



Board of Directors

Meeting Date

September 23, 2020



Board of Directors

Lonnie Reed

Chair

Binu Chandy

Deputy Director
DECD

Michael Li

Connecticut Department of Energy and
Environmental Protection (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
T 860.563.0015
ctgreenbank.com



September 16, 2020

Dear Connecticut Green Bank Board of Directors:

We have a special meeting of the Board of Directors scheduled for **Wednesday, September 23, 2020 from 2:00-3:00 p.m.**

Please take note that this will be an online meeting only! Given the need to continue to maintain “social distancing” in the face of COVID-19, we are holding this meeting online only.

For the agenda, we have the following:

- **Consent Agenda** – approval of meeting minutes for July 24, 2020 and approval of USDA Loan Application financial forecast and implementation plan, and report out for Q4 of FY 2020 for IPC.
- **Investment Updates and Recommendations** – we seek to restructure several C-PACE financing agreements that were part of a previous private placement bond issuance with Clean Fund;
- **Financing Programs Recommendation** – we have a C-PACE transaction from Cheshire that requires your review and approval, as well as a proposed revision to the C-PACE guidelines to include definitions for “refinancing” and “restructuring” and allowing for effective useful life (EUL) exceptions for restructurings; and
- **Incentive Programs Updates and recommendations** – in order to support the stabilization of the local solar industry from the ongoing impacts of COVID-19, we are seeking your support to extend incentives offered to residential end-use customers through the RSIP with a different cost-recovery mechanism.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Bryan Garcia", with a long horizontal line extending to the right.

Bryan Garcia
President and CEO



AGENDA

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

Wednesday, September 23, 2020
2:00-3:00 p.m.

Dial (646) 749-3112
Access Code: 822-360-613

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

1. Call to order
2. Public Comments – 5 minutes
3. Consent Agenda – 5 minutes
 - a. Meeting Minutes of July 24, 2020
 - b. USDA RUS RESP Loan Application
4. Investment Updates and Recommendations – 20 minutes
 - a. C-PACE Project Acquisition(s) – Clean Fund
5. Financing Programs Recommendation – 15 minutes
 - a. C-PACE Transaction – Cheshire
 - b. C-PACE Program Guidelines – Proposed Revisions
6. Incentive Programs Updates and Recommendations – 15 minutes
 - a. Residential Solar Investment Program – Towards 350 MW and Sustained Orderly Development of Local Solar Industry
7. Adjourn

Join the meeting online at <https://global.gotomeeting.com/join/822360613>

Or call in using your telephone:
Dial (646) 749-3112

Access Code: 822-360-613

Next Regular Meeting: Friday, October 23, 2020 from 9:00-11:00 a.m.
Connecticut Green Bank, 845 Brook Street, Rocky Hill, CT



RESOLUTIONS

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

Wednesday, September 23, 2020
2:00-3:00 p.m.

Dial (646) 749-3112
Access Code: 822-360-613

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

1. Call to order
2. Public Comments – 5 minutes
3. Consent Agenda – 5 minutes
 - a. Meeting Minutes of July 24, 2020

Resolution #1

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

- b. USDA RUS RESP Loan Application

Resolution #2

WHEREAS, consistent with its Comprehensive Plans, the Connecticut Green Bank (“Green Bank”) has been seeking opportunities over the past five (5) years to access low-cost and long-term federal funding from the United States Department of Agriculture (“USDA”), United States Department of Energy (“DOE”), and other agencies to support its mission;

WHEREAS, on April 2, 2020, the Rural Utilities Service (“RUS”) of the USDA issued within the Federal Register (Vol. 85, No. 64), an “Announcement of Funding Availability, Loan Application Procedures, and Deadlines for the Rural Energy Savings Program (“RESP”);

WHEREAS, on April 29, 2020, the American Green Bank Consortium, a membership organization for green banks, informed the Green Bank of the RESP, and provided technical assistance resources to the Green Bank through the Environmental and Energy Study Institute;

WHEREAS, on May 14, 2020, the Green Bank filed a Letter of Intent (“LOI”) with the RUS for a RESP Loan, including an overview of the organization, proposed program descriptions consistent with its Comprehensive Plan, evaluation, measurement, and verification framework, balance sheet, eligible Connecticut towns, and performance measures and indicators; and

WHEREAS, on July 1, 2020 the USDA notified the Green Bank that it had received and reviewed its LOI, and invited it to proceed with a full application for a \$10 million RESP Loan; and

WHEREAS, on July 24, 2020 the Green Bank Board of Directors (the “Board”) approved a resolution to empower staff to approve and submit to USDA application documents as needed in pursuit of a RESP Loan USDA; and

WHEREAS, on September 11, 2020 the Connecticut Green Bank submitted to USDA ahead of USDA’s September 28, 2020 deadline a full RESP Loan application package.

NOW, therefore be it:

RESOLVED, that the Board of the Green Bank, pursuant to the information provided by the Staff in a memo dated September 15, 2020, has determined that for the purpose of Code of Federal Regulations Secs. 1719.5(b)(3)(E), the financial forecast submitted to USDA by the Green Bank as part of its RESP Loan application package is deemed approved; and

RESOLVED, that the Board of the Green Bank, pursuant to the information provided by the Staff in a memo dated September 15, 2020, has determined that for the purpose of Code of Federal Regulations Secs. 1719.5(b)(3)(F), the implementation plan submitted to USDA by Green Bank as part of its RESP Loan application package is deemed approved.

4. Investment Updates and Recommendations – 20 minutes

a. C-PACE Project Acquisition(s) – Clean Fund

Resolution #3

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

WHEREAS, pursuant to the Act and its Bylaws, Green Bank previously entered into certain C-PACE financing agreements (the “Financing Agreements”), more particularly described in that certain memorandum to the Green Bank Board of Directors (the “Board”) dated September 15, 2020 (the “Memo”);

WHEREAS, the Financing Agreements were securitized through a private-placement bond issuance, which structure included assignment of the Financing Agreements to a trustee under a master indenture of trust and Green Bank retaining a subordinated portion of the bonds which were issued;

WHEREAS, on June 13, 2018 the Board approved a Loan Loss Decision Framework and Process, as amended on April 24, 2020 to address the impacts of COVID-19 (the “Loss

Process”), which established the process of dealing with provisional loss reserves, restructurings, and write-offs for assets on Green Bank’s balance sheet; and

WHEREAS, in accordance with the Loss Process, Green Bank staff seeks Board approval to restructure the Financing Agreements (collectively the “Restructured Financing Agreements”), as more particularly described in the Memo.

NOW, therefore be it:

RESOLVED, that the President of the Green Bank and any other duly authorized officer of the Green Bank is authorized to execute and deliver the Restructured Financing Agreements, with terms and conditions consistent with the Memo, as he or she shall deem to be in the interests of the Green Bank and the ratepayers no later than 120 days from the date of this Board meeting; and

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

5. Financing Programs Recommendation – 15 minutes
 - a. C-PACE Transaction – Cheshire

Resolution #4

WHEREAS, pursuant to Section 157 of Public Act No. 12-2 of the June 12, 2012 Special Session of the Connecticut General Assembly and as amended (the “Act”), the Connecticut Green Bank (Green Bank) is directed to, amongst other things, establish a commercial sustainable energy program for Connecticut, known as Commercial Property Assessed Clean Energy (“C-PACE”);

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

WHEREAS, the Green Bank seeks to provide a **\$2,034,623** construction and (potentially) term loan under the C-PACE program to The Lane Construction Corporation., the building owner of 90 Fieldstone Ct, Cheshire, Connecticut (the "Loan"), to finance the construction of specified clean energy measures in line with the State’s Comprehensive Energy Strategy and the Green Bank’s Strategic Plan; and

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

NOW, therefore be it:

RESOLVED, that the President of the Green Bank and any other duly authorized officer of the Green Bank is authorized to execute and deliver the Loan and, if applicable, a Feasibility Study Loan in an amount not to be greater than one hundred ten percent of the Loan amount with terms and conditions consistent with the memorandum submitted to the Committee dated

September 23, 2020, and as he or she shall deem to be in the interests of the Green Bank and the ratepayers no later than 120 days from the date of authorization by the Board of Directors;

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

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

b. C-PACE Program Guidelines – Proposed Revisions

Resolution #5

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

WHEREAS, the Authorizing Statute charges Green Bank to develop program guidelines governing the terms and conditions under which state and third-party financing may be made available to C-PACE.

NOW, therefore be it:

RESOLVED, the Green Bank Board of Directors (the “Board”) approves the updated C-PACE program guidelines (the “Program Guidelines”), substantially in the form of attached to that certain memo to the Board dated September 16, 2020. The Program Guidelines shall then go through a thirty-day public comment period in accordance with Conn. Gen. Stat. Section 1-120 et seq.

RESOLVED, If, after the expiration of public comment period, Green Bank staff considers that significant changes are needed to the Program Guidelines as currently drafted, then Green Bank staff will seek an updated approval from the Board. If no significant changes result from the public comment process, then the final form of the Program Guidelines, as may be edited by Green Bank staff, shall be deemed approved by the Board and Green Bank staff will proceed with implementation of such Program Guidelines.

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

6. Incentive Programs Updates and Recommendations – 15 minutes

a. Residential Solar Investment Program – Towards 350 MW and Sustained Orderly Development of Local Solar Industry

Resolution #6

WHEREAS, the Connecticut Green Bank (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, on April 24, 2020, the Board of Directors of the Green Bank supported the Staff recommendation to propose a legislative increase in the RSIP to the Governor's Office and the leaders of the Energy & Technology Committee in order to revitalize, recover and stabilize the local solar industry from the impact of COVID-19 prior to the market transition from net metering to a tariff, which the Staff has proposed, but as of the date of this memo, no legislation extending the RSIP has been brought forth; and

WHEREAS, the RSIP is approaching the three-hundred and fifty megawatt public policy target during a time when COVID-19 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 directs the Staff of the Green Bank to seek out support from Public Utilities Regulatory Authority (PURA) to allow the Green Bank to continue to aggregate residential end-use customers installing solar PV systems beyond the current RSIP goal (Residential Aggregation);

RESOLVED, that given the estimate of cancellations based on an analysis of recent RSIP application approval activity, the Board of Directors supports the Staff recommendation to approve up to an additional 10 MW of RSIP applications beyond the RSIP policy target of 350 MW for a total of 360 MW, in order to achieve the RSIP policy target of 350 MW – any projects approved and completed beyond the 350 MW, would have to seek cost recovery from a source other than the current RSIP policy;

RESOLVED, that the Board of Directors acknowledges the significant adverse impacts COVID-19 has had on the stability of the local solar industry, and contingent on PURA's approval of the Residential Aggregation, the Board of Directors approves up to an additional 32 MW of incentives beyond the 350 MW RSIP goal from the Green Bank for residential end-use customers installing solar PV (Incentive Extension);

RESOLVED, that should the Board of Directors approve of the Incentive Extension, that the Staff of the Green Bank pursue any and all strategies to cost recover the Incentive Extension through a future extension to the RSIP policy, sale of RECs to the utilities through long-term procurement contracts, or other spot market or future contract sales into the Class I RPS markets in New England in a manner consistent with this memorandum; and

RESOLVED, that the Board of Directors requests that the Staff return with a recommendation at a future meeting for review and approval of the incentive level for RSIP beyond 350 MW (e.g., reducing the residential solar PV incentives beyond the current Step 15 levels of the RSIP).

7. Adjourn

Join the meeting online at <https://global.gotomeeting.com/join/822360613>

Or call in using your telephone:
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Access Code: 822-360-613

Next Regular Meeting: Friday, October 23, 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.



CONNECTICUT
GREEN BANK SM

Board of Directors Meeting

September 23, 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

Resolutions #1 and #2



1. **Meeting Minutes** – approve meeting minutes of July 24, 2020
 2. **USDA RUS RESP Loan Application** – approval of financial forecasts and implementation plans
- **IPC FY 2020 Q4 Report** – progress to targets through FY 2020

Announcements

Changing Leadership in Incentive Programs



**Sergio
Carrillo**



**Selya
Price**

Board of Directors

Agenda Item #4

Investment Updates and Recommendations

C-PACE Initial Investment from CleanFund – Background



- **Program w/CleanFund** – pursuant to Dec 2013 open solicitation, CleanFund selected as buyer for C-PACE Benefit Assessment Liens (“BALs”) in order to refresh the Green Bank’s C-PACE warehouse capacity.
- **Facility sized to \$30 million** – ultimately sold ~\$17.5 million via two tranches between 2014 and 2015; utilized a series of bonds (A, B, C) with CleanFund buying the senior Series A Bonds (representing 80% BAL net present value)
- **Best to have Green Bank re-acquire BALs** – Inflexibility of CleanFund structure (securitization) to accommodate revised payment schedules. Due to COVID19 issues – deferments allowed by Executive Order 7S as well as general restructuring requests by borrowers - Green Bank seeks to restructure CleanFund BALs
- **Impact to Green Bank** – limited incremental credit risk due to Green Bank’s existing subordinated position. Increased portfolio in C-PACE assets enables greater Green Bank sustainability

CleanFund BALs (original balance)



Tranche 1	
PACE Project	Loan Amount
22 Waterville Rd	\$ 424,180
41 Walnut	\$ 145,000
80 Lamberton	\$ 1,818,486
86 Hopmeadow	\$ 685,316
100 Rosecommon Drive	\$ 2,549,654
542 Westport Avenue	\$ 559,950
1841 Broad Street	\$ 325,000
Danbury YMCA	\$ 87,938
1073 State Street (ID Products)	\$ 107,556
InSports	\$ 1,012,004
Killingworth True Value	\$ 261,567
Total Portfolio Principal	\$ 7,976,653

Tranche 2	
PACE Project	Loan Amount
Larsen Ace Hardware	\$ 148,223
Calvary Temple	\$ 49,349
Northeast Tool	\$ 121,058
Bushnell Theatre	\$ 368,991
Air Temp Mechanical	\$ 136,779
Polamer Precision	\$ 2,842,049
200 Lamberton	\$ 357,131
390 Birmingham	\$ 205,652
452 Broad (PID 6651)	\$ 732,980
125 Granfield Ave	\$ 28,750
452 Broad (PID 6652)	\$ 207,273
11 Depot Rd	\$ 55,421
9 West Broad Street	\$ 393,846
Merritt Graphics	\$ 218,814
Carling Technology	\$ 1,116,629
Carriage House Mercedes	\$ 823,978
Katz Ace Hardware	\$ 311,115
Shagbark	\$ 468,505
Manchester Honda	\$ 599,818
Modern Woodcraft	\$ 338,871
Total Portfolio Principal	\$ 9,525,231

Prepaid

C-PACE Restructuring Strategy



- Initial restructuring/repurchase of Tranche 1 (smaller tranche with fewer borrowers, **\$5.6 million current outstanding BAL** across 9 transactions):
 - All 9 borrowers have confirmed interest in restructuring
 - CleanFund consent required for “accelerated” program (otherwise “deal by deal” process in Oct)

- Propose previous lien’s payment terms and a half year payment deferral, extending term by half a year. Might be more flexible with interest rate if need be.

- Based on success of Tranche 1 restructuring, Green Bank would commence restructuring program for Tranche 2

Tranche 1	
<u>PACE Project</u>	<u>Current Balance</u>
22 Waterville Rd	\$ -
41 Walnut	\$ 111,849
80 Lambertton	\$ 1,304,048
86 Hopmeadow	\$ 501,935
100 Rosecommon Drive	\$ 2,015,350
542 Westport Avenue	\$ 344,616
1841 Broad Street	\$ 256,893
Danbury YMCA	\$ -
1073 State Street (ID Products)	\$ 70,803
InSports	\$ 812,353
Killingworth True Value	\$ 199,967
Agreed to Restructure	\$ 5,617,814
Prepaid	
Agreed to Restructure	

CleanFund BAL Restructuring (illustrative)



Illustrative Restructuring

<i>Sources:</i>		<i>Uses (principal plus accrued interest and fees):</i>	
Principal Outstanding	\$ 500,000.00	Series A Bonds	\$ 420,000.00
Accrued Interest	10,000.00	Series B Bonds	\$ 51,000.00
		Series C Bonds	\$ 39,000.00
Total Refinancing	<u>\$ 510,000.00</u>	Total Payoff	<u>\$ 510,000.00</u>
Prepayment Fee			
Series A bond principal	\$ 400,000.00		
Fee %	3%		
Prepayment Fee	<u>\$ 12,000.00</u>		

Green Bank Balance Sheet

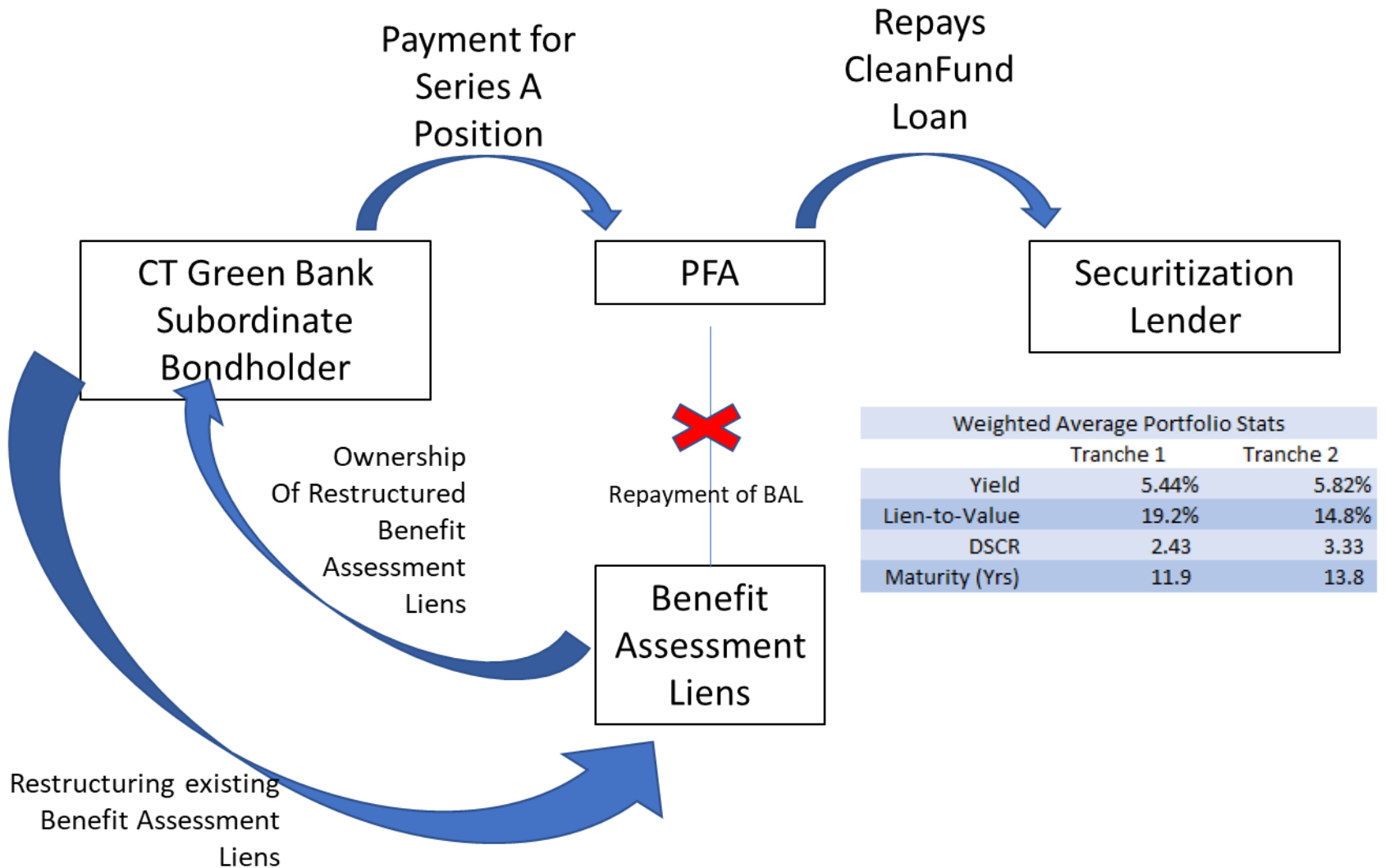
	<u>Debit</u>	<u>Credit</u>	<u>Net Impact on BS</u>
Series B Bonds	\$ -	\$ 50,000	\$ (50,000)
Series C Bonds	\$ -	\$ 50,000	\$ (50,000)
Restructured BAL	<u>\$ 500,000</u>	<u>\$ -</u>	<u>\$ 500,000</u>
	\$ 500,000	\$ 100,000	\$ 400,000

Expected Interest over Remaining Term (15 Years)

	<u>Rate</u>	<u>Interest Income</u>	<u>NPV (3%)</u>
Series B Bonds	5.52%	\$ 44,814	\$ 40,182
Series C Bonds	5.52%	\$ 44,814	\$ 40,182
Restructured BAL	5.75%	\$ 237,154	\$ 201,759
Net Interest Income to Green Bank		\$ 147,525	\$ 121,394
Prepayment Premium		\$ (12,000)	\$ (12,000)
Economic Impact		\$ 135,525	\$ 109,394

- Restructuring all BALs results in the dissolution of Tranche 1
 - Collapsing structure would reduce legal costs, trustee fees, human capital resources (not modeled)
 - 3% prepayment fee on the Series A bonds
- Upfront costs offset by interest income and other savings over remaining BAL term

CleanFund BAL Restructuring



Weighted Average Portfolio Stats		
	Tranche 1	Tranche 2
Yield	5.44%	5.82%
Lien-to-Value	19.2%	14.8%
DSCR	2.43	3.33
Maturity (Yrs)	11.9	13.8

Impact

- Collectively, the purchase involves **\$8.7 million** in capital across both tranches and **yield overall cash flow of approximately \$1.1 million⁽¹⁾ and incremental interest income of approximately \$693,000⁽²⁾ annually.**
- Improved flexibility in accommodating borrower restructuring requests and payment deferrals

⁽¹⁾\$1.4 million annual debt service across the portfolio net of \$0.26 million of lost Series B and C average annual cash flow

⁽²⁾Approximately \$875,000 annual interest income across the portfolio net of \$182,000 of lost Series B and C average interest income

Resolution #3



NOW, therefore be it:

RESOLVED, that the President of the Green Bank and any other duly authorized officer of the Green Bank is authorized to execute and deliver the Restructured Financing Agreements, with terms and conditions consistent with the Memo, as he or she shall deem to be in the interests of the Green Bank and the ratepayers no later than 180 days from the date of this Board meeting; and

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

Board of Directors
Agenda Item #5a
Financing Program Recommendations
C-PACE Transaction – Cheshire

90 Fieldstone Court, Cheshire

Ratepayer Payback



REDACTED

- **\$1,805,451** for a 666.4kW roof mounted, ground mounted, and carport solar PV systems + roof
- Projected savings are 61,605 **MMBtu** versus **\$1,805,451** of ratepayer funds at risk.

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

90 Fieldstone Court, Cheshire

Terms and Conditions



- **\$1,805,451** construction loan at 5% and term loan set at a fixed 6.50% over the 25-year term
- **\$1,805,451** loan against the property
 - ❑ Property valued at **REDACTED**
 - ❑ Loan-to-value & Lien-to-value ratios equal **REDACTED**
- DSCR **REDACTED**

90 Fieldstone Court, Cheshire



The Five W's

- **What?** Receive approval for a \$1,805,451 construction and (potentially) term loans under the C-PACE program to The Lane Construction Corporation to finance the construction of specified energy upgrade
- **When?** Project to commence 2020
- **Why?** Allow Green Bank to finance this C-PACE transaction, continue to build momentum in the market, and potentially provide term financing for this project until Green Bank sells it along with its other loan positions in C-PACE transactions.
- **Who?** The Lane Construction Corporation, the property owner of 90 Fieldstone Ct, Cheshire, CT
- **Where?** 90 Fieldstone Ct, Cheshire, CT

90 Fieldstone Court, Cheshire

Project Tear Sheet



REDACTED

90 Fieldstone Court, Cheshire

Key Financial Metrics



REDACTED

Resolution #4



NOW, therefore be it:

RESOLVED, that the President of the Green Bank and any other duly authorized officer of the Green Bank is authorized to execute and deliver the Loan and, if applicable, a Feasibility Study Loan in an amount not to be greater than one hundred ten percent of the Loan amount with terms and conditions consistent with the memorandum submitted to the Committee dated September 23, 2020, and as he or she shall deem to be in the interests of the Green Bank and the ratepayers no later than 120 days from the date of authorization by the Board of Directors;

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

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

Board of Directors

Agenda Item #5b

Financing Program Recommendations

C-PACE Program Guidelines –

Proposed Revisions

C-PACE Program Guidelines



Create New Defined Terms

At the present time, refinancings are not permissible under the Program Guidelines, but restructurings are permissible. To avoid ambiguity around the meaning of these terms, this update creates the following new defined terms:

1. “Restructuring”
2. “Refinancing”

Effective Useful Life (EUL) Exception for Restructurings

- Program guidelines require the financing term to not exceed EUL of the project financed
- Because this provision is considered to be a limiting factor to help C-PACE lenders recoup their investment and a borrower to avoid a foreclosure, it is recommended that the EUL restriction be removed for restructurings.

Resolution #5



NOW, therefore be it:

RESOLVED, the Green Bank Board of Directors (the “Board”) approves the updated C-PACE program guidelines (the “Program Guidelines”), substantially in the form of attached to that certain memo to the Board dated September 16, 2020. The Program Guidelines shall then go through a thirty-day public comment period in accordance with Conn. Gen. Stat. Section 1-120 et seq.

RESOLVED, If, after the expiration of public comment period, Green Bank staff considers that significant changes are needed to the Program Guidelines as currently drafted, then Green Bank staff will seek an updated approval from the Board. If no significant changes result from the public comment process, then the final form of the Program Guidelines, as may be edited by Green Bank staff, shall be deemed approved by the Board and Green Bank staff will proceed with implementation of such Program Guidelines.

