CONNECTICUT GREEN BANK SM

Board of Directors

Meeting Date

July 18, 2019

Board of Directors

845 Brook Street, Rocky Hill, CT 06067
T 860.563.0015
ctgreenbank.com

CONNECTICUT
GREEN BANK

July 12, 2019

Dear Connecticut Green Bank Board of Directors:

We have a regularly scheduled meeting of the Board of Directors scheduled on **Thursday, July 18, 2019 from 9:00 to 11:00 a.m.** in the Colonel Albert Pope Board Room of the Connecticut Green Bank at 845 Brook Street, Rocky Hill, CT 06067.

We have A LOT of items on this agenda (as well as a number of resolutions) we will need to expeditiously work through, including [Note – all those with (*) are agenda items whose materials will be coming by the close of business on Tuesday, July 16th]:

- **Consent Agenda** – review and approval of prior meeting minutes for June 28, 2019 (*), approval of FY 2019 sector performance memos (*), and approval of Board of Director and Committee report for FY 2019. You should take note of the impact infographic fact sheet that shows the Connecticut Green Bank's impact since inception in July 2011. Also, included is a report-out for PSA's approved by the Chair (or Vice Chair) over $75,000 per our Operating Procedures.

- **Committee Recommendations** – as a follow-up to last month's meeting where the focus was on the FY 2020 targets and budget recommended by the Budget & Operations Committee, we have prepared a variance analysis (*) to depict how we are continuing to pursue the Sustainability Plan in order to get an FY 2020 budget approved. We will also briefly review and then approve the Comprehensive Plan (*), with a focus on the mission statement modification per the discussion that was had at the last meeting.

- **Green Bonds** – the green bond team will provide an overview of our strategy and timeline to buildout this organizational capability to access capital that will help the Green Bank increase its impact.

- **Incentive Programs** – based on a recommendation from the Deployment Committee, we will be presenting the staff recommendation for Step 15 of the RSIP (*). We anticipate that this will be the final incentive step for the program taking us to 350 MW and ensuring the sustained orderly development of a local industry. Also, we will be presenting our SHREC warehouse and securitization plans for FY 2020 as well.

- **Financing Programs** – we have a number of transactions to approve or provide updates on, including approval of a C-PACE warehouse funding facility (*), update on the C-PACE credit enhancement RFP, approval to expand the SBEA for municipal and state facilities, approval of an impact investor opportunity (*), approval of an IPC Construction Financing Facility, and approval to transfer the Kresge Foundation PRI to IPC (*).

As an aside, Paul (my husband) and I, are leaving the day after the Board meeting for a 3-week vacation in China to celebrate our 20th anniversary together. My hope is that we will have a successful board meeting that works through all of the agenda items and associated resolutions so that I will not have any worries while on vacation!

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

Until then, enjoy the weekend!

Sincerely,

Bryan Garcia
President and CEO

AGENDA

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

Thursday, July 18, 2019
9:00-11:00 a.m.

Dial (571) 317-3122
Access Code: 115-322-589

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

1. Call to order

2. Public Comments – 5 minutes

3. Consent Agenda – 5 minutes

4. Committee Recommendations and Updates – 20 minutes

    a. Budget & Operations Committee – 20 minutes

        i. Approval of FY 2020 Budget and Targets
        ii. Comprehensive Plan – FY 2020 and Beyond

5. Green Bonds – 30 minutes

6. Incentive Programs Updates and Recommendations – 20 minutes

    a. RSIP Step 15
    b. SHREC Warehouse Funding Facility & SHREC Securitization Update

7. Financing Programs Updates and Recommendations – 40 minutes

    a. C-PACE Warehouse Funding Facility
    b. C-PACE Credit Enhancement RFP - Update
    c. Small Business Energy Advantage – Municipal and State Facilities
    d. Impact Investor and Small Business Energy Advantage
    e. Connecticut Green Bank Solar PPA Program Updates
        i. IPC Construction Financing Facility
        ii. Modification of Board approval to accommodate sale of PPA projects

f. Kresge Foundation PRI and Inclusive Prosperity Capital

8. Other Business – 5 minutes

9. Adjourn

Join the meeting online at https://global.gotomeeting.com/join/115322589

Or call in using your telephone:
Dial (571) 317-3122
Access Code: 115-322-589

Next Regular Meeting: Friday, October 25, 2019 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

Thursday, July 18, 2019
9:00-11:00 a.m.

Dial (571) 317-3122
Access Code: 115-322-589

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

1. Call to order

2. Public Comments – 5 minutes

3. Consent Agenda – 5 minutes

Resolution #1

Motion to approve the meeting minutes of the Board of Directors for June 28, 2019.

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 2017, FY 2018, and FY 2019 including approving annual budgets and targets for FY 2017, FY 2018, and FY 2019.

NOW, therefore be it:

RESOLVED, that Board has reviewed and approved the Program Performance towards Targets for FY 2019 memos dated July 18, 2019, which provide an overview of the performance of the Infrastructure, Residential, Commercial, Industrial, and Institutional sectors with respect to their FY 2019 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 2019 memo dated July 18, 2019 prepared by staff, which provides a summary report of the FY 2019 governance of the Board of Directors and its Committees of the Connecticut Green Bank.

4. Committee Recommendations and Updates – 20 minutes

    a. Budget & Operations Committee – 20 minutes

        i. Approval of FY 2020 Budget and Targets

Resolution #4

WHEREAS, on June 12, 2019 the Connecticut Green Bank (Green Bank) Budget and Operations (B&O) Committee recommended that the Green Bank Board of Directors (Board) approve the Fiscal Year 2020 Targets and Budget;

WHEREAS, staff of the Green Bank have reviewed the year-on-year variances in the budget and revised the proposal based upon this analysis and upon feedback from the board of directors; and

WHEREAS, the members of the B&O Committee recommends that the Board authorizes Green Bank staff to enter into or extend the professional services agreements (PSAs) currently in place with the following, contingent upon a competitive bid process having occurred in the last three years (except Cortland Capital Services and Inclusive Prosperity Capital):

I. Adnet Technologies, LLC
II. Clean Power Research, LLC
III. Cortland Capital Services
IV. CSW, LLC
V. Inclusive Prosperity Capital
VI. Locus Energy LLC

VII. ReCurve Analytics, Inc.
VIII. Stephen Turner, Inc.
IX. Sustainable Real Estate Solutions, Inc.

For fiscal year 2020 with the amounts of each PSA not to exceed the applicable approved budget line item.

NOW, therefore be it:

RESOLVED, that the Green Bank Board hereby approves: (1) the FY 2020 Targets and Budget, and (2) the PSAs with the 8 strategic partners listed above.

ii. Comprehensive Plan – FY 2020 and Beyond

Resolution #5

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, Article V of the Green Bank Operating Procedures requires the Green Bank Board of Directors (the "Board") to adopt an Annual Plan for each forthcoming fiscal year;

WHEREAS, the Board of Directors reviewed and approved the FY 2020 targets and budget on June 28, 2018 and July 18, 2019, which together with the Comprehensive Plan, are effectively the Annual Plan;

NOW, therefore be it:

RESOLVED, that the Board approves of the Comprehensive Plan for FY 2020 and Beyond as presented to the Board on June 28, 2019 and July 18, 2019, and subject to nonmaterial modifications made by the officers.

5. Green Bonds – 30 minutes

6. Incentive Programs Updates and Recommendations – 20 minutes

   a. RSIP Step 15

   b. SHREC Warehouse Funding Facility & SHREC Securitization Update

Resolution #7

WHEREAS, Connecticut Green Bank ("Green Bank") staff recommends to the Green Bank Board of Directors ("Board") a proposal for Green Bank to enter into an agreement with Webster Bank and Liberty Bank (the "Lenders") for a $14,000,000 secured revolving line of credit ("SHREC Revolving Credit Facility") whereby the SHREC Revolving Credit Facility would be used for a period of up to one year in order to bridge Green Bank's short-term liquidity and working capital needs prior to funding anticipated from the permanent asset backed securitization ("ABS") or municipal bond financing of Tranche 3 of the Solar Home Renewable Energy Credit ("SHREC") program;

WHEREAS, along with a general repayment obligation by SHREC WAREHOUSE 1 LLC, a wholly-owned subsidiary of Green Bank ("CGB SPV Borrower"), Webster-Liberty would be secured by a Green Bank guaranty of CGB SPV Borrower's obligations under the SHREC Revolving Credit Facility in addition to a first priority security interest in, and an absolute assignment of all cash flows associated with Tranche 3 of the SHREC program and, in the event of a payment default under the SHREC Revolving Credit Facility, such additional Tranches of SHRECs as required by the Lenders together with all commercially necessary rights thereunder (the "SHREC Collateral"); and

WHEREAS, Green Bank staff recommends that the Board approve the proposed SHREC Revolving Credit Facility, generally in accordance with the terms of the summary term sheet presented to the Board on July 18, 2019.

NOW, therefore be it:

RESOLVED, that the Board approves Green Bank to enter into the SHREC Revolving Credit Facility with the Lenders substantially as set forth in the memorandum to the Board dated July 11, 2019;

RESOLVED, that the Board approves and ratifies the establishment by Green Bank of SHREC WAREHOUSE 1 LLC as a wholly-owned subsidiary of Green Bank ("CGB SPV") and to provide the Lenders with a guaranty of CGB SPV obligations as borrower under the SHREC Revolving Credit Facility in addition to the SHREC Collateral;

RESOLVED, that the President, and any other duly authorized officer of Green Bank, is authorized to execute and deliver on behalf of Green Bank and CGB SPV any of the definitive agreements related to the SHREC Revolving Credit Facility and the establishment of CGB SPV 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; 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 effect the above-mentioned legal instrument or instruments.

7. Financing Programs Updates and Recommendations – 40 minutes

    a. C-PACE Warehouse Funding Facility

<u>Resolution #8</u>

WHEREAS, Connecticut Green Bank ("Green Bank") staff has submitted to the Green Bank Board of Directors ("Board") a proposal for Green Bank to enter into an arrangement with

Amalgamated Bank ("Amalgamated") for a $10,000,000 secured line of credit ("Credit Facility") extended to a Green Bank special purpose vehicle ("CGB SPV") whereby the Credit Facility would be used in order to cover the short-term expenses of the C-PACE program and to extend C-PACE loans; and

WHEREAS, the selection of Amalgamated as the provider of the Credit Facility follows the closure of a similar credit facility transaction, for which Amalgamated was selected as provider after completion of a Request for Proposals ("RFP") process in accordance with Green Bank operating procedures;

WHEREAS, the Board may alternatively consider the selection of Amalgamated by the Board under the Strategic Selection and Award process of Green Bank's Operating procedures as the credit facility satisfies three of the requisite criteria: (1) Strategic Importance, (2) Follow-on Investment, and (3) Urgency and Timeliness;

WHEREAS, along with a general repayment obligation by the CGB SPV, Amalgamated would be secured by a first priority security interest in and portfolio of 36 C-PACE loans (the "Collateral") and a guarantee by Green Bank of CGB SPV's obligations; and

WHEREAS, Green Bank staff recommends that the Board approve the proposed Credit Facility, generally in accordance with memorandum summarizing the Credit Facility and the terms of the summary term sheet, both presented to the Board on July 19, 2019.

NOW, therefore be it:

RESOLVED, that the Board approves CGB SPV to enter into the Credit Facility with Amalgamated guaranteed by Green Bank and approves of Amalgamated to be the sole source provider of the Credit Facility; and

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 Credit Facility 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 effect the above-mentioned legal instrument or instruments.

b. C-PACE Credit Enhancement RFP - Update
c. Small Business Energy Advantage – Municipal and State Facilities

<u>Resolution #9</u>

WHEREAS, pursuant to Conn. Gen. Stat. Section 16-24n the Connecticut Green Bank ("Green Bank") has a mandate to develop programs to finance clean energy investment for small business, industrial, and municipal customers in the State;

WHEREAS, Green Bank's Board of Directors (the "Board") approved, at its October 26, 2018 meeting, a such approval was modified by the Board at its December 14, 2018 meeting, Green Bank's $5,555,555 participation as a subordinated lender in a Master Purchase and Servicing

Agreement (the "Master Agreement") which was later entered into by Green Bank, AB, each as a purchaser, and The Connecticut Light and Power Company ("CL&P"), as seller on December 20, 2018;

WHEREAS, the Board approved, at its April 18, 2019 meeting, certain modifications to the Master Agreement;

WHEREAS, staff recommends the Board approve: (i) further amendments to the Master Agreement (including, but not limited to, an increase of Green Bank's commitment by $1,111,112) as more particularly described in that certain memorandum dated July 11, 2019 and submitted to the Board, and (ii) an assignment of all of Green Bank's interest in the Master Agreement and all SBEA loans previously purchased thereunder to CEFIA Holdings, LLC, Green Bank's wholly owned subsidiary;

NOW, therefore be it:

RESOLVED, that the President of the Green Bank and any other duly authorized officer of the Green Bank, is authorized to execute and deliver any amendment to the Master Agreement and assignment thereof to CEFIA Holdings, LLC materially consistent within the memorandum submitted to the Board dated July 11, 2019 and as he or she shall deem to be in the interests of the Green Bank and the ratepayers no later than 270 days from the date of authorization by the Board; 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.

d. Impact Investor and Small Business Energy Advantage

Resolution #10

WHEREAS, Connecticut Green Bank ("Green Bank") staff has submitted to the Green Bank Board of Directors (the "Board") a proposal for Green Bank or one of Green Bank's wholly-owned entities ("SPEs") to enter into an agreement with the New York Quarterly Meeting of the Society of Friends (QMSF), or an organization related to QMSF, for an impact investment of up to $1,000,000 (the "QMSF Impact Investment") whereby the QMSF Impact Investment would be used in order to reinvest funds in other Green Bank investments, programs or its operations; and

WHEREAS, the QMSF satisfies three criteria of the Strategic Selection and Award process of Green Bank operating procedures, namely: (1) uniqueness, (2) strategic importance and (3) urgency and timeliness;

WHEREAS, along with a general repayment obligation by the Green Bank (or, if such obligation of general repayment is by a Green Bank SPE, a general repayment obligation by such SPE together with, if necessary, a guarantee of the Green Bank), QMSF would be secured by a general non-exclusive pledge of a portfolio of loans owned in part by Green Bank or its SPEs together with their related cash flows associated with the Small Business Energy Advantage financing facility;

WHEREAS, Green Bank staff recommends that the Board approve the proposed QMSF Impact Investment, generally in accordance with memorandum summarizing the QMSF Impact

Investment and the terms of the summary term sheet, both presented to the Board on July 12, 2019; and

WHEREAS, Green Bank would benefit from a process that would open the door of the Green Bank to a broader array of impact investors to supplement funding sources for the Green Bank and diversify the Green Bank's base of stakeholders;

NOW, therefore be it:

RESOLVED, that the Board approves Green Bank (or one of its wholly-owned SPEs on behalf of Green Bank and, if necessary, with a guarantee of the Green Bank) to enter into the QMSF Impact Investment as a strategic selection;

RESOLVED, that the Board directs staff to develop a process in collaboration with members of the Deployment Committee for opening the door of the Green Bank to impact investment for the Board's approval prior to the end of calendar year 2019;

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 QMSF Impact Investment 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 effect the above-mentioned legal instrument or instruments.

e. IPC Construction Financing Facility

<u>Resolution #11</u>

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

WHEREAS, the Green Bank has established a strategic partnership with Inclusive Prosperity Capital Inc. ("IPC") for development and long-term ownership of commercial solar PPA projects originated by the Green Bank in order to leverage private capital and free up resources for the Green Bank;

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

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

NOW, therefore be it:

RESOLVED, that the Board of Directors approves funding, in a total not-to-exceed amount of $5 million in new credit, subject to budget constraints, for a revolving construction financing facility provided by Green Bank to IPC to be utilized for the construction of commercial solar PPA projects in Connecticut.

RESOLVED, that the President of Green Bank; and any other duly authorized officer of Green Bank, is authorized to execute and deliver, any contract or other legal instrument necessary to create such facility and authorize advances from it on such terms and conditions as are materially consistent with the memorandum submitted to the Green Bank Board on July 18, 2019; and

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

i. Modification of Board approval to accommodate sale of PPA projects

Resolution #12

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

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

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

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

NOW, therefore be it:

RESOLVED, that the Board of Directors approves funding, in a total not-to-exceed amount of $15 million in new money, subject to budget constraints, for the continued development of commercial-scale solar PV PPA projects, to be utilized for the following purposes pursuant to market conditions and opportunities:

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

Resolved, that the President of Green Bank; and any other duly authorized officer of Green Bank, is authorized to execute and deliver, any contract or other legal instrument necessary to continue to develop and finance commercial PPA projects on such terms and conditions as are materially consistent with the memorandum submitted to the Green Bank Board on October 19, 2018; and

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

f. Kresge Foundation PRI and Inclusive Prosperity Capital

Resolution #13

WHEREAS, the Connecticut Green Bank ("Green Bank") will continue to pursue opportunities to deploy private capital to support affordable, clean, and resilient energy to property owners in Connecticut in collaboration with Kresge and Inclusive Prosperity Capital ("IPC");

WHEREAS, the Kresge Foundation ("Kresge") is a private foundation that funds arts and culture, environment, education, health, community development and human resources;

WHEREAS, the Connecticut Green Bank's ("Green Bank") success in securing a Program Related Investment ("PRI") through a Kresge competitive solicitation can be leveraged to expand investment opportunities for IPC in and beyond Connecticut;

WHEREAS, Kresge is eager to partner with IPC to support the deployment of clean energy systems that also provide energy resilience; and

WHEREAS, Green Bank staff recommends that the Board authorize staff to determine the final arrangements to effect the transfer of the Kresge PRI from Green Bank and its wholly-owned subsidiary, CGB KCF LLC, to IPC as outlined in the memorandum to the Board dated June 11, 2018 (the "Board Memo").

NOW, therefore be it:

RESOLVED, that the Board approves staff's proposal to transfer the PRI from Kresge to IPC using one of the approaches outlined in the Board Memo or such other approach that results in Green Bank and any of its subsidiaries from having any further payment obligation in respect of the Loan Agreement entered into by and between Kresge and CGB KCF LLC on December 6, 2017 or any material residual obligation (other than repayment) in respect of these arrangements; and

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

8. Other Business – 5 minutes

9. Adjourn

Join the meeting online at https://global.gotomeeting.com/join/115322589

Or call in using your telephone:
Dial (571) 317-3122
Access Code: 115-322-589

Next Regular Meeting: Friday, October 25, 2019 from 9:00-11:00 a.m.
Connecticut Green Bank, 845 Brook Street, Rocky Hill, CT

Board of Directors Meeting

July 18, 2019

Colonel Albert Pope Board Room

Board of Directors

Agenda Item #1

Call to Order

Board of Directors

Agenda Item #2

Public Comments

Board of Directors

Agenda Item #3

Consent Agenda

Consent Agenda
Resolutions 1 through 3

1. **Meeting Minutes** – approval of the meeting minutes of June 28, 2019

2. **FY 2019 Performance Memos**– approval of FY 2019 progress to targets performance memos for infrastructure, residential, and commercial, industrial, and institutional sectors

3. **FY 2019 Governance Memo**– approval of FY 2019 governance memo on SFI and Board and Committee meetings

- **Approval of Requests Over $75,000** – report out on PSA requests for approvals over $75,000 approved by Chair (and Vice Chair) in FY 2019

- **Green Bank Impact Report** - for FY 2012 through FY 2019, see next slide

Connecticut Green Bank

Impact Investment – Social and Environmental

CONNECTICUT GREEN BANK

INVESTMENT

Green Bank Investment

$270 MM

Private Investment

$1.4 B

ECONOMIC DEVELOPMENT

19,905 direct, indirect, and induced job-years

ENVIRONMENTAL PROTECTION

6.5

million tons of CO_2

which equals

CO_2 SOx NOx

153 million
tree seedlings grown for 10 years

or

1.2 million
passenger vehicles driven for one year

TAX REVENUES

$41.1MM
individual income tax

$21.5 MM
corporate taxes

$20.3 MM
sales taxes

ENERGY BURDEN REDUCED

families
45,000

businesses
360

PUBLIC HEALTH SAVINGS

$125 to $275 million of public health value created

REFERENCES

Connecticut Green Bank Data Warehouse – July 1, 2011 through June 30, 2019

Board of Directors

Agenda Item #4ai

Budget & Operations Committee

FY 2020 Budget and Targets

FY 2020 Budget and Targets
Variance Analysis

1. **<u>Incentive Programs</u>** – The unit's budget is increasing due to contractual obligations (interest expense) and statutory programs (RSIP incentives). These are cost-recovered via SHREC or financed through federal dollars (ARRA).

