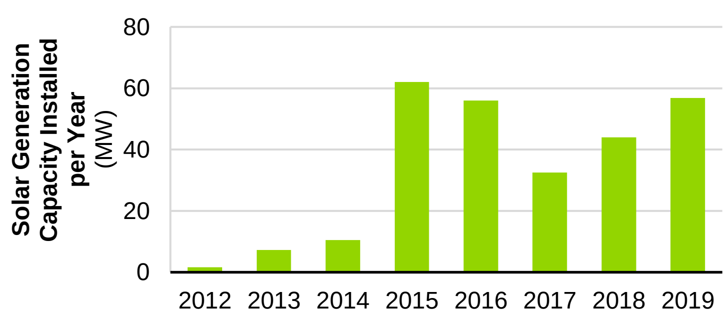
Sunny, humid days lead to higher temperatures and consequently higher air conditioning usage. This stresses the electric grid, resulting in increased power coming from coal plants. Pollutants emitted by such plants include nitrogen oxides (NOx) and volatile organic compounds, which react in sunlight to create ground level ozone (the main ingredient in smog), which is harmful to public health.

"Saturday and Sunday, July 20-21, saw the highest average temperature and heat index readings in New England for any weekend in the past 20 years. And both Saturday and Sunday's peak grid demand were among the ten highest weekend loads in recent history… Had the July 20-21 weekend heat had occurred on a weekday, ISO New England Forecasters estimate that demands could have fallen within the top ten highest demand days." [3]

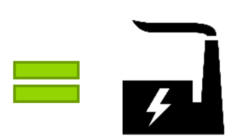
Connecticut's Distributed Solar Power Plant

RSIP has reached every corner of Connecticut, with nearly 28,000 solar PV projects reporting on July 21, 2019. In total, this fleet had a maximum power output of about 230 MW on July 21st.[4]

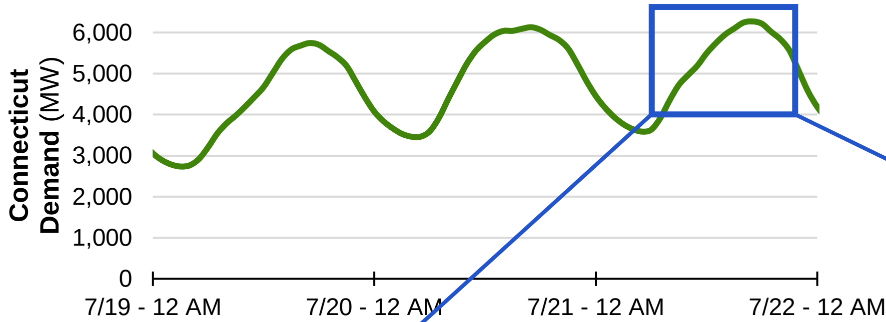




This is over half the size of the coal-fired plant at Bridgeport Harbor Generating Station in Bridgeport, CT, one of three coal power plants operating in New England on July 21st.[5]

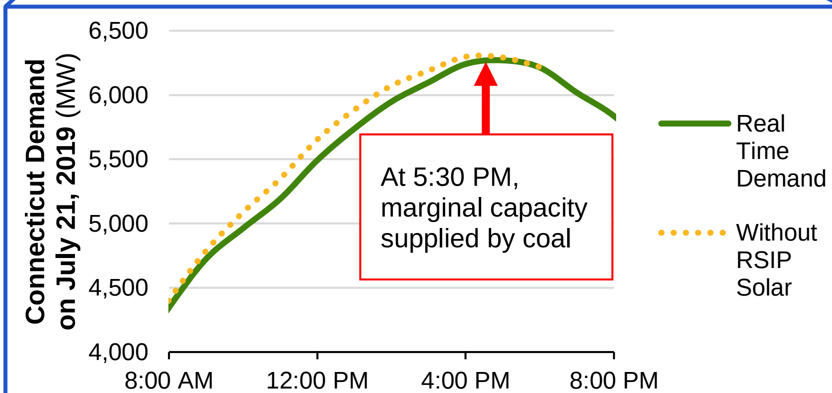


Peak Load Reduction Benefit to Ratepayers from Homes that Installed Solar PV



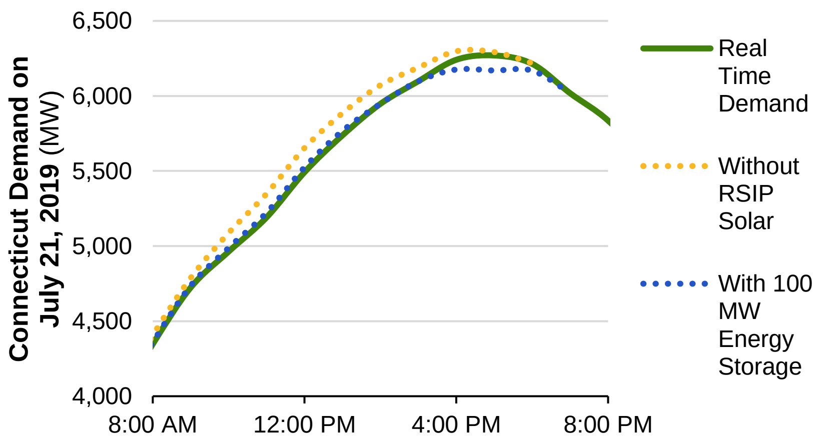
This graph shows the actual hourly electricity demand in Connecticut during the July weekend heat wave.[6]

The maximum electric demand in Connecticut occurred that Sunday, July 21st. ISO-NE called upon many resources to meet this demand, at times including 500 MW of coal-fired capacity in New England.[7] If not for RSIP-supplied solar, an additional 1 GWh of energy would have been needed from non-renewable sources like natural gas, oil, and coal.



This equates to a savings of over $3 million in system benefits, nearly 500 tons of CO2e, and around 175 pounds of NOx on the single peak day.[8]

Additional Benefit of Combining Residential Solar with Energy Storage



If 100 MW of energy storage capacity was added to the residential solar installations, this could shift stored solar energy from earlier in the day to be dispatched to reduce peak load later in the day.

This level of storage capacity would have been enough to bump the demand in all of New England on July 21st out of the top 5 highest weekend demand days in ISO-NE history.[3]

Sources:

1. *Dempsey, Christine; Murdock, Zack. "July on track to become hottest on record with another Hartford heat wave." Hartford Courant, 31 Jul. 2019*
2. *Weather Underground, Bradley International Airport Station, Heat Index calculated from https://www.wpc.ncep.noaa.gov/html/heatindex.shtml*
3. *"Summer 2019: Lowest regional grid electricity use in at least 16 years." ISO Newswire, 2 Oct. 2019*
4. *RSIP Data as of February 25, 2020*
5. *Brunelli, Peter. "Weekend Energy Use Neared N.E. Megawatt Record." ecoRI News, 22 Jul. 2019*
6. *"2019 SMD Hourly Data" from ISO-NE*
7. *"Dispatch Fuel Mix" for July 21, 2019 from ISO-NE*
8. *Based on effective peak demand savings of 28 MW and peak energy savings of 1,000 MWh. System benefits monetized with capacity, transmission, and distribution from Table 3-1 of 2019 C&LM Plan. Emissions rates from Table 150 of 2018 AESC study.*

FY 12 -
FY 19

Green Bank Impact Report

Since the Connecticut Green Bank's inception through the bipartisan passage of Public Act 11-80 on July 1, 2011, we have accelerated the deployment of clean energy to benefit families, businesses, and our communities. The impact of our green bank innovation is shown below in terms of investment, economic development, and environmental protection from FY 2012 through FY 2019.

INVESTMENT IN CONNECTICUT

Investment Since inception, the Green Bank has mobilized ***$1.68 billion*** of investment into the State's economy.

Private Investment

Green Bank Investment

$260 million

$1.42 billion

Leverage ratio The Green Bank's leverage ratio is the relationship between private investment and Green Bank investment.

For every $1 of Green Bank investment, we attract $6.50 of private investment.

Tax revenues The Green Bank's activities have helped generate an estimated ***$87.1 million*** in state tax revenues.

$43.1 million
individual income tax

$23.0 million
corporate taxes

$21.1 million
sales taxes

ECONOMIC DEVELOPMENT

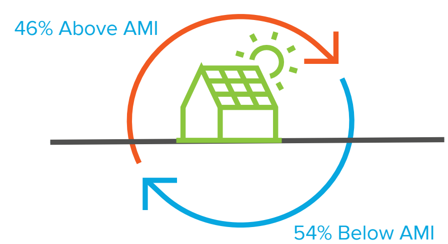
Jobs The Green Bank has supported the creation of more than ***20,000*** direct, indirect, and induced job-years.

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

40,000+ *families*

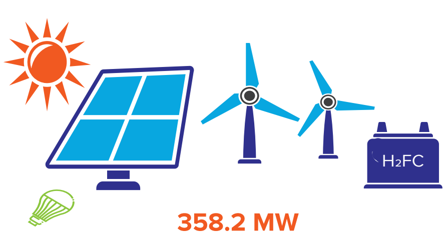
375+ *businesses*

Accessible and affordable The Green Bank has supported residential solar PV installation to reach income parity and pursuing beyond.



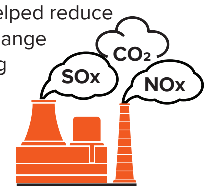
ENVIRONMENTAL PROTECTION

Deployment The Green Bank has accelerated the growth of clean energy to more than ***350 MW***.



358.2 MW of installed capacity

Pollution The Green Bank has helped reduce air emissions that cause climate change and worsen public health, including 5.1 million pounds of SOx and 6.3 million pounds of NOx.



5.8 million tons of CO_2 which equals

88 million tree seedlings grown for 10 years

or

1.1 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.

$206.7 - $466.7 million of lifetime public health value created

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. We're creating a thriving marketplace to accelerate green energy deployment in Connecticut by making green energy financing accessible and affordable for homeowners, businesses and institutions.

Sources: Connecticut Green Bank Comprehensive Annual Financial Reports

CONNECTICUT GREEN BANK

Lenders on Connecticut Green Bank

"As America's socially responsible bank, Amalgamated Bank is on a mission to align our investments with our values. We are committed to sustainability and environmental protection, and we want to help increase accessibility to the benefits of clean energy. Working with the Connecticut Green Bank, we have found a partner driven by the same mission. Together, we are making investments to fuel the green energy revolution."

Keith Mestrich, President & CEO, Amalgamated Bank

"The importance of public-private partnerships, like the one between KeyBank and the Connecticut Green Bank, cannot be overstated, especially when it comes to the financing of renewable and other clean energy projects. Our partnership with the Green Bank through the CT Solar Lease led to over $100 million of investment to reduce the energy burden on nearly 1,200 families and 75 businesses in our communities. Additionally, it was the involvement of the Green Bank that helped attract financing from Key Bank toward microgrid construction at critical facilities in Bridgeport, and a first-of-its-kind 'micro-hydro' generator at Hanover Pond in Meriden."

Christopher Gorman, Vice Chairman and President of Banking, KeyBank

"Liberty Bank has been a partner with the Connecticut Green Bank from the start. Liberty Bank recently provided a financing facility for the Green Bank's capital needs for solar on homes across the state, which is supporting the state's growing green economy."

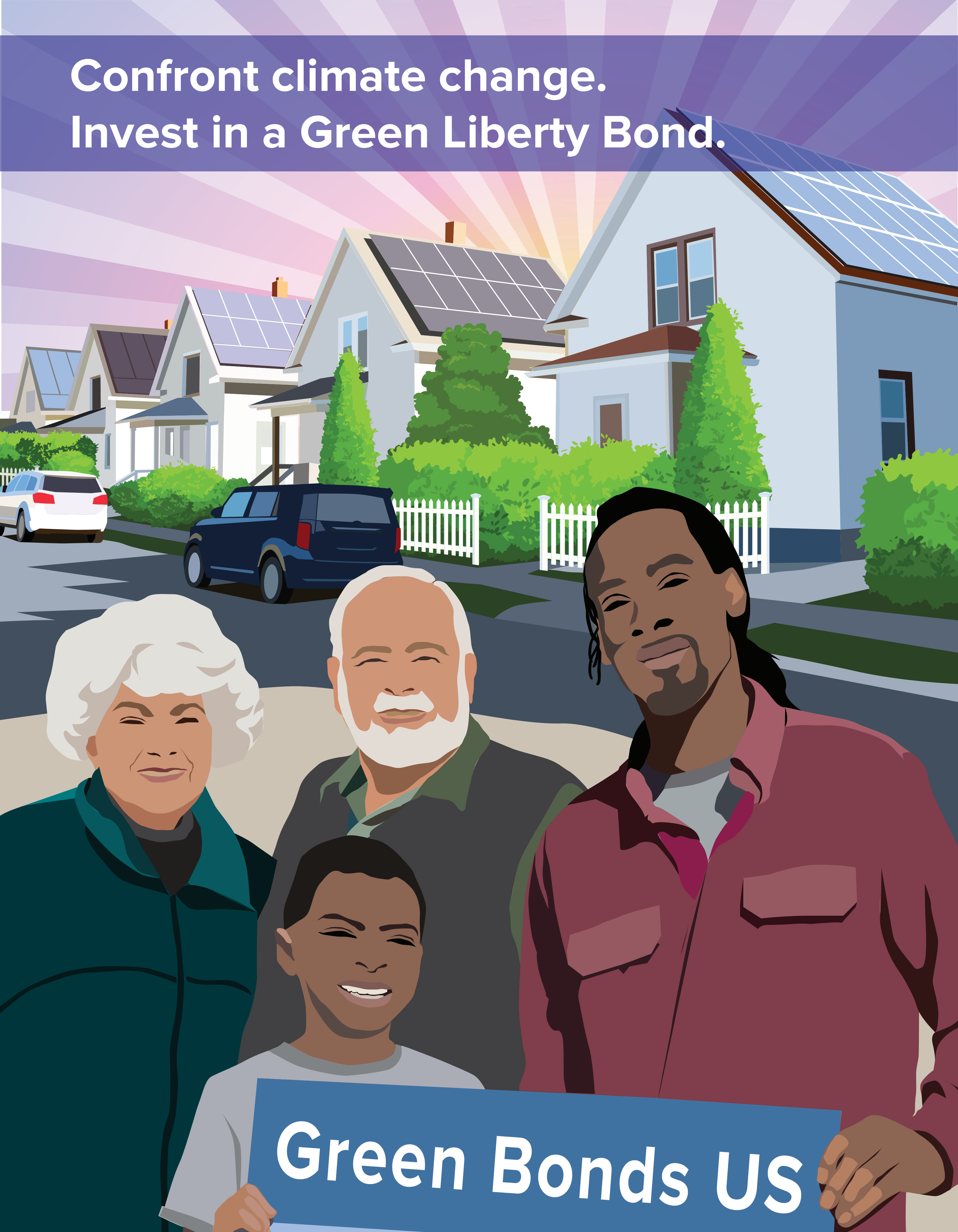
Chandler Howard, President and CEO, Liberty Bank

"Our partnership with the Green Bank has helped us to invest in our local communities, while assisting the State of Connecticut in achieving its important energy, environment, and economic goals."

Larry Holderman, President and CEO, Mutual Security Credit Union

"The CT Solar Loan program was a game-changer for solar financing and Sungage Financial. Our partnership with the Green Bank in Connecticut helped our company grow and become a national leader in helping families finance solar and realize the important benefits it provides."

Sara Ross, Co-Founder and CEO, Sungage Financial


Confront climate change.
Invest in a Green Liberty Bond.
Green Bonds US

In April 2020, as part of the celebration of the 50th anniversary of Earth Day, the Connecticut Green Bank is planning to launch its first Green Liberty Bonds, a new offering designed to allow more people to get involved in investing to confront climate change. Unlike many other bonds, Green Liberty Bonds will be available in minimum denominations of $1,000.*

How to Buy a Green Liberty Bond

Step 1 - Learn about the bonds. Read the Preliminary Official Statement (POS) when posted to www.greenlibertybonds.com (you can sign-up for email notifications regarding the sale) or obtain the POS from your investment professional to learn more about the bonds to help you make an informed investment decision.

Step 2 - Open a brokerage account. To invest in a bond, you must have an account with one of the brokerage firms participating in the bond sale, or with another firm that can place an order through a brokerage firm participating in the bond sale. While we anticipate issuing Green Liberty Bonds in late April, investors are encouraged to begin the new account process early because internal new account procedures may take some time to process.

If you do not have a brokerage account, you can contact our lead underwriters to begin the process of opening a new account:

Ramirez & Co.
(855) RAMIREZ
https://ramirezco.com/ContactUs

Stifel Financial Corp
(800) 679-5446
https://www.stifel.com/fa/search?state=ct

Step 3 - Submit your order. Contact your broker to get more information about how to buy bonds during the retail order period. Discuss with the broker the number of bonds, the maturity date and the price at which you are willing to purchase the bonds, as well as any other questions.

CONNECTICUT GREEN BANK℠

** Remember – all investments involve risk; your investment professional can assist you in this process. This document is not an offer to sell any bonds or a solicitation of an offer to buy any bonds. Green Bank employees are not investment professionals and are strictly prohibited under Federal law and rules and regulations of the Securities and Exchange Commission from engaging in or advising on any purchases of securities, including Green Liberty Bonds. Any calls to the Green Bank for assistance with purchasing Green Liberty Bonds will be directed to our lead underwriters – noted above.*

To learn more, visit www.greenlibertybonds.com

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CONNECTICUT GREEN BANK

Memo

To: Energy & Technology Committee

From: Bryan Garcia (President and CEO)

CC: Selya Price (Director of Incentive Programs) and Matt Macunas (Legislative Liaison and Associate Director of Transportation Initiatives)

Date: March 10, 2020

Re: Follow-Up on Public Testimony

As a follow-up to the Connecticut Green Bank's ("Green Bank") testimony, and in response to comments by various solar PV companies and other stakeholders during the public hearing held on Thursday, March 5, 2020, the Green Bank offers observations to the following five (5) issues raised.

What are solar PV contractors required to do in order to participate in the RSIP and how would the Green Bank value that effort?

Solar PV contractors are required to do the following things in order to participate in the RSIP:

- **Contractor eligibility** – contractor must be approved to participate in RSIP as an eligible contractor or third-party system owner and maintain good standing by adhering to program guidelines;[1]

- **Contractors submit an incentive application** – for each residential solar PV project, input data and upload documents through the RSIP program's online platform:

  - **Sales, lease, or power purchase agreement** – agreement between contractor and customer, includes RSIP terms and conditions (e.g., Green Bank ownership of RECs)
  - **Customer electric bill** – provides usage information for sizing the system
  - **Site plan** – shows location of solar arrays on customer property
  - **Solar access and shade report** - provides impact of shade from trees and other structures on the PV system
  - **Electrical diagram** - shows electrical connections for major components of the PV system and connection to home's electrical system
  - **Change order document** – indicates system changes made after contract signing (if needed)
  - **Data inputs** including:
    - Customer, location, and contractor information

[1] RSIP RFQ and Program Guidelines: https://ctgreenbank.com/wp-content/uploads/2019/11/Contractor-RFQ_112019_Final.pdf

    - PV system and inverter specifications, system size, design parameters such as tilt, azimuth, shading
    - Incentive type (e.g., upfront incentive for homeowner-owned projects or performance-based incentive for third party owned projects)
    - Total system cost and system cost breakdown
    - System financing information
    - Data monitoring information (meter provider and meter ID)

- **<u>Contractors submit completion paperwork</u>** – for each completed project, upload the following documentation:

    - **<u>Utility approval to energize</u>** – interconnection approval letter from the utility company
    - **<u>Project completion certification</u>** – customer signed form indicating project completion
    - **<u>Equipment packing slip</u>** – list of equipment delivered to project site
    - **<u>Self-inspection checklist</u>** – four-page checklist verifying system specifications and proper installation, as well as a set of required photos
    - **<u>Energy efficiency information</u>** – evidence that a Home Energy Solutions (HES) or other program-approved energy efficiency audit has been completed

- **<u>Contractors install a revenue grade production meter</u> –** a meter that measures solar PV production is installed for RSIP, though a meter would still be installed in the absence of RSIP for customer information purposes

It should be noted, that the program has been working to streamline requirements since the inception of the RSIP in 2012 (e.g., reduction in the number of inspections, one-time submission of completion paperwork instead of an additional interim step), with the expectation that the Green Bank would no longer be in the middle of the contractor and the customer post-RSIP.

These program requirements have provided a valuable service to the market. Nearly 40,000 systems have been approved for RSIP incentives and nearly 35,000 have been installed to date. In calendar year 2019 alone, 7,855 projects were approved and 6,670 projects were installed. In 2019, there were 149 customer complaints filed with the Department of Consumer Protection of which 99 were due to one company who failed to apply to RSIP for an incentive for its customers.

It should be noted that there have been several instances of illegal behavior by solar PV contractors that are no longer in the RSIP, including:

- **<u>Contractor A</u>** – in 2015, a contractor ("Contractor A") was suspended from the RSIP for improper incentive activity and failure to refund payment for a cancelled project. After the suspension was issued, additional customers filed complaints with the Green Bank for lost deposits and incomplete work. The Green Bank later discovered that the contractor had been submitting fraudulent documents to the Green Bank in order to obtain incentive payments. By this time, the contractor had ceased operations and left the state of Connecticut. In 2020, the contractor settled with DCP and agreed to pay back customers and the Green Bank. The contractor was never re-admitted to the RSIP.

- **<u>Contractor B</u>** – in 2016, a contractor ("Contractor B") was suspended from the RSIP for excessive customer complaints, failure to obtain proper permits, consistent inspection failures and failure to respond to requests for information. The contractor went out of business but settled with DCP and was not re-admitted to the RSIP.

- **Contractor C** – in 2017, a contractor ("Contractor C") was suspended from the RSIP for improper incentive activity, failure to hold proper licensing, failure to respond to requests for information, misleading sales tactics and providing false, inaccurate or deceptive information to customers. The contractor settled with DCP but was not re-admitted to the RSIP.

- **Contractor D** – in 2019, a contractor ("Contractor D") was suspended from the RSIP for one year in March 2019 for improper incentive activity, failure to hold proper licensing, misleading sales tactics, providing false, inaccurate or deceptive information to customers, misrepresentation of incentives and failure to respond to requests for information. The contractor is scheduled to attend a hearing with DCP later in March 2020. The contractor may be permitted to reapply to RSIP if all outstanding issues are rectified.

As the market transitions from the RSIP and net metering (i.e., through the 350 MW goal), to a period of only net metering (i.e., after 350 MW goal is achieved and before January 1, 2022), and then to the tariff (i.e., after January 1, 2022), the Green Bank will no longer be involved in ensuring that contractors are meeting the highest of standards. The Green Bank is coordinating with DCP on consumer protection considerations post-RSIP.

Based on information from several RSIP contractors, the Green Bank estimates that the average personnel time required by solar PV contractors to be 1-6 hours per project, and between $200-1250 in value for personnel and equipment per project – which is 10-25% of the value of the RSIP incentive. The RSIP incentive varies based on incentive type and system size (and therefore across contractors).

What does the RSIP currently provide households or third-party owners in incentives?

The RSIP provides several different incentives to households or third-party owners of residential solar PV systems, including:

- **Expected Performance-Based Buydown** ("EPBB") – an upfront incentive to homeowners who "purchase" a system, which is approximately 20 percent of all participating households in the RSIP;

- **Performance-Based Incentive** ("PBI") – an incentive paid to third party owned companies based on production of the solar PV system on a quarterly basis for up to 6 years, which is approximately 75 percent (including the LMI-PBI) of all participating households in the RSIP; and

- **Low-to-Moderate Income Performance-Based Incentive** ("LMI-PBI") – like the performance-based incentive, except that the incentive is higher in order to reach low-to-moderate income families that demonstrate need (e.g., LIHEAP, food stamps, etc.), which more recently, is approximately 5 percent of all participating households in the RSIP. It should be noted that Connecticut is nationally recognized for its "solar with justice" efforts serving low-to-moderate income families and communities or color.[2]

[2] "Solar with Justice: Strategies for Powering Up Under-Resources Communities and Growing an Inclusive Solar Market," by the Clean Energy States Alliance (December 2019)

The RSIP is now at Step 15 in its declining incentive block structure – see Table 1.

Table 1. Incentives Under the RSIP at Step 15 and Average 2020 and 2019 Incentives based on RSIP data

Incentive Type	Incentive ($/W)	$/kWh Produced	Equivalent ZREC Price[3] ($/MWh)	2020[4] Average Incentive ($) based on RSIP data	2020 Average System Size (kW)	2019 Average Incentive ($) based on RSIP data	2019 Average System Size (kW)
EPBB	$0.426	-	$25	$3679	10.6	$3560	9.7
PBI	-	$0.030	$15	$1595	8.0	$1830	8.2
LMI-PBI	-	$0.081	$40	$3377	6.2	$3717	6.3

On average, the ZREC equivalent price for the RSIP at the current incentive levels for Step 15 for each of the different incentives is about $20/MWh – or about $2,000 per home, comparable to calendar year 2020 incentives based on RSIP data, as Step 15 began January 15, 2020. Calendar year 2019 averages are also provided for comparison and amount to about $2300 per home based on a weighted average of the incentive types (approximately 75% PBI, 20% EPBB and 5% LMI-PBI).

The RSIP incentive has gradually declined by over eighty-five (85) percent over time since its inception in 2012 – see Table 2.[5]

Table 2. RSIP Declining Incentives in ZREC Equivalent Price

Step	Equivalent ZREC Price
1	$136
2	$124
3	$94
4	$78
5	$57
6	$39
7	$30
8	$27
9	$25
10	$25
11	$25
12	$22
13	$21
14	$21
15	<$20

When the RSIP started in 2012, the average incentive per home in Step 1 was nearly $12,000, while the average system size was smaller at 6.7 kW. Today, the average incentive per home in Step 15 is $2,000, while the average system size is nearly twenty-five (25) percent larger at 8.3 kW.

[3] Incentive converted into a REC price equivalent over a 15-year fixed price contract
[4] Calendar Year 2020 incentive averages based on RSIP data provide a proxy for Step 15 since Step 15 began 1/15/2020. Calendar Year 2019 incentive averages are also provided for comparison.
[5] FY 2019 Comprehensive Annual Financial Report of the Connecticut Green Bank (p. 178)

What options exist for households or third-party organizations to monetize RECs from their solar PV systems?

There are several options that exist for residential ratepayers to monetize RECs from their solar PV systems, including:

- **RSIP** (Benchmark) – administered by the Green Bank, approximately 60 MW of residential solar PV is currently being deployed a year at an average incentive of $20/REC (i.e., about $2,000 per household). Residential solar PV is susceptible to the phase-out of the federal ITC – meaning that January 1, 2022, there will no longer be the 22% tax credit, which will make solar PV less economic or unstable unless installed costs come down.

  RECs generated from systems in RSIP are currently owned by the Green Bank, which uses them to recover the costs of delivering the RSIP, including incentives, as well as administrative and financing costs. These RECs are certified to qualify for the Class I RPS; 15-year fixed price contracts of RECs are purchased by electric distribution companies, who may retire or resell them for ratepayers' benefit. Prices for each year's RECs are determined by statute to begin at either the small ZREC or $5 lower than the current alternative compliance payment ("ACP"), whichever is less, and must decline each year.[6]

- **Spot and Forward Markets** – competitive suppliers are required to comply to the Class I RPS in Connecticut. In order to comply to the RPS policy, they can either purchase RECs in the open market – spot (i.e., current volume and price available) or forward (i.e., set volume and price for 2 to 3-year contract) – or they can pay an ACP.[7] REC prices are volatile as they are based on supply and demand in the Class I RPS market. For example, RECs traded for $45 to $55 in 2013 to 2015, whereas more recently they have traded for $5 to $35 in 2017 to 2019.

  A private actor (e.g., third-party installers, association, etc.) could play the role the Green Bank has served in REC monetization using the spot and forward markets instead of long-term fixed price contracts. It should also be noted that RECs generated from projects located in Connecticut, can also be sold outside of the state into another regional RPS compliance market in New England.

- **Carbon Offset Market** – although not typically seen in the voluntary carbon offset market, RECs generated from solar PV systems can be sold to individuals, companies, and institutions as a means of offsetting their greenhouse gas emissions. RECs are sold into these markets at wholesale rates (i.e., typically less than $5/REC) and then resold into the retail markets (i.e., typically $10/REC) depending upon the purchaser.

- **Tariff-Based Structure** – with an appropriately priced tariff (i.e., inclusive of the Value of Distributed Energy Resources),[8] homeowners would have options for compensation that differs from net metering. This compensation structure can be good (+) or bad (-):

[6] These policies are from PA 15-194 and PA 16-212.
[7] ACP for the Class I in Connecticut is currently $55. The ACP is reduced to $40 starting January 1, 2021.
[8] As an example, the Green Bank included in its testimony a valuation of residential solar PV during a single summer peak event (i.e., July 21, 2019) – see "Solar Battles the New England Heatwave".

- **Good (+)** – with an appropriately priced tariff, compensating participating households with a reasonable return, the tariff-based structure can support continued deployment more cost-effectively, while withstanding internal (e.g., Connecticut clean energy tax exemption policy) and external (e.g., federal ITC, Chinese trade tariffs, etc.) market impacts. The Green Bank sees the potential of the tariff-based compensation policy if successfully implemented; or

- **Bad (-)** – even with an appropriately priced tariff, if a utility isn't ready to implement the tariff structure (e.g., metering infrastructure is not ready), then participating household choices will be limited (e.g., to only "buy all – sell all"). This is a significant risk given that UI may be ready to implement the tariff policy in time because it has a real-time smart meter infrastructure, while Eversource may not be ready because it is still on an antiquated metering system for its residential customers. In addition to adequate metering considerations, both utilities will need to have administrative and billing processes and systems in place to accommodate the new tariff structure.

- **Small ZREC** – if residential customers were able to access the small ZREC program, although the REC price is high (i.e., \$100/REC for small ZREC vs. \$20/REC for RSIP, defeating the purpose of having had a declining incentive structure through RSIP), there is a cap each year on the amount of REC-based subsidy available to support ZREC projects program.[9] The small ZREC currently supports solar PV projects for small organizations (e.g., nonprofits, small businesses, etc.). If residential solar PV were to access the small ZREC, they would displace access by small organizations. Given the REC-based subsidy cap on the ZREC program, only between 20-25 MW of residential solar could be deployed through the small ZREC – as opposed to what the RSIP is currently doing at 1/5th the subsidy and 2 to 3 times the deployment. The small ZREC is an option to monetize RECs if the RSIP were to end, but it is a less effective (i.e., lower deployment) and inefficient (i.e., more expensive) option.

Each of these options has an impact on the market's effectiveness (i.e., deployment), efficiency (i.e., cost to ratepayers), and long-term stability (i.e., ability to manage internal and external impacts). A breakdown of the Green Bank's classification of the options in terms of their effectiveness, efficiency, and stability are provided – see Table 3.

Table 3. Effectiveness, Efficiency, and Stability of REC Monetization Options for Residential Customers Installing Solar PV

Option	Effectiveness	Efficiency	Stability
RSIP	High	Moderate	High
Spot and Forward Markets	Moderate-High	High	Moderate
Carbon Offset Market	Low	Low	Low
Tariff-Based Structure (+)	Moderate-High	High	High
Tariff-Based Structure (-)	Low	High	Low
Small ZREC	Low	Low	High

One additional external market risk that poses a concern for the residential solar PV market stability that the Green Bank acknowledges, but is not sure how to address through public policy, is the

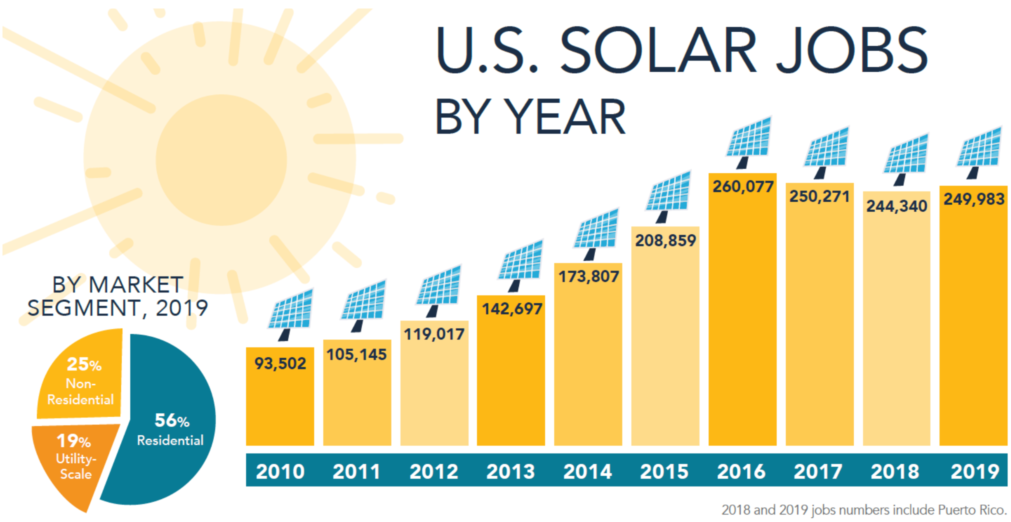
[9] Each round of the ZREC sets aside \$8 million each year for 15 years (i.e., total of \$120 million per round) to be distributed equally to small (i.e., less than 100 kW), medium (i.e., 100-250 kW), and large (i.e., 250-1,000 kW) projects. There are 10 years in the ZREC program – 2020 is the ninth year.

impact of the Coronavirus (COVID-19). The spread of COVID-19 has significantly impacted global economic markets (i.e., the Dow Jones Industrial Average closed over 2,000 points down on Monday, March 9, 2020). As global markets slow down, demand for consumer goods decreases, and so too will consumption of fossil fuels. A decrease in demand for fossil fuels, may result in an increased supply resulting in lower prices. This may put economic pressure on the economics of solar PV (as well as electric vehicles).