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

Board of Directors

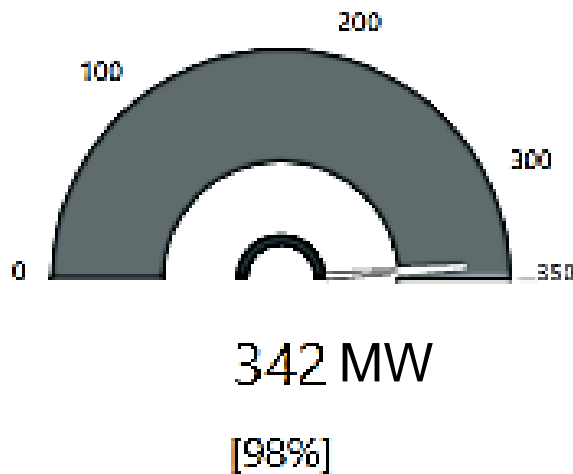
Agenda Item #6a

Incentive Programs Updates and Recommendations
Residential Solar Investment Program – Towards 350
MW and Sustained Orderly Development of Local
Solar Industry

Status of the RSIP

< 2 Months from 350 MW of Approved Projects

Year/Calendar	CGB Investment per Watt	Private Investment per Watt	Total Investment per Watt	Project Counter	kW STC
2012	\$1.68	\$3.11	\$4.79	771	5,390.23
2013	\$1.32	\$3.10	\$4.43	1,464	10,406.08
2014	\$0.97	\$3.38	\$4.35	4,493	33,346.96
2015	\$0.44	\$3.89	\$4.33	7,035	54,110.76
2016	\$0.33	\$3.39	\$3.72	5,653	44,886.06
2017	\$0.32	\$3.16	\$3.48	4,468	35,537.21
2018	\$0.27	\$3.26	\$3.53	6,389	53,244.45
2019	\$0.27	\$3.28	\$3.55	7,614	64,384.64
2020	\$0.24	\$3.34	\$3.57	4,931	41,186.26



\$147,255,601
CGB Investment

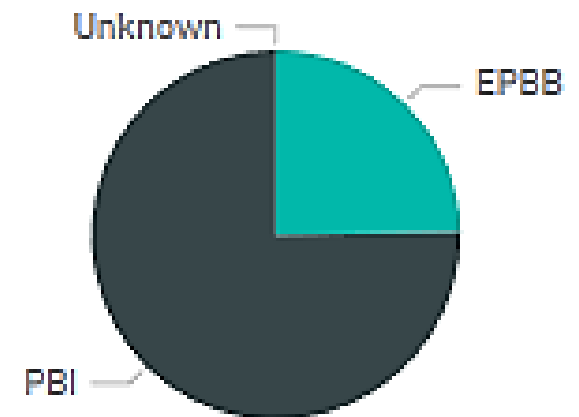
\$1,158,650,556
Private Investment

\$1,305,906,157
Total Investment

342,492.65
kW STC

42,818
Project Counter

8.87
Leverage Ratio



Public Policy Goals

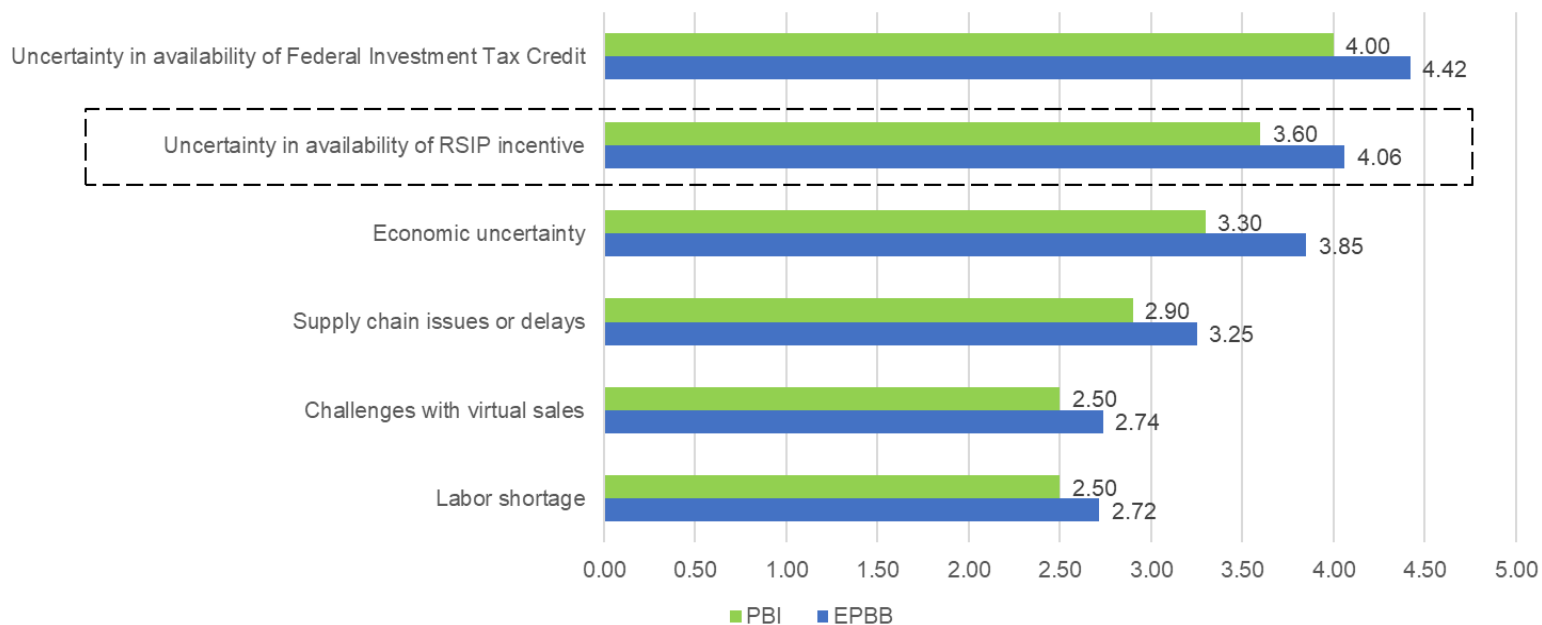
- **Declining Incentive Block Structure** – administer a declining incentive block structure – reduced incentives by nearly 90% since program inception in March of 2012 (i.e., equivalent to \$18 ZREC in RSIP in Step 15);
- **350 MW of Installed Capacity Target** – deploy no less than 350 MW of new residential solar PV systems by December 31, 2022 – currently at 344 MW of approved projects and nearly 304 MW of deployed projects; and
- **Economic Development** – “foster the sustained orderly development of a local solar industry” in order to ensure a long-term marketplace for solar PV contractors supporting residential end-use customers in Connecticut.
 - Need to support the transition from net metering to tariff (begins January 1, 2022)
 - Further reductions in the federal ITC coming up (i.e., from 26% to 22% in 2021, and then to 0% in 2022)
 - ZREC market has Year 10 (i.e., 2021) and energy efficiency market segment had increase in incentives to support COVID-19 stabilization strategy

COVID-19 Impact

Destabilizing Local Solar Industry



How would you rate the following barriers to greater customer adoption of residential solar PV in Connecticut (please rate from 1 to 5, with 5 presenting the greatest barrier)



Across all measurements – unemployment claims, industry surveys, program data, and recent polling data – **local solar industry is unstable due to COVID-19.**

Staff Request



Meet Deployment Target and Stabilize the Industry

- 1. 10 MW of Approvals beyond 350 MW Target** – due to 15-20% cancellation rate for projects approved, and 304 MW of projects currently deployed, by approving up to 360 MW of projects, the Green Bank will meet the 350 MW RSIP deployment target – this may result in no cost recovery of the incentives provided through the RSIP of between 0 to 10 MW depending upon cancellations – an exposure of \$2.5 million.
- 2. Stabilizing Local Solar Industry from COVID-19 Impacts without the RSIP** – staff sought (and seeking) legislative extension of the RSIP (i.e., acknowledged by E&T Committee Co-Chairs as a policy priority), the rate increases and storm response issues became the near-term focus for the special session. Green Bank must demonstrate how it can support the local solar industry stabilize from the impacts of COVID-19 – support up to 32 MW of additional approvals beyond the 350 MW deployment target – bringing the exposure up an additional \$5.5 million for a total exposure of \$8.0 million.

COVID-19 Intervention

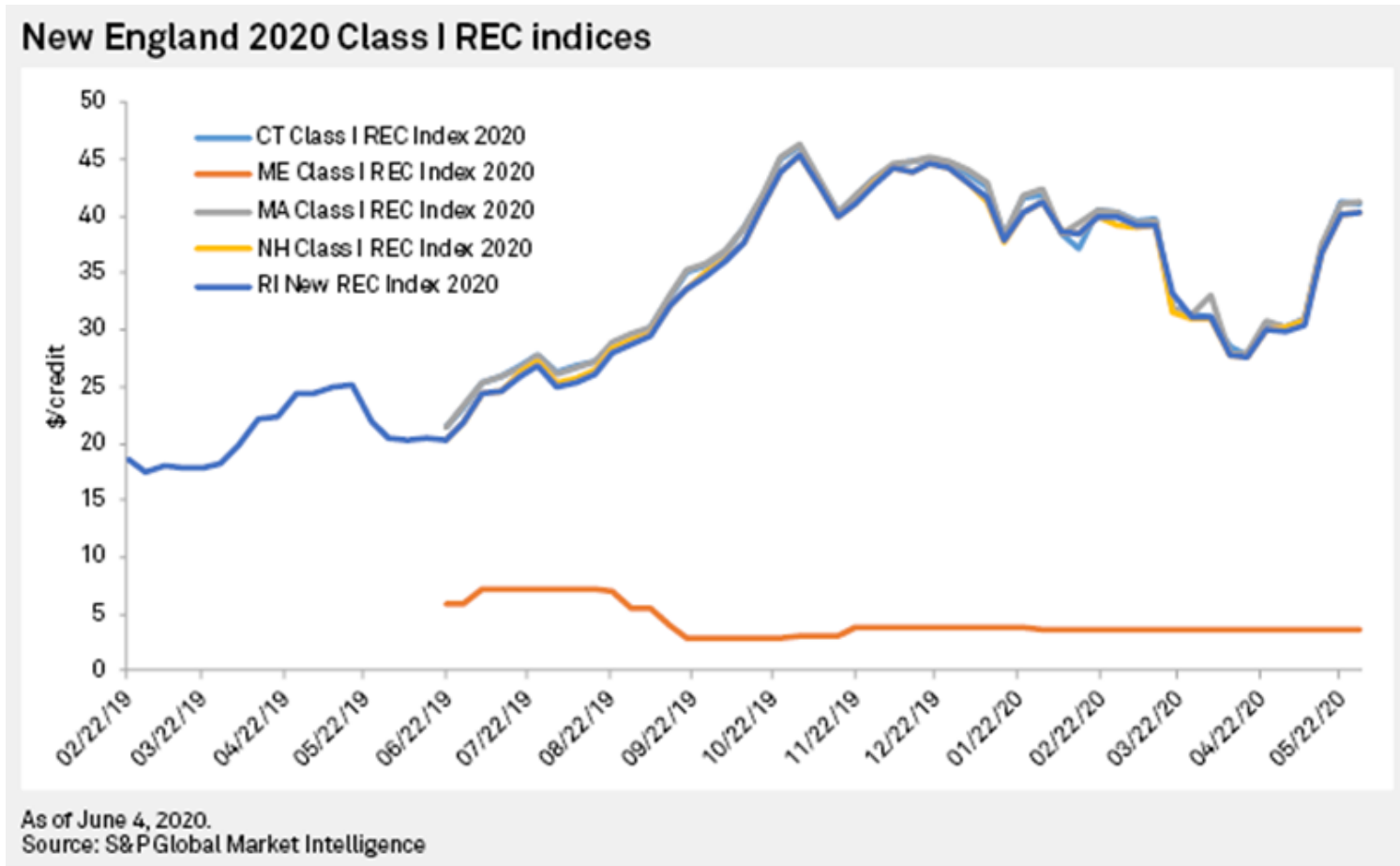
Cost Recovery Strategy



1. **Residential Aggregation of Class I RECs** – seek approval from PURA to allow the Green Bank to continue aggregation of solar PV systems for residential end-use customers to produce RECs for the Class I RPS market;
2. **Declining Incentives in Subsequent Step** – to ensure that the incentive level is below Step 15 of the RSIP (i.e., \$18 ZREC equivalent), further reduce the EPBB (\$25.81) and LMI-PBI (\$38.59) incentives and keep PBI (\$14.53) the same; and
3. **Average Class I REC Price Target of \$20** – sell Class I RECs into the spot market or through future contracts at an average of \$20/REC over 15-years to cost recover the incentive.
 - ❑ Green Bank average Class I REC price in the spot market and future contracts has been \$21.65/REC over the last 5 years
 - ❑ Current Class I REC prices in RPS markets for 2021 and 2022 in Connecticut is \$36.00 and Massachusetts is \$41.00.

Class I REC Prices (2019-2020)

New England States



Current Class I REC prices in RPS markets for 2021 and 2022 in Connecticut is \$36.00 and Massachusetts is \$41.00.

Cost Recovery Risk Analysis

Net Present Value at \$20 REC Price



Discount Rate	Scenario 1 Step 15 Levels	Scenario 2 20% Incentive Reduction to EPBB and LMI-PBI Projects	Scenario 3 Scenario 2 + Loss of PBI Projects in the Portfolio ¹
0.0%	\$1,740,848	\$2,597,355	\$1,114,739
2.5%	\$350,661	\$1,172,345	(\$373,185)
5.0%	(\$617,283)	\$172,877	(\$1,420,907)

- **Risk Mitigants on REC Price** – legislative extension of the RSIP (i.e., special session or 2021 session), utility long-term procurement, REC-only interim residential tariff, or open markets for Class I RPS (i.e., Connecticut, Massachusetts)

REFERENCES

1. From project distribution of 70% PBI, 5% LMI-PBI and 25% EPBB to 40% PBI, 10% LMI-PBI, and 50% EPBB.

Resolution #6



NOW, therefore be it:

RESOLVED, that the Board of Directors directs the Staff of the Green Bank to seek out support from Public Utilities Regulatory Authority (PURA) to allow the Green Bank to continue to aggregate residential end-use customers installing solar PV systems beyond the current RSIP goal (Residential Aggregation);

RESOLVED, that given the estimate of cancellations based on an analysis of recent RSIP application approval activity, the Board of Directors supports the Staff recommendation to approve up to an additional 10 MW of RSIP applications beyond the RSIP policy target of 350 MW for a total of 360 MW, in order to achieve the RSIP policy target of 350 MW – any projects approved and completed beyond the 350 MW, would have to seek cost recovery from a source other than the current RSIP policy;

RESOLVED, that the Board of Directors acknowledges the significant adverse impacts COVID-19 has had on the stability of the local solar industry, and contingent on PURA's approval of the Residential Aggregation, the Board of Directors approves up to an additional 32 MW of incentives beyond the 350 MW RSIP goal from the Green Bank for residential end-use customers installing solar PV (Incentive Extension);

RESOLVED, that should the Board of Directors approve of the Incentive Extension, that the Staff of the Green Bank pursue any and all strategies to cost recover the Incentive Extension through a future extension to the RSIP policy, sale of RECs to the utilities through long-term procurement contracts, or other spot market or future contract sales into the Class I RPS markets in New England in a manner consistent with this memorandum; and

RESOLVED, that the Board of Directors requests that the Staff return with a recommendation at a future meeting for review and approval of the incentive level for RSIP beyond 350 MW (e.g., reducing the residential solar PV incentives beyond the current Step 15 levels of the RSIP).

Board of Directors
Agenda Item #7
Adjourn



Memo

To: Bryan Garcia, Eric Shrago, Bert Hunter, Mackey Dykes, Selya Price - Connecticut Green Bank

From: Inclusive Prosperity Capital Staff

Date: August 26, 2020

Re: IPC Quarterly Reporting – Q4 FY20 (April 1, 2020 – June 30, 2020)

Progress to targets for Fiscal Year 2020, as of 6/30/2020 ¹

Product	Number Projects of Target Projects	% to Target goal	Total Financed Amount	Financed Target	% to goal	MW Installed	MW Target	% to goal	
Smart-E Loan	737	540	136%	\$9,998,818	\$7,182,000	139%	0.9	0.5	180%
Multifamily Pre-Development	4	2	200%	\$998,036	\$140,000	713%	n/a	n/a	n/a
Multifamily Term	14	8	175%	\$8,092,414 ²	\$1,328,000	609%	2	0.2	1000%
Solar PPA	3	18	17%	\$1,355,380	\$23,460,000	6%	0.4	10.6	4%
Low income single family (PosiGen)	625	615	106%	\$15,693,551	\$17,202,165	91%	3.9	4.2	93%

(report continues next page)

¹ Source: "Fiscal Year 2020 Progress to Targets through Q4" memo to CGB Board (July 24, 2020)

² This figure represents energy financing only and excludes the \$13.3M in CT Solar Lease financing.

PSA 5410 – Smart-E Loan

- The Smart-E Loan exceeded its targets for FY20, in large part due to steady, high volume from the HVAC industry. Solar volume continued to be low as the market now has numerous solar loans and alternate financing options; however, one contractor continued a partnership with a Smart-E lender to offer interest rate buydowns, which resulted in dozens of projects throughout the year.
- COVID-19 impacts on Smart-E volume were noticeable, with a 43% drop in closed loan volume between February and March 2020 being the most significant. Volume between March – June ran about 27% below the same period last year. While lower than normal, HVAC projects were submitted steadily, as the industry was deemed essential and did not experience the same negative effects as the home performance industry. Closed loan volume rebounded exponentially in June 2020, with 91 closed loans – the highest volume month of FY20.
- The April 1st launch of a special 2.99% financing offer for heat pumps, battery storage and electric vehicle charging stations was postponed due to COVID-19. Following guidance from the Governor's Office, public health officials and DEEP, the launch was rescheduled for July 1st to support the re-opening of the state's clean energy economy and getting contractors back to work.

PSA 5411 – Multifamily

- Funded and provided technical assistance to a mixed set of projects including 6 follow-on investments in previously funded projects. Projects included a mix of technologies including energy efficiency upgrades, solar, and a fuel cell (at the Cherry Street Lofts in Bridgeport).
- The follow-on investments have been for high impact projects that are being stabilized and preserved as affordable housing by funding energy and health and safety improvements. The CT Green Bank and our funding partners play a critical role as lenders of last resort in these projects.
- FY20 had a strong showing of CPACE funded projects including 5 solar loans to a single portfolio owner as well as a 3rd advance for energy efficiency measures to the Cargill Falls Mill affordable housing project in Putnam, where CGB has previously funded the small-hydro installation running through this property.
- Four (4) of the funded properties were condos or coops, sectors where CGB continues to provide significant funding and TA support, because of challenges securing condo and coop funding from other lenders.
- Closed one (1) health and safety loan in the amount of \$47K but were unable to use the Energize CT Health and Safety Revolving Loan Fund from DEEP. (Restrictions tied to existing debt made it too complicated to use the DEEP funds, so MacArthur PRI funds, administered by CGB-partner Housing Development Fund (HDF) were used instead.)
- Funded two (2) solar PPA projects, which is a drop in count from previous years. Partnership with and support from CHFA and DOH in marketing this program has been the key to success in previous years. Because of leadership transitions, the necessary collaboration and support from CHFA and DOH was not available in FY'20.
- COVID-19 has strongly impacted Multifamily Program activity starting in the Feb/Mar timeframe. With many property owners and managers stretched thin dealing with this

health crisis as well as uncertainty about rental incomes and financial stability, folks have retreated.

- Financial risks associated with COVID-19, specifically concern about non-payment of rents, also halted announcement and deployment of the expanded Loans Improving Multifamily Energy (LIME) Loan program to serve **ALL** multifamily properties in CT, including market rate properties and those with tenant paid utilities. This program is administered by partner Capital for Change (C4C) and is capitalized by CGB and other investors.

PSA 5412 – Solar PPA

- 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 coming year.
- Green Bank and IPC staff finalized and executed a Sourcing and Servicing Agreement formalizing the process by which IPC and CGB will co-develop solar PPA projects and by which IPC will compensate CGB for its development efforts.
- Negotiated definitive term loan facility documentation with CGB (subsequently executed early Q1 FY21)
- Negotiated tax equity partnership with Greenprint Capital and finalized partnership documentation (subsequently executed early Q1 FY21)
- Completed diligence on the acquisition of four construction-stage C-PACE projects from CGB, and received board approval for the acquisition
- Responded to PPA pricing requests received by CGB staff
- IPC staff and CGB began outreach to CT solar developers to discuss transition to IPC platform and source feedback on pricing and process with the Green Bank Solar PPA
- Began using IPC Salesforce Platform for some pricing requests with developers, targeting full migration Q1 FY21
- Contracted with ENCON (Stratford, CT) to be the Operations & Maintenance provider for solar PPA projects in Connecticut

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

PosiGen Solar for All Program Management

- The PosiGen Solar for All partnership successfully adjusted sales, staff, and operations in response to the COVID pandemic, avoiding the loss of sales and staff incurred by many other companies. Despite major industry delays, the program reached the fiscal year target for closed projects. The addition of a fourth system size of 3.7 kW enabled smaller project homes to participate in the program and capture solar savings and likely resulted in the slight shortfall in capital deployed and MW targets.

Green and Healthy Homes Project

- The Department of Social Services (DSS) informed the project team that given limited budgets and organizational capacity constraints they are not able to fund the pilot in the upcoming fiscal year as the project team had expected. The earliest they would be able to fund the pilot would be in fiscal year 2022.
- DSS remains committed to the pilot model and the strong ROI the report demonstrated.

- The project team began drafting the final report on the CT Medicaid ROI analysis and pilot design, which is expected to be released in the next quarter.

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 and CT Soar Loan:
 - An IPC staff member continued to assist with the management of CT Solar Lease 2 and CT Solar Loan tasks, though in an advisory role as many of the administrative tasks have been transitioned to a junior CGB employee.
 - The IPC staff member continued to assist with the management and training of the employee.
 - The IPC staff member continued to manage the relationship with Renew Financial and Assurant as both partners have new employees who need to be brought up to speed on the program servicing. The IPC staff member was also able to focus on larger SL2-related projects that had been put on hold, including tracking contractor holdback payments, Assurant invoices and PSA amendment, and UCC tracking/payments.
 - COVID-19: Program 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.

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 loan approvals and closings were affected through Q4. However, the IPC team is working to build pipeline and has received interest from several large projects, including the next phases of Success Village Association. These projects will take time to mature to the point where they are ready to submit applications, go through the underwriting process and close. Further, and in an effort to add resources to this challenging sector, we have brought on board an experienced housing development consultant to spearhead outreach and applicant support for the ECT H&S RLF.

\$5M Capital Grant

- 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. Although the transaction was expected to close in February 2020 under a master facility construct with CGB, in the wake of the COVID-19 outbreak, CGB funded the entirety of the LIME recapitalization in IPC's stead. IPC will continue to monitor for favorable conditions for future investment.

General Updates

Below are updates for the fourth fiscal quarter of FY20:

- Capital raising:
 - Began to operationalize the \$25M credit facility with New York Green Bank, the first credit facility that will access the Kresge Guarantee
 - Continued diligence with the next set of capital providers, including impact investors and tax equity for the solar ownership platform.
 - IPC was accepted as a member of Confluency Philanthropy and attended their annual conference in May.
- Business/Product Development/Initiatives of interest to Connecticut:
 - Software licensing agreement for the NGEN platform
 - Colorado Energy Office in process with approval from state contracting agency – expected close fall 2020.
 - Working with Inclusiv (the member network of CDFI/community development credit unions) on a potential launch of a Smart-E program in New York State. NYSERDA would provide LLR and administrative support.
 - Continued to work with a number of green banks, local governments, etc. on leveraging IPC's products and financing strategies. Working to launch multifamily lending products to Philadelphia Energy Authority and SELF (executed MOU), working with Montgomery County Green Bank, DC Green Bank, Rhode Island Infrastructure Bank, and CGC on a variety of opportunities.
 - IPC has joined the following advisory councils/initiatives related to DOE grants or programs for expanded access to solar/solar financing:
 - Achieving Cooperative Community Equitable in Solar Sources (ACCESS) Stakeholder Group – National Rural Electric Cooperative Association (NRECA) is partnered with National Rural Utilities Cooperative Finance Corporation, CoBank and GRID Alternatives to make solar energy more affordable for LMI members of cooperatives. The project is engaging community and regional financial institutions.
 - NREL/NYSERDA Solar Finance Inclusion Initiative – focused on new financial products for solar energy. The financial products, described as flexible financial credit agreements (FFCAs), are focused on enabling greater participation in solar energy by LMI customers. The goal of the joint initiative is to devise ways to address persistent barriers by LMI customers solar such as income fluctuations, housing transitions or other issues.
 - Inclusive Shared Solar Initiative (ISSI) Advisory Board – the National Association of State Energy Officials (NASEO) and the National Energy Assistance Directors' Association (NEADA) seek to advance strategies that increase the scalability of LMI) community solar programs. The basis for

ISSI is the NYS Solar for All program, a pilot sponsored by the NYSEERDA, which improves access to community solar facilities for LMI households.

- National Community Solar Partnership – a learning network of over 300 devoted to the expansion of community solar across the US.
- Administrative:
 - IPC staff and its Board developed a statement on racial justice, climate justice and environmental justice and is now developing a policy statement on diversity, equity and inclusion with a particular focus on diversification of the staff.



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

Regular Meeting Minutes

Friday, July 24, 2020
9:00 a.m. – 11:00 a.m.

A regular meeting of the Board of Directors of the **Connecticut Green Bank (the “Green Bank”)** was held on July 24, 2020.

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

Board Members Present: Eric Brown, Binu Chandy, Thomas Flynn, John Harrity, Steve Meier, Matt Ranelli, Lonnie Reed, Brenda Watson

Board Members Absent: Michael Li, Kevin Walsh

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

Others present: Joe Buonannata, Kerry O’Neill, Kim Stevenson, from Inclusive Prosperity Capital

1. Call to Order

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

2. Public Comments

- No public comments.

3. Consent Agenda

- Bryan Garcia reviewed the items within the Consent Agenda for the Board. This includes the previous meeting minutes, performance targets memos, and governance compliance reporting requirements.

Resolution #1

Motion to approve the meeting minutes of the Board of Directors for June 26, 2020.

Subject to Changes and Deletions

Resolution #2

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

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

WHEREAS, the Board of Directors of the Connecticut Green Bank approved a Comprehensive Plan for FY 2020 including approving annual budgets and targets for FY 2020.

NOW, therefore be it:

RESOLVED, that Board has reviewed and approved the Program Performance towards Targets for FY 2020 memos dated July 24, 2020, which provide an overview of the performance of the Incentive Programs and Financing Programs with respect to their FY 2020 targets.

Resolution #3

WHEREAS, in July of 2011, the Connecticut General Assembly passed Public Act 11-80 (the Act), "AN ACT CONCERNING THE ESTABLISHMENT OF THE DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION AND PLANNING FOR CONNECTICUT'S ENERGY FUTURE," which created the Connecticut Green Bank (the "Green Bank") and vests the power in a Board of Directors comprised of eleven voting and one non-voting member; and

WHEREAS, the structure of the Board of Directors is governed by the bylaws of the Connecticut Green Bank, including, but not limited to, its powers, meetings, committees, and other matters.

NOW, therefore be it:

RESOLVED, that Board has reviewed and approved the Overview of Compliance Reporting and the Board of Directors and Committees for FY 2020 memo dated July 24, 2020 prepared by staff, which provides a summary report of the FY 2020 governance of the Board of Directors and its Committees of the Connecticut Green Bank.

Upon a motion made by Matt Ranelli and seconded by Binu Chandy, the Board of Directors voted to approve the Consent Agenda which includes Resolutions 1, 2, and 3. None opposed or abstained. Motion approved.

4. Incentive Programs Updates and Recommendations
 - a. FY 2020 Report-Out – Incentive Programs

Subject to Changes and Deletions

- Selya Price reviewed the Incentive Programs updates for RSIP, Smart-E, and Solar For All. The targets for number of projects were all exceeded, and all except for Solar For All exceeded the target for MW capacity. The Solar For All program was approved to deploy smaller capacity projects, which is why it reached 93% of its target (3.9 MW instead of 4.2 MW).
- As for key updates to the RSIP program, the overall RSIP statutory target is only about 15 MW away from the 350 MW target and could be reached as early as October 2020. COVID-19 has affected the program since mid-March; though the solar industry has adapted their sales processes which have recovered somewhat, completion volume is also improving but not as quickly. Bryan Garcia noted that the staff will approve more than 350 MW of applications (e.g., 5 MW) in order to meet the legislative target given that applications approved experience cancellations.
- The Green Bank is submitting a proposal into the PURA grid modernization docket requesting battery storage incentive program designs by the end of July. PURA and DEEP have released a draft Value of DER study. As well, the Green Bank is pushing for an RSIP target extension to 450 MW in legislature.
- Lonnie Reed asked if the state legislature seems like it will be able to vote on the RSIP issue. Bryan Garcia answered that many policies may not be able to be voted on until the fall when they reconvene, but communication will be maintained with updates as the RSIP program continues until that time. The legislature does overall seem to be supportive of the RSIP extension, however.
 - Lonnie Reed suggested sitting and speaking with Matt Ritter to make sure it is given the attention it deserves, as it is really part of the state's economic recovery. Selya Price noted that her and her team have compiled examples from other states that show that other states are providing continuity on their solar incentive programs.
- Joe Buonannata from Inclusive Prosperity Capital summarized the key updates to the Smart-E Loan program. All targets have been exceeded, the National Green Energy Network (NGEN) web platform was launched, asbestos and mold remediation was reclassified as standalone measures that can now be financed to address the health and safety barriers to making other energy improvements, and despite COVID-19 impacting the program overall, it has been improving since the pandemic's start and is doing steady volume in comparison to May and June in 2019. As well, the heat pump, battery storage, and EV charging station special offer was postponed from April until July 2020 and is live now.
 - Steve Meier asked for more details about the rebound from COVID-19 impacts. Joe Buonannata noted that there are steady increases in the HVAC projects, and though solar is generally slow, the contractors for that are back to near full or full capacity. Kerry O'Neill also commented that the special rate offer should help continue the increased momentum.
- Kerry O'Neill reviewed the key updates for the Solar For All program. A new smaller system size was allowed which shifted the target results, in particular with respect to capacity and capital deployed. In response to COVID-19, the team was able to successfully transition to remote sales and operations, including the most successful sales volume in June 2020. Installations is also rebounding now, and loan performance has been maintained with delinquencies less than 2% for 60+ days, as customers seem to be prioritizing their payments which save them money overall. Other LMI Initiatives are in progress and being developed through grants to help more LMI families.
 - Matthew Ranelli commented that there has been a push to address the structural issues related to zoning and LMI communities, so there may be an opportunity to

Subject to Changes and Deletions

build in the LMI solar strategies into the zoning changes being discussed. Kerry O'Neill answered that Kim Stevenson has been working towards similar efforts through the Fairfield County Housing Alliance but agreed that if there is more to be done then it should be pursued. Kim Stevenson also commented that she would like to connect with Matt Ranelli on the issue.