2. **<u>Financing Programs</u>** – Operating Expenses have increased, as have revenues, leading to a decrease in net revenues under expenses year on year of $244K.

3. **<u>Operating Expense Variance</u>** – Consulting and Professional Fees, Personnel, Research and Product Development, Depreciation

Board of Directors

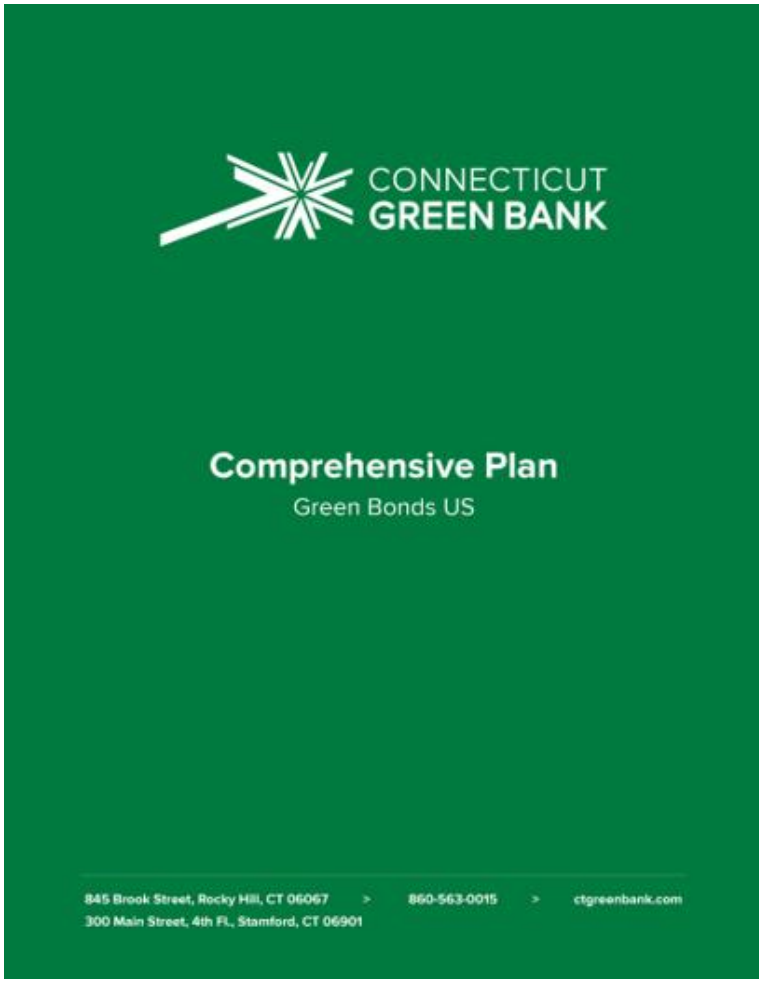
Agenda Item #4aii

Budget & Operations Committee

Comprehensive Plan

Comprehensive Plan

Green Bonds US


CONNECTICUT GREEN BANK

Comprehensive Plan

Green Bonds US

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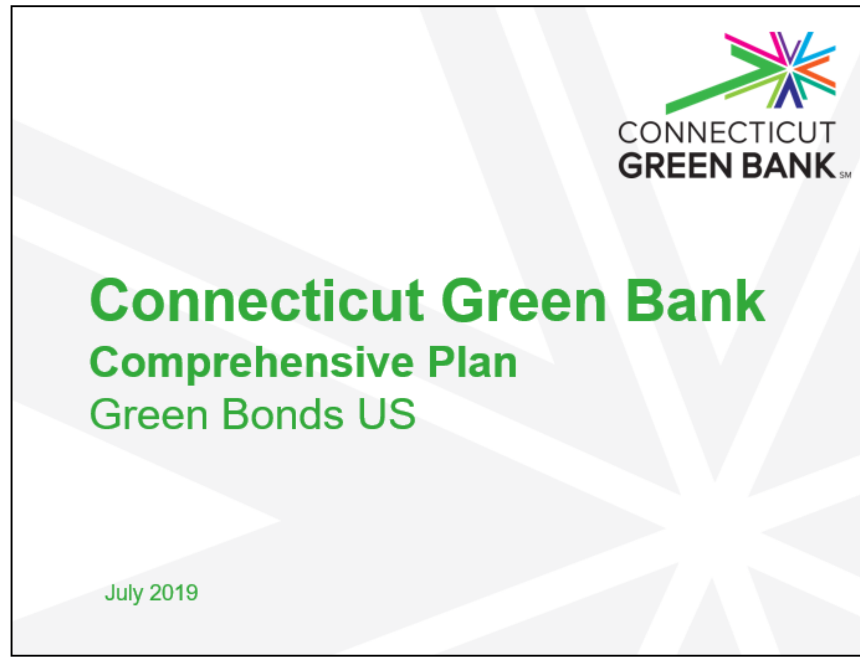
300 Main Street, 4th Fl., Stamford, CT 06901


CONNECTICUT GREEN BANK℠

Connecticut Green Bank

Comprehensive Plan

Green Bonds US

July 2019

Mission Statement
Comprehensive Plan

- **Draft #1** – To increase and accelerate the flow of capital into markets that energize the green economy **and extend the reach of its benefits to all of society**.

- **Draft #2** – Increase and accelerate the flow of capital into markets that energize the green economy **to provide society a heathier and more prosperous future**.

Confront climate change and provide society a healthier and more prosperous future by increasing and accelerating the flow of capital into markets that energize the green economy.

Board of Directors

Agenda Item #6a

Incentive Programs

RSIP Step 15

Deferred to Oct Meeting

Board of Directors

Agenda Item #6b

Incentive Programs

SHREC Warehouse Funding Facility and

SHREC Securitization

SHREC Monetization
Underlying Cash Flows

- Tranche 3:
  - Executed June 28, 2019
  - ~4,800 systems with 656,000 MW of generation remaining
  - $48 per SHREC
- $31.5 million of nominal cash flows

SHREC Monetization

Warehouse Proposal

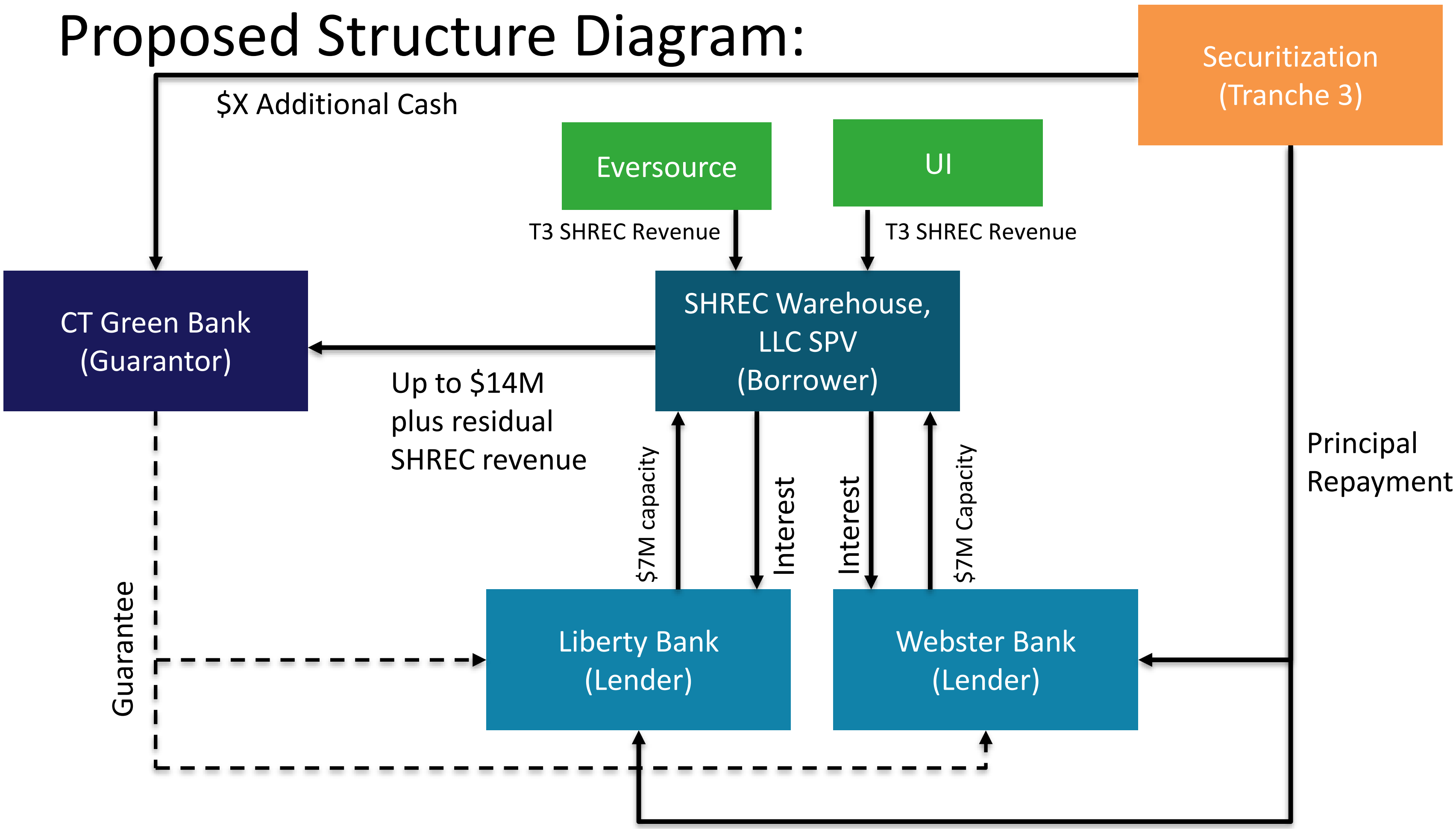
- Joint proposal from Liberty Bank and Webster Bank:
  - Builds upon previous $16 million facility backed by Tranche 1 and 2
  - Secured by SHREC revenues & CGB Guaranty
  - ***Revolving*** Credit Facility (can draw and pay back)
  - Interest only
  - Maturity – 12 months
  - Interest rate – [to be discussed]
  - Upfront fee – [to be discussed]
  - Unused fee – [to be discussed]

- Strategic benefits:
  - Solidify banking relationships within the State
  - Improves Green Bank leverage vis-à-vis securitizations (T3, T4, …)
  - Improved liquidity

SHREC Monetization

Webster – Liberty Warehouse Facility

Proposed Structure Diagram:



SHREC Monetization
RFP Underway

- Proposals due early August
- Balance of high advance rate and low cost of capital
- ABS or Municipal Bond
- Retail component

Board of Directors

Agenda Item #7a

Financing Programs

C-PACE Warehouse Funding Facility

C-PACE Warehouse Funding Facility
Background

- $5 million Revolving Credit Facility in place to address:
  - Minimum cash balance of $4 million under Solar Lease 2 and 3 facilities
  - Advances for C-PACE and CT Solar PPA transactions are difficult to predict
- Decision made to pursue C-PACE Warehouse Funding Facility:
  - Address FY20 Budget Investment Plan
  - Ability to repay the Warehouse line via
  - ❖ Master Bond Facility
  - ❖ Asset sale or funded participation with 3rd Party
  - ❖ Extend the short term line (rollover)
- Selection of Amalgamated Bank:
  - As a follow-on to the Revolving Credit Facility closed with Amalgamated, selected Amalgamated Bank as a lender "ready, willing & able" to move quickly with existing documentation (low legal costs)
  - Same pricing as with Revolving Credit Facility
  - (previously won RFP for Revolving Credit Facility)

C-PACE Warehouse Funding Facility
Amalgamated Bank Proposal

CONNECTICUT GREEN BANK

- Maximum borrowing limit: $10,000,000
- Interest rate: [To Be Discussed]
- Front End Fee: [To Be Discussed]
- Unused Fee: [To Be Discussed]
- Collateral:
  - Absolute assignment of revenues associated with Commercial PACE Portfolio (ex HA C-PACE - $13m)
  - General repayment obligation of CGB
- Minimum [Redacted]x Debt Service Coverage Ratio, tested semi-annually

Board of Directors

Agenda Item #7b

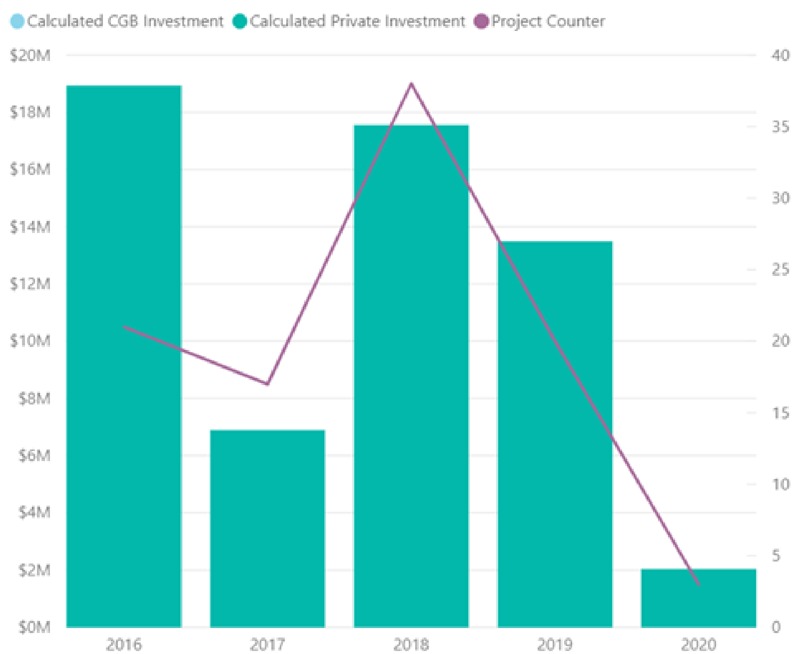
Financing Programs

C-PACE Credit Enhancement RFP – Update

C-PACE RFP

$5M of Credit Enhancement

- Goal to increase third party volume in the market
  – C-PACE Activity by Fiscal Year (FY20 is year-to-date)



  – Other C-PACE markets opening up, rates higher 10-20 bps

C-PACE RFP
Greenworks Proposal

- $5M proposal from Greenworks Lending (GWL):
  - 5-year term, interest only
  - Interest rate dependent on CT deal volume
  - General obligation of Greenworks Lending secured by C-PACE assessments (subordinate position)
- Strategic benefits:
  - Reduce the cost of capital for GWL in Connecticut and spur market growth
  - Demonstrate security of C-PACE collateral
  - More interest income for the Green Bank to meet financial sustainability goals

Board of Directors

Agenda Item #7c

Financing Programs

SBEA – Municipal and State Facilities

Small Business Energy Advantage

Financing Facility with Eversource and Amalgamated Bank

- **STATUS:** Facility has purchased nearly $41m in SBEA loans in two purchases. Thanks to previously approved revision and accounting team work, loan purchases and repayments are much smoother
- **REQUEST**
  - allow longer maximum loan tenor of seven (7) years for state and municipal borrowers;
  - allow maximum individual original loan principal balance of $1,000,000 for both state and municipal borrowers (an increase from the $100,000 maximum for commercial customers);
  - maintain the $1,000,000 aggregate outstanding loan balance for municipal borrowers and clarify the definition of municipal borrower
  - clarify the exemption from the $1,000,000 aggregate outstanding loan balance for state borrowers;

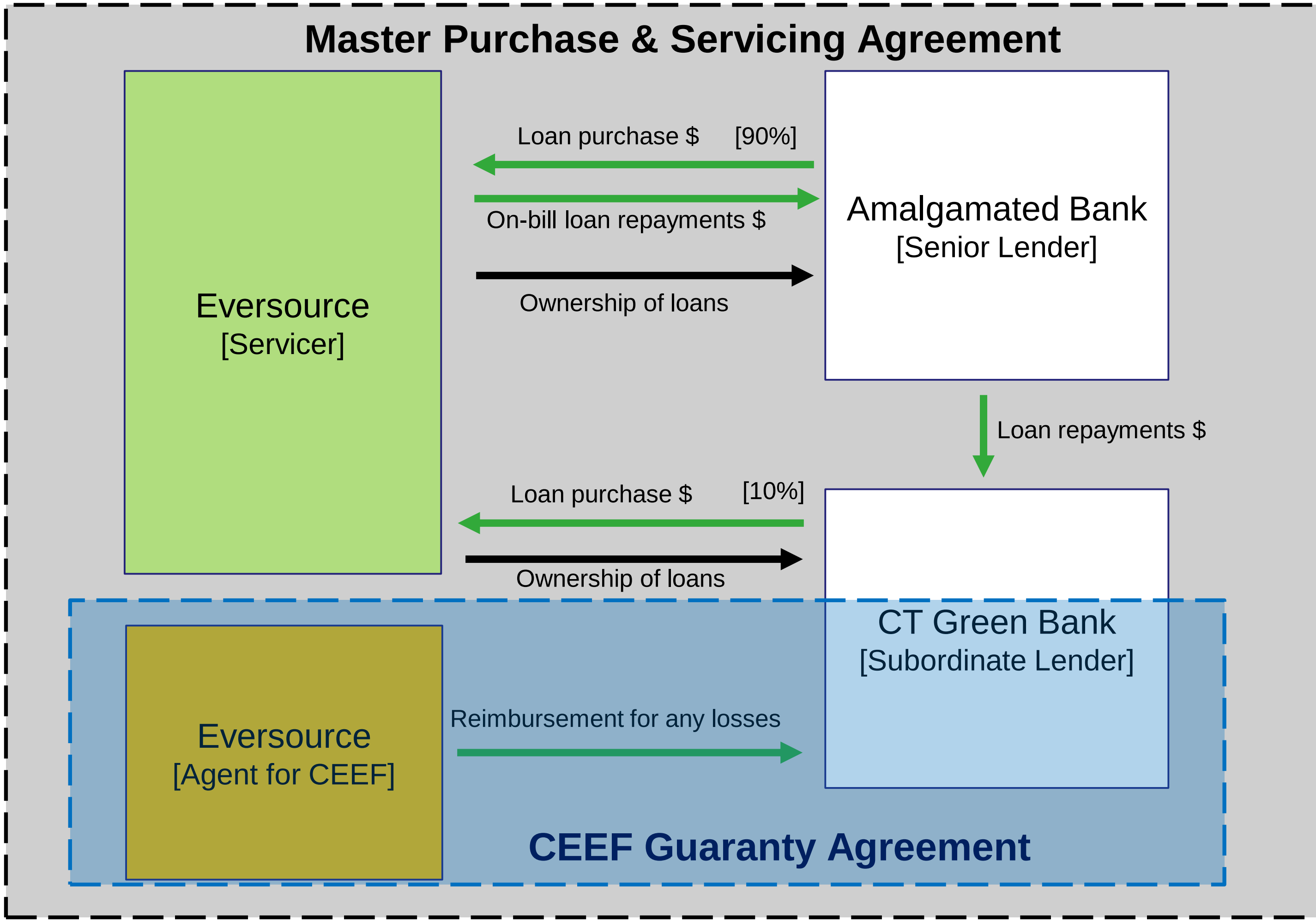
Small Business Energy Advantage

Financing Facility with Eversource and Amalgamated Bank

- **<u>REQUEST</u>**
  - increase the total capital available for the facility by $11,111,112 from $55,555,555 to $66,666,667 with the incremental increase dedicated to serving state and municipal borrowers;
  - maintain the 90/10 split between AB and Green Bank will result in AB committing $60,000,000 (an increase of $10,000,000) and the Green Bank committing $6,666,667 (an increase of $1,111,112);
  - make additional changes to the Master Agreement to reflect improved loan servicing, loan collections data management, and invoicing processes as well as handling of loan prepayments; and
  - Allow Green Bank's interest in the Master Agreement, together with the SBEA loans previously purchased thereunder, be assigned to CEFIA Holdings, LLC, Green Bank's wholly owned subsidiary

SBEA Loan Purchase Facility

Structure Diagram



Board of Directors

Agenda Item #7d

Financing Programs

Impact Investor and SBEA

Impact Investor / SBEA

New York Quarterly Meeting of the Society of Friends (QMSF)