What has been the recent level of jobs growth in the residential solar PV market in Connecticut?

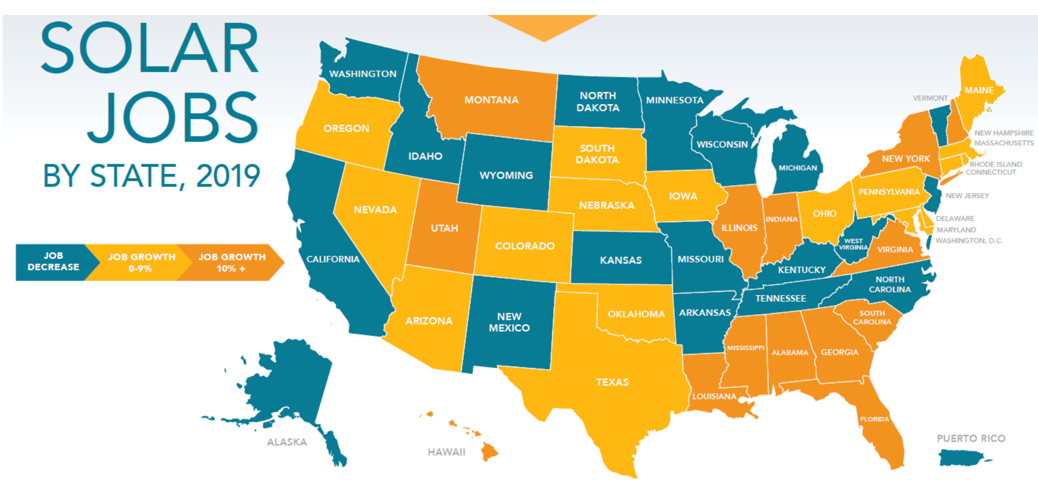
Based on the Solar Foundation's solar jobs in the U.S., the residential sector represents 56% of the workforce in the country – see Figure 1.

Figure 1. U.S. Solar Jobs by Year (2010-2019)



The Solar Foundation also notes that Connecticut has 2,234 solar workers as of 2019 – having gained 41 solar jobs from 2018 to 2019 (i.e., 1.9% increase) – see Figure 2.

Figure 2. Solar Job Growth by State in 2019



U.S. Energy and Employment Report, a report of the U.S. Department of Energy ("DOE"), conducted by BW Research in collaboration with the National Association of State Energy Officials ("NASEO") and Energy Futures Initiative ("EFI"), provides statistics on solar jobs in Connecticut – see Table 4.

Table 4. Solar Electric Generation Jobs in Connecticut across All Sectors (2017-2020)

Year	Jobs	Jobs Growth Rate
2017	2,927	-
2018	2,771	(5.3%)
2019	2,712	(2.1%)
2020[10]	2,839	4.7%

As of 2019, between the Solar Foundation and the DOE reports, there are between 2,234 to 2,712 jobs as a result of the solar industry in Connecticut. Connecticut's overall solar PV market – including residential, non-residential and utility market segments – appears to follow the same overall flat jobs growth trend as that of the U.S. in general.

The Solar Energy Industry Association ("SEIA") is another resource that tracks state-by-state performance for solar PV, except it tracks the deployment (i.e., MW) of solar PV in residential, non-residential, and utility customer segments on a quarterly and annual basis – see Table 5.

Table 5. Solar PV Deployment (MW) in Connecticut for 2017 through Q3 of 2019

Market Segment	2017	2018	2019 (through Q3)	Total	% of Market
Residential	46	58	52	156	49.5%
Non-Residential	49	52	32	133	42.2%
Utility	0	26	0	26	8.3%
Total	**95**	**136**	**84**	**315**	**100.0%**

The data from SEIA indicates not only a growing residential solar PV market in Connecticut over the past three (3) years, which the Green Bank would agree with, but also that the residential market segment is deploying the most renewable energy in Connecticut through the RSIP.

As an aside, on a comparative "watts[11] per capita basis" (i.e., taking into consideration the population of each state), Connecticut has outperformed its Northeastern state counterparts in residential solar PV deployment over the past three (3) years – see Table 6.

Table 6. Comparison of Residential Solar PV Deployment (MW) in Northeastern States

State	2017	2018	2019 (through Q3)	Total	Total Watts per Capita[12]
Connecticut	46	58	52	156	43.8
Massachusetts	87	96	37	220	31.7
New Jersey	138	146	89	373	42.0

[10] Forthcoming Clean Energy Jobs Report 2020 from the Joint Committee of the Energy Efficiency Board and the Board of Directors of the Connecticut Green Bank
[11] 1 MW equals 1,000,000 W
[12] https://en.wikipedia.org/wiki/List_of_states_and_territories_of_the_United_States_by_population

New York	142	137	91	370	19.0
Rhode Island	9	11	8	28	26.4
Vermont	10	8	8	26	41.7

The Green Bank, working with the Department of Economic and Community Development, in collaboration with Navigant Consulting, developed a methodology that provides a reasonable estimate of the direct, indirect, and induced job-years created per $1 MM of investment in projects that are deployed in Connecticut.[13] As the key variable, investment in residential solar PV in Connecticut has nearly doubled from $120 MM in 2017 deploying 35 MW to an estimated $230 MM and 65.0 MW of deployment – see Table 7.[14]

Table 7. Residential Solar PV Jobs in Connecticut

Fiscal Year	**Investment** ($MM)	**Deployment** (MW)	Direct Jobs	Indirect and Induced Jobs	Total Jobs Growth Rate
2017	$120.9	34.8	377	493	-
2018	$150.2	42.7	467	611	24.1%
2019	$229.6	65.1	790	1,033	69.1%
2020 (est)[15]	>$230.0	>65.0	-	-	-
Average	$182.7	51.9	-	-	-

With investment in residential solar PV in Connecticut increasing in recent years, so too has the demand (i.e., deployment) and steady growth in jobs.

Over the last four (4) years, on average, there has been over $180 MM invested in the residential solar PV market deploying about 50 MW a year – this level of steady investment and deployment creates jobs in Connecticut. When the Green Bank says that the RSIP program has achieved the goal of "fostering the sustained orderly development of a state-based solar industry," the Green Bank means that the industry is stably deploying no less than 50 MW of residential solar PV a year under any form of public policy compensation (i.e., RSIP + net metering, net metering only, or tariff). It is the Green Bank's hope, that as the RSIP ends, that net metering or the tariff maintain the goals of economic development for residential solar PV in Connecticut.

What would a residential battery storage incentive program in combination with solar PV look like in Connecticut and when can it begin?

As of March 3, 2020, approximately 300 battery storage systems have been deployed in combination with RSIP-incentivized solar PV, without an additional incentive for battery storage.

Through PURA Docket No. 17-12-03RE03 (i.e., electric storage), the Green Bank, working in collaboration with DEEP and the utilities, is proposing a residential solar PV and battery storage incentive program that has two key components, including:

- **Upfront Incentive** – administered by the Green Bank, a declining incentive block structure to reduce the upfront costs of installing a residential battery storage system in combination with

[13] https://ctgreenbank.com/wp-content/uploads/2017/02/CTGReenBank-Clean-Energy-Jobs-CT-August102016.pdf
[14] Comprehensive Annual Financial Report for FY 2019 of the Connecticut Green Bank (pages 176-177)
[15] As of March 7, 2020, total investment for approved projects has been $172.7 MM for a total of 49.0 MW. The fiscal year ends on June 30, 2020. The FY 2020 target for RSIP is 60.0 MW and $214.2 MM of total investment.

solar PV to provide emergency dispatchable generation to the participating household, along with an automated capability, if necessary (i.e., no active dispatch by the utility or third-party), to reduce summer peak demand; and

- **Performance-Based Incentive** – administered by the utilities through the Conservation and Load Management Plan, a demand response program that would "dispatch" the energy stored from a combined residential battery storage and solar PV system on an active basis when the grid needs it the most.[16]

The Green Bank believes that this program structure would not only maximize the amount of battery storage deployed, and minimize the ratepayer incentives required, but also provide resiliency benefits to participating households, and maximize the benefits of residential solar PV and battery storage to all electric ratepayers by reducing peak demand.

During the public testimony delivered by various participants on March 5, 2020 (e.g., SunRun, Vivint Solar, etc.), this is the desired structure in Connecticut for a residential battery storage program in combination with solar PV.

Once PURA makes a final decision in Docket No. 17-12-03(RE03), it will take the Green Bank up to 6 months to development and launch an upfront battery storage incentive program.

[16] It was also noted by SunRun during their testimony that they can play this active dispatch role as well, as opposed to only the utility.

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CONNECTICUT
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April 21, 2020

Via First Class Mail and Electronic Filing

Mr. Jeffrey R. Gaudiosi, Esquire
Executive Secretary
Public Utilities Regulatory Authority
10 Franklin Square
New Britain, CT 06051

Re: DOCKET NO. 17-12-03 RE01: PURA INVESTIGATION INTO DISTRIBUTION SYSTEM PLANNING OF THE ELECTRIC DISTRIBUTION COMPANIES – ENERGY AFFORDABILITY

Dear Mr. Gaudiosi:

The Connecticut Green Bank (the "Green Bank") respectfully submits the attached written comments in the above referenced docket.

I hereby certify service of this filing upon all parties and intervenors of record in this proceeding.

Please contact me with any questions or concerns.

Respectfully submitted,
CONNECTICUT GREEN BANK

By: /s/Matt Macunas

Matt Macunas
Legislative Liaison & Associate Director of Transportation Initiatives
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Background:

On March 31, 2020 PURA issued a request for feedback on a draft Request for Proposals for Public Forums on Commercial and Industrial Energy Affordability. The Connecticut Green Bank has provided redline edits to PURA's draft RFP below.

Green Bank's suggested edits are primarily driven by the COVID-19 outbreak and related social distancing policies. Given the uncertainty around the COVID-19 outbreak and the eventual relaxation of mandated social distancing policies, it would potentially be difficult to hold in-person listening sessions in the month of June. Data models predicting the peak of the crisis keep shifting as dynamics of the public health data in Connecticut continues to shift. These constant shifts are making it less predictable for policymakers to make decisions on when to relax current social distancing guidelines. Even if the peak of cases come in the next one (1) month to two (2) months, waiting for cases to come down and tail off would be prudent before we consider holding listening sessions would be sensible to do. But we also recognize this uncertainty could prevent doing in-person sessions at all. As a result, virtual listening sessions should also be considered as a way to solicit feedback. Given that virtual listening sessions can be cumbersome to manage, respondents should also provide a short plan on how to design the session to make it worthwhile and productive.

In addition to the edits that address concerns about COVID-19, Green Bank recommends that RFP respondents should also be requested to provide their own objectives and outcomes for the listening sessions to determine whether the session is being designed in a way that aligns with the spirit of the reopener.

STATE OF CONNECTICUT
PUBLIC UTILITIES REGULATORY AUTHORITY

DOCKET NO. 17-12-03RE01
PURA INVESTIGATION INTO DISTRIBUTION SYSTEM PLANNING OF THE ELECTRIC DISTRIBUTION COMPANIES – ENERGY AFFORDABILITY

ATTACHMENT B: DRAFT REQUEST FOR PROPOSALS FOR PUBLIC FORUMS ON COMMERCIAL AND INDUSTRIAL ENERGY AFFORDABILITY
(April 21, 2020)

On October 4, 2019, the Public Utilities Regulatory Authority (Authority or PURA) established the above-cited reopened proceeding to investigate the topic of energy affordability for **all customer classes in Connecticut**, in accordance with the Interim Decision dated October 2, 2019, in Docket No. 17-12-03, PURA Investigation into Distribution System Planning of the Electric Distribution Companies (Interim Decision). On October 8, 2019, the Authority issued a Notice of Proceeding indicating that PURA's investigation would seek to identify: (1) the most impactful barriers to increased energy affordability and equity in the state; and (2) potential solutions to those barriers. To date, the Authority's investigation has primarily focused on the residential customer class.[1]

The Authority now seeks to broaden its scope to address the barriers to energy affordability and equity for the ***commercial and industrial*** classes of customers in Connecticut. The Authority is mindful of the important work other state government agencies, such as the Department of Economic and Community Development, local government agencies, such as chambers of commerce, and non-profit organizations are doing to address the topic of energy affordability for these classes of customers. The Authority is also acutely aware of the impact of the COVID-19 public health emergency on commercial and industrial customers, particularly small businesses, and the tireless work of the government agencies and businesses alike to address this unprecedented health crisis while maintaining the vitality of the state's economy. The Authority looks to complement and build on both the emergency and non-emergency work of these government agencies and non-profits to establish long-term pathways for continued progress towards increased energy affordability and equity for all of Connecticut's businesses.

As a first step in addressing the barriers to energy affordability and equity for ***commercial and industrial*** customers in Connecticut, the Authority looks to learn from customers, government agencies, and non-profit organizations themselves. To that end, the Authority hereby issues this Request for Proposals (RFP) inviting members of the public to submit proposals for the Authority to hold Public Forum listening sessions to

[1] See, Procedural Order, dated January 22, 2020 (http://www.dpuc.state.ct.us/dockcurr.nsf/8e6fc37a54110e3e852576190052b64d/a3d39830281d92cc852584f7006f4514?OpenDocument); Pro Update on Sprint Status, dated March 23, 2020, http://www.dpuc.state.ct.us/dockcurr.nsf/8e6fc37a54110e3e852576190052b64d/4371401e2a158bf985258534005df983?OpenDocument.

hear from customers, government agencies, and/or non-profit organizations regarding commercial and industrial energy affordability and equity in Connecticut. Such proposals should include: (1) the stakeholder organization(s) planning to organize the Public Forum listening session; (2) a best guess of the number and types of stakeholders planning to attend and participate in the Public Forum; ~~and~~ (3) (a) the most convenient time(s), date(s), and location(s) for the organizing stakeholders for an in-person listening session in ~~June,~~ July, ~~and/or~~ August, and/or September; or (b) the most convenient time(s), date(s), for organizing stakeholders for a virtual listening session using an online video conferencing platform in June, July, and/or August, as well as a short plan on how the organizer will manage a virtual listening session to ensure getting optimal results; and (4) provide objectives and outcomes the listening session organizer hopes to get from the listening sessions (i.e. demonstrate how they will align with the spirit of the reopener). The Authority will accommodate as many proposals as is practicable and will prioritize those proposals that maximize stakeholder participation.

The timing of these Public Forum listening sessions is meant to aid in the State's efforts to recover from the economic impacts of the COVID-19 public health emergency. While the Authority's ultimate goal in the above-cited proceeding is to establish long-term pathways for energy affordability and equity, PURA is aware that much work will need to be done once the public health emergency is over to support Connecticut's businesses and ensure a strong economy. The requested Public Forum listening sessions are a first step in achieving this outcome.

Thus far, the Authority has scheduled one Public Forum listening session with the Connecticut Conference of Municipalities for 9:00 a.m. on Tuesday, June 9, 2020; further details will be publically noticed when available. All Public Forum listening sessions held in this docket shall be open to the public and all docket Participants and shall be publicly noticed.

The Authority offers this opportunity for docket Participants and interested stakeholders to provide written comments on the above draft RFP. Actual proposals that are responsive to this RFP will be due June 1, 2020; the instant request for written comments is limited to comments on whether the RFP is soliciting the appropriate information to prepare next steps. All docket Participants and interested stakeholders are requested to file written comments, as discussed above, by 4:00 p.m. on **Tuesday, April 21, 2020**.

Documents must be filed with the Executive Secretary of the Authority in both electronic and paper form. **Please Note:** From March 16, 2020 through April 20, 2020, anyone filing material with the Authority should file only an electronic copy through the PURA Web Filing System and should deliver or mail the associated paper copy on April 21, 2020, or as the Authority instructs on its website. The date and time of filing shall be the date and time the Authority first receives a complete electronic version or the paper version and the required number of paper copies. Unless otherwise specified, filings are due by 4:00 p.m. on or before any required date. If a complete electronic version of the filing is submitted through the Authority's Web Filing System, only one paper version of the filing is generally required. (For exceptionally voluminous or complex filings, the Authority reserves the right to request additional paper copies.) If a complete electronic version of the filing is not web filed, submit an original and one copy.

Dated at New Britain, Connecticut, this 31st day of March, 2020.

PUBLIC UTILITIES REGULATORY AUTHORITY

Jeffrey R. Gaudiosi, Esq.
Executive Secretary

(GBC)

Notice filed with the Secretary of the State on March 31, 2020.

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CONNECTICUT
GREEN BANK

April 21, 2020

Via First Class Mail and Electronic Filing

Mr. Jeffrey R. Gaudiosi, Esquire
Executive Secretary
Public Utilities Regulatory Authority
10 Franklin Square
New Britain, CT 06051

Re: DOCKET NO. 17-12-03 RE02: PURA INVESTIGATION INTO DISTRIBUTION SYSTEM PLANNING OF THE ELECTRIC DISTRIBUTION COMPANIES – ADVANCED METERING INFRASTRUCTURE

Dear Mr. Gaudiosi:

The Connecticut Green Bank (the "Green Bank") respectfully submits the attached written comments in the above referenced docket.

I hereby certify service of this filing upon all parties and intervenors of record in this proceeding.

Please contact me with any questions or concerns.

Respectfully submitted,
CONNECTICUT GREEN BANK

By: /s/Matt Macunas
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Background:

On March 31, 2020 PURA issued a request for feedback on a draft Request for Proposals for Advanced Metering Infrastructure Business and Implementation Plans. The Connecticut Green Bank has provided redline edits to PURA's draft RFP below.

Green Bank's suggested edits are intended to support the implementation of C.G.S. Sec. 16-244z (i.e., tariff policy) by publicly disclosing the timeline for and costs associated with the AMI buildout to support billing and metering needs. Beyond supporting the implementation of the tariff policy, the Green Bank's suggested edits recognize the importance of proposals benefitting programs within the Conservation and Load Management Plan administered by the utilities, including, but not limited to enhancing engineering estimates, improving savings algorithms for benefit-cost screening, and advancing impact evaluations, while also supporting the market broadly through targeted deployment of distributed energy resources.

DOCKET NO. 17-12-03RE02
PURA INVESTIGATION INTO DISTRIBUTION SYSTEM PLANNING OF THE ELECTRIC DISTRIBUTION COMPANIES – ADVANCED METERING INFRASTRUCTURE

ATTACHMENT C: DRAFT REQUEST FOR PROPOSALS FOR AMI BUSINESS AND IMPLEMENTATION PLANS
(April 21, 2020)

On October 4, 2019, the Public Utilities Regulatory Authority (Authority or PURA) established the above-cited reopened proceeding to investigate the topic of advanced metering infrastructure (AMI), in accordance with the Interim Decision dated October 2, 2019 in Docket No. 17-12-03, PURA Investigation into Distribution System Planning of the Electric Distribution Companies (Interim Decision). The Authority held Solutions Days on the topic of AMI on November 5, 2019 and December 17, 2019. Based on the record developed in the docket to date, the Authority hereby issues the following Request for Proposals (RFP) for AMI business and implementation plans that achieve the following objectives, as originally stated in the Interim Decision:

- Develop the business case for the cost-effective deployment of statewide AMI;
- Enhance the utilization of existing assets (for AMI deployment); and
- Maximize the value AMI provides to the electric distribution companies (EDCs) and their customers by strategically implementing AMI.

The Authority expects that any proposals designed to meet the above goals will depend on each EDC's AMI starting point. The Authority recognizes that this may present challenges to non-EDC entities who wish to file a responsive proposal. Nevertheless, and in accordance with the Interim Decision, the Authority is seeking proposals from all interested stakeholders, industry experts, and technology providers, and notes that proposals may address some or all of the stated objectives. To this end, and to assist participants in drafting their proposals, the Authority provides a table below summarizing the proposals sought and their underlying categories. Subsequently, this RFP expounds further on each category to indicate what the Authority seeks in proposals.

The Authority notes that all categories of the business and implementation plans were presented in some form during the Solutions Days or through Written Comments. The Authority has tried to organize the Request for Proposals so that all participants in the proceeding may contribute. The Authority encourages creative solutions in proposals, especially with regard to the use of third-party services, such as software-as-a-service, rather than utility-owned platforms.

Proposals	Proposal Categories
Detailed Business Plan	Benefits
	Costs
Implementation Plan for leveraging value created by AMI technology	Strategies to Deliver on Business Case Objectives (Operational Efficiencies, Customer Engagement, Rate Design)
	Deployment Timeline
	Metrics and Evaluation
	Customer Engagement
	Data Privacy and Security
	Cost Recovery

I. DETAILED BUSINESS PLAN

The Authority expects each EDC (and interested stakeholders) to present a detailed business case proposal that begins with its current AMI starting point and includes, at a minimum, the following costs and benefits outlined below. All detailed business plan proposals must, at a high-level, clearly state the following:

- The business needs that AMI deployment will address and the benefits and/or value that full-scale AMI deployment will unlock;
- The required data and data analytical tools needed to deliver the operational efficiencies, avoided costs, customer value, or any other business need AMI will address or value it will unlock; and
- How the data will be managed and by whom (e.g. which business and operational teams will have access to and expertise to utilize the data; data access platforms and policies for customers and authorized third-party entities).

Proposals should clearly explain all assumptions and how savings/benefits may flow directly to customers, as well as all assumptions used to determine the benefit estimates. Proposals should also include whether benefits are directly received by customers (energy management, customer satisfaction) or through reductions in the need for supply and demand side investments. Where there is uncertainty around future benefits, a description of this uncertainty should be included.

A. BENEFITS

1. Operational Efficiencies and Avoided Costs

Proposals should identify incremental operational efficiencies and savings resulting from leveraging AMI and data networks, including the expected incremental value for the categories presented in the table below. Additional categories and functions should be included as applicable.

Value / Avoided Costs	Examples of Functions
Meter Reading	Changes in personnel, fleet and customer service needs and associated costs.
Service Order Automation	Reductions in field service visits (troubleshooting, disconnect/reconnects) including reduced field crew overtime, reduced fuel, and reduced fleet costs.
Proactive Outage Planning	Predicting transformer replacements before failure, reducing field service costs and environmental remediation costs.
Storm Restoration Efficiencies	Reduced calls to call centers and reduced data traffic on web portals, integrated voice recorders and other customer reporting channels.
Optimizing Power Flow	Enabling volt-VAR optimization; improved connectivity models (which can support electrification initiatives and DER deployment).
More Accurate Load Profiles	Identifying opportunities for load-shifting, ZEV charging, and plant maintenance efficiencies.
Validating Resilience / Reliability Measures	Validating switching schemes, protection measures, etc.
Early Outage Detection	Automated service alarms, alerts, and power data logs for system planning and early outage detection.

2. Value to Customers

Proposals should identify, and quantify where possible, the incremental value that a full-scale AMI deployment would be expected to provide to customers. The Authority provides the following minimum categories that should be addressed in the proposal. Additional categories and functions should be included as applicable.

Customer Benefits	Examples of Functions
Detailed Billing Data	Identify customer value (by customer type) that having access to daily delivered and received power, monthly demand, and instantaneous power data (bi-daily or every 5 minutes).
Market Participation / Rate Design	Savings provided to customers directly or indirectly for participation in these programs.
Enhanced Online Portal	Improved customer engagement and satisfaction.
High-Bill Alerts	Improved customer awareness of usage.
Outage Status	Meter pings to relay information to customers about current outage status.

Customer Targeting for Initiatives	Optimizing targeting of customers for Company initiatives such as demand management, energy efficiency, etc.

B. COSTS

For all AMI-related functions and upgrades listed below (and for any relevant ones not listed), proposals should provide total life-cycle costs. Proposals should also link each cost category to the benefit(s) such cost categories unlock. Proposals should clearly state any assumptions used to determine total lifecycle costs.

Category	Example of Costs
Meters	Include meters and installation/replacement costs.
Communications Upgrades	Include incremental deployment/replacement costs.
Back-end System	Include meter data management systems.
Labor and Standard Operating Plan	Include the number and type (e.g. data analysts, field communications, security experts) of new information technology (IT) based positions needed to implement and operate AMI system and programs. Also, include new tools that staff may need to implement new programs.
Supporting Services and Platforms	Include services/platforms supporting operational use cases listed above, such as information technology support, field service management, system operations optimization, load profiling, and call center intelligence. Likewise, include services/platforms supporting customer-based use cases, such as home energy management, web portal changes, and billing and rate programs.
Customer Engagement	See description under Implementation Plan/Road Map.
Cybersecurity	Identify incremental cybersecurity costs needed to protect customer privacy and EDC operations.

Specific categories of costs should also include, where possible, a comparison of alternative solutions. For example, communications upgrades should consider multiple communications pathway solutions, such as power-line carriers, cellular networks, and mesh networks. Another example would be whether supporting services and platforms are owned directly by the EDC or offered by a third-party as software-as-a-service (SAAS).

C. COST-BENEFIT ANALYSIS

Proposals shall provide a detailed cost-benefit analysis summarizing the cost and benefit information required above, as well as any additional categories identified by the respondent and any associated quantification. Such cost-benefit analysis shall include:

(1) proposal cost-benefit by year, inclusive of all of the categories listed in the RFP; and (2) the net present value of such proposal.[1] The cost-benefit analysis should also include a sensitivity analysis showing the cost-benefit under various levels costs and deployment scenarios. The cost-benefit analysis should be calculated from the perspective of all ratepayers. The EDCs shall also provide a rate impact analysis of any proposal by customer class. Proposals should provide the cost-benefit analysis in Excel in a format similar to the below template:[2]

	AMI Assets In-Service (Determined by Respondent)		
COSTS			
COSTS BY CATEGORY	-$	-$	-$
BENEFITS			
BENEFITS BY CATEGORY	+$	+$	+$
NET COST-BENEFIT	$	$	$
NET PRESENT VALUE (7%+2% RATE)	$		
NET PRESENT VALUE (OTHER RATES)	$		
LIST INPUTS/ ASSUMPTIONS	# / ABC		

II. IMPLEMENTATION PLAN / ROAD MAP

Proposals should include an implementation plan or deployment road map which includes strategies for delivering on the value described in the detailed business plan. Proposals must meet the requirements below:

- Identify specific scenarios for optimal deployment. Include detailed projections of AMI deployment by year and customer class. Include a “meter exchange plan” or a justification of which meters are to be replaced and why;
- Include ways to leverage AMI deployment with existing system resilience programs such as grid hardening and system automation. Incremental benefits

[1] Respondents shall use a discount rate of seven percent and inflation rate of two percent to calculate net present value. Respondents may also provide an analysis using other discount and inflation rates, as they deem appropriate. Respondents must provide justification for any other discount and inflation rates.

[2] Provide the requested cost-benefit analysis in an unlocked Excel workbook with no hidden formulas or macros.

must be stated with all assumptions. For example, the proposal must clearly state how it leverages existing investments while limiting redundancies;

- If there is a proposal from Eversource and/or Avangrid, then as administrators of and consistent with the Conservation and Load Management Plan, to enhance engineering estimates, improve savings algorithms for benefit-cost screening, and advance impact evaluations,[1] as well as providing market participants with publicly available information to support the targeted deployment of distributed energy resources,[2] include ways to leverage AMI deployment with existing C&LM Plan and other programs.
- Identify which costs for the AMI deployment (such as IT needs, system integration and communications infrastructure) also benefit other existing and planned programs and how those costs are shared;
- Identify which costs for AMI deployment can be shared with affiliated companies across states and industries; and
- Identify areas where it may be beneficial to "future-proof" the AMI supporting infrastructure for the next generation of AMI meters.

The implementation plans must include a deployment timeline, a metric and evaluation plan, a customer engagement plan, a data privacy and security plan, and a cost recovery proposal, as prescribed below.

A. Deployment Timeline

Proposals must include an end-to-end road map that incorporates all deployed infrastructure and includes the implementation of new programs (including customer engagement, see below). The road map must illustrate how the value of AMI will be realized to meet the identified business needs. The deployment timeline should provide milestones for various infrastructure deployment (such as communications and data network infrastructure, meter data management systems, billing systems, etc.).

If proposal is from Eversource and/or Avangrid, then proposal(s) must include, and publicly disclose, the timeline on the installation and operation of the advanced metering infrastructure that will enable the billing and metering requirements to implement all tariff options per C.G.S. Sec. 16-244z, and the associated costs to implement such tariff.

The proposal should present a schedule that continues even after full AMI deployment is achieved showing the implementation timeline for various planning, operations, and customer engagement programs that take advantage of the AMI system.

The deployment timeline should include the plans to market to and engage with customers in areas targeted for AMI deployment.

B. Metric and Evaluation Plan

[1] 2020 Plan Update to the 2019-2021 Conservation and Load Management Plan (Filed March 1, 2020)
[2] 2018 Comprehensive Energy Strategy (February 8, 2018)

Proposals must include a metric and evaluation plan to track the implementation and realization of the benefits addressed in the AMI deployment plan. The metric and evaluation plan should address all the categories of the detailed business plan and include ways to measure and track the costs and the benefits realized. The metric and evaluation plan should also include ways to evaluate the deployment timelines, and the effectiveness of the customer engagement initiatives.

The metric and evaluation plan should include, at a minimum, the following information: the milestones and benefit/values of the program to be measured, the frequency of measurement, a plan for over/under performance relative to the stated measures, and any other planned review. By way of example, a metric and evaluation plan that considers the benefit of reduced field service visits may track the following: (1) the number of work orders resolved remotely as a percentage of total work orders; (2) the reduced number of injury/safety incidents due to reduced field visits; ~~and~~ (3) the reduced field visit costs: fuel, emissions reductions, man-hours, etc., and (4) if proposal is from Eversource and/or Avangrid, then how will the advanced metering infrastructure support advancements in "cost effectiveness" measurement and program evaluation within the C&LM Plan. As another example, a customer engagement initiative, such as a program designed to inform customers of the benefits of AMI, should include a metric plan that enables the evaluation of customer awareness and participation and then determine the effectiveness of that program. The Authority expects detailed metric and evaluation plans for all specific categories and programs that are presented in the business case.

C. Customer Engagement Plan

A customer engagement plan must include detailed program costs, as discussed in the Detailed Business Plan section. The proposal must identify and address modern AMI customer issues and questions and continue throughout the AMI implementation plan. The Authority presents in the table below a framework to be used as a basis for the customer engagement plan.

Customer Engagement	
Awareness Stage	Where do you start AMI program deployment? When do you make customers in those areas aware? What are the media of communication? What benefits will be highlighted to customers?
Inform Stage	How will the Company inform customers about the meter installation process, billing/rate changes, etc.?
Engage Stage	What is the plan to engage customers continually about AMI benefits and program offerings during and after deployment?

The customer engagement proposal should present a detailed plan to address the three stages described above. Proposals should include all costs associated with the activities, including costs associated with training internal staff and securing external resources.

D. Data Privacy and Security Plan

As a threshold requirement, respondents must evaluate the U.S. Department of Energy's DataGuard data privacy framework (and may review and discuss other models as appropriate) and discuss whether it should be adopted. Proposals should analyze and identify any shortcomings or areas for improvement in the model. Proposals should present a recommended approach to treat data privacy that considers the following customer data privacy concerns:

- Notice and Awareness;
- Choice and Consent;
- Data Access;
- Integrity and Security;
- Policy enforcement; and
- Dispute resolution.

The proposal should address data ownership considerations including: who owns the data, who owns aggregated data, and whether specific legislation is needed to address data ownership needs. Proposals should identify specific data ownership needs and concerns and be very specific about proposed solutions.

If proposal is from Eversource and/or Avangrid, then the proposal should identify how the C&LM Plan can use the advanced metering infrastructure to benefit its programs.

E. Cost Recovery Proposal

Recommendations for EDC cost recovery should be proposed. Cost recovery proposals should include all costs incurred by the AMI business case and implementation plan, including capital additions and ongoing operating expenses. Proposals should address cost allocation to customer and rate classes. Cost recovery proposals should include plans for the periodic reviews of program costs, including capital investments and ongoing operating expenses.

II. AMI BUSINESS AND IMPLEMENTATION PLAN SUMMARY TEMPLATE

In addition to the submission of detailed responses to the specific proposal requirements above, the Authority instructs respondents to provide a proposal summary using the below template. Summaries may be provided in paragraph or bullet point form.

Proposals	Proposal Categories	Summary of Proposal (by category)
Detailed Business Plan	Benefits	
	Costs	
Implementation Plan for	Strategies to Deliver on Business Case Objectives (Operational Efficiencies, Customer Engagement, Rate Design)	

leveraging value created by AMI technology	Deployment Timeline	
	Metrics and Evaluation	
	Customer Engagement	
	Data Privacy and Security	
	Cost Recovery	

III. REQUEST FOR WRITTEN COMMENT

The Authority offers this opportunity for docket Participants and interested stakeholders to provide written comments on the above draft RFP. Specifically, the Authority **invites stakeholders to provide redline edits** to the draft RFP to ensure that it solicits EDC-specific AMI business and implementation plans that achieve the objectives outlined at the onset of the draft RFP. Written comments should also provide supporting rationale for any recommended change(s) to the draft RFP.