5. Financing Programs Updates and Recommendations

a. FY 2020 Report-Out – Financing Programs

- Nicholas Zuba reviewed the FY 2020 CPACE Program updates. The number of projects and MW deployed were just under the targets, but capital deployed exceeded its target. A strong first half of the fiscal year helped the program nearly meet its targets and had the COVID-19 pandemic not happened it was on track to meet all targets. The team has since learned to better anticipate potential challenges and deploy new strategies to work around them on a proactive rather than a reactive basis. As well, work is being done to attract the selection of capital providers using the open market platform, but recognizes that projects funded by these capital providers won't materialize right away.
 - Thomas Flynn commented that in his work with commercial clients, he's heard the change in the work model has not impacted productivity as was expected. Now businesses are exploring more work-from-home situations and he is wondering how that might impact the commercial program capital. He asked what has been seen since the recovery has begun and is there an expectation that CPACE will be as attractive as it was before. Nicholas Zuba answered that the team is also still analyzing data as it comes in, but there are other opportunities within the C&I market that could be explored. As well, building owners may see the now-empty office spaces as the time to do improvements if businesses return to an office-centric work model. Thomas Flynn agreed but suggested being very fluid in adapting as time progresses and things settle. Bert Hunter also commented that the increased emphasis on health and safety has led to business owners exploring their options for improvement. He expects there will be continued activity, but likely will be in new sectors.
- Louise Della Pesca summarized the Commercial Solar PPA Program update. The commercial solar PPA program has fallen short of its targets and it seems to be an issue greater than the impact of COVID-19. There has been a shift away from the Green Bank's previous methods of developing commercial solar projects and holding them for long term ownership. After playing a crucial role in developing the commercial solar PPA market in Connecticut over the last six years, new projects are less easy to source. In response, the Green Bank's focus has moved toward active development of projects, following longer timelines. It has also arranged secured debt facilities with third party developers to continue deploying capital.
- Kim Stevenson summarized the Multifamily Housing program updates. Targets were achieved for pre-development and term loans, though H&S loans did not. Overall the program has touched approximately 4.2% of all multifamily units in Connecticut. Although the numbers have increased with time, the percentage stays about the same. Co-ops and condos have become a focus of the multifamily program because of the level of distress they display. COVID-19 has slowed the multifamily program as owners and managers are put under resource stress, though there is a rebound as recovery efforts have helped.
 - Lonnie Reed asked for clarification about progress in the condo sector. Kim Stevenson answered with the options they've been exploring working with the condo and homeowner associations to deploy those improvements.

Subject to Changes and Deletions

- Lonnie Reed asked if changes from co-ops and condos into rentals has impacted their efforts. Kim Stevenson answered that it has been seen more with co-ops, but less so with condos.
6. Investment Updates and Recommendations
- a. Open RFP Framework
 - Bert Hunter reviewed the previously approved Open RFP Program and the newly determined established criteria for it. This includes eligible technologies, clean energy goals, financial impact, proposed qualifications, project scope, and clean energy & economic impact. He then reviewed the Evaluation criteria for it.
 - Matt Ranelli asked if there would be additional criteria formulated for the program or would all projects be required to meet the criteria in the RFP document that was circulated. Bert Hunter confirmed that they would follow the requirements as noted in the RFP document.

Resolution #4

WHEREAS, the Green Bank Board of Directors (the “Board”) and the President and CEO support alternatives for developers and capital providers to gain access to Green Bank resources while affording staff the ability to consider additional investment opportunities;

WHEREAS, the Green Bank President and CEO proposed the introduction of an open and ongoing “Request for Proposals” program to create pathways to access Green Bank support;

WHEREAS, staff has diligenced the concept for an open Request for Proposals program (the “Open RFP Program”) with other green banks, namely the New York Green Bank and Australia’s Clean Energy Finance Corporation, which demonstrated the success and utility of an open and ongoing solicitation program for project proposals;

WHEREAS, the Board approved the Open RFP at a meeting of the Board held December 20, 2019 and approve related amendments to the Green Bank’s Operating Procedures at a meeting held January 24, 2020, which Operating Procedures allows for an open competitive process of selection and award with established criteria to encourage the investment and deployment of clean energy sources in Connecticut, and that such award will not be considered a strategic selection and the additional requirements for a strategic selection shall not be required; and

WHEREAS, Green Bank staff recommends that the Board approve the Open RFP with established criteria as explained in a memorandum to the Board dated July 17, 2020.

NOW, therefore be it:

RESOLVED, that the Board approves the Green Bank Open RFP Program with established criteria as explained in a memorandum to the Board dated July 17, 2020; and

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 establishment and operation of the Open RFP Program.

Subject to Changes and Deletions

Upon a motion made by Eric Brown and seconded by Brenda Watson and Steve Meier, the Board of Directors voted to approve Resolution 4. None opposed or abstained. Motion approved unanimously.

b. Green Liberty Bonds

- Bryan Garcia summarized the Green Liberty Bonds program and development process. Lonnie Reed noted that legislatures in other states have taken notice of Green Bank's rigorous efforts in transparency and promotion. Bert Hunter reviewed the Serial and Term Series 2020 bond sales overall and broken down by maturity. The issuance was a huge success on both the individual retail and institutional sides. The Green Bank's primary goals were achieved, the preliminary research was confirmed, the marketing efforts were successful, the cost of capital was reached and on a dollar-for-dollar basis cost about 50% of the cost of the asset backed securities bonds issued in April 2019, and most importantly is that investors showed they want more Green Liberty Bonds.
 - Matt Ranelli noted the benefit of individual investors who are now invested in the Green Bank and that can help protect it if legislature looks to sweep again.

c. USDA Loan

- Matthew Macunas summarized the Rural Energy Savings Program (RESP) loan which is designed to help rural families and small businesses achieve cost savings. In May 2020 the Green Bank requested \$10 million in funds in a cover letter and are now continuing with the application process. It is a lengthy process and the application is expected to be submitted in early September 2020. The Board approved Resolution is the next step.

Resolution #5

WHEREAS, consistent with its Comprehensive Plans, the Connecticut Green Bank has been seeking opportunities over the past five (5) years to access low-cost and long-term federal funding from the United States Department of Agriculture ("USDA"), United States Department of Energy ("DOE"), and other agencies to support its mission;

WHEREAS, on April 2, 2020, the Rural Utilities Service ("RUS") of the USDA issued within the Federal Register (Vol. 85, No. 64), an "Announcement of Funding Availability, Loan Application Procedures, and Deadlines for the Rural Energy Savings Program ("RESP");

WHEREAS, on April 29, 2020, the American Green Bank Consortium, a membership organization for green banks, informed the Connecticut Green Bank of the RESP, and provided technical assistance resources to the Connecticut Green Bank through the Environmental and Energy Study Institute;

WHEREAS, on May 14, 2020, the Connecticut Green Bank filed a Letter of Intent ("LOI") with the RUS for a RESP Loan, including an overview of the organization, proposed program descriptions consistent with its Comprehensive Plan, evaluation, measurement, and verification framework, balance sheet, eligible Connecticut towns, and performance measures and indicators; and

WHEREAS, on July 1, 2020, the USDA notified the Connecticut Green Bank that it had received and reviewed its LOI, and invited it to proceed with a full application for a \$10 million RESP Loan.

Subject to Changes and Deletions

NOW, therefore be it:

RESOLVED, that the Board of Directors of the Connecticut Green Bank, pursuant to the information provided by the Staff in a memo dated July 24, 2020, has determined that the request for funding from the RESP is consistent with the Comprehensive Plan of the Connecticut Green Bank; and

RESOLVED, that the Board of Directors approves of the Staff to submit any and all necessary information for a complete RESP Loan Application consistent with the process outlined by the RUS staff of the USDA no later than September 28, 2020; and

RESOLVED, that the Board of Directors authorizes and approves the establishment of the energy efficiency programs set forth in the LOI to the RUS as set forth in Appendix B attached to these resolutions as well as the addition of the Rolling Open RFP Program approved by the Board at its the December 20, 2019 meeting, all to be set up by the Green Bank with RESP Loan funds to provide financing to qualified consumers so that they can implement durable cost-effective energy efficiency and clean energy measures.

RESOLVED, that the President, Chief Investment Officer and 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 RESP Loan 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 Matthew Ranelli and seconded by Binu Chandy, Board of Directors voted to approve Resolution 5. None opposed or abstained. Motion approved unanimously.

d. SHREC Warehouse

- Michael Yu summarized the proposal, review, and approval for the renewal (on somewhat adjusted terms) of the SHREC Warehouse financing facility. He then reviewed the strategic benefits and proposed structure and where it differed from the existing terms. Upon the renewal of the facility, the collateral (the Tranche 3-2019 SHRECs) will be released by the SHREC Warehouse lenders and this same collateral will be pledged under the Green Liberty Bonds indenture as security for those bonds. SHREC Warehouse 1 LLC ("Warehouse 1"), Green Bank's wholly owned subsidiary and borrower under the SHREC Warehouse facility, will pledge the Tranche 4-2020 SHRECs to the SHREC Warehouse lenders to secure the renewed and amended financing facility.
- Bert Hunter pointed out there is a modification to the Resolutions that had been circulated to the Board which needs to be addressed in order to approve the documentation that will enable the Green Bank to buy back from Warehouse 1 the Tranche 3-2019 SHRECs that Green Bank sold to Warehouse 1 in 2019 to secure the

Subject to Changes and Deletions

original SHREC Warehouse facility . Brian Farnen agreed that the Resolutions should have the additions and suggested the new language be read. Bert Hunter read the additional WHEREAS and RESOLVED clauses.

- Prior to the vote on Resolution #6, John Harrity joined the meeting and apologized for his tardiness.

Resolution #6

All of the members of the Board of Directors (the "Board") of the Connecticut Green Bank, a quasi-governmental agency of the State of Connecticut (the "Green Bank"), which is the sole member of SHREC Warehouse 1 LLC, Connecticut limited liability company (the "Company"), hereby consent to and adopt the following resolutions for and on behalf of the Green Bank and, in the Green Bank's capacity as the sole member of the Company, for and on behalf of the Company:

WHEREAS, on July 31, 2019, the Company entered into a Credit Agreement (the "Credit Agreement") with Webster Bank, National Association ("Webster"), as Administrative Agent (in such capacity, as "Agent") and as a lender and Liberty Bank, as Lead Arranger and as a lender (Webster and Liberty Bank, in their capacities as lenders, are referenced to herein collectively as, "Webster-Liberty"), whereby Webster-Liberty made available to the Company a Fourteen Million and 00/100 Dollar (\$14,000,000.00) secured revolving line of credit ("Loan") for the purpose of financing the Tranche 3-2019 (as defined in the Credit Agreement) Solar Home Renewable Energy Credit program ("Tranche 3-2019 SHRECs"); and

WHEREAS, to induce Webster-Liberty to make the Loan to the Company under the Credit Agreement, Green Bank guaranteed the Loan pursuant to the Guaranty Agreement dated as of July 31, 2019 made by Green Bank in favor of Agent (the "Guaranty"); and

WHEREAS, the Company and the Green Bank have requested that Webster-Liberty and Agent modify the Loan and the terms of the Credit Agreement pursuant to that certain First Amendment to Credit Agreement and Other Loan Documents (the "Amendment to Credit Agreement"), in order to, among other things, (1) remove the Tranche 3-2019 SHRECs as collateral for the Loan, (2) secure the Loan with the Tranche 4-2020 SHRECs as collateral, (3) extend the term of the Loan for a period of one (1) year and (4) reduce the amount of the Loan from Fourteen Million and 00/100 Dollars (\$14,000,000.00) to Ten Million and 00/100 Dollars (\$10,000,000.00) (with an option to (expand the facility with the approval by the Webster-Liberty and Agent of up to Fourteen Million and 00/100 Dollars (\$14,000,000.00)); and

WHEREAS, a true, correct and complete copy of the Amendment to Credit Agreement is attached hereto as Exhibit A; and

WHEREAS, in connection with the modification to the Loan, the Company and Green Bank, as applicable, shall also enter into those certain documents listed on Exhibit B attached hereto; and

WHEREAS, Green Bank will continue to guarantee the Company's obligations under the Loan under the Credit Agreement as amended by the Amendment to Credit Agreement, pursuant to the Guaranty;

WHEREAS, along with a general repayment obligation by the Company, Agent and/or Webster-Liberty are secured by, and the Company and the Green Bank are authorized to

Subject to Changes and Deletions

secure the Loan and the Guaranty by, among other things, granting to Agent and/or Webster-Liberty (i) a first priority security interest in all assets of the Company, (ii) a collateral assignment of and security interest in all of the Company's and the Green Bank's right, title and interest in the Tranche 4-2020 SHRECs (as defined in the Amendment to Credit Agreement) Solar Home Renewable Energy Credit program ("Tranche 4-2020 SHRECs") and all rights and obligations relating thereunder under those certain Master Purchase Agreements for the Purchase and Sale of Solar Home Renewable Energy Credits by and between the Green Bank and each of The Connecticut Light & Power Company d/b/a Eversource Energy and The United Illuminating Company each dated February 7, 2017, each as amended by those certain First Amendments, dated July 30, 2018 and by those certain Second Amendments dated April 1, 2020 (as amended, and collectively, the "MPA's"), which collateral assignment and security interest shall include any and all rights to payment of money under the MPA's with respect to Tranche 4-2020 and those other attributes and rights associated with the Tranche 4-2020 SHRECs, (iii) a collateral assignment of all of the right, title and interest in that certain Sale and Contribution Agreement (Tranche 4) by and between Green Bank and the Company, dated as of the closing date of the modification of the Loan including without limitation, any security interest created by the Sale and Contribution Agreement, and (iv) a security interest in the MPA Collection Account, the Webster Interest Reserve Account and the Liberty Interest Reserve Account (the security interests listed in (i)-(iv) hereof, together, the "SHREC Collateral"); and

WHEREAS, in order for the Green Bank to reacquire for the benefit of the Green Liberty Bonds to be issued July 29, 2020 the Tranche 3 2019 SHRECs it conveyed to the Company to provide security for the Loan, Green Bank and Company must enter into a Sale and Purchase Agreement (the "**Sale and Purchase Agreement**") to return the Tranche 3 2019 SHRECs to the Green Bank; and

WHEREAS, Green Bank staff recommends that the Board approve the proposed renewal and extension of the Loan, generally in accordance with the terms of the summary term sheet presented to the Board on July 24, 2020.

NOW, therefore be it:

RESOLVED, that the Green Bank hereby authorizes, ratifies and approves the Loan, as modified, from Liberty-Webster to the Company pursuant to (i) the memorandum to the Board dated July 24, 2020, inclusive of the summary of terms referred to therein and (ii) the terms of the Amendment to Credit Agreement and the other Loan Documents (as defined in the Amendment to Credit Agreement, including all of the documents listed on Exhibit B hereto); and be it further

RESOLVED, that each of the Company and the Green Bank be and it hereby is, and at the time it entered into the Loan and/or the Guaranty was, authorized to secure the Loan and the Guaranty by, among other things, granting to Agent and/or Webster-Liberty a first priority security interest in and to its property, including, without limitation the SHREC Collateral; and be it further

RESOLVED, that the Board hereby authorizes, directs, ratifies and approves the Company's entering into the Amendment to Credit Agreement and all documents listed on Exhibit B to which it is a party and of each other contract or instrument to be executed and delivered by the Company in connection with the transactions contemplated by these resolutions (collectively, the "Modification Documents"); and be it further

Subject to Changes and Deletions

RESOLVED, that the Board hereby authorizes, directs, ratifies and approves the Green Bank's entering into the Amendment to Credit Agreement and all documents listed on Exhibit B to which it is a party and of each other contract or instrument to be executed and delivered by the Green Bank in connection with the transactions contemplated by these resolutions (collectively, the "Guaranty Documents"); and be it further

RESOLVED, that the Board hereby authorizes, directs, ratifies and approves the Green Bank's and Company's entering into the **Sale and Purchase Agreement**; and be it further

RESOLVED, that the Board hereby authorizes, directs, ratifies and approves (i) the Green Bank's execution, delivery and performance of the Guaranty Documents (including the Amendment to Credit Agreement) and all of the Green Bank's obligations under the Guaranty Documents and (ii) the Company's execution, delivery and performance of the Modification Documents (including the Amendment to Credit Agreement) and all of the Company's obligations under the Modification Documents (including the Amendment to Credit Agreement); and be it further

RESOLVED, that the Board hereby authorizes, directs, ratifies and approves the Green Bank's and Company's execution, delivery and performance of the **Sale and Purchase Agreement**; and be it further

RESOLVED, that the actions of Bryan Garcia in his capacity as the President and Chief Executive Officer of Green Bank ("Garcia"), Roberto Hunter in his capacity as the Chief Investment Officer of Green Bank ("Hunter") and Brian Farnen in his capacity as General Counsel and Chief Legal Officer of Green Bank ("Farnen"; and together with Garcia and Hunter, each an "Authorized Signatory"), are hereby authorized, empowered, ratified and approved with regard to the negotiation, finalization, execution and delivery, on behalf of Green Bank and the Company, of the Guaranty Documents, the Amendment to Credit Agreement, the Modification Documents and the Sale and Purchase Agreement, and any other agreements that they deemed necessary and appropriate to carry out the foregoing objectives of Green Bank and/or the Company, and any other agreements, contracts, legal instruments or documents as they deemed necessary or appropriate and in the interests of Green Bank and/or the Company in order to carry out the intent and accomplish the purpose of the foregoing resolutions are hereby authorized, ratified and approved; and be it further

RESOLVED, that each Authorized Signatory be, hereby is, acting singly, and at the time of the execution of the Guaranty Documents, the Amendment to Credit Agreement, Modification Documents and the Sale and Purchase Agreement, is, authorized, empowered and directed, for and on behalf of the Green Bank and the Company (in the Green Bank's capacity as the sole member of the Company), to execute and deliver the Guaranty Documents, the Amendment to Credit Agreement, the Modification Documents and any agreements, instruments and/or certificates related to the modification of the Loan as such Authorized Signatory shall deem necessary or appropriate and in the interests of Green Bank and/or the Company in order to carry out the intent and accomplish the purpose of the foregoing resolutions; and be it further

RESOLVED, that any other actions taken by any Authorized Signatory are hereby approved and ratified to the extent that such Authorized Signatory or Authorized Signatories have deemed such actions necessary, appropriate and desirable to affect the foregoing resolutions.

Upon a motion made by John Harrity and seconded by Matthew Ranelli, the Board of

Subject to Changes and Deletions

Directors voted to approve the amendments to and then approve Resolution 6. None opposed or abstained. Motion approved unanimously.

7. Other Business

- Bryan Garcia noted the Moving Forward Act, an infrastructure bill which includes the “Clean Energy and Sustainability Accelerator” through a floor motion from Congresswoman Dingell, was passed by the US House of Representatives and will be discussed and voted on by the Senate.
- The United States Climate Alliance, which Connecticut is a part of along with 24 other states, submitted a letter to Congress in support of a “green stimulus” to decarbonize and modernize the nation’s green infrastructure, including the support of a national green bank..

8. Adjourn

Upon a motion made by John Harrity and seconded by Matthew Ranelli, the Board of Directors Meeting adjourned at 11:08 am.

Respectfully submitted,

Lonnie Reed, Chairperson



Memo

To: Connecticut Green Bank Board of Directors

From: Bryan Garcia, President and CEO; Bert Hunter, CIO; and Matt Macunas, Legislative Liaison

CC: Brian Farnen, General Counsel and CLO; Eric Shrago, Director of Operations, Jane Murphy, Vice President of Finance and Administration

Date: September 15, 2020

Re: USDA RESP Loan Application

On September 11, 2020, Connecticut Green Bank (“Green Bank”) submitted an application into the U.S. Department of Agriculture (USDA) Rural Utilities Service (RUS) pertaining to their [Rural Energy Savings Program](#) (RESP). Pursuant to prior Green Bank Board of Directors (the “Board”) approval at its July 24, 2020 meeting, the application requests loan funds in the amount of \$10 million to carry out and scale-up various relending programs to implement eligible clean energy and energy efficiency measures, proposed in concept as depicted in the table below.

Program	RESP Funds	Average Loan Size	Term (Years)	Typical Interest Rate	RESP Interest Rate	Loan Loss Reserve	Loan Payment Source
C-PACE	\$1,500,000	\$250,000	10	5.50%	5.00%	5%	Property Tax Bill
Solar PPA	\$1,500,000	\$150,000	10	5.50%	2.00%	5%	Property Tax or Direct Bill
SCEF	\$2,400,000	\$1,200,000	10	5.50%	5.50%	5%	Direct Bill
Smart-E	\$2,000,000	\$10,000	10	5.99%	3.99%	5%	Direct Bill – Bank
OBR	\$2,100,000	\$10,000	10	5.99%	3.99%	5%	On-Bill – Utility
Capital Solutions	\$500,000	\$500,000	10	6.00% - 8.00%	2.00%	5%	Direct Bill

This loan program benefits from annual federal appropriations that result in 0% interest rates for eligible borrowers like the Green Bank, while allowing these eligible borrowers to relend at higher rates (up to 5%). Upon becoming a USDA borrower, the Green Bank would be supporting its clean energy deployment and financial self-sustainability goals while also opening the door to sourcing greater amounts of low-cost capital in the future.

Although the Board has already approved a resolution in support of the Green Bank’s RESP application, Staff now respectfully seeks ex post facto approval of the submitted application and financial package while they are under USDA review. This is in an abundance of caution and to ensure compliance with Code of Federal Regulations Secs. 1719.5(b)(3) (E) and (F), which respectively require that the applicable “governing body” approve the applicant’s financial forecast and implementation work plan.

A copy of the application, inclusive of the financial forecast and the implementation work plans is attached with this memorandum.

Resolution

WHEREAS, consistent with its Comprehensive Plans, the Connecticut Green Bank (“Green Bank”) has been seeking opportunities over the past five (5) years to access low-cost and long-term federal funding from the United States Department of Agriculture (“USDA”), United States Department of Energy (“DOE”), and other agencies to support its mission;

WHEREAS, on April 2, 2020, the Rural Utilities Service (“RUS”) of the USDA issued within the Federal Register (Vol. 85, No. 64), an “Announcement of Funding Availability, Loan Application Procedures, and Deadlines for the Rural Energy Savings Program (“RESP”);

WHEREAS, on April 29, 2020, the American Green Bank Consortium, a membership organization for green banks, informed the Green Bank of the RESP, and provided technical assistance resources to the Green Bank through the Environmental and Energy Study Institute;

WHEREAS, on May 14, 2020, the Green Bank filed a Letter of Intent (“LOI”) with the RUS for a RESP Loan, including an overview of the organization, proposed program descriptions consistent with its Comprehensive Plan, evaluation, measurement, and verification framework, balance sheet, eligible Connecticut towns, and performance measures and indicators; and

WHEREAS, on July 1, 2020 the USDA notified the Green Bank that it had received and reviewed its LOI, and invited it to proceed with a full application for a \$10 million RESP Loan; and

WHEREAS, on July 24, 2020 the Green Bank Board of Directors (the “Board”) approved a resolution to empower staff to approve and submit to USDA application documents as needed in pursuit of a RESP Loan USDA; and

WHEREAS, on September 11, 2020 the Connecticut Green Bank submitted to USDA ahead of USDA’s September 28, 2020 deadline a full RESP Loan application package.

NOW, therefore be it:

RESOLVED, that the Board of the Green Bank, pursuant to the information provided by the Staff in a memo dated September 15, 2020, has determined that for the purpose of Code of Federal Regulations Secs. 1719.5(b)(3)(E), the financial forecast submitted to USDA by the Green Bank as part of its RESP Loan application package is deemed approved; and

RESOLVED, that the Board of the Green Bank, pursuant to the information provided by the Staff in a memo dated September 15, 2020, has determined that for the purpose of Code of Federal Regulations Secs. 1719.5(b)(3)(F), the implementation plan submitted to USDA by Green Bank as part of its RESP Loan application package is deemed approved.



**Application of the Connecticut Green Bank
into the United States Department of Agriculture's
Rural Utility Service's Rural Energy Savings Program**

September 10, 2020



September 10, 2020

Rural Utilities Service, Electric Programs
U.S. Department of Agriculture
1400 Independence Avenue, S.W.
STOP 1560, Room 5138, South Building
Washington, D.C. 20250-1510
Attn. Mr. Christopher Mclean

Subject: Connecticut Green Bank
Rural Energy Savings Program ("RESP") Loan Application
Taxpayer ID# 45-2746525
DUNS# 078382443

Dear Mr. Mclean:

We are forwarding for your consideration our completed Rural Energy Savings Program ("RESP") loan application in the amount of \$10,000,000, along with a copy being forwarded to our General Field Representative, Sara R. Jordan.

As required under the loan application checklist, the following are incorporated into or attached to this cover letter:

1. Application Cover Letter signed by highest ranking officer.
2. Signed Board Resolution approving the establishment of the program.
3. Enabling Legislation and Bylaws.
4. Multi-Tier Action Environmental Compliance Agreement.
5. 10-Year Long Range Financial Forecast to include:
 - a. Current and projected cash flows
 - b. Pro forma balance sheet
 - c. Financial goals for margins, debt service, coverage, equity, etc.
 - d. Assumptions, supporting data, analysis
 - e. Current and projects income and expenses
 - f. Itemized budget and schedule, discussion of loan loss reserve
 - g. Sensitivity analysis if required by RUS
6. Implementation Work Plan
7. Measurement and Verification Plan
8. Additional Federal Compliance Forms as Provided in the NOSA
 - a. Attorney's Opinion Letter
 - b. Form 400
 - c. Form AD-1049
 - d. Form AD-1047

- e. Lobbying Certification
- f. Certification on Federal Debt Delinquency

In addition to the items required under the loan application checklist, we further clarify the following items:

1. The loan application does not include funds to finance:
 - a. The construction or acquisition of any building identified as located in a flood hazard area.
 - b. New equipment, materials, or supplies in any building identified as located in a flood hazard area.
2. All funds in this loan application will be used within the State of Connecticut.
3. Connecticut Green Bank serves all the counties / municipalities in the State of Connecticut.
4. There are no threatened actions by third parties that could adversely affect our financial conditions.
5. There are no State of Connecticut regulatory proceedings pending against the Connecticut Green Bank.
6. Connecticut Green Bank does anticipate ongoing changes in retail rates.¹
7. The true and correct legal name of the borrower is the Connecticut Green Bank.
8. The headquarters of the borrower is 845 Brook Street, Rocky Hill, CT 06067.

Sincerely,



Bryan T. Garcia
President and CEO
Connecticut Green Bank

¹ The vast majority of Connecticut's electric demand is served by two investor-owned utilities; Eversource covers ~80% of this service and United Illuminating covers ~20%. Initiated in 1998 through state Public Act 98-28, Connecticut deregulated its electricity market whereby electric generation options are provided by competitive suppliers, and a standard offer backstop is available from the utilities. The utilities are sole providers of electric distribution service. Electric supply and distribution bill components are adjusted every 6 months through rate cases with the state Public Utilities Regulatory Authority. Current rate adjustment proceedings for Eversource are available through Docket Number 20-01-01. Current rate adjustment proceedings for United Illuminating are available through Docket Number 16-06-04.

Public Acts 18-50 and 19-35, as well as a series of docketed regulatory proceedings, set the course for an eventual transition to tariffed compensation for distributed energy resources, moving the state away from using existing net metering compensation that acts as a bill usage offset. This policy transition can be expected to make the economic return of DER projects less susceptible to variations in underlying retail electricity rates.

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Executive Summary

Connecticut Green Bank (“Green Bank”) is a quasi-state entity created by Connecticut General Statutes (“CGS”) Section 16-245n, formed in 2011 through Public Act 11-80.² The Green Bank’s statutory purposes are:³

- To develop programs to finance and otherwise support clean energy⁴ investment in residential, municipal, small business and large commercial projects and such other programs as the Green Bank may determine;
- To support 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
- To stimulate demand for clean energy and the deployment of clean energy sources within the state that serves end-use customers in the state.