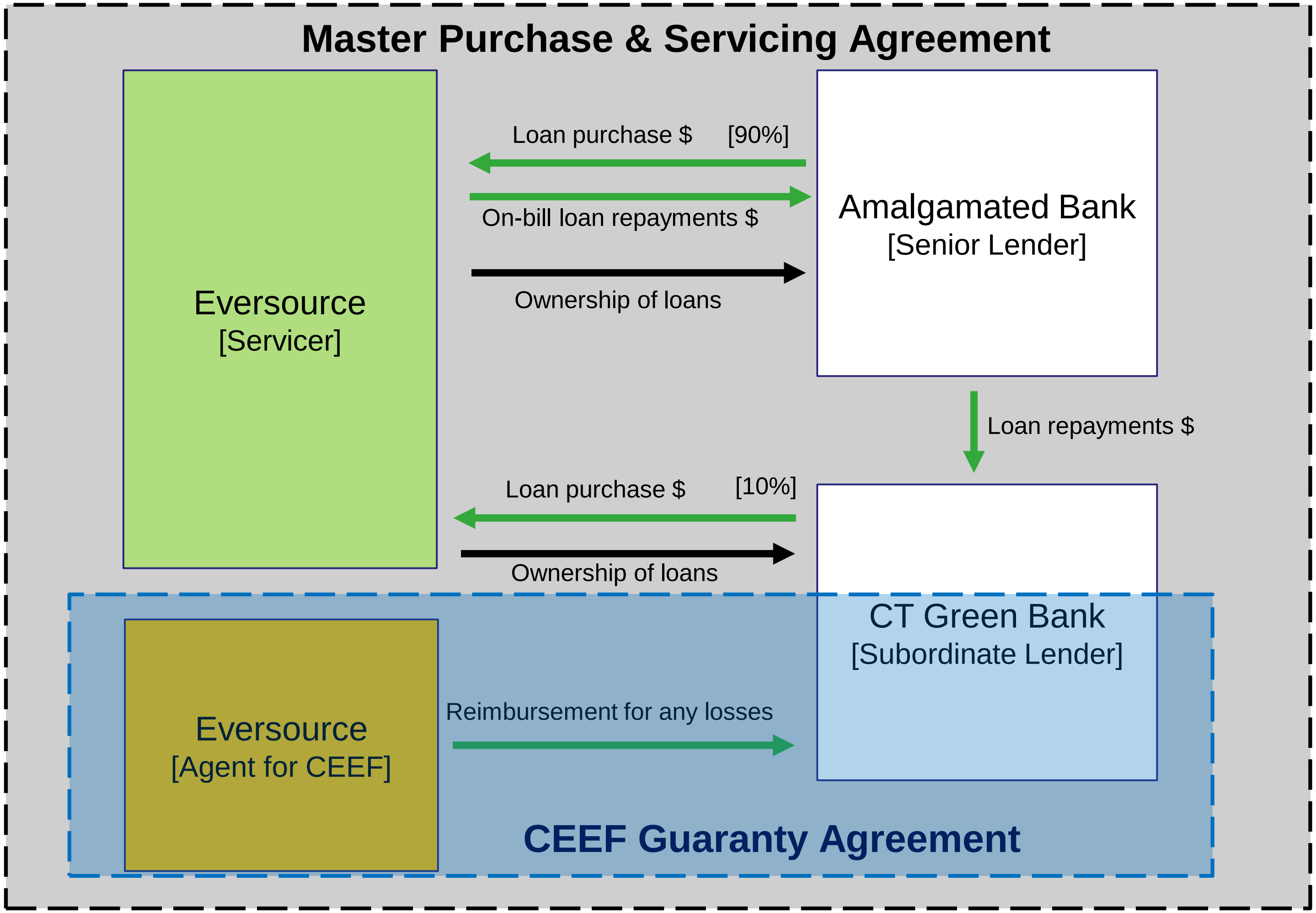
- Introduction from Inclusive Prosperity Capital
  - $250,000 3 year PRI for IPC in documentation
- The Religious Society of Friends has had a historic commitment to social justice and charity
- Friends commitment to simplicity—to resisting materialism and consumerism—finds expression today in work on behalf of sustainability.
- This commitment to sustainability attracted QMSF to IPC and Green Bank in search of suitable impact investments.
- Green Bank has a strategic initiative to attract more impact investors to Green Bank's activities

Impact Investor / SBEA (2)

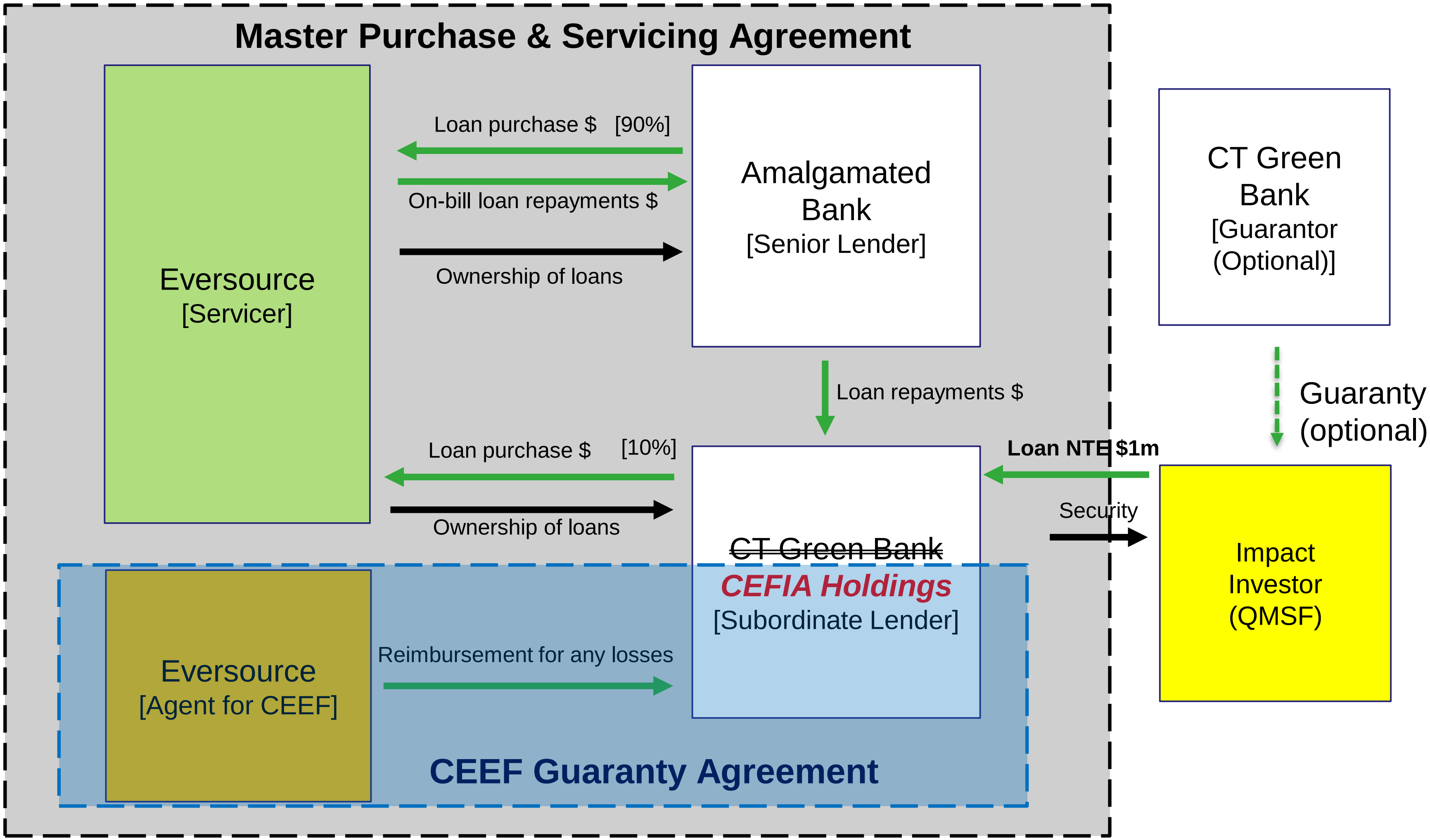
New York Quarterly Meeting of the Society of Friends (QMSF)

- Impact Investment up to $1m ($500,000 likely)
- "Non-exclusive" pledge of the economic interests held by Green Bank (CEFIA Holdings) in the portfolio of SBEA loans proceeds
- Optional Guaranty by CGB
- Benefit to CGB
  - Impact Effectively a loan to CGB at LIBOR +[Redacted]% (Impact Investor paid transaction yield *<u>less</u>* [Redacted] basis points (skim))
  - Allows CGB to "test" via a short term investment how Impact Investors may respond to this and other portfolio offerings
- Maturity: Maximum 3 years (1 year with 2 automatic annual renewals (w/ annual call @ QMSF's option upon 90-days notice)
- Strategic Selection and Award:
  - (1) uniqueness, (2) strategic importance and (3) urgency / timeliness

SBEA Loan Purchase Facility
Structure Diagram



SBEA Facility w/Impact Investment Structure Diagram



Impact Investor / SBEA

Resolutions

- **RESOLVED**, that the Board approves Green Bank (or one of its wholly-owned SPEs on behalf of Green Bank and, if necessary, with a guarantee of the Green Bank) to enter into the QMSF Impact Investment as a strategic selection;
- **RESOLVED**, that the Board directs staff to develop a process in collaboration with members of the Deployment Committee for opening the door of the Green Bank to impact investment for the Board's approval prior to the end of calendar year 2019;
- **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 QMSF Impact Investment 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 effect the above-mentioned legal instrument or instruments.

Board of Directors

Agenda Item #7e

Financing Programs

Connecticut Green Bank Solar PPA Program

Updates

Connecticut Green Bank Solar PPA Program Updates

IPC Construction Financing Facility

1. **<u>IPC commercial solar platform</u>** – IPC and CGB have established a strategic partnership for development and long-term ownership of commercial solar projects originated by CGB.
2. **<u>Construction financing</u>** – IPC seeks to secure an interest-bearing construction financing facility to fund the development of commercial solar projects in CT.
3. **<u>Interest income</u>** – The facility would provide interest income to CGB, in addition to project origination fees and further interest income from term debt extended to IPC-ownership structures.
4. **<u>Request to approve</u>** – Not-to-exceed $5,000,000 construction financing facility.

Connecticut Green Bank Solar PPA Program Updates

Modification of Board approval to accommodate sale of PPA projects

CONNECTICUT GREEN BANK

1. **<u>Popularity of CGB Commercial Solar PPA program</u>** – There is a continued, demonstrated need for flexible financing to support development of commercial solar in CT.
2. **<u>Evolving market</u>** – There are new market entrants with the ability to provide long-term financing and tax equity in order to energize projects that CGB develops.
3. **<u>Acquisition interest</u>** – Third parties are interested in acquiring CGB-developed projects in exchange for: development fee and opportunity for CGB to provide long term debt to third party-ownership structures (on-going interest income to CGB).
4. **<u>Request Board Approval of Resolution #12</u>** – Modification of Board approval (**granted October 19, 2018**) to accommodate sale of commercial PPA projects to third parties:

RESOLVED, that the Board of Directors approves funding, in a total not-to-exceed amount of $15 million in new money, subject to budget constraints, for the continued development of commercial-scale solar PV PPA projects, to be utilized for the following purposes pursuant to market conditions and opportunities:

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

Board of Directors

Agenda Item #7f

Financing Programs

Kresge Foundation PRI and IPC

Kresge Foundation PRI

Transition from Green Bank to IPC

1. January 2017 - Board approved a $3m Program Related Investment ("PRI") from the Kresge Foundation
   - Support the deployment of clean energy systems that provide energy resilience and are installed at affordable housing and other buildings that might act as hubs during major grid outage events in coastal and urban Connecticut.
2. For a variety of reason – pipeline of transactions struggling to move forward (difficult to "pencil")
3. More opportunities outside of CT
4. Green Bank, IPC and Kresge agree the best way to deploy these funds is to "open the funnel" by expanding the use of funds into other states (including CT)
5. Green Bank, IPC and Kresge agree to transition PRI from Green Bank to IPC

Kresge Foundation PRI

Transition from Green Bank to IPC (2)

1. Either:

   a. Assign the funding drawn by CGB KCF LLC to IPC SPV and pay any accrued interest payable through the date of assignment in return for a full release by Kresge of the Green Bank's and CGB KCF's obligations under the Loan Agreement and related documents; or

   b. CGB KCF to repay the $1,000,000 together with any accrued interest payable through the date of loan repayment and terminate the Loan Agreement.

2. If Green Bank should proceed along the lines of 1.a. above, CGB KCF would also assign to IPC SPV $50,000 in matching grant funds (the "Matching Grant" - 5% of the loan amount drawn in December 2018).

3. If Green Bank should proceed along the lines of 1.b. above, CGB KCF would also repay to Kresge the Matching Grant.

Board of Directors

Agenda Item #5

Green Bonds

Green Bonds

Goals

Scale-Up Investment – expand deployment of clean energy project finance to **achieve greater societal benefits**, deploy funding **beyond SBC and existing revenue sources**, and **citizen engagement as retail purchasers**

Lower the Cost of Capital – raise lower cost and Longer-term capital from **institutional investors** and **retail investors** (e.g., Separately Managed Accounts and individuals) through “green bonds” for clean energy investments

Green Bond Team

Connecticut Green Bank

- **Green Bank Team** – Mackey Dykes, Brian Farnen, Bryan Garcia (Facilitator), Bert Hunter (Lead), and Eric Shrago
- **Board Member Advisor** – Office of the Treasurer (i.e., Bettina Bronisz)
- **Financial Advisor** – Lamont Financial (i.e., Bob Lamb)
- **Legal Advisor** – Shipman & Goodwin (i.e., Bruce Chudwick)
- **Other TBD Parties** – underwriter(s), trustee, rating agency(ies), and green bond certifier

Master Bond Indenture
Structure

Master Bond Indenture

- **Revenues**
- **Debt Service**
- **DSRF**

Municipal Indenture

WAREHOUSE FACILITY

- Tax Backed
- Quasi-Municipal
- Lead by Example
  - (state/muni/NFP)
- C-PACE (NFP)
- Etc.

Other Indenture

- Lead by Example
  - (for profits)
- C-PACE (for profits)
- Pools of Transactions
  - Wind
  - AD
  - Fuel Cells

WAREHOUSE FACILITY

Master Bond Indenture

Analytics of an "A-Rating"

CONNECTICUT GREEN BANK

1. **<u>Rating Agency</u>** – S&P…S&P default test is defined for pooled obligations
2. The Master Trust helps to create a consolidated credit structure
3. **<u>CDO Evaluator</u>** – This is a tool that S&P uses to assess the risk of default among a group of loans that serve as collateral for a bond issue. CDO= collateralized debt obligation
4. **<u>Towards an "A-Rating"</u>** –
   a) Municipal Categorization – what is governmental (tax supported) vs. what is not?
   b) Default – S&P established stress tests which we must pass to get to a rating
   c) Mix of Assets – what is the right mix of assets to get to an A, AA, or AAA rating? We are not recommending a AAA program at this time.

Green Bond Issuance
Timeline for 2019

CONNECTICUT GREEN BANK

- **<u>September</u>** – Board adopts appropriation and bond authorization resolution. Staff starts to gather projects to be financed.
- **<u>October</u>** – Bond Team prepares a Master Bond Indenture and presents to Board for review and comment along with update on the project list.
- **<u>November</u>** – based on Master Bond Indenture, Bond Team will prepare all other documents and instruments (e.g., form of the bond and terms & conditions) for review and comment by the Board
- **<u>December</u>** – if PABs, then Green Bank holds public hearing in accordance with IRS provisions. Board approves Master Bond Indenture, including a possible Debt Reserve Fund, the form of the bond, and terms & conditions of the bond issuance.

  Bond Team issues bond to raise capital for projects and cover administrative costs

Draft Resolution

Appropriation or Inducement Resolution

Section 1. In order to effectuate the purposes of [C-PACE] and the Act, Green Bank hereby approves an appropriation and bond authorization of $_________________ to finance the Projects, including costs of issuance of said bonds, which bonds shall be revenue bonds issued as special obligations of Green Bank, payable solely from the revenues or other receipts, funds or monies pledged therefor as referred to in the recitals hereof. The form of the bonds, including the particular amounts, maturities and interest rates, redemption terms and other terms and conditions of such bonds, the indenture of trust and other documents and instruments required to issue and deliver the bonds, shall be determined by a further resolution of Green Bank.

Section 2. Green Bank shall loan the proceeds of the bonds to Borrowers, which will use the proceeds for the purpose of financing the Projects pursuant to loan agreements whereby Borrowers will be unconditionally obligated to pay amounts sufficient to pay in full the interest on, principal of and redemption premium, if any, on such bonds and other payments in connection therewith.

Section 3. Pursuant to the Act, the state of Connecticut has pledged to and agreed with any person with whom Green Bank may enter into contracts pursuant to the provisions of the Act that the state will not limit or alter the rights hereby vested in Green Bank until such contracts and the obligations thereunder are fully met and performed on the part of Green Bank, provided nothing herein contained shall preclude such limitation or alteration if adequate provision shall be made by law for the protection of such persons entering into contracts with Green Bank. The pledge provided by the Act shall be interpreted and applied broadly to effectuate and maintain Green Bank's financial capacity to perform its essential public and governmental function.

Section 4. The bonds may be issued as tax exempt bonds under the Internal Revenue Code of 1986, as amended; provided however, while it is anticipated that the bonds may qualify as tax exempt bonds, Green Bank is authorized to issue all or any portion of the bonds as bonds the interest on which is includable in the gross income of the owners thereof for federal income tax purposes and it is hereby found and determined that the issuance of any such bonds is necessary, in the public interest, and is in furtherance of the purposes and powers of Green Bank.

Section 5. The President and any Officer of Green Bank are, and each of them acting individually is, authorized to execute and deliver for and on behalf of Green Bank such agreements and related documents to implement the provisions of this Resolution, with such terms and conditions as such Officers or officials shall deem to be in the best interests of Green Bank.

Section 6. Green Bank is authorized to advance funds to Borrowers from Green Bank's other available sources to pay for or reimburse the Borrowers' expenditures (the "Expenditures") in connection with Projects, for which a general functional description is provided in Exhibit A hereof. Green Bank reasonably expects to reimburse itself for these temporary advances from the proceeds of the bonds in the maximum amount described above. This provision is a declaration of official intent made pursuant to Treasury Regulation Section 1.150-2.

Board of Directors
Agenda Item #8
Adjourn

Board of Directors of the
Connecticut Green Bank
Meeting Minutes

Friday, June 28, 2019
9:00 – 11:00 a.m.

A meeting of the Board of Directors of the **Connecticut Green Bank (the "Green Bank")** was held on Friday, June 28, 2019 at the office of the Connecticut Green Bank, 845 Brook Street, Rocky Hill, CT, in the Colonel Albert Pope Board Room.

Note – In the absence of a new Chairperson yet to be assigned by Governor Lamont, Mr. Garcia, President & CEO, acted as Chair for today's meeting.

1. Call to order

Mr. Garcia called the meeting to order at 9:14 a.m.

Board members participating: Eric Brown (by phone), Binu Chandy (by phone), Betsy Crum (by phone), Thomas M. Flynn (by phone), Lauren Savidge (by phone), Matt Ranelli (by phone), Kevin Walsh (by phone)

Members Absent: Bettina Bronisz, John Harrity

Staff Attending: Anthony Clark, Mackey Dykes, Brian Farnen, Bryan Garcia, Bert Hunter, Nupur Kashikar, Alysse Lembo-Buzzelli, Matt Macunas, Jane Murphy, Selya Price, Cheryl Samuels, Eric Shrago (by phone), Kim Stevenson

Others Attending: Henry Link from University of Hartford

2. Public Comments

None

3. Consent Agenda

a. Meeting Minutes from April 26, 2019 – Mr. Garcia requested one update; 2nd for meeting adjournment should be John Harrity.

b. C-PACE – Prior Approval Extensions – approval of extension to prior approved resolution for various C-PACE projects

<u>Resolution #1</u>

Motion to approve the meeting minutes of the Board of Directors for April 26, 2019 with the proposed revision on meeting adjournment second motion.

<u>Resolution #2</u>

WHEREAS, pursuant to Conn. Gen. Stat. 16a-14g (the "Act") the Connecticut Green Bank ("Green Bank") is directed to, amongst other things, establish a commercial sustainable energy program for Connecticut, known as Commercial Property Assessed Clean Energy ("C-PACE");

WHEREAS, pursuant to C-PACE program, the Green Bank Board of Directors (the "Board") had previously approved and authorized the President of the Green Bank to execute financing agreements for the C-PACE projects described in the Memo submitted to the Board on June 28, 2019 (the "Finance Agreements");

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

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

NOW, therefore be it:

RESOLVED, that the Board extends authorization of the Finance Agreements to no later than 120 days from June 28, 2019 and consistent in every other manner with the original Board authorization for the Finance Agreement.