All docket Participants and interested stakeholders are requested to file written comments on the draft RFP, as discussed above, by 4:00 p.m. on **Tuesday, April 21, 2020**. Documents must be filed with the Executive Secretary of the Authority in both electronic and paper form. **Please Note:** From March 16, 2020 through April 20, 2020, anyone filing material with the Authority should file only an electronic copy through the PURA Web Filing System and should deliver or mail the associated paper copy on April 21, 2020, or as the Authority instructs on its website. The date and time of filing shall be the date and time the Authority first receives a complete electronic version or the paper version and the required number of paper copies. Unless otherwise specified, filings are due by 4:00 p.m. on or before any required date. If a complete electronic version of the filing is submitted through the Authority's Web Filing System, only one paper version of the filing is generally required. (For exceptionally voluminous or complex filings, the Authority reserves the right to request additional paper copies.) If a complete electronic version of the filing is not web filed, submit an original and one copy.

Dated at New Britain, Connecticut, this 31st day of March, 2020. PUBLIC UTILITIES

REGULATORY AUTHORITY

Jeffrey R. Gaudiosi, Esq.
Executive Secretary

(GBC)

Notice filed with the Secretary of the State on March 31, 2020.

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CONNECTICUT
GREEN BANK

April 21, 2020

Via First Class Mail and Electronic Filing

Mr. Jeffrey R. Gaudiosi, Esquire
Executive Secretary
Public Utilities Regulatory Authority
10 Franklin Square
New Britain, CT 06051

Re: DOCKET NO. 17-12-03 RE03: PURA INVESTIGATION INTO DISTRIBUTION SYSTEM PLANNING OF THE ELECTRIC DISTRIBUTION COMPANIES – ELECTRIC STORAGE

Dear Mr. Gaudiosi:

The Connecticut Green Bank (the "Green Bank") respectfully submits the attached written comments in the above referenced docket.

I hereby certify service of this filing upon all parties and intervenors of record in this proceeding.

Please contact me with any questions or concerns.

Respectfully submitted,
CONNECTICUT GREEN BANK

By: /s/Matt Macunas
Matt Macunas
Legislative Liaison & Associate Director of Transportation Initiatives
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Background:

On March 31, 2020 PURA issued a request for feedback on a draft Request for Proposals for Program Design on Electric Storage. The Connecticut Green Bank has provided redline edits to PURA's draft RFP below.

Green Bank's suggested edits are intended to ensure transparency and public availability of data collection, analysis, and performance of approved programs, equitable access to incentives by underserved communities (e.g., low-to-moderate income families), equitable access of certified commercially available electric storage technologies, encouragement of integrated distributed energy resource solutions (e.g., battery storage with solar PV) to maximize participant, ratepayer, and societal benefits, and support economic development through "fostering the sustained orderly development of local battery storage industry."

DOCKET NO. 17-12-03RE03
PURA INVESTIGATION INTO DISTRIBUTION SYSTEM PLANNING OF THE ELECTRIC DISTRIBUTION COMPANIES – ELECTRIC STORAGE

ATTACHMENT D: DRAFT REQUEST FOR PROPOSALS FOR PROGRAM DESIGN
(April 21, 2020)

To ensure that the Public Utilities Regulatory Authority (Authority or PURA) is prepared to implement Raised House Bill (H.B.) 5351,[1] An Act Concerning Certain Programs and to Incentivize and Implement Electric Energy Storage Resources, and in accordance with the Interim Decision dated October 2, 2019, in Docket No. 17-12-03, PURA Investigation into Distribution System Planning of the Electric Distribution Companies (Interim Decision), PURA hereby issues the following Request for Proposals for program design to achieve the goals presently stated in Section 2 of H.B. 5351 and the Interim Decision.

Section 2 of H.B. 5351, the Interim Decision, and the Notice of Proceeding in Docket No. 17-12-03RE03, PURA Investigation into Distribution System Planning of the Electric Distribution Companies – Electric Storage, identify the following objectives for electric storage programs in Connecticut:

- Provide positive net present value to all ratepayers, or a subset of ratepayers paying for the benefits that accrue to that subset of ratepayers;
- Provide multiple types of benefits to the electric grid, including, but not limited to, customer, local, or community resilience, ancillary services, peak shaving, and avoiding or deferring distribution system upgrades or supporting the deployment of other distributed energy resources; and
- Foster the sustained, orderly development of a state-based electric energy storage industry.

Section 2 of H.B. 5351 would require the Authority to establish a residential electric storage program and would enable the Authority to use its discretion with respect to establishing a program for commercial and industrial customers. Moreover, the focus to-date of Docket No. 17-12-03RE03, and the Solutions Days held on November 14, 2019 and November 15, 2019, has largely been on residential electric storage programs.[2] As

[1] Raised House Bill (H.B.) 5351 – An Act Concerning Certain Programs and to Incentivize and Implement Electric Energy Storage Resources, Connecticut General Assembly, Energy and Technology Committee, February Session, 2020, https://www.cga.ct.gov/asp/cgabillstatus/cgabillstatus.asp?selBillType=Bill&bill_num=HB5351&which_year=2020, last visited March 19, 2020.

[2] The Authority reminds stakeholders that Docket No. 17-12-03RE07, scheduled for Phase III of this proceeding, will address Non-Wires Alternatives, which may also invoke additional use cases and program designs that support the deployment of storage assets. To the degree practicable, proposals responsive to the instant request should abstain from opining on NWA program design until the Authority takes up RE07 later this year.

such, the Authority hereby requests proposals for **residential electric storage program designs** that will be available to customers of the state's electric distribution companies (EDCs), The Connecticut Light and Power Company d/b/a Eversource Energy and The United Illuminating Company. Respondents may also provide proposals for commercial and industrial electric storage program designs. Proposals for commercial and industrial electric storage programs should clearly demonstrate the need and rationale for such program(s) and identify the targeted customer class, with accompanying rationale, if the program is designed for a specific customer class only.

All proposals should identify and answer the following:

I. PROGRAM DESIGN REQUIREMENTS

A. Program Length

- Provide a recommended program length, description of the customer market segment your proposal is addressing (i.e., residential, commercial, or industrial customers) and, if applicable, yearly or total deployment targets, including justification for such recommendation(s).

Commented [CGB1]: Suggest seeking a common program length and deployment target from all respondents, to provide apples to apples comparison of proposals in alignment with PURA goals.

For example, HB 5351 proposed 1,000 MW target by 2030.

B. Incentive Structure

- Provide details of the specific recommended incentive structure (e.g. upfront payments, payments for performance, rate design(s), or a combination thereof) or any other recommendations for incentivizing electric storage deployment;
- Provide details on whether or not electric storage systems are being combined with other existing or new distributed energy resources (e.g., solar PV) in your proposal;
- Provide details on how your proposal will support participation by underserved populations (e.g., low-to-moderate income families);
- Provide justification for any recommended incentive structure;
- Provide examples of the success of the recommended incentive structures in other jurisdictions, if applicable;
- Provide example(s), relevant to your proposal, of how incentives provided to end-use customers will be publicly disclosed; and
- Where ratepayer funding for any incentives is necessary, propose a funding and/or cost recovery mechanism that the Authority should direct the EDCs to use to provide such funding.

C. Incentive Level

- Provide a methodology for calculating the incentive level;
- Provide rationale for such calculation methodology;
- Explain how the incentive level will change over time, MW deployed, or with changes to technology costs;
- If a programmatic approach is being proposed, with incentives being received by multiple customers involving multiple contractors, provide an example of how installed cost data will be publicly disclosed;
- Explain how any changes to the incentive level should be identified and/or

implemented; and

- Explain why the proposed incentive level will be sufficient to encourage adoption.

D. OWNERSHIP MODEL

- Under this proposal, which parties would be allowed to own electric storage devices: the EDCs, customers, or a third-party? All three? Provide the rationale for the inclusion or exclusion of any of the three groups listed;
- If the proposal involves battery storage projects combined with other existing or new distributed energy resources (e.g., solar PV), can state or federal tax credits be accessed to improve the economics to the participating customer?
- If the proposal involves battery storage being combined with other existing or new distributed energy resources (e.g., solar PV)[1], does the proposer have access to or own all energy (e.g., renewable energy credits, capacity rights and forward capacity market revenues, etc.) and environmental (e.g., carbon offset) attributes from the distributed energy resource components of the combined project?
- Explain if and how the proposed ownership model(s) would affect utility operations. Provide the rationale for such explanation; and
- Explain if and how the proposed ownership model(s) would affect third-party owners' ability to offer Power Purchase Agreements or leases.

E. OPERATIONAL CONTROL MODEL

- Provide a proposed operational control model, including:
  a. Which parties would have operational control of the electric storage system;
  b. The technological capability for executing control of the system of the identified parties;
  c. The expected charge and discharge activity over the course of a year for an individual electric storage device, including the expected charge and discharge time;
  d. Whether the parties with operational control would change with time based on the factors such as time (e.g. likely peak times) and the state of the electric grid (e.g. power outage); and
  e. Provide the rationale for such operational control model.
- Explain if and how the proposed operational control model would affect utility operations. Provide the rationale for such explanation; ~~and~~
- Explain if and how the proposed operational control model would affect third-party owners' ability to offer Power Purchase Agreements or leases;
- Explain if and how the proposed operational control model would limit the number of battery technologies/manufacturers eligible to participate in the program; provide the rationale for such approach;
- Explain the primary intent of the operational control model (e.g., peak load reduction, system reliability, resiliency) and how the operational control model achieves its goal(s); and

[1] In the case of projects that receive incentives through the Green Bank's Residential Solar Investment Program (RSIP), the Green Bank owns all energy and environmental attributes associated with the solar PV.

- Explain how current operational constraints such as interconnection requirements or program rules may affect the magnitude of the benefit (e.g., battery discharge cannot exceed customer demand).

F. Program Administration

- Recommend a quasi- or government agency (e.g. the Connecticut Green Bank, the Department of Energy and Environmental Protection, etc.) or company (e.g. the EDCs or a third-party) to administer the day-to-day program operations and oversee EM&V:
  ~~a. If the respondent recommends their agency or company, provide a list of administrative activities the program would require, organized by timescale (e.g. separately list daily, monthly, and yearly activities).~~
- Provide a description of the program roles and responsibilities (e.g., administrative activities) for all parties involved, including EDCs, DEEP, Green Bank, third-party, and others.
- Provide justification for such recommendation; ~~and~~
- Provide an itemized estimate of the recommended agency or company's administrative costs for marketing and administering the proposed program. Specifically, the estimated number of full-time equivalent employees and estimated total annual employee compensation should be included.
- Describe how your proposal plans on acquiring customers. What marketing will be pursued to reach your target and encourage customer demand?

G. Cost-Benefit Analysis

- Provide a cost-benefit analysis (i.e., utility cost test and participant cost test)[2] that shows how such proposal will provide positive net present value to electric ratepayers over the course of the full program:[3]
  a. Provide a sensitivity analysis showing the cost-benefit under various levels of participation.
- If your proposal includes connecting battery storage to other distributed energy resources (e.g., solar PV), please provide cost-benefit analyses of the combined systems.
- Clearly identify each cost and benefit category included in this cost-benefit analysis as is included in the Conservation and Load Management Plan (e.g. avoided capacity DRIPE), including any additional sources of funding;
- Such cost-benefit analysis shall include values for each cost and benefit category for each program year, including all data inputs and assumptions, and should be provided in Excel in a format similar to the below template:[4]

[2] 2020 Plan Update to the 2019-2021 Conservation and Load Management Plan (Chapter Three: Benefit-Cost Screening)

[3] Respondents shall use a discount rate consistent with the 2020 Plan Update to the 2019-2021 Conservation and Load Management Plan of ~~seven~~ three percent, and an inflation rate of two percent to calculate net present value. ~~Respondents may also provide an analysis using other discount and inflation rates, as they deem appropriate. Respondents must provide justification for any other discount and inflation rates.~~

[4] Provide the requested cost-benefit analysis in an unlocked Excel workbook with no hidden formulas or macros.

	Program Years (Determined by Respondent)		
COSTS			
COSTS BY CATEGORY	-$	-$	-$
BENEFITS			
BENEFITS BY CATEGORY	+$	+$	+$
NET COST-BENEFIT	$	$	$
NET PRESENT VALUE (7%+2% RATE)	$		
NET PRESENT VALUE (OTHER RATES)	$		
LIST INPUTS/ ASSUMPTIONS	# / ABC		

Commented [CGB2]: May change if program years are specified in the RFP.

Commented [CGB3]: See footnote #3

- Separately, provide written justification for the inclusion of each cost and benefit category. Also, provide written justification for the calculation methodology used for each category and the likelihood the proposed program provides such benefit or incurs such cost; and
- Such cost-benefit analysis shall also include a separate cost-benefit analysis for the participating electric customers, in a format similar to the above template, and may include a valuation of the emergency power provided by the electric storage system.
- (Optional) Please include any additional analyses on costs and/or benefits to support your proposal.

H. EVALUATION, MEASUREMENT, AND VERIFICATION (EM&V)

- Provide an EM&V plan that, at a minimum:
  a. Recommends the type of organization that should be procured to perform program EM&V;
  b. Proposes metrics to determine program success;
  c. Propose reporting requirements and reporting frequency to PURA, including timing of such reports (quarterly, annually, etc.);
  d. Propose how program performance data will be collected, disclosed to PURA, and made publicly available; and
  e. Recommends a process by which changes to the program may be adopted

based on such metrics and results.

I. OTHER

- Discuss how your proposal intends to determine eligibility for electric storage technologies to participate in your proposed program;
- Discuss if both AC- and DC-coupled systems would be eligible under this proposal and any requirements for the meters used to calculate the proposed incentive. If possible, also provide:
  a. Wire diagrams of the eligible AC- and DC-coupled configuration(s); and
  b. Specifications of such metering requirements, including a list of eligible meters.
- Discuss if the proposal restricts the make or type of electric storage systems;
- Discuss if the proposal restricts customer eligibility;
- Discuss how this proposal does or does not complement the electric utilities' proposed pay-for-performance program through the Conservation and Load Management Plan for which electric storage is eligible;
- If combined with existing or new solar PV for residential customers, discuss how this battery storage proposal does or does not complement the Residential Solar Investment Program administered by the Connecticut Green Bank and the Comprehensive Plan of the Connecticut Green Bank.[5]
- If combined with existing or new solar PV for commercial customers, discuss how this battery storage proposal does or does not complement the Zero Emission or Low Emission Renewable Energy Credit Program administered by the utilities;
- Discuss the considerations this proposal creates for the design of the successor program to the Residential Solar Investment Program;
- Provide any other information regarding this proposal that is pertinent to Docket No. 17-12-03RE03.

III. STORAGE PROPOSAL TEMPLATE

The Authority instructs respondents to use the below template to summarize the proposed program design, in addition to the submission of detailed responses to the above program design requirements.

Electric Storage Program Design	
Brief Description	
Program Length & Deployment Target(s)	
Incentive Structure	
Incentive Level & Calculation Methodology	
Ownership Model	

[5] Comprehensive Plan of the Connecticut Green Bank (FY 2017-FY 2019) and Comprehensive Plan of the Connecticut Green Bank (FY 2020 and Beyond).

Operational Control Model	
Program Administrator	
Ratepayer Cost-Benefit (by year)	
Administrative Costs	
Incentive Costs	
Other Costs (by category)	
Total Program Costs	
Benefits (by category)	
Total Program Benefits	
Program NPV	
Evaluation, Measurement & Verification Plan	
Evaluation Metrics	
Reporting Requirements & Frequency	
Impact on Distribution System Operation	
Metering Requirements and Eligible System Configurations	
Other DER Program Considerations	
Technology Eligibility Criteria (if applicable)	
Participant Eligibility Criteria (if applicable)	
Other (if applicable)	

Commented [CGB4]: This item is not discussed above. Suggest including more detail within the RFP to address this point.

IV. REQUEST FOR WRITTEN COMMENT

The Authority offers this opportunity for docket Participants and interested stakeholders to provide written comments on the above draft RFP. Specifically, the Authority **invites stakeholders to provide redline edits** to the draft RFP to ensure that it solicits proposals that most effectively achieve the objectives for electric storage programs stated above. Written comments should also provide supporting rationale for any recommended change(s) to the draft RFP.

All docket Participants and interested stakeholders are requested to file written comments on the draft RFP, as discussed above, by 4:00 p.m. on **Tuesday, April 21, 2020**. Documents must be filed with the Executive Secretary of the Authority in both electronic and paper form. **Please Note:** From March 16, 2020 through April 20, 2020, anyone filing material with the Authority should file only an electronic copy through the PURA Web Filing System and should deliver or mail the associated paper copy on April

21, 2020, or as the Authority instructs on its website. The date and time of filing shall be the date and time the Authority first receives a complete electronic version or the paper version and the required number of paper copies. Unless otherwise specified, filings are due by 4:00 p.m. on or before any required date. If a complete electronic version of the filing is submitted through the Authority's Web Filing System, only one paper version of the filing is generally required. (For exceptionally voluminous or complex filings, the Authority reserves the right to request additional paper copies.) If a complete electronic version of the filing is not web filed, submit an original and one copy.

Dated at New Britain, Connecticut, this 31st day of March, 2020.

PUBLIC UTILITIES REGULATORY AUTHORITY

Jeffrey R. Gaudiosi, Esq.
Executive Secretary

(GBC)

Notice filed with the Secretary of the State on March 31, 2020.

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CONNECTICUT
GREEN BANK

April 21, 2020

Via First Class Mail and Electronic Filing

Mr. Jeffrey R. Gaudiosi, Esquire
Executive Secretary
Public Utilities Regulatory Authority
10 Franklin Square
New Britain, CT 06051

Re: DOCKET NO. 17-12-03 RE04: PURA INVESTIGATION INTO DISTRIBUTION SYSTEM PLANNING OF THE ELECTRIC DISTRIBUTION COMPANIES – ZERO EMISSION VEHCILES

Dear Mr. Gaudiosi:

The Connecticut Green Bank (the "Green Bank") respectfully submits the attached written comments in the above referenced docket.

I hereby certify service of this filing upon all parties and intervenors of record in this proceeding.

Please contact me with any questions or concerns.

Respectfully submitted,
CONNECTICUT GREEN BANK

By: /s/Matt Macunas
Matt Macunas
Legislative Liaison & Associate Director of Transportation Initiatives
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Background:

On March 31, 2020 PURA issued a request for feedback on a draft Request for Proposals for distribution system program design pertaining to light-duty zero emission vehicles. The Connecticut Green Bank has provided redline edits to the Authority's draft RFP below.

Green Bank's suggested edits are intended to bear in mind the role of finance, and of the possible program design contributions of DER combinations to EV charger deployment. Examples of the latter point might include solar PV to improve benefit-cost ratios; fuel cells or battery storage to flexibly support the cost or environmental case; or energy efficiency to complement a home product offering. If including DERs in a proposal alongside EV charging, the benefits and costs of their distribution system integration should be apportioned appropriately in cost-benefit analysis.

We agree with adherence of program designs to the policy objective of Connecticut's 2025 ZEV MOU commitments. We also applaud the special consideration afforded to addressing market gaps such as the advancement of disadvantaged communities. Of note, a strategy with great potential for benefitting disadvantaged communities while sailing through benefit-cost analysis could be mass transit electrification; that subject is germane not to this draft RFP but to the Authority's forthcoming draft RFP concerning medium- and heavy-duty vehicle electrification.

Regarding the subject area of Workplace Level 2 Charging, the Green Bank currently interprets this to allow for proposals addressing both personal vehicle charging for workplace employees (non-public destination charging), and also fleet depot charging for light-duty commercial activities with return-to-base operations.

The March 31 notice wisely opens the possibility of modifications to submetering regulations if needed. If such an examination occurs, the Authority and EDCs should use the opportunity to clarify the ability of gas station owners to sell or resell electricity to drivers by the kilowatt-hour (allowing for time-varying pricing), and to include the commodity on price boards alongside gasoline and diesel.

STATE OF CONNECTICUT
PUBLIC UTILITIES REGULATORY AUTHORITY

DOCKET NO. 17-12-03RE04
PURA INVESTIGATION INTO DISTRIBUTION SYSTEM PLANNING OF THE ELECTRIC DISTRIBUTION COMPANIES – ZERO EMISSION VEHICLES

ATTACHMENT E: DRAFT REQUEST FOR PROPOSALS FOR PROGRAM DESIGN (LIGHT-DUTY VEHICLES)
(April 21, 2020)

In order to facilitate the seamless integration of zero emission vehicles (ZEVs) and ZEV-related technologies onto Connecticut's electric grid, on October 4, 2019, the Public Utilities Regulatory Authority (Authority or PURA) established the above-cited docket to explore four solutions tracks – infrastructure, rate design, innovation, and education and outreach – in accordance with the Interim Decision dated October 2, 2019, in Docket No. 17-12-03, PURA Investigation into Distribution System Planning of the Electric Distribution Companies (Interim Decision).

The objective of the ZEV proceeding is to enable Connecticut's commitment to the eight state Memorandum of Understanding (MOU) to collectively reach the deployment of 3.3 million ZEVs among the participating states by 2025.[1] Further, a self-sustaining ZEV market is a critical piece of the Governor's Council on Climate Change's greenhouse gas (GHG) reduction strategies and recommendations, which aim to reduce harmful health and environmental effects of internal combustion engines. Thus, a proactive approach to facilitate the seamless integration of new and emerging ZEV-related technologies is required to realize the potential electric system benefits of ZEVs, along with the economic, health, and environmental benefits they provide.

In accordance with the Interim Decision, the Authority hereby issues the following Request for Proposals (RFP) for program designs to optimize the deployment of electric vehicle supply equipment (EVSE) and associated distribution system infrastructure necessary to meet Connecticut's transportation electrification goals. This RFP solicits proposals across six ZEV program areas:

(1) Residential Level II charging at single-family units;
(2) Residential Level II charging at multi-unit dwellings (MUDs);
(3) Public direct current fast charging (DCFC);
(4) Public Level II destination charging;
(5) Workplace Level II charging; and
(6) Development of a low- to moderate-income (LMI) customer electrification mobility study.

[1] State Zero-Emission Vehicle Programs Memorandum of Understanding, States of California, Connecticut, Maryland, Massachusetts, New York, Oregon, Rhode Island, and Vermont, dated October 24, 2013 (https://www.ct.gov/deep/lib/deep/air/zeroemissionvehicle_mou.pdf), having

since been joined by the States of Maine and New Jersey and potentially soon Washington. Connecticut's share of the ZEV MOU target is approximately 125,000-150,000 electric vehicles by 2025.

Taken together, these six program areas represent a comprehensive, portfolio approach to enabling ZEV deployment on the scale necessary to meet the State's ZEV MOU goals and GHG reduction targets.

As discussed at the ZEV Solution Days held on November 22, 2019, and December 20, 2019, in this proceeding, the electrification of medium- and heavy-duty vehicles represents opportunities for deeper decarbonization of the transportation sector. Because solutions to support the transition to electrification of the public bus fleet, as well as private fleet electrification, have their own unique opportunities and challenges, the scope of this RFP is limited to light-duty vehicles only. The Authority will address solutions tailored to the electrification of medium- and heavy-duty vehicles through a separate process in this proceeding.

I. SPECIFIC ZEV PROGRAM AREA GUIDELINES

The Authority solicits proposals that include EVSE infrastructure and rate design components, as applicable. The Authority invites proposals from the electric distribution companies (EDCs) and all interested stakeholders, including technology providers and other industry experts, to respond in part or in full to the ZEV program areas described in this RFP. Importantly, each proposal should indicate how the recommended program design helps ensure that Connecticut meets its commitments under the ZEV MOU by 2025. Scalable program designs and associated triggers are encouraged in response to this RFP.

Similar program design elements may be applied across program areas; for example, respondents may propose the same ownership model and outreach plan be applied to publicly accessible DCFC and Level II charging stations. Where applicable proposals should describe program roles and responsibilities (e.g., administrative activities) for all parties involved. In addition to submitting a narrative, respondents should utilize the template provided under Common Program Elements, below, to help organize and streamline review of program proposals.

A. RESIDENTIAL CHARGING: SINGLE-FAMILY UNITS

The Authority seeks proposals for a residential program with two main offerings: (1) a time-of-use (TOU) rate specifically for electric vehicle (EV) home charging, and (2) an incentive program for EV owners who purchase Level II chargers with advanced charger capabilities. Proposals should address how the residential program offerings complement one another, as well as how they complement other state or federal incentives (which may include financing targeted to this market), and should specify whether participation in the EV-only TOU rate is required to receive a Level II charger incentive. Additionally, the Authority encourages recommendations from all respondents on residential program designs that are inclusive of EV drivers who are single-family home renters (multi-unit dwellings are addressed separately).

1. EV-specific TOU rate

Proposals shall include an EV-specific TOU, or time-varying rate, with defined on-peak and off-peak charging periods. The EV-specific TOU rate may utilize existing TOU periods offered by the EDCs,[2] or may propose alternative on-peak and off-peak periods. In addition, a multi-tiered rate structure (e.g., on-peak, off-peak, and "super off-peak" periods) may be submitted. Proposals should provide justification for the recommended TOU or multi-tiered rate structure based on factors such as local and regional peak times.

To minimize upfront participation costs, an EV-specific TOU rate proposal must specify an alternative(s) to requiring the installation of a second utility revenue grade meter to separately measure EV use at the customer's premise. Accordingly, the EDCs may address whether any modifications to existing submetering policies and procedures, pursuant to General Statutes of Connecticut § 16-19ff and Regulations of Connecticut State Agencies § 16-11-236 *et seq*., are necessary to accommodate an EV-specific TOU rate proposal that does not require the installation of a second meter on the customer's premise.

2. Advanced Charger Incentive Program

A residential program shall also offer an incentive program for EV drivers who wish to purchase a qualified Level II charger for home charging. The incentive shall only be available for Level II chargers with advanced charging capabilities; the proposal should recommend the parameters used to qualify a Level II charger as possessing the requisite advanced charging characteristics. Proposals may also include a managed charging pilot program for the EDCs to obtain insights into usage patterns and test other operational functions related to grid integration. Program evaluation, timeline, and a scalability assessment will be integral components of any proposed residential managed charging pilot program, specific requirements of such proposals are reflected in the template provided under Common Program Elements, below.

B. RESIDENTIAL CHARGING: MULTI-UNIT DWELLINGS

The Authority seeks program proposals that increase the number of EVSEs installed at MUD sites in Connecticut, including multi-unit rental properties and condominiums, to enable at-home charging for all EV drivers. Proposals shall establish an incentive-based program for the installation of EVSE with advanced charging capabilities, and specify the corresponding ownership model(s). The Authority recognizes MUDs present unique circumstances for EVSE installation and usage. If sited effectively, EVSEs installed at MUDs may also provide opportunities to maximize EVSE investments and achieve high charger utilization rates as charging infrastructure is shared among multiple EV drivers. Accordingly, there may be certain circumstances that warrant different incentive levels for EVSE installations at eligible MUDs. If such a structure is deemed appropriate, respondents should specify the circumstances that warrant a

[2] The current residential TOU rate classes establish an on-peak period of weekdays from 12 p.m. – 8 p.m. Weekends, holidays, and 8 p.m. – 12 p.m. weekdays are off-peak.

different incentive level and provide an explanation of why such an incentive structure is necessary and appropriate.

The respondents may incorporate outreach and education efforts to MUD site owners and operators to promote the benefits of EVSE installation into their program proposals. However, program participation should ultimately be driven by applications submitted by, or on behalf of, MUD site owners or MUD residents.

C. Public Charging

The Authority seeks proposals that increase the number of public DCFC and Level II “destination” charging stations across Connecticut. Respondents must describe the proposed program design, including, but not limited to, the type(s) of ownership models for the installation of DCFC and Level II EVSE at publicly accessible locations, and an explanation of why the proposed ownership model(s) is appropriate. The Authority encourages recommendations from all respondents on how programs to deploy public DCFC and Level II EVSE installations should be structured to best meet the needs of current and future EV drivers.

The proposed program design shall also address demand charges. The Authority conditionally approved an EV Rate Rider pilot in Eversource’s service territory in the decision dated March 6, 2019, Docket No. 17-10-46RE01, Application of The Connecticut Light and Power Company d/b/a Eversource Energy to Amend its Rate Schedules – EV Rate Rider (EV Rate Rider Decision). The EV Rate Rider rate calculation is based on a per-kilowatt hour equivalent to the demand charges applicable to Eversource’s general service rate schedule that would otherwise apply to the load being served. EV Rate Rider Decision, p. 1. While the Authority reserves the right to assess the impact of the EV Rate Rider based on future compliance filings, the Authority contemplates an alternative approach in this comprehensive ZEV proceeding. The Authority seeks a proposed structure of demand charges that scale as a function of utilization rates. Such an approach may be applied to DCFC installations, as well as to any large-scale installations of Level II charging stations. The Authority does not intend to approve a program design that provides for a temporary reprieve from demand charges, or another demand charge forgiveness approach for publicly accessible charging stations. All proposed demand charge structures should provide all underlying assumptions, including assumed hourly charging profiles used to calculate charger utilization rates.

1. DCFC

As DCFC installations require significant upfront investments, programs should aim to balance future-proofing considerations with a prudent investment approach. The Authority recognizes that one way to mitigate installation costs would be to site DCFC equipment in areas of the grid that could support such demand with minimal upgrades required. However, not only is the electric grid itself dynamic, but the potential usage-driven siting of DCFC is unlikely to consistently align with such an approach. Thus, a large component of a responsive proposal to this program element should address this dilemma – detailing a recommended approach to optimal DCFC site selection, and specific site recommendations, based on EVSE infrastructure needs and EV driver patterns. An efficient public DCFC program design will balance all DCFC site selection considerations.

Proposals shall also specify the maximum charger station capacity of DCFCs to be installed and the type(s) of plug-in charging connectors available, and further, shall include recommended incentive structures and ownership methodologies, which may differ based on a specified siting objective or criteria. Given the crucial role of fast charger availability in providing confidence to ZEV drivers – and the role of charger downtime in removing that confidence – proposals shall also include consideration of a DCFC's maintenance and service regime.

2. Level II Destination Charging

Not all publicly available EVSE infrastructure requires fast charging capability; there are locations where Level II "destination charging" is appropriate, such as shopping centers, tourist sites, hotels, etc. Program proposals to increase installations of publicly accessible Level II charging stations shall utilize EVSE with advanced charging capability. Level II EVSE have lower maximum charging capacities and, therefore, can have less of an impact on the electric distribution system. Site selection considerations may differ from the DCFC program proposals.

D. Workplace Charging

Expanding the availability of workplace charging is another critical component to enabling widespread ZEV deployment. Program proposals to increase installation of Level II charging stations at workplaces shall utilize EVSE with advanced charging capability. While workplace charging program design may have similar elements to the MUDs and public destination charger programs, the role of establishing partnership and other program design elements may be unique to this charging case. Another element unique to workplace charging could include the design of a fleet charging rate or incentive structure.

E. Low-to-Moderate Income ZEV Mobility Study

The Authority seeks to better understand the current mobility obstacles LMI residents face, and to determine whether any electrified transportation strategies are best suited to meet current needs. As such, the Authority invites proposals to conduct an electrified mobility study focused on identifying and implementing ZEV transportation solutions for LMI residents in Connecticut. The study shall examine the feasibility of various transportation electrification measures, including, but not limited to, vehicle-share services, ride-share services, EV leasing opportunities, and electrification of public buses. Respondents shall outline the specific scope and other key parameters of the study, as well as a proposed timeline, study costs, and engagement plan to receive community input. If approved, the Authority expects an electrification mobility study to develop action-oriented recommendations on how LMI residents in Connecticut could be best served by ZEV deployment measures.

II. COMMON PROGRAM ELEMENTS

Proposals for the six ZEV program areas outlined above, with the exception of the LMI electric mobility study, shall address the following common program elements.

A. EVSE PROCUREMENT GUIDELINES

1. Ownership Model

Proposals should address why a specific ownership model was proposed for a program area and why other feasible ownership models are not preferable. Proposals may also recommend changing ownership models over time. If such an approach is recommended, proposals should provide justification and the associated metrics for how and when to change ownership models. As part of the ownership model proposed, proposals shall indicate the entity, or entities, responsible for performing ongoing operations and maintenance of EVSE infrastructure.

Proposals may consider including technology combinations of other distributed energy resources with EV charging. If other DERs feature into the proposal, the costs and benefits of their integration should be factored into the benefit-cost analysis. There should be specificity around whether the proposer has access to or owns all energy (e.g., renewable energy credits, forward capacity market revenues, etc.) and environmental (e.g., carbon offset) attributes from the distributed energy resource aspect of the combined project.

2. EVSE with Managed Charging Capability ("Advanced Chargers")

In an effort to future-proof any investments made in charging infrastructure, proposals to install Level II EVSE in the program areas outlined in this RFP shall require advanced charger capabilities. Advanced chargers will enable the EDCs, or third-parties, to have advanced remote load management controls to facilitate off-peak charging and other managed charging strategies. An advanced charger can also collect interval data to inform usage patterns, and provide enhanced network communication capabilities between the EV driver and the utility, or third-party systems. Respondents should provide recommendations of specific functionalities of EVSE infrastructure that should be utilized in current and potential future program designs that would cause a charger to be deemed "advanced" and thus eligible for program incentives.

3. Best Practices for Site Selection and Installation

The Authority seeks creative strategies to leverage lessons learned from ZEV infrastructure deployment programs in other jurisdictions to minimize soft costs, such as acquisition and transaction costs. The Authority invites respondents to highlight best practices for EVSE site selection, including, but not limited to, navigating issues of permitting and easements, building codes, and accessibility considerations.

4. Interoperability and Open Access Standards

As the relatively nascent EVSE market continues to mature, interoperability and the adoption of a common set of standards are essential to ensuring the accessibility of charging station infrastructure. Program proposals should specify whether EVSE procurement guidelines will adhere to either the Open Charge Point Protocol, the Open Charge Point Interface Protocol, and/or the Open Automated Demand Response (OpenADR); if not, explain why it is not appropriate. Proposals should address why a specific protocol was chosen and why it is preferable to other protocols.