The Green Bank serves all electric ratepayers in Connecticut, with a population of approximately 3.6 million and approximately 1.85 million metered accounts.

The vision of the Green Bank is “a world empowered by the renewable energy of community,” with its mission 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.” The Green Bank achieves its vision and mission through the following 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.
3. To pursue investment strategies that advance market transformation in green investing while supporting the organization’s pursuit of financial sustainability.

Within its Comprehensive Plan – Green Bonds US – the Green Bank identifies the United States Department of Agriculture (“USDA”) as a potential source of capital to support its purpose:

“The Green Bank is seeking to apply to the USDA to seek access to low-cost and long-term federal loan funds for the deployment of clean energy in rural communities.”⁵

To support the Green Bank’s efforts to leverage limited public funds to attract and mobilize multiples of private investment to support clean energy deployment for rural end-use customers, it seeks a Rural Energy Savings Program (“RESP”) Loan in the amount of \$10 million to carry out and scale-up various relending programs to implement eligible clean energy and energy

² Codified in Conn. General Statute 16-245n(d)(1)

³ Codified in CGS 16-245n(d)(1) and through the Green Bank’s [Resolution of Purposes](#)

⁴ “Clean energy” has the meaning as provided in CGS Section 16-245n(a)

⁵ [Comprehensive Plan: Green Bonds US](#) for FY 2020 (Revised for FY 2021) – page 18

efficiency measures (see Appendix 1) to qualified consumers within eligible communities (see Appendix 2).

The following table from the Marketing Plan section of this document summarizes the intended programmatic uses for RESP funds, consistent with the Green Bank's Comprehensive Plan.

Program	RESP Funds	Average Loan Size	Term (Years)	Typical Interest Rate	RESP Interest Rate	Loan Loss Reserve	Loan Payment Source
C-PACE	\$1,500,000	\$250,000	10	5.50%	5.00%	5%	Property Tax Bill
Solar PPA	\$1,500,000	\$150,000	10	5.50%	2.00%	5%	Property Tax or Direct Bill
SCEF	\$2,400,000	\$1,200,000	10	5.50%	5.50%	5%	Direct Bill
Smart-E	\$2,000,000	\$10,000	10	5.99%	3.99%	5%	Direct Bill – Bank
OBR	\$2,100,000	\$10,000	10	5.99%	3.99%	5%	On-Bill – Utility
Capital Solutions	\$500,000	\$500,000	10	6.00% - 8.00%	2.00%	5%	Direct Bill

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Long Range Financial Forecast

Application of the Connecticut Green Bank
into the United States Department of Agriculture's
Rural Utility Service's Rural Energy Savings Program

[START](#)



Memo

To: Connecticut Green Bank Board of Directors
From: Bert Hunter, EVP and CIO and Mike Yu, Director, Clean Energy Finance
 Mackey Dykes, VP Financing Programs
CC: Bryan Garcia, President and CEO; Brian Farnen, General Counsel and CLO; Eric Shrago, Director of Operations, Jane Murphy, Vice President of Finance and Administration
Date: September 23, 2020
Re: C-PACE – Refinancing CleanFund Bonds

In memos to the Connecticut Green Bank (the “Green Bank”) Board of Directors (the “Board”) dated January 10th 2014 and June 12th, 2015 (see enclosed file: “6_Sale of C-PACE Transactions amended and restated JANUARY 10, 2014” and “5b_C-PACE Sell Down to Clean Fund Tranche 2_06121”), staff discussed the strategic objectives in selling down C-PACE assets, the process of soliciting competitive bids, and recommending a winning proposal from CleanFund Commercial PACE Capital Inc. (“CleanFund”). The Board approved this proposal, which closed on its first tranche in May 2014 and a second tranche in July 2015. This landmark deal with CleanFund allowed the Green Bank to sell up to \$30 million of C-PACE assets via a bond structure facilitated by the conduit issuer: the Public Finance Authority (“PFA”). That structure utilized three series of bonds – A, B, and C – with CleanFund paying cash for the senior Series A bonds (constituting 80% of the net present value of the underlying C-PACE cash flows, priced using a 5.95% discount rate) and the Green Bank holding onto the remaining 20% of the cash flows via junior Series B and C bonds. The Green Bank ultimately sold down \$17.5 million of assessments in two tranches, the first comprising 11 assessments totaling approximately \$8.0 million of original principal value (“Tranche 1”) and the second comprising 19 assessments totaling approximately \$9.5 million of original principal value (“Tranche 2”).

Tranche 1	
PACE Project	Loan Amount
	\$ 424,180
	\$ 145,000
	\$ 1,818,486
	\$ 685,316
	\$ 2,549,654
	\$ 559,950
	\$ 325,000
	\$ 87,938
	\$ 107,556
	\$ 1,012,004
	\$ 261,567
Total Portfolio Principal	\$ 7,976,653

Tranche 2	
PACE Project	Loan Amount
	\$ 148,223
	\$ 49,349
	\$ 121,058
	\$ 368,991
	\$ 136,779
	\$ 2,842,049
	\$ 357,131
	\$ 205,652
	\$ 732,980
	\$ 28,750
	\$ 207,273
	\$ 55,421
	\$ 393,846
	\$ 218,814
	\$ 1,116,629
	\$ 823,978
	\$ 311,115
	\$ 468,505
	\$ 599,818
	\$ 338,871
Total Portfolio Principal	\$ 9,525,231

Prepaid

This subordinate bond structure provides CleanFund a first loss protection for their senior bonds; the Green Bank's B and C bonds receive interest only payments equal until the A bonds are fully repaid¹, and to the extent there are prepayments on the underlying C-PACE assessments, the A bonds will receive a 3% prepayment penalty funded either from the assessment's prepayment (if applicable) or from the B and C bonds' share of the cash flow.

Strategic Repositioning and COVID 19

The CleanFund sell down provided the Green Bank with an ability to replenish its C-PACE Warehouse lending capacity while realizing a high value on the underlying assessments (e.g, selling a limited or no discount from "par"). Moreover, the structure allowed the Green Bank to achieve a 4:1 leverage ratio on ratepayer funds, which was the highest leverage seen in C-PACE at the time the deal was executed in 2014.

Since closing on Tranche 2, there have been a number of important developments at the Green Bank, in the C-PACE market, and global economy that have led to staff recommending the refinancing of the Benefit Assessment Liens sold to CleanFund under the bond structure:

- Under the sell down, 80% of the investment towards the Benefit Assessment Liens was purchased by CleanFund, leaving Green Bank with a 20% position in the Benefit Assessment Liens. For Green Bank, by refinancing the Benefit Assessment Liens, a larger portion of future cash flow can be retained. Retaining more of the investments originated by Green Bank, particularly highly secure investments in C-PACE Benefit Assessment Liens, enables Green Bank to reach sustainability more quickly, in accordance with the Sustainability Plan approved by the Board at the December 15, 2017 meeting.
- As an economic relief response to COVID19, Governor Lamont issued Executive Order 7S (EO7S) that affords all property owners certain accommodations for property taxes (see Sec 6 of EO7S - "Suspension and Modification of Tax Deadlines and Collection Efforts). EO7S-Sec6 requires Municipalities to establish one or both of the following programs: the "Deferment Program" and the "Low Interest Rate Program". These are not optional - each municipality by EO7S Sec 6 must participate in one or both programs. Staff has done a review of the portfolio as well as borrower outreach, and has found that it appears that more than half of the CleanFund portfolio are eligible for deferral of their payments due this past tax cycle (collections due July 1). This means that the payments would be deferred at least 90 days to October 1st, 2020. This creates a critical timing matter for CleanFund as the A Bonds are included in a securitization which has payments due March 10th September 10th every year².
- In addition to Governor Lamont's EO7S policy, the Green Bank took the initiative to offer repayment modification options above and beyond those offered under the Governor's executive order. The Board approved at their April 24, 2020 meeting a process that would permit COVID-19-related restructurings to be reviewed and approved by staff members within specific parameters³. At least one borrower in each tranche has applied for a payment deferral of 6 months. In order to keep restructured payments approximately the same on a going forward basis after for the payment deferral, the assessment's repayment profile is extended, typically by 1 to 3 tax cycles. An extension of the maturity date is problematic for CleanFund because under their securitization, any extension in maturity of the bonds

¹ Excluding prepayments, which paydown A, B, and C bond principal on a pro-rata basis

² Forbearance request to CleanFund related to September 10, 2020 payment cycle is in process

³ The Board permitted staff to review and approve semi-annual and two-quarterly repayment deferrals (as well as the rare circumstance of annual repayment cycles) for any C-PACE outstanding balance amounts.

requires bondholder approval⁴. Given the need to defer the borrower’s payments and the inability of CleanFund to approve of the restructuring, the only practical alternative is for the Green Bank to refinance the transaction with the borrower under terms to defer the current payment due and to extend the bond maturity.

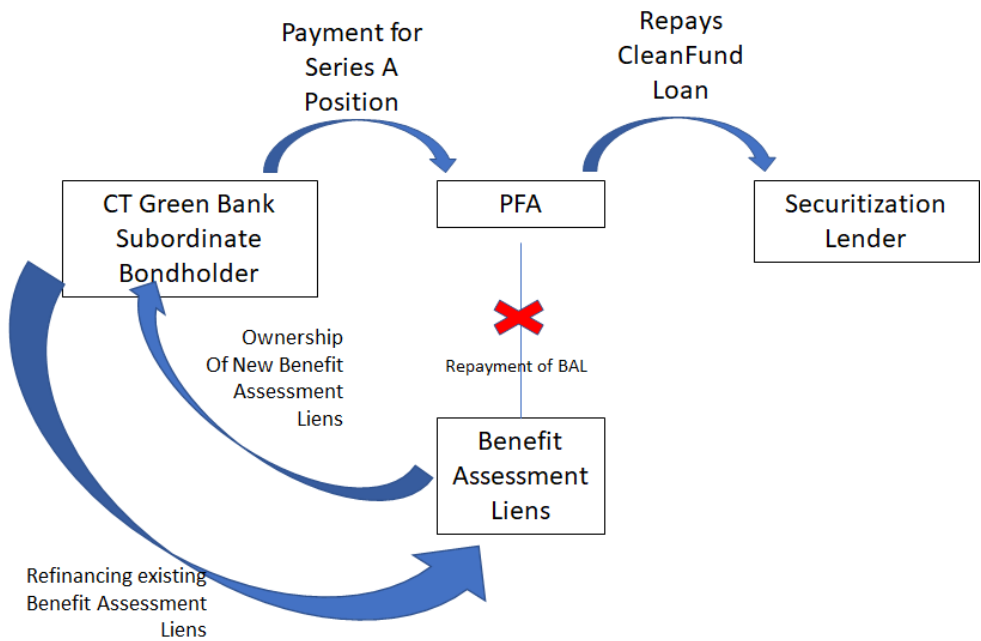
- As the overall situation was given more thought, staff realized that there could be additional requests by borrowers in the months ahead given uncertainties in the path to recovery from the COVID-induced recession. Each request for a payment deferral not only would require staff time to address each request, but also processing with CleanFund, its legal counsel as well as the bond trustee and its legal counsel and PFA and its counsel. In the end, the outcome would be the same – to accommodate the borrower’s reasonable request for payment relief, the Green Bank would need to refinance the transaction and pull it out of the pool of bonds (either Tranche 1 or Tranche 2). Under the terms of the bond indenture, CleanFund and the Trustee are permitted to cover their legal costs from the cash flows dedicated to bond repayment. As the holders of the residual bonds (the “C” Bonds), the Green Bank is left absorbing these costs.
- Rather than subject the Green Bank to yield and capital erosion from a transaction-by-transaction restructuring process involving CleanFund, PFA and the bond trustee, we believe it is in the Green Bank’s financial and operational interests to refinance all of the CleanFund bond transactions, commencing with Tranche 1. There are 9 transactions in Tranche 1 and staff has confirmed that nearly all of the borrowers are amenable to refinancing their transactions with the Green Bank. This would enable the Green Bank to dissolve the Tranche 1 structure, reduce certain costs of managing that facility (fees to CleanFund, the PFA and trustee), and avoid time and legal costs to manage the portfolio of benefit assessment liens. It would also increase Green Bank investments and hasten our path to sustainability.

Tranche 1	
PACE Project	Current Balance
	\$ -
	\$ 111,849
	\$ 1,304,048
	\$ 501,935
	\$ 2,015,350
	\$ 344,616
	\$ 256,893
	\$ -
	\$ 70,803
	\$ 812,353
	\$ 199,967
Likely to Refinance	\$ 5,273,198
Unknown	\$ 344,616
T1 Principal Outstanding	\$ 5,617,814
Prepaid	
Likely to Refinance	
Unknown	

⁴ CleanFund has indicated that the securitization bondholders will not approve any extension to maturity.

Under a refinancing “in place”, the Green Bank agrees with the borrower a new Benefit Assessment Lien that incorporates the previous lien’s payment terms and a payment deferral (or two payments in the case of a quarterly repayment profile) and then extending the repayment term by the one (semi-annual repayment profile) or two (quarterly repayment profile) payment deferrals given the borrower. In a coordinated transaction with CleanFund, the A Bonds are retired and their collateral rights in these properties are released (and taken over by Green Bank). Each refinancing will result in a 3% premium as a prepayment penalty on the A bonds, but will get the Benefit Assessment Lien out of the securitization and onto the balance sheet of the Green Bank.

As mentioned, the Green Bank has secured agreement with nearly all of the Tranche 1 borrowers to eliminate the entire tranche.⁵ As for Tranche 2, the Green Bank would commence a review process to determine how many borrowers would agree to refinance. Assuming there is sufficient interest in refinancing, the Green Bank would commence a refinancing program for Tranche 2. As groups of Tranche 2 bonds are refinanced, the CleanFund “A” notes would be re-amortized to account for the refinanced properties and the removal of the asset. If enough deals are refinanced in this manner, the A bonds will be completely paid out and Green Bank can collapse the entire structure, saving on legal and trustee costs that would otherwise continue to be incurred.



⁵ Agreement has been secured from all property owners with the exception of one which has several owners. Staff is working with the property manager to secure agreement with the ownership group.

Illustrative Refinancing			
<i>Sources:</i>		<i>Uses (principal plus accrued interest and fees):</i>	
Principal Outstanding	\$ 500,000.00	Series A Bonds	\$ 420,000.00
Accrued Interest	10,000.00	Series B Bonds	\$ 51,000.00
		Series C Bonds	\$ 39,000.00
Total Refinancing	\$ 510,000.00	Total Payoff	\$ 510,000.00
Prepayment Fee			
Series A bond principal	\$ 400,000.00		
Fee %	3%		
Prepayment Fee	\$ 12,000.00		

In the illustrative refinancing above, the prepayment fee is paid for by reducing the net proceeds to the Series C bonds, effectively retiring these bonds at a loss. Notwithstanding this current loss (owing to the prepayment penalty), the Green Bank recovers this loss via additional interest income and avoided costs (explained previously). In this illustrative refinancing example, the Green Bank is projected to realize \$470,964 in interest income on the new Benefit Assessment Lien, while forgoing \$89,628 in Series B and C interest income and paying \$12,000 in prepayment premium. Factoring in the foregone interest and fees into the economics of the new Benefit Assessment Lien reduces its effective interest rate from █% to █%, an acceptable concession in rate given the benefits to bringing back over \$8.7 million of secured assets onto the balance sheet and improved flexibility in accommodating borrower restructuring requests.

Green Bank Balance Sheet			
	<u>Debit</u>	<u>Credit</u>	<u>Net Impact on BS</u>
Series B Bonds	\$ -	\$ 50,000	\$ (50,000)
Series C Bonds	\$ -	\$ 50,000	\$ (50,000)
"New" BAL	\$ 500,000	\$ -	\$ 500,000
	\$ 500,000	\$ 100,000	\$ 400,000

Expected Interest over Remaining Term (15 Years)			
	<u>Rate</u>	<u>Interest Income</u>	<u>NPV (3%)</u>
Series B Bonds	█	\$ 44,814	\$ 40,182
Series C Bonds	█	\$ 44,814	\$ 40,182
"New" BAL	█	\$ 470,964	\$ 421,997
Net Interest Income to Green Bank		\$ 381,335	\$ 341,632
Prepayment Premium		\$ (12,000)	\$ (12,000)
Economic Impact		\$ 369,335	\$ 329,632

Refinancing Offer

In order to incentivize an in-place refinancing, staff recommends offering borrowers the option to defer one semi-annual or annual payment (generally the payment due July 1, 2020 (or two quarterly payments -- with the interest accruing to principal), maintaining the current payments once they recommence (generally in the next cycle, beginning January 1, 2021), and extending the maturity by one (or two) cycles to capture the deferred payment(s). The net effect is a slight decrease in interest rate. Staff may also pursue a slight reduction in interest rate and lowering payments in the event that flexibility is needed to incentivize borrowers. Please see below for a example comparison of the original and special refinanced payment schedule:

Original

Payment Date	Payment	Principal Paid	Interest Paid	Remaining Balance
-	-	\$145,000.00	-	-
7/1/2014	\$5,952.20	\$4,623.03	\$1,329.17	\$140,376.97
1/1/2015	\$5,952.20	\$2,006.05	\$3,946.15	\$138,370.92
7/1/2015	\$5,952.20	\$2,125.86	\$3,826.34	\$136,245.06
1/1/2016	\$5,952.20	\$2,122.20	\$3,830.00	\$134,122.86
7/1/2016	\$5,952.20	\$2,222.84	\$3,729.36	\$131,900.02
1/1/2017	\$5,952.20	\$2,244.34	\$3,707.86	\$129,655.68
7/1/2017	\$5,952.20	\$2,366.86	\$3,585.34	\$127,288.82
1/1/2018	\$5,952.20	\$2,373.97	\$3,578.23	\$124,914.85
7/1/2018	\$5,952.20	\$2,497.96	\$3,454.24	\$122,416.89
1/1/2019	\$5,952.20	\$2,510.93	\$3,441.27	\$119,905.96
7/1/2019	\$5,952.20	\$2,636.47	\$3,315.73	\$117,269.49
1/1/2020	\$5,952.20	\$2,655.62	\$3,296.58	\$114,613.87
7/1/2020	\$5,952.20	\$2,765.30	\$3,186.90	\$111,848.57
1/1/2021	\$5,952.20	\$2,808.01	\$3,144.19	\$109,040.56
7/1/2021	\$5,952.20	\$2,936.93	\$3,015.27	\$106,103.63
1/1/2022	\$5,952.20	\$2,969.51	\$2,982.69	\$103,134.12
7/1/2022	\$5,952.20	\$3,100.26	\$2,851.94	\$100,033.86
1/1/2023	\$5,952.20	\$3,140.14	\$2,812.06	\$96,893.72
7/1/2023	\$5,952.20	\$3,272.82	\$2,679.38	\$93,620.90
1/1/2024	\$5,952.20	\$3,320.41	\$2,631.79	\$90,300.49
7/1/2024	\$5,952.20	\$3,441.34	\$2,510.86	\$86,859.15
1/1/2025	\$5,952.20	\$3,510.49	\$2,441.71	\$83,348.66
7/1/2025	\$5,952.20	\$3,647.38	\$2,304.82	\$79,701.28
1/1/2026	\$5,952.20	\$3,711.71	\$2,240.49	\$75,989.57
7/1/2026	\$5,952.20	\$3,850.88	\$2,101.32	\$72,138.69
1/1/2027	\$5,952.20	\$3,924.30	\$2,027.90	\$68,214.39
7/1/2027	\$5,952.20	\$4,065.88	\$1,886.32	\$64,148.51
1/1/2028	\$5,952.20	\$4,148.91	\$1,803.29	\$59,999.60
7/1/2028	\$5,952.20	\$4,283.88	\$1,668.32	\$55,715.72
1/1/2029	\$5,952.20	\$4,385.97	\$1,566.23	\$51,329.75
7/1/2029	\$5,952.20	\$4,532.79	\$1,419.41	\$46,796.96
1/1/2030	\$5,952.20	\$4,636.69	\$1,315.51	\$42,160.27
7/1/2030	\$5,952.20	\$4,786.35	\$1,165.85	\$37,373.92
1/1/2031	\$5,952.20	\$4,901.58	\$1,050.62	\$32,472.34
7/1/2031	\$5,952.20	\$5,054.25	\$897.95	\$27,418.09
1/1/2032	\$5,952.20	\$5,181.45	\$770.75	\$22,236.64
7/1/2032	\$5,952.20	\$5,333.90	\$618.30	\$16,902.74
1/1/2033	\$5,952.20	\$5,477.05	\$475.15	\$11,425.69
7/1/2033	\$5,952.20	\$5,636.25	\$315.95	\$5,789.44
1/1/2034	\$5,952.19	\$5,789.44	\$162.75	\$0.00
Total	\$238,087.99	\$145,000.00	\$93,087.99	

Revised

Payment Date	Payment	Principal Paid	Interest Paid	Remaining Balance
-	-	\$145,000.00	-	-
7/1/2014	\$5,952.20	\$4,623.03	\$1,329.17	\$140,376.97
1/1/2015	\$5,952.20	\$2,006.05	\$3,946.15	\$138,370.92
7/1/2015	\$5,952.20	\$2,125.86	\$3,826.34	\$136,245.06
1/1/2016	\$5,952.20	\$2,122.20	\$3,830.00	\$134,122.86
7/1/2016	\$5,952.20	\$2,222.84	\$3,729.36	\$131,900.02
1/1/2017	\$5,952.20	\$2,244.34	\$3,707.86	\$129,655.68
7/1/2017	\$5,952.20	\$2,366.86	\$3,585.34	\$127,288.82
1/1/2018	\$5,952.20	\$2,373.97	\$3,578.23	\$124,914.85
7/1/2018	\$5,952.20	\$2,497.96	\$3,454.24	\$122,416.89
1/1/2019	\$5,952.20	\$2,510.93	\$3,441.27	\$119,905.96
7/1/2019	\$5,952.20	\$2,636.47	\$3,315.73	\$117,269.49
1/1/2020	\$5,952.20	\$2,655.62	\$3,296.58	\$114,613.87
7/1/2020	\$0.00	(\$3,186.90)	\$3,186.90	\$117,800.77
1/1/2021	\$5,952.20	\$2,902.86	\$3,049.34	\$114,897.91
7/1/2021	\$5,952.20	\$3,026.49	\$2,925.71	\$111,871.42
1/1/2022	\$5,952.20	\$3,056.34	\$2,895.86	\$108,815.08
7/1/2022	\$5,952.20	\$3,181.38	\$2,770.82	\$105,633.70
1/1/2023	\$5,952.20	\$3,217.81	\$2,734.39	\$102,415.89
7/1/2023	\$5,952.20	\$3,344.33	\$2,607.87	\$99,071.56
1/1/2024	\$5,952.20	\$3,387.68	\$2,564.52	\$95,683.88
7/1/2024	\$5,952.20	\$3,502.29	\$2,449.91	\$92,181.59
1/1/2025	\$5,952.20	\$3,566.03	\$2,386.17	\$88,615.56
7/1/2025	\$5,952.20	\$3,695.73	\$2,256.47	\$84,919.83
1/1/2026	\$5,952.20	\$3,754.00	\$2,198.20	\$81,165.83
7/1/2026	\$5,952.20	\$3,885.43	\$2,066.77	\$77,280.40
1/1/2027	\$5,952.20	\$3,951.75	\$2,000.45	\$73,328.65
7/1/2027	\$5,952.20	\$4,084.99	\$1,867.21	\$69,243.66
1/1/2028	\$5,952.20	\$4,159.79	\$1,792.41	\$65,083.87
7/1/2028	\$5,952.20	\$4,285.78	\$1,666.42	\$60,798.09
1/1/2029	\$5,952.20	\$4,378.41	\$1,573.79	\$56,419.68
7/1/2029	\$5,952.20	\$4,515.56	\$1,436.64	\$51,904.12
1/1/2030	\$5,952.20	\$4,608.63	\$1,343.57	\$47,295.49
7/1/2030	\$5,952.20	\$4,747.89	\$1,204.31	\$42,547.60
1/1/2031	\$5,952.20	\$4,850.83	\$1,101.37	\$37,696.77
7/1/2031	\$5,952.20	\$4,992.31	\$959.89	\$32,704.46
1/1/2032	\$5,952.20	\$5,105.63	\$846.57	\$27,598.83
7/1/2032	\$5,952.20	\$5,245.55	\$706.65	\$22,353.28
1/1/2033	\$5,952.20	\$5,373.57	\$578.63	\$16,979.71
7/1/2033	\$5,952.20	\$5,519.84	\$432.36	\$11,459.87
1/1/2034	\$5,952.20	\$5,655.55	\$296.65	\$5,804.32
7/1/2034	\$5,952.12	\$5,804.32	\$147.80	\$0.00
Total	\$238,087.92	\$145,000.00	\$93,087.92	

Staff outreach to borrowers has indicated that with the exception of one property where discussions are in process, all borrowers in Tranche 1 are interested in this refinancing offer. Tranche 2 outreach is expected to commence shortly.

Given the inflexibility of the existing CleanFund bonds to accommodate C-PACE deferments and restructurings in light of COVID19 and the opportunity to bring back onto the balance sheet secure income generating assets, staff requests approval by the Board of Directors to move forward with refinancing the Benefit Assessment Liens in the CleanFund Bonds.

Resolutions

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

WHEREAS, pursuant to the Act and its Bylaws, Green Bank previously entered into certain C-PACE financing agreements (the “Financing Agreements”), more particularly described in that certain memorandum to the Green Bank Board of Directors (the “Board”) dated September 15, 2020 (the “Memo”);

WHEREAS, the Financing Agreements were securitized through a private-placement bond issuance, which structure included assignment of the Financing Agreements to a trustee under a master indenture of trust and Green Bank retaining a subordinated portion of the bonds which were issued;

WHEREAS, on June 13, 2018 the Board approved a Loan Loss Decision Framework and Process, as amended on April 24, 2020 to address the impacts of COVID-19 (the “Loss Process”), which established the process of dealing with provisional loss reserves, restructurings, and write-offs for assets on Green Bank’s balance sheet; and

WHEREAS, in accordance with the Loss Process, Green Bank staff seeks Board approval to restructure the Financing Agreements (collectively the “Restructured Financing Agreements”), as more particularly described in the Memo.

NOW, therefore be it:

RESOLVED, that the President of the Green Bank and any other duly authorized officer of the Green Bank is authorized to execute and deliver the Restructured Financing Agreements, with terms and conditions consistent with the Memo, as he or she shall deem to be in the interests of the Green Bank and the ratepayers no later than 120 days from the date of this Board meeting; and

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

90 Fieldstone Ct: A C-PACE Project in Cheshire, CT

Address	90 Fieldstone Ct, Cheshire CT 06410			
Owner	The Lane Construction Corporation.			
Proposed Assessment	\$2,034,623			
Term (years)	25			
Term Remaining (months)	Pending construction completion			
Annual Interest Rate¹	6.5%			
Annual C-PACE Assessment	\$167,129			
Savings-to-Investment Ratio	1.025			
Average DSCR	■■■■			
Lien-to-Value	■■■■			
Loan-to-Value	■■■■			
Projected Energy Savings (mmBTU)		EE	RE	Total
	Per year			2,615
	Over EUL			61,605
Estimated Cost Savings (incl. ZRECs and tax benefits)	Per year			\$171,107
	Over EUL			\$4,277,670
Objective Function	30.28 kBTU / ratepayer dollar at risk			
Location	Cheshire			
Type of Building	Office			
Year of Build	1995			
Building Size (sf)	69,456			
Year Acquired by Owner	2007			
As-Complete Appraised Value²	■■■■■■■■■■			
Mortgage Lender Consent	■■■■■■■■■■			
Proposed Project Description	666.4 kW Solar PV System, Roof			
Est. Date of Construction Completion	Pending closing			
Current Status	Awaiting Board of Directors Approval			
Energy Contractor	■■■■■■■■■■			
Notes				

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C-PACE TECHNICAL REVIEW REPORT

TO: Alysse Lembo-Buzzelli, CT Green Bank
FROM: Vijay Gopalakrishnan, ERS
CC: Mackey Dykes, Nicholas Zuba, CT Green Bank
RE: Lane Construction Corporation – C-PACE Project Technical Review Report

Report Date	09/16/2020
Customer Name	Lane Construction Corporation
Address	90 Fieldstone Ct, Cheshire, CT - 06410
Property Type	Construction
Property Size (acres)	65,346
Contractor(s)	Verogy

EXECUTIVE SUMMARY

This report provides a summary of the technical review conducted by Vijay Gopalakrishnan of ERS for the proposed solar PV project at Lane Construction Corporation in Cheshire, CT. The CT Green Bank (CGB) provided ERS with the required project documentation for review. The project scope includes the installation of three solar PV arrays with a total capacity of 666.40-kW (DC). The project also involves roofing upgrades, but no energy savings were claimed for the roof upgradation.