Upon a motion made by Betsy Crum and seconded by Tom Walsh, the Board voted to approve Resolution 1 and Resolution 2. Motion approved unanimously

c. Approval of Loan Losses – Mr. Garcia reported that there were no loan losses in the third quarter of 2019

There were no further questions or comments

4. Committee Recommendations and Updates

a. Budget & Operations Committee

i. Proposed Adjustment to FY 2019 Budget
A review of adjustments to the FY 2019 budget include reflecting the actual Grant Revenue received by the Green Bank, reducing the Grant Income from private foundations by $100,000 and increasing the Grant Income received from DEEP by

$6.5 million. Also adjusts Incentives by reflecting the Grant from DEEP that flowed through CGB to IPC and increasing the financial Incentives; CGB Grants by $6,480,000. These adjustments result in a net $20,000 change to the budget.

Resolution #3

WHEREAS, the Connecticut Green Bank ("Green Bank") staff has assessed financial performance, as well as use of resources year to date,

WHEREAS, the net impact of the proposed adjustments to the budget are minimal and reflect a clearer picture of the activities over FY 2019.

NOW, therefore be it:

RESOLVED, the Green Bank Board of Directors ("Board") approves the adjustments to the Fiscal Year 2019 budget as outlined in the memorandum to the Board dated June 28, 2019.

Upon a motion made by Binu Chandy and seconded by Matt Ranelli, the Board voted to approve Resolution 3. No further questions—Motion approved unanimously

ii. Approval of FY 2020 Budget and Targets – Presented by Eric Shrago

The 2020 Budget begins Monday, July 1, 2019. Mr. Shrago reviewed the sustainability plan with the board and highlighted the securitization of $38.2M of SHREC revenues, successfully reducing Operational expenses in FY18 and FY19, and successfully achieving return (6.7%) and maturity (8 years) targets with financing programs (greater than the original 5% 10 year target) and; successfully assisting in the launch of the non-profit Inclusive Prosperity Capital (IPC) with former members of the Green Bank staff which has been achieving goals set for its development. The FY18 and FY19 Sustainability Plan approved by the Board in 2017 has all been moving in a positive direction. The Green Bank is fortunate and thankful to Governor Lamont, for protecting the CEF and RGGI funds.
The budget process included a May 2019 meeting to review targets, a June 12, Mr. Shrago presented the targets to the board and walked through the items individually in the Financing Programs.

In the incentive programs, the CT Legislature increased the RSIP MW limit during interim period from the transition from net metering to a tariff structure to 350 MWs. Mr. Shrago also highlighted that Green Bank staff continue to work on battery program which is awaiting PURA approval.
Mr. Ranelli asked if prior targets were more-or-less aggressive? Per Mr. Shrago, the overall numbers were in line with what was planned for 2019. Mr. Garcia stated an update of figures on FY19 to FY20 will be provided [to Board]. Mr. Ranelli asked another question related to projects target .to actual completion? Per Mr. Shrago, the PPA project is an increase but CPACE is on target.
Revenues – Mr. Shrago reviewed the draft of revenues. He highlighted the full restoration of the CEF and RGGI. Grant income will be nominal for 2020
Mr. Walsh stated, he feels the increase in revenues against expenses would show a flat increase are out of line. Mr. Walsh asked about bonding income which Mr. Shrago stated is not included at this time. Mr. Walsh asked if it will be included

when is approved? Mr. Walsh further asked about hiring someone for bonding issue without approval and then not going forward with bond income plan?
Expenses – Mr. Shrago walked through the proposed expenses.
Mr. Garcia asked that Mr. Shrago clarify the Operational expense variance brought up by Mr. Walsh. Mr. Shrago stated that the pre-bond issuance Mr. Shrago walked through the additional depreciation, the increased incentives, the plans for additional SHREC securitization and their expenses among other budget items. He then spoke about the $1.8M in interest rate buy-downs proposed.
Mr. Garcia explained the $1.8M is to smooth the market while contractors transition in terms of program platforms and operating models as well as to stimulate the market for renewable heating and cooling (ground source heat pumps) Mr. Flynn asked why we (Green Bank) want to do that as to cost-viability. Mr. Garcia stated that the program is viable but expensive and that the Green Bank is attempting to grow a track record with a system to offer SMART-E loans. Mr. Walsh stated if too expense then maybe program not viable and asked if costs will come down and what is holding program back from being viable. Per Mr. Garcia said that ground source heat program—heat pumps. This is 30-year technology with longer-term financing--just as with solar which was (10 years ago) much more expensive. Mr. Flynn asked if there is a path for these products to become viable. Mr. Garcia suggested utilizing loss reserves—due to limited losses—to fund financing for these new projects. Funds will be targeted for residential projects only. Mr. Ranelli asked questions about the ground source heat pumps for these projects. Mr. Garcia stated there is a contractor buydown. Mr. Ranelli stated we should think about program to compare to other state program(s).
Mr. Walsh asked about bond issuance costs? Mr. Hunter stated the planned bonds issued will cover related expense. The related 1) incentive and 2) investment breakout (within business lines) was mailed to the Board in the budget details. Mr. Walsh was concerned about expenses in CT—struggling with the increases in expenses; accounting fees, consulting fees. Mr. Shrago stated consulting fees were due to RSIP and transactions of program; aiding in the transition of program among other initiatives. Mr. Walsh concerned about "excessive" expenses; marketing, bond expenses and asked to remove those items from the budget as they only include the expense and not related income and then add them later as an amendment to the budget. Mr. Ranelli felt it would be better to have balance sheet showing higher expenses than balanced revenues as the next legislative session [the Green Bank] may not be considered as strong. Mr. Garcia agreed it is a double-edged sword as expenses will be paid by available income; growing the balance sheet, the Legislature may consider taking funds rather than leaving budget as is. Mr. Garcia asked if there were any other comments. Mr. Farnen suggested removing certain expense line items until we come back with more detail in order to have a budget. Mr. Flynn wants to submit a budget but leave certain budget items to CCB team. Mr. Walsh wait until next Board meeting on July 18 to finalize budget. Mr. Farnen suggests approving expenses no higher than FY19 and then come back in few weeks with more detail to which Mr. Walsh, Mr. Flynn and Ms. Crum agree. Mr. Farnen will detail a new resolution regarding the expenditures to present revision at the next Board meeting. All approve. Mr. Garcia stated discussion appreciated.

Investments – Investments to support incentives. Mr. Shrago reviewed different investments, percentages of investment, capital deployed, terms and interest income. No questions asked at this time.
Core Partners Review – Strategic partners support the CT Green Bank's operations and programs and were competitively selected. A new contractor has been added and requires Board approval. Mr. Dykes shares that this is an existing contractor and contract which does not expire on July 1 so approval can wait until next Board meeting. Mr. Farnen asks that if this contractor approval is not affecting the budget, let us ask Board to approve now and not wait until the next meeting. Per Mr. Shrago there are fairly low increases to budget on contractors. Mr. Dykes states that CSW Inc. is a technology partner to bring projects to fruition.

Resolution #4

WHEREAS, on June 12, 2019 the Connecticut Green Bank (Green Bank) Budget and Operations (B&O) Committee recommended that the Green Bank Board of Directors (Board) approve the Fiscal Year 2020 Targets and Budget; and

WHEREAS, the members of the B&O Committee recommend that the Board authorizes Green Bank staff to enter into or extend the professional services agreements (PSA's) currently in place with the following, contingent upon a competitive bid process having occurred in the last three years (except Cortland Capital Services and Inclusive Prosperity Capital);

I. Adnet Technologies, LLC
II. Clean Power Research, LLC
III. Cortland Capital Services
IV. CSW, LLC
V. Inclusive Prosperity Capital
VI. Locus Energy LLC
VII. ReCurve Analytics, Inc.
VIII. Sustainable Real Estate Solutions, Inc.

For fiscal year 2020 with the amounts of each PSA not to exceed the applicable approved budget line item.

NOW, therefore be it:

RESOLVED, that the Green Bank Board hereby approves (1) the FY 2020 Budget as a continuing resolution and (2) the PSA's with the 8 strategic partners listed above at levels no greater than fiscal year 2019 and directs staff to present additional revisions to the FY 2020 Budget at the next Board meeting for final review and adoption.

Upon a motion made by Betsy Crum and seconded by Binu Chandy the Board voted to approve Resolution 4. No further questions—Motion approved unanimously

Mr. Garcia stated team will prepare more clarity for Board in next month's meeting.

5. Financing Programs Updates and Recommendations

a. C-PACE Transaction - Ivoryton

Mr. Dykes presented a new project with the L.C. Doane Company at 110 Pond Meadow Road, Ivoryton, CT which includes renovation to current solar system. The proposal includes that the existing system be removed and a new roof be added ($1M for new roof) and then the existing solar system will be added back with new improvements and additional solar panels.

Company already obtained remediation reports and Green Bank also hired a company to provide an estimate for the necessary remediation work which is all within the underwriting criteria for the project. Mr. Dykes related that there is no mortgage on the property which is owned by the L.C. Doane Company. Mr. Ranelli asked if the property was considered an "establishment"? under the Property Act Program? Mr. Dykes stated he would look into and advise.

Regarding the identified remediation, the Green Bank has requested a timeline for the work to be done. Estimated remediation costs were integrated into the company cash flows used for the underwriting. Mr. Walsh asked about the credit quality (of L.C. Doane Company) to repay the loan. Michael Yu Stated L.C. Doane has been around since the 1970's, among their customers are the U.S. Government for security purposes and the military. He went on to state that the company has good margins and cash flow of about $2Mil with no long-term liabilities so the short-term and long-term profile is good for this loan. Mr. Walsh asked that the information provided on the credibility of credit worthiness could be included with these requests; Mr. Garcia stated that the report did in fact include the financial information of the company but will check if other information should be added to the presentation for future purposes. Mr. Hunter also stated that the Finance Team's underwriting memo which speaks to a potential customer's credit worthiness is available to the Board.

Resolution #5

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 $1,135,301 construction and (potentially) term loan under the C-PACE program to The L.C. Doane Company, the building owner of 110 Pond Meadow Rd, Ivoryton, Connecticut (the "Loan"), to finance the construction of specified clean energy measures in line with the States 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 Board of Directors dated June 25, 2019, 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.

Upon a motion made by Kevin Walsh and seconded by Binu Chandy, the Board voted to approve the L.C. Doane Company project in Ivoryton, CT. No further questions—Motion approved unanimously

6. Other Business

a. Comprehensive Plan – FY 2020 and Beyond

Mr. Garcia began with the feedback from Board members. The feedback covered a lot of ground and three major points are financial sustainability, climate change and Green Bonds with community engagement. Mr. Garcia commented that Mr. Harrity's sense of urgency would be regarding climate change. The recent Bond offering through the Clean Water Fund shows that the community wants Green Bond options. Mr. Garcia asked if Board members had anything to share at this time but there were no comments.

Mr. Garcia viewed the Mission Statement and goals for "building the engine" to provide capital for additional financing. The goals are to 1) leverage public resources, 2) strengthen CT communities and 3) pursue investment strategies (with a lot of help from the NY Green Bank.) The Vision Statement – '… a world empowered by the renewable energy of community' leads the Green Bank movement. Mr. Garcia also mentioned obtaining an article from a Vermont resident about looking to CT's Green Bank for inspiration. Mr. Garcia states the focus is for the Green Bank to continue to attract [good projects and funding] and move forward going beyond environmental and help communities "realizing the heart of what we do". Mr. Ranelli feels the Mission Statement is missing something of what Mr. Garcia stated during this discussion—that it is missing some sense of urgency to green initiatives and Mr. Garcia agrees. Mr. Ranelli and Mr. Garcia agreed to rework the mission statement. There were no further comments.

Mr. Garcia went on to discuss measuring results with a robust data system for communicating (evaluation framework), impact methodologies (jobs, environment, public health and tax revenues), comprehensive annual Financial Report, Annual Report and Fact Sheet, which includes building Green Bonds and a sustainable CT and "be on the ground in community to deploy clean energy opportunities". Mr. Garcia continues to frame how the Green Bank engages with the community of CT and is excited to see. On July 11 there will be a presentation review of the 25-page Comprehensive Plan for presentation to the Board on July 18. Comprehensive Plan is available to any employee to pull to know the company's goals or provide feedback.

b. 2019 Legislative Session Update
Mr. Farnen defers to Mr. Macunas for the CT Legislative update. Mr. Macunas began with the CT State budget; there were no sweeps but no fund put-backs either. Governor Lamont rejuvenates the 'Lead by Example' standard for state buildings and the motor pool. Some highlights of the green economy and environmental protection; net metering has been extended through Dec 2021 and tariffs will begin in Jan 2022, the RSIP target cap has been increased from 300Mw to 350Mw, Virtual Net Metering (VNM) annual credits increased and electric distribution companies are permitted their own energy storage. There were some proposals that affect the Green Bank which were NOT passed; SB 960 (technical fixes to BOD language affirming intent to access USDA capital—funds which can be accessed under current statute, SB 927 (broadening investment to include environmental infrastructure) rushed session and not passed, SB 70 (proposed new infrastructure quasi with administrative ties to the Green Bank) was passed by CT Senate but not House and HB 7206 (regarding tax exemption). When asked, there were no questions.

c. Other Business
Staff Transitions/Resignations – Mr. Anthony Clark of the C&I Team has resigned from the Green Bank and is moving with his family to Atlanta, GA. Mr. Garcia thanked him for his hard with the Green Bank team and wished him well. As part of the Sustainability Plan, Ms. Kim Stevenson (who works with Multi-Family homeowners) will be transitioning to IPC. Mr. Ranelli expressed gratitude to both individuals for their hard work and contributions to the Green Bank.

There was a question if the Lamont Financial Services company (hired for bond issuance work) is any relation to Governor Lamont. Per Mr. Garcia there is no relationship between the financial services company and Governor Lamont and this will be so noted.

7. Adjourn

Upon a motion made by Kevin Walsh, and seconded by Matt Ranelli the meeting was adjourned at 11:00a.m.

Respectfully submitted,

____________________,
Mary Sotos, Chairperson

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CONNECTICUT GREEN BANK

Memo

To: Board of Directors of the Connecticut Green Bank

From: Lucy Charpentier, Bryan Garcia, Selya Price, and Eric Shrago

CC: Mackey Dykes, Brian Farnen, and Bert Hunter

Date: July 18, 2019

Re: Infrastructure Sector Programs – Program Performance towards Targets for FY 2019 - Preliminary

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Overview

Public Act 11-80, *An Act Concerning the Establishment of the Department of Energy and Environmental Protection and Planning for Connecticut's Energy Future*, requires that the Connecticut Green Bank (Green Bank) develop and implement several programs to support the deployment of solar photovoltaic (PV), combined heat and power (CHP), and anaerobic digester (AD) technologies. Alongside this act, through the Comprehensive Energy Strategy (CES) released by the Department of Energy and Environmental Protection (DEEP), there is the goal of delivering cleaner, cheaper and more reliable sources of energy through the deployment of in-state renewable energy sources. Due to the Connecticut General Assembly's reappropriation of monies from the Clean Energy Fund and RGGI to the General Fund, the Green Bank has had to scale back its programs including the termination of the CHP and AD pilots. Thus, FY 2019 Infrastructure Sector Program targets and performance are focused on the Residential Solar Investment Program (RSIP) and related activities.

For a description of the programs and the TAM and SAM, please see the Comprehensive Plan for Fiscal Years 2017 through 2019.

Performance Targets and Progress

With respect to the Comprehensive Plan approved by the Board of Directors of the Green Bank on July 21, 2017 and revised on July 28, 2018,[1] the following are the performance targets for FY 2019 and progress made to targets for the Infrastructure Sector Programs (see Table 1) as of June 30, 2019, all attributable to RSIP.

[1] For mid-year revisions to budget and targets, see the "Proposed updates to FY2019 Targets and Budget" memo of December 11 2018 ; see: https://ctgreenbank.com/about-us/governance/connecticut-grboard-meetings/2018-meetings/.

Table 1. Program Performance Targets and Progress Made to the Comprehensive Plan for FY 2019

Key Metrics	Program Performance Original Targets (as of 07/01/18)	Program Performance Revised Targets (12/11/18)	Program Progress[2]	% of Goal
Capital Deployed[3]	$168,000,000	$203,000,000	$235,718,031	116%
Investment at Risk[4]			$17,778,858	
Private Capital[5]			$217,939,173	
Deployed (MW)	48.0	58.0	66.2	114%
# of Loans/Projects	6,000	7,250	7,805	108%
Leverage Ratio			13.3	

In summary, for Infrastructure Sector Programs in FY 2019, there were 7,805 projects (achieving 108% of the goal) requiring $235.7 M of investment (achieving 116% of the goal) that led to the deployment of 66.2 MW of clean energy deployed (achieving 114% of the goal), that delivered a leverage ratio of about 13.3:1 for private to public funds invested.

Executive Summary for the Infrastructure Sector Programs

The following is an executive summary of the Infrastructure Sector Programs:

- Project volume and capacity in FY19 were the highest since inception of RSIP in FY12, with FY19 approvals of 49% more project volume and 55% more capacity than the 5,241 projects and 42.7 MW approved in FY18, and 15% higher by volume and 24% higher by capacity than the previous program high of 6,807 projects and 53.4 MW approved in FY16.[6] Approved projects in FY19 are approximately 20% EPBB and 80% PBI.
- Overall RSIP milestones as of the end of FY19 are:
  - Approximately 273 MW or 34,500 projects have been approved through RSIP since FY12, with nearly 235 MW or 30,000 projects completed, or approximately 78% approved and 67% completed toward the updated 350 MW public policy target.
  - Approved projects since FY12 to date are approximately 26% EPBB and 74% PBI.
  - Total investment in RSIP has topped $1 billion, with Green Bank leveraging nearly $930 million in private capital by investing nearly $130 million, a ratio of over 8.1.
- The Green Bank team has maintained a collaborative dialogue with contractors and system owners to support the sustained orderly transition of the residential solar PV industry to a post-RSIP (and post-ITC) market.

[2] Includes only closed transactions, including projects in approved and completed statuses.

[3] Capital Deployed is used to measure Investment actuals to targets and it includes fees related to financing costs and adjustments for Fair Market Value which are not included in the Gross System Cost. It represents: the Fair Market Value for Commercial/Residential Leases, the Amount Financed or Gross System Cost (whichever is greater) for CPACE, the Amount Financed for Residential financing products and the Gross System Cost for all other programs.

[4] Includes funds from the Clean Energy Fund, RGGI allowance revenue, repurposed ARRA-SEP funds, and other resources that are managed by the Green Bank that are committed and invested in subsidies, credit enhancements, and loans and leases.

[5] Private Investment is based on the Gross System Cost.

[6] Note that project volume and capacity approved in prior fiscal years may have changed since previously reported due to project cancellations that may happen before projects reach completion.

- The team provided input into PURA dockets pertaining to Section 7 of PA 18-50 that was scheduled to end net metering when RSIP reached 300 MW and begin implementation of a tariff-based compensation structure for solar PV.
- The team provided input into legislation impacting the residential solar PV market, including PA 19-35[7] (House Bill 5002) which extended RSIP to 350 MW, extended net metering through 2021 and added a monthly netting option to possible residential tariff structures under Section 7 of PA 18-50.
- The federal Department of Energy (DOE) grant, "State Strategies for Solar Adoption in Low-and-Moderate Income Communities," awarded in FY18 for three years has continued to support Green Bank efforts to encourage adoption of solar PV among LMI households and communities of color.
- A new DOE grant application, also led by the Clean Energy States Alliance, was awarded in late FY 2019, and will provide funding to help accelerate widespread adoption of a residential rooftop solar PV deployment model among LMI single-family homes – the Green Bank in partnership with Inclusive Prosperity Capital (IPC) will provide advisory support on this project.
- The Green Bank continues solar PV soft cost reduction efforts through its leadership in Sustainable CT and also participates in activities that better enable the integration of solar PV into the grid such as through participation in distributed system planning dockets at PURA and a collaboration with United Illuminating (Avangrid) on a pilot project, "Localized Targeting of Distributed Energy Resources (DERs)."
- With support from an EM&V partner, Navigant Consulting, the team submitted a Partner and Technology Application to PURA's Electric Efficiency Partners Program (EEPP) to seek funding for a battery storage incentive program to complement deployment of residential solar PV and to contribute to the state's peak load reduction goals. The lessons learned from the application process have facilitated a stronger understanding of the benefits of battery storage in combination with solar PV that have informed future battery storage incentive design, potentially within and/or beyond RSIP.