5. Customer Protections

Program proposals shall include vendor guidelines to ensure pricing transparency for customers and specify the types of payment options to be offered at publicly accessible charging stations.

B. ZEV Program Design & Administration

1. Program Objective

Proposals for each of the six ZEV program areas should indicate how the recommended program design or study helps ensure that Connecticut meets its commitments under the ZEV MOU by 2025. Specifically, proposals, with the exception of the LMI electric mobility study, should include: (1) a timeline for the program offering, including the recommended program years; (2) target deployment by year; and (3) an incentive and non-incentive budget by year. Each proposal should address how it complements the other five program areas and how, in concert, all six will serve to meet Connecticut's ZEV MOU commitments. For example, a proposal for residential Level II charging at single-family units should, in addition to providing the target deployment of Level II charger in residential dwellings, provide justification for why the proposed target level of deployment will, in concert with the other five program areas, ensure that Connecticut deploys 125,000 to 150,000 ZEVs by 2025.

2. Program Costs

Proposals shall provide a detailed breakdown of total program costs, including budgets for all incentive and non-incentive costs, participant costs, ~~and~~ any associated charging infrastructure deployment targets, and any anticipated deployment of DERs or infrastructure related to the proposal. Include a cost range, or specify a proposed maximum incentive level, where appropriate.

Proposals shall also provide a detailed cost-benefit analysis that includes: (1) proposal cost-benefit by year; (2) the net present value of such proposal over the relevant program or asset life;[3] and (3) an estimated payback period for ratepayers. The cost-benefit analysis should also include a sensitivity analysis showing the cost-benefit under various levels of participation and costs. Each cost and benefit category used in the cost-benefit analysis should be justified and clearly explained, including all inputs and calculation methodologies. For programs with participants, two cost-benefit analysis should be provided, one from the perspective of all ratepayers and one from the

[3] Respondents shall use a discount rate of seven percent and inflation rate of two percent to calculate net present value. Respondents may also provide an analysis using other discount and inflation rates, as they deem appropriate. Respondents must provide justification for any other discount and inflation rates.

perspective of the program participant(s). Proposals should provide the cost-benefit analysis in Excel in a format similar to the below template:[4]

	Program Years (Determined by Respondent)		
COSTS			
COSTS BY CATEGORY	-$	-$	-$
BENEFITS			
BENEFITS BY CATEGORY	+$	+$	+$
NET COST-BENEFIT	$	$	$
NET PRESENT VALUE (7%+2% RATE)	$		
NET PRESENT VALUE (OTHER RATES)	$		
LIST INPUTS/ ASSUMPTIONS	# / ABC		

Commented [CGB1]: For consideration – as referenced in the RE03 draft RFP - the 2020 Plan Update to the 2019-2021 Conservation and Load Management Plan uses a discount rate of three percent and an inflation rate of two percent to calculate net present value.

3. Evaluation, Measurement, and Verification (EM&V)

The Authority requires program proposals to include an EM&V plan. Data collection and periodic reporting will enable the Authority and all interested stakeholders to track implementation efforts, highlight areas where adjustments may be required, and leverage lessons learned for the future. Respondents are encouraged to include proposed metrics to determine program success. The Authority may consider a program design that unlocks additional incentives or additional EVSE deployment targets if certain specified metrics or program milestones are achieved.

4. Outreach and Education

Raising awareness of the availability of ZEV charging station programs and engaging residents, site owners and operators, third-party vendors, and other stakeholder groups is critical to program success. Program proposals shall include an outreach and education plan and an associated budget. Successful ZEV infrastructure deployments will seek to proactively develop partnerships to assist in implementation and outreach. The Authority encourages respondents to identify potential partners and collaborative approaches to support program objectives.

[4] Provide the requested cost-benefit analysis in an unlocked Excel workbook with no hidden formulas or macros.

5. Equitable Access to Charging Infrastructure

Proposals shall consider program designs that seek to deploy EVSE infrastructure throughout Connecticut, and not concentrated solely in communities with higher penetrations of EV drivers today. The Authority may consider whether an incentive "adder" approach may be warranted to encourage charging station buildout across a diverse range of communities to support future EV driver needs. In addition, the LMI electric mobility study proposal should include recommendations on how LMI residents in Connecticut could be best served by various ZEV deployment measures.

C. ZEV Proposal Template

The Authority instructs respondents to one or more program areas in the ZEV RFP to use the below template, in addition to the submission of a narrative proposal and any supporting data analysis to describe their proposal(s).

[Program Area]	
Program Offering	
Brief Description	
Program Objective	
Ownership Model	
EVSE Procurement Guidelines	
Technology Eligibility Criteria	
Participant Eligibility Criteria	
Program Costs	
Participant Cost	
Target Deployment	
Incentive Budget	
Non-Incentive Budget	
Total Program Costs	
Outreach and Education Plan	
Evaluation, Measurement & Verification Plan	
Evaluation Metrics	
Reporting Requirements & Frequency	
Scalability Plan	
Timeline of initial program offering	
Equitable Access Guidelines	
Other (if applicable)	

V. REQUEST FOR WRITTEN COMMENT

The Authority offers this opportunity for docket Participants and interested stakeholders to provide written comments on the above draft RFP. Specifically, the Authority **invites stakeholders to provide redline edits** to the draft RFP to ensure that it solicits proposals that will create a comprehensive, portfolio approach to enabling ZEV deployment on the scale necessary to meet the State's ZEV MOU goals and GHG reduction targets. Written comments should also provide supporting rationale for any recommended change(s) to the draft RFP.

All docket Participants and interested stakeholders are requested to file written comments on the draft RFP, as discussed above, by 4:00 p.m. on **Tuesday, April 21, 2020**. Documents must be filed with the Executive Secretary of the Authority in both electronic and paper form. **Please Note:** From March 16, 2020 through April 20, 2020, anyone filing material with the Authority should file only an electronic copy through the PURA Web Filing System and should deliver or mail the associated paper copy on April 21, 2020, or as the Authority instructs on its website. The date and time of filing shall be the date and time the Authority first receives a complete electronic version or the paper version and the required number of paper copies. Unless otherwise specified, filings are due by 4:00 p.m. on or before any required date. If a complete electronic version of the filing is submitted through the Authority's Web Filing System, only one paper version of the filing is generally required. (For exceptionally voluminous or complex filings, the Authority reserves the right to request additional paper copies.) If a complete electronic version of the filing is not web filed, submit an original and one copy.

Dated at New Britain, Connecticut, this 31st day of March, 2020.

PUBLIC UTILITIES REGULATORY AUTHORITY

Jeffrey R. Gaudiosi, Esq.
Executive Secretary

(GBC)

Notice filed with the Secretary of the State on March 31, 2020.

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CONNECTICUT GREEN BANK

Memo

To: Board of Directors

From: Jane Murphy (Vice President of Finance and Administration), Brian Farnen (General Counsel and CLO), Bryan Garcia (President and CEO), and Eric Shrago (Managing Director of Operations)

CC: Mackey Dykes (VP of Financing Programs and Officer), Selya Price (VP of Incentive Programs), and Bert Hunter (Executive Vice President and CIO)

Date: April 24, 2020

Re: Proposed COVID-19 Process Response to Loan Loss Decision Framework and Process

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Summary

As a result of COVID-19, the month of March in the year 2020, may go down as the most devastating economic period in the history of the United States of America.

As of the morning of Friday, April 17, 2020, there are over 670,000 confirmed cases of and 33,286 deaths from COVID-19 in the United States.[1] In just over a month, the Dow Jones Industrial average plummeted by 40 percent to its lowest level in over three years – 18,340 points on March 23, 2020. Unemployment claims for the week ending April 10, 2020 saw a filing of 5.2 million claims – for a total of nearly 22 million unemployment filings in four weeks! On March 27, 2020, Congress passed a historic $2 trillion stimulus package aimed at helping American workers, and small businesses and industries manage through the disruption of COVID-19 to help stabilize the economy and jobs.

In response to COVID-19's impact on the local clean energy economy, and with respect to the Loan Loss Decision Framework and Process ("Framework"), the staff of the Connecticut Green Bank ("Green Bank") propose specific changes to enable the organization to be responsive to the restructuring needs of our borrowers during this tumultuous period. For the most part, we expect requests from customers to come in three broad categories:

I. Consumer Financing Programs (Smart-E, CT Solar Lease 1&2, CT Solar Loan)

All the foregoing programs benefit from "ACH pulls" from customer bank accounts. As a consequence, we do not expect to see issues with payment until the May payment cycle. As the unemployment insurance – owing to a $600/week federal supplement – can result in a weekly benefit of over $1,200 in our state (which provides a single individual an

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[1] https://coronavirus.jhu.edu/map.html

income benefit approximating the median income in the state) – many homeowners, even if they have been furloughed or otherwise released from their jobs or are ill from COVID-19, are likely to have sufficient income to satisfy bill payments. Some will face considerable financial stress. So, for those who attest to direct COVID-19 impacts, such as job loss or illness, the Green Bank intends to manage these requests with a uniform deferral program which would "push" all payments back 3 months. There would be no change in payment schedules for this class of customer. Given the modest impact to the Green Bank of such accommodation, staff asks in the policy put forth for Board approval to permit staff to approve any such requests regardless of cumulative amount. If all customers were granted a 3 months deferral, the Green Bank would suffer a loss of approximately $675,000.

II. C-PACE benefit assessments, including power purchase agreements (PPAs) secured by C-PACE

For C-PACE, even with the state and federal programs that have been made available, a number of companies will need to be accommodated during these challenging times. In addition, the Governor signed Executive Order No. 7S ("EO"). In Section 6 of this EO, tax deferral and interest-rate reduction programs to offer support to eligible taxpayers, businesses, nonprofits and residents who have been economically affected by the COVID-19 Pandemic were mandated. A subsequent Executive Order, 7W, made clear that this relief shall apply to benefit assessments under Connecticut General Statute Section 16a-40g (C-PACE). Accordingly, we can expect a number of impacted C-PACE customer to not only be affected by the pandemic, but to avail themselves of one of the accommodations provided as a result of this EO generally. Whether as a result of the EO or by customers who reach out to the Green Bank C-PACE staff directly, the Green Bank intends to work with such customers to either modify a six month deferral of their C-PACE obligations (one year in those rare cases where assessments are paid annually) or implement the relief offered in the EO that is available in their municipality. For any modifications outside of the EO options, Green Bank will process modifications in a manner that compensates the Green Bank for the "time value of money" (i.e., capitalized interest for the deferral). Managed in this way, payments will either be held constant with a slight extension of maturity or with a slight 2-3% increase over existing payment amounts. As our C-PACE portfolio is substantial between loans and PPAs, a 100% loss of 6 months of debt service and PPA payments would reduce Green Bank revenues by approximately $2.68 million.

III. Commercial Solar PPAs (not secured by C-PACE)

We have a very limited number of contracts with customers in this class of transaction. Many are municipalities and school districts, but others could be substantial 501c3s (such as private schools or faith-based institutions). We intend to manage these modification requests on a case-by-case basis. We anticipate the impact here to be less than $50,000 for an entire calendar quarter.

IV. Other commercial loan arrangements

We have a limited number of "non-standard" project loan arrangements. We intend to manage these modification requests on a case-by-case basis. The majority of these arrangements are "grid-tied" and are paid from revenues sourced with one of the utilities or a major municipality. We estimate our maximus revenue exposure here to be up to $375,000 for a calendar quarter.

V. SBEA (short term cash exposure)

The SBEA facility totals approximately $58.5 million of purchased loans shared 90% with Amalgamated Bank. We have had discussions with Eversource about these loans and possible forbearance in cases of demonstrated need in the underlying portfolio. The expectation at this time is that a portion of the portfolio may require a 3 month deferral of payment. Such a deferral would – for the Green Bank – result in a temporary cash shortfall of approximately $365,000. Ultimately, the Energy Efficiency Fund (through the Conservation and Load Management Plan budget process) absorbs any long term shortfall in repayment.

Taken together, Green Bank staff judges the near-term maximum revenue impact for the April-July 2020 period (i.e., including C-PACE payments due in July 2020 but which are received in August and September) to be on the order of $4.1 million. The majority (65%) of this impact, C-PACE, would be restructured with a "time value of money" adjustment. Also, as stated above, SBEA would be a short-term matter until recovery (should losses occur) is obtained from Eversource (via the SBEA budget process). For every additional month prior to the next C-PACE billing cycle – this "max loss" figure would increase by approximately $600,000 per month. This is an extreme worst-case scenario – and assumes 100% of the portfolio results in payment deferral or restructuring where the Green Bank forgoes all payment on a short term basis (3-6 months) as part of the accommodation.

In recognition of this near-term risk exposure to revenues, and the uncertainty of COVID-19's impacts on our borrowers over the near to long-term, to be conservative, we propose increasing the Green Bank's provision for loan losses by no less than $4.1 million. This would raise the reserve for loan losses from $11.0 million to $15.1 million, or 15.8% of invested assets.

The Green Bank has adequate cash resources and lines of credit, as well as ongoing revenues from projects that are paid via ultra-secure counterparties (such as electric utility PPAs or ZRECs), SHREC revenue, non-SHREC REC revenue, the system benefit charge and proceeds from RGGI auctions to adequately cover the maximum potential impact of COVID-19 cited above which staff considers a worst case scenario as it would account for a 100% impairment of payments toward our loan and PPA transactions.

Proposed Changes

We propose the following changes to "Process #2 – Restructuring Transactions" ("Restructuring Process") within the "Framework" of the Green Bank:

- **Expand Staff Approval Authority** – with regards to the Restructuring Process (i.e., modifications to principal, interest, term, and other components of a transaction), staff can currently make restructurings for transactions with principal value outstanding of less than $100,000. The staff proposes the following changes to the Restructuring Process (Note – those highlighted in "yellow" are the proposed changes):

    a) Increase staff approval authority to $1,000,000 – effectively taking over the role of the Deployment Committee with unbounded limits for certain classes of transactions explained below – see Table 1.

Table 1. Proposed COVID-19 Revisions to the Loan Loss Decision Framework for Restructuring Transactions

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 (b) below) (2) Board of Directors for all other transactions
Write-Off	Staff	ACG	Board of Directors

b) 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

c) 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.

- **Process** – in terms of process, the staff would simply follow the Loan Loss Decision Framework, including:

    - **Restructuring Calculation** – original vs. restructured transaction comparison on an NPV basis;

    - **Documentation** – staff memo, including reason for modification (i.e., COVID-19), description of the project, restructuring calculation, and, 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; and

    - **Review and Approval** – typical ARS process.

- **Reporting** – within the quarterly memos on our Framework, the staff would specifically breakout the transactions in the quarterly memo that were restructured as a result of COVID-19 for reporting and tracking purposes.

Resolution

WHEREAS, pursuant to Section 5.3.1 of the Connecticut Green Bank (Green Bank) Bylaws, the Audit, Compliance & Governance (ACG) Committee is charged with the review and approval of, and in its discretion recommendations to the Board regarding, all governance and administrative matters affecting the Green Bank, including but not limited to matters of corporate governance and corporate governance policies;

WHEREAS, the Board of Directors authorized 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 Green Bank 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;

WHEREAS, the Board approved and authorized the Green Bank staff to implement the Loan Loss Decision Framework and Process for managing assets requiring restructuring or write-off from the Green Bank's balance sheet and consistent with the memorandum to the Board dated June 13, 2018 ("Loan Loss Decision Framework and Process "); and

WHEREAS, in response to the COVID-19 pandemic, the staff of the Green Bank are proposing a modification to the Loan Loss Decision Framework and Process with regards to restructuring transactions, as well as the Green Bank's provision for loan losses, in order to help families and businesses manage through this public health crisis.

NOW, therefore be it:

RESOLVED, that the Board approves of the Staff proposed changes to the Loan Loss Decision Framework and Process as more described in the memorandum to the Board dated April 24, 2020;

RESOLVED, that the Board approves of the Staff proposed increase to the Provision of Loan Losses by $4.1 million;

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

Submitted by: Bryan Garcia, President and CEO, Bert Hunter, EVP and CIO, Brian Farnen, General Counsel and CLO

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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), Jane Murphy (VP of Finance), Eric Shrago (Managing Director of Operations)

Date: April 24, 2020

Re: Staff Loan Loss Approval Policy for Transactions Under $100,000 – Q3 FY 2020 Report

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At the June 13, 2018 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 loan loss restructurings or write-offs for transactions less than $100,000 which are pursuant to an established formal approval process in an aggregate amount not to exceed $500,000 from the date of the last Deployment Committee meeting. This memo provides an update on loan losses below $100,000 that were evaluated and approved through Q3 of FY 2020.

Within the FY 2020 budget, a "Provision for Loan Loss" of $2,965,625 was included as a "Non-Operating Expense" item. This memo will track loan losses against this FY 2020 budget expense.

During this period, 0 projects were evaluated and approved for loan loss restructurings and write-offs in an aggregate amount of approximately $0.

An analysis of the loan loss reserve is done every year end as part of the annual audit. The performance of each asset is analyzed and the loan loss reserve is adjusted as necessary. For FY 2020 this analysis will occur in early August and the results will be reported to the BOD in October.

If members of the Board would be interested in the internal documentation of the review and approval process Green Bank staff and officers go through, please let us know and we would be happy to provide

Connecticut Green Bank and CEFIA Holdings LLC

Loan Loss Reserve Analysis

As of March 31, 2020

Loan Program	Legal Entity	Project	Dept	Program	Loan Portfolio Balance 7/1/2019	FY20 YTD Investments	FY20 YTD Repayments	Loan Portfolio Balance As of March 31, 2020	Loan Loss Reserve Balance 7/1/2019	FY20 YTD (Additions)/ Reductions to Reserve	FY20 YTD Portfolio Loan Write-Offs	Loan Loss Reserve Balance As of March 31, 2020	Reserve as a % of Portfolio Balance	Write-offs as a % of Portfolio Balance	Portfolio Carrying Value As of March 31, 2020
CPACE Program	CGB	Various	CI&I	51800-C&I CPACE	$ 43,471,171	$ 5,271,302	$ (2,325,556)	$ 46,416,917	$ (4,347,117)	$ (584,375)	$ -	$ (4,931,492)	10.6%	0.0%	$ 41,485,425
Fuel Cell Projects	CGB	Fuel Cell Energy	Other Pgms	51600-Loans Commercial	5,918,750	-	(501,686)	5,417,064	(1,183,750)	-	-	(1,183,750)	21.9%	0.0%	4,233,314
		Fuel Cell Energy Bridge Loan	Other Pgms	51600-Loans Commercial	1,800,000	-	-	1,800,000	(180,000)	-	-	(180,000)	10.0%	0.0%	1,620,000
		Groton Sub Base	Other Pgms	51600-Loans Commercial	-	3,000,000	-	3,000,000	-	-	-	-	0.0%	0.0%	3,000,000
CHP Pilot	CGB	Bridgeport MicroGrid	SI	51300-MicroGrid / CHP Pilot	468,455	-	(15,745)	452,710	(46,845)	-	-	(46,845)	10.3%	0.0%	405,864
Anaerobic Digester	CGB	Quantum Biopower	SI	51200-Anaerobic Digester Pilot	1,664,503	-	(110,967)	1,553,536	(166,450)	-	-	(166,450)	10.7%	0.0%	1,387,086
		Fort Hill Ag-Grid	Other Pgms	51600-Loans Commercial	-	32,588	-	32,588	-	-	-	-	0.0%	0.0%	32,588
Other Loans	CGB	Nu Power Thermal	Other Pgms	50800-Grid-Tied R.E. Projects	265,698	-	-	265,698	(265,697)	-	-	(265,697)	100.0%	0.0%	1
		ESAs State of CT	CI&I	51810-C&I New Product Develop.	-	-	-	-	-	(318,750)	-	(318,750)	0.0%	0.0%	(318,750)
		Terrace Heights Condos	CI&I	51810-C&I New Product Develop.	89,000	-	-	89,000	(8,900)	-	-	(8,900)	10.0%	0.0%	80,100
Multifamily / Affordable Housing / Credit Challenged / LMI	CBG	Capital for Change	Multi	52230-CHIF Multifamily PEL	3,489,526	2,723,144	(1,751,655)	4,461,015	(348,953)	-	-	(348,953)	7.8%	0.0%	4,112,062
		CEEFCo	Multi	52250-Multifamily Programs	-	3,006,000	-	3,006,000	-	(255,000)	-	(255,000)	8.5%	0.0%	2,751,000
		Pre-Dev Loans	Multi	52250-Multifamily Programs	225,889	-	-	225,889	(45,178)	-	-	(45,178)	20.0%	0.0%	180,711
		Sherpa Loans	Multi	52250-Multifamily Programs	21,375	-	-	21,375	(21,375)	-	-	(21,375)	100.0%	0.0%	-
		Posigen	Resi	52220-LMI Programs	12,944,481	5,378,727	(113,131)	18,210,077	(1,294,448)	-	-	(1,294,448)	7.1%	0.0%	16,915,629
Energy Efficiency	CGB	Univ of Hartford & Univ of New Haven	Other Pgms	51910-Campus Efficiency NOW	50,775	-	(50,775)	-	(5,077)	-	-	(5,077)	0.0%	0.0%	(5,077)
		RENEW Energy Efficiency Bridgeport	CI&I	51810-C&I New Product Develop.	130,000	-	-	130,000	(13,000)	-	-	(13,000)	10.0%	0.0%	117,000
Solar Hot Water	CGB	Two Roads Brewery	Other Pgms	51600-Loans Commercial	-	-	-	-	-	-	-	-	0.0%	0.0%	-
Alpha Program	CGB	Anchor Science	Other Pgms	50100-Alpha Program	150,000	-	-	150,000	(75,000)	-	-	(75,000)	50.0%	0.0%	75,000
Op Demo Program	CGB	New England Hydropower Co.	Other Pgms	50200-Op Demo Program	500,000	-	-	500,000	(499,999)	-	-	(499,999)	100.0%	0.0%	1
Wind Financing	CGB	Wind Colebrook	Other Pgms	50800-Grid-Tied R.E. Projects	2,345,341	-	(62,906)	2,282,435	(234,534)	-	-	(234,534)	10.3%	0.0%	2,047,901
Hydro Projects	CGB	Canton Hydro	Finance	52305-Hydro Projects	554,827	615,330	-	1,170,157	(55,483)	-	-	(55,483)	4.7%	0.0%	1,114,674
PPA Financing	CGB & CHOL	Sunwealth	Finance	52200-Clean Energy Fin Pr	987,960	915,000	(52,517)	1,850,443	(98,796)	-	-	(98,796)	5.3%	0.0%	1,751,647
	CHOL	Skyview	Finance	52200-Clean Energy Fin Pr	-	1,650,000	(32,229)	1,617,771	-	-	-	-	0.0%	0.0%	1,617,771
	CGB	PPA Sub Debt into fund SL4	Finance	52200-Clean Energy Fin Pr	-	-	-	-	-	(949,219)	-	(949,219)	0.0%	0.0%	(949,219)
SBEA Loans	CGB, CHOL @ 10/21/19	Eversource SBEA loan portfolio	CI&I	53002-SBEA	3,508,498	1,011,807	(1,468,501)	3,051,804	-	-	-	-	0.0%	0.0%	3,051,804
				Total:	$ 78,586,247	$ 23,603,898	$ (6,485,666)	$ 95,704,478	$ (8,890,602)	$ (2,107,344)	$ -	$ (10,997,946)	11.5%	0.0%	$ 84,706,532

Analysis:

Number of loans written off:	None	Number of loans restructured:	1
Dollar amount of loans written off:	$ -	Dollar amount of restructure write-off:	$ 93,771
Write-offs as a percent of portfolio:	0.0%	Restructure write-offs as a percent of portfolio:	0.1%

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CONNECTICUT GREEN BANK

Memo

To: Board of Directors

From: George Bellas (Vice President of Finance and Administration), Brian Farnen (General Counsel and CLO), Bryan Garcia (President and CEO), and Eric Shrago (Director of Operations)

CC: Mackey Dykes (Vice President of CI&I Programs and Officer), Ben Healey (Director of Clean Energy Finance), Dale Hedman (MD of Infrastructure Programs), Bert Hunter (Executive Vice President and CIO), and Kerry O'Neill (VP of Residential Programs)

Date: May 29, 2018 (Deployment Committee), revised June 8, 2018 (ACG Committee), and revised June 13, 2018 (Board of Directors)

Re: Proposed Loan Loss Decision Framework and Process – Assets on the Green Bank Balance Sheet

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Summary

Since its inception on July 1, 2011, the Connecticut Green Bank (Green Bank) has invested its resources in 4,288 loans, leases and benefit assessments totaling $72,387,643 of assets (in addition to $355,149,764 of private capital) in the residential, commercial, industrial, institutional, and infrastructure sectors. These assets reside on the balance sheet of the Green Bank.

The following is a breakdown of the assets on the Green Bank balance sheet:

- **Anaerobic Digester and Combined Heat and Power** – invested in 1 AD Loan totaling $1,997,403 of investment (in addition to $8,502,597 of private capital) – this investment is neither delinquent nor in default. Invested in 6 CHP Loans totaling $502,860 of investment (in addition to $12,034,860 of private capital) – these investments are neither delinquent nor in default;

- **C-PACE** – invested in 115 Benefit Assessments, totaling $36,347,568 of investment (in addition to $91,555,091 of private capital)[1] – of this investment 4[2] are delinquent totaling $14,797 (or less than 0.05% of the value of the portfolio) and 0 are in default;

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[1] Note, in addition to the Green Bank investment, there are 65 benefit assessments, totaling $59,363,333] of investment from third party financiers.

[2] One C-PACE Benefit Assessment is for a commercial lease and is counted in both. Duplicates are removed from the total.

- **LMI Solar PV Lease and Energy Efficiency ESA** – invested in 1,417 leases totaling $12,753,000 of investment (in addition to $25,998,288 of private capital and 945 ESA's totaling $2,268,000 of investment – of this investment 10 are delinquent totaling $1,535 (or 0.01% of the value of the portfolio) and 1 is in default totaling $15,340 (or 0.1% of the value of the portfolio).

- **Multifamily Loans** – invested in 65 Pre-Development and Term Loans totaling $5,458,952 of investment (in addition to $47,594,378 of private capital) – of this investment none are delinquent and none are in default[3];

- **Smart-E Loan** – supported 2,680 loans by third party lenders totaling $48,285,338 of investment credit enhanced through a Green Bank Second Loan Loss Reserve of $2,400,860 – of this investment 12 are delinquent totaling $204,595 (or 0.4% of the value of the portfolio) and 5[4] are in default totaling $83,698 (or 0.2% of the value of the portfolio; and

- **Special Projects** – invested in 4 special project Loans (e.g., Bridgeport Fuel Cell Park, Bridgeport District Heating, Colebrook Wind, and Meriden Hydropower) that are outside of existing programs totaling $12,927,000 of investment (in addition to $118,911,212 of private capital) – of this investment 2 are delinquent totaling $220,893 (or 1.7% of the value of the portfolio) and 0 are in default.

To date, there have been 6 defaults of the 4,288 transactions (0.001%) totaling $99,038 of $72,387,643 of Green Bank capital invested (0.001%) in assets on the Green Bank's balance sheet.

For a breakdown of assets under management on the balance sheet of the Green Bank, see Table 1 below

Table 1. Breakdown of Assets Under Management on the Connecticut Green Bank Balance Sheet

Assets	# of Transactions	Value of Assets Under Management	Total Value of the Assets	Average Value of Each Transaction	Median Value of Each Transaction
AD and CHP	7	$2,500,263	$23,037,720	$3,291,103	-
C-PACE	115	$36,347,568	$127,902,659	$1,112,197	$365,298
LMI PV and EE	1,417	$12,753,000	$38,751,288	$27,347	$27,400
Multifamily	65	$5,458,952	$53,053,330	$816,205	$248,376
Smart-E	2,680	2,400,952[5]	$48,285,338	$18,017	$16,307
Special Projects	4	$12,927,000	$131,838,212	$32,959,553	-
Total	**4,288**	**$72,387,643**	**$422,868,547**	**$98,616**	

[3] Note that this does not include predevelopment loans that are partially forgiven when term loans are closed.
[4] One of these losses was charged against the Green Bank's Loan Loss Reserve for $20,277 or 0.1% of the portfolio.
[5] Note – this is a Connecticut Green Bank credit enhancement of a second loan loss reserve and not an asset on the balance sheet.

As the Green Bank continues to invest its resources with the expectation of getting its principal and interest back over time, there will inevitably be instances when restructuring transactions and/or loan losses will occur.

This memo focuses on the assets on the Green Bank's balance sheet and not that of its SPV's. A follow-up memo outlining the proposed loan loss decision framework and process for assets on the balance sheets of SPV's will be drafted for later consideration.

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.[6]

The bylaws of the Green Bank serve as the foundation to establishing a loan loss decision framework and subsequent process. Such a framework and process should be reviewed,

[6] 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.

revised (as appropriate) by the Deployment Committee, reviewed and recommended for approval by the 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.[7] 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:

- **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.

- **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

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[7] 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.

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.

Over the last couple of years, the following is a breakdown of the loan losses reserved on the financial statements of the Green Bank – see Table 2.

Table 2. Overview of Loan Loss Reserves (FY 2015-FY 2017)

Fiscal Year	Loan Loss Reserves	Portfolio Value	%
2015	$3,645,000	$39,685,000	9.2
2016	$4,675,000	$32,321,000	14.5
2017	$5,612,000	$42,705,000	13.1

Other than the legacy Alpha/Op Demo loans, the Green Bank has not written off any portfolio loans to date on its balance sheet.

Loan Loss Decision Framework

In order to develop processes for determining how losses will be determined with regards to transactions on the Green Bank balance sheet, 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.

The Green Bank staff recommends that the value of the modification 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 and the Audit Compliance and Governance 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 – see Table 3.

Table 3. Loan Loss Decision Framework 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
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 Framework and 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 Audit, Compliance, and Governance Committee oversees the accounting and auditing of assets on the financial statements of the Green Bank, transactions requiring a write-off would be through the ACG Committee after legal remedies have been pursued by staff on the impaired asset in question.

This the Staff proposed loan loss decision framework for consideration by the Deployment Committee, Audit Compliance and Governance Committee, and the Board of Directors.

Example Transaction Application to the Loan Loss Decision Framework

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

Example Transaction #1 – Smart-E Loan

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

Table 4. 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.

Example Transaction #2 – C-PACE

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.

Process for Applying Loan Loss Decision Framework

The following is a breakdown of the proposed processes for using the Loan Loss Decision Framework:

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.[8] 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.

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

[8] 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.

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 including 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.

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. **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 the Board of Directors.

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:[9]

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

[9] Note – for C-PACE transactions, given that principal and interest payments in arears are senior to the existing mortgage on a property, and future principal and interest payments are subject to the ongoing benefit assessment on a property that survives foreclosure, we didn’t include C-PACE transactions as write-offs.

   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 the Board of Directors.

Process for Reporting

Above and beyond applying the loan loss decision framework and process to various transactions, there is a need to frequently report out to the Deployment Committee and the Board of Directors. The following reporting on loan losses should begin in FY 2019:

- **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 framework and process; and

- **Quarterly Reports** – 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 framework and process.

Summary

As the Green Bank continues to invest its resources with the expectation of getting its principal and interest back over time, there will inevitably be instances when restructuring transactions and/or loan losses will occur. The Bylaws of the Green Bank offer guidance, specifically through its Deployment Committee, in terms of managing transactions, and their potential restructuring or write-off. The Loan Loss Decision Framework, in combination with the proposed Process for applying the framework, will serve as the road map for managing assets that are being restructured or written-off on the Green Bank balance sheet.

Note, a follow-up memo outlining a second Loan Loss Decision Framework and Process for managing the restructuring or writing-off of assets on the balance sheets of Special Purpose Vehicles established by the Green Bank, will be proposed for later consideration.

Resolution

WHEREAS, pursuant to Section 5.3.1 of the Connecticut Green Bank (Green Bank) Bylaws, the Audit, Compliance & Governance (ACG) Committee is charged with the review and approval of, and in its discretion recommendations to the Board regarding, all governance and administrative matters affecting the Green Bank, including but not limited to matters of corporate governance and corporate governance policies;

WHEREAS, on January 18, 2013, the Board of Directors authorized 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 ("Staff Approval Policy for Projects Under $300,000");

WHEREAS, on July 18, 2014, the Green Bank Board of Directors approved of a recommendation brought forth by the Audit, Compliance, and Governance Committee and Deployment Committee to approve the authorization of Green Bank staff to evaluate and approve program 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 $1,000,000 from the date of the last Deployment Committee meeting;

WHEREAS, on October 20, 2017, the Green Bank Board of Directors approved of a recommendation brought forth by the ACG Committee and Deployment Committee to approve the authorization to amend the Staff Approval Policy to increase program funding requests for Projects Under $300,000 to $500,000 with an aggregate amount limit of $1,000,000 from the date of the last Deployment Committee meeting; and

WHEREAS, the Staff of the Green Bank propose in a memorandum to the Deployment Committee on May 29, 2018, and revised based on feedback by the Deployment Committee for review and recommendation for approval by the ACG Committee on June 8, 2018 a Loan Loss Decision Framework and Process for managing assets requiring restructuring or write-off from the Green Bank's balance sheet.