ERS was provided with three months of Eversource electric bills (April, May, June 2020). Based on the previous 12 months of electric usage data, the annual site kWh consumption is estimated to be 782,538 kWh. ERS reviewed the contractor provided analyses and associated documents and found the analysis parameters to be reasonable. The solar PV system is expected to generate 766,261 kWh in the first year.

In the SIR analysis, ERS applied a utility rate of \$0.1158 per kWh. The energy escalation rate of 2.99% was applied to the utility rate. One ZREC has been applied for at \$45 per ZREC with a maximum allowable quantity of 778 ZRECs. Table 1 lists the project level financial summary. Based on a financed 25-year term, this project has an overall SIR of 1.025.

Table 1. Project Financial Summary

Savings to Investment Ratio (SIR)	1.025
Project cost	\$1,709,150
Amount financed	\$2,034,623
Gross total cost savings over EUL	\$4,277,670
Total PACE + O&M payments over EUL	\$4,173,525
% financed	100%
Owner equity contribution	\$0
Interest rate	6.500%
Finance term, years	25

PROJECT ENERGY SAVINGS AND TAX CREDITS/INCENTIVES SUMMARY

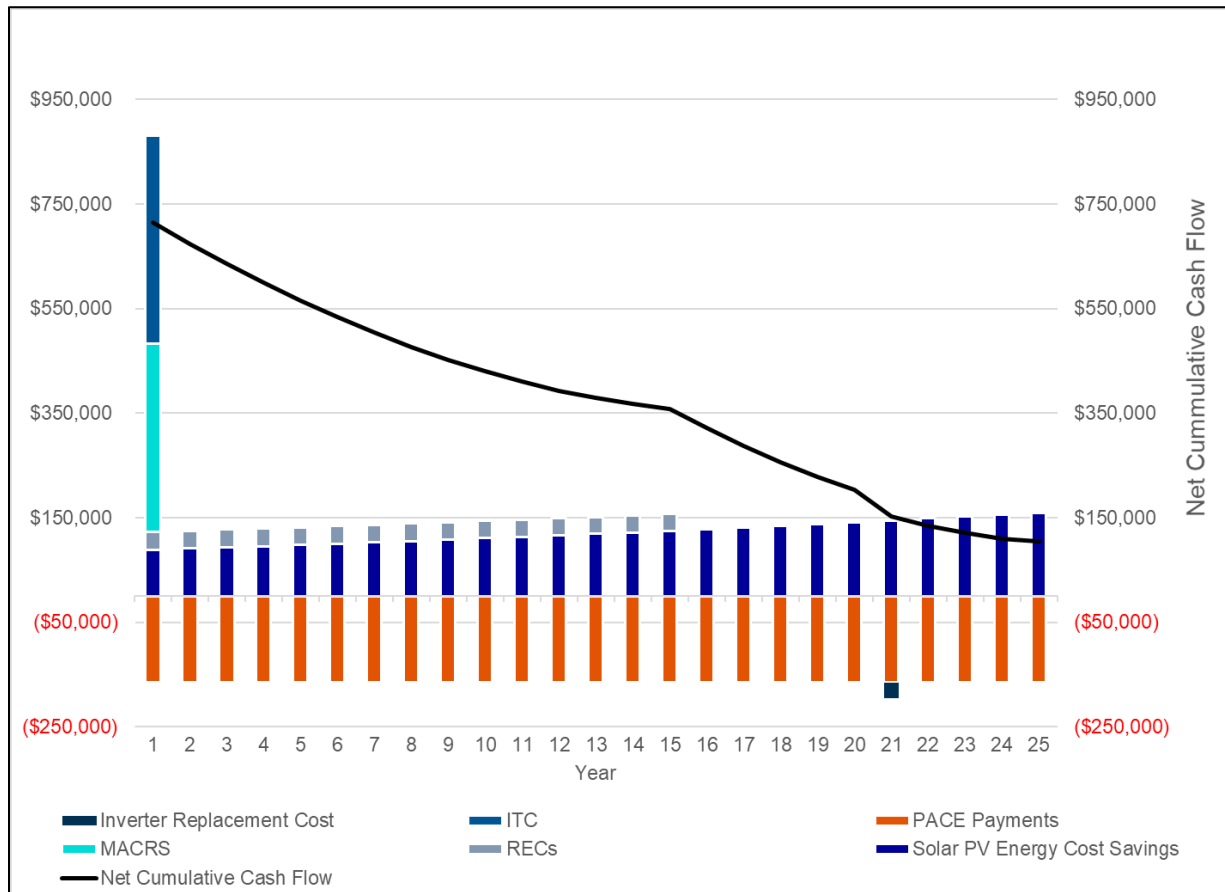
The project scope includes installing a solar PV system with a capacity of 666.40-kW (DC) and roof upgrades. The project measure level energy and cost savings, and the tax credits summary is presented in Table 2. ERS used a marginal tax rate of 27% (provided by customer) and ITC of 26%.

Table 2. Measure Energy Savings Summary

Effective useful life – EUL (years)	25
Gross project cost	\$1,709,150
Closing cost	\$47,248
Financed amount (including closing costs)	\$2,034,623
First year electric energy savings (kWh/yr)	766,261
First year electric energy savings (MMBtu/yr)	2,615
Total electric savings over EUL (MMBtu)	61,605
First year energy cost savings (\$/yr)	\$88,733
EUL energy cost savings (\$)	\$3,021,146
Federal ITC	\$397,704
MACRS for solar (total over 6 years)	\$359,310
ZRECs (total over 15 years) (\$)	\$499,510

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

Figure 1. Project Lifetime Cash Flow Plot



TECHNICAL REVIEW SUMMARY

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

Project Checklist

- Energy assessment included – ERS was provided three PVSYST V6.86 analysis files, one for each array.
- Renewable energy feasibility study conducted – ERS was provided a structural letter titled “S-LTR-Denino.S-2001395-Structural-2020-09-02” which details the roof condition. This project also involves roof upgrades.
- Minimum 12 months of utility data used to establish baseline – ERS was provided with three months of Eversource electric bill (April, May, June 2020) for the affected electric meter. Based on the previous 12 months electric usage history, the facility’s annual energy consumption estimated to be 782,538 kWh.
- Copy of utility bills included – ERS was provided three months of Eversource electric bill for the affected electric meter.

- ☒ No major renovation took place in baseline period – N/A
- ☒ Baseline building energy use consistent with ASTM BEPA E2797-15, per ICP protocol – N/A
- ☒ Measure life is within industry practice – **25 years**
- ☒ Measure life exceeds finance term – **Measure life is equal to finance term**
- ☒ Local weather data used for normalization – **Cheshire, CT (appropriate)**
- ☒ Energy production for renewable energy system is reasonable – **Energy production is reasonable.**
- ☒ Project cost estimate is reasonable – **\$2.30 per watt is reasonable.**
- ☒ Projected energy cost escalation is reasonable – **2.99% per year**
- ☒ Projected annual performance degradation is reasonable – **0.5% per year**
- ☒ Commissioning plan has been addressed – **Not addressed.**
- ☒ M&V plan has been addressed – **Not addressed.**
- ☒ Projected SIR > 1 – **Yes.**

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

Solar Photovoltaic System

The Lane Construction Corporation facility in Photo 1 is proposed to have a new grid-connected solar PV system with three arrays with a total capacity of 666.40 kW-DC capacity. Ten 50 kW inverters are proposed to serve the system. The proposed setup will be connected to one ZREC meter. The solar PV project specifications are listed in Table 3. The azimuth angles (reasonable based on Google Maps review) and tilt angles would be best verified during the commissioning verification visit. The PV module warranty is 25 years, and an extended inverter warranty for 20 years is included in the project cost. ERS included inverter replacement costs to bring the useful life of the solar PV system to 25 years. The roof mount, ground mount, and carport racking systems also have warranties for 25 years. This project has applied for 778 RECs with a 15-year term at \$45 per REC. A marginal tax rate of 27% was used in the SIR calculations as provided by the customer. ERS also included 25 years of O&M expenses in the financed amount and SIR calculations (\$11,129 per year).

The project also includes roof upgrades; however, no energy savings were claimed for the upgraded roof. No MACRS and ITC benefits were included for the roof upgrades.

Photo 1. Overhead View (Provided in Contractor Proposal)



Table 3. Solar PV Specifications

Item	Roof	Carport	Ground	Total
PV system capacity (kW-DC)	210.80	326.40	129.20	666.40
No. of modules	527	816	323	1,666
Location	Roof	Carport	Ground	N/A
PV module model	PS400MH-24/TH			
Module efficiency	Premium			
Inverter model	CPS SCA50KTL-DO/US-480			
Inverter efficiency	98.5%			
Azimuth angle	185°	274°	180°	N/A
Tilt angle	5°	7°	30°	N/A
DC to AC sizing ratio	1.40	1.31	1.29	N/A

Potential Savings/Economic Impacts

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

- REC income: The REC has been applied for but has not yet been granted. The REC income is a significant factor in ensuring that this project meets the SIR requirement.
- Angle of tilt and azimuth angles: The angle of tilt and azimuth angle, if modified, could change the energy generation from the PV system. This will be verified during the commissioning oversight site visit.
- Inverter and PV module make and model: The calculations for this measure are based on the efficiency of the proposed PV modules and inverters. If the PV module or inverter makes and models change, the generation would need to be recalculated.

Utility Rates Summary

The site is on Eversource's electric rate 037. The details of the tariffs are listed in Table 4.

Table 4. Utility Rate Tariff Summary

Electric Rates	
Electric utility	Eversource
Electric rate	Rate 037
Electric energy rate (\$/kWh)	\$0.1158
Demand charge (\$/kW)	\$12.77

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

Memo

To: Board of Directors of the Connecticut Green Bank

From: Mackey Dykes, Vice President, Financing Programs and Nicholas Zuba, Senior Manager, Financing Programs

Date: September 16, 2020

Re: C-PACE Program Guidelines Update

Overview

Conn. Gen. Stat. Section 16a-40g authorizes what has come to be known as the Commercial Property Assessed Clean Energy Program (“C-PACE”). The statute designates the Connecticut Green Bank (“Green Bank”) as the state-wide administrator of the program and charges Green Bank to “develop program guidelines governing the terms and conditions under which state and third-party financing may be made available to the commercial sustainable energy program” and to “adopt standards to ensure that the energy cost savings of the energy improvements over the useful life of such improvements exceed the costs of such improvements”. Since 2013, Green Bank has developed and maintained the “Program Guidelines” for the C-PACE program in accordance with this statutory requirement. The Program Guidelines set out such key aspects of the program as:

- Benefits of C-PACE
- Statutory and programmatic criteria such as mortgage lender consent, building eligibility criteria, project eligibility criteria and municipality opt-in
- “Open-market” C-PACE platform which allows private capital providers to offer financing secured by C-PACE directly to building owners
- Technical standards, encompassed in the program’s Savings to Investment Ratio (SIR) criteria, to meet the statutory requirement that the energy cost savings of the energy improvements over the useful life of such improvements exceed the cost.

Staff is seeking approval for an update to the Program Guidelines, which makes the following substantive change to the program:

- 1) Creating “Refinancing” and “Restructuring” as new Defined Terms; and
- 2) Create an exception to the provision that C-PACE financing repayment terms cannot exceed the effective useful life (“EUL”) of the installed improvements only in the case of financing restructurings.

New Defined Terms of Refinancing and Restructuring

With the exception being proposed below for enforcing the Program Guidelines' provision that the Benefit Assessment term cannot exceed the effective useful life of the Energy Improvement(s), the Green Bank wishes to define the distinction between the terms of "Refinancing" and "Restructuring".

First, we amend Article III, Section 5 of the Program Guidelines to state that "nothing in the Program Guidelines is intended to prohibit Restructuring, at any time during the term of the applicable Benefit Assessment, through the C-PACE Program."

Second, because "Restructuring" is permissible with this change but "Refinancing" is not, we remove any ambiguity of the definition of both terms by defining both "Refinancing" and "Restructuring" in the Program Guidelines. The terms are defined as follows:

"Refinancing" means, in the context of any existing Financing Agreement, a Benefited Property Owner entering into a new Financing Agreement with any C-PACE capital provider other than the capital provider (or its successors or assigns) who is a party to the applicable existing Financing Agreement for the purpose of repaying or refinancing the existing Financing Agreement and Benefit Assessment, including but not limited to, filing of a new Benefit Assessment associated with the same Qualifying Project.

"Restructuring" means, in the context of any existing Financing Agreement, a Benefited Property Owner entering into a new Financing Agreement or any modification of the existing Financing Agreement with the C-PACE capital provider (or its successors or assigns) who is a party to the applicable existing Financing Agreement for the purpose of restructuring, amending, restating, or otherwise modifying the existing Financing Agreement and Benefit Assessment, including but not limited to, releasing the existing Benefit Assessment and filing of a new Benefit Assessment associated with the same Qualifying Project, subject to all other applicable program requirements.

Effective Useful Life Exception for Restructurings

Under Article III, Section 3, Subsection D of the Program Guidelines, it states that "[t]he term of the Benefit Assessment associated with the Qualifying Project may not exceed the weighted average effective useful life ("EUL") of the Energy Improvement(s)."

With developing C-PACE financing restructurings related to COVID-19 hardships, developing modification options that fit within the weighted average EUL has at times proven to be a challenge. Some of the modifications require extending the term of the Benefit Assessment beyond the current term length in order to either defer payments or provide options to the customer that provide new repayment amounts comparable to the existing one. There have been instances where the Green Bank could not offer all possible restructuring options to a borrower, because extending the term would surpass the project's EUL. The Financing Programs team has worked with the C-PACE Technical Administrator to re-examine the project's Energy Improvement(s) to see if a case can be made to extend EUL to make longer modification options work. However, the technical case cannot always be made for an extension. Therefore, the EUL requirement is an unmitigated consequence placed upon the Green Bank's ability to offer a full suite of restructuring options to borrowers.

More broadly than these specific cases related to COVID restructurings, staff believes the EUL requirement should not apply to restructurings. A restructuring will presumably be necessitated by the borrower's inability to meet the existing obligation. It is in the program's interest to allow

the lender and borrower to come to new terms that the borrower can meet. While the EUL restriction serves a useful purpose, it does not outweigh the need in a restructuring scenario for a lender to recoup their investment and a borrower to avoid a foreclosure.

Therefore, staff recommends removing the EUL requirement in Section 3, Subsection D in the Program Guidelines in the case of restructurings. Lastly, staff recommends further clarifying the difference between “Restructuring” and “Refinancing” as such terms are used in the Program Guidelines and moving such terms into the definition section of the Program Guidelines.

Recommendation

Staff recommends that the Green Bank Board of Directors (the “Board”) approve the updated C-PACE Program Guidelines, materially in the form of attached to this memo. These Program Guidelines would then go through a thirty-day public comment period. If, after public comments are received, Green Bank staff considers that significant changes are needed to the Program Guidelines as currently drafted, then staff will come back to the Board for an updated approval. If no significant changes result from the public comment process, then the final form of the Program Guidelines shall be deemed approved by the Board and Green Bank staff would proceed with implementation of such Program Guidelines.

Resolution

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

WHEREAS, the Authorizing Statute charges Green Bank to develop program guidelines governing the terms and conditions under which state and third-party financing may be made available to C-PACE.

NOW, therefore be it:

RESOLVED, the Green Bank Board of Directors (the “Board”) approves the updated C-PACE program guidelines (the “Program Guidelines”), substantially in the form of attached to that certain memo to the Board dated September 16, 2020. The Program Guidelines shall then go through a thirty-day public comment period in accordance with Conn. Gen. Stat. Section 1-120 et seq.

RESOLVED, If, after the expiration of public comment period, Green Bank staff considers that significant changes are needed to the Program Guidelines as currently drafted, then Green Bank staff will seek an updated approval from the Board. If no significant changes result from the public comment process, then the final form of the Program Guidelines, as may be edited by Green Bank staff, shall be deemed approved by the Board and Green Bank staff will proceed with implementation of such Program Guidelines.

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



SPARKED BY
CONNECTICUT GREEN BANK

C-PACE PROGRAM GUIDELINES

Version Date: ~~September 15, 2020,~~

Deleted: June 26, 2020

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Article I. INTRODUCTION

Capitalized terms used below which are not otherwise defined shall have the meaning ascribed to them in Article VI hereof.

In 2012, the Connecticut legislature passed the C-PACE Legislation (defined below), which authorized the commercial sustainable energy program more commonly known as the Commercial & Industrial Property Assessed Clean Energy Program (“C-PACE”). C-PACE is a financing program that allows Connecticut building owners to access cleaner, cheaper, and more reliable energy. The C-PACE Legislation authorized Connecticut Green Bank, a Connecticut quasi-public agency (“Green Bank”), to administer C-PACE and establish program guidelines for the implementation of the program.

C-PACE allows qualifying commercial real property owners to access financing to undertake qualifying energy efficiency and clean energy improvements on their buildings and repay the investment through an additional charge/assessment along with their real property tax bill. Similar to a sewer assessment, projects financed through C-PACE are secured by a benefit assessment lien on the improved real property, which lien is repaid over time. Like other benefit assessments, C-PACE is a non-accelerating, senior lien secured by the property. The repayment obligation transfers automatically to the next owner if the property is sold and in the event of default, only the payments in arrears come due. This arrangement spreads the cost of clean energy improvements – such as energy efficient boilers, upgraded insulation, new windows, or solar PV installations – over the expected life of the measure. Because the payment is tied to the property’s real property tax billing, a secure payment stream, C-PACE projects are seen as less risky than typical loans, and low interest capital can be raised from the private sector with little or no government financing required.

Benefit assessments are a familiar tool which municipalities levy on real estate parcels to finance projects including street paving, water and sewer systems, and street lighting. C-PACE builds on a long history of using such benefit assessments and serves a public purpose through reducing energy costs, stimulating the economy, improving property valuation, reducing greenhouse gas emissions and creating jobs. C-PACE is a proven and effective tool to attract private capital into the clean energy and energy efficiency market.

This document sets forth the program guidelines established by Green Bank for the implementation of C-PACE (as may be updated, supplement, amended or otherwise modified by Green Bank, the “Program Guidelines”), which Program Guidelines govern all C-PACE participants.

All Appendixes attached hereto are supplemental program documents used by Green Bank in implementation of the Program Guidelines and may be modified or amended by Green Bank, in its sole discretion, from time to time. Current versions of all Appendixes may be found at www.cpace.com/guidelines.

Article II. OUTLINE OF C-PACE BENEFITS

PACE offers multiple benefits to a broad range of stakeholders, including but not limited to: building owners, municipalities, mortgage holders, lenders and energy efficiency/renewable energy contractors.

Section 1. For Building Owners: C-PACE helps minimize the up-front investment, installation, and performance risk of energy upgrades, while helping owners lower their operating costs, improve the value and market competitiveness of their asset, and comply with energy mandates. C-PACE does this in several ways:

- *Many owners lack capital to implement energy improvements.* C-PACE provides up to 100% up-front, long-term financing to property owners for qualified energy upgrades. Audits, construction costs, commissioning and post-construction performance measurement and verification (M&V) can be wrapped into C-PACE financing.
- *Owners often want to sell the building before an energy upgrade loan is repaid.* The C-PACE assessment obligation is attached to the property and can transfer to the new owner. Payments do not accelerate in case of default.
- *Many owners feel energy improvements do not yield an adequate return on investment.* The C-PACE program requires that the estimated energy savings from a project exceed the up-front investment and financing costs, leading the expected cash flow to be positive over the useful life of the equipment. Moreover, C-PACE requires an independent third-party technical review of the project energy savings estimates, thereby ensuring confidence in the projected energy savings. Deeper energy upgrades and savings are possible because assessments match the useful life of equipment, which for certain improvements can extend up to 25 years.
- *Other owners are uncertain that energy savings will perform as advertised.* C-PACE helps building owners understand their future energy savings by requiring that an energy audit and/or feasibility study be conducted to estimate energy savings and commissioning to ensure that equipment is installed correctly. Buildings owners are encouraged to develop an equate measurement & verification plan to track energy consumption or production over time.
- *Owners need tenants to share in the costs of energy upgrades.* As a benefit assessment, C-PACE payments – as well as energy savings – may, if permitted by the lease agreement, be passed along to tenants.

Section 2. For Energy Auditors and Contractors: The biggest barrier to converting leads to deals for energy upgrades is the lack of access to acceptable finance terms from traditional lenders. C-PACE solves this. By allowing a property owner to access up to 100% up-front financing for up to 25 years, deeper energy efficiency and clean energy improvements are now affordable. The Green Bank also provides energy auditors and contractors access to training, support services, market research, and marketing materials.

Section 3. For Municipalities: C-PACE is an economic development tool for municipalities. Energy upgrades create a more competitive environment for retaining and attracting new businesses by lowering energy costs. Energy upgrades also create jobs and reduce greenhouse gases and other pollutants. Green Bank facilitates municipal outreach and coordination with municipalities, and their legislative bodies, interested in entering into the Participation Agreement (as defined below).

Section 4. For Third-Party Capital Providers: C-PACE has created a very secure, clean energy financing product for Third-Party Capital Providers (TCP). The security comes from its position similar to a tax lien on a property. The lien, like other public benefit assessments, sits in a senior position to other encumbrances on the property, including mortgage debt and liens other than municipal real property tax liens. Repayment is managed by local property tax administrators in the normal course of their billing and collection practices, thereby creating a very secure stream of collections and remittances.

Finally, the C-PACE Legislation requires C-PACE approved projects to have a “Savings to Investment Ratio” (SIR) greater than one, meaning that projected lifetime savings from the measures must exceed the total investment, inclusive of financing costs, over the lifetime of the measures. Connecticut streamlined the C-PACE program by establishing a single statewide C-PACE program administered by the Green Bank. Connecticut’s C-PACE program maintains an open market approach, encouraging private capital to be the primary financier of these assessments and supporting building owners who wish to source their own C-PACE lender (see Article V below). Additionally, the Green Bank currently has dedicated capital to invest in C-PACE projects. At certain intervals through the year, the Green Bank may periodically “sell-down” its portfolio of C-PACE transactions to TCP(s) (as defined herein) who desire to be the secondary financiers of these assessments. The sell-down process replenishes the Green Bank’s capital, enabling a sustainable source of funding for C-PACE projects.

Section 5. For Mortgage Holders: The structure of C-PACE allows participating building owners to pay for improvements to their property out of the savings the project creates. Connecticut statutes require C-PACE approved projects to have an SIR greater than 1, meaning that projected lifetime savings from the energy measures must exceed the total investment, inclusive of financing costs, over the lifetime of the measures. The Green Bank has instituted technical underwriting standards for C-PACE that provides a robust framework for measuring the estimated SIR (Appendix D), which all C-PACE Projects must meet. Under the C-PACE financing structure, the building should experience increased net operating income, often an immediate return on investment, and therefore becomes more attractive to current and potential tenants and future buyers. Additionally, C-PACE Assessments do not accelerate. In the event of a foreclosure of the property for any reason, only the amount of the C-PACE assessment currently due and/or in arrears, a relatively small proportion of the entire C-PACE assessment, would come due. In the event of a property sale, C-PACE assessments can automatically transfer to the new property owner unless the buyer or seller decides to prepay the assessment. Finally, the C-PACE Legislation requires that property owners receive the written consent of their existing mortgage holder before being eligible for C-PACE financing (Appendix C). Mortgage lenders will be at the table helping to determine whether a property can undertake this voluntary assessment.

Article III. C-PACE STATUTORY AND PROGRAMMATIC REQUIREMENTS

This section outlines certain requirements set forth in the C-PACE Legislation as well as additional programmatic requirements established by the Green Bank.

Section 1. Mortgage Lender Consent

- A. Pursuant to the C-PACE Legislation, Benefited Property Owners must:
- i. Provide written notice to any existing mortgage holder of the Qualifying Property (as defined below), at least thirty days before the recording of a benefit assessment lien on such property, of the property owner's intent to finance a project through C-PACE, and
 - ii. Obtain the written consent to the C-PACE financing from any existing mortgage holder of the Qualifying Property.
- B. Green Bank's model mortgage holder notice and consent is attached as Appendix C. C-PACE participants may elect to use a different agreement to evidencing mortgage holder notice and consent, however any other such agreement will be subject to review and approval by Green Bank in its sole discretion.
- C. In accordance with the U.S. Department of Housing and Urban Development ("HUD") Notice H2017-01 dated January 11, 2017, as may be modified, amended or superseded, in the event that the mortgage holder is HUD, the mortgage holder notice and consent as well as the Financing Agreement associated with such consent shall provide, in the event of a default on the associated Benefit Assessment Lien payment, for notice and a reasonable opportunity for the mortgage holder to cure any such non-payment.

Section 2. Real Property Eligibility

To be considered a "Qualifying Property" eligible for C-PACE Financing, a Qualifying Commercial Real Property (as defined below) must meet the following requirements:

- A. Must be located within a Participating Municipality (as defined below), or multiple abutting Participating Municipalities.
- B. Must be owned by a Benefited Property Owner (as defined below), who is not a state, municipality, or any political subdivision thereof.
- C. Must not be a Residential Dwelling (as defined below) of four units or less. Multifamily properties of five units or more are eligible. Mixed-use, not-for-profit and agricultural properties may also be eligible. If the eligibility of a certain property is not clear, Green Bank may determine property eligibility in its reasonable discretion based on site specific considerations including, but not limited to, zoning designation and current/past/future land use. Multiple abutting parcels may be included in the legal description of one Benefit Assessment Lien (as defined below) if (1) each parcel, by itself, is a Qualifying Property (2) each parcel is owned by the same Benefited Property Owner, and (3) each parcel benefits from the same Qualifying Project.
- D. Must not be subject to any mortgage, deed of trust or other equivalent consensual security interest _____ securing a loan primarily for personal, family or household use in a Residential Dwelling of four units or

² For more information on Investor Ready Energy Efficiency certification, please visit <http://www.eepformance.org/iree-certification.html>.

less or on land on which a person intends to construct a Residential Dwelling of four units or less.

Section 3. Project Eligibility

To be considered a “Qualifying Project” eligible for C-PACE Financing, an energy improvement project must meet the following requirements:

- A. Contain at least one Energy Improvement (as defined below).
- B. All costs associated with the Energy Improvement and the financing thereof (e.g. closing/lender fees, consultant/development fees, soft costs, or other associated project costs, each being an “Associated Cost”) may, subject to Green Bank approval, be included in the Financed Amount.
- C. Obtain an energy audit or feasibility study for the proposed Energy Improvement(s).
- D. The term of the Benefit Assessment associated with the Qualifying Project may not exceed the weighted average effective useful life (“EUL”) of the Energy Improvement(s), except in the context of Restructuring, in which case the term of the Benefit Assessment may be extended beyond the weighted average EUL of the Energy Improvement(s). EUL is determined through the energy audit, based on industry best practice, and is subject to approval by (1) either the Technical Administrator or a Technical Reviewer, and (2) the Green Bank. Regardless of a Project’s EUL, the term of the Benefit Assessment may not exceed 25 years unless approved by Green Bank, in its sole discretion.
- E. Projected Total Cost Savings must exceed the Projected Financing Cost. In other words, the savings-to-investment ratio (“SIR”) of the project must be greater than one. To demonstrate that the SIR requirement has been satisfied the project must be either (1) reviewed and approved by the Technical Administrator, (2) reviewed and approved by a Technical Reviewer, (3) be certified as Investor Confidence Project “Investor Ready Energy Efficiency”² Project, or (4), for certain projects which include third party-owned renewable energy system(s), reviewed and approved by Green Bank, or certified by a Qualified Capital Provider, as applicable and more particularly described in Appendix E. For the avoidance of doubt, the SIR calculation for the project must meet the requirements set forth in Article IV below.
- F. All Projects require the written approval of the Green Bank, as the statewide administrator of the C-PACE Program.
- G. All Benefited Property Owner(s) associated with the project must sign a Disclosure of Risk Form.
- H. If the Energy Improvement(s) are wholly owned by any party or parties which is/are not the Benefited Property Owner(s), then such project must meet the requirements set forth in Section 4 of Appendix E.