Infrastructure Sector Programs

The following are overviews of the Infrastructure Sector Programs being implemented and the contributions towards the achievement of the targets noted in the Comprehensive Plan.

- **Residential Solar Investment Program** – $17.8 million in subsidies[8] from the Green Bank has attracted $217.9 million of funds from other sources.

Table 2. RSIP Overview for FY 2019

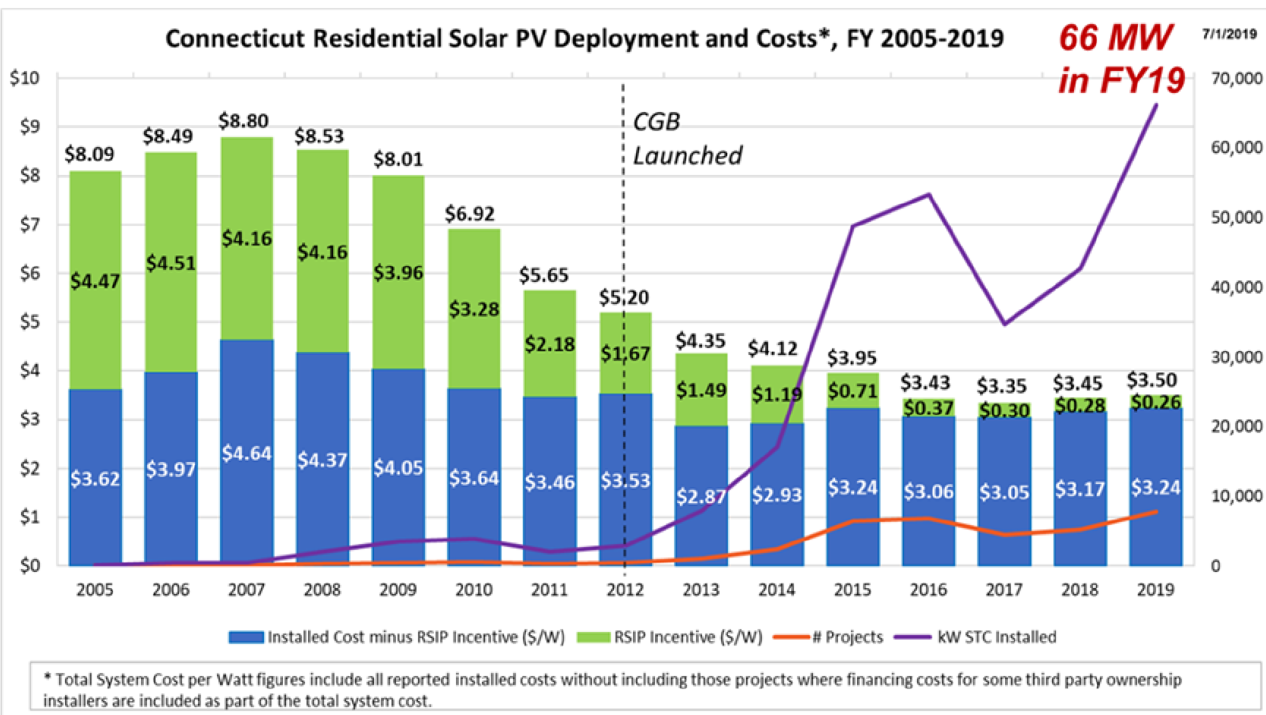
Program Data	Submitted but not Closed	Closed[9]	Total
Projects	315	7,805	8,120
Installed Capacity (MW)	2.6	66.2	68.8
Lifetime Clean Energy Produced (MWh)	73,327	1,885,885	1,959,212

[7] 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."
[8] Note the distribution of EPBB and PBI and the 6-year payout of the PBI.
[9] Approximately 85% of projects approved result in project completions.

Program Data	Submitted but not Closed	Closed[9]	Total
Annual Combined Energy Generated & Saved (MMBtu)	10,008	257,386	267,394
Subsidies ($'s)	$756,511	$17,778,858	$18,535,369
Credit Enhancement ($'s)	$0	$0	$0
Loans or Leases ($'s)	$0	$0	$0
Total Green Bank Investment ($'s)	$756,511	$17,778,858	$18,535,369
Private Capital ($'s)	$8,514,823	$217,939,173	$226,453,996
Direct Job Years	36	920	956
Indirect & Induced Job Years	47	1,201	1,248
Lifetime Tons of CO2 Emissions	39,506	1,016,047	1,055,553

Figure 1 provides historical perspective on Connecticut's residential solar PV market from fiscal year (FY) 2005 through FY 2019, based on projects incentivized through RSIP from FY 2012 through FY 2019 and before that through the Connecticut Clean Energy Fund (CCEF), the Green Bank's predecessor organization. The average RSIP incentive was reduced steeply as shown by the upper/green portion of the bars in the chart, while the average installed cost minus the RSIP incentive shown in the lower/blue portion of the bars has stayed roughly stable, between $3.00-3.25/W. Comparing FY 2005 to FY 2019, the average installed cost decreased 57% from $8.09/W to $3.50/W and the average RSIP incentive decreased 94% from $4.47/W to $0.26/W, while deployment increased over 50,000% from 122 kW in FY 2005 to 66.2 MW in FY 2019. Incentives were reduced most steeply with the inception of the Green Bank in FY 2012, 84% from $1.67/W in FY 2012 to $0.26/W in FY 2019 (as compared to 51% from FY 2005 to FY 2011). As a percentage of installed cost, incentives have decreased from 35% on average in FY12 to 8% in FY19. Since FY 2012, installed costs have decreased 33% from $5.20/W to $3.50/W and deployment grew over 2200% from 2.8 MW in FY 2012 to 66.2 MW in FY 2019.

Figure 1. RSIP Historical Installed Costs, Incentives, Net Customer Cost, Installed Capacity, FY 2005-2019



Project approvals for all incentive types – EPBB, PBI and LMI-PBI were strong in FY19, with an especially high volume of PBI projects including contributions from new installers, as well as increased volume across the program. Several factors contributed to high activity in the market including:

- A push to get projects approved before RSIP reached its target of 300 MW - it was not until the end of legislative session that PA 19-35[10] passed (and was later signed by Governor Lamont on June 28, 2019) extending RSIP to 350 MW.
- RSIP incentive levels have been maintained at Step 14 since September 2018, providing market continuity.
- The anticipated end of net metering, which had been scheduled to take place at the end of RSIP, but which was delayed until December 31, 2021 by PA 19-35.
- General policy uncertainty around the structure, incentive levels, timing and implementation aspects for the tariff-based compensation structure put forth in Section 7 of PA 18-50 that was to replace net metering.
- The scheduled step-down in the Federal Investment Tax Credit (ITC) from 30% to 26% starting in 2020, which will be followed by a step down to 22% in 2021, and a final step down to 0% for homeowner-owned projects and 10% for third-party owned projects in 2022.
- An unseasonably mild winter which allowed for higher activity and less slow down than usual.
- While import tariffs affected the solar PV industry broadly, the impact on the residential market was the most diluted, with installed costs having some volatility over the past few years, but overall increasing only slightly from approximately $3.35/W on average in FY17 to $3.45/W in FY18, and almost leveling off to $3.50/W in FY19. Associated with the import tariffs has also been a stockpiling of PV modules across the industry.

RSIP is estimated to reach 350 MW in the summer or fall of 2020, after which time only net metering (and the federal ITC) would be available to support the solar PV market through December 31, 2021. Beginning January 1, 2022, production based (per kWh) tariff compensation is anticipated to be offered to solar PV customers, based on the requirements stipulated by Section 7 in PA 18-50, amended by PA 19-35, and as developed and determined by PURA and stakeholders through continued docket processes[11]. The proposed Step 15 incentive levels are anticipated to allow for a sustained transition from RSIP to a net metering plus ITC supported market to a market compensated via a tariff (that has the ability to factor in ITC reductions).[12]

Third party owned (TPO) companies deployed nearly 80% of RSIP projects by volume in FY19, led by Sunnova with approximately one-third of RSIP market share, following by Sunrun (13 %), PosiGen (12%), Vivint (11%), and SunPower (10%), as shown in Figure 2. The highest volume installers of homeowner-owned projects collectively deployed approximately 20% of RSIP volume in FY19 and included Vivint, SolarCity, Trinity Solar, SunPower, Ross Solar (a ConEd Solutions Company), C-TEC Solar, EcoSmart, Aegis, and Sunlight Solar. Trinity Solar was RSIP's highest volume participant in FY19, having installed nearly 36% of RSIP projects in FY19, 95% using third party financing and 5% homeowner owned.

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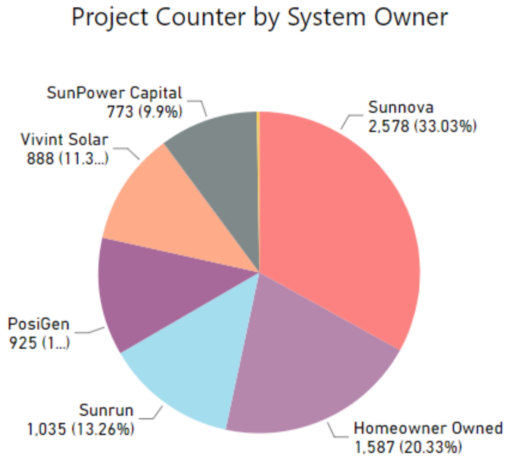
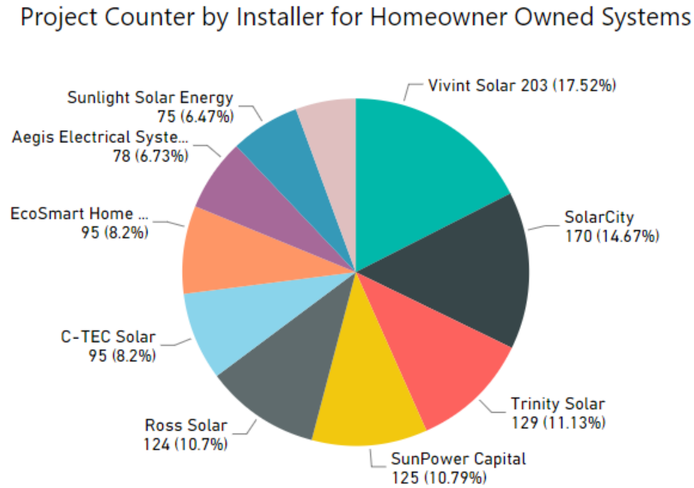
[10] PA 19-35: https://www.cga.ct.gov/2019/ACT/pa/pdf/2019PA-00035-R00HB-05002-PA.pdf, "An Act Concerning a Green Economy and Environmental Protection."
[11] Green Bank participated in multiple dockets in FY19 to provide input into the development of the Section 7 tariff compensation structure put forth in PA 18-50.
[12] The federal ITC is scheduled to step down from 30% through calendar year 2019 to 26% in 2020, 22% in 2021, and starting in 2022, 10% for third party owned projects and 0% for homeowner-owned projects. Tariff based compensation (in lieu of net metering) could factor in the ITC reduction by calculating a tariff rate that factors in higher net customer costs as the ITC steps down.

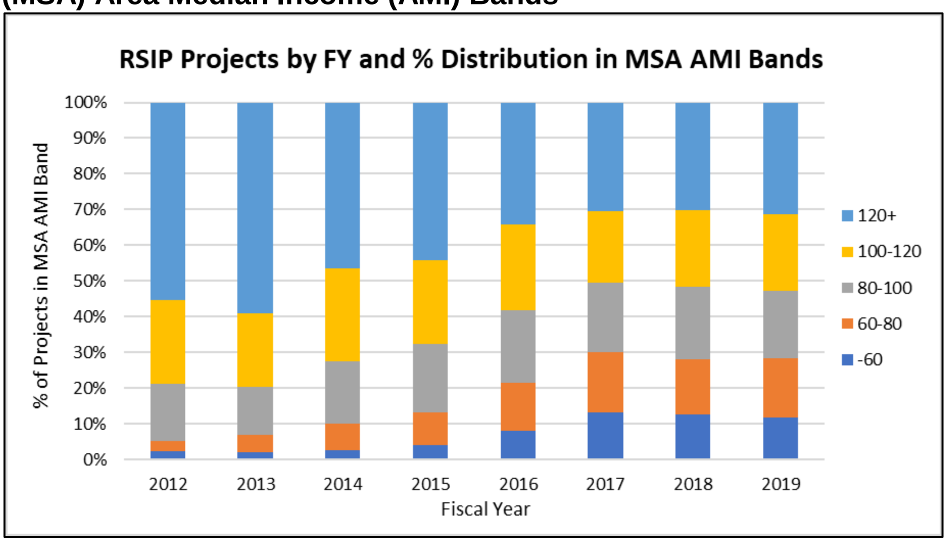
Figure 2. FY19 RSIP Projects and Market Share by Third Party System Owner and by Installer





The RSIP continues to be successful in reaching low-and-moderate income (LMI) households. Adoption has largely been driven by the Green Bank's Solar for All partnership with PosiGen and complemented by efforts supported by a Department of Energy grant, "State Strategies for Solar Adoption in Low-and-Moderate Income Communities." Of the 34,500 projects approved under RSIP through FY19, the Green Bank has in recent years made progress with respect to increased distribution of RSIP projects in LMI census tracks. Figure 3 shows approved RSIP projects by FY and Metropolitan Statistical Area (MSA) Area Median Income (AMI) Band. Nearly 50% of RSIP projects in FY17-19 were deployed in low-to-moderate income (LMI) census tracts (AMI<100%), having increased from just over 20% in FY12.

Figure 3. Distribution of Approved RSIP Projects by FY and by Metropolitan Statistical Area (MSA) Area Median Income (AMI) Bands



For a breakdown of RSIP project volume and investment by census tracts categorized by Area Median Income (AMI) bands and Distressed Communities as designated by DECD, see Tables 3 and 4, respectively. It should be noted that RSIP is not an income targeted program.

Table 3 illustrates that RSIP has reached and slightly exceeded parity with respect to deployment among LMI census tracts. For example, while the <60% AMI Band represents only 7% of 1-4 unit owner-occupied households (OOH), the <60% AMI Band represents 9% of approved RSIP projects. Similarly, 13% of RSIP projects are deployed in the 60-80% AMI Band while only 12% of OOH are in the 60-80% band. The 80-90% AMI Band has about 18% of projects, slightly less than the % of OOH, while the highest income bands, 100-120% and 120%+ have proportionately lower RSIP deployment levels relative to their representation among OOH. Table 4 shows that RSIP deployment is well represented in distressed communities in which 30% of all RSIP projects are installed, while distressed communities account for 32% of OOH.

Table 3. RSIP Closed Activity in Metropolitan Statistical Area (MSA) Area Median Income (AMI) Bands

MSA AMI Band	Owner Occupied 1-4 Unit Households	% of Total HHs	# Project Units for FY 2019	% Project Units for FY 2019	# of Cumulative Project Units	% of Cumulative Projects	Cumulative Project Units / 1,000 HHs	Cumulative Capital Deployed	Cumulative Capital Deployed / HHs
<60%	60,769	7%	967	12%	3,154	9%	51.9	$79,580,778	8%
60%-80%	99,220	12%	1,300	17%	4,565	13%	46.0	$121,175,576	11%
80%-100%	165,331	19%	1,462	19%	6,360	18%	38.5	$190,023,516	18%
100%-120%	187,463	22%	1,661	21%	7,913	23%	42.2	$248,657,114	23%
>120%	345,311	40%	2,415	31%	12,506	36%	36.2	$419,839,893	40%
Total	858,094	100%	7,805	100%	34,498	100%	40.2	$1,059,276,877	100%

Table 4. RSIP Closed Activity in Distressed Communities

Distressed Designation	Owner Occupied 1-4 Unit Households	% of Total HHs	# Project Units for FY 2019	% Project Units for FY 2019	# of Cumulative Project Units	% of Cumulative Projects	Cumulative Project Units / 1,000 HHs	Cumulative Capital Deployed	Cumulative Capital Deployed / HHs
Distressed	438,710	32%	2,839	36%	10,303	30%	23.5	$282,837,829	27%
Not Distressed	916,003	68%	4,966	64%	24,195	70%	26.4	$776,439,048	73%
Total	1,354,713	100%	7,805	100%	34,498	100%	25.5	$1,059,276,877	100%

While the RSIP has been effective in reaching LMI households, in FY19 Green Bank also investigated whether the RSIP has been successful in reaching communities of color (i.e., Black and Hispanic households). When examining solar deployment by the racial and ethnic makeup of the census tract, the analysis demonstrated that RSIP has been very successful in reaching communities of color. To date, on a per OOH basis, there are 86% more RSIP installations in majority Black neighborhoods, 18% more in majority Hispanic neighborhoods, and 20% more in No Majority race neighborhoods as compared to majority White neighborhoods – see Table 4 to compare % OOH vs % of RSIP for AMI Bands of <100%. A report on this analysis titled "Sharing Solar Benefits" was published in May 2019.[13]

[13] ctgreenbank.com/wp-content/uploads/2019/05/Sharing-Solar-Benefits-May2019.pdf

Table 5. Owner-Occupied Housing and RSIP Distribution by Race/Ethnicity and Income

Census Tract Income Level (AMI Band)	Majority Hispanic		Majority Black		Majority White		No Majority Race	
	% of OO Homes	% of RSIP	% of OO Homes	% of RSIP	% of OO Homes	% of RSIP	% of OO Homes	% of RSIP
<60%	30.3%	24.91%	12.8%	22.41%	18.8%	14.58%	38.0%	38.09%
60%-80%	10.8%	13.04%	5.7%	7.68%	62.7%	56.04%	20.7%	23.24%
80%-100%	1.2%	1.57%	2.9%	4.48%	89.7%	87.94%	6.3%	6.01%
100%-120%	--	--	--	--	95.0%	95.04%	5.0%	4.96%
>120%	--	--	--	--	96.1%	95.14%	3.9%	4.86%
Grand Total	3.6%	4.11%	2.1%	3.77%	85.3%	81.81%	9.0%	10.31%

An emerging market is residential solar PV plus battery storage. Approximately 175 RSIP projects have included battery storage thus far including roughly half of these approved recently, in FY19. The Tesla PowerWall and sonnenBatterie eco are the most prevalent battery storage equipment installed with solar PV in RSIP thus far. As previously noted, the Green Bank applied to the Electric Efficiency Partners Program (EEPP) in FY19 to seek funding for a battery storage incentive program and hopes to support deployment of battery storage in combination with solar PV either through EEPP or RSIP.

As a requirement to receive the RSIP incentive, all residential solar PV customers must have an energy audit performed on their home, preferably the utility-administered Home Energy Solutions (HES) audit, but with other options if needed. RSIP-wide, an estimated 87% of audits performed were either HES audits or DOE Home Energy Scores (HES). In FY19, 94% of audits were either HES or DOE HES. Non-HES audits were performed by Building Performance Institute (BPI) certified auditors, Home Energy Rating System (HERS) raters, other certified energy managers or were exempt due to being new construction or having a health and safety exemption. The energy audit requirement encourages adoption of energy efficiency measures along with solar PV.

An area of ongoing importance for the long-term sustainability of the solar PV industry is reduction of costs, in particular non-hardware or soft costs. Building off of work conducted under several U.S. Department of Energy (DOE) funding opportunities over the past seven years, the Green Bank continues to be active in initiatives that can expand solar PV access at reduced costs. In FY19 Green Bank participated in PURA docket 17-12-03 ("PURA Investigation into Distribution System Planning of the Electric Distribution Companies"). Discussions as part of this docket led to an expansion of the maximum allowable voltage variation for residential solar PV interconnection from +3% to +5%, significantly expanding the opportunity for residential solar PV customers to interconnect a system without incurring infrastructure improvement costs. Green Bank is also partnering with United Illuminating (an Avangrid Company) on a grid-side enhancement demonstration project that aims to solve a for a substation constraint via non-wires alternatives, primarily the installation of distributed energy resources (DERs) on two distribution circuits forecasted to exceed capacity in a five-year planning horizon. With federal grant support, Green Bank has participated in the National Renewable Energy Laboratory's Solar Energy Innovation Network (SEIN) a national initiative that researches solutions to real-world challenges associated with solar energy adoption. Participation in the SEIN network has significantly increased Green Bank's institutional knowledge around quantifying the value of combining solar and other DERs, such as storage, for grid flexibility, reliability, and resiliency. These lessons learned will continue to serve Green Bank as it explores future opportunities to enhance the value residential solar and other DERs can provide to the grid.