NOW, therefore be it:

RESOLVED, that the Deployment Committee and the ACG Committee recommend that the Board approve of the Staff proposed Loan Loss Decision Framework and Process for managing assets requiring restructuring or write-off from the Green Bank's balance sheet and consistent with the memorandum dated June 13, 2018 which incorporates feedback from the Deployment Committee and the ACG Committee; and

RESOLVED, that the Board of Directors authorizes Green Bank staff to evaluate and approve loan loss restructurings or write-offs for transactions less than $100,000 of the principal amount outstanding and no more in aggregate than $500,000 from the date of the last Deployment Committee meeting ("Staff Loan Loss Approval Policy for Transactions Under $100,000") and consistent with the memorandum dated June 13, 2018 which incorporates feedback from the Deployment Committee and the ACG Committee.

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CONNECTICUT GREEN BANK

Memo

To: Board of Directors, Connecticut Green Bank

From: Louise Della Pesca, Associate Director, Clean Energy Finance; Desiree Miller, Senior Manager, Clean Energy Finance; Fiona Stewart, Manager, Clean Energy Finance; Mariana Cardenas Trief, Principal, Monte Verde Consulting LLC

CC: Bryan Garcia, President and CEO; Bert Hunter, EVP and CIO; Brian Farnen, General Counsel and CLO

Date: ~~March 18~~April 17, 2020

Re: Financing for a Senior Secured Term Loan to Special Purpose Vehicle owned by Skyview Ventures LLC in an amount not to exceed ~~$2.3M~~$3.5M

Introduction – Update to Memorandum dated March 18, 2020

A version of this memorandum was submitted to the Board of Directors on March 18, 2020 and resolutions were passed by the Board at its meeting held on March 25, 2020 to approve a term loan facility in an amount not to exceed $2.3M. Since the resolutions were passed on March 25, Skyview Ventures LLC presented the Connecticut Green Bank with an opportunity to expand the transaction up to $3.5M on the same economic terms. This memorandum represents an update to the Board and a request for approval of the increased transaction size.

Investment Summary

This credit memorandum sets out the rationale for advancing a senior secured loan facility ("Term Loan") in an amount not to exceed ~~$2.3M~~$3.5M to a Special Purpose Vehicle ("SPV" or "Borrower") wholly owned by Skyview Ventures, LLC ("Skyview"). The proceeds of the Term Loan are being used to refinance a portion of Skyview's development capital in commercial solar assets in Connecticut. Once this portion of development capital is refinanced with the Term Loan, Skyview will be able to use the proceeds from the refinancing to develop additional commercial solar assets in Connecticut. A summary of terms is provided in Appendix A. The interest rate on the Term Loan is [redacted] over a 15 year term, with arrangement fees of [redacted] due on closing. A first priority lien on the SPV's assets, which comprise up to ~~20~~ 26 operational commercial solar PPA projects (each "a Project" and, collectively, "Projects") with up to 25 municipal and one (1) commercial off-takers in Connecticut, will secure the Term Loan.[1] A sculpted amortization schedule ensures that the

[1] See schedule of Projects (Appendix F)

forecast debt service coverage ratio ("DSCR") is [redacted] throughout the term. The lender is CEFIA Holdings, LLC ("Holdings" or "Lender"), Connecticut Green Bank's ("Green Bank") commercial solar development subsidiary, and the borrower is a SPV owned by Skyview, a Connecticut solar developer founded in 2008 with over [redacted]) under management.

By advancing a Term Loan that is secured by assets that are very familiar to Green Bank, which itself has 20 MW of commercial solar assets under management, Holdings is operating within an acceptable risk tolerance to access long term interest income, thereby contributing to the organization's wider financial sustainability goals. In addition, Green Bank is fulfilling its role of promoting clean energy deployment by addressing a gap in the market due to transaction costs associated with financing these 'smaller portfolios' as further described below.

Background

As part of Green Bank's commercial solar power purchase agreement ("PPA") investment program, the Green Bank Board of Directors approved $15 M funding in July 2019 for "financing one or more 3rd-party ownership platforms, in the form of sponsor equity and/or debt" and also gave approval to "sell solar PPA projects developed by Holdings to third parties". With that mandate, Holdings closed a transaction with Skyview in the fourth quarter of 2019 ("Q42019") involving the sale of 6 commercial solar PPA projects and a concurrent term loan secured by the sold assets. The $[redacted] M term loan portion of the Q42019 transaction with Skyview was very similar to the investment being presented for approval by this memo: [redacted] interest rate, secured by a first priority lien on commercial solar assets, 15 year term, [redacted] DSCR. The Q42019 transaction established precedential terms, covenants, and documentation, all of which have reduced the transaction costs associated with this Term Loan.

Following the successful close of the Q42019 transaction, Skyview approached Green Bank to gauge interest in advancing a Term Loan, secured by up to ~~20~~ 19 operational commercial solar PV assets with Connecticut municipality off-takers and the additional 7 Projects that soon will be placed in service.

Prior to approaching Green Bank, Skyview contacted private sector banks but discovered that the transaction costs associated with accessing debt across the size of the portfolio was challenging and proved too onerous. The smooth working relationship that Green Bank had established with Skyview, the indicative quality of the assets and cashflows contemplated as security for the Term Loan, and the use of Green Bank-preferred documentation were the determining factors as staff proceeded to conduct due diligence for the transaction.

Overview of Skyview Ventures LLC

[REDACTED]

Overview of Collateral

The Term Loan will be secured by up to twenty six (~~20~~26) projects located in Connecticut. Each Project off-taker, with the exception of one private school in Fairfield CT,~~)~~ is an investment grade rated municipality. The majority, ~~80%~~70%, of the Projects are / will be installed on Fairfield municipal buildings. The other Project off-takers are the municipalities of Newtown, Milford, New Canaan, and Goshen, and a private school in Fairfield. Below are details of the portfolio:

Table 1: Collateral Specifications – Full Portfolio[2]

[REDACTED]

Table 1 shows that the weighted average remaining term of the PPAs exceeds the term of the Term Loan (15 years), which is important because the PPA revenue provides over 50% of the revenue stream for the Projects. The weighted average remaining term of the of the ZREC contracts is less than the term of the Term Loan but, by sculpting the amortization profile of the Term Loan, the forecast DSCR will remain a healthy [redacted].

Staff has conducted the following due diligence on the Projects:

- Reviewed the terms of the PPAs and found them to be commensurate with market expectations of such contracts, and reviewed ZREC terms to confirm value and term of the contracted revenue stream, in particular accounting for ZREC clipping[3] which reduces project revenue below what is explicitly noted in the ZREC contract but aligned with the ultimate size of the PV system.
- Reviewed interconnection agreements and utility authorization to interconnect to confirm that all Projects have permission to operate.
- Reviewed expected production figures to confirm that Projects are expected to generate revenues as outlined in a cashflow forecast model (extract at Appendix D)
- Reviewed actual generation figures for Projects in operation for more than three years to confirm production is aligned with expected production figures
- Reviewed as-built engineering drawings and / or engineering inspection reviews for each Project to confirm that the projects were constructed in accordance with their original design. This review confirmed the quality of equipment used in the Projects, to be 'Tier 1' modules, comparable to the equipment used by Holdings when developing commercial solar projects.

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[2] At the date of this memorandum, ~~two~~ seven (7~~2~~) out of ~~twenty~~ twenty six (~~20~~26) projects, which account for ~~7.5%~~33% of the portfolio by capacity, are subject to on-going diligence and may be excluded from the collateral pool. No loan advance will be made against a project that is excluded from the collateral pool.

[3] ZREC clipping occurs when the actual size of a solar project, once built, is smaller than originally conceived at the time the ZREC contract for the project was obtained. When a ZREC contract is obtained, the contract states the size of the project and the number of ZRECs, each year, that project is permitted to generate. If the size of the project is subsequently decreased, the number of ZRECs it is permitted to generate is decreased on a pro-rata basis.

Appendix E summarizes the technical due diligence performed on the Projects, which resulted in no adverse findings[4].

For the seven (7) projects that are in-construction at the date of this memorandum, an independent engineer will be engaged to perform a commissioning inspection prior to commercial operation date. Should the inspection raise adverse results, the project(s) in question will be excluded from the collateral pool and the associated loan financing will not be advanced.

Staff has reviewed the production and payment history of the already-operational Projects for the purposes of (a) evaluating actual vs. expected performance in terms of kWh produced, and (b) confirming that the off-takers are not delinquent or slow payers on the contracts.

As described in the *Operational Risk* section of this memo, the operational Projects have been meeting production forecasts, with weather-adjusted production relative to expected production ranging from [redacted] over the past three years.

Based on the Accounts Receivable Report provided by Skyview, the off-takers have a history of making timely payments. All four of the municipal off-takers are strong, investment grade credits (AA or better). Their credit ratings, determined at the time of their most recent bond issuances, are presented in Appendix C.

Transaction Structure

Holdings will advance a Term Loan facility to a SPV that has no other debt and its only assets are the Projects that secure the Term Loan. The SPV services the Term Loan repayments from operating income earned by up to ~~20~~ 26 PPA Projects.

[REDACTED]

Risks and Mitigants

Operational Risk

- Borrower's ability to service the debt repayments is dependent on how well the Projects operate, i.e., how much electricity they generate.
- ~~45%~~35% of the projects in the portfolio have been operational for at least three years, which means that Staff has a good dataset from which to analyze operational performance.
- Actual production of the ~~entire~~ operational projects in the portfolio was [redacted], compared to expected production (weather adjusted).

[4] At the date of this memorandum, seven (7) out of twenty-six (26) projects, which account for 33% of the portfolio by capacity, are subject to on-going diligence and may be excluded from the collateral pool. No loan advance will be made against a project that is excluded from the collateral pool.

- For the ~~remaining 'newer'~~ projects in the portfolio that do not yet have operational track records, Staff performed diligence in the same manner as it does for projects developed internally to ensure production estimates are reliable[5]. This included comparison of expected yields (kWh / kW) to similar projects within Green Bank's 20 MW, 100+ commercial solar asset portfolio.
- Further, Staff stress tested the cashflow forecast model for the transaction to ensure that, even if the portfolio performed consistently 10% below production expectations, Borrower would still have adequate cash flow to repay debt service on the Term Loan (the stress tested DSCR was [redacted]).
- [redacted] DSCR of [redacted] is reached when the entire portfolio performs at a level that is ~~20~~22% below forecast production, which is a scenario that staff considers unlikely to occur based on the historical performance of the Green Bank portfolio.
- Borrower is required to maintain an Operations and Maintenance ("O&M") agreement for the duration of the Term Loan. A copy of the O&M contract has been reviewed by Staff and found to be commensurate with the O&M contract that Green Bank has in place for its owned commercial solar assets.

Default Risk

- Borrower is required to maintain a DSCR of [redacted] tested annually, for the duration of the Term. Staff has developed a cashflow forecast model that supports the ability of Borrower to maintain the DSCR given the expected revenue and operating expenses.
- Further, reserves equivalent to [redacted] months of principal and interest payments will be funded at closing.
- If Borrower were to default on the Term Loan, Lender would be entitled to take ownership of the collateral (up to ~~20~~ 26 PPA Projects). In this worst case downside scenario, the net present value ("NPV") of the EBITDA generated by the Projects under the remaining PPA terms is greater than the Term Loan amount, meaning the effective advance rate is ~~less than~~ [redacted]
- Given Green Bank's experience managing this type of asset, it has the appropriate internal expertise to manage the Projects and ensure the portfolio provides the expected cashflows.

Construction Risk

- ~~Only one~~Seven (7) of the twenty six (26)~~20~~ projects ~~has~~ have not reached commercial operation. Loan advances will be scheduled such that~~, so~~ Lender will not take any construction risk and funds will only be advanced for ~~that~~ projects once they have passed an independent engineer's commissioning inspection and have~~it~~ reached~~s~~ commercial operation.

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[5] At the date of this memorandum, seven (7) out of twenty six (26) projects, which account for 33% of the portfolio by capacity, are subject to on-going diligence and may be excluded from the collateral pool. No loan advance will be made against a project that is excluded from the collateral pool.

[6] NPV assumes a [redacted] discount rate to mirror the interest rate on the Term Loan.

Ratepayer Payback

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

The portfolio is expected to produced ~~25,500,000~~37,970,000 kWh of energy, over a 15 year period, and the Term Loan is up to ~~$2.3M~~$3.5M. The kWh / $ ratepayer funds at risk is forecast to be ~~11.1~~10.8.

Capital Extended

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

The Term Loan will not exceed ~~$2.3 M~~$3.5M.

Strategic Selection

This transaction falls within the parameters of a strategic selection, subject to Board approval, for the reasons outlined below.

- **Special Capabilities** – Skyview, the parent company of Borrower, has over a decade of experience in developing, owning, and operating commercial solar PV assets. Specifically, it has experience in the Connecticut market and, with its wholly owned development subsidiaries, is vertically integrated unlike its industry peers.
- **Uniqueness** – While the Term Loan is very similar to transactions previously entered into by Holdings, it differs because (a) the majority of the Projects that will secure the Term Loan are already operational, and (b) the Projects were not developed by Holdings itself;
- **Strategic Importance** – The Term Loan represents a continuation of a business relationship with a counterparty that Green Bank has successfully and smoothly transacted with in the past and is likely to transact with in future. For example, Green Bank continues to develop commercial solar PPA projects with underserved off-takers and Skyview has a track record of purchasing such projects from Green Bank and has expressed an interest in doing so in future. Further, by providing the Term Loan to Skyview, Green Bank is setting a precedent and defining a process for future similar transactions that can provide a source of investment income to support the long term sustainability of the organization;
- **Urgency and Timeliness** – Green Bank seeks to deploy capital in mission-driven transactions with appropriate levels of risk and return. This transaction meets this criteria and Skyview has expressed the need to close by ~~March 31, 2020~~April 30, 2020; and
- **Multiphase Project** - Successful execution of the Term Loan would represent a follow-on transaction from that which closed in Q42019, and will make use of the loan documentation previously agreed between parties. It is anticipated that Skyview will make further leveraged purchases of PPA projects that Holdings is developing in 2020.

Recommendation

In conclusion, based on the diligence of the proposed Term Loan transaction meeting Green Bank underwriting criteria and in light of the resolution of the ~~Deployment Committee~~Board at the meeting on ~~February 27~~March 25, 2020 to approve a loan facility not to exceed $2.3M~~recommend to the Board the approval of this transaction~~, Staff recommends approval of this updated transaction, with a loan facility not to exceed $3.5M, by the Board of Directors.

Revised and Restated Resolutions

WHEREAS, the Connecticut Green Bank ("Green Bank") has significant experience in the development and financing of commercial solar PPA projects in Connecticut;

WHEREAS, the Green Bank continually seeks new ways to work with private sector partners to meet the demonstrated need for flexible capital to continue expanding access to financing for commercial-scale customers looking to access solar and savings via a PPA;

WHEREAS, the Green Bank has established a working relationship with a private sector Connecticut solar developer, Skyview Ventures ("Skyview"), and through that relationship the Green Bank has an opportunity to deploy capital for the development of clean energy in Connecticut;

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

WHEREAS, based on diligence of Green Bank staff of the proposed senior secured loan facility ("Term Loan") in an amount not to exceed ~~$2.3M~~$3.5M to a Special Purpose Vehicle ("SPV") wholly owned by Skyview confirming that the Term Loan transaction meets Green Bank underwriting criteria, the Green Bank Deployment Committee (the "Deployment Committee") passed resolutions at its meeting held on February 27, 2020 to recommend to the Green Bank Board of Directors (the "Board") the approval of the Term Loan transaction in an amount not to exceed $2.3M as a Strategic Selection and Award pursuant to the Green Bank Operating Procedures Section XII; and~~.~~

WHEREAS, the Board passed resolutions at its meeting held on March 25, 2020 to approve the Term Loan transaction in an amount not to exceed $2.3M as a Strategic Selection and Award pursuant to the Green Bank Operating Procedures Section XII given the special capabilities, uniqueness, strategic importance, urgency and timeliness, and multi-phase characteristics of the Term Loan transaction.

NOW, therefore be it:

RESOLVED, that the Board hereby ~~approves~~ amends and restates its approval of the Term Loan transaction as described in the Project Qualification Memo submitted by the staff to the Board and dated ~~March 18~~April 17, 2020 (the "Memorandum") and on terms and conditions substantially consistent with those described in the Memorandum as a Strategic Selection and Award pursuant to the Green Bank Operating Procedures Section XII given the special capabilities, uniqueness, strategic importance, urgency and timeliness, and multi-phase characteristics of the Term Loan transaction; and

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

Submitted by: Louise Della Pesca, Associate Director, Clean Energy Finance; Desiree Miller, Senior Manager, Clean Energy Finance; Fiona Stewart, Manager, Clean Energy Finance; Mariana Cardenas Trief, Principal, Monte Verde Consulting LLC.

Appendix A: Original Term Sheet

Indicative Summary of Terms and Conditions
Skyview Ventures Special Purpose Vehicle
Up to $2,300,000 Senior Secured Loan Facility
February 10, 2020

For Discussion Purposes Only – Confidential – This is Not a Commitment

This Indicative Summary of Terms and Conditions or Preliminary Term Sheet describes certain of the principal terms and conditions of the proposed line of credit described below, is for discussion purposes only and is not to be construed in any way as a commitment or undertaking of CEFIA Holdings LLC, or any of its subsidiaries or affiliates, to provide a loan or any other type of financing. This Preliminary Term Sheet supersedes any and all prior correspondence, written and oral, concerning a proposed loan with regard to the proposed loan facility. The actual terms and conditions under which CEFIA Holdings LLC may be willing to provide the loan facility to the Borrower (as hereinafter defined) shall be subject to, inter alia, (i) satisfactory completion by CEFIA Holdings LLC of its due diligence process in scope and with results satisfactory to Green Bank in Green Bank's sole and absolute discretion, (ii) the accuracy and completeness of all representations that Performance Guarantor (on your behalf and on behalf of Borrower) make to Green Bank, (iii) obtaining necessary internal credit approvals and Green Bank Board of Director authorization and the negotiation, execution and delivery of definitive documentation consistent with the proposed terms herein and otherwise satisfactory to CEFIA Holdings LLC and Green Bank (iv) no change, occurrence or development shall occur or shall have occurred that has had or could reasonably be expected to have a material adverse effect on the Performance Guarantor or Borrower, their respective businesses or the contemplated collateral for the proposed credit facility and (v)(1) all financial projections concerning the Borrower that have been or are hereafter made available to CEFIA Holdings LLC and Green Bank by the Performance Guarantor or any of its representatives (or on your or their behalf) (the "Projections") have been or will be prepared in good faith based upon reasonable assumptions and (2) all information, other than Projections, which has been or is hereafter made available to CEFIA Holdings LLC and Green Bank by the Performance Guarantor or any of its representatives (or on your or their behalf) in connection with any aspect of the transactions contemplated hereby, as and when furnished, is and will be complete and correct in all material respects and does not and will not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements contained therein not misleading. The pricing and terms included in this Preliminary Term Sheet are based on market conditions on the date hereof and are subject to change.

Borrower: A special purpose entity wholly and directly owned by Skyview Ventures, LLC (the "Borrower")

Performance Guarantor: Skyview Ventures, LLC

Lender: CEFIA Holdings, LLC

Loan Facility: Up to $2,300,000 available under multiple advances within a 12 month period, with a financing term not to exceed 15 years from the date of the final advance.

Availability Limits: Fully available at closing for use in the development and longer term financing and re-financing of commercial solar PV projects located in the state of CT.

Security: All obligations to Lender will be secured by:

1. First priority perfected security interest in and lien on and collateral assignment of the Borrower's existing and future assets, including pledged equity interests of Borrower indirectly owned by the Performance Guarantor, and the proceeds thereof;

2. Borrower's right, title and interest in all accounts, contract rights, rights to payment of a monetary obligation or other consideration to receive payments by virtue of being counterparty to power purchase agreements and zero emissions renewable energy credit contracts;

3. Assignment of all warranties, licenses, insurance policies and proceeds related to any of the foregoing, and general intangibles.

Collateral to be further defined in the definitive documentation for the loan facility.

Use of Proceeds: The Loan Facility will be used for the development and longer-term financing and re-financing of commercial solar assets in the state of CT.

Interest Rate: [redacted] calculated on a 360 day basis.

Financial Covenants: The collateral portfolio must maintain a DSCR of not less than [redacted], tested annually. The total loan amount advanced will not exceed [redacted] ("Advance Rate") of collateral portfolio forecast earnings before interest, tax, depreciation and amortization ("EBITDA"), and such EBITDA will be discounted at [redacted] to arrive at the Advance Rate.

Closing Fee: [redacted] of loan facility, payable at closing.

Reporting Covenants: To be defined within loan documentation, but should expect: annual financial statements of Borrower and Performance Guarantor; annual payment performance history of customers of the commercial solar projects (collateral); annual operational performance (kWh) reports of collateral.

Other Terms and Conditions: To be defined within loan documentation, but should expect: events of default, cross default, default interest rate and late charges, remedies, indemnities, operating performance and operations and maintenance provisions, distributions of cash flow, deposit accounts control matters, liability, property casualty and business interruption insurance, annual financial statements of Borrower and Performance Guarantor; annual payment performance history of customers of the commercial solar projects (collateral); annual operational performance (kWh) reports of collateral.

Expiration: The proposal herein shall not be a basis for negotiation unless definitive documentation is executed and delivered not later than April 15, 2020.[7]

Expenses: The Borrower shall reimburse CGB for the costs and expenses, including the fees of outside counsel, incurred by CGB in connection with the preparation and execution of the Loan Facility, whether or not it closes, up to $10,000.

Enabling Statute and State Contracting: The Green Bank is subject to the requirements outlined in Sections 16-245n of the Connecticut General Statutes and Borrower will be responsible for complying with applicable state contracting requirements.

Governing Law and Forum: Connecticut

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[7] Date might need adjustment due to impact from the Coronavirus

Appendix B: Skyview Ventures LLC Organization Chart and Summary Financial Statements

[REDACTED]

[REDACTED]

Appendix C: Updated Project Off-taker Credit Ratings

Project	Off-taker	Most Recent Issue	Fitch	Moody's	S&P
Newtown projects	Town of Newtown	4/14/2020			AAA
Egan Center	Milford Board of Education	11/4/2019	AAA		AA+
West Shore School					
South School	New Canaan Public Schools Board of Ed	2/4/2020		Aaa	
Goshen Center School	Regional School District No. 6	11/15/2017		Aa3	
Senior Center	Town of Fairfield	7/11/2019	AAA	Aaa	AAA
Transfer Station					
Penfield Pavilion					
Fairfield Regional Fire School					
Animal Shelter 2					
Jennings Firehouse					
Transfer Station Roof					
Wood Middle School 1					
Jennings Beach					
Animal Shelter					
Public Library					
Reef Fire Department					
Operation Hope					
Fairfield Theater					
REC Center					
~~Baseball Field~~					

Appendix D: Updated Excerpt from Cash Flow Forecast Model

Cash Flow Forecast:

[REDACTED]

Term Loan Sculpted Amortization Schedule:

[REDACTED]

Appendix E: Summary of Completed Due Diligence (20 out of 26 projects)

[REDACTED]

Appendix F: Schedule of Projects

[REDACTED]

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CONNECTICUT GREEN BANK

Memo

To: Connecticut Green Bank Board of Directors

From: Bryan Garcia (President and CEO) and Brian Farnen (General Counsel and CLO)

CC: Senior Staff of the Green Bank

Date: April 24, 2020

Re: Proposed Revisions to the Bylaws of the Connecticut Green Bank

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Background
For the past several years, there has been growing concerns raised with respect to quasi-public agencies in Connecticut,[1][2][3] and the Connecticut Green Bank is certainly not immune to such criticism.[4] The issues that have been raised, include, but are not limited to: compensation, severance agreements, ethics, conflicts of interest, reporting, and contract agreements.

The Connecticut Green Bank will always strive to be a leader and best in class as it relates to good governance and takes these issues very seriously as evidence by its oversight, transparency, and accountability, including:

- **Appointments** – the executive and legislative branches have eleven (11) political appointments to the Board of Directors of the Green Bank, including ex officio members (i.e., three members, each from the Office of the Treasurer, Commissioner of DEEP, and Commissioner of DECD), as well as political appointments for the Governor (i.e., four appointments with expertise in finance of renewable energy, labor, and R&D or manufacturing), Speaker of the House (i.e., one appointment with expertise in low income – residential), Minority Leader of the House (i.e., one appointment with expertise in investment fund management), President Pro Tempore of the Senate (i.e., one appointment with expertise on the environment), and Minority Leader of the Senate (i.e., one appointment with expertise in financing or deploying renewable energy);

- **Public Meetings** – disclosure of all meeting agendas, minutes and materials provided to its board members on its website,[5][6] while inviting public comments as part of each of its meetings and frequently presenting and testifying before its committee of cognizance (i.e., Energy & Technology Committee);

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[1] "Big Quasi-Public Agencies Lag in Unlocking Information for Taxpayers," by Jon lender in the Hartford Courant (October 17, 2018)
[2] "Momentum Grows to Curb Irregularities and Improprieties at Quasi-Public Agencies such as the CT Lottery and Port Authority," by Jon Lender in the Hartford Courant (August 1, 2019)
[3] "Landmark CT Harbor Deal Renews Debate Over Quasi-Public Agencies," by Keith Phaneuf in the CT Post (February 11, 2020)
[4] "Green Bank Audit Further Emphasizes Need for Better Control of State's Quasi-Publics" in press release from Senator Len Fasano (July 31, 2019)
[5] https://ctgreenbank.com/about-us/governance/connecticut-grboard-meetings/
[6] https://ctgreenbank.com/about-us/governance/connecticut-grittee-meetings/

- **Governance and Operations** – access to the organization's resolution of purpose,[7] bylaws,[8][9] operating procedures,[10] ethics statements and conduct policies,[11][12][13] Comprehensive Plan[14] and Budget[15] on its website; and

- **Auditing and Reporting** – access to audited annual reports and comprehensive annual financial reports, including the Auditors of Public Account operational audits,[16] and links to the Comptroller's Open Connecticut initiative where the Green Bank discloses all transactional (i.e., Open Checkbook) and compensation related information available on its website.

For the past six months, the Governor's Office, led by Paul Mounds (Chief of Staff) with assistance from Ben Arsenault (Deputy Chief Operating Officer), have been coordinating an effort of the Presidents and CEO's of the fourteen (14) quasi-public agencies in the State of Connecticut,[17] to inform each other of their respective missions, share best practices, and improve on each other's operations.

Through this effort, each of the respective quasi-public organization leaders have learned more information and grown a greater appreciation for continuous improvement as we deliver greater value to the families, businesses, and institutions that we serve in Connecticut. For example, we learned that Governor Rell issued a report on quasi-public compensation in 2005, and we received the independent audit of the Connecticut Port Authority in 2019 – both providing instructive guidance to all quasi-publics on areas of improvement. Based on these instructive documents, we propose that the Green Bank proactively adopt many of their recommendations and insights.

Proposed Revisions to Bylaws
In an effort to continue to improve the oversight of the Connecticut Green Bank, we are proposing that the Green Bank Board of Directors consider the following revisions to the organization's bylaws – see attached "redline" edits for discussion and consideration:

Deleted: Audit, Compliance, and Governance Committee

- **Article I, Section 1.3** – adding the purpose and function of the Green Bank;

- **Article II, Section 2.5** – adding Treasurer to the Board of Director positions;

[7] https://www.ctgreenbank.com/wp-content/uploads/2016/01/Financial-and-Gov._-CT-Green-Bank-Resolution-of-Purpose.pdf
[8] https://ctgreenbank.com/wp-content/uploads/2019/09/Green-Bank_BOD_Bylaws_-Revised_102017.pdf
[9] https://www.ctgreenbank.com/wp-content/uploads/2015/12/ECMB_CGB_Joint_Committee_Bylaws_October_2014FINAL.pdf
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[14] https://ctgreenbank.com/strategy-impact/planning/
[15] https://ctgreenbank.com/wp-content/uploads/2019/07/4ai_FY20-Budget-BOD-07-15-19.pdf
[16] https://ctgreenbank.com/strategy-impact/reporting-transparency/
[17] Access Health CT, Capital Region Development Authority, Connecticut Airport Authority, Connecticut Green Bank, Connecticut Health and Educational Facilities Authority, Connecticut Higher Education Supplemental Loan Authority, Connecticut Housing Finance Authority, Connecticut Innovations, Connecticut Lottery Corporation, Connecticut Port Authority, Connecticut Retirement Security Authority, Connecticut Student Loan Foundation, Materials Innovation and Recycling Authority, and Student Education Resource Center

- **Article II, Section 2.7** - adding the requirement of Board of Director members to take an oath (including a sample oath), which is practiced, but not memorialized in the bylaws;

- **Article III, Section 3.6 and Article V, Sections 5.2 & 5.2.2** – renaming the Budget and Operations Committee to the Budget, Operations, and Compensation Committee, while including additional responsibilities;

- **Article V, Section 5.2.3** – based on the "Loan Loss Decision Framework and Process" approved by the Board of Directors on June 13, 2018, inclusion of additional language in the bylaws to reflect the importance of the establishment and modification of such process;

- **Article VII, Section 7.1** - expanding Conflicts of Interest to include immediate family of the Board of Director members;

- **Article IX** – adding "Restrictions on Directors and Employees Leaving Green Bank"; and

- **Article XII, Section 12.1.4** – adding "Clean Energy" to definitions.

With these improvements to the bylaws, the Green Bank will continue its role as a leader amongst the quasi-public agencies and its commitment to the highest levels of oversight, transparency, and accountability.

Resolution

WHEREAS, pursuant to Section 5.2.1 of the Connecticut Green Bank ("Green Bank") Bylaws, the Audit, Compliance & Governance (ACG) Committee is charged with the review and approval of, and in its discretion recommendations to the Board of Directors ("Board") regarding, all governance and administrative matters affecting the Green Bank, including but not limited to matters of corporate governance and corporate governance policies;

WHEREAS, the Audit, Compliance and Governance Committee recommends to the Board for approval the proposed draft revisions to the Green Bank Bylaws.

NOW, therefore be it:

RESOLVED, that the Board hereby approves the attached revised Green Bank By-Laws dated April 24, 2020. Second. Discussion. Vote

CONNECTICUT GREEN BANK

BYLAWS

PURSUANT TO

Section 16-245n of the
Connecticut General Statutes

Adopted: October 17, 2015

Revised: April 24, 2020

Deleted: October 20

Deleted: __

Deleted: 2017

ARTICLE I
NAME, PLACE OF BUSINESS

1.1. **Name of the Green Bank**. The name of the Green Bank shall be, in accordance with the Statute, the "Connecticut Green Bank".

1.2. **Office of the Green Bank**. The office of the Green Bank shall be maintained at such place or places within the State of Connecticut as the Board may designate.

1.3. **Green Bank Purpose and Function.** As stated in its Resolution of Purpose adopted on September 29, 2011, the purpose of the Green Bank is to stimulate, support and increase the use of clean energy, investment in clean energy projects and sources, demand for clean energy, the development of technologies that support clean energy, and the development of the state's energy-related economy.

The function of the Green Bank is to achieve the foregoing objectives to the fullest extent authorized or permitted by Section 16-245n of the Connecticut General Statutes, as amended, or any other provisions of the Connecticut General Statutes pertaining to the responsibilities or activities of the Green Bank. Such functions include but are not limited to: (1) implementing the Comprehensive Plan developed by the Green Bank pursuant to Section 16-245n(c) of the Connecticut General Statutes, as amended; (2) developing programs to finance and otherwise support clean energy investment in residential, municipal, small business and larger commercial projects, and such others as the Green Bank may determine; (3) supporting financing or other expenditures that promote investment in clean energy sources to foster the growth, development, and commercialization of clean energy sources and related enterprises; and (4) stimulating demand for clean energy and the deployment of clean energy sources within the state that serve end-use customers in the state.

ARTICLE II
BOARD OF DIRECTORS

2.1. **Powers**. The powers of the Green Bank are vested in and exercised by a Board of Directors which may exercise all such authority and powers of the Green Bank and do all such lawful acts and things as are necessary to carry out the Comprehensive Plan and the purposes of the Green Bank as provided in the Resolution of Purposes, or as are otherwise authorized or permitted by the Statute or other provisions of the General Statutes, including the authorization of expenditures and use of funds from the Clean Energy Fund created by Section 16-245n(c) of the General Statutes, formerly known as the Renewable Energy Investment Fund, and the Green Connecticut Loan Guaranty Fund created by Section 16a-40f(b) of the General Statutes.

2.2. **Chairperson**. The Chairperson of the Board shall be appointed by the Governor. The Chairperson shall perform the duties imposed by the Statute, these Bylaws, and by resolution of the Board, and shall preside at all meetings of the Board which he or she attends. At each meeting the Chairperson shall submit such recommendations and information as the Chairperson may consider appropriate concerning the business, affairs, and policies of the Green Bank. The Chairperson shall serve at the pleasure of the Governor but no longer than the term of office of the Governor or until the Chairperson's successor is appointed and qualified, whichever is longer.

2.3. **Vice Chairperson**. The Board shall elect from its members a Vice Chairperson. The Vice Chairperson shall perform the duties imposed by the Statute, these Bylaws, and by resolution of the Board. In the absence or incapacity of the Chairperson, the Vice Chairperson shall perform all the duties and responsibilities of the Chairperson. In the absence or incapacity of the Vice Chairperson, or in case of his or her resignation or death, the Board shall elect its members an acting Vice Chairperson during the time of such absence or incapacity or until such time as the Board shall elect a new Vice Chairperson. The Vice Chairperson shall serve until a successor is elected by the Board.

2.4. **Secretary**. A Secretary may be elected by the Board. The Secretary shall perform the duties imposed by the Statute, these Bylaws, and by resolution of the Board. In the absence or incapacity of the Secretary, or in case of a resignation or death, the Board shall elect from their number an acting Secretary who shall perform the duties of the Secretary during the time of such absence or incapacity or until such time as the Board shall elect a new Secretary. The Secretary shall serve until a successor is elected by the Board.