Section 4. Restrictions on completed Qualifying Projects and consolidated Qualifying Projects

Qualifying Project improvements which have already been made to a Qualifying Property may be

² For more information on Investor Ready Energy Efficiency certification, please visit <http://www.eepformance.org/iree-certification.html>.

eligible for financing if such Qualifying Project was completed less than a calendar year prior to the complete submission of documents necessary for Green Bank approval (See Appendix F) of such Qualifying Project. Additionally, subsequent Energy Improvement(s) made to a Qualifying Property which has previously received C-PACE financing for a previous Qualifying Project, made within one calendar year from the close of C-PACE financing for the initial Qualifying Project, may be considered as one Qualifying Project for the purposes herein.

Section 5. Restrictions on Refinancing within the C-PACE Program

Qualifying Projects which closed on C-PACE financing may not be eligible for Refinancing through the C-PACE Program. For the avoidance of doubt, nothing in the Program Guidelines is intended to prohibit Restructuring, at any time during the term of the applicable Benefit Assessment, through the C-PACE Program.

Deleted: For the purposes of this section "Refinancing" includes, but is not limited to, entering into a Financing Agreement with a different C-PACE capital provider for the purpose of repaying an existing Benefit Assessment and filing of a new Benefit Assessment associated with the same Qualifying Project. Refinancing does not include, restructuring, amendment, restatement, Benefit Assessment refiling, or any other modification of the existing Benefit Assessment or Financing Agreement with the original C-PACE capital provider (or its assignee), subject to all other applicable program requirements.

² For more information on Investor Ready Energy Efficiency certification, please visit <http://www.eepformance.org/iree-certification.html>.

Article IV. TECHNICAL STANDARDS OVERVIEW

The Green Bank requires a third-party review of the proposed project to demonstrate that the SIR requirement has been met. The following provides a summary of the technical review process. Please refer to the Technical Standards (Appendix D) for a full description of audit requirements, technical review methodology and standards, and eligible and ineligible measures. Technical review may be completed by the Green Bank's selected Technical Administrator or Technical Reviewer, in accordance with the Technical Standards. As an alternative to this process, the Green Bank will also accept Investor Confidence Project-certified Investor Ready Energy Efficiency Projects that demonstrate the SIR is greater than one. Additionally, Green Bank may, in its sole discretion, perform technical review for projects which include third party-owned renewable energy system(s), as more particularly described in Appendix E.

Section 1. Defining a Scope of Work

Benefited Property Owners should work with a qualified energy auditor and/or contractor with demonstrated experience to define a scope of work for their proposed project. This scope can range from installation of a single Energy Improvement, such as a new high efficiency boiler or a renewable energy system, to a whole building energy upgrade involving multiple, interactive Energy Improvements. A general list of eligible Energy Improvements and their typical energy saving characteristics can be found in the Technical Standards. The scope of work for the proposed project must be prepared and submitted by a Qualified Contractor or Registered Contractor. Projects require the applicant to conduct an energy audit or renewable energy feasibility study. For all projects involving the installation of Energy Improvements, depending on project type, size and complexity, the energy audit may range from a simple walkthrough of the building to an investment grade audit.³ The Qualified Contractor or Registered Contractor will determine the minimum required energy audit level consistent with the Technical Standards (Appendix D). The audit should identify the building's representative baseline energy use, identify and recommend Energy Improvements, estimate the useful life of each Energy Improvement, determine total project capital cost and the projected energy savings that can be confidently achieved, evaluate key financial metrics, and provide an energy savings equipment commissioning plan. All projects involving a renewable energy system are required to complete a feasibility study, Green Bank recommends that any feasible study follow the guidelines set forth in Technical Standards (Appendix D).

Section 2. Standard SIR Technical Review

The Technical Administrator and/or Technical Reviewer will conduct a technical review, the purpose of which is to validate the reasonableness of project costs and energy savings projections. The Technical Administrator and/or Technical Reviewer will also confirm the projected SIR of the project is greater than one.

³ Connecticut utilities may provide what can be considered an ASHRAE Level I audit at no cost to applicants. The Green Bank can provide applicants referrals to qualified energy auditors to do higher level audits, the costs of which may be included in C-PACE financing.

In addition, the methodology for tracking energy savings over an agreed upon term will be reviewed, thereby verifying for project stakeholders the extent to which projected energy savings are being achieved in an ongoing fashion.

Technical Review consists of three tasks:

- A. Verify that the building's baseline energy consumption is representative and reasonable, e.g. weather normalized
- B. Validate the reasonableness of projected energy savings; and
- C. Confirm that an adequate commissioning plan exists.

The first two tasks are necessary to determine the SIR on the project and verify that it is greater than one. The third task ensures a property owner and the contractor have planned to confirm the correct installation and operational performance of the installed measures.

The Green Bank has developed a methodology for this technical review process, which relies upon two established industry protocols:

Baseline Energy Use: ASTM E2797-15, Building Energy Performance Assessment (BEPA) Standard directed at data collection and baseline calculations for the energy audit;

Energy Improvement & Energy Savings: ASHRAE Level I, Level II and Level III Energy Audit Guidelines;

The Technical Administrator or a Technical Reviewer will qualify the proposed Energy Improvement(s) and validate the projected energy savings are consistent with these protocols and, in conjunction with the applicant, will confirm a baseline financing scenario that meets the SIR criteria.

Section 3. Commissioning; Measurement and Verification

In order to verify that the project was installed according to the evaluated scope, all project applications are required to include a commissioning plan and subsequent report. A report by a Qualified Contractor, Registered Contractor, Technical Reviewer, or the Technical Administrator that confirms the measures were properly installed and that the project is operating as intended must be submitted to the Green Bank once project construction is complete.

Additionally, in order to (i) evaluate the energy savings effectiveness of the measures after they have been installed, and (ii) to collect energy consumption and/or clean energy production data, property owners are encouraged to work with their contractor(s) to implement an adequate measurement and verification plan. The International Performance Measurement and Verification Protocol (IPMVP) provides guidance for measurement and verification of the energy savings, for additional information see the Technical Standards.

The Green Bank may elect to facilitate M&V for projects submitted to the Green Bank for financing, and may elect to offer the same services to TPCP financed projects, at Green Bank's discretion and subject to additional costs/fees. M&V activities may be financed as an Associated Cost of any Qualifying Project.

Section 4. Alternative to Standard SIR Technical Review Process

As an alternative to the Standard SIR Technical Review process set forth in Section 2 above, and more particularly described in the Technical Standards, Green Bank will also consider projects which meet one of the following requirements as having met the technical review requirement of this Article:

- A. Projects which demonstrate a receipt of an Investor Ready Energy Efficiency certification from the Investor Confidence Project (“ICP”) and provide a letter from the ICP Quality Assurance Provider stating that the SIR for the project is greater than one; or
- B. Certain projects which include third party-owned renewable energy system(s), reviewed and approved by Green Bank, as more particularly described in Appendix E.

Section 5. Technical Review Auditing

Green Bank may select and retain a Technical Review Auditor or Technical Review Auditors to conduct periodic reviews of the technical review work performed by any Technical Reviewer, the Technical Administrator or the Green Bank to evaluate compliance with the Program Guidelines and Technical Standards.

Article V. C-PACE OPEN MARKET AND ELIGIBILITY CRITERIA FOR C-PACE CAPITAL PROVIDERS

Section 1. Concept of 'Open Market'

Connecticut maintains an "open market" approach to its C-PACE program, encouraging capital providers to be the primary financier of Qualifying Projects and supporting Benefited Property Owners who wish to source their own capital provider. For capital providers wishing to directly offer C-PACE financing, thereby becoming an "Approved Third-Party Capital Provider" or "ATPCP", the Green Bank has created terms and conditions, attached hereto as Appendix F (the "Third-Party Capital Provider Terms and Conditions"), which outline the requirements and process for Third-Party Capital Provider to directly offer C-PACE financing to Benefited Property Owners and interact with Green Bank, as the program administrator.

Additionally, the Green Bank currently maintains dedicated capital to finance C-PACE projects. Benefited Property Owners looking to finance any Qualifying Project with Green Bank sourced capital may apply directly to Green Bank and follow the process outlined in Appendix F. From time to time and through the RFP process, the Green Bank may "sell-down" portfolios of its C-PACE transactions to Qualifying Capital Providers (s) or partner with Qualifying Capital Providers for the purpose of originating transactions, which Qualifying Capital Providers desire to be the secondary or co-financiers of these assessments. The "sell-down" process replenishes or leverages the Green Bank's capital, enabling a sustainable source of funding for C-PACE projects.

The 'open market' program offers multiple financing options to Benefited Property Owners, enabling the Green Bank to achieve its mission of making financing accessible and affordable.

Section 2. Qualified Capital Provider

Any capital provider or other entity interested in purchasing C-PACE transactions from the Green Bank or offering C-PACE financing directly to borrowers must become a qualified capital provider through the C-PACE Program. The process for becoming a "Qualified Capital Provider" is as follows:

1. The interested capital provider must respond to the open [CGB Request for Qualifications from Interested Capital Providers](#).
2. Green Bank shall review the submission and may approve the capital provider. Upon approval, the capital provider will be considered a "Qualified Capital Provider". Qualified Capital Providers are listed on Green Bank's C-PACE website and receive information from the Green Bank regarding financing opportunities as well as pertinent information about C-PACE. Qualified Capital Providers wishing to directly offer C-PACE financing must acknowledge and agree to the Third-Party Capital Provider Terms and Conditions.

Section 3. C-PACE Approved Third-Party Capital Providers

ONLY Qualified Capital Providers which anticipate directly offering C-PACE financing to Benefited Property Owners in Connecticut need to acknowledge and agree to the Third-Party Capital Provider Terms and Conditions. The Third-Party Capital Provider Terms and Conditions outline the requirements and process for Third-Party Capital Provider to directly offer C-PACE financing to Benefited Property Owners and interact with the Green Bank, as the program administrator. In summary, the process for project origination, funding and administration is as follows:

- A. The ATPCP or Benefited Property Owners may submit a completed C-PACE application and all associated documents necessary to demonstrate any project's compliance with the Program Guidelines and any other applicable requirements set forth in the Third-Party Capital Provider Terms and Conditions.
- B. Green Bank shall review such documents for compliance with the Program Guidelines and Third-Party Capital Provider Terms and Conditions, and, in its sole discretion, provide its approval of the Qualifying Project (thereby becoming an "Approved Project").
- C. The ATPCP may then enter into a Financing Agreement with Benefited Property Owner for such Approved Project (thereby becoming a "Closed Project").
- D. Concurrently or shortly thereafter, the ATPCP shall enter into an Administration Agreement with the Green Bank for such Closed Project.
- E. Green Bank will facilitate the filing and assignment to the ATPCP of a Benefit Assessment Lien, pursuant to the Administration Agreement.
- F. Green Bank will work with the Participating Municipality to collect any payments received pursuant the Benefit Assessment Lien and remit such payments to the ATPCP, pursuant to the Administration Agreement.

The ATPCP shall maintain its own financial underwriting criteria and financing terms and conditions for a C-PACE transaction, subject to the requirements set forth in the Program Guidelines.

Article VI. DEFINED TERMS

“Approved Third-Party Capital Provider” or “ATPCP” shall mean a Third-party Capital Provider, which (1) has been approved by Green Bank as a Qualifying Capital Provider, (2) has acknowledged and agreed to Third-Party Capital Provider Terms and Conditions, and (3) is in good standing with the Green Bank.

“Associated Cost” shall have the meaning ascribed to it in Article III Section 3(B).

“Benefit Assessment” shall mean an assessment authorized by the C-PACE Legislation. In an event of a conflict between this definition and that which is ascribed in the C-PACE Legislation, the C-PACE Legislation shall govern.

“Benefit Assessment Lien” shall mean a lien which evidences a Benefit Assessment and is recorded by a Participating Municipality on the land records against a Qualifying Property at Green Bank’s direction pursuant to the Participation Agreement. The form of such Benefit Assessment Lien is attached hereto as Appendix K, as may be modified or amended from time to time by Green Bank, in its sole discretion.

“Benefited Property Owner” shall mean an owner of Qualifying Commercial Real Property who desires to install Energy Improvements and provides free and willing consent to the Benefit Assessment against the Qualifying Commercial Real Property. In an event of a conflict between this definition and that which is ascribed in the C-PACE Legislation, the C-PACE Legislation shall govern.

“C-PACE” shall have the meaning ascribed to it in Article I.

“C-PACE Legislation” shall mean Section 16a-40g of the Connecticut General Statutes, as may be amended, attached hereto as Appendix A.

“Commercial or Industrial Property” shall mean any real property other than a Residential Dwelling containing less than five dwelling units. In an event of a conflict between this definition and that which is set forth in the C-PACE Legislation, the C-PACE Legislation shall govern.

“Disclosure of Risk Form” shall mean the disclosure of risk form associated with C-PACE, attached hereto as Appendix H, as may be modified or amended from time to time by Green Bank, in its sole discretion.

“District Heating and Cooling System” shall mean a local system consisting of a pipeline or network providing hot water, chilled water or steam from one or more sources to multiple buildings. In an event of a conflict between this definition and that which is ascribed in the C-PACE Legislation, the C-PACE Legislation shall govern.

“Energy Engineer” shall mean a professional or entity who/which meets one of the following: (1) holds a Certified Energy Manager or Certified Energy Auditor accreditation, (2) is a Professional Engineer with demonstrated relevant energy experience, or (3) a contractor with relevant demonstrated experience as determined by the Technical Administrator.

“Energy Improvement” shall mean (A) participation in a District Heating and Cooling System by Qualifying Commercial Real Property, (B) participation in a microgrid, as defined in Section 16-243y of the Connecticut General Statutes, including any related infrastructure for such microgrid, by Qualifying Commercial Real Property, provided such microgrid and any related infrastructure incorporate clean energy, as defined in Section

16-245n of the Connecticut General Statutes, (C) any improvement, renovation or retrofitting of Qualifying Commercial Real Property to reduce energy consumption or improve energy efficiency, (D) installation of a renewable energy system to service qualifying commercial real property, or (E) installation of a solar thermal or geothermal system to service qualifying commercial real property, provided such renovation, retrofit or installation described in subparagraph (C), (D) or (E) is permanently fixed to such Qualifying Commercial Real Property. In an event of a conflict between this definition and that which is ascribed in the C-PACE Legislation, the C-PACE Legislation shall govern.

“EUL” shall have the meaning ascribed to it in Article III Section 3(E).

“Financed Amount” means the combined costs of the Energy Improvement(s) and Associated Cost(s) which has been or will be financed through C-PACE for any Qualifying Project.

“Financing Agreement” shall mean a written agreement between a Benefited Property Owner and either a Third-Party Capital Provider or the Green Bank, or any of its subsidiaries, for the financing, leasing or purchasing power from/of Energy Improvement(s). Such financing agreement shall contain, among other things, a provision which allows the Benefited Property Owner to rescind the agreement not later than three business days from the date of such agreement.

“Green Bank” shall have the meaning ascribed to it in Article I.

“Participating Municipality” shall mean a municipality, as defined in Section 7-369 of the Connecticut General Statutes, that has entered into a Participation Agreement. In an event of a conflict between this definition and that which is ascribed in the C-PACE Legislation, the C-PACE Legislation shall govern.

“Participation Agreement” shall mean a written agreement between Green Bank and a Participating Municipality, as approved by its legislative body, pursuant to which the municipality has agreed to assess, collect, remit and assign, Benefit Assessments to Green Bank in return for Energy Improvements for Benefited Property Owners within such municipality and costs reasonably incurred in performing such duties. The template participation agreement is attached hereto as Appendix B, as may be modified or amended from time to time by Green Bank, in its sole discretion.

“Professional Engineer” shall mean an individual, or company which employs such individual, who is licensed as a professional engineer and in good standing with the relevant licensing authorities in the State of Connecticut.

“Program Guidelines” shall have the meaning ascribed to it in Article I.

“Projected Associated Savings” shall mean non-energy savings which have a close nexus to the Energy Improvement(s) which are part of a Project. Examples include, but are not limited to, federal tax credits, depreciation, and revenues from the sale of environmental attributes. Green Bank, in its sole discretion, may determine which types of savings may be considered to fall under this definition.

“Projected Energy Savings” shall mean the estimated energy savings, calculated in accordance with the Technical Standards, from any Energy Improvement(s) over the EUL of such improvements.

“Projected Financing Cost” shall mean the total projected debt service associated with the Financed Amount for

a Qualifying Project including, but not limited to, all principal, interest, and any fees over the term of the financing. This does not include any potential late fees or penalties.

“Projected Total Cost Savings” shall mean the combined value of the Projected Energy Savings and the Projected Associated Savings for any Qualifying Project.

“Qualified Contractor” shall mean an individual or entity who/which meets one of the following: (1) holds a Certified Energy Manager or Certified Energy Auditor accreditation, (2) is a Professional Engineer with demonstrated relevant energy experience, or (3) a contractor with relevant demonstrated experience.

“Qualifying Capital Provider” or “QCP” shall have the meaning ascribed to it in Article V Section 2.

“Qualifying Commercial Real Property” shall mean any Commercial or Industrial Property, regardless of ownership, that meets the qualifications established for the C-PACE program. In an event of a conflict between this definition and that which is provided in the C-PACE Legislation shall govern.

“Qualifying Project” shall mean an energy improvement project which meets all the requirements set forth in Article III Section 3.

“Qualifying Property” shall mean a Qualifying Commercial Real Property which meets all the requirements set forth in Article III Section 2.

“Refinancing” means, in the context of any existing Financing Agreement, a Benefited Property Owner entering into a new Financing Agreement with any C-PACE capital provider other than the capital provider (or its successors or assigns) who is a party to the applicable existing Financing Agreement for the purpose of repaying or refinancing the existing Financing Agreement and Benefit Assessment, including but not limited to, filing of a new Benefit Assessment associated with the same Qualifying Project.

“Registered Contractor” shall mean a contractor who has registered with Green Bank, via the contractor registration process (<https://www.cpace.com/Contractor/Get-Started/Contractor-Sign-Up>), and remains in good standing with Green Bank.

“Residential Dwelling” shall mean a structure used or occupied, or intended to be used or occupied, in whole or in part, as the home or residence of one or more persons. Residential dwelling shall not include any structure which is:

1. A home or residence which is part of public or private institution, if such residence is incidental to provision of medical, geriatric, educational, counseling, religious, or similar services;
2. A campground, hotel, motel, extended stay facility, vacation residential facility, boardinghouse, fraternal or social organization, or similar lodgings; and
3. Primarily used for business, commercial, charitable, not-for-profit, or agricultural purposes.

“Restructuring” means, in the context of any existing Financing Agreement, a Benefited Property Owner entering into a new Financing Agreement or any modification of the existing Financing Agreement with the C-PACE capital provider (or its successors or assigns) who is a party to the applicable existing

Financing Agreement for the purpose of restructuring, amending, restating, or otherwise modifying the existing Financing Agreement and Benefit Assessment, including but not limited to, releasing the existing Benefit Assessment and entering into a new Financing Agreement and filing of a new Benefit Assessment associated with the same Qualifying Project, subject to all other applicable program requirements.

“**SIR**” shall have the meaning ascribed to it in Article III Section 3(G).

“**Technical Administrator**” shall mean the entity, selected by Green Bank pursuant to an RFP process, which may conduct technical review as well as provide Green Bank with guidance and consultation in the development and implementation of the Technical Standards and Program Guidelines. The Technical Administrator may also work with contractors to help them develop a building’s baseline energy consumption and energy savings estimates for projects.

“**Technical Reviewer**” shall mean an entity which has been approved by and in good standing with Green Bank in accordance with the standard set forth in Appendix J. Technical reviewers may be proposed to Green Bank for approval by Third-Party Capital Providers. For a list of Technical Reviewers which are currently approved and in good standing with Green Bank, please visit www.cpace.com/technicalreviewers.

“**Technical Review Auditor**” shall mean an entity or entities, selected by Green Bank pursuant to an RFP process, which may conduct periodic reviews of the technical review work performed by any Technical Reviewer, the Technical Administrator or the Green Bank to evaluate compliance with the Program Guidelines and Technical Standards.

“**Technical Standards**” shall mean the complete description of energy audit requirements, technical review methodology and standards, and eligible and ineligible measures for C-PACE, attached hereto as Appendix D, as may be amended or modified from time to time by Green Bank in its sole discretion.

“**Third-Party Capital Provider**” means an entity, other than the Green Bank or any of its subsidiaries, that enters into one or more Financing Agreement(s). In an event of a conflict between this definition and that which is ascribed in the C-PACE Legislation, the C-PACE Legislation shall govern.

Appendix A: C-PACE LEGISLATION

[attached separately]

[please visit www.c-pace.com for current version]

Appendix B: PARTICIPATION AGREEMENT

[attached separately]

[please visit www.c-pace.com for current version]

Appendix C: NOTICE AND REQUEST FOR LENDER CONSENT

[attached separately]

[please visit www.c-pace.com for current version]

Appendix D: TECHNICAL STANDARDS

[attached separately]

[please visit www.c-pace.com for current version]

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Appendix E: C-PACE FINANCING FOR SOLAR PV SYSTEMS AND FUEL CELLS

[attached separately]

[please visit www.c-pace.com for current version]

APPENDIX F: THIRD-PARTY CAPITAL PROVIDER TERMS AND CONDITIONS

[attached separately]

[please visit www.c-pace.com for current version]

**APPENDIX G: GREEN BANK C-PACE APPLICATION SUBMISSION & REVIEW
PROCESS**

[attached separately]

[please visit www.c-pace.com for current version]

APPENDIX H: DISCLOSURE OF RISK FORM

[attached separately]

[please visit www.c-pace.com for current version]

APPENDIX I: THIRD-PARTY CAPITAL PROVIDER ADMINISTRATION AGREEMENT

[attached separately]

[please visit www.c-pace.com for current version]

APPENDIX J: TECHNICAL REVIEWER APPROVAL PROCESS

[attached separately]

[please visit www.c-pace.com for current version]

APPENDIX K: FORM OF BENEFIT ASSESSMENT LIEN

[attached separately]

[please visit www.c-pace.com]

Memo

To: Board of Directors of the Connecticut Green Bank

From: Sergio Carrillo, Bryan Garcia, and Selya Price

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

Date: September 23, 2020

Re: Residential Solar Investment Program – Towards 350 MW Public Policy Goal while Fostering the Sustained Orderly Development of the Local Solar Industry

Background

The Connecticut Green Bank (Green Bank) Residential Solar Investment Program (RSIP) was legislatively enabled through Section 106 of Public Act (PA) 11-80¹ and updated by PA 15-194², PA 16-212³ and PA 19-35.⁴

As the administrator of the RSIP, there are three (3) primary public policy goals for the Green Bank, including:

- **Declining Incentive Block Structure** – to administer a declining incentive block structure. Working with DEEP, the RSIP has declined incentives by nearly ninety percent since its inception in 2012 – reduced to a Step 15 incentive of \$0.24/watt or a ZREC equivalent price of \$18/MWh.
- **350 MW Installed Capacity Target** – to 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). As of September 1, 2020, approximately 344 MW or over 43,000 projects have been approved through the RSIP, with 304 MW or over 38,000 projects having been deployed.⁵
- **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 supporting residential end-use customers in Connecticut.

The Staff of the Green Bank are requesting approval from the Board of Directors of:

¹ PA 11-80: <https://www.cga.ct.gov/2011/ACT/Pa/pdf/2011PA-00080-R00SB-01243-PA.pdf>, “An Act Concerning the Establishment of the Department of Energy and Environmental Protection and Planning for Connecticut’s Energy Future.”

² PA 15-194: <https://www.cga.ct.gov/2015/act/pa/pdf/2015PA-00194-R00HB-06838-PA.pdf>, “An Act Concerning the Encouragement of Local Economic Development and Access to Residential Renewable Energy.”

³ PA 16-212: <https://www.cga.ct.gov/2016/act/pa/pdf/2016PA-00212-R00SB-00366-PA.pdf>, “An Act Concerning Administration of the Connecticut Green Bank, the Priority of the Benefit Assessments Lien under the Green Bank’s Commercial Sustainable Energy Program and the Green Bank’s Solar Home Renewable Energy Credit Program.”

⁴ PA 19-35: <https://www.cga.ct.gov/2019/ACT/pa/pdf/2019PA-00035-R00HB-05002-PA.pdf>, “An Act Concerning a Green Economy and Environmental Protection.”

⁵ Power Clerk data as of September 1, 2020 within Power BI

1. **10 MW of RSIP Approvals beyond 350 MW** – because there are fifteen (15) to twenty (20) percent cancellations for approved projects, and the public policy target focuses on deployed projects, as the Staff noted at the July 24, 2020 Board of Directors meeting, it would seek to approve no more than 10 MW more projects than the 350 MW deployment target. This means that there could be between 0 to 10 MW of approved projects beyond the 350 MW target that are deployed **without a cost recovery mechanism through the RSIP** policy vis a vis the SHREC and 15-year MPA with the utilities – an exposure of \$2.5 million in incentives.⁶

This recommendation is so the Green Bank achieves the full 350 MW public policy goal for the RSIP.

2. **Stabilizing Local Solar Industry from COVID-19 Impacts without the RSIP** – as noted in the April 24, 2020 Board of Directors meeting, the Green Bank staff have sought a legislative increase of the RSIP in order to stabilize the industry from the devastating impacts of COVID-19. Given the recent utility rate increases and response to Tropical Storm Isaias, the near-term priorities of the Energy & Technology Committee of the Connecticut General Assembly have shifted from extensions of the RSIP and VNM to an emergency utility response bill (i.e., Proposed LCO No. 3920). The Green Bank must demonstrate how it can support the local solar industry stabilize from the impacts of COVID-19 without a near-term legislative fix⁷ by supporting residential solar PV incentives up to 32 MW of additional installed capacity (for an FY 2021 total of 50.0 MW – 18.0 MW with a cost recovery mechanism through the current RSIP policy and 32.0 MW with a new cost recovery mechanism) – bringing the exposure up to \$8.0 million in incentives.

This recommendation is so the Green Bank achieves the economic development goal for the RSIP by helping the local solar industry stabilize itself from the impacts of COVID-19.

For an overview of the staff proposal to achieve the public policy goals of the RSIP, see Table 1.

Table 1. Achievement of RSIP Policy Goals at 350 MW of Deployment

Public Policy Goal	Achievement
Declining Incentive Block Structure	Yes
350 MW Installed Capacity Target	Yes
Economic Development	No

To ensure the stability of the local solar industry from the impacts of COVID-19, the Green Bank is going to need to go beyond the RSIP policy, and pursue other cost recovery strategies.

COVID-19 Impact on Local Solar Industry

On April 6, 2020, a Bloomberg Green article reported that “the coronavirus pandemic is hobbling residential solar installations just as the sector approaches summer, a peak season.”

⁶ 5,000 kW equals 625 projects (i.e., assuming 8-kW average system size per project) times \$2,000 incentive per project.

⁷ The Green Bank will continue to pursue extensions of the RSIP in a special session or in the 2021 legislative session for cost recovery through the SHREC and 15-year MPA’s with the utilities.

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

Not only has COVID-19 hobbled the residential solar PV industry in Connecticut, but the public policy tool of the RSIP is about to reach its capacity (i.e., 350 MW), disabling the program from being able to help the local solar industry stabilize itself from the impacts of the public health crisis.