In addition, the Green Bank has incorporated soft cost reduction strategies into other statewide programs, including Sustainable CT. A statewide voluntary certification program for municipalities, Sustainable CT offers resources and training to participating towns to become more sustainable and earn credit in the program. Towns have access to the resources the Green Bank developed through the DOE SunShot grant work as well as staff who provide technical assistance in streamlining permitting processes for solar installations. This support has helped 21 towns earn over 250 points in the first round of the program certifications. The Green Bank continues to provide ongoing assistance to towns, especially as changing policies continue to impact solar soft costs.

For a breakdown of the use of Green Bank resources for Infrastructure Sector Programs (see Table 6).

Table 6. Distribution of Green Bank Funds Invested in Projects and Programs through Subsidies, Credit Enhancements, and Loans and Leases for FY 2019[14]

Program	Subsidies		Credit Enhancements		Loans and Leases		Total
RSIP	$17,778,858	100%	$0	0%	$0	0%	$17,778,858

Of these programs, the following is a breakdown of their contributions made thus far towards the performance target and the human resources required to implement them (see Table 6):

Table 7. Program Progress Made in FY 2019[15]

Key Metrics	RSIP	Total Program Progress
Date of Program Approval	Feb-2012	
Date of Program Launch	Mar-2012	
Ratepayer Capital at Risk	$17,778,858	$17,778,858
Private Capital	$217,939,173	$217,939,173
Deployed (MW)	66.2	66.2
# of Loans/Installations	7,805	7,805
Lifetime Production (MWh)	1,885,885	1,885,885
Annual Combined Energy Generated & Saved (MMBtu)	257,386	257,386

"Top 5" Headlines

The following are the "Top 5" headlines for Infrastructure Sector Programs for FY 2019:

1. Solar policy fight re-energizes in CT[16]

The Middletown Press (February 5, 2019)

No fewer than four pieces of legislation — half from Republicans, half from Democrats — have been filed to at least slow down, if not repeal, the process started through Public Act 18-50, which effectively gets rid of net-metering, making Connecticut one of the first blue states to do so. Because of the complex upgrades

[14] Includes only closed transactions
[15] Includes only closed transactions
[16] https://www.middletownpress.com/local/article/Solar-policy-fight-re-energizes-in-CT-13590316.php

needed to physically implement some of the changes PURA is considering, Eversource has told PURA it would take “at least 24 months” to complete them. United Illuminating estimates it would take them six to nine months. The original mandate for RSIP was to lower incentives as it progressed and ensure the sustained orderly development of a local solar industry.

2. [Connecticut Green Bank Monetizes Solar Renewable Energy Certificates in a Rated Securitization](https://www.taxequitytimes.com/2019/03/connecticut-green-bank-monetizes-solar-renewable-energy-certificates-in-a-rated-securitization/?utm_source=Mondaq&utm_medium=syndication&utm_campaign=View-Original)[17]

Tax Equity Times (March 18, 2019)

The Connecticut Green Bank is monetizing solar renewable energy credits (SHRECs) generated under its Solar Home Renewable Energy Program and sold to Connecticut Light and Power (d/b/a Eversource Energy) and United Illuminating (UI). The utility SHREC buyers pay $50 for the SHRECs generated by the first 6788 PV systems in so-called “tranche 1” and $49 for each generated SHREC for the next 7250 PV systems in “tranche 2” over a fifteen-year term.

3. [Connecticut Green Bank monetizes USD 38.6m of solar credits](https://renewablesnow.com/news/connecticut-green-bank-monetises-usd-386m-of-solar-credits-650181/)[18]

Renewables Now (April 10, 2019)

The Connecticut Green Bank announced on Tuesday a first-of-a-kind issuance through which it monetizes USD 38.6 million worth of solar home renewable energy credits (SHRECs). The bank said it is selling investment-grade rated ABS notes involving SHRECs generated through the Residential Solar Investment Program (RSIP) by about 14,000 residential solar photovoltaic systems with a combined capacity exceeding 105 MW. The SHRECs were sold in annual tranches to investor-owned utilities Eversource Energy and United Illuminating Company, at a fixed, predetermined price over 15 years. The bank noted that the sale proceeds will recover the costs of administering and managing the RSIP, including the incentives offered to residential participants.

4. [Cool thing: Connecticut Green Bank makes intentional effort to boost solar energy in communities of color](https://solarbuildermag.com/news/cool-thing-connecticut-green-bank-makes-intentional-effort-to-boost-solar-energy-in-communities-of-color/)[19]

Solar Builder (May 22, 2019)

Today, on a per owner-occupied household basis, there are 86 percent more RSIP installations in majority Black neighborhoods, 18 percent more in majority Hispanic neighborhoods, and 20 percent more in No Majority race neighborhoods as compared to majority White neighborhoods. The rise is due to Green Bank’s successful efforts to make solar energy more accessible and affordable for homeowners in communities of color and low-to-moderate income (LMI) households by intentionally engaging these traditionally underserved communities, bucking a national trend of disparity.

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[17] https://www.taxequitytimes.com/2019/03/connecticut-green-bank-monetizes-solar-renewable-energy-certificates-in-a-rated-securitization/?utm_source=Mondaq&utm_medium=syndication&utm_campaign=View-Original

[18] https://renewablesnow.com/news/connecticut-green-bank-monetises-usd-386m-of-solar-credits-650181/

[19] https://solarbuildermag.com/news/cool-thing-connecticut-green-bank-makes-intentional-effort-to-boost-solar-energy-in-communities-of-color/

5. Connecticut net metering is safe until after 2021 due to law reversal[20]

Solar Power World (June 5, 2019)

The 2018 Connecticut state law that would have ended net metering was reversed before it had a chance to take effect. On June 4, the Connecticut Senate voted 32-1 to pass HB 5002, which rescinds a 2018 state law that called for sunsetting net metering this fall. The bill delays action on net metering until after 2021 and extends incentives for an additional 50 MW of home solar through the Residential Solar Investment Program.

Lessons Learned

Based on the implementation of the Infrastructure Sector Programs through FY19, the following are the key lessons learned:

- **The policy and regulatory landscape in Connecticut has been in tremendous flux** in the past fiscal year and will continue to evolve over the near term. The Green Bank can focus on the levers it does have to provide stability for residential solar PV and other sectors of the industry that it has the most ability to affect, while continuing to provide informed input into legislative and regulatory forums that provide the opportunity to communicate the benefits of clean energy to the state of Connecticut – in particular grid benefits such as peak load reduction, reliability benefits, carbon dioxide reduction and local economic development benefits.
- **With the extension of RSIP to 350 MW by PA 19-35, the Green Bank will now have approximately one additional year to support the residential solar PV market in its transition to a post-RSIP market.** The focus of FY20 will be helping to provide a sustained orderly transition for the residential solar industry in the context of RSIP ending as well as broader state policy and regulatory changes (i.e., the transition when net metering ends December 31, 2021 to tariff-based compensation starting in 2022). This context also includes the phasing out of the federal ITC. This transition will involve understanding the economics and other drivers of solar PV for residential customers in CT as well as strategies for supporting adoption of solar PV aside from providing incentives. Providing information to customers such as through Gosolarct.com, continuing to collaborate with the Department of Consumer Protection, and continuing to work toward soft cost reduction (such as through Sustainable CT) and grid integration strategies for solar PV (including through support of battery storage deployment) can all support this process.
- **Working closely with RSIP contractors and system owners has been valuable in FY19 and will continue to be important in FY20.** With respect to solar PV policy, regulation, administration of incentive programs and in supporting the solar PV industry through upcoming market transitions, it will continue to be critical to have ongoing dialogue with and input from solar companies as to how best support the industry.
- **Continue to support the LMI market while developing a strategy to prepare for the end of RSIP** – While RSIP has successfully deployed PV to the LMI market over the past few years, the LMI PBI is almost 3 times the level of incentive as the regular PBI which could result in an incentive cliff for the LMI market when RSIP ends. Green Bank staff will need to develop a strategy to reduce the LMI PBI and/or implement other solutions to support the post-RSIP LMI market.
- **The RSIP team will need to continue improving administrative processes to make the most efficient use of resources and staff time as the program begins to wind down** in what will likely be approximately one final year of RSIP approvals, followed by another year (or more)

[20] https://www.solarpowerworldonline.com/2019/06/connecticut-net-metering-safe-for-now/

needed for projects to reach completion and be fully processed through the program – including review and clean-up of documentation and data, and follow-through on REC certifications and tranching. Improvement of processes will continue to rely on data and monitoring platforms to capture and process data reliably, along with integration of data into the Green Bank's data warehouse, and solutions to help ensure reporting of PV production data and trouble-shooting of system issues. Time spent working with the operations team to streamline processes going forward will help provide more efficient asset management in the long term. Ongoing coordination with operations, finance and accounting on REC monetization processes will continue to be critical. Lastly, staff flexibility and growth will be important as roles evolve to facilitate program transition and close-out in FY20 and beyond.

Infrastructure Sector Programs FY 2020 Targets

Of the programs being implemented in the Infrastructure Sector Programs, the following is a breakdown of the key targets for each program (see Table 7):

Table 7. Number of Projects, Capital Deployed, and Clean Energy Deployed (MW)

Program	# of Projects	Capital Deployed	Clean Energy Deployed (MW)
RSIP	7,059	$214,200,000	60.0
Battery Storage	500	$5,500,000	2.0
Total	**7,559**	**$219,700,000**	**60.0**

For Infrastructure Sector Programs, there are approximately 9 full time equivalent staff members supporting one program, RSIP.

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CONNECTICUT GREEN BANK

Memo

To: Board of Directors of the Connecticut Green Bank

From: Lucy Charpentier, Bryan Garcia, Kerry O'Neill, and Eric Shrago

Cc Mackey Dykes, Brian Farnen, and Bert Hunter

Date: July 18, 2019

Re: Residential Sector Programs – Program Performance towards Targets for FY 2019 - Preliminary

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Overview

Public Act 11-80 (PA 11-80), *An Act Concerning the Establishment of the Department of Energy and Environmental Protection and Planning for Connecticut's Energy Future*, requires that the Connecticut Green Bank (Green Bank) develop and implement several programs to finance and otherwise support clean energy investment in residential projects to promote deep energy efficiency retrofits, renewable energy deployment, and fuel and equipment conversions in single-family and multifamily homes across the state.

For a description of the programs and the TAM and SAM, please see the Comprehensive Plan for Fiscal Years 2017 through 2019.

Performance Targets and Progress

With respect to the Comprehensive Plan approved by the Board of Directors of the Green Bank on July 21, 2017 and revised on January 26, 2018,[1] the following are the performance targets for FY 2019 and progress made to targets for the Residential Sector Programs (see Table 1) as of June 30, 2019.

Table 1. Program Performance Targets and Progress Made to the Comprehensive Plan for FY 2019

Key Metrics	Program Performance Original Targets (as of 07/01/18)	Program Performance Revised Targets (as of 07/01/18)	Program Progress[23]	% of Goal
Capital Deployed[4]	$26,910,855	$26,910,855	$69,694,541	259%

[1] For mid-year revisions to budget and targets, see "Q2 Progress to Targets" memo of January 19, 2018 on page 74 – click here
[2] Includes only closed transactions.
[3] Includes $106,950 in Capital Deployed, $106,950 in CGB Investment, and $25,500 in Private Capital for 4 Multifamily Predevelopment financings.
[4] Capital Deployed is used to measure Investment actuals to targets and it includes fees related to financing costs and adjustments for Fair Market Value which are not included in the Gross System Cost. It represents: the Fair Market Value for Commercial/Residential Leases, the Amount Financed or Gross System Cost (whichever is greater) for CPACE, the Amount Financed for Residential financing products and the Gross System Cost for all other programs.

Key Metrics	Program Performance Original Targets (as of 07/01/18)	Program Performance Revised Targets (as of 07/01/18)	Program Progress[23]	% of Goal
Investment at Risk[5]			$6,851,872	
Private Capital[6]			$62,068,582	
Deployed (MW)	5.0	5.0	6.8	137%
# of Loans/Projects	1,145	1,145	1,658	145%
Leverage Ratio			10.1	

In summary, for Residential Sector Programs in FY 2019, there were 1,658 projects (achieving 145% of the goal) requiring $69.6MM of investment (achieving 259% of the goal) that led to the deployment of 6.8 MW of clean energy deployed (achieving 137% of the goal), that delivered a leverage ratio of nearly 10:1 for private to public funds invested.

Executive Summary for the Residential Sector Programs

The following is a bulleted executive summary of the Residential Sector Programs:

- Exceeded targets for all programs – for the sector, exceeded capital deployed, # of loans/projects, MW deployed and leverage ratio.
- The PosiGen Solar for All partnership closes its strongest fiscal year performance since program launch with 801 installations, helping the state's solar industry reach parity in deployment across income levels and beyond parity in expanding solar to communities of color.
- The Smart-E Loan program encouraged contractors at the beginning of the fiscal year to partner directly with lenders to provide their customers with contractor funded Interest Rate Buy Downs. This offer is popular with mid to larger sized HVAC and solar contractors as it similar to, but cheaper than the manufacturer financing they were offering previously.
- In partnership with Michigan Saves, Inclusive Prosperity Capital ("IPC") competed and one a $250,000 grant from Hewlett foundation to support development of a new online platform for Smart-E Loan contractors and lenders that will launch in the beginning of fiscal year 2020. This new platform will be made available to other similar programs around the country by IPC. Green Bank contributed budget to the development of the program and will share in any eventual license fee revenue on a pro rata basis.
- The number of credit-challenged Smart-E loans remains low due to the inability to promote the offer broadly after the marketing budget was eliminated due to the legislative sweeps, however the gap is closing in terms of uptake across the income bands.

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[5] Includes funds from the Clean Energy Fund, RGGI allowance revenue, repurposed ARRA-SEP funds, and other resources that are managed by Green Bank that are committed and invested in subsidies, credit enhancements, and loans and leases. Does not include commitments for the $600,000 guarantee for Connecticut Housing Investment Fund (now called Capital for Change) to support their recapitalization from Webster Bank for residential 1-4 energy lending, including Smart-E lending, or the $5,000,000 guarantee to Housing Development Fund for the repayment of the MacArthur Foundation program related investment.

[6] Private Investment is based on the Gross System Cost and includes adjustments related to financing costs or Fair Market Value.

- The Green and Healthy Homes project kicked off the second phase of the project doing a CT-specific Medicaid ROI analysis (one of 2 states to do this), and convening stakeholders from the health, housing, and energy sectors on pilot design.
- Achieved and exceeded Multifamily program goals. Met the project count goal, closing 19 projects, and catalyzed $3.3M in energy capital deployed, exceeding our target of $2.57M by 1.3X.
- Successfully began deploying the EnergizeCT Health and Safety Revolving Loan Fund for multifamily properties using $1.5 million from DEEP after a slow start in FY'18 due to challenges in this market. Closed $235,000 in loans, touching 950 units, with a pipeline building behind these.
- Completed an in-depth customer survey and focus groups to identify pain points and opportunities for customer facing improvements. This information learned is informing real time program adjustments and improvements.
- Developed and approved underwriting for the LIME Loan program to serve **ALL** multifamily properties in CT, including market rate properties and those with tenant paid utilities. (A marketing campaign will be launched in FY'20 once LIME is adequately capitalized.)
- Multifamily team was invited by several prominent national housing institutions develop and deliver training, using our programs and projects as case studies, which recognizes the leadership role we are playing locally and nationally in "cracking the multifamily nut" to deploy clean energy financing.

Residential Sector Programs – Single Family

The following are brief descriptions of the progress made under the Comprehensive Plan for FY 2019 in the Residential Sector Programs:

- **Energize CT Smart-E Loan** – a credit enhancement program that in part uses repurposed ARRA-SEP funds as a loan loss reserve to attract private capital from local credit unions and community banks. The product provides low interest (i.e. 4.49-6.99%) unsecured loans at long terms (i.e. between 5 to 20 years) for technologies that are consistent with the goals of the Comprehensive Energy Strategy. In FY19, several program contractors elected to buy down the interest rate on certain Smart-E Loans to be more competitive in the market.

Table 2. Energize CT Smart-E Loan Overview for FY 2019

Program Data	Approved[7]	Closed[8]	Total
Projects	258	838	1,096
Installed Capacity (MW)	0.1	0.9	1.0
Lifetime Clean Energy Produced (MWh)	6,011	58,849	64,860
Annual Combined Energy Generated & Saved (MMBtu)	1,128	12,065	13,193
Subsidies ($'s)	$0	$0	$0

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[7] This reflects projects that are currently just approved but not closed. Projects that were closed this year are not included in this number

[8] These are excluded from the approved totals as they are now in the closed status.

Credit Enhancement ($'s)[9]	$0	($1,354,092)	($1,354,092)
Loans or Leases ($'s)	$0	$0	$0
Total Green Bank Investment ($'s)	$0	($1,354,092)	($1,354,092)
Private Capital ($'s)	$3,761,936	$11,403,432	$15,165,368
Direct Job Years	13	67	80
Indirect & Induced Job Years	18	87	106
Lifetime Tons of CO2 Emissions	3,215	31,387	34,601

Table 3. Energize CT Smart-E Loans by Channel

Smart-E Loan Channel	Closed	% of All Loans
EV	1	0%
Home Performance	69	8%
HVAC	648	77%
Solar	93	11%
Unknown[10]	27	3%
Total	838	100%

For a breakdown of Smart-E loan volume by credit score band, see Table 4.

Table 4. Energize CT Smart-E Credit Scores

Credit Ranges									
Unknown	**580-599**	**600-639**	**640-679**	**680-699**	**700-719**	**720-739**	**740-779**	**780+**	**Grand Total**
3	6	34	93	122	95	104	187	194	838
0%	1%	4%	11%	15%	11%	12%	22%	23%	100%

For a breakdown of Smart-E loan volume and investment by census tracts categorized by Area Median Income (AMI) bands and Distressed Communities as designated by DECD, see Tables 5 and 6. It should be noted that Smart-E is not an income targeted program and only in the second half of FY18 began offering the expanded credit-challenged version of the program, opening new opportunities to partner with mission-oriented lenders focused on reaching consumers in underserved lower income markets.

[9] Interest rate buydown data as of 6/30/2018. Based on the Objective Functions for the Smart-E Loan, the credit enhancement for the second loss reserve represents 7.5% of the value of the local lender loans for Class A loans (FICO of >680) or 15% of the value of the local lender loans for Class Be loans (FICO of 640-679). This Includes $1,393,935 in loan loss reserves and $4,040,301 in interest rate buydowns.

[10] Channel not known due to trailing documentation/timing of data pull.

Table 5. Smart-E Loan Closed Activity in Metropolitan Statistical Area (MSA) Area Median Income (AMI) Bands

MSA AMI Band	Owner Occupied 1-4 Unit Households	% of Total HHs	# Project Units for FY 2019	% Project Units for FY 2019	# of Cumulative Project Units	% of Cumulative Projects	Cumulative Project Units / 1,000 HHs	Cumulative Capital Deployed	Cumulative Capital Deployed / HHs
<60%	60,769	7%	52	6%	236	6%	3.9	$3,099,630	5%
60%-80%	99,220	12%	111	13%	427	11%	4.3	$5,276,216	9%
80%-100%	165,331	19%	159	19%	694	18%	4.2	$9,767,516	16%
100%-120%	187,463	22%	194	23%	851	22%	4.5	$13,430,734	23%
>120%	345,311	40%	321	38%	1,592	42%	4.6	$27,648,637	47%
Total	858,094	100%	837	100%	3,800	100%	4.4	$59,222,732	100%

Table 6. Smart-E Loan Closed Activity in Distressed Communities

Distressed Designation	Owner Occupied 1-4 Unit Households	% of Total HHs	# Project Units for FY 2019	% Project Units for FY 2019	# of Cumulative Project Units	% of Cumulative Projects	Cumulative Project Units / 1,000 HHs	Cumulative Capital Deployed	Cumulative Capital Deployed / HHs
Distressed	438,710	32%	192	23%	814	21%	1.9	$10,784,494	18%
Not Distressed	916,003	68%	646	77%	2,988	79%	3.3	$48,500,212	82%
Total	1,354,713	100%	838	100%	3,802	100%	2.8	$59,284,705	100%

- **PosiGen Solar for All** – a solar PV lease and energy efficiency ESA financing program that focuses on the low to moderate income (LMI) market segment. Supported by $15 million subordinated debt investment from the Green Bank, into a total fund of $90 million to support over 2,400 homes, 801 homes in FY19 alone, with a focus on the low-to-moderate income market segment utilizing alternative underwriting approaches that examine factors such as bill payment history and bad debt and bank databases (see Table 8). 93% of projects include light weatherization and efficiency provided by HES or HES-IE and 66% of customers received deeper measures through PosiGen's energy efficiency agreement. The Solar for All program has been successful at reaching the LMI market segment with 59% of homes verified as low incomes. An independent survey of PosiGen customers has been conducted that found high levels of satisfaction with the product and with their savings.