2.5. **Treasurer.** A Treasurer may be elected by the Board, and shall serve as an ex officio member of the Budget, Operations and Compensation Committee and the Audit, Compliance and Governance Committee with the primary responsibility of general financial oversight of the fiscal condition of the Green Bank. The Treasurer shall perform the duties imposed by the Statute, these Bylaws, and by resolution of the Board. In the absence or incapacity of the Treasurer, or in case of a resignation or death, the Board shall elect from their number an acting Treasurer who shall perform the duties of the Treasurer during the time of such absence or incapacity or until such time as the Board

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shall elect a new Treasurer. The Treasurer shall serve until a successor is elected by the Board.

2.6. **Delegation of Powers**. The Board may, by resolution, delegate to the President or other officers of the Green Bank such powers of the Green Bank as they believe are necessary, advisable, or desirable to permit the timely performance of the functions of the Green Bank and to carry out the plans, policies, procedures, and decisions of the Board, except that such delegation shall not include any duties or responsibilities required by the Statute or these Bylaws to be performed by the Chairperson or the Board or otherwise in conflict with law.

2.7. **Directors**. The Directors shall be appointed and serve as provided in the Statute. Each prospective Director will take an oath to the Board prior to commencing service as set forth below:

GREEN BANK OFFICIAL OATH

YOU DO SOLEMNLY SWEAR THAT YOU WILL SUPPORT THE CONSTITUTION OF THE UNITED STATES, AND THE CONSTITUTION OF THE STATE OF CONNECTICUT; AND THAT YOU WILL FAITHFULLY DISCHARGE, ACCORDING TO LAW, THE DUTIES OF A DIRECTOR OF THE CONNECTICUT GREEN BANK, INCLUDING ALL GOVERNANCE AND ETHICAL OBLIGATIONS, TO THE BEST OF YOUR ABILITIES; SO HELP YOU GOD.

ARTICLE III
OFFICERS AND EMPLOYEES

3.1. **Officers**. The Board shall have the power to create positions for such officers as it may deem to be in the interests of the Green Bank, and shall define the powers and duties of all such officers. All such officers shall be subject to the orders of the Board and serve at its pleasure. Such officers shall include a President and may include a Director of Finance and Chief Investment Officer, a General Counsel and such other officers as the Board may determine to be appropriate. The Board shall be responsible for determining or approving compensation for each officer.

3.2. **President**. The Board shall hire a President. The President shall be the chief executive officer of the Green Bank and shall have such duties and responsibilities as may be determined by the Board, except that the duties and responsibilities of the office of President shall not include those required by the Statute or these Bylaws to be performed by the Chairperson or the Board or otherwise in conflict with law. The President shall be a non-voting, *ex officio* member of the Board pursuant to the Statute. The Board may delegate to such other person or persons all or part of the duties of the President. The President may, with the approval of the Board, assign or delegate to the officers and employees of the Green Bank any of the powers that, in the opinion of the President, may be necessary, desirable, or appropriate for the prompt and orderly transaction of the business of the Green Bank.

3.3. **Acting President**. The Board may, by resolution adopted by a majority vote, appoint some other person to serve as Acting President and perform the duties of the President in the event of the death, inability, absence, or refusal to act of the President. The Acting President shall be subject to all of the same restrictions placed upon the President.

3.4. **Chief Investment Officer**. The Board may appoint a Chief Investment Officer (CIO). The CIO shall have such duties and responsibilities as may be determined by the Board, except that the duties and responsibilities of the office of CIO shall not include those required by the Statute or these Bylaws to be performed by the Chairperson or the Board or otherwise in conflict with law. The CIO shall not be a Director.

3.5. **General Counsel**. The Board may appoint a General Counsel. The General Counsel shall be the chief legal officer of the Green Bank and shall have such duties and responsibilities as may be determined by the Board, except that the duties and responsibilities of the office of General Counsel shall not include those required by the Statute or these Bylaws to be performed by the Chairperson or the Board or otherwise in conflict with law. The General Counsel shall not be a Director.

3.6. **Additional Officers and Other Personnel**. The Green Bank may from time to time employ such other personnel as it deems necessary to exercise its powers, duties, and functions pursuant to the Statute and any and all other laws of the State of Connecticut applicable thereto. The President shall develop a staffing plan which shall include without limitation a chart of positions and position descriptions for the Green Bank, personnel policies and procedures, and related compensation levels. Such staffing plan may provide for officers of the Green Bank in addition to those specifically provided for in these Bylaws, and the appointment of such officers shall be in the discretion of the President, except as the Board may otherwise determine. The President shall deliver the staffing plan to the Budget, Operations, and Compensation Committee for its review and approval pursuant to Article V, Section 5.3.2 hereof.

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3.7. **Signature Authority; Additional Duties**. The President and officers of the Green Bank shall have such signature authority as is provided in the Green Bank's Operating Procedures, and as may from time to time be provided by resolution of the Board. The officers of the Green Bank shall perform such other duties and functions as may from time to time be required.

ARTICLE IV
BOARD MEETINGS

4.1. **Regular Meetings**. Regular meetings of the Board or any Committee for the transaction of any lawful business of the Green Bank shall be held in accordance with a schedule of meetings established by the Board or such Committee, provided that the Board shall meet at least six (6) times per fiscal year through either a regularly scheduled or special meeting.

4.2. **Special Meetings**. The Chairperson may, when the Chairperson deems it expedient, call a special meeting of the Board for the purpose of transacting any business designated in the notice of such meeting. The Committee Chair of any Committee may, when the Committee Chair deems it expedient, call a special meeting of such Committee for the purpose of transacting any business designated in the notice of such meeting.

4.3. **Legal Requirements**. All meetings of the Board or any Committee shall be noticed and conducted in accordance with the applicable requirements of the Statute and the Connecticut Freedom of Information Act, including without limitation applicable requirements relating to the filing with the Secretary of the State of any schedule of regular meetings and notices of special meetings, meeting notices to Directors and Committee members, public meeting requirements, the filing and public availability of meeting agenda, the recording of votes and the posting or filing of minutes, the addition of agenda items at any regular meeting, and the holding of any executive session.

4.4. **Order of Business**. The order of business of any meeting of the Board or any Committee shall be as set forth in the agenda for such meeting, provided that the Board or Committee may vary the order of business in its discretion.

4.5. **Organization**.

4.5.1. At each meeting of the Board, the Chairperson, or in the absence of the Chairperson, the Vice Chairperson, or in the absence of both, a Director chosen by a majority of the Directors then present, shall act as Presiding Officer. The Secretary, or a staff member designated by the President, shall prepare or direct the preparation of a record of all business transacted at such meeting. Such record when adopted by the Directors at the next meeting and signed by the Chairperson or the Secretary shall be the official minutes of the meeting.

4.5.2. At each meeting of a Committee, the Committee Chair, or in the absence of the Committee Chair any other Committee member designated by the majority of the Committee members then present, shall act as Presiding Officer. The President, a staff member designated by the President, or any Committee member chosen by the Presiding Officer, shall prepare or direct the preparation of a record of the business transacted at such meeting. Such record when adopted by a majority of the Committee members in attendance at the next meeting and signed by the Committee Chair shall be the official minutes of the Committee meeting.

4.6. **Attendance**. A Director or a member of a Committee may participate in a meeting of the Board or of such Committee by means of teleconference, videoconference, or similar communications equipment enabling all Directors and Committee members participating in the meeting to hear one another, and participation in a meeting pursuant to this Section shall constitute presence in person at such a meeting. Directors or their designees who miss more than three (3) consecutive meetings shall be asked to become more active on the Board. In the event of further absence, the Board may decide by majority vote to recommend to the appointing authority that the appointment be reconsidered.

4.7. **Quorum**.

4.7.1. A majority of the Directors then in office shall constitute a quorum for the transaction of any business or the exercise of any power of the Green Bank.

4.7.2. A majority of the Director-members of a Committee shall constitute a quorum, provided that, except in the case of an advisory committee, such quorum shall consist of a minimum of three (3) Directors, at least one (1) of which shall not be a State employee.

4.8. **Enactment**. When a quorum is present, an affirmative vote of a majority of Directors in attendance at Board or Committee meetings shall be sufficient for action, including the passage of any resolution, except as may otherwise be required by these Bylaws or applicable law. Non-Director members of any Committee may participate in the Committee's discussions and deliberations and may join in the Committee's recommendations to the Board, but shall not have a vote on any matters as to which the Committee is exercising the powers of the Board, including without limitation, any funding decisions.

4.9. **Designation of Substitutes for Directors**. If authorized by the Statute, then a Director may appoint a designee to serve as the Director's representative on the Board with full power to act and to vote on that Director's behalf. For the purposes of maintaining consistency and efficiency in Board matters, alternating attendance between the Director and his or her designee is strongly discouraged. If not authorized by statute, then a Director may not name or act through a designee. An authorized appointment of a designee shall be made by filing with the Board a short bio of the designee, the designee's CV, and a certificate substantially similar to the following:

"Certificate of Designation

I, _____________________________, a member of the Board of Directors of the Connecticut Green Bank, do hereby designate ___________________ [Name & Title] to represent me at the meetings of the Board or committees thereof with full powers to act and vote on my behalf. This designation shall be effective until expressly revoked in writing.

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[Name]"

ARTICLE V
COMMITTEES

5.1. **Delegation Generally**. The Board may delegate any and all things necessary or convenient to carry out the purposes of the Green Bank to three (3) or more Directors, provided that at least one (1) of which shall not be a State employee, and, to the extent of powers, duties, or functions not by law reserved to the Board, to any officer or employee of the Green Bank as the Board in its discretion shall deem appropriate.

5.1.1. **Appointments; Quorum; Transaction of Business; Recordkeeping**.

5.1.2. **Appointments**. The Chairperson shall appoint all Committee Chairs. The Committee Chair need not be a Director on the Deployment Committee any *ad hoc* committee, or an advisory committee.

5.1.3. **Quorum**. If necessary to achieve a quorum at any meeting of a Committee other than an advisory committee, then the Chairperson or the Vice Chairperson may sit, participate, and vote as an alternate member of such committee at such meeting.

5.1.4. **Report of Committee Actions**. Each Committee shall report to the Board on such Committee's actions and activities at the Board meeting next following each Committee meeting.

5.1.5. **Recordkeeping**. Committee recordkeeping shall be in accordance with Article IV, Section 4.5.2 hereof.

5.2. **Standing Committees**. The Green Bank shall have four (4) Standing Committees of the Board consisting of an Audit, Compliance, and Governance Committee, a Budget, Operations, and Compensation Committee, a Deployment Committee, and a Joint Committee of the Energy Conservation Management Board and the Connecticut Green Bank. Each Standing Committee may form subcommittees in its discretion, but no such subcommittee shall exercise powers of the Board unless authorized by the Board to do so.

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5.2.1. **Audit, Compliance, and Governance Committee**. The Audit, Compliance, and Governance Committee shall consist of no less than three (3) Directors appointed by the Chairperson on a biennial basis, at least one (1) of which shall not be a State employee. The principal functions, responsibilities, and areas of cognizance of the Audit, Compliance, and Governance Committee shall be as follows: (i) recommendation to the Board as to the selection of auditors; (ii) meetings with the auditors to review the annual audit and formulation of an appropriate report and recommendations to the Board with respect to the approval of the audit report; (iii) review of the audit and compliance findings of the Auditors of Public Accounts, and meetings with the staff auditors there as appropriate; (iv) review with the auditors, President, and senior finance staff of the adequacy of internal accounting policies, procedures and controls; (v) review of the sufficiency of financial and compliance reports required by statute; (vi) recommendation to the Board as to the selection of the Green Bank's ethics liaison and ethics compliance officer(s); (vii) review of the adequacy of employee education and training on ethics and related legal requirements; (viii) review and approval of, and in its discretion recommendations to the Board regarding, all governance and administrative matters affecting the Green Bank, including but not limited to matters of corporate governance, corporate governance policies, committee structure and membership, management qualifications and evaluation, and Board and Standing Committee self-evaluation; (ix) oversight of the Green Bank's legal compliance programs, including but not limited to compliance with state contracting and ethics requirements; (x) management succession planning; (xi) oversight of any Director conflict of interest matters; (xii) as-needed review of any staff recommendations to the Board regarding the Green Bank's regulatory or policy initiatives including but not limited to the Comprehensive Plan and other clean energy regulatory or policy evidentiary matters before the Public

Utilities Regulatory Authority and other state and federal commissions and tribunals that may affect clean energy development and/or the Green Bank's statutory mandate; (xiii) acting as a resource to the appointing authorities with respect to the identification and recruitment of qualified and interested private sector Director candidates; and (xvi) the exercise of such authority as may from time to time be delegated by the Board to the Audit, Compliance, and Governance Committee within its areas of cognizance.

5.2.2. **Budget, Operations, and Compensation Committee**. The Budget, Operations, and Compensation Committee shall consist of no less than three (3) Directors appointed by the Chairperson on a biennial basis, at least one (1) of which shall not be a State employee. Additionally, the Chairperson or the Vice Chairperson shall be a non-voting *ex officio* member of the committee, subject to the provisions of Article V, Section 5.2.2 hereof. The principal functions, responsibilities, and areas of cognizance of the Budget, Operations, and Compensation Committee shall be as follows: (i) to recommend and monitor compliance with prudent fiscal policies, procedures, and practices to assure that the Green Bank has the financial resources and financial strategy necessary to carry out its statutory responsibilities and mission, including oversight of the Green Bank's budget process, asset and liability management, asset risk management, insurance and loss prevention, and performance measurement; (ii) recommendation to the Board as to approval of the annual operating budget and plan of operation; (iii) oversight of space planning and office leases, systems, and equipment, and procedures and practices with respect to purchasing; (iv) to

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recommend the establishment of and monitor compliance with policies, programs, procedures, and practices to assure optimal organizational development, the recruitment and retention of qualified personnel and the just and fair treatment of all employees of the Green Bank, including employment policies and practices, employee training, development, evaluation and advancement, employee compensation and benefits, and matters of employee separation and severance; (v) recommend the adoption of a formal compensation philosophy, (vi) annually review compensatory time to assure compliance with Green Bank's policy; (vii) annually review paid or reimbursable education assistance to assure compliance with Green Bank's policy; (viii) review and approval of the Green Bank staffing plan as developed by the President; (ix) with respect to reallocation of amounts between approved budget line items in excess of ten thousand dollars ($10,000) but not exceeding seventy-five thousand dollars ($75,000) in total, approval of such reallocation; (x) with respect to increases to the operating budget or unbudgeted disbursements in amounts in excess of ten thousand ($10,000) but not exceeding seventy-five thousand ($75,000), approval of such increases; and (xi) the exercise of such authority as may from time to time be delegated by the Board to the Budget, Operations, and Compensation Committee within its areas of cognizance.

5.2.3. **Deployment Committee**. The Deployment Committee shall consist of no more than six (6) members total, consisting of no less than three (3) Directors and up to three (3) non-Directors, all appointed by the Chairperson on a biennial basis,

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and at least one (1) of the Director-members shall not be a State employee. Additionally, the State Treasurer, or her or his designee, shall be a voting *ex officio* member of the committee. Additionally, the Chairperson or the Vice Chairperson shall be a non-voting *ex officio* member of the committee, subject to the provisions of Article V, Section 5.2.2 hereof. The non-Director members of the Deployment Committee shall each have expertise in such areas as: project finance, levelized cost of clean energy, investment banking, commercial lending, tax-exempt or tax-advantaged financing or municipal banking, or clean energy policy. The principal functions, responsibilities, and areas of cognizance of the Deployment Committee shall be as follows: (i) to recommend and monitor compliance with program, project, and investment guidelines, criteria, policies, and practices supporting the Green Bank's statutory mission and management of such by the Green Bank's professional staff; (ii) with respect to loans, loan guarantees, loan loss reserves, credit enhancements, debt support programs, debt, debt-like, grants, equity, near-equity, and related measurement and verification studies and evaluation audit funding requests, including but not limited to the Residential Solar program, the Combined Heat and Power pilot program, the Anaerobic Digestion pilot program, and the Condominium Renewable Energy grant program, between five hundred thousand dollars ($500,000) 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; (iii) with respect to loans, loan guarantees, loan loss reserves, credit enhancements, debt support programs, debt, debt-like, grants, equity and near-equity funding requests which exceed two million five hundred thousand dollars ($2,500,000), evaluation of such requests and recommendation to the Board regarding such requests; (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 Green Bank's professional investment staff; (v) oversight of policies and practices relating to investment management by the Green Bank'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; (vii) to review and recommend to the Board the issuance of bonds, notes or other obligations of the Green Bank, and upon such approval, to sell, issue and deliver such bonds, notes or obligations on behalf of the Green Bank; (viii) on a periodic basis, but not less frequently than annually, to review and recommend to the Board the establishment and modification of a provision for losses with respect to loans, loan guarantees, loan loss reserves, credit enhancements, debt support programs, debt, debt-like instruments, and any other extensions of credit or the undertaking of risk where it is determined the Green Bank (a) may not recover its investment of capital or its expected rate of return, (b) is contractually or otherwise obligated to pay or commit additional Green Bank capital to such transactions without a reasonable expectation for the return of such capital, or (c) is for any other reason more likely than not to suffer a loss due to an investment or program and (ix) the exercise of such other authority as may from time to time be delegated by the Board to the Deployment Committee within its areas of cognizance.

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5.2.4. **Joint Committee of the Energy Conservation Management Board and the Connecticut Green Bank**. The Standing Committee Related to the Joint Committee of the Energy Conservation Management Board and the Board of Directors of the Green Bank shall consist of no more than (2) voting Directors and (2) nonvoting members who shall be appointed by the Chairperson on a biennial basis to serve on both this Standing Committee and the Joint Committee. Said Directors of this Standing Committee shall be charged with joining with four (4) members, no more than (2) voting Directors and (2) nonvoting members, from the Energy Conservation Management Board to form the Joint Committee as required pursuant to 16-245m(d)(2) of the General Statutes.

5.2.4.1. The principal functions, responsibilities and areas of cognizance of this Standing Committee shall be as follows: (i) to work with the Joint Committee to examine opportunities to coordinate the programs and activities contained in the plan developed under section 16-245n (c) of the General Statutes with the programs and activities contained in the plan developed under section 16-245m(d)(1) of the General Statutes; and (ii) to work with the Joint Committee to provide financing to increase the benefits of programs funded by the plan developed under section 16-245m(d)(1) of the General Statutes so as to reduce the long-term cost, environmental impacts and security risks of energy in the state.

5.2.4.2. This Standing Committee, in consultation with and upon approval of the Joint Committee, is authorized to vote and allocate funding in an amount not to exceed three hundred thousand dollars ($300,000.00) per program or project so long as such program or project is within the Green Bank's approved Operations and Program Budget, consistent with the Green Bank's Comprehensive Plan, within an approved program of the Board or Deployment Committee and consistent with the credit and investment guidelines, criteria, policies, and practices approved by the Board. No resolution of the Joint Committee to approve an expenditure of funds may be approved without an affirmative vote of at least two (2) voting Directors of the Connecticut Green Bank.

5.2.4.3. Notwithstanding anything contained in these Bylaws to the contrary, the Joint Committee may adopt its own bylaws which shall govern the conduct and operations of the Joint Committee. If there are conflicting provisions between these Bylaws and any bylaws adopted by the Joint Committee, these Bylaws shall be controlling.

5.2.5. Additional Standing Committees or *ad hoc* committees of the Board may be formed by the Board at its discretion by resolution setting forth the purposes and responsibilities of such additional Standing Committee or *ad hoc* committee.

Each additional Standing Committee or *ad hoc* committee shall have at least three (3) members who are Directors, at least one (1) of which shall not be a State employee.

5.3. **Advisory Committees**.

5.3.1. The Board may form such advisory committees as the Board in its discretion may determine to be appropriate to advise and assist the Board, any Standing Committee of the Board, or management of the Green Bank in the performance of its statutory responsibilities. Such advisory committees may include as members such individuals as may be knowledgeable in the subject matter whether or not Directors or employees of the Green Bank.

5.3.2. Members of an advisory committee who are not Directors or employees of the Green Bank shall be considered "members of an advisory board" for purposes of the Connecticut Code of Ethics for Public Officials.

5.3.3. Public confidence in the recommendations and other actions of an advisory committee requires that advisory committee members avoid both actual conflicts of interest and situations that might give the appearance of a conflict of interest. It is to be expected, however, that many advisory committee members will have outside business or professional interests relating to the Green Bank's statutory mission. It is not intended that such outside business or professional interests be considered a conflict of interest, provided that an advisory committee member shall not participate in any deliberation or vote, and shall not take any other affirmative action as an advisory committee member, with respect to a matter in which such member has an interest which is in substantial conflict with the proper discharge of the duties and responsibilities of membership on the advisory committee. For this purpose, the determination of whether an advisory committee member has an interest which is in substantial conflict with the duties and responsibilities of membership on the advisory committee shall be made in the same manner as provided in Section 1-85 of the Connecticut General Statutes for conflicting interests of public officials. In addition to disclosures required by law, the existence and nature of any such substantial conflict shall be promptly disclosed to the Committee Chair.

ARTICLE VI
FISCAL YEAR

6.1. **Fiscal Year**. The fiscal year of the Green Bank shall extend from July 1 through the following June 30 except as the same may be otherwise determined by resolution of the Board.

ARTICLE VII
CONFLICTS OF INTEREST

7.1. Public confidence in the recommendations and other actions of the Board and Committees requires that Directors avoid both actual conflicts of interest and situations that might give the appearance of a conflict of interest. Given the statutory qualifications for membership on the Board, it is to be expected, however, that some Directors, or Directors' immediate family members, will have outside business or professional interests relating to the Green Bank's statutory mission. It is not intended that such outside business or professional interests be considered a conflict of interest, provided that a Director shall not participate in any deliberation or vote, and shall not take any other affirmative action as a Director or Committee member, with respect to a matter in which such Director or immediate family member has an interest which is in substantial conflict with the proper discharge of the duties and responsibilities of membership on the Board or such Committee. For this purpose, the determination of whether a Director or immediate family member has an interest which is in substantial conflict with the duties and responsibilities of membership on the Board or a Committee shall be made in the manner provided in Section 1-85 of the Connecticut General Statutes for conflicting interests of public officials. The existence and nature of any potential conflict of interest shall be promptly disclosed to the Chairperson (or, in the case of the Chairperson, to the Vice Chairperson) and otherwise as may be required by Section 1-86 of the Connecticut General Statutes.

7.2. With respect to potential conflicts of interest, as defined in Section 1-86(a) of the Connecticut General Statutes and pursuant thereto and pursuant to Section 1-81-30(c) of the Regulations of Connecticut State Agencies, the Member shall either (1) excuse himself or herself from participating in any deliberation or vote on the matter and may not otherwise take any affirmative action on the matter or (2) shall prepare a written statement prepared under penalty of false statement describing the matter requiring action and the nature of the potential conflict and explaining why, despite the potential conflict, such Member is able to vote and otherwise participate fairly, objectively, and in the public interest, and shall deliver a copy of such statement to the Office of State Ethics and shall enter a copy of the statement in the minutes of the Board or committee, as applicable.

7.3. In addition to the steps described in Section 7.1 and 7.2, above, a conflicted or potentially conflicted Director:

7.3.1. is strongly encouraged to leave the room during discussion and vote on the matter at hand; and

7.3.2. shall not participate in such discussion and vote; and

7.3.3. shall not have access to non-public confidential information regarding the matter at hand.

ARTICLE VIII
COMPENSATION

8.1. No Director or Committee member shall at any time receive or be entitled to receive any compensation for the performance of his or her duties as a Director, but may be reimbursed by the Green Bank for reasonable and necessary expenses incurred in the performance of such duties.

ARTICLE IX

RESTRICTIONS ON DIRECTORS AND EMPLOYEES LEAVING GREEN BANK

9.1. Green Bank Directors and employees are required to comply with the Code of Ethics provisions pertaining to post-state activity and to familiarize themselves with the statutes pertaining to post-state service restrictions which can be found at Connecticut General Statutes Sections 1-84a and 1-84b and in the *Guide to the Code of Ethics for Public Officials and State Employees.*

ARTICLE X
PARLIAMENTARY AUTHORITY

10.1. Robert's Rules of Order, current revised edition, shall govern the proceedings of the Board when not in conflict with these Bylaws.

ARTICLE XI
AMENDMENT

11.1. **Amendment or Repeal**. These Bylaws may be amended or repealed or new Bylaws may be adopted by the affirmative vote of a Super Majority of the Directors then in office. The Green Bank may adopt rules for the conduct of its business, and the adoption of such rules shall not constitute an amendment of these Bylaws.

ARTICLE XII
DEFINITIONS

12.1. **Definitions**. Unless the context shall otherwise require, the following words and terms shall have the following meanings:

12.1.1. "Green Bank" means the Connecticut Green Bank, as created and existing pursuant to the Statute.

12.1.2. "Board" means the board of directors of the Green Bank appointed and serving pursuant to the Statute.

12.1.3. "Chairperson" means the Chairperson of the Board appointed pursuant to the Statute.

12.1.4. "Clean Energy" means solar photovoltaic energy, solar thermal, geothermal energy, wind, ocean thermal energy, wave or tidal energy, fuel cells, landfill gas, hydropower that meets the low-impact standards of the Low-Impact Hydropower Institute, hydrogen production and hydrogen conversion

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technologies, low emission advanced biomass conversion technologies, alternative fuels, used for electricity generation including ethanol, biodiesel or other fuel produced in Connecticut and derived from agricultural produce, food waste or waste vegetable oil, provided the Commissioner of Energy and Environmental Protection determines that such fuels provide net reductions in greenhouse gas emissions and fossil fuel consumption, usable electricity from combined heat and power systems with waste heat recovery systems, thermal storage systems, other energy resources and emerging technologies which have significant potential for commercialization and which do not involve the combustion of coal, petroleum or petroleum products, municipal solid waste or nuclear fission, financing of energy efficiency projects, projects that seek to deploy electric, electric hybrid, natural gas or alternative fuel vehicles and associated infrastructure, any related storage, distribution, manufacturing technologies or facilities and any Class I renewable energy source.

12.1.5. "Committee" means any committee of or formed by the Board, including any Standing Committee, *ad hoc* committee, or advisory committee.

12.1.6. "Committee Chair" means the Chairperson of a Committee.

12.1.7. "Comprehensive Plan" means the plan developed by the Green Bank pursuant to section 16-245n(c) of the General Statutes.

12.1.8. "Connecticut Freedom of Information Act" means the Connecticut Freedom of Information Act, Connecticut General Statutes § 1-200 *et seq.*, as amended.

12.1.9. "Director" means a voting member of the Board appointed pursuant to the Statute.

12.1.10. "General Statutes" means the Connecticut General Statutes, as amended.

12.1.11. "Majority", whether capitalized or lowercase, means one more than half.

12.1.12. "President" means the President of the Green Bank hired by and serving at the pleasure of the Board of Directors of the Green Bank.

12.1.13. "Presiding Officer" has the meaning attributed to that term in Article IV, Section 4.5 of these Bylaws.

12.1.14. "Resolution of Purposes" means a resolution of the Board adopted pursuant to the penultimate sentence of Section 16-245n(d) of the General Statutes.

12.1.15. "Secretary" means the Secretary of the Board elected pursuant to the Statute and these Bylaws.

12.1.16. "Standing Committee" means a Standing Committee established by these Bylaws or another standing committee appointed by the Board for a specified period of time for the purpose of carrying out one or more functions of the Green Bank.

12.1.17. "Statute" means Connecticut General Statutes § 16-245n, as amended.

12.1.18. "Super Majority" means two thirds rounded up to the next whole integer.

12.1.19. "Vice Chairperson" means the Vice Chairperson of the Board elected pursuant to these Bylaws.

ARTICLE XIII
AUTHORITY

13.1. These Bylaws are adopted pursuant to the Statute and effective as of [ ].

Deleted: December 16, 2016

845 Brook Street, Rocky Hill, CT 06067
T 860.563.0015
ctgreenbank.com

CONNECTICUT GREEN BANK

Memo

To: Connecticut Green Bank Board of Directors

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From: Bryan Garcia (President and CEO) and Brian Farnen (General Counsel and CLO)

CC: Senior Staff of the Green Bank

Date: April 24, 2020

Re: Proposed Revisions to BOD Ethical Conduct Policy of the Connecticut Green Bank

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Background
In response to the independent audit of the Connecticut Port Authority in 2019, we propose that the Green Bank proactively adopt their recommendations and insights concerning its Board of Directors and Advisory Committee Members Ethical Conduct Policy.

Proposed Revisions to BOD Ethical Conduct Policy
In an effort to continue to improve the oversight of the Connecticut Green Bank, we are proposing that the Green Bank Board of Directors consider the following revisions to the organization's Board of Directors and Advisory Committee Members Ethic Conduct Policy – see attached "redline" edits for discussion and consideration:

Deleted: Audit, Compliance, and Governance Committee

- **Section 4. Enforcement** – adding language for possible consequences to ethics violations;
- **Director Acknowledgment Form** – adding an acknowledgment section for all Directors to sign;

Resolution

WHEREAS, pursuant to Section 5.2.1 of the Connecticut Green Bank ("Green Bank") Bylaws, the Audit, Compliance & Governance (ACG) Committee is charged with the review and approval of, and in its discretion recommendations to the Board of Directors ("Board") regarding, all governance and administrative matters affecting the Green Bank, including but not limited to matters of corporate governance and corporate governance policies;

WHEREAS, the Audit, Compliance and Governance Committee recommends to the Board for approval the proposed draft revisions to the Board of Directors and Advisory Committee Members Ethic Conduct Policy.

NOW, therefore be it:

RESOLVED, that the Board hereby approves the attached revised Green Bank BOD Ethical

Conduct Policy dated April 24, 2020.

Second. Discussion. Vote

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ctgreenbank.com

CONNECTICUT GREEN BANK

CONNECTICUT GREEN BANK

BOARD OF DIRECTORS AND ADVISORY COMMITTEE MEMBERS ETHICAL CONDUCT POLICY

Section 1. Purpose

Ethical conduct and transparency in the conduct of its business are core values of the Connecticut Green Bank ("Green Bank"). The directors of the Green Bank are expected to maintain the highest standards in the conduct of their duties to maintain public trust and confidence in the Green Bank. It is the purpose of this Ethics Policy to establish the highest standards of honesty, integrity and quality of performance for all Green Bank directors, recognizing the need for compliance with all relevant statutes, executive orders, rules and regulations to avoid even the appearance of impropriety in the performance of Green Bank's statutory mandate.

In particular, each director is responsible for his or her conduct, and should become familiar with, the Code of Ethics for Public Officials. A copy of the *Guide to the Code of Ethics for Public Officials and State Employees* may be found by clicking **here**.

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This Ethics Policy is intended to be a general guide for Green Bank directors in determining what conduct is prohibited so that it may be avoided.

Section 2. Values

In performance of their duties, Green Bank directors shall:

- Maintain ethical standards beyond strict compliance with relevant statutes and regulations;
- Fulfill the statutory mandate of the Green Bank in fostering the growth, development and commercialization of clean energy sources and related enterprises and in stimulating demand for clean energy and in the deployment of clean energy resources which serve end use customers in the State of Connecticut;
- Make all decisions strictly on a public purpose and financial basis, without regard to political affiliation or personal interest;
- Fulfill their obligation to applicants, the public, ratepayers, the Executive Branch of the State of Connecticut, the Connecticut General Assembly and all other stakeholders in the Green Bank;

- Maintain transparency and honesty in all operations of the Green Bank;
- Act as a responsible stewardship of all the Green Bank assets;
- Provide for the timely distribution of all public information to any interested party; and
- Maintain the public trust by strict adherence to the public purpose for which the Green Bank was created.

Section 3. Applicability

This Ethics Policy is applicable to all directors of the Green Bank and, to the extent required by law, all non-director voting members of any advisory committees formed by the Green Bank.

Section 4. Enforcement

Any questions or concerns regarding violations or suspected violations of either the Code of Ethics for Public Officials or this Ethics Policy shall be brought to the attention of the Chairperson or Vice-Chairperson of the Board of Directors in writing who shall then transmit such questions or concerns to the Board of Directors. Persons subject to this Ethics Policy may also seek advice from the Office of State Ethics at 860-566-4472 regarding known or suspected violations of the Code of Ethics. Further, persons subject to this Ethics Policy may seek advice from the Office of State Ethics should any questions arise concerning his or her conduct.

Intentional violations of either the Code of Ethics for Public Officials or this Ethics Policy will not be tolerated and will be reported to the Board and the Office of State Ethics which could result in disciplinary action such as probation or an ethics hearing and, if applicable, referral to the appropriate federal and state agencies.

Section 5. Code of Ethics Compliance

As public officials of the State of Connecticut, Green Bank directors are subject to all relevant ethics statutes, regulations, and the like of the State of Connecticut. Key provisions of the Code of Ethics for Public Officials include:

- **GIFTS –** In general, public officials are prohibited from accepting gifts from anyone doing business with, seeking to do business with, or directly regulated by the official's agency or department or from persons known to be a registered lobbyist or lobbyist's representative. There are also restrictions on gifts between public officials in certain circumstances. (See the *Guide to the Code of Ethics for Public Officials and State Employees*, and Selected Statutory References, Sections 1-79(e) and 1-84(m) found therein.)