Over the course of the past six (6) months, the Green Bank has monitored and assessed the impacts COVID-19 has had on the local solar industry, including:

- **Unemployment Claims** – through August 2020, clean energy unemployment claims (or job losses) for solar PV in Connecticut total 350 job losses (i.e., 12.3% decline compared to 2,839 solar jobs at the end of 2019) – see Attachment A.
- **Industry Surveys** – in April and July, the Green Bank, working with DECD, DEEP, Governor’s Office, Advanced CT, utilities, and others, surveyed the clean energy industry to assess the impacts COVID-19 has had on their businesses – see Appendix I. The findings of the survey indicate significant and ongoing impacts by COVID-19.
- **Program Data** – the RSIP staff collect a lot of data that informs market conditions, including information submitted by industry to the Green Bank – see Appendix II. This information shows the instability with respect to customer acquisition (i.e., incentive application submissions) and construction work (i.e., project completions) when looking at month-to-month market comparisons since 2017.
- **Polling Data** – on September 10th, the Green Bank provided an RSIP update to residential solar PV contractors. As part of that update, the Green Bank polled the 85 attendees (with a response rate of 72.5%), including 79% (or 26 out of 33) contractors and system owners actively participating in RSIP with at least 5 approved projects in FY20 – see Appendix III. The findings of the poll indicated:
 - Continuation of the RSIP was within the “Top 3” most important factors for the residential solar PV market – following net metering and the federal ITC; and
 - Uncertainty as to the continuation of the RSIP was sandwiched in between the uncertainty of the federal ITC and economic uncertainty in terms of the barriers leading to greater customer adoption of residential solar PV thereby reinforcing the Green Bank perspective that the RSIP can be a stabilizing factor for the industry as it manages through uncertain times.

If the Green Bank were to stop its support of the residential solar PV industry once it reaches the 350 MW target under the RSIP, then it is highly likely that the local solar industry will further destabilize as a result of COVID-19. The economic development goal of the public policy to “foster the sustained orderly development of a local solar industry” would not have been met and the successful transition of the market from another federal ITC reduction and from net metering to a tariff on January 1, 2022 would be increasingly more difficult to achieve.

The Green Bank needs to rise to the challenge and demonstrate how the green bank model works to maintain the stability of the industry so that when the public health crisis is under control, the industry is ready to succeed.

Cost Recovery Strategy through REC Aggregation and Sales through Class I RPS Policy

For the Green Bank’s Incentive Programs, cost recovery is how it seeks to manage its financial resources to meet the organizational sustainability objective. The cost recovery strategy for the Green Bank, in this case, relies on executing the following three (3) components:

1. **Residential Aggregation of Class I RECs** – continuation of PURA support for aggregation of solar PV systems for residential end-use customers, except this aggregation would be outside of the current RSIP policy;
2. **Declining Incentives in Subsequent Step** – to ensure that the incentive to residential end-use customers is below Step 15 incentive levels in the RSIP, the EPBB and LMI-PBI incentives will have to be modestly reduced; and
3. **Average Class I REC Price Target of \$20** – ability for the Green Bank to sell RECs generated from residential solar PV systems in the spot market and/or future contracts at an average REC price of \$20 over 15 years that cost recovers the incentives over time.

By successfully executing on these components over time, the Green Bank will be able to cost recover its investments to ensure the stability of the local solar industry through COVID-19. Details on each of these components is discussed below.

Residential Aggregation of Class I RECs

Prior to the cost recovery mechanism⁸ for the Green Bank for administering an increase in the RSIP from 30 MW to 350 MW, through Docket Nos. 16-06-06⁹ and 16-06-07,¹⁰ PURA approved of the aggregation of 44.45 MW of residential end-use customers participating in the RSIP – projects approved prior to January 1, 2015 that weren’t subject to the cost recovery mechanism of the SHRECs and the MPAs with the utilities.

⁸ Residential solar PV systems producing Solar Home Renewable Energy Credits (SHREC), owned and set at a fixed price by the Green Bank, and then sold to the utilities through a 15-Year Master Purchase Agreement (MPA) to recover the RSIP incentives, administrative and financing costs.

⁹ Application of the Connecticut Green Bank for Qualification of Residential Solar Investment Program (RSIP) Facilities as Class I Renewable Energy Sources – Original 30 MW

¹⁰ Application of the Connecticut Green Bank for Qualification of Residential Solar Investment Program (RSIP) Facilities as Class I Renewable Energy Sources – 14.45 MW of Additional 30 MW

The Green Bank would request through written comments,¹¹ new or existing docket, or other regulatory mechanism, that PURA allow the Green Bank to continue to serve in an aggregation role for the purposes of providing access to thousands-and-thousands of residential end-use customers to support the implementation of RPS, easing the administrative burden on PURA, and to enable the Green Bank to “foster the sustained orderly development of the local solar industry” as the industry manages through the economy-wide impacts of COVID-19. A positive decision by PURA would allow the Green Bank to continue to provide residential end-use customers with an incentive in exchange for the ownership of the REC, that the Green Bank can then attempt to cost recover through the sale into the RPS markets.

The Green Bank expects that PURA would be supportive of such a request given its public support of a vibrant and stable local solar industry in the state, its desire to see the industry successfully transition from net metering to a tariff, and the potential for that industry to reduce the Class I RPS compliance costs on Connecticut electric ratepayers.

Declining Incentives in Subsequent Step

The Green Bank uses a ZREC equivalency metric to compare the upfront (i.e., Expected Performance Based Buydowns – EPBB) and performance-based (i.e., Performance Based Incentives – PBI, and Low-to-Moderate Income Performance Based Incentives – LMI-PBI) incentives it provides through the RSIP as a means to understand the average REC price needed over a 15-year period on a nominal basis to cost recover the incentives paid out in the program – see Table 2.

Table 2. Overview of Step 15 Incentives Currently Being Provided Under the RSIP (as of September 1, 2020)

Incentive Type	# of Projects	Incentives per Project	Installed Capacity (kW)	ZREC Equivalent Price (\$/MWh)
EPBB	890	\$3,256	8,519	\$25.81
PBI	3,655	\$1,559	29,701	\$14.53
LMI-PBI	243	\$3,011	1,441	\$38.59
Total	4,788	\$1,948	39,661	\$17.91

In other words, an average REC price of about \$18, over 15 years, would cost recover the incentives provided by the Green Bank for residential solar PV projects it supported in Step 15 on a nominal basis. Following the conclusion of Step 15 of the RSIP, any subsequent incentives from the Green Bank through this market intervention would have to further reduce the EPBB and LMI-PBI incentives so as to ensure a ZREC equivalent price less than \$20, and closer to \$15.

For the Green Bank to reduce its risk of cost recovery for supporting the stabilization of the local solar industry from COVID-19, it should consider moderately lowering the EPBB and LMI-PBI incentive, while leaving the PBI incentives alone.

Average Class I REC Price Target of \$20

The compliance mechanisms for the Class I Renewable Portfolio Standards (RPS) are RECs or Alternative Compliance Payments (ACP). RECs are priced based on the demand to satisfy Class I RPS in New England states. Connecticut’s Class I RPS target is 40% by 2030 – see

¹¹ Docket No. 17-12-03RE09 – PURA Investigation into Distribution System Planning of the Electric Distribution Companies – Clean and Renewable Energy Resource Analysis and Program Reviews

Figure 1. For example, if Eversource and United Illuminating customers consumed 26,000,000 MWh in 2030, then 10,400,00 Class I RECs would be required by competitive suppliers and standard offer providers to satisfy the Class I RPS in 2030.

Alongside demand for RECs for Class I RPS compliance, the supply of RECs also determines the market price. The more Class I renewable energy resources there are in the New England region, the lower the Class I REC price – and vice versa – see Figure 2.¹² On May 21, 2020, Connecticut Class I REC prices for 2019 and 2020 respectively were trading at \$49.92 and \$41.33, respectively,¹³ signaling a shortage of RECs in Connecticut.

Figure 1. Class I RPS in New England - Demand for Class RECs

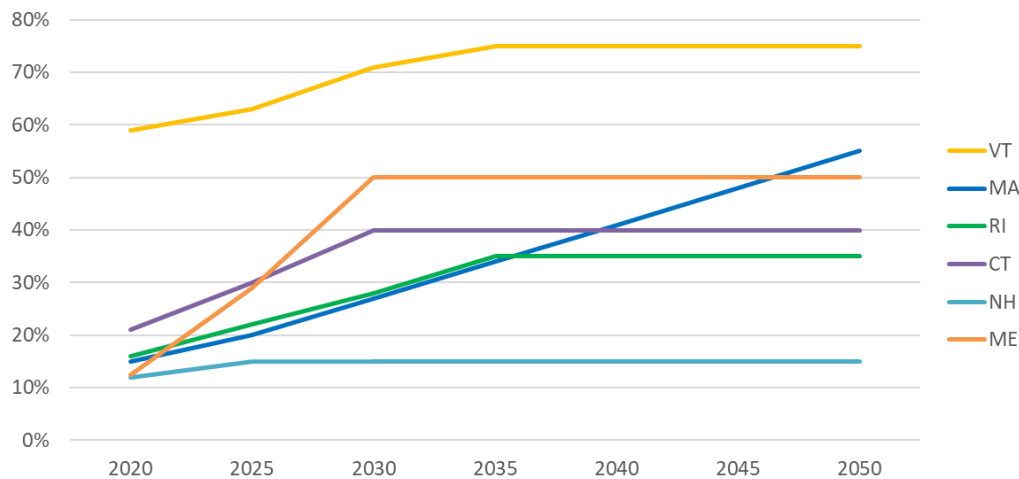
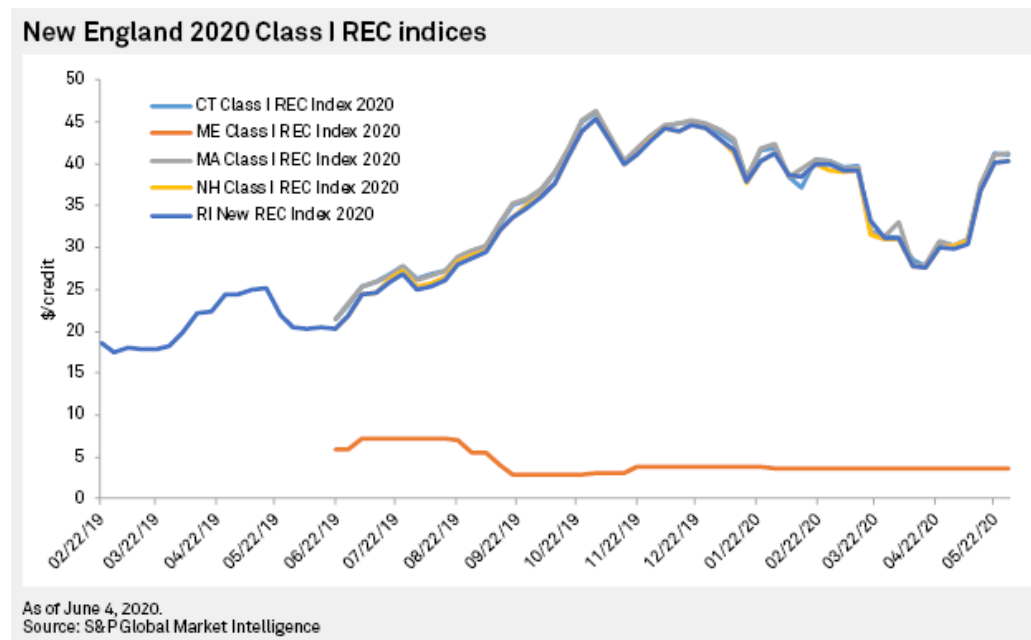


Figure 2. Class I REC Prices in New England States (2019-2020)



¹² “New England Renewable Policies to Drive 12,500 MW of Renewable Capacity by 2030” in S&P Global Market Intelligence (June 15, 2020)

¹³ Northeast Class I Renewable Energy Credit Prices Spike More than \$13 by S&P Global Market Intelligence (May 21, 2020)

When there is less supply of RECs in the market, then the REC price trends towards the ACP for that market. The ACP varies in value in Connecticut versus Massachusetts – see Table 3.

Table 3. Alternative Compliance Payments in Connecticut vs. Massachusetts

State	2019 ACP	2021 ACP
Connecticut	\$55.00	\$40.00
Massachusetts	\$70.44	Inflation Adjusted

As the Connecticut ACP for its Class I RPS will reduce from \$55.00 to \$40.00 in 2021, and Massachusetts ACP for its Class I RPS will increase from \$70.44 plus inflation in 2021, sellers of RECs will seek the highest price in the market in which to sell their RECs.

For the residential solar PV projects aggregated by the Green Bank that were not cost recoverable through the SHREC sales to the utilities through an MPA (i.e., projects approved under the RSIP prior to January 1, 2015 or Non-SHREC RECs), over the past five years, the Green Bank has sold the RECs aggregated from these systems at an average price of \$21.65 – see Table 4.

Table 4. Green Bank Sales of Non-SHREC RECs in the Open Market for the Class I RPS

Fiscal Year	RECs Sold (MWh)	REC Revenues	Average REC Price (\$/MWh)
2017	45,000	\$2,227,500	\$49.50
2018	48,471	\$558,399	\$11.52
2019	30,000	\$420,000	\$14.00
2020	40,000	\$631,250	\$15.78
2021 (est)	41,000	\$589,500	\$14.38
Total	204,471	\$4,426,649	\$21.65

Given the uncertainty in REC prices in the market, the following analysis shows the risk or exposure to the Green Bank in terms of recovering its costs to support the stabilization of the local solar industry from COVID-19 by keeping Step 15 incentive levels for an additional 32 MW beyond the 350 MW target – see Table 5.

Table 5. Net Present Value of Green Bank COVID-19 Intervention in Terms of Discount Rate, 15-Year Average REC Price, and Step 15 Incentive Levels¹⁴

Discount Rate	\$5 REC Price Average	\$10 REC Price Average	\$15 REC Price Average	\$20 REC Price Average	\$25 REC Price Average	\$30 REC Price Average
0.0%	(\$6,177,660)	(\$3,538,157)	(\$898,655)	\$1,740,848	\$4,380,351	\$7,019,853
2.5%	(\$6,040,761)	(\$3,910,287)	(\$1,779,813)	\$350,661	\$2,481,135	\$4,611,610
5.0%	(\$5,859,416)	(\$4,112,038)	(\$2,364,661)	(\$617,283)	\$1,130,095	\$2,877,473

¹⁴ Assumes 25% EPBB, 70% PBI, and 5% LMI-PBI projects at Step 15 incentive levels at 32,000 kW; 13% capacity factor; 0.5% degradation rate

In order to further reduce the risk of cost recovery, the EPPB and LMI-PBI incentives could be reduced by twenty percent, increasing the likelihood of the Green Bank recovering its incentive costs – see Table 6.

Table 6. Net Present Value of Green Bank COVID-19 Intervention in Terms of Discount Rate, 15-Year Average REC Price, and Reduction in Step 15 Incentive Levels by 20% for EPBB and LMI-PBI¹⁵

Discount Rate	\$5 REC Price Average	\$10 REC Price Average	\$15 REC Price Average	\$20 REC Price Average	\$25 REC Price Average	\$30 REC Price Average
0.0%	(\$5,321,153)	(\$2,681,650)	(\$42,147)	\$2,597,355	\$5,236,858	\$7,876,361
2.5%	(\$5,219,077)	(\$3,088,603)	(\$958,129)	\$1,172,345	\$3,302,820	\$5,433,294
5.0%	(\$5,069,256)	(\$3,321,878)	(\$1,574,501)	\$172,877	\$1,920,255	\$3,667,633

In the event that third-party owners “go on their own” in the Class I RPS markets because they believe they can monetize RECs at a greater value than the Green Bank’s incentive (i.e., which is currently equivalent to \$15 REC over 15-years in Step 15), then assuming less PBI participation,¹⁶ the following is a breakdown of the risks to cost recovery– see Table 7.

Table 7. Net Present Value of Green Bank COVID-19 Intervention in Terms of Discount Rate, 15-Year Average REC Price, Reduction in Step 15 Incentive Levels by 20% for EPBB and LMI-PBI, and Reduced PBI Participants

Discount Rate	\$5 REC Price Average	\$10 REC Price Average	\$15 REC Price Average	\$20 REC Price Average	\$25 REC Price Average	\$30 REC Price Average
0.0%	(\$6,803,769)	(\$4,164,267)	(\$1,524,764)	\$1,114,739	\$3,754,241	\$6,393,744
2.5%	(\$6,764,608)	(\$4,634,133)	(\$2,503,659)	(\$373,185)	\$1,757,289	\$3,887,763
5.0%	(\$6,663,041)	(\$4,915,663)	(\$3,168,285)	(\$1,420,907)	\$326,471	\$2,073,848

The Green Bank will seek to monetize RECs from the residential solar PV systems supported by an incentive outside the current RSIP policy through one or more of the following means:

1. **Extension of the RSIP Policy** – during a future special session, or the 2021 legislative session, the Green Bank will request an RSIP extension of 50 MW;
2. **Utility Long-Term Procurement** – through CGS 16-245a(f), the EDCs may procure Class I RECs for up to 15 years. The Green Bank will provide the EDCs with a “right of first refusal” to purchase RECs aggregated by the Green Bank from residential end-use customers for Class I RPS compliance at a specified price over 15-years. For example, a price of \$30 would be \$10 below or 25% less than the ACP for the Class I RPS; or
3. **Open Market Contracts** – if the EDCs refuse the right to purchase RECs from the Green Bank, then the Green Bank would seek to sell the Class I RECs into the open markets where it can get the highest price (i.e., Connecticut, Massachusetts) – through the spot market or future contracts. The risk will be on the Green Bank for cost recovery through various market mechanisms.

¹⁵ Assumes 25% EPBB, 70% PBI, and 5% LMI-PBI projects at Step 15 incentive levels; 13% capacity factor; 0.5% degradation rate

¹⁶ 50% EPBB (i.e., 16,000 kW – 2000 projects), 40% PBI (i.e., 12,800 kW – 1280 projects), and 10% LMI-PBI (i.e., 3,200 kW – 400 projects)

Currently, the Class I RECs are trading in the 2021 and 2022 periods for \$36.00 for Connecticut and \$41.00 for Massachusetts Class I RPS markets.¹⁷

For the Green Bank to be successful with its cost recovery for supporting the stabilization of the local solar industry from COVID-19 by continuing to provide REC-based incentives to residential end-use customers, it would have to receive an average REC price within the Class I Renewable Portfolio Standard market of \$20 over a 15-year period.

Resolution

WHEREAS, the Connecticut Green Bank (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, on April 24, 2020, the Board of Directors of the Green Bank supported the Staff recommendation to propose a legislative increase in the RSIP to the Governor's Office and the leaders of the Energy & Technology Committee in order to revitalize, recover and stabilize the local solar industry from the impact of COVID-19 prior to the market transition from net metering to a tariff, which the Staff has proposed, but as of the date of this memo, no legislation extending the RSIP has been brought forth; and

WHEREAS, the RSIP is approaching the three-hundred and fifty megawatt public policy target during a time when COVID-19 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 directs the Staff of the Green Bank to seek out support from Public Utilities Regulatory Authority (PURA) to allow the Green Bank to continue to aggregate residential end-use customers installing solar PV systems beyond the current RSIP goal (Residential Aggregation);

RESOLVED, that given the estimate of cancellations based on an analysis of recent RSIP application approval activity, the Board of Directors supports the Staff recommendation to approve up to an additional 10 MW of RSIP applications beyond the RSIP policy target of 350 MW for a total of 360 MW, in order to achieve the RSIP policy target of 350 MW – any projects approved and completed beyond the 350 MW, would have to seek cost recovery from a source other than the current RSIP policy;

RESOLVED, that the Board of Directors acknowledges the significant adverse impacts COVID-19 has had on the stability of the local solar industry, and contingent on PURA's approval of the Residential Aggregation, the Board of Directors approves up to an additional 32 MW of incentives beyond the 350 MW RSIP goal from the Green Bank for residential end-use customers installing solar PV (Incentive Extension);

¹⁷ BGC REC Market Daily (September 11, 2020)

RESOLVED, that should the Board of Directors approve of the Incentive Extension, that the Staff of the Green Bank pursue any and all strategies to cost recover the Incentive Extension through a future extension to the RSIP policy, sale of RECs to the utilities through long-term procurement contracts, or other spot market or future contract sales into the Class I RPS markets in New England in a manner consistent with this memorandum; and

RESOLVED, that the Board of Directors requests that the Staff return with a recommendation at a future meeting for review and approval of the incentive level for RSIP beyond 350 MW (e.g., reducing the residential solar PV incentives beyond the current Step 15 levels of the RSIP).

Appendix I

Connecticut Clean Energy Industry Survey in Response to COVID-19

Survey #1 (April 2020) – COVID-19 Impacts on Residential Solar PV Industry

Overview and Purpose Connecticut Clean Energy Industry Survey

This survey 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.



7

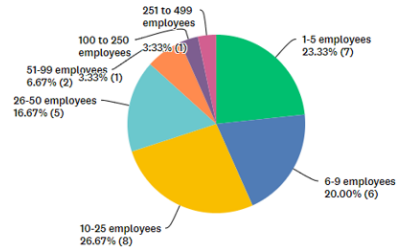


Empowering you to make
smart energy choices

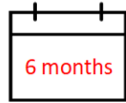
Sector Specific Findings and Recommendations

Residential Solar Investment Program Contractors

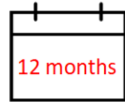
Residential Solar Contractors Survey Summary



Detrimental Impact



64%



24%

Recovery Timeline



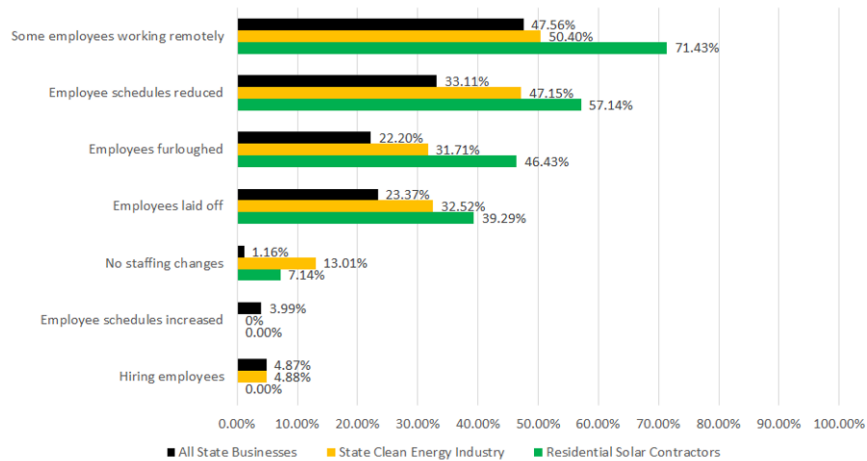
72%

Of work can be completed outside



Worse for RSIP than Industry and Small Business COVID-19 Impact on Employees

How has your business been impacted by COVID-19 in terms of its employees? (check all that apply)



Stress from the Frontlines

COVID-19 Impacts on RSIP Contractor Employees

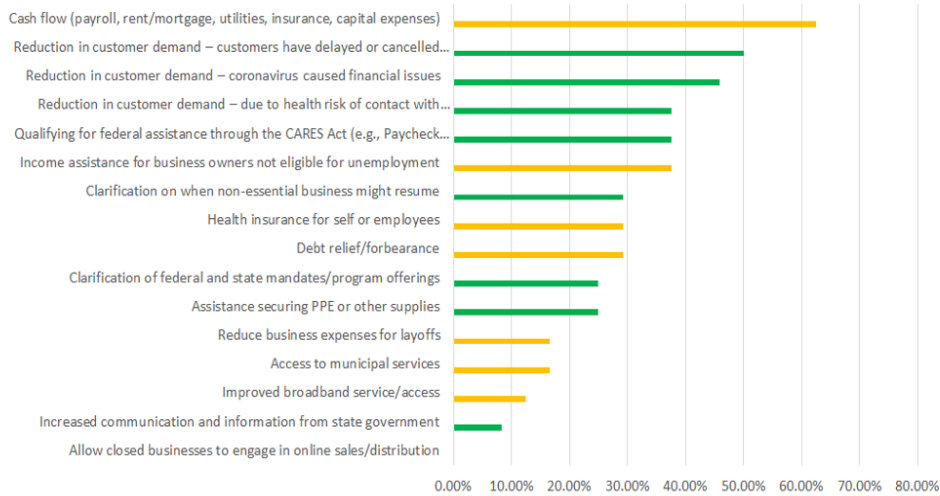
- We laid off all field staff. We have no income but we are carrying a huge overhead cost.
- Stopped 100% of in-person sales -> moved to virtual sales. Reduction in sales volume -> fewer installation jobs -> furloughs/layoffs.
- Adhering to social distancing and best (safe) practices slows things down, requires more careful interacting with clients, schedule revisions, etc.



Most Pressing Needs for RSIP from Administrators

(1) Demand Creation, (2) Assistance, and (3) Clarify Resumption

What are your business's most pressing needs that state government could help with? (check all that apply)





Empowering you to make smart energy choices

Sector Specific Findings and Recommendations

Residential Solar Contractors

Residential Solar Contractors

Survey Summary



Detrimental Impact in survey #1



64%



24%

Recovery Timeline



Detrimental Impact in survey #2

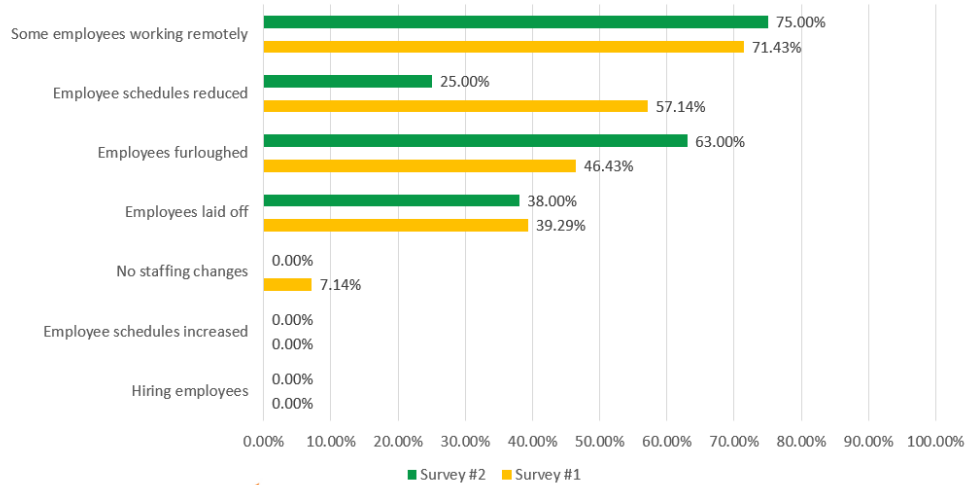


12% will never recover
37% immediately
50% 3 months



How was your business impacted by COVID-19 in terms of its employees? (check all that apply)

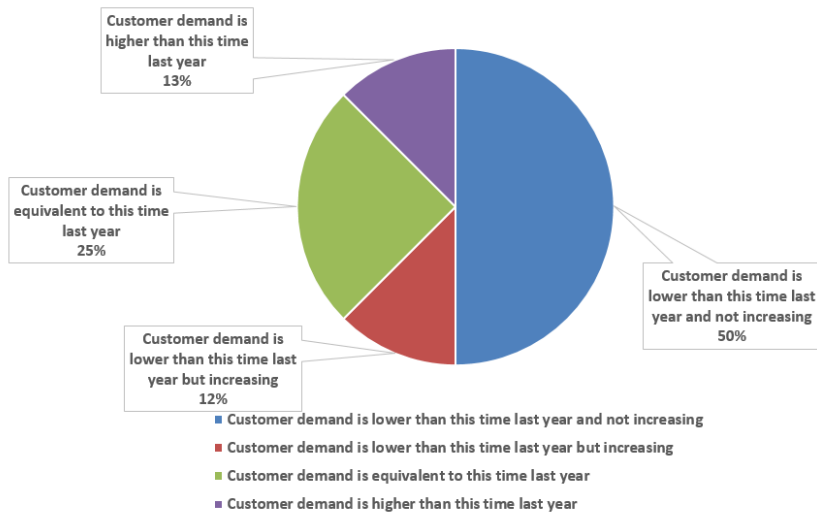
How has your business been impacted by COVID-19 in terms of its employees? (check all that apply)



30

Customer demand is a problem that is not improving

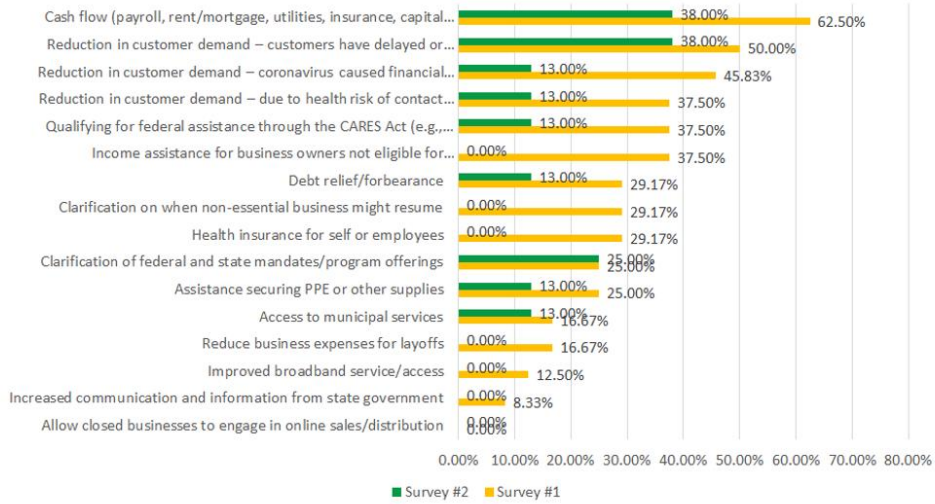
Since June 1, 2020, how would you rate customer demand?