Table 7. PosiGen Solar for All Overview for FY 2019

Program Data	Approved	Closed	Total
Projects	99	801	900
Installed Capacity (MW)	0.7	5.6	6.3
Lifetime Clean Energy Produced (MWh)	29,881	247,525	277,406
Annual Combined Energy Generated & Saved (MMBtu)[11]	4,169	33,802	37,972
Subsidies ($'s)	$0	$0	$0
Credit Enhancement ($'s)	$0	$0	$0

[11] Includes an additional 15.0 MMBtu for each project for the HES audit.

Loans or Leases ($'s)	$891,000	$7,209,000	$8,100,000
Total Green Bank Investment ($'s)	$891,000	$7,209,000	$8,100,000
Private Capital ($'s)	$1,694,103	$15,970,678	$17,664,781
Direct Job Years	7	61	68
Indirect & Induced Job Years	10	79	89
Lifetime Tons of CO2 Emissions	16,099	133,392	149,491

For a breakdown of PosiGen Solar for All volume and investment by census tracts categorized by Area Median Income bands and Distressed Communities as designated by DECD, see Tables 8 and 9. As an income-targeted program, this table illustrates the degree to which the goal of serving consumers in lower income communities is being met.

Table 8. PosiGen Closed Activity in Metropolitan Statistical Area (MSA) Area Median Income (AMI) Bands

MSA AMI Band	Owner Occupied 1-4 Unit Households	% of Total HHs	# Project Units for FY 2019	% Project Units for FY 2019	# of Cumulative Project Units	% of Cumulative Projects	Cumulative Project Units / 1,000 HHs	Cumulative Capital Deployed	Cumulative Capital Deployed / HHs
<60%	60,769	7%	244	30%	870	35%	14.3	$23,387,095	34%
60%-80%	99,220	12%	191	24%	562	23%	5.7	$15,477,398	22%
80%-100%	165,331	19%	128	16%	418	17%	2.5	$12,070,052	17%
100%-120%	187,463	22%	105	13%	270	11%	1.4	$8,062,088	12%
>120%	345,311	40%	133	17%	337	14%	1.0	$10,355,982	15%
Total	858,094	100%	801	100%	2,457	100%	2.9	$69,352,616	100%

Table 9. PosiGen Closed Activity in Distressed Communities

Distressed Designation	Owner Occupied 1-4 Unit Households	% of Total HHs	# Project Units for FY 2019	% Project Units for FY 2019	# of Cumulative Project Units	% of Cumulative Projects	Cumulative Project Units / 1,000 HHs	Cumulative Capital Deployed	Cumulative Capital Deployed / HHs
Distressed	438,710	32%	452	56%	1,470	60%	3.4	$40,547,130	58%
Not Distressed	916,003	68%	349	44%	987	40%	1.1	$28,805,486	42%
Total	1,354,713	100%	801	100%	2,457	100%	1.8	$69,352,616	100%

Residential Sector Programs – Multifamily

The following are brief descriptions of the progress made under the Comprehensive Plan for FY 2019 in the Residential Sector Programs for Multifamily properties:

- **Multifamily** – offerings for both the affordable and market rate multifamily segments include pre-development and term loan programs that enable property owners to assess, design, fund and implement energy measures and remediate related health and safety measures. Pre-development loan programs were funded by the $5 million program-related investment from the MacArthur Foundation through the Housing Development Fund (HDF), backed by a Green Bank repayment guaranty (see Table 12). Term loan programs include the Low Income Multifamily Energy (LIME) loan, Solar PPA program, and the ECT Health & Safety Revolving Loan program (ECT H&S RLF). LIME is offered by Capital for Change and supported by $3,500,000 of seed capital and

$625,000 of ARRA-SEP and Green Bank funds for a loss reserve. Solar PPA options leverage the C&I sector programs (see Table 11). The ECT H&S RLF is supported by grant from DEEP. During FY'19 the DEEP H&S funds were transferred from Green Bank to IPC where this program is now administered. Limited Catalyst Loan Funds for flexible gap financing to support term loans using MacArthur Foundation funds were also available, but not used for this purpose in FY'19.

Table 10. Multifamily Term Financing Overview for FY 2019

Program Data	Approved	Closed	Total
Projects	4	14	18
Installed Capacity (MW)	0.1	0.3	0.4
Lifetime Clean Energy Produced (MWh)	2,426	6,877	9,303
Annual Combined Energy Generated & Saved (MMBtu)	376	316	692
Subsidies ($'s)	$0	$0	$0
Credit Enhancement ($'s) [12]	$0	$1,129[13]	$1,129
Loans or Leases ($'s)	$0	$980,460	$980,460
Total Green Bank Investment ($'s)	$0	$981,589	$981,589
Private Capital ($'s)[14]	$3,637,726	$34,446,598[15]	$38,084,324
Direct Job Years	23	211	234
Indirect & Induced Job Years	30	284	314
Lifetime Tons of CO2 Emissions	1,307	3,705	5,012

Table 11. Multifamily Pre-Development Financing Overview for FY 2019

Program Data	Approved	Closed	Total
Projects	37	5	42
Installed Capacity (MW)	-	-	-
Lifetime Clean Energy Produced (MWh)	-	-	-
Annual Combined Energy Generated & Saved (MMBtu)	-	-	-
Subsidies ($'s)	$0	$0	$0
Credit Enhancement ($'s)	$0	$0	$0
Loans or Leases ($'s)	$64,540	$15,375	$79,915
Total Green Bank Investment ($'s)	$64,540	$15,375	$79,915
Private Capital ($'s)	$504,120	$247,875	$751,995
Direct Job Years	3	1	5

[12] This is the actual loan loss reserve position of the LIME loan as of 6/30/2017

[13] Loan Loss Reserve to be finalized as part of the FY2019 year-end accounting close

[14] This number includes energy and health and safety capital deployed.

[15] Energy and Health & Safety Capital Deployed is $2,948,967

Indirect & Induced Job Years	4	2	6
Lifetime Tons of CO2 Emissions	-	-	-

Table 12. Multifamily Number of Units

	Approved	Closed	Total
Affordable	1,491	2,225	3,716
Market Rate	811	-	811
Total # of Multifamily Units	2,302	2,225	4,527

For a breakdown of Multifamily volume and investment by census tracts categorized by Area Median Income bands and Distressed Communities as designated by DECD, see Tables 13 and 14. As a program predominantly focused on properties that serve low-to-moderate income residents, this table doesn't reflect the degree to which the goal of serving lower income residents is being met. The program is equally focused on affordable housing properties located in more affluent communities and census tracts that are housing families of lower incomes as it is on affordable housing properties in lower income census tracts.

Table 13. Multifamily Closed Activity in Metropolitan Statistical Area (MSA) Area Median Income (AMI) Bands

MSA AMI Band	Total Owner/Rental Occupied 5+ Unit Households	% of Total HHs	# Project Units for FY 2019	% Project Units for FY 2019	# of Cumulative Project Units	% of Cumulative Projects	Cumulative Project Units / 1,000 HHs	Cumulative Capital Deployed	Cumulative Capital Deployed / HHs
<60%	86,225	37%	1,396	65%	4,049	53%	47.0	$89,882,207	$1,042.41
60%-80%	45,398	19%	104	5%	749	10%	16.5	$10,000,587	$220.29
80%-100%	49,125	21%	566	26%	1,632	22%	33.2	$12,209,992	$248.55
100%-120%	30,753	13%	60	3%	747	10%	24.3	$8,556,412	$278.23
>120%	22,618	10%	31	1%	393	5%	17.4	$6,039,844	$267.04
Total	234,119	100%	2,157	100%	7,570	100%	32.3	$126,689,042	$541.13

Table 14. Multifamily Closed Activity in Distressed Communities

Distressed Designation	Owner Occupied 1-4 Unit Households	% of Total HHs	# Project Units for FY 2019	% Project Units for FY 2019	# of Cumulative Project Units	% of Cumulative Projects	Cumulative Project Units / 1,000 HHs	Cumulative Capital Deployed	Cumulative Capital Deployed / HHs
Distressed	438,710	32%	2,023	91%	4,678	60%	10.7	$95,025,412	74%
Not Distressed	916,003	68%	202	9%	3,169	40%	3.5	$32,716,723	26%
Total	1,354,713	100%	2,225	100%	7,847	100%	5.8	$127,742,135	100%

For a breakdown of the use of Green Bank resources for Residential Programs – see Table 15.

Table 15. Distribution of Green Bank Funds Invested in Projects and Programs through Subsidies, Credit Enhancements, and Loans and Leases for FY 2019[16]

Program	Subsidies		Credit Enhancements		Loans and Leases		Total
Smart-E Loan	$0	0%	($1,354,092)	100%	$0	0%	($1,354,092)
PosiGen	$0	0%	$0	0%	$7,209,000	100%	$7,209,000
Multifamily Term	$0	0%	$1,129	0%	$980,460	100%	$981,589
Multifamily Pre-Development	$0	0%	$0	0%	$15,375	100%	$15,375
Total	$0	0%	($1,352,963)	-20%	$8,204,835	120%	$6,851,872

Of these programs, the following is a breakdown of their contributions made thus far towards the performance target and the human resources required to implement them (see Table 16):

Table 16. Program Progress Made for FY 2019[17]

Key Metrics	Smart-E	PosiGen	Multifamily Term[18]	Multifamily Pre-Dev	Total Program Progress
Date of Program Approval	Nov 2012	Jun 2015	Oct 2013 – Jan 2017	Oct 2013 – Oct 2015	
Date of Program Launch	Nov 2013	Jul 2015	Oct 2013 – Jan 2017	Oct 2013 – Oct 2015	
Ratepayer Capital at Risk	($1,354,092)	$7,209,000	$981,589	$15,375	$6,851,872
Private Capital	$11,403,432	$15,970,678	$34,446,598	$247,875	$62,068,582
Deployed (MW)	0.9	5.6	0.3	-	6.8
# of Loans/Installations	838	801	14	5	1,658
Lifetime Production (MWh)	58,849	247,525	6,877	0	313,251
Annual Combined Energy Generated & Saved (MMBtu)	12,065	33,802	316	0	46,183

"Top 5" Headlines

The following are the "Top 5" headlines for Residential Sector Programs for FY 2019:

1. PosiGen $90M credit facility means more solar in CT credit

   Hartford Business Journal

   Together the Connecticut Green Bank, Inclusive Prosperity Capital, and asset manager LibreMax Capital provide $90 million, three-year credit facility to help continue its work leasing solar panels to low-and-moderate households in Connecticut.

[16] Includes only closed transactions
[17] Includes only closed transactions
[18] Multifamily is a collection of individual programs, each with their own approval and launch dates.

2. [Connecticut Green Bank makes intentional effort to boost solar energy in communities of color]

   [Solar Builder]

   Connecticut is bucking a national trend of disparity when it comes to solar adoption among communities of color, according to figures released today by the Connecticut Green Bank. A primary driver of democratized access to solar energy in the state has been the Green Bank and PosiGen's Solar for All program. The Solar for All program has been even more successful than the overall RSIP program in reaching communities of color. PosiGen has more projects per home in majority Black (1275%), Hispanic (408%) and No Majority race (427%) neighborhoods than in majority White neighborhoods.

3. [Duncklee Receives Top Performer Award from Connecticut Green Bank
   Providing customers with loans for high-efficiency HVAC equipment]

   [ACHR News]

   Duncklee Inc. received the Top Performer award from Connecticut Green Bank (CGB).Duncklee and CGB teamed up with Core Plus Credit Union to offer consumers efficient heating and cooling systems with low-interest financing.

4. [Solar for All? Removing Financial Obstacles to Green Energy
   More than a dozen states are investing in programs to make clean energy available to low- and moderate-income households]

   [NBC News]

   Connecticut has a program in which solar panels are leased to low- and moderate-income families through a non-profit organization called Inclusive Prosperity Capital, which was spun off from the Connecticut Green Bank and PosiGen Solar and Energy Efficiency. PosiGen started in New Orleans as the city rebuilt after Hurricane Katrina and found that thousands of homeowners who wanted to install solar panels and make their homes more energy efficient but could not.

5. [Hartford Habitat for Humanity Celebrates its 30th Anniversary with Unveiling of First Zero Energy Ready Home]

   [North American Clean Energy]

   Hartford Area Habitat for Humanity and partners Eversource, Home Energy Technologies, PosiGen and Connecticut Green Bank recently celebrated the construction of Habitat's first Zero Energy Ready Home, located at 153 Roosevelt Street in Hartford.

   Unveiled during a dedication ceremony on May 31, the Roosevelt Street home was built to U.S. Department of Energy Zero Energy Ready home standards, and is so energy efficient it can offset all or most of its energy consumption.

Lessons Learned

Based on the implementation of the Residential Sector Programs thus far, the following are the key lessons learned:

Residential 1-4

- **Despite competition in the market, contractors continued using Smart-E.** The solar financing market has blossomed in the last twelve months which has drawn local solar installers away from local products like the Smart-E Loan and to bigger national financing options though several preferred the Smart-E Loan due to the contractor funded IRB option, no additional contractor fees, and the timeliness and transparency on payments they are owed. HVAC and home performance contractors and their customers prefer that Smart-E has no down payment requirement and that the loan has flexibility in eligible measures and underwriting criteria.

- **Smart-E Lender mix is susceptible to mergers and lender changes in strategy.** Smart-E lost two lenders in FY 2019 due to strategic changes on those institutions. Staff has learned how to deal with these events in ways that don't impact the overall program, and expects that this will happen periodically. One of the more active community banks was acquired by a larger regional bank that does not offer unsecured personal loans. Smart-E's longest participating lender left the program after their loan committee approved an increase in interest rates across all unsecured loan products, exceeding the Smart-E not to exceed rates. This lender is still taking limited applications from their top two performing contractors at the agreed upon not to exceed rates.

- **PosiGen is driving expansion of solar to communities of color because of green jobs.** PosiGen is the primary driver in eliminating the income and racial disparity in solar adoption in Connecticut, contrasting national trends. The company's community-driven marketing approach has been successful at reaching underserved customer segments. Similarly, their hiring approach has been to hire within the communities they are active, including their headquarters in Bridgeport and the newly opened second office in Hartford. PosiGen's commitment to market and hire within diverse communities underpins the trends we are seeing in solar deployment.

Multi-Family

Steady (and significant) progress continues to be made against heavy trade winds…
Despite the challenges of this sector, since inception in 2014, the Green Bank's multifamily loan programs have touched about 4.5% of all multifamily units in CT that serve low- and moderate-income residents (approx. 6,600 units).

- **FY'19 has been a Year of Transition & Evolution.** FY'19 has been a year of transition and evolution for the multifamily team. In response to the deep budget cuts at Green Bank in response to the legislative sweeps, we must find more effective ways to juggle the dynamic tension between delivering "inclusive prosperity" to the low-income multifamily sector that often requires: subsidized debt/ low returns, costly technical assistance, and high risk while ensuring that our programs evolve to become financially sustainable in the next 3 to 4 years. During FY'19 we critically evaluated how we run the business, our customers' experience (through in-depth surveys) as well as what is working well and what is not. The insights described below reflect our learnings and the ways we are responding/ adjusting. The second significant, and related, transition has been the transfer of Green Bank's multifamily programs to Inclusive Prosperity Capital. This transfer will be completed when Green Bank's Director of Multifamily Housing moves over to IPC in August of 2109.

- **Multifamily Pipeline Continues to Progress Steadily.** We continue to provide pre-development loans, term financing for energy and related health and safety measures, and solar PPA's. The 19 multifamily loans closed in FY'19 represent an even mix of pre-development loans, LIME and Health and Safety loans and solar PPAs. Four (4) of the 19 projects received pre-development loans and technical assistance from Green Bank, but funded implementation from other sources including CHFA, DOH, private banks and reserves. One of these projects, Columbus Commons, located in downtown New Britain is CT's first passive house mixed-income development. Projects continue to take a year or more to close after initial inquiry and many of our projects continue to require significant technical assistance to nurture through the application, project development and closing process. We continue to support several distressed coops – enabling preservation of this important affordable housing resource through our programs. Deal volume remains steady. We expect to close on a similar number of projects in FY'20.

- **Customer Journey Analysis Provides Direction for Improvement.** In January 2019, the Multifamily team embarked on an introspective evaluation of the customer experience with the goal of identifying pain points and opportunities for improvement. The survey contained more than 30 questions focusing on their organization and property, program experience, barriers and opportunities, and psychographics. The resulting analysis uncovered several areas for improvement, including examining our program guidelines, documentation and messaging (particularly our solar PPA program) with an eye towards clarity and consistency, and the importance of continuing to create a more customer-centric approach throughout the process.

- **Products Continue to Evolve Based on Customer and Other Market Feedback.** At the request of the utility companies and others, we are expanding the LIME Loan program to serve all multifamily properties in CT including market rate properties as well as properties with tenant paid utilities. Adjustments have been made to the underwriting process that specifically address the split incentive issues presented by properties with tenant paid utilities. We will launch a marketing campaign for the new program in FY'20 once the LIME Loan program is adequately capitalized.

  The Sherpa Loan Program is being discontinued as of July 1, 2019. Although the concept of a one-stop, trusted professional to support owners through the project analysis, design, funding and implementation process is needed in the multifamily sector, Sherpa has proven to be complex, cumbersome, and expensive to execute. We will continue to offer the Navigator Pre-Development Loan program and integrate key elements of the Sherpa Program in where possible.

Residential Sector Programs FY 2020 Targets

Of the 4 program areas being implemented in the Residential Sector Programs, the following is a breakdown of the key targets for each program (see Table 17):

Table 17. Number of Projects, Capital Deployed, and Clean Energy Deployed (MW)

Program	# of Projects	Capital Deployed	Clean Energy Deployed (MW)
Smart-E Loan	540	$7,182,000	0.5
PosiGen Solar for All	615	$17,202,165	4.2
Multifamily Term Loans	9	$1,493,000	0.3
Multifamily Predevelopment Loans	2	$140,000	-
Multifamily Health & Safety	2	$110,000	-
Total	**1,168**	**$26,127,165**	**5.0**

For Residential Sector Programs, there are 13.2 full time equivalent staff members supporting four (4) different products and programs. In addition, staff also support ongoing asset management operations of closed programs CT Solar Lease and CT Solar Loan.

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CONNECTICUT GREEN BANK

Memo

To: Board of Directors of the Connecticut Green Bank

From: Lucy Charpentier, Mackey Dykes, Bryan Garcia, Eric Shrago, and Nicholas Zuba

Cc Brian Farnen and Bert Hunter

Date: July 18, 2019

Re: Commercial, Industrial and Institutional Sector Programs – Program Performance towards Targets for FY 2018 - Preliminary

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Overview

Pursuant to Public Act 12-2, the Connecticut Green Bank ("Green Bank") launched the Commercial and Industrial Property Assessed Clean Energy (C-PACE) program in January 2013. C-PACE is a statutorily mandated program that was the primary commercial and industrial (C&I) financing product in the comprehensive plan and budget for fiscal years 2017 through 2019. In addition to C-PACE, the Green Bank invests in and helps develop C,I,&I solar Power Purchase Agreement projects and, this year, sourced capital to enable the utility-run, Small Business Energy Advantage program to operate at a lower cost to ratepayers.

For program descriptions and information on the Total Addressable Market and Serviceable Addressable Market (SAM), please see the FY 2017 through FY 2019 Comprehensive Plan.

Performance Targets and Progress

With respect to the Comprehensive Plan approved by the Board of Directors of the Green Bank on July 21, 2017 and revised on July 28, 2018,[1] the following are the performance targets for FY 2019 and progress made to targets for the Commercial, Industrial and Institutional Sector Programs (see Table 1) as of June 30, 2019.

Table 1. Program Performance Targets and Progress Made to the Comprehensive Plan for FY 2019

Key Metrics	Program Performance Original Targets (as of 07/01/18)	Program Performance Revised Targets (of 07/01/18)	Program Progress[2]	% of Goal
Capital Deployed[3]	$33,082,500	$33,082,500	$68,376,562	207%

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[1] For mid-year revisions to budget and targets, see "Q2 Progress to Targets" memo of January 19, 2018 on page 74 – click here

[2] Includes only closed transactions

[3] Capital Deployed is used to measure Investment actuals to targets and it includes fees related to financing costs and adjustments for Fair Market Value which are not included in the Gross System Cost. It represents: the Fair Market Value for Commercial/Residential Leases, the Amount Financed or Gross System Cost (whichever is greater) for CPACE, the Amount Financed for Residential financing products and the Gross System Cost for all other programs.