- **FINANCIAL BENEFIT –** A public official is prohibited from using his/her office or non-public information obtained in state service for the financial benefit of the individual, certain family members, or that of an associated business. (See Selected Statutory References, Section 1-84(c))

- **FINANCIAL DISCLOSURE –** All Green Bank directors are required to file a financial disclosure statement with the Office of State Ethics. Some or all of the information contained in the financial disclosure statement may be considered public information. (See the *Guide to the Code of Ethics for Public Officials and State Employees* and Selected Statutory References, Sections 1-79(e) and 1-84(m))

- **RECUSAL OR REPORTING IN CASE OF POTENTIAL CONFLICTS –** The Code of Ethics requires that public officials avoid potential conflicts of interest. If a director would be required to take official action that would affect a financial interest of such director, certain family members or a business with which they are associated, they must excuse themselves from participating in deliberations, voting or otherwise taking affirmative action on the matter. (See Selected Statutory References, Section 1-86(a) and the Green Bank's Bylaws, Article VII, found by clicking **here**). Additionally the Green Bank has prepared a written Ethics Statement (as noted in sec. 1-86 (a) of the statutes and Article VII of the Bylaws) which can be found on the Green Bank web site **here**.

The foregoing items are not an exhaustive list of prohibited activities, and each director should familiarize himself or herself with the Code of Ethics for Public Officials.

Section 6. Outside Business Interests

Because of the statutory qualifications for membership on the Green Bank Board of Directors, it is expected that some directors will have outside business or professional interests related to energy resources or policy. Such outside interests are not considered to create a conflict of interest, provided that a director shall not participate in any deliberation or vote, and shall not take any other affirmative action as a director, with respect to a matter in which the director has an interest which is in substantial conflict with the proper discharge of the director's duties and responsibilities as a director of the Green Bank. Determination of whether a "substantial conflict" exists is made in the manner provided in Section 1-85 of the Connecticut General Statutes. (See Selected Statutory References, Section 1-85 and Green Bank Bylaws, Article VII)

Section 7. Additional Green Bank Policies

Given that the Green Bank is partially funded through a surcharge on consumers of electric services in the State of Connecticut and the Green Bank's statutory mandate is to foster the growth, development, and commercialization of clean energy resources, and to stimulate demand for clean energy, among other things, the Green Bank expects that, in addition to complying with the Code of Ethics for Public Officials and State Employees, that its directors will:

- Protect the confidential information to which Green Bank directors have access
- Avoid actual or potential conflicts of interest
- Neither interfere with nor solicit contracts on behalf of any person
- Submit the Statement of Financial Interests disclosure documents to the Office of State Ethics in a timely manner.

Section 8. Post-State Employment Restrictions

Green Bank directors are required to comply with the Code of Ethics provisions pertaining to post-state employment, which are commonly known as the "revolving door" provisions. For example, there are restrictions on accepting employment with a party to certain contracts (which would include contracts relating to investments or other financial assistance) if the director was involved in the negotiation or award of the contract, restrictions on representing other parties before the Green Bank during a one-year period following departure from state service, and restrictions on accepting employment as a lobbyist or acting as a registrant if the director were convicted of any felony involving corrupt practices, abuse of office or breach of the public trust.

Directors should familiarize themselves with the statutes pertaining to post-state employment generally, which can be found at Connecticut General Statutes Sections 1-84a and 1-84b. (See Selected Statutory References). You may access these statutes **here**. A summary of these requirements is included in the *Guide to the Code of Ethics for Public Officials and State Employees* found above.

Section 9. GREEN BANK Staff

Directors understand that Green Bank employees are subject to the Green Bank Ethical Conduct Policy. Known or suspected breaches of the Green Bank Ethical Conduct Policy by such employees may require reporting to the Green Bank's General Counsel acting as the Green Bank's Ethics Compliance Officer and may require disciplinary action as provided by the Green Bank's employment policies, in addition to sanctions provided by state law.

It is the responsibility of each Green Bank employee to inquire of the Green Bank's Ethics Compliance Officer or the Office of State Ethics at 860-566-4472 should any question arise concerning his or her conduct.

Approved by the Connecticut Green Bank Board: April 24, 20 .

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Director Acknowledgment Form

I have received a copy of the Connecticut Green Bank Board of Directors and Advisory Committee Members Ethical Conduct Policy and understand that it is my responsibility to read and comply with this policy and any revisions made to it. Should the contents of this policy be changed, I understand that I may be required to provide a written acknowledgment that I have received and understand the change(s).

Director's Signature Date

Print Director Name

845 Brook Street, Rocky Hill, CT 06067
T 860.563.0015
ctgreenbank.com

CONNECTICUT
GREEN BANK

Public Comments of the Connecticut Green Bank
Proposed Changes to the Community Reinvestment Act Regulations
April 8, 2020

Department of Treasury
Office of the Comptroller of the Currency
12 CFR Parts 25 and 195
Docket ID OCC-2018-0008
RIN 1557-AE34
Chief Counsel's Office
Attention: Comment Processing
400 7th Street, SW
Suite 3E-218
Washington, DC 20219

Federal Deposit Insurance Corporation
12 CFR Part 345
RIN 3064-AF22
Robert E. Feldman
Executive Secretary
Attention: Comments
550 17th Street, NW
Washington, DC 20429

As the nation's first state level "green bank," the Connecticut Green Bank ("Green Bank")[1] *leverages the limited public resources it receives to attract multiples of private investment to scale up clean energy deployment. Since its inception in July of 2011, the Green Bank has mobilized over $1.6 billion of investment into Connecticut's clean energy economy at nearly a 7 to 1 leverage ratio of private to public funds, supported the creation of over 20,000 direct, indirect and induced jobs, reduced the energy burden on over 40,000 families and businesses, deployed nearly 360 MW of clean energy, helped avoid over 5.8 million tons of CO_2 emissions over the life of the projects, and generated nearly $90 million in individual income, corporate, and sales tax revenues to the State of Connecticut through June of 2019.*

INTRODUCTION

The Connecticut General Assembly ("CGA") has found and determined that stimulating, supporting, and increasing the use of clean energy,[2] investments in clean energy projects

[1] The Connecticut Green Bank is not a bank – it is a quasi-public agency of the State of Connecticut. The state has established a number of quasi-public agencies that are not departments, institutions or agencies of the State. They are, however, bodies politic and corporate that constitute public instrumentalities and political subdivisions of the State and whose exercise of authority granted to them is deemed to be the performance of an essential public and governmental function. These organizations provide a wide range of services that might otherwise be provided directly by the State.

[2] CGS 16-245n(a) – for the purposes of the Green Bank, "clean energy" means solar photovoltaic energy, solar thermal, geothermal energy, wind, ocean thermal energy, wave or tidal energy, fuel cells, landfill gas, hydropower that meets the low-impact standards of the Low-Impact Hydropower Institute, hydrogen production and hydrogen conversion technologies, low emission advanced biomass conversion technologies, alternative fuels, used for electricity generation including ethanol, biodiesel or other fuel produced in Connecticut and derived from agricultural produce, food waste or waste vegetable oil, provided the Commissioner of Energy and Environmental Protection determines that such fuels provide net reductions in greenhouse gas emissions and fossil fuel consumption, usable electricity from combined heat and power systems with waste heat recovery systems, thermal storage systems, other energy resources and emerging technologies which have significant potential for commercialization and which do not involve the combustion of coal, petroleum or petroleum products, municipal solid waste or nuclear fission, financing of energy efficiency projects, projects that seek to deploy electric, electric hybrid, natural gas or alternative fuel vehicles and associated infrastructure, any

and sources, demand for clean energy, the development of technologies that support clean energy, and the development of the state's energy-related economy are important state policy objectives. To achieve those objectives, the CGA created the Green Bank.[3]

The mission of the Green Bank is to "confront climate change and provide all of society a healthier and more prosperous future by increasing and accelerating the flow of private capital into markets that energize the green economy."[4] With this mission as its focus, the Green Bank has the following three (3) goals:

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

2. To strengthen Connecticut's communities by making the benefits of the green economy inclusive and accessible to all individuals, families, and businesses; and

3. To pursue investment strategies that advance market transformation in green investing while supporting the organization's pursuit of financial sustainability.

The Green Bank works with private financial institutions (including regulated financial institutions – banks) to achieve its mission and goals, and importantly, to ensure that low-to-moderate-income ("LMI") communities and small businesses have access to capital in order to benefit from the green economy. Since its inception, the Green Bank has enabled nearly a half-a-billion-dollars of investment in communities that are eligible for CRA (i.e., below eighty percent of Area Median Income ("AMI")) – see Table 1.

Table 1. Public and Private Investment ($'s MM) in Clean Energy by AMI in Connecticut from FY12-FY19

Fiscal Year	80% or Below AMI	Over 80% AMI	Total Investment	% Investment 80% or Below
2012	$0.3	$9.6	$9.9	3%
2013	$76.2	$35.2	$111.4	68%
2014	$16.9	$101.3	$118.2	14%
2015	$72.7	$288.8	$361.5	20%
2016	$76.9	$265.9	$342.8	22%
2017	$90.1	$143.1	$233.2	39%
2018	$91.2	$187.3	$278.5	33%
2019	$108.4	$226.1	$334.6	32%
Total	**$485.1**	**$1,147.3**	**$1,632.4**	**30%**

The Green Bank has worked with banks on a number of essential critical clean energy infrastructure projects including community development loans for:

- Combined heat and power project in Bridgeport with KeyBank[5] that serves as a microgrid for the community;

related storage, distribution, manufacturing technologies or facilities and any Class I renewable energy source, as defined in section 16-1.

[3] CGS 16-245n

[4] https://ctgreenbank.com/wp-content/uploads/2019/07/Comprehensive-Plan_FY-2020-and-Beyond_Final__071819.pdf

[5] Regulated by the OCC

- Food waste to energy project in Southington with Peoples United Bank[6] that serves as an important energy and environmental waste management project for the state;

- Wind power project in Colebrook with Webster Bank[7] providing zero emission energy and economic development to the community; and

- Fuel cell park in Bridgeport with Fifth Third Bank[8] and Liberty Bank[9] to provide high reliable and clean power to the electric grid through the use of a cutting-edge technology manufactured in the state.

Beyond these projects, the Green Bank has also worked with banks on a number of essential clean energy infrastructure programs and products including, but not limited to the following consumer loans and community development loans, investments, and services:

- Solar lease and power-purchase-agreement ("PPA") financing with KeyBank, US Bank,[10] and Webster Bank for residential and commercial end-use customers to reduce the burden of energy costs while improving the reliability of the electric grid;

- Clean energy, including health and safety measures through consumer loans for homeowners through eleven (11) banks, including community banks and credit unions, that help families reduce the burden of energy costs, make needed repairs to their home while increasing the value of their property;

- Energy efficiency improvement "on bill" financing with Eversource Energy and Amalgamated Bank[11] for small business customers, including essential community facilities, to reduce the burden of energy costs while improving the reliability of the electric grid; and

- Property improvement services through the Commercial Property Assessed Clean Energy Program ("C-PACE"), including thirty-six (36) banks that are enabling the property owner to understand how to lower their operating expenses from energy by deploying clean energy, and then providing consent for investment in such improvements to be senior to their mortgage on the property because the savings are greater than the investment (i.e., deliver positive cash flow to the business).

Leveraging public funds to increase private investment in clean energy generates tax revenues, creates jobs, reduces the burden of energy costs on families and businesses, protects the environment, and improves public health – see Green Bank Impact Report attached.

Investment in essential clean energy infrastructure – through our families and businesses and through public-private partnerships – strengthens communities.

OVERVIEW OF PROPOSED CHANGES TO CRA

[6] Regulated by the OCC
[7] Regulated by the OCC
[8] Regulated by the Federal Reserve System
[9] Regulated by the Connecticut Department of Banking
[10] Regulated by the OCC
[11] Regulated by the FDIC

With the Green Bank's focus on increasing and accelerating private capital investment in Connecticut's green economy, with an emphasis on underserved populations (e.g., LMI families, communities of color, small businesses, farms, etc.), the Community Reinvestment Act ("CRA") serves as a federal public policy tool to connect public and private interests. In fact, currently, CRA has specifically recognized community development loans and investments in clean energy as qualifying activities:

> "…borrowers to finance renewable energy, energy-efficient, or water conservation equipment or projects that support the development, rehabilitation, improvement or maintenance of affordable housing or community facilities…"[12]

And, looking ahead into the future, based on the recent Notice of Proposed Changes to the CRA, the Office of the Comptroller of the Currency ("OCC") and the Federal Deposit Insurance Corporation ("FDIC") continue to express support for clean energy as a qualifying activity:

> "The rehabilitation, improvement, or construction of affordable housing, essential community facilities, or essential infrastructure may include (1) renewable energy, energy-efficiency, or water conservation equipment or…(2) the abatement or remediation of, or other actions to correct, environmental hazards, such as lead-based paint, lead pipes,(such as those used in antiquated water supply systems), asbestos, mold, or radon that is present in housing…"[13]

The OCC and FDIC are proposing changes in the following areas of CRA:

- **Qualifying Activities** – clarifying which activities qualify for CRA credit;
- **Assessment Areas** – updating where activities qualify for CRA credit;
- **Performance Scoring** – creating a more transparent and objective method for measuring CRA performance; and
- **Data Collection and Reporting** – providing for more transparent, consistent, and timely CRA-related data collection, record-keeping, and reporting

Given these proposed changes, and focus of the Green Bank, the Green Bank offers the following public comments:

1. **Role of the States** – like OCC, FDIC and the Federal Reserve System, there are state regulators (e.g., Connecticut Department of Banking) that implement CRA for state-chartered banks and community credit unions. Since states better understand the needs of their local economies, they should have a role in assisting with and offering their perspective towards federal CRA implementation (e.g., local determination of national qualifying activities).

[12] Federal Register Vol. 81 No. 142 of July 25, 2016 (48529)
[13] RIN 3064-AF22 (p. 25)

2. **Deserts vs. Hotspots** – the goal of any changes to CRA regulations should emphasize the need to prioritize increasing investments in underserved segments of the market, including LMI families, communities of color, small businesses, and farms. Equitable distribution of investment by banks in these underserved segments of the market – especially reducing CRA deserts – through "greenlining" and not "redlining" should be the priority. For example, the following qualifying activity feels like it is "redlining" – "an investment in a project in a high-cost area where 30 percent of the rental units are set aside as affordable to middle-income individuals through local inclusionary zoning."[14] It could be "greenlining" if "middle-income" were changed with "low-to-moderate-income".

3. **Long-Term Commitment** – with clean energy, as with other types of economic development investments, the long-term commitment by banks to invest in underserved communities must be encouraged – certainly encouraged beyond the CRA assessment periods. For example, providing banks more incentive to provide long-term loans for clean energy (e.g., with up to 20-year terms), that extends through its useful life as an asset, will ensure that the economic benefits of those investments (e.g., energy savings) inures to the borrower. Perhaps this is an area (i.e., longer term maturities of loans) where "bonus" consideration in CRA credit could be included.

4. **Smaller Loans and Investments** – with clean energy, there are many transactions that are small due to the size of a project (e.g., $10,000 energy efficiency project on a nonprofit or small business). Regulated financial institutions should be encouraged to invest directly in or through a securitized pool of loans that aggregate small projects. Perhaps this is another area where "bonus" consideration in CRA credit could be included.

The Green Bank sees the current CRA as providing an opportunity for increased investment in clean energy in underserved communities through public-private partnerships. Any changes to the CRA should seek to increase this investment in order to strengthen communities through the modernization of the essential clean energy infrastructure necessary for our families and businesses to thrive and our green economy to grow.

GREEN BANK RESPONSE AND RECOMMENDATIONS TO SPECIFIC QUESTIONS

From the Green Bank's perspective, we would like to specifically comment on and make recommendations for several of the questions raised in the notice with respect to qualifying activities,[15] assessment areas,[16] and data collection and reporting[17] – we do not have comments on performance scoring.

Qualifying Activities

The Green Bank would like to offer comments and recommendations on four (4) of the ten questions raised under qualifying activities, including:

1. *Are the proposed criteria for determining which activities would qualify for credit under the CRA sufficiently clear and consistent with the CRA's objective of encouraging banks to conduct CRA activities in the communities they serve?*

[14] Federal Register / Vol. 85 No. 6 / Thursday, January 9, 2020 / Proposed Rules (p. 1231)
[15] Federal Register / Vol. 85 No. 6 / Thursday, January 9, 2020 / Proposed Rules (p. 1216)
[16] Federal Register / Vol. 85 No. 6 / Thursday, January 9, 2020 / Proposed Rules (p. 1217)
[17] Federal Register / Vol. 85 No. 6 / Thursday, January 9, 2020 / Proposed Rules (p. 1228)

In terms of "retail loans," the definition of an "other consumer loans" can be misconstrued as broad and vague. Perhaps building a list of "qualifying other consumer loans" would be useful guidance to banks. For example, an "energy improvement loan" that finances insulation in walls and ceilings, efficient appliances and windows, electric vehicle recharging outlets, solar power, and other clean energy technologies, would be on the "other consumer loans" list.

In terms of "community development" activities, there are two (2) key criteria that provide a useful guide with nearly no ambiguity in its interpretation with respect to the Green Bank's interests in advancing clean energy and the green economy, including:

- **<u>Essential Infrastructure</u>** – financing for "essential infrastructure that benefits or serves LMI individuals or areas of identified need," is clearly articulated when it includes "…(1) renewable energy, energy efficiency, or water conservation equipment or projects associated with affordable housing, essential community facilities, or essential infrastructure or (2) the abatement ore remediation of, or other actions to correct, environmental hazards, such as lead-based paint, lead pipes (such as those used in antiquated water supply systems), asbestos, mold, or radon that is present in housing, facilities, or site where the housing or facility is located." From the Green Bank's perspective, based on the proposed CRA changes, clean energy would be considered "essential infrastructure".

- **<u>Government Programs</u>** – financing for "government programs, projects, or initiatives that partially or primarily benefit LMI individuals (e.g., a program that supports urban renewal), small businesses, small farms, and areas of identified need" recognizes the importance of state and local governments in determining which programs, projects or initiatives should be determined to be qualifying activities. From the Green Bank's perspective, based on the proposed CRA changes, local and state governments can determine what is a federal qualifying activity.

From the Green Bank's perspective, with respect to retail loans, "other consumer loans" can be interpreted as vague unless a growing list of examples is produced, and in terms of community development activity, "essential infrastructure" and "government programs" are sufficiently clear and consistent with CRA objectives of encouraging banks to conduct CRA activities involving clean energy investment.

2. *Are there other criteria for determining which activities would qualify for CRA credit that the agencies should consider?*

In terms of adding "essential community facilities," such as schools and hospitals that benefit or serve LMI individuals, LMI census tracts, or other targeted areas of need as a criteria for a CRA-qualifying activity, the Green Bank would suggest:

- **<u>LMI Individuals and Communities as "Primary" Beneficiaries</u>** – that such "essential community facilities" <u>primarily</u> benefit LMI individuals (e.g., proportionally serve LMI more than non-LMI individuals) and LMI census tracts, as opposed to simply <u>serving</u> LMI individuals and LMI census tracts. Not only will this serve to revitalize and stabilize targeted areas, but more importantly to strengthen targeted communities;

- **Clean Energy Infrastructure** – enable investments in microgrid infrastructure that serves critical facilities, including "police station, fire station, water treatment plant, sewage treatment plant, public shelter or correctional facility, any commercial area of a municipality, or a municipal center"[18] in order to stabilize access to power in a community;

- **Environmental Infrastructure** – enable investments in critical environmental infrastructure including structures, facilities, systems, services and improvement projects related to water, waste and recycling, agriculture, land conservation, parks and recreation, and other environmental infrastructure; and

- **Resiliency Infrastructure** – enable investments in resiliency infrastructure that provides a community the "ability to anticipate, prepare for, and adapt to changing climate conditions and withstand, respond to, and recover rapidly from climate disruptions"[19] in order to stabilize and revitalize the community after a hurricane, snow-storm, or other weather or natural disaster-related event.

Essential infrastructure includes clean energy, environmental, and resiliency infrastructure that help revitalize, stabilize, and strengthen our communities.

5. *The agencies plan to publish the illustrative list on their websites and to update the list both on an ongoing basis and through notice and comment process. Should the list instead be published as an Appendix to the final rule or be otherwise published in the Federal Register? In addition, how often should the list be updated?*

Both – the list of qualifying activities should be published in the Appendix to the final rule, as well as on an ongoing basis in the Federal Register.

And, as noted above, under "Government Programs," state and local government regulators (e.g., Connecticut Department of Banking) should also play a role in receiving, assessing, and determining what activities qualify for CRA credit locally, with those determinations then being accepted regionally, or nationally through an appropriate process. Those determinations would then be included in the Federal Register on an annual basis.

8. *The use of multipliers is intended to incentivize banks to engage in activities that benefit LMI individuals and areas and to other areas of need; however, multipliers may cause banks to conduct a smaller dollar value of impactful activities because they will receive additional credit for those activities. Are there ways the agencies can ensure that multipliers encourage activities that benefit LMI individuals and areas while limiting or preventing the potential for decreasing the dollar volume of activities (e.g., establishing a minimum floor for activities before a multiplier would be applied)?*

As suggested above, the Green Bank believes that long-term commitments by banks in smaller loans and investments can be extremely beneficial to improving the essential clean energy infrastructure for LMI individuals, as well as small businesses in LMI census tracts.

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[18] Connecticut Public Act 12-148 (Section 7)

[19] This definition derives from a federal Notice of Funding Availability for the National Disaster Resilience Competition (page 12). The term "climate" is added above to further specify the domain of resilience, and because climate change impacts are required inclusions throughout the Notice (i.e., pages 5 and 18).

Perhaps, the multipliers apply only within those banks who are seeking an "Outstanding" CRA rating. Within this rating category, for example, an appropriate calculation can be determined based on:

- **Longevity** – the length of the loan, investment or service;

- **Size** – the amount of the loan, investment or service; and

- **Location** – either within the assessment area, or in another assessment area (e.g., CRA desert).

In order to receive an "Outstanding" CRA-rating, a threshold of multiplier points could be established through an objective methodology, or a specific distinction could be bestowed on those who are receiving multiplier credits

The objective is to reward those banks who are "greenlining" to receive credit and recognition for their investment in LMI communities that advance the spirit and policy foundation of CRA.

Assessment Areas

The Green Bank would like to offer a comment and recommendation on one (1) of the three questions raised under assessment areas, including:

11. Are the proposed methods for delineating assessment areas clear, simple, and transparent?

From the Green Bank's perspective, the proposed methods for delineating assessment areas appears to be clear (including recommendation below), and simple, however, additional transparency would be useful.

With regards to delineating assessment areas, there appears to be two (2) ways for a bank, including:

- **Facility Based Assessment Area** – area which either (a) houses the main office, a branch, or a deposit-taking facility (i.e., bricks-and-mortar), as well as (b) any surrounding geographies where the bank has originated or purchased a substantial portion of its loans.

  Recommendation – as is noted in the proposed assessment area that has fifty-percent (50%) or more of its deposits outside of the facility-based assessment area, for "facility based assessment areas" that are beyond "bricks-and-mortar" in surrounding geographies, include "a state" as an option,[20] for the bank's determination to be consistent across assessment area determinations – "The proposal would require a bank to delineate these facility-based assessment areas in any of the following areas: (1) a state…"; and

- **Fifty Percent or More of Deposits Outside Facility Based Assessment Area** – area in which more than fifty-percent of the deposits are outside the facility based assessment area (including alternative considerations that would include between forty-percent to sixty-percent) that receive no less than five-percent (including

[20] Federal Register / Vol. 85 No. 6 / Thursday, January 9, 2020 / Proposed Rules (p. 1216 – Column 1, 2nd Paragraph)

alternative considerations of no less than two or no less than eight percent) of deposits.

If this understanding of the delineation is correct, then it appears to be clear and simple.

In terms of transparency, in order to ensure that the proposal would "retain the requirements that a bank's assessment area must not reflect illegal discrimination or arbitrarily exclude low- or moderate-income geographies" (i.e., prevent "redlining"), the Green Bank would request full and transparent disclosure by banks of their assessment area(s) by census tract be <u>easily accessible</u> and <u>publicly available</u>. In the 21st century, where information technology has enabled society to collect and analyze data quicker and more reliably, this would provide third-parties with information to discern whether or not the bank is meeting the spirit of CRA policy by "greenlining" investment in underserved geographies (e.g., reducing CRA deserts) or "redlining".

<u>Performance Scoring</u>
With regards to performance scoring, the Green Bank has no comments on any of the six (6) questions posed.

<u>Data Collection and Reporting</u>
The Green Bank would like to offer comments and recommendations on one (1) of the three questions raised under data collection and reporting, including:

20. As discussed above, the proposal would require banks to collect and report additional data to support the proposed rule. Although most of this data is already collected and maintained in some form, some additional data collection may be required. For example, banks may need to gather additional data to determine whether existing on-balance sheet loans and investments are qualified activities. Are there impediments to acquiring this data? If so, what are they?

From the perspective of the Green Bank, it would only seem prudent that along with the collection of data like dollar value of the activity, the activity location, how the activity satisfies the qualifying activities criteria, and whether it serves a particular assessment area, that gathering additional data to justify all qualifying activities (and non-qualifying activities) is essential to the successful implementation of the proposed changes to CRA.

The Green Bank stresses the importance of transparency and accessibility of data by third-parties who seek to independently assess the performance of the banks in terms of meeting the spirit of CRA policy by investing in qualifying activities within their respective assessment areas.

RECOMMENDATIONS FOR QUALIFYING ACTIVITIES LIST

The Notice includes a "Qualifying Activities Illustrative List" to help better inform regulated financial institutions about the types of activities that would qualify for CRA. The Green Bank would like to offer additional qualifying activities given (1) that essential clean energy, environmental and resiliency infrastructure is paramount in terms of strengthening LMI communities, and (2) that local and state governments have a role to play in determining federal qualifying activities.

Here is a list of additional qualifying activities that the Green Bank would propose be included on the "Qualifying Activities Illustrative List":

- Consumer loan, lease, PPA, or energy savings agreement to an LMI individual, multifamily affordable property owner, business or farm to undertake an essential clean energy (e.g., energy efficiency, renewable energy, etc.) or environmental (e.g., water, asbestos remediation, resilience, etc.) infrastructure and improvement project on their property.

- Financing for commercial property owners (e.g., small businesses, farms, non-profit organizations, etc.) that finance an essential energy (e.g., energy efficiency, renewable energy, etc.) or environmental (e.g., water, asbestos remediation, resilience, etc.) infrastructure and improvement project on their property through the use of a benefit assessment.

- Purchasing loans from "on bill" utility programs for LMI individual, multifamily affordable property owner, business or farm that undertake an essential energy (e.g., energy efficiency, renewable energy, etc.) or environmental (e.g., water) infrastructure and improvement project financed through their utility bill.

- Providing line of credit to a state or local government or investing in bonds issued by a state or local government whose proceeds are being used to support LMI communities, small businesses, and farms undertake essential energy (e.g., energy efficiency, renewable energy, etc.) or environmental (e.g., water, asbestos remediation, resilience, etc.) infrastructure and improvement projects on their property.

- Providing services to commercial property owners that help them better understand their operating expenses from utilities (e.g., electricity, gas, and water), while then offering them essential clean energy or environmental infrastructure projects can reduce costs, by regulated financial institutions providing consent for benefit assessment to be senior to existing mortgages on a property.

- Providing services and contributions to local nonprofit organizations that provide technical assistance to strengthen communities through the promotion of sustainability (e.g., Sustainable CT, Sustainable Jersey, etc.).

These additional qualifying activities identified by the Green Bank, help regulated financial institutions meet the credit needs of the local community, including low- and moderate-income neighborhoods, in which they are chartered.

CONCLUSION

The Green Bank has worked with community, state, and federally chartered banks and credit unions to invest in the essential clean energy infrastructure of Connecticut – specifically in LMI census tracts and with small businesses. This increasing investment is helping grow the green economy of Connecticut – reducing the burden of energy costs on our families and businesses, creating jobs in our communities, improving public health, and protecting the environment. Any proposed improvements in CRA should further encourage banks to increasingly meet the credit needs of the entire local communities, especially low- and moderate-income neighborhoods. By acknowledging the importance of essential energy, environmental, and resilience infrastructure as a component of strong communities, and by recognizing the important role of local and state governments, CRA will be positioned to meet the needs of the United States well into the 21st century.

FY 12 - FY 19

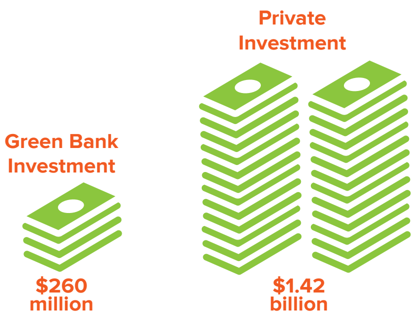
CONNECTICUT GREEN BANK℠

Green Bank Impact Report

Since the Connecticut Green Bank's inception through the bipartisan passage of Public Act 11-80 on July 1, 2011, we have accelerated the deployment of clean energy to benefit families, businesses, and our communities. The impact of our green bank innovation is shown below in terms of investment, economic development, and environmental protection from FY 2012 through FY 2019.

INVESTMENT IN CONNECTICUT

Investment Since inception, the Green Bank has mobilized ***$1.68 billion*** of investment into the State's economy.



Leverage ratio The Green Bank's leverage ratio is the relationship between private investment and Green Bank investment.

For every $1 of Green Bank investment, we attract $6.50 of private investment.

Tax revenues The Green Bank's activities have helped generate an estimated ***$87.1 million*** in state tax revenues.

$43.1 million individual income tax

$23.0 million corporate taxes

$21.1 million sales taxes

ECONOMIC DEVELOPMENT

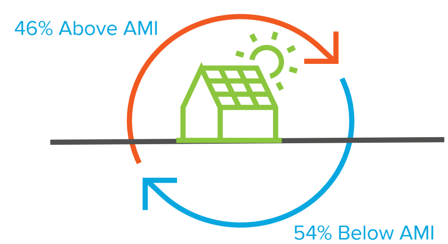
Jobs The Green Bank has supported the creation of more than ***20,000*** direct, indirect, and induced job-years.

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

40,000+ *families*

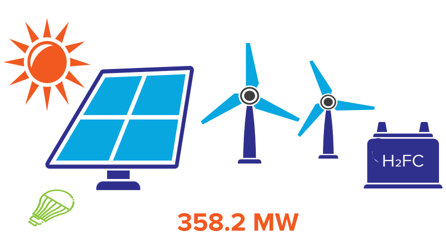
375+ *businesses*

Accessible and affordable The Green Bank has supported residential solar PV installation to reach income parity and pursuing beyond.



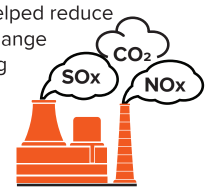
ENVIRONMENTAL PROTECTION

Deployment The Green Bank has accelerated the growth of clean energy to more than ***350 MW***.



358.2 MW of installed capacity

Pollution The Green Bank has helped reduce air emissions that cause climate change and worsen public health, including 5.1 million pounds of SOx and 6.3 million pounds of NOx.



5.8 million tons of CO_2 which equals

88 million tree seedlings grown for 10 years

or

1.1 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.

$206.7 - $466.7 million of lifetime public health value created

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. We're creating a thriving marketplace to accelerate green energy deployment in Connecticut by making green energy financing accessible and affordable for homeowners, businesses and institutions.

Sources: Connecticut Green Bank Comprehensive Annual Financial Reports

Lenders on Connecticut Green Bank

"As America's socially responsible bank, Amalgamated Bank is on a mission to align our investments with our values. We are committed to sustainability and environmental protection, and we want to help increase accessibility to the benefits of clean energy. Working with the Connecticut Green Bank, we have found a partner driven by the same mission. Together, we are making investments to fuel the green energy revolution."

Keith Mestrich, President & CEO, Amalgamated Bank

"The importance of public-private partnerships, like the one between KeyBank and the Connecticut Green Bank, cannot be overstated, especially when it comes to the financing of renewable and other clean energy projects. Our partnership with the Green Bank through the CT Solar Lease led to over $100 million of investment to reduce the energy burden on nearly 1,200 families and 75 businesses in our communities. Additionally, it was the involvement of the Green Bank that helped attract financing from Key Bank toward microgrid construction at critical facilities in Bridgeport, and a first-of-its-kind 'micro-hydro' generator at Hanover Pond in Meriden."

Christopher Gorman, Vice Chairman and President of Banking, KeyBank

"Liberty Bank has been a partner with the Connecticut Green Bank from the start. Liberty Bank recently provided a financing facility for the Green Bank's capital needs for solar on homes across the state, which is supporting the state's growing green economy."

Chandler Howard, President and CEO, Liberty Bank

"Our partnership with the Green Bank has helped us to invest in our local communities, while assisting the State of Connecticut in achieving its important energy, environment, and economic goals."

Larry Holderman, President and CEO, Mutual Security Credit Union

"The CT Solar Loan program was a game-changer for solar financing and Sungage Financial. Our partnership with the Green Bank in Connecticut helped our company grow and become a national leader in helping families finance solar and realize the important benefits it provides."

Sara Ross, Co-Founder and CEO, Sungage Financial

STATE OF CONNECTICUT
DEPARTMENT OF BANKING
260 CONSTITUTION PLAZA – HARTFORD, CT 06103

Jorge L. Perez
Commissioner

April 7, 2020

Chief Counsel's Office
Attention: Comment Processing
Office of the Comptroller of the Currency
400 7th Street, SW
Suite 3E-218
Washington, DC 20219

Robert E. Feldman
Executive Secretary
Attention: Comments
Federal Deposit Insurance Corporation
550 17th Street, NW
Washington, DC 20429

Re: Connecticut Department of Banking Comments on Proposed Rule – Community Reinvestment Act Regulations (RIN 1557-AE34/RIN 3064-AF22)

To whom it may concern:

The Connecticut Department of Banking (the "Department")[1] submits the following comments in response to the Office of the Comptroller of the Currency's and Federal Deposit Insurance Corporation's (together, the "Agencies'") request for comments on proposed changes to the Agencies' Community Reinvestment Act ("CRA") regulations.