33

Creating customer demand remains important

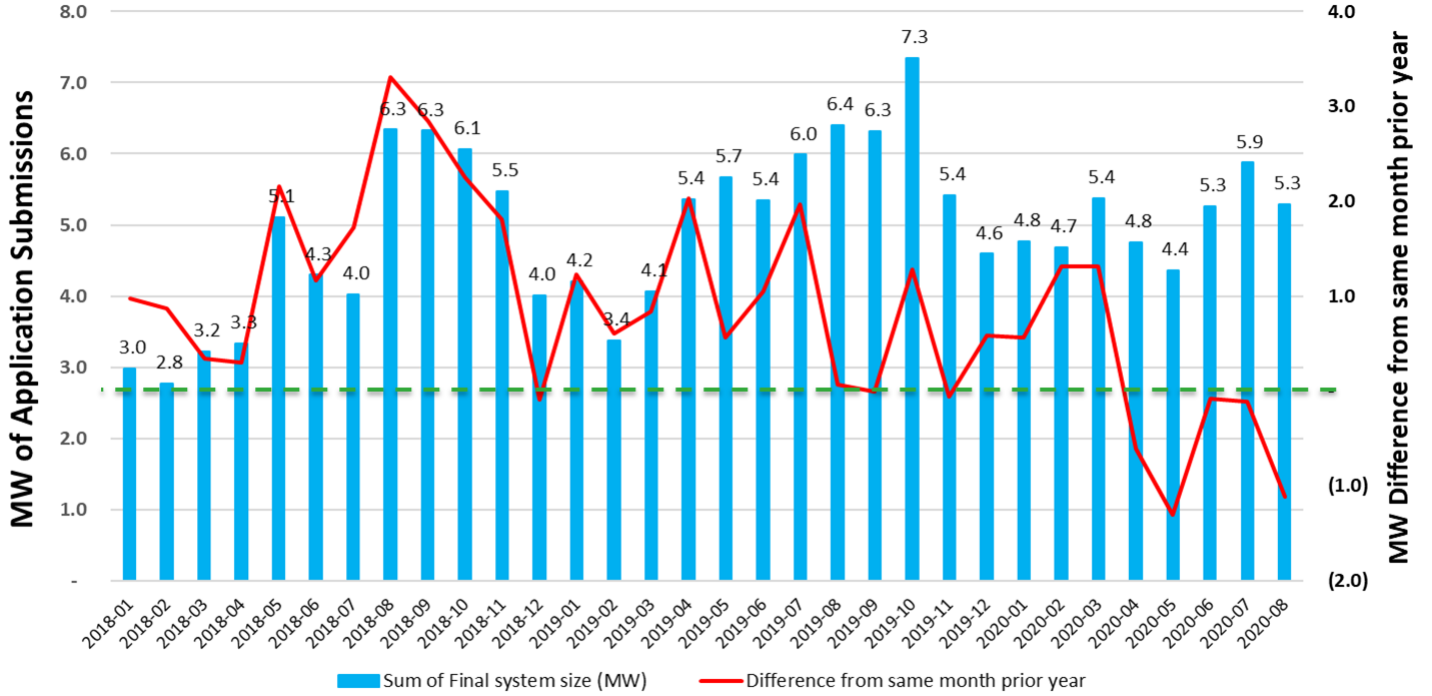
What are your most pressing needs that state government could help with? (check all that apply)



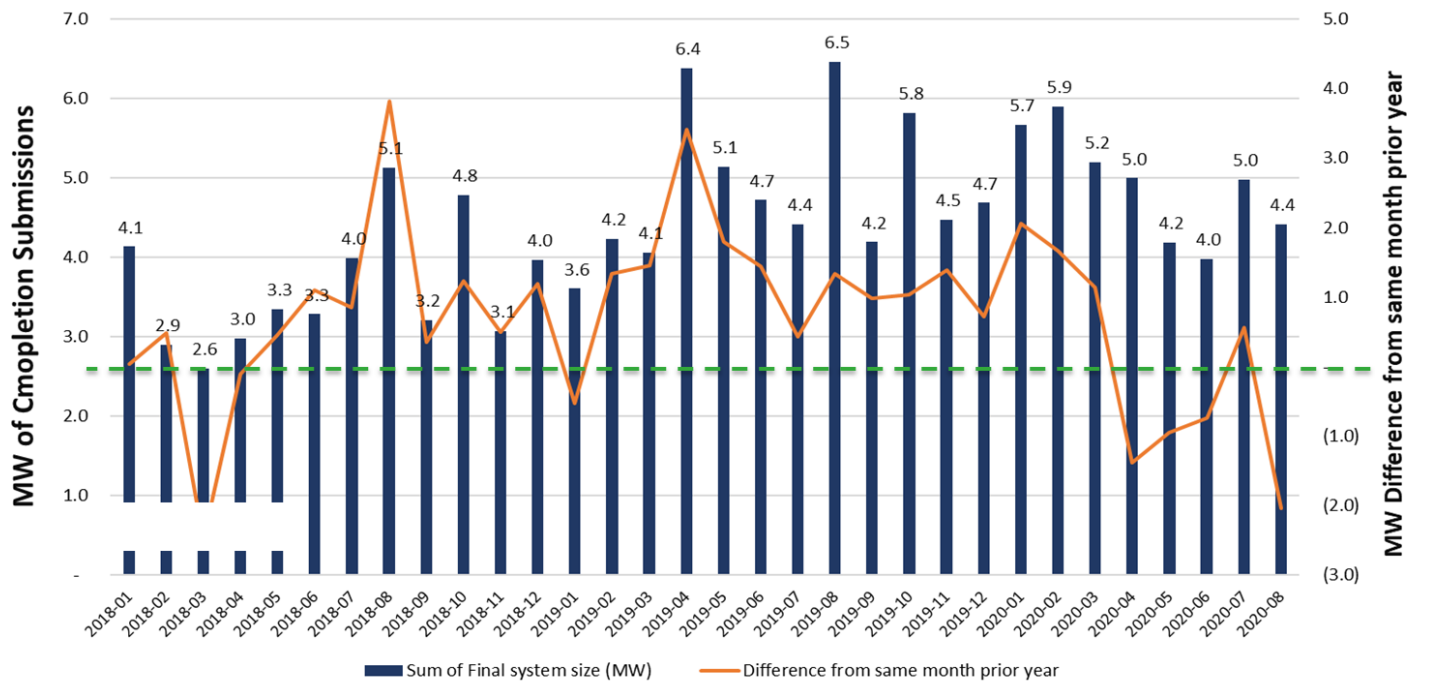
Appendix II

RSIP Data Collection for Incentive Application Submissions and Project Completions

Application Submissions by Contractors including Month-to-Month Comparisons (2017-Current)

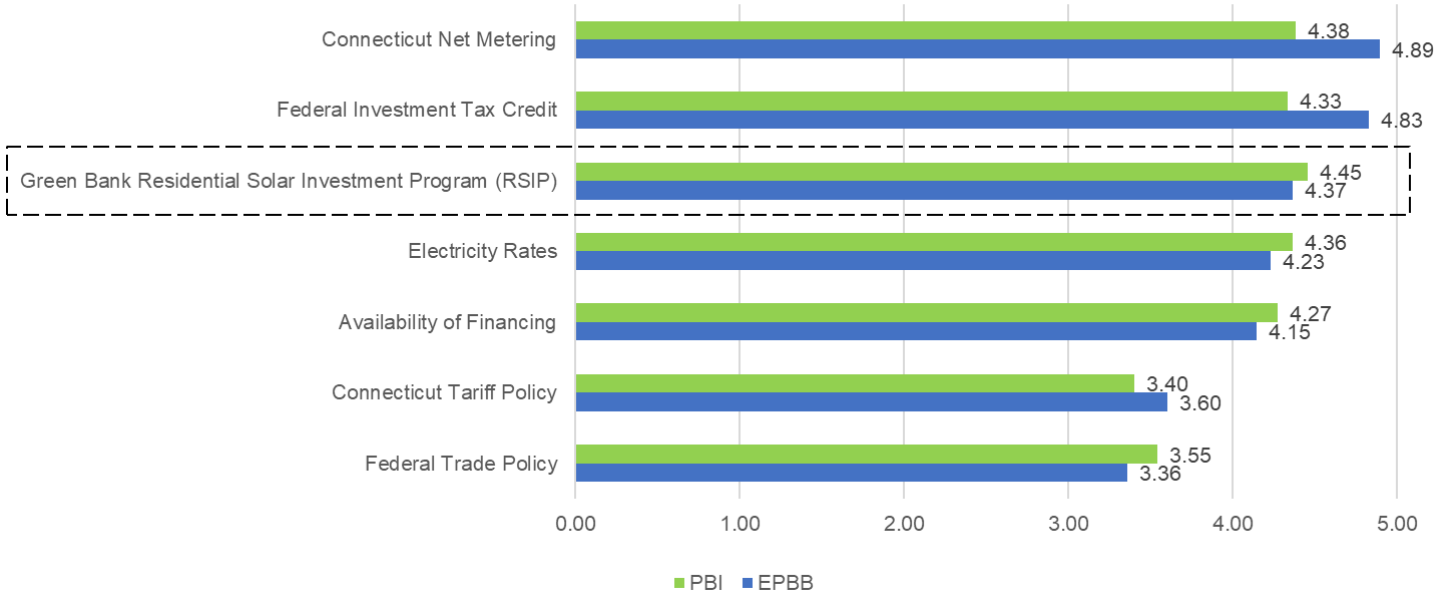


Project Completions by Contractors including Month-to-Month Comparisons (2017-Current)



Appendix III
Poll of RSIP Contractors on September 10, 2020

On a scale of 1 to 5 (with 1 being the least and 5 being the most important), how important are the following to the residential solar PV industry in Connecticut?



How would you rate the following barriers to greater customer adoption of residential solar PV in Connecticut (please rate from 1 to 5, with 5 presenting the greatest barrier)





MEMORANDUM

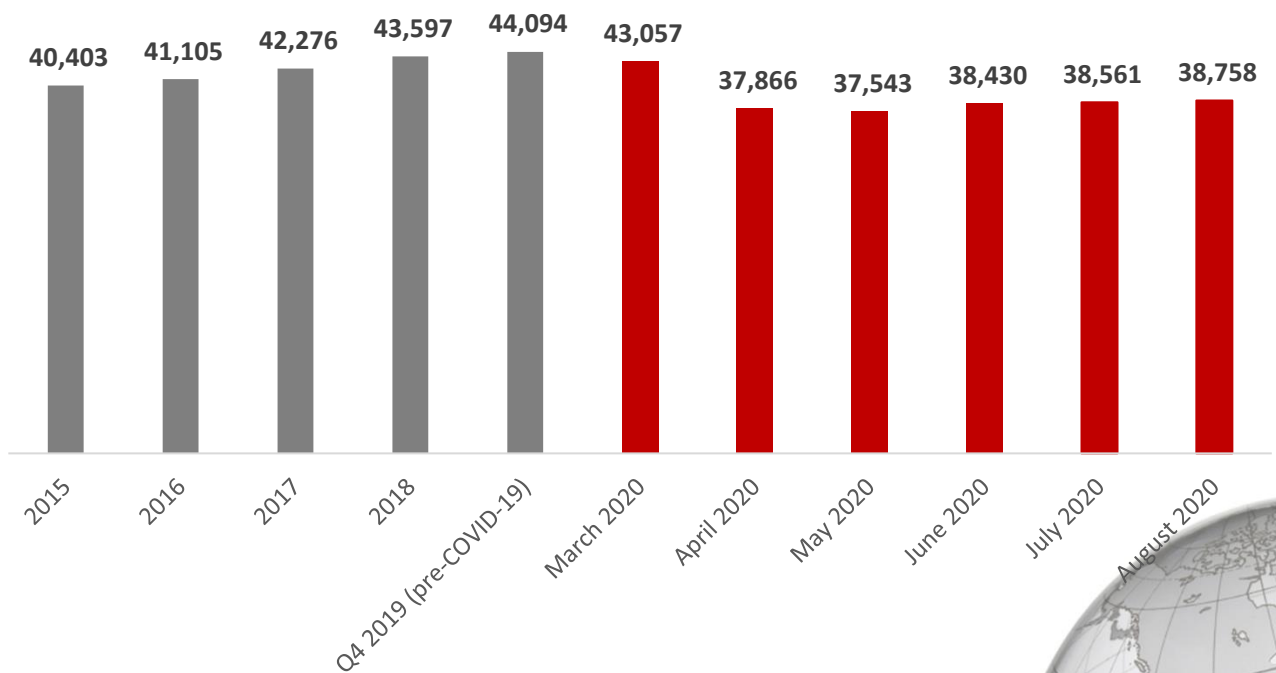
To: Bryan Garcia, Connecticut Green Bank
From: Sarah Lehmann, BW Research
Date: 14 September 2020
Re: COVID-19 Clean Energy Job Losses in Connecticut (through August)

OVERALL CLEAN ENERGY JOB LOSSES

Overall, clean energy employment in Connecticut has declined by 12.1 percent compared to the last quarter of 2019. There was a slight increase in jobs over the last three months (+1,214 workers), though clean energy employment across the state still remains below the overall total at the end of 2015.

To date, BW Research estimates that there are roughly 38,800 clean energy workers in Connecticut, about 1,600 fewer than the 2015 baseline and roughly 5,300 fewer than the last quarter of 2019.

Figure 1. Clean Energy Employment in Connecticut, Q4 2015 – August 2020





MEMORANDUM

Table 1. Monthly and Cumulative Clean Energy Jobs Losses, March – August

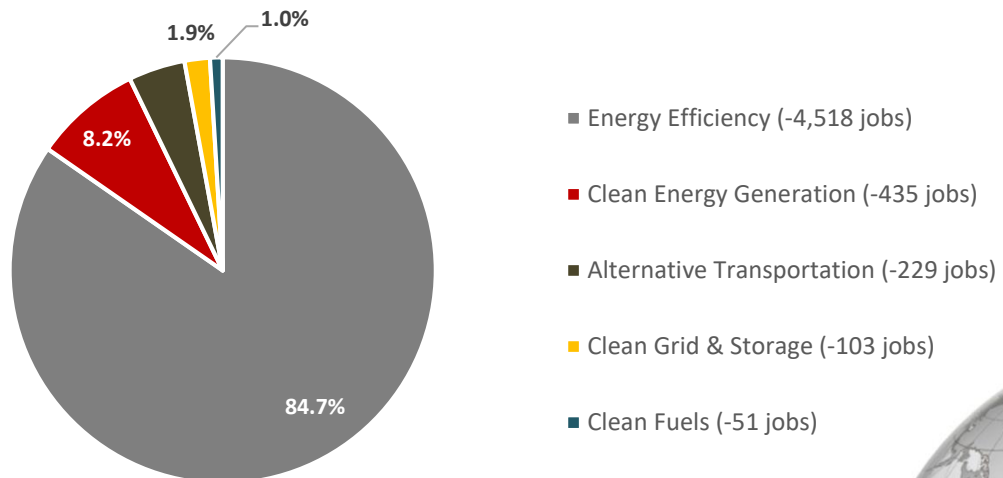
	Total Jobs Lost by Month	Cumulative Job Losses
March	(1,037)	(1,037)
April	(5,191)	(6,228)
May	(323)	(6,551)
June	887	(5,664)
July	131	(5,533)
August	197	(5,337)

JOB LOSSES BY TECHNOLOGY SECTOR

The energy efficiency sector accounted for 85 percent of jobs lost from March through August. Clean energy generation firms accounted for about one in ten job losses (8.2 percent), followed by alternative transportation (4.3 percent of cumulative job losses), clean grid and storage (1.9 percent), and clean fuels (1.0 percent).

Energy efficiency businesses rebounded slightly from June through August, adding back roughly 980 workers. BW Research estimates that the solar sub-sector has lost approximately 350 jobs as of August—a 12.3 percent decline compared to the 2,839 solar jobs at the end of 2019.

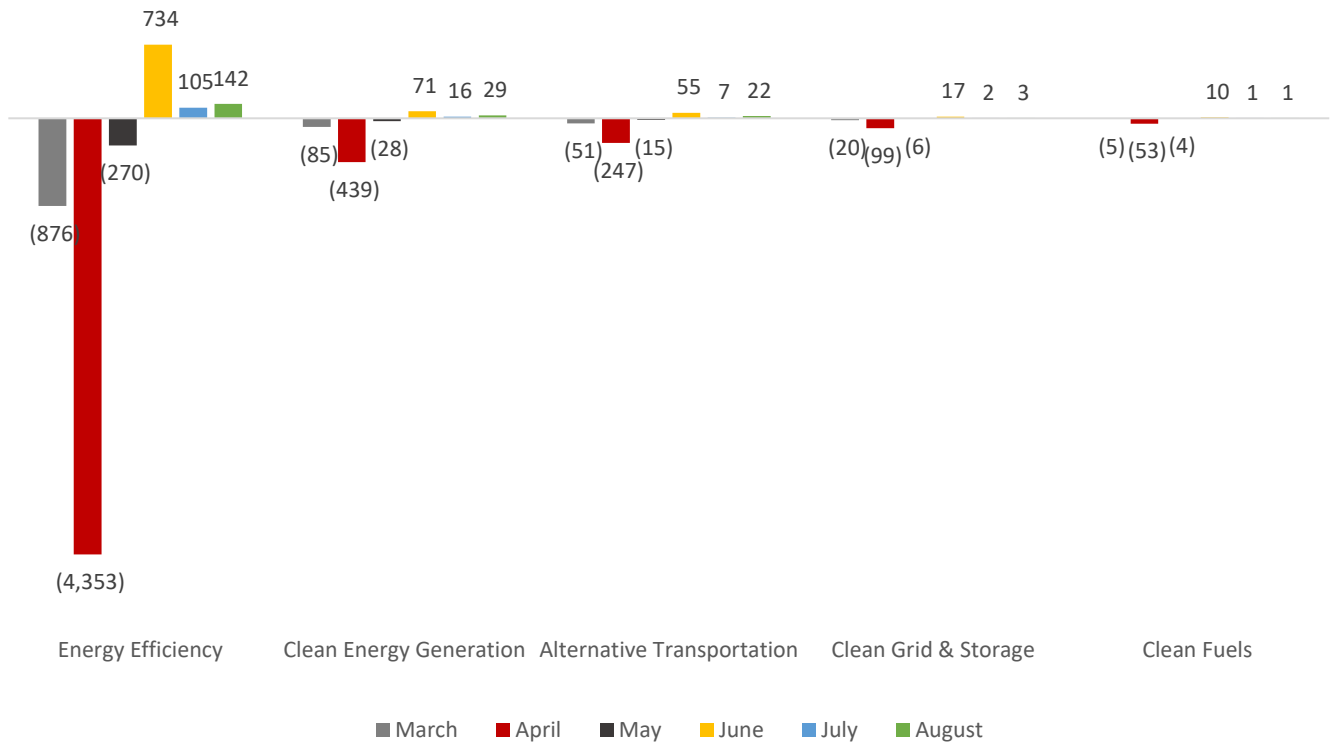
Figure 2. Cumulative Clean Energy Job Losses by Technology Sector (through August)





MEMORANDUM

Figure 3. Clean Energy Job Losses by Technology Sector, March – August



While the energy efficiency sector has seen the greatest absolute loss in number of jobs, clean grid and storage firms saw the highest proportion of clean energy job losses compared to the 2019 employment baseline—a 13.5 percent decline.

Table 2. Clean Energy Job Losses, % of Total Jobs by Technology Sector

Technology Sector	2019 Jobs	Cumulative Losses through August	% of Jobs Lost
Energy Efficiency	36,000	(4,518)	-12.6%
Clean Energy Generation	4,830	(435)	-9.0%
Alternative Transportation	1,865	(229)	-12.3%
Clean Grid & Storage	761	(103)	-13.5%
Clean Fuels	638	(51)	-8.0%





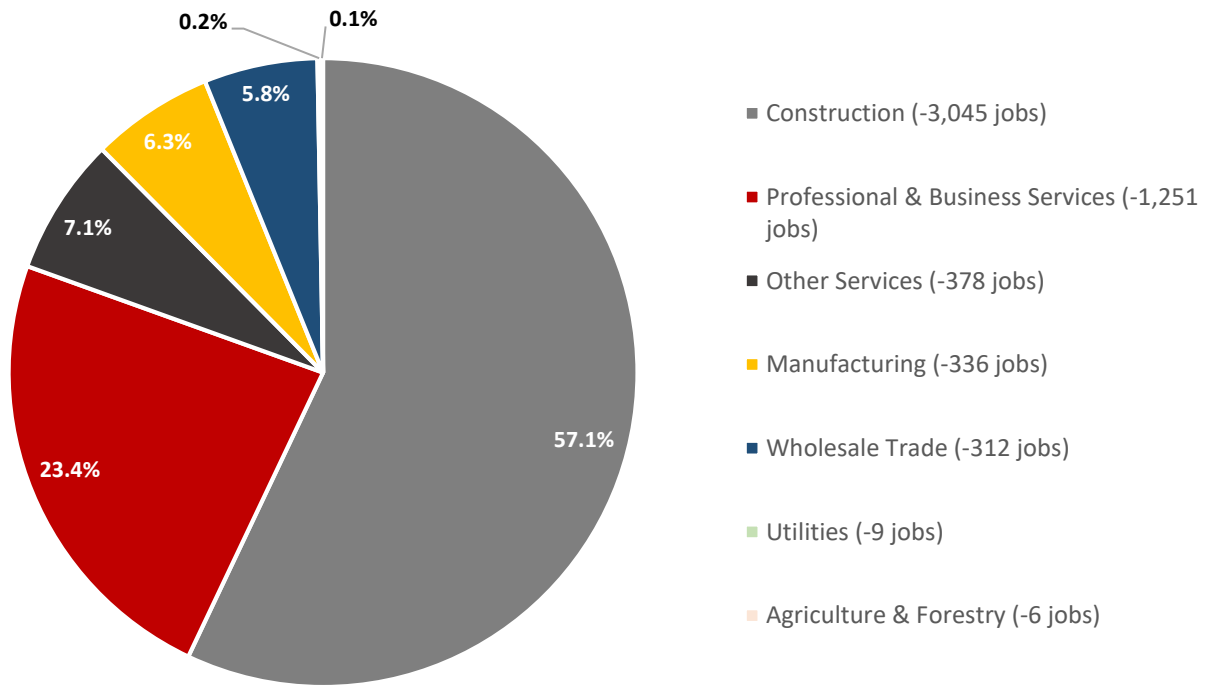
MEMORANDUM

JOB LOSSES BY VALUE CHAIN SECTOR

The construction industry accounted for about six in ten of total jobs lost from March through August. Professional and business services accounted for about a quarter of total job losses as of August. Other services, which largely includes automotive repair and maintenance, accounted for roughly seven percent of cumulative job losses while the clean energy manufacturing industry represented about six percent of job losses.

Construction and professional services each added back a respective roughly 550 and 350 jobs back to the clean energy industry from June through August.

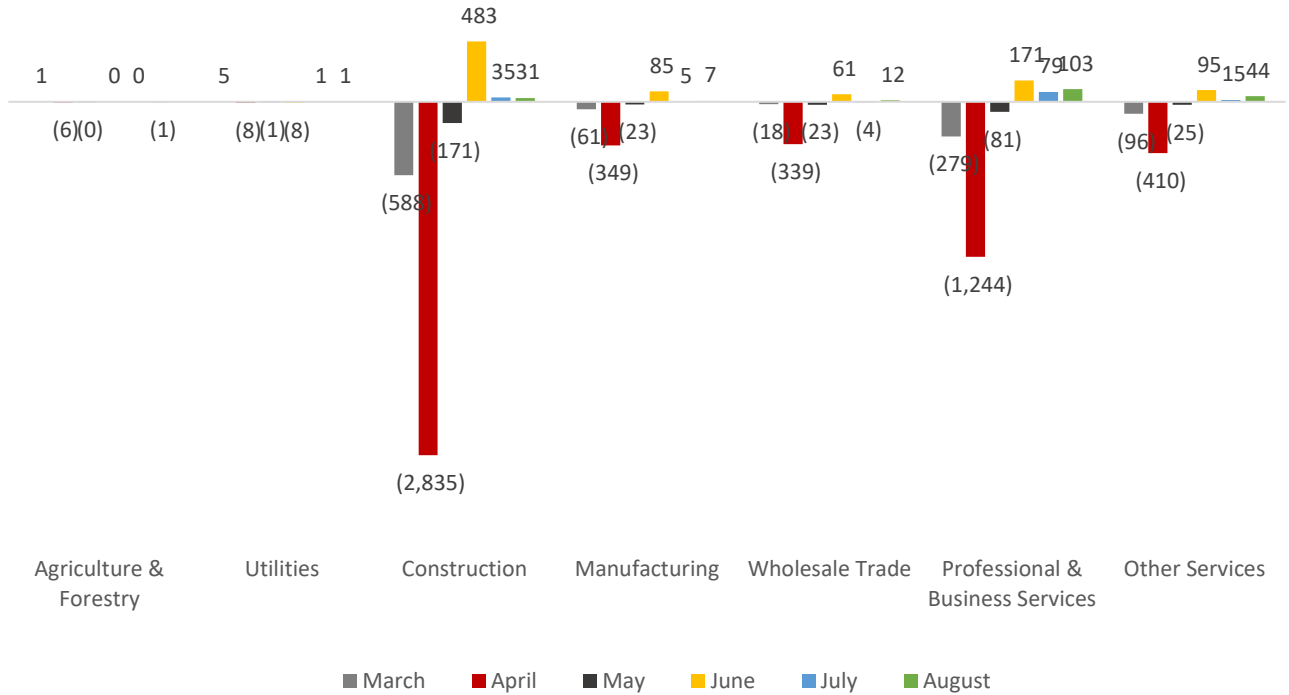
Figure 4. Cumulative Clean Energy Job Losses by Value Chain Sector (through August)





MEMORANDUM

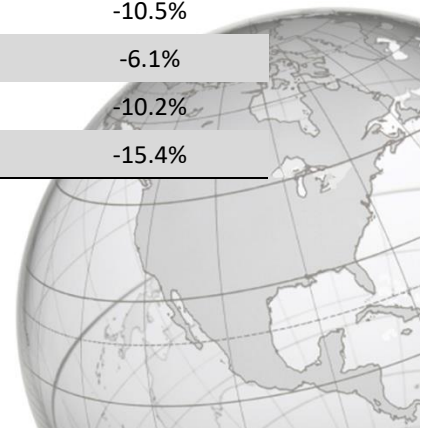
Figure 5. Clean Energy Job Losses by Value Chain Sector, March – August



As of August 2020, the clean energy construction industry sector has seen both the greatest absolute and proportional job loss—shedding a cumulative 3,045 jobs—a 15.4 percent decline compared to the 2019 baseline.

Table 3. Clean Energy Job Losses, % of Total Jobs by Value Chain Sector

Value Chain Sector	2019 Jobs	Cumulative Job Losses through June	% of Jobs Lost
Agriculture and Forestry	59	(6)	-10.1%
Utilities	1,186	(9)	-0.8%
Other Services	2,488	(378)	-15.2%
Manufacturing	3,213	(336)	-10.5%
Trade	5,145	(312)	-6.1%
Professional & Business Services	12,237	(1,254)	-10.2%
Construction	19,767	(3,045)	-15.4%





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