Investment at Risk[4]			$53,414,557	
Private Capital[5]			$14,962,005	
Deployed (MW)	10.6	10.6	7.6	71%
# of Loans/Projects	73	73	4,060	5562%
Leverage Ratio			1.3	

In summary, for Commercial, Industrial and Institutional Sector Programs in FY 2019, there were 4,060 projects (achieving over 5,000% of the goal) requiring $68.4M of investment (achieving 207% of the goal) that led to the deployment of 7.6 MW of clean energy (achieving 71% of the goal), that delivered a leverage ratio of 1:3 for private to public funds invested.

Executive Summary for the CI&I Sector Programs

The following is a bulleted executive summary of the Infrastructure Sector Programs:

- Increased outreach and awareness of C-PACE for New Construction, building and cultivating new architect, developer, and project management relationships to build pipeline for FY20
- Higher activity from 3rd party capital providers than in any other fiscal year, with five new capital providers added in FY19 and a new capital provider closed on their first transactions in FY19.
- 13% of the C-PACE project in FY19 included efficiency, falling below the overall program average of 26%
- Surpassed the Green Bank capital deployed goal for C-PACE. Continuing to meet this goal and build revenue-producing assets for Green Bank is a key component of the sustainability goal.
- Deployed Onyx tax equity funds to support Commercial and Institutional Lease program, successfully closing a large new PPA project using these funds in FY19
- Completed a back-leveraged asset sale of six PPA projects to a new commercial and industrial solar market partner, Sunwealth, obtaining a development fee, utilizing Green Bank debt and retaining 10% of residual cashflows from the projects.
- Advanced negotiations with another new partner, Bright Community Capital, for the sale of fourteen PPA projects in exchange for a development fee, revenue from asset management support services, and interest income from the deployment of Green Bank debt in the transaction.
- 6 of the 8 Connecticut State Colleges & Universities (CSCU) solar PPA projects went into commercial operation in FY19. The CSCU portfolio is 4.6 MW in size and makes use of Clean Renewable Energy Bonds that were purchased by Banc of America Leasing & Capital.
- Closed on a $50m facility with Amalgamated bank to reduce the cost and expand the availability of capital for Eversource's Small Business Energy Advantage Program (SBEA).
- Closed on the first two loan purchases for the SBEA for a total of around 4,000 loans and nearly $41m in funding

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[4] Includes funds from the Clean Energy Fund, RGGI allowance revenue, repurposed ARRA-SEP funds, and other resources that are managed by the Connecticut Green Bank that are committed and invested in subsidies, credit enhancements, and loans and leases.
[5] Private Investment is based on the Gross System Cost and includes adjustments related to financing costs or Fair Market Value.

Commercial, Industrial and Institutional Sector Programs

The following are brief descriptions of the progress made under the last comprehensive plan in the Commercial, Industrial and Institutional Sector Programs:

- **C-PACE** – Commercial Property Assessed Clean Energy (C-PACE) is an innovative financing program that is helping commercial, industrial and multi-family property owners access affordable, long-term financing for smart energy upgrades to their buildings (see Table 2).

Table 2. C-PACE Overview for FY 2019

Program Data	Approved[6]	Closed	Total
Projects	10	36	46
Installed Capacity (MW)	2.5	4.9	7.3
Lifetime Clean Energy Produced (MWh)	69,865	102,504	172,369
Annual Combined Energy Generated & Saved (MMBtu)	6,900	2,278	9,178
Subsidies ($'s)	$0	$0	$0
Credit Enhancement ($'s)	$0	$0	$0
Loans or Leases ($'s)	$4,387,753	$8,286,314	$12,674,067
Total Green Bank Investment ($'s)	$4,387,753	$8,286,314	$12,674,067
Private Capital ($'s)	$6,178,394	$10,432,375	$16,610,769
Direct Job Years	41	53	94
Indirect & Induced Job Years	53	69	122
Lifetime Tons of CO2 Emissions	37,641	55,225	92,866

C-PACE has been used to fund projects in economically diverse locations across the state as reflected by Table 3 for Metropolitan Statistical Area (MSA) Area Median Income (AMI) and Table 4 for Distressed Communities as designated by DECD. It should be noted that C-PACE is not an income targeted program.

Table 3. C-PACE Closed Activity in Metropolitan Statistical Area (MSA) Area Median Income (AMI) Bands

MSA AMI Band	Total Population	% of Total Population	# Project Units for FY 2019	% Project Units for FY 2019	# of Cumulative Project Units	% of Cumulative Projects	Cumulative Project Units / 1,000 People	Cumulative Capital Deployed	Cumulative Capital Deployed / Population
<60%	649,617	18%	13	36%	63	24%	0.1	$34,428,571	$53.00
60%-80%	509,088	14%	5	14%	32	12%	0.1	$13,850,868	$27.21
80%-100%	641,084	18%	7	19%	45	17%	0.1	$32,245,904	$50.30
100%-120%	653,309	18%	5	14%	50	19%	0.1	$24,301,872	$37.20
>120%	1,126,543	31%	5	14%	69	26%	0.1	$44,436,547	$39.45
Total	3,579,641	100%	36	100%	268	100%	0.1	$154,621,370	$43.19

[6] This represents projects that are currently approved in FY19 but not closed. It does not include projects that were approved but have since closed.

Table 4. C-PACE Closed Activity in Distressed Communities

Distressed Designation	Total Population	% of Total Population	# Project Units for FY 2019	% Project Units for FY 2019	# of Cumulative Project Units	% of Cumulative Projects	Cumulative Project Units / 1,000 People	Cumulative Capital Deployed	Cumulative Capital Deployed / Population
Distressed	1,162,653	32%	16	44%	92	34%	0.1	$66,050,418	$56.81
Not Distressed	2,425,917	68%	20	56%	176	66%	0.1	$88,570,951	$36.51
Total	3,588,570	100%	36	100%	268	100%	0.1	$154,621,370	$43.09

- **<u>CT Solar Lease (Commercial)</u>** – a third-party ownership offering that combines public and private funding through the Connecticut Solar Lease Program to provide Power Purchase Agreements (PPAs) for solar PV to creditworthy commercial and industrial, as well as nonprofit, municipal, and multifamily housing, end-users of electricity (see Table 5). This program supports solar PV projects between 50 kW - 2 MW in size – with an average size of 200 kW. Following a strategic decision not to enter into a new tax equity funding structure after the CT Solar Lease 3 fund closed in September 2018, Green Bank will continue to serve the market with our PPA product through Inclusive Prosperity Capital.

Table 5. CT Solar Lease Overview for FY 2019

Program Data	Approved	Closed	Total
Projects	-	20	20
Installed Capacity (MW)	-	4.1	4.1
Lifetime Clean Energy Produced (MWh)	-	87,370	87,370
Annual Combined Energy Generated & Saved (MMBtu)	-	10,050	10,050
Subsidies ($'s)	$0	$0	$0
Credit Enhancement ($'s)	$0	$0	$0
PPAs ($'s)	$0	$8,060,683	$8,060,683
Total Green Bank Investment ($'s)	$0	$8,060,683	$8,060,683
Private Capital ($'s)	$0	$5,352,342	$5,352,342
Direct Job Years	-	17	17
Indirect & Induced Job Years	-	22	22
Lifetime Tons of CO2 Emissions	-	47,072	47,072

The CT Solar Lease program has been used to fund projects in economically diverse locations across the state as reflected by Table 6 for Metropolitan Statistical Area (MSA) Area Median Income (AMI) and Table 7 for Distressed Communities as designated by DECD. It should be noted that C-PACE is not an income targeted program.

Table 6. CT Solar Lease Closed Activity in Metropolitan Statistical Area (MSA) Area Median Income (AMI) Bands

MSA AMI Band	Total Population	% of Total Population	# Project Units for FY 2019	% Project Units for FY 2019	# of Cumulative Project Units	% of Cumulative Projects	Cumulative Project Units / 1,000 People	Cumulative Capital Deployed	Cumulative Capital Deployed / Population
<60%	649,617	18%	6	30%	16	13%	0.0	$10,418,290	$16.04
60%-80%	509,088	14%	1	5%	9	7%	0.0	$8,747,853	$17.18
80%-100%	641,084	18%	3	15%	20	16%	0.0	$21,518,108	$33.57
100%-120%	653,309	18%	3	15%	30	24%	0.0	$21,544,159	$32.98
>120%	1,126,543	31%	7	35%	48	39%	0.0	$40,359,876	$35.83
Total	3,579,641	100%	20	100%	123	100%	0.0	$102,588,285	$28.66

Table 7. CT Solar Lease Closed Activity in Distressed Communities

Distressed Designation	Total Population	% of Total Population	# Project Units for FY 2019	% Project Units for FY 2019	# of Cumulative Project Units	% of Cumulative Projects	Cumulative Project Units / 1,000 People	Cumulative Capital Deployed	Cumulative Capital Deployed / Population
Distressed	1,162,653	32%	6	30%	23	19%	0.0	$26,628,119	$22.90
Not Distressed	2,425,917	68%	14	70%	100	81%	0.0	$75,960,167	$31.31
Total	3,588,570	100%	20	100%	123	100%	0.0	$102,588,285	$28.59

For a breakdown of the use of the Green Bank resources for Commercial, Industrial and Institutional Programs, see table 8 below.

Table 8. SBEA Overview for FY 2019

Program Data	Approved	Closed	Total
Projects	-	4,012	4,012
Loans or Leases ($'s)	$0	$40,952,635	$40,952,635
Total Green Bank Investment ($'s)	$0	$40,952,635	$40,952,635

Of these programs, the following is a breakdown of their contributions made thus far towards the performance target and the human resources required to implement them (see Table 9):

Table 9. Distribution of Green Bank Funds Invested in Projects and Programs through Subsidies, Credit Enhancements, and Loans and Leases for FY 2019

Program	Subsidies		Credit Enhancements		Loans and Leases		Total[7]
C-PACE	$0	0%	$0	0%	$8,286,314	100%	$8,286,314
CT Solar Lease	$0	0%	$0	0%	$8,060,683	100%	$8,060,683
SBEA	$0	0%	$0	0%	$40,952,635	100%	$40,952,635
Total*	$0	0%	$0	0%	$53,414,557	100%	$53,414,557

[7] Totals are adjusted to remove projects that overlap programs.

Table 10. Program Progress Made in FY 2019[8]

Key Metrics	C-PACE	Commercial Lease	SBEA	Total Program Progress[9]
Date of Program Approval	Sep-2012	Jun-2013		
Date of Program Launch	Jan-2013	Sep-2013		
Ratepayer Capital at Risk	$8,286,314	$8,060,683	$40,952,635	$53,414,557
Private Capital	$10,432,375	$5,352,342	$0	$14,962,005
Deployed (MW)	4.9	4.1	-	7.6
# of Loans/Installations	36	20	-	4,060
Lifetime Production (MWh)	102,504	87,370	0	176,140
Annual Combined Energy Generated & Saved (MMBtu)	2,278	10,050	0	12,328

"Top 5" Headlines

The following are the "Top 5" headlines for Commercial, Industrial and Institutional Sector Programs for FY 2018:

1. **Connecticut net metering is safe until after 2021 due to law reversal** 6/5/19
   SOLAR POWER WORLD
   The 2018 Connecticut state law that would have ended net metering was reversed before it had a chance to take effect. On June 4, the Connecticut Senate voted 32-1 to pass HB 5002, which rescinds a 2018 state law that called for sunsetting net metering this fall.

2. **Connecticut Green Bank Presents 2018 PACEsetter Awards** 3/27/19
   BOSTON HERALD
   The Connecticut Green Bank has announced the winners of the 2018 PACEsetter Awards. The Connecticut Green Bank created the PACEsetter Awards to acknowledge contractors, building owners and other stakeholders who are advancing the green energy movement through C-PACE

3. **Middlesex Community College Unveils New Solar Energy System** 11/9/18
   PATCH
   The new energy system will reduce MxCC's reliance on utility-generated power and is expected to offset about 8.5 percent of the annual electricity consumption on campus, saving an average of $11,000 per year over the next 20 years.

4. **Southington company fully powered by solar** 11/16/18
   MYRECORDJOURNAL.COM

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[8] Includes only closed transactions
[9] Totals are adjusted to remove projects that overlap programs.

year. Sign Pro used the state's C-PACE program with the **Connecticut Green Bank** and was financed by Greenworks, a Darien company. Greenworks...

5. **American Cities Climate Challenge PACE Roundtable in NYC** **6/5/19**
   NRDC BLOG
   Riding a strong tailwind from recent climate and sustainability legislative successes, earlier this month, the Bloomberg American Cities Climate Challenge brought its PACE (Property Assessed Clean Energy) Financing Cohort to New York for an intensive, dialogue-driven Roundtable with the four cities pursuing PACE—Atlanta, Columbus, Pittsburgh and San Antonio—and a collection of senior professionals and industry luminaries, including: New York City Energy Efficiency Corporation, PACENation, the Connecticut Green Bank, Inclusive Prosperity Capital, Energize NY, Greenworks Lending and PACE Financing Services.

Lessons Learned

Based on the implementation of the Commercial, Industrial and Institutional Sector Programs thus far, the following are the key lessons learned:

- **Contractors are vital to improving the C-PACE Program** – While contractors remained to be a key component to the growth of C-PACE in FY19, they also played an important role in helping improve the development of the program. In December 2018, contractors were solicited to provide vital feedback on improving the C-PACE Program through a series of scheduled focus groups. This included providing helpful ideas on improving the C-PACE process, proposing campaign ideas, and how Green Bank can be better partners and a resource to contractors in the field. The C-PACE team took their feedback and have used this to begin developing the first major changes to the program's process in a number of years and developing new campaign ideas that will be unveiled in FY20.

- **Open Market** – Connecticut's open market platform continues to attract capital providers to Connecticut, seeing the largest single fiscal year growth of new lenders in the program's history (five capital providers registered in FY19). One of these new lenders closed on their first C-PACE transactions in Connecticut (Twain Financial Partners) in FY19. The influx of new capital providers in the program, along with these same new lenders closing on and building pipeline of their own C-PACE transactions, builds momentum to scale up and grow the C-PACE Program in FY20 and beyond. In an effort to also improve the program's financial sustainability, a new capital provider fee structure was created in FY19 (with implementation beginning in FY20) to better recover Green Bank-incurred costs on third party capital provider-funded projects.

- **Portfolio owners are a key component to scaling C-PACE** – The Green Bank has been doing more projects with portfolio property owners and are pursuing opportunities to attract other portfolio owners into the program. For example, in FY19, the Green Bank closed on multiple C-PACE projects with a national CRE firm both headquartered and with a large portfolio of buildings in Connecticut, who had closed on their first C-PACE transaction in FY18. Bringing in portfolio owners for a first good C-PACE experience could translate into opportunities for them to use C-PACE for other properties they own in Connecticut. Partnering with these firms and having this level of success could scale up the growth of the C-PACE Program in years to come.

- **Green Bank Solar PPA** – As this product has grown, it has become increasingly clear that a hands-on approach to the development and financing of commercial-scale PPA projects is a key to the Green Bank's success with this program. From credit underwriting to document negotiation to contractor management, these projects do best when the Green Bank can bring a combination of programmatic discipline and market-driven flexibility to solve problems and bring projects across the finish line. While we need to continue to streamline our processes to achieve scale and enhance our asset management capabilities as program volume has grown, the Green Bank PPA remains a popular product in an underserved market and a source of positive net cash flow for the organization.
  Green Bank continues to make progress on using the PPA to open up the state building portfolio for solar. Green Bank is working with the Department of Corrections and DEEP on a pilot portfolio of approximately 7 MWs. Green Bank also began offering similar assistance to municipalities and is currently working with several to aggregate projects for an RFP for EPC services that will result in projects financed by Green Bank.

Commercial, Industrial, and Institutional Sector Programs FY 2020Targets

Of programs being implemented in the Commercial, Industrial, and Institutional Sector Programs, the following is a breakdown of the key targets (see Table 10):

Table 10. Number of Projects, Capital Deployed, and Clean Energy Deployed (MW)

Program	# of Projects	Capital Deployed	Clean Energy Deployed (MW)
C-PACE	56	$22,000,000	5.6
CT Solar Lease	34	$28,125,000	12.7
SBEA	1,000	$20,000,000	-
Total[10]	**1,075**	**$65,625,000**	**16.3**

For Commercial, Industrial, and Institutional Sector Programs, there are 13 full time equivalent staff members supporting three (3) different products and programs.

[10] Totals are adjusted to remove projects that overlap programs.

FY 12 - FY19

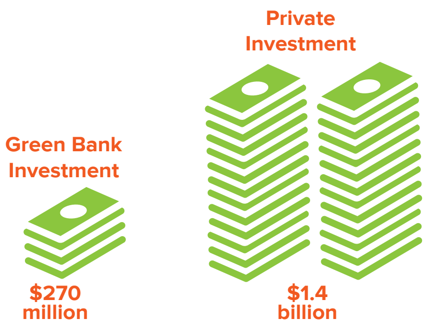
CONNECTICUT GREEN BANK[SM]

Green Bank Impact Report

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

INVESTMENT IN CONNECTICUT

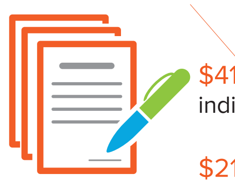
Investment Since inception, the Green Bank has mobilized nearly ***$1.7 billion*** of investment into the State's economy.



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

For every $1 of Green Bank investment, we attract $6.70 of private investment.

Tax revenues The Green Bank's activities have helped generate an estimated ***$82.9 million*** in state tax revenues.



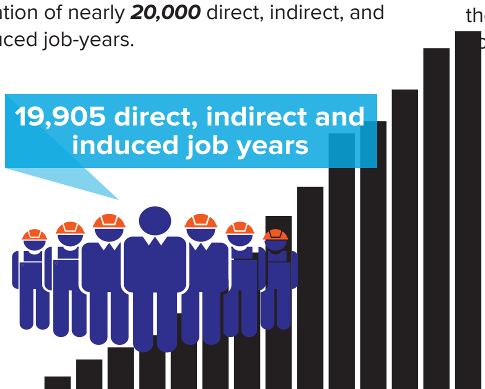
$41.1 million
individual income tax

$21.5 million
corporate taxes

$20.3 million
sales taxes

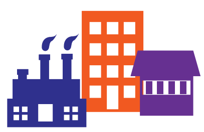
ECONOMIC DEVELOPMENT

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



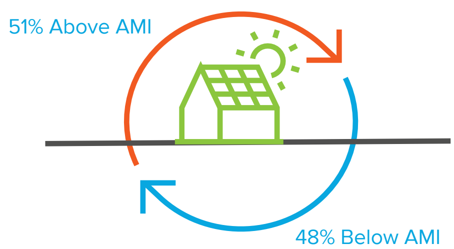
Energy burden The Green Bank has reduced the energy costs on families, businesses, and our communities.

45,000+ *families*



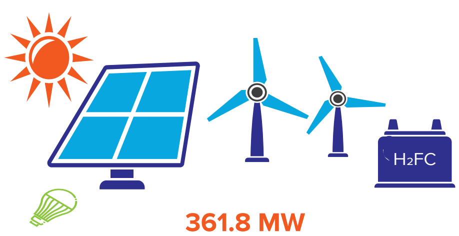
360+ *businesses*

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



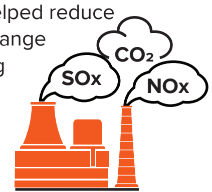
ENVIRONMENTAL PROTECTION

Deployment The Green Bank has accelerated the growth of clean energy to more than ***360 MW***.



361.8 MW of installed capacity

Pollution The Green Bank has helped reduce air emissions that cause climate change and worsen public health, including 5.7 million pounds of SOx and 7 million pounds of NOx.



6.5 million tons of CO_2 which equals

153 million tree seedlings grown for 10 years

or

1.2 million passenger vehicles driven for one year

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

$200 million of public health savings over the life of the projects

Learn more by visiting ctgreenbank.com/strategy-impact/impact

Winner of the 2017 Harvard Kennedy School Ash Center Award for Innovation in American Government, the Connecticut Green Bank is the nation's first green bank. We're creating a thriving marketplace to accelerate green energy deployment in Connecticut by making green energy financing accessible and affordable for homeowners, businesses and institutions.

Sources: Connecticut Green Bank Comprehensive Annual Financial Reports

FY
19

CONNECTICUT GREEN BANK℠

Lenders on Connecticut Green Bank

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

Keith Mestrich, President & CEO, Amalgamated Bank

“At Bank of America, we are deploying $125 billion in