We applaud the Agencies' attempts to clarify CRA compliance requirements through the proposed rule. We also urge the Agencies to consider broadening the scope of CRA coverage to include certain socially beneficial activities that may not have a direct connection to low- and moderate-income ("LMI") communities, but would indirectly benefit those communities. Moreover, the Agencies should broaden the carve-out in CRA regulations to

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[1] We note that the Department is an agency accredited by both the Conference of State Bank Supervisors (CSBS) and National Association of State Credit Union Supervisors (NASCUS). The accreditations issued by CSBS and NASCUS afford the Department with the ability to conduct alternating and joint examinations with our federal agency counterparts, signaling a recognition of the Department's strong examination program. The Department's examiners' and managers' significant regulatory experience also includes the supervision of systemically important financial institutions.

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allow state banking regulators to continue to independently examine and evaluate state-chartered institutions for CRA compliance and should develop a formal mechanism for the identification of CRA eligible loans and activities agreed jointly by the relevant state and federal supervisory authorities. Finally, we encourage the Agencies to also coordinate with the Federal Reserve so that a uniform CRA standard is developed applicable to all banks.

Publishing a non-exhaustive list of qualifying activities and confirming that an activity qualifies for CRA credit will provide clarification and ease compliance burdens.

The Agencies' efforts to clarify what types of activities qualify for CRA credit are a positive aspect of the proposed rule and will ease CRA-related compliance burdens for financial institutions, particularly community banks. We support the sections of the proposal that more clearly delineate the CRA treatment of certain activities. Of particular significance, we believe that requiring the Agencies to periodically publish a non-exhaustive list of examples of qualifying activities and establishing a process for banks to seek agency confirmation that an activity is a qualifying activity will provide much-needed relief and guidance for financial institutions. The list of examples of qualifying activities should be created in consultation and coordination with the Agencies' state regulatory counterparts. State input will help ensure consistent application of CRA standards.

These changes will remove much of the guess work that financial institutions must currently undertake to figure out whether an activity would qualify for CRA credit. Reducing this uncertainty will ease compliance burdens on financial institutions and allow them to focus more resources on actually engaging in CRA-qualifying activities.

Socially beneficial activities should also count as CRA-qualifying activities.

In order to more fully achieve CRA's fundamental purpose of encouraging banks to serve LMI communities, we believe the scope of CRA-qualifying activities should be expanded to include those activities that are still socially beneficial for LMI communities even if such transactions do not directly involve a LMI party.

By way of example, at present, certain investments by banks in broad environmental initiatives or green technology do not qualify for CRA credit. However, such socially beneficial investments could have a significant impact on LMI communities, which are particularly vulnerable to the adverse effects of climate change, and higher energy costs.[2]

We believe this is yet another opportunity for the Agencies to coordinate with their state regulatory counterparts. Such collaboration will allow states to provide useful input regarding the

[2] *See* Fourth National Climate Assessment, *available at* https://nca2018.globalchange.gov/. ("Impacts [of climate change] within and across regions will not be distributed equally. People who are already vulnerable, including lower-income and other marginalized communities, have lower capacity to prepare for and cope with extreme weather and climate-related events and are expected to experience greater impacts. Prioritizing adaptation actions for the most vulnerable populations would contribute to a more equitable future within and across communities.")

types of socially beneficial activities that should qualify for CRA credit. This will also allow for more consistent application of CRA standards.

We encourage the Agencies to consider such socially beneficial activities within the scope of activities for which financial institutions receive CRA credit.

State ability to independently examine and evaluate CRA performance should be preserved and coordination between state and federal regulators should be improved.

At present, Connecticut is one of a handful of states that also retains the authority to examine and evaluate state-chartered financial institutions for CRA compliance.[3] The Department has decades of experience evaluating the CRA performance of state-chartered financial institutions.[4] We believe that our ability to continue to independently evaluate state-chartered institutions' CRA activities strengthens financial institution commitment to the underlying principles of CRA and has a positive impact on LMI communities in Connecticut. Accordingly, any changes to the CRA regulations should preserve states' ability to independently examine and evaluate the CRA performance of state-chartered financial institutions.

Additionally, we believe additional coordination between federal and state regulators can be achieved to further the mission of CRA. A joint body comprised of representatives from both federal and state agencies should be established to vet and accept activities that qualify for CRA credit to ensure consistency throughout exam cycles. It is also worth exploring the possibility of state and federal agreement to an alternating CRA examination schedule similar to that used for coordination of safety and soundness examinations. Under such an alternating examination schedule, federal agencies would accept state ratings and vice versa, similar to the current state of affairs regarding safety and soundness examinations. This coordinated approach will provide greater clarity to regulated institutions and allow for efficiencies that will reduce regulatory burden.

The Agencies should also coordinate with the Federal Reserve to create a uniform standard of CRA review.

We believe any modernization of CRA standards should be conducted through a coordinated effort of the Agencies and the Federal Reserve so that a uniform standard is created. Absent such a uniform standard, there is increased likelihood that Federal Reserve member banks will be treated differently and evaluated under different standards than non-member banks. We believe such a piecemeal approach does a disservice to all supervised institutions and creates more confusion in the industry. CRA reform should create more certainty for industry and regulators alike. Any changes that create multiple regulatory standards will have the opposite effect. Confusion about regulatory expectations could actually hinder CRA's goal of having a positive impact on LMI communities.

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[3] Conn. Gen. Stat. §§ 36a-30 through 36a-37e. Moreover, Connecticut's CRA authority also includes examinations and evaluations of state-chartered credit unions for CRA compliance.
[4] We note that state CRA examinations are conducted concurrently with federal CRA examinations and involve collection of similar data from the financial institutions, effectively resulting in no additional regulatory burden on state-chartered financial institutions.

We thank you for the opportunity to comment on the Agencies' proposed rule-making and are available to answer any questions and work with the Agencies in modernizing CRA regulations.

Sincerely,

Jorge L. Pérez

JORGE L. PEREZ
BANKING COMMISSIONER

cc: U.S. Senator Richard Blumenthal
U.S. Senator Christopher Murphy
Congressman John Larson
Congressman Joseph Courtney
Congresswoman Rosa DeLauro
Congressman Jim Himes
Congresswoman Jahana Hayes
Dan DeSimone, Director of the Governor's Washington D.C. Office

STATE OF CONNECTICUT
PUBLIC UTILITIES REGULATORY AUTHORITY

EMERGENCY PETITION OF	:	Docket No. 20-03-15
WILLIAM TONG,	:	
ATTORNEY GENERAL FOR THE	:	
STATE OF CONNECTICUT,	:	
FOR A PROCEEDING TO ESTABLISH	:	
A STATE OF EMERGENCY UTILITY	:	
SHUT-OFF MORATORIUM	:	April 16, 2020

MOTION OF THE CONNECTICUT INDUSTRIAL ENERGY CONSUMERS SEEKING IMMEDIATE, MATERIAL RATE RELIEF FOR ELECTRIC AND GAS CUSTOMERS AS A RESULT OF THE COVID-19 PANDEMIC

PRELIMINARY STATEMENT

The Connecticut Industrial Energy Consumers ("CIEC"), a coalition of large commercial and industrial ("C&I") end-users with manufacturing and other facilities located throughout the State of Connecticut, hereby files this motion with the Public Utilities Regulatory Authority ("PURA" or "Authority") pursuant to Sections 16-11 and 16-19e of the General Statutes of Connecticut for immediate, material rate relief for electric and gas customers. The need for such rate relief is compelling, and related directly to the economic devastation resulting from the COVID-19 pandemic and efforts being undertaken to respond thereto.

As addressed further below, while there may be numerous potential sources of customer rate relief, the relief provided should be expeditious, significant, and include all customer classes. To that end, CIEC recommends that, at a minimum, surcharges and collections devoted towards funding programs and projects likely to be delayed as a result of the pandemic temporarily should be paused, or reduced significantly, to provide customers with much-needed relief during these very difficult circumstances. CIEC also proposes a temporary moratorium on the imposition of demand charge ratchets and contract demand resets in Connecticut utility tariffs. CIEC respectfully requests that the Authority rule on this motion expeditiously.

BACKGROUND

On March 10, 2020, Governor Lamont issued declarations of public health and civil preparedness emergencies, proclaiming a state of emergency throughout Connecticut through September 9, 2020, as a result of the COVID-19 outbreak.[1] Thereafter, the Governor issued a series of several additional Executive Orders to address the impacts of this global pandemic. Those Executive Orders focused on limiting social and recreational gatherings to no more than 5 people; limiting restaurants and bars to take-out and delivery services only; enacting the "Stay Safe, Stay at Home" initiative; and directing all non-essential businesses and not-for-profit entities to prohibit all in-person functions.[2]

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1 Ltr. from Gov. Ned Lamont to Sec. of State Denise Merrill, et al. re: Declaration of Public Health and Civil Preparedness Emergencies (Mar. 10, 2020), https://portal.ct.gov/-/media/Office-of-the-Governor/News/20200310-declaration-of-civil-preparedness-and-public-health-emergency.pdf?la=en.

2 Gov. Ned Lamont, Exec. Order No. 7, *Protection of Public Health and Safety During COVID 19 Pandemic and Response* (Mar. 12, 2020), https://portal.ct.gov/-/media/Office-of-the-Governor/Executive-Orders/LamontExecutive-Orders/Executive-Order-No-7.pdf?la=en; Exec. Order No. 7A, *Protection of Residents of Nursing Home Facilities, Residential Care Hmes and Chronic Disease Hospitals During COVID-19 Pandemic (Mar. 13, 2020),* https://portal.ct.gov/-/media/Office-of-the-Governor/Executive-Orders/Lamont-Executive-Orders/Executive-OrderNo-7A.pdf?la=en; Exec. Order No. 7B, *Protection of Public Health and Safety During COVID-19 Pandemic and Response—Further Suspension or Modification of Statutes* (Mar. 14, 2020), https://portal.ct.gov/-/media/Office-ofthe-Governor/Executive-Orders/Lamont-Executive-Orders/Executive-Order-No-7B.pdf?la=en; Exec. Order No. 7C, *Protection of Public Health and Safety During COVID-19 Pandemic and Response—Further Suspension or Modification of Statutes* (Mar. 15, 2020), https://portal.ct.gov/-/media/Office-of-the-Governor/ExecutiveOrders/Lamont-Executive-Orders/Executive-Order-No-7C.pdf?la=en; Exec. Order No. 7D, *Protection of Public Health and Safety During COVID-19 Pandemic and Response—Crowd Reduction and Social Distancing* (Mar. 16, 2020), https://portal.ct.gov/-/media/Office-of-the-Governor/Executive-Orders/Lamont-Executive-Orders/ExecutiveOrder-No-7D.pdf?la=en; Exec. Order No. 7H, *Protection of Public Health and Safety During COVID-19 Pandemic and Response—Restrictions on Workplaces for Non-Essential Businesses, Coordinated Response Effort* (Mar. 20, 2020), https://portal.ct.gov/-/media/Office-of-the-Governor/Executive-Orders/Lamont-Executive-Orders/Executive-Order-No-7H.pdf?la=en; Exec. Order No. 7N, *Protection of Public Health and Safety During*

Given these circumstances, the consequences to state and local economies has been nothing short of devastating. In Connecticut, business largely has crawled to a standstill in most sectors. Factories have been idled, retail establishments have closed, and new capital investments have stopped. The stock market has plummeted, and unemployment has risen substantially. Because most people are staying at home with all non-essential travel discouraged, if not prohibited, demand for most goods and services has dried-up considerably. Progress on non-essential (as deemed by the State) programs and projects have slowed significantly or grinded to a halt, as have most discretionary expenditures.

The COVID-19 pandemic has resulted in widespread illness and death, and has caused economic devastation, the likes of which Connecticut has not experienced in many decades. The pandemic is an unforeseeable natural calamity, equivalent to a force majeure event. Moreover, the dire economic consequences from the pandemic are likely to continue for some time, undoubtedly through calendar year 2020. Accordingly, the need for rate relief from energy costs for customers – residential, small non-residential, and large commercial and industrial – is immediate and significant, and worthy of the Authority's immediate attention.

REQUESTED RELIEF

Against this backdrop, CIEC urges the Authority to provide immediate, material rate relief to customers. As a result of the COVID-19 pandemic, all Connecticut residents and businesses are experiencing severe – and in many ways, unprecedented – economic hardship. For most

COVID-19 Pandemic and Response—Increased Distancing, Expanded Family Assistance, And Academic Assessment Suspension (Mar. 26, 2020), https://portal.ct.gov/-/media/Office-of-the-Governor/Executive-Orders/Lamont-Executive-Orders/Executive-Order-No-7N.pdf?la=en; Gov. Ned Lamont, Exec. Order No. 7x, *Protection of Public Health and Safety During COVID 19 Pandemic and Response – Renter Protections, Extended Class Cancellation and Other Safety Measures, Educator Certification, Food Trucks For Truckers* (April 10, 2020), https://portal.ct.gov/-/media/Office-of-the-Governor/Executive-Orders/Lamont-Executive-Orders/Executive-Order-No-7X.pdf?la=en.

businesses, large and small, activity has stopped, or at best slowed to a crawl, and many are struggling to survive.

Upon information and belief, the economic devastation being caused by the COVID-19 pandemic and efforts to respond thereto are having much more severe economic consequences for customers of all types than the economic downturn that occurred roughly one decade ago in 2008. Thus, the need for Authority intervention on behalf of customers in the form of immediate, material rate relief is particularly pronounced. CIEC proposes two ready and equitable temporary solutions for the Authority's consideration.

A. Temporary Suspension of Surcharges

One reasonable source of immediate, expansive rate relief for all customers would be to temporarily pause, or reduce significantly, the collection of monies devoted towards funding programs and projects likely to be delayed as a result of the pandemic. Due to the pandemic, work has stopped, or slowed substantially, on the implementation of energy efficiency programs administered by the State's electric utilities. Yet, the collection of fees in full has continued. Significantly, in a letter to the Connecticut Department of Energy and Environmental Protection on March 17, 2020, Eversource Energy and the United Illuminating Company stated that they were temporarily suspending "all on-premise services, including energy efficiency assessments, incentives for direct install services, and in-building evaluation activities as well as any other in person activity deemed to create an unnecessary risk of exposure."

Measures undertaken as part of the Conservation and Load Management ("C&LM") program are difficult, if not impossible to undertake during this pandemic, with social distancing being required to slow its spread. Furthermore, due to the economic devastation occurring throughout Connecticut, businesses and residents will have less discretionary funds to devote to such projects for at least some time into the future.

Currently, customers fund, *inter alia*, the following programs and projects via electric and gas delivery rates and surcharges: (a) energy efficiency; (b) heat pumps; (c) large-scale renewable energy projects; (d) behind-the-meter renewable energy projects; and (e) active demand response solution such as energy storage. Work on all of those programs and projects largely have come to a halt, or at least have slowed considerably, and the resumption of "normal" activities is expected to be some time away, likely well into the summer months. Meanwhile, however, customers continue to fund these programs and projects, in full, notwithstanding expenditures thereon clearly will decline significantly, at least for some limited period of time while the State responds to the COVID-19 pandemic. Inasmuch as these customer funds are not able to be utilized at this time for their intended purposes, CIEC urges the Authority to redirect such funds back to customers, thereby effectuating immediate, material rate relief without impacting safe and reliable electric and gas service.

In order to implement this equitable approach, CIEC recommends the following:

1. To the extent the State's electric and gas utilities as administrators of the C&LM program and/or the Green Bank currently are in possession of uncommitted customer funds for the above-mentioned programs and projects, such funds should be returned forthwith to customers in the form of bill credits.
2. Scheduled collections for the above-mentioned programs and projects embedded in utility delivery rates temporarily should be paused, or reduced significantly, by implementing bill credits, thereby avoiding the need to alter existing delivery rates during what hopefully will be a limited period of time.
3. Similarly, scheduled collections for the above-mentioned programs and projects that are implemented through customer surcharges temporarily should be paused, or reduced significantly. Upon information and belief, the suspension of these

surcharges does not financially harm the State and provides immediate relief to Connecticut's millions of ratepayers.

4. To the extent costs continue to be incurred for some or all of the above-mentioned programs and projects – at what CIEC would suspect would be very sharply-reduced levels – collections would be allowed to continue up to the level of the costs being incurred. The cost differential between program costs incurred under normal activities, and what is reasonably incurred during this pandemic, should be carefully reviewed by PURA.

5. Fairness dictates the above-recommended customer bill credits must be implemented utilizing the same methodology or methodologies employed by utilities to collect the funds in question from customers in the first place. Thus, CIEC's recommendations are not intended to shift collections or costs from one customer segment or class to another.

6. When the effects of the COVID-19 pandemic have lessened such that activity in the above-mentioned programs and projects resumes in earnest, the customer collections presumably could be reinstated, and the credits would cease. While CIEC does have concerns, advanced previously, regarding the cost of many of these programs and their growing impact on the energy bills of all Connecticut consumers, the sole intent of this motion is to provide immediate, material rate relief to customers by ceasing, or reducing substantially, collections that, due to the pandemic, cannot be utilized for their intended purpose at this time and for some period into the future.

B. <u>Temporary Moratorium on Demand Ratchets and Contract Demand Resets</u>

For most businesses, large and small, activity has stopped, or at best slowed to a crawl, and many are struggling to survive. For large industrial customers such as CIEC members, orders have dropped precipitously and operations have been reduced significantly. Another method of providing much-needed, immediate rate relief specific to these customers would be to put a temporary moratorium on the imposition of so-called demand ratchets and contract demands in Connecticut utility tariffs.

Demand ratchets allow the utility to charge a large customer the higher of its actual metered demand in a billing month and the highest demands it recorded in a predetermined setoff of prior 11 months. For example, Eversource Tariff Rate 55 states that the determination of distribution demand is based on the higher of the actual demand in the billing month or demands metered in the prior 11 billing periods. This means, for example, that an Eversource customer with a steady demand of 25 MWs for the 11 months prior to April 1, 2020, whose usage is reduced by half, or more, for the foreseeable future due to the pandemic will continue to be charged based on a demand of 25 MWs for up to 11 months. The problem is exacerbated if the customer had a one month peak demand of, for example, 35 MWs, during those prior 11 months, which then would be used for billing purposes, regardless of how low the actual usage falls in any given month. The same problem occurs if contract demands are reset based on a one month peak that then are charged for 11 subsequent months.

While CIEC believes that the fairness of demand ratchet billing and contract demand resets in general should be reexamined in future rate cases,[3] there are compelling reasons why

[3] For example, in neighboring New York, The Niagara Mohawk Power Corporation charges its high voltage time-of-use industrial customers based on the actual highest demand measured over any fifteen minute interval during the billing <u>month</u>, without any ratchet (*see* PSC No. 220 Electricity, Niagara Mohawk Power Corporation, Tariff Leaf 393, Rev. 3).

Connecticut utility demand ratchets and contract demands that were reset prior to the pandemic should be suspended immediately, on a temporary basis, through the rest of calendar year 2020. As noted earlier, the COVID-19 pandemic is historic in its scope and impact, and is forcing significant, unforeseeable reductions in business operations throughout Connecticut. In that sense, the pandemic is an unforeseeable natural calamity, equivalent to a force majeure event. Unless the demand ratchets and contract demands are suspended, large customers in Connecticut will be charged for delivery service based on demand figures that, through no fault of their own, bear no relationship whatsoever to their current or future operations.

The inequity of allowing the utility demand ratchet and contract demand reset mechanisms to operate given the unique circumstances presented by the pandemic is overwhelming. Businesses in Connecticut are suffering enough as a result of the pandemic without being charged for power they are not using. Accordingly, CIEC respectfully requests that (1) utility demand ratchets and contract demands reset prior to the pandemic be suspended though 2020, and that the suspension period be revisited prior to the end of the year to determine whether the impacts of the pandemic on economic activity in the state have subsided for 2021; and (2) at least for the period April 1, 2020 – December 31, 2020, all utility demand charges be based on the customer's measured peak demand during the billing month, and not its demands during any billing periods that predate April 1, 2020.

C. <u>The Requested Relief Will Provide Meaningful Benefits to Customers</u>

The benefits of CIEC's recommended approach are numerous. First, upon information and belief, the amounts that were – and continue to be – collected from customers to fund the above-referenced programs and projects are substantial, and, therefore, pausing those collections temporarily and returning any uncommitted funds to customers can provide immediate, material rate relief at a time when such relief is truly needed.

Second, because activity in the programs and projects in question has stopped, or slowed to a crawl, customer collections toward same can be repurposed (passed back to ratepayers), temporarily, without impacting activities in progress (or future activities). As mentioned above, to the extent certain activities are continuing during the pandemic necessitating a need for limited funding, collections up to such need could continue, while still benefitting customers by pausing collections that are not needed in the near-term.

Third, this approach should have limited, if any, impact on utility earnings or operations. CIEC is sensitive to the fact that some utilities are operating under Authority-approved rate plans. It is certainly not CIEC's intent to interfere with those rate plans. That noted, the Authority does possess broad authority to address existing rate levels, and the need for customer relief in the near-term is overwhelming.

Finally, the specific approach recommended herein is intended to be temporary in nature, and not interfere with the above-referenced programs and projects when circumstances allow previously-contemplated activities therein to resume in earnest. Rather, CIEC's recommended approach simply recognizes that in this time of overwhelming economic turmoil, when the need for immediate customer rate relief is exigent, if activity in certain programs and projects is paused due to the pandemic and the response thereto, then customer collections funding such programs and projects similarly should be paused, and previously-collected but uncommitted funds returned to customers.

While CIEC favors its recommended approach, it is open to additional and/or different sources of funds that can be utilized for the same purpose; to wit: providing electric and gas customers of all types with immediate, material rate relief in light of the economic devastation brought about by the COVID-19 pandemic and the necessary, government-led responses thereto.

CONCLUSION

For all the foregoing reasons, CIEC urges the Commission to take action expeditiously, consistent with this motion, to provide immediate, material rate relief to electric and gas customers of all types. Such relief is needed urgently as a result of the COVID-19 pandemic, and, as set forth herein, can be accomplished without jeopardizing the provision of safe and reliable service by utilities or the success of the State's various, customer-funded clean energy programs.

Respectfully submitted,

CONNECTICUT INDUSTRIAL ENERGY CONSUMERS

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CERTIFICATE OF SERVICE

This is to certify that on this day, the 16th of April, 2020, the foregoing document was filed with the Public Utilities Regulatory Authority, and copies of the foregoing document were served upon each person designated on the Authority's official service list in this proceeding in accordance with R.C.S.A. § 16-1-15.

By: *Amanda De Vito Trinsey*
Amanda De Vito Trinsey, Esq.

STATE OF CONNECTICUT

PUBLIC UTILITIES REGULATORY AUTHORITY

EMERGENCY PETITION OF WILLIAM TONG,	:	DOCKET NO. 20-03-15
ATTORNEY GENERAL FOR THE STATE OF	:	
CONNECTICUT, FOR A PROCEEDING TO	:	
ESTABLISH A STATE OF EMERGENCY UTILITY	:	
SHUT-OFF MORATORIUM	:	April 17, 2020

OBJECTION OF THE CONNECTICUT GREEN BANK TO THE MOTION OF CIEC

The Connecticut Green Bank opposes the motion of the Connecticut Industrial Energy Consumers ("CIEC") to the Public Utilities Regulatory Authority ("PURA"), which is Motion No. 5 in this Docket and entitled *Motion of the Connecticut Industrial Consumers Seeking Immediate, Material Rate Relief for Electric and Gas Customers as a Result of the COVID-19 Pandemic* ("Motion").

The Connecticut Green Bank was not made a party to this Docket when it was originally filed, but with the filing of the CIEC's Motion, the Green Bank now faces potential harm and deprivation of its rights, depending on the Authority's decision with respect to Motion No. 5. Accordingly, the Connecticut Green Bank requests to be made a party to this action, and to have its counsel placed on the service list for this Docket.

As set forth in greater detail below, the majority of the CIEC's Motion is flawed,[1] and the Connecticut Green Bank specifically objects to CIEC's six requests for relief listed on pp. 5-6 of the Motion. The CIEC's Motion lacks a jurisdiction/statutory basis and ignores the impacts of how certain businesses and the State are responding to the pandemic. Moreover, the Connecticut Green Bank is open for business, deploying funding into dozens of projects keeping contractors and their workers employed at a time that Connecticut businesses (including those deemed to be essential), industry and residents need our assistance more than ever to remain in business or help with lowering the energy burden to homeowners and businesses.

The economic impact of the Connecticut Green Bank's investment is real and is needed during these trying times more than ever. In 2019, for example, for every $1 of public funds committed by the Green Bank, an additional $10 in private investment occurred in the Connecticut economy.[2] Based on our current project pipeline and program targets, the Green Bank anticipates that it will continue to meet its overall targets as it plays an important role in supporting the clean energy

[1] The Connecticut Green Bank takes no position on CIEC's arguments concerning demand ratchets or contract demand resets as articulated on pp. 7-8 of the CIEC's Motion.

[2] In 2019, of the $36 million in investment by the Connecticut Green Bank, there was over $391 million of private investment in Connecticut's economy.

economy, jobs and the eventual economic recovery in Connecticut from the COVID-19 pandemic. As such, the Authority should deny CIEC its requested relief.

Since its inception, the Connecticut Green Bank and its private investment partners have deployed over $2 billion in capital for clean energy projects across the state. Put another way, $278 million from the Green Bank has helped attract $1.75 billion in private investment. Projects recorded through CY 2019 show that for every $1 of public funds committed by the Green Bank that an additional $7 in private investment occurred in the economy.

Before the Authority considers the substance of CIEC's Motion, there is an open question as to whether CIEC has properly brought this issue before the Authority. Indeed, there is a question as to whether the CIEC has the standing to bring up the issue at all. CIEC's Motion fails to note that the funding for the Connecticut Green Bank is not left to the discretion of the Authority, rather such funding is mandated by the General Assembly. CIEC also fails to explain why it should be allowed to speak for all manufacturers (some of which the Green Bank serves to reduce the burden of energy costs), much less smaller commercial concerns and residential ratepayers.

Taking the funding issue first, the Connecticut Green Bank is funded through the mechanism set forth in Conn. Gen. Stat. § 16-245n. What CIEC fails to note in its Motion, however, is that this funding is explicitly mandated by the statute, not suggested: "On and after July 1, 2004, the Public Utilities Regulatory Authority *shall* assess or cause to be assessed a charge of not less than one mill per kilowatt hour charged to each end use customer of electric services in this state which shall be deposited into the Clean Energy Fund established under subsection (c) of this section." (Emphasis added). Only the General Assembly can address what CIEC requests in the first half of its Motion.

In addition, CIEC's membership is opaque to the Connecticut Green Bank and the public at large, so it is unclear whether CIEC has the standing to seek its requested relief in the first place. Based solely on the claims made in its Motion, CIEC has standing to bring its Motion only on behalf of one class of ratepayers – large commercial and industrial end-users of gas and electricity. As CIEC notes on p. 1 of the Motion, CIEC is "a coalition of large commercial and industrial ("C&I") end-users with manufacturing and other facilities located throughout the State of Connecticut." CIEC's membership, by its own admission, does not include small to medium commercial ratepayers or residential users of gas or electricity. As such, it lacks the standing to advocate on behalf of such ratepayers, and the Authority should take that into account when evaluating the Motion.

While the above-referenced jurisdictional defects are alone sufficient for the Authority to deny CIEC's requested relief, the Motion fails on the substance as well. The Motion relies on several of Governor Lamont's Executive Orders for the premise that businesses have been shuttered, that no projects are going forward, and that as a result, the Authority should retroactively defund the Connecticut Green Bank. One of the key Executive Orders relied upon by CIEC in its argument is EO 7H, which shuttered the state's non-essential businesses. However, contractors that are deploying clean energy are designated as "construction workers" per guidance from Department of Economic and Community Development (DECD) on EO 7H, and therefore clean energy contractors are deemed to be essential.[3]

As CIEC correctly notes at the top of page 5 of the Petition, there are a host of economic drivers being funded in Connecticut, including energy efficiency programs, heat pumps, large-scale and behind-the-meter renewable energy projects and demand response projects. However, without any evidence to support its contention, CIEC categorically states that "work on all of those programs and projects largely have come to a halt, or at least have slowed considerably, and the resumption of "normal" activities is expected to be some time away, likely well into the summer months." Motion, p. 5. CIEC then attempts to bootstrap an argument from this faulty premise. Because, the CIEC argues, projects are largely shut down, no funding is needed for such projects.

Because CIEC's argument is based on a flawed premise, CIEC's conclusion, and the suggested course of action that flows from this conclusion, are similarly flawed. Put simply, nobody has a good sense of what is occurring as a result of this pandemic, least of all CIEC. The Connecticut Green Bank and the Department of Energy and Environmental Protection are working with Governor Lamont's Office, AdvanceCT, Eversource, Connecticut Natural Gas, Southern Connecticut Gas and United Illuminating to survey the renewable energy industry as to the effects of COVID-19 on the industry. Working together, these entities have crafted a survey, the purpose of which "is to assess the impacts of COVID-19 on Connecticut's clean energy industry, and to increase our understanding of how the recovery, revitalization, and stabilization of the industry can be expedited once COVID-19 subsides."[4] Cutting the funding for the Connecticut Green Bank now will only serve to delay and hinder efforts to assist the clean energy industry once the specter of COVID-19 lifts. Indeed, no one fully knows what is currently going on in the industry, but the Connecticut Green Bank is working hard on obtaining that data and then acting to assist the clean energy industry as expeditiously as possible.

Although the Connecticut Green Bank is continuing to gather data on the effects of COVID-19 on the industry, the pandemic hasn't fully shuttered the industry as CIEC claims. A quick perusal of the Connecticut Siting Council's website, for example, shows three renewable energy projects have filed petitions for approval in the last three weeks: 1) Constitution Solar filed its petition for approval of a solar project in Plainfield on March 27, 2020; 2) LSE Pictor, LLC filed its petition for approval of a solar project in Winchester on March 27, 2020 and 3) Bloom Energy Corporation filed its petition for approval of a fuel cell project on April 13, 2020.[5] Thus, while COVID-19 has shuttered other businesses, the renewable energy industry is continuing to move forward on projects.

That these projects, and others like them, are moving forward is not too surprising since EO 7H (upon which CIEC relies in part), specifically omits the construction and energy sectors from its

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[3] *See* https://portal.ct.gov/DECD/Content/Coronavirus-Business-Recovery/Business-Exemptions-for-Coronavirus.

[4] *See* https://www.research.net/r/JQ7XQNM for more information.

[5] *See* https://www.ct.gov/csc/cwp/view.asp?a=895&q=318776 for more information.

requirements. As noted above, the construction industry has been deemed an essential industry under the black-letter terms of EO 7H. While the energy sector was not called out as clearly in EO 7H, the Executive Order also deemed the 16 critical infrastructure sectors as defined by the U.S. Department of Homeland Security and listed at https://www.cisa.gov/critical-infrastructure-sectors as essential industries. When one accesses that list, one sees that the "Energy Sector" is listed as one of the 16 critical infrastructure sectors. The construction of renewable energy projects, therefore, can rightfully claim to be twice-listed as an essential industry in Connecticut.

With this background in mind, the renewable energy sector is one of the key economic drivers that is capable of continuing to stimulate Connecticut's economy at this time. However, rather than acknowledge that this is one of a handful of industrial sectors that can continue to do business (and help Connecticut's sagging economy), the CIEC's proposal would serve instead to deprive this economic engine of much-needed fuel at a time it needs it most. This is particularly odd since CIEC notes on p. 7 of its Motion that "for most businesses, large and small, activity has stopped, or at least slowed to a crawl." If that is the case, the charges CIEC complains of should be of less concern to CIEC's members. Such charges are levied on a per kWh basis according to a customer's usage. Thus, if they are shut down or "slowed to a crawl," those businesses will not have such fees assessed.

Put simply, CIEC cannot have it both ways. If businesses are shut down or curtailed, they will not be consuming the same amount of energy resources. As such, their payments to the CL&M program and the Connecticut Green Bank will be significantly less than they otherwise would have been had the business been fully functioning. And for those businesses that are considered essential and are open, it would be anticipated that they are still generating revenue and therefore are able to pay their utility bills, including the applicable charges to promote clean energy and energy efficiency.

The Connecticut Green Bank recognizes that this is an unprecedented situation, with heretofore unseen economic impacts. However, the CIEC's proposed solution will unnecessarily gut one of the few economic and job-creating bright spots Connecticut's economy has. There are now over 44,000 clean energy jobs in Connecticut[6] helping families and businesses reduce the burden of energy costs by deploying clean energy. Such action as proposed by CIEC will also put off necessary planning and financing of such projects for the future, after the worst of COVID-19 has passed. While the Connecticut Green Bank is not unsympathetic to the plight of the many businesses affected by COVID-19 during this period of economic hardship, it is concerned that CIEC's proposed solution will be worse than the alleged harm CIEC seeks to overcome. For these

[6] 2020 Connecticut Clean Energy Industry Report (forthcoming).

reasons, the Connecticut Green Bank respectfully requests that the Authority deny CIEC's requested relief.

Respectfully Submitted,

The Connecticut Green Bank

By: ____________________

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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing has been furnished to the service list in compliance with Conn. Agencies Regs. § 16-1-15. I also certify that this Objection has been filed electronically and that the filing is complete.

By: ____________________

Brian R. Farnen, Esquire
Commissioner of the Superior Court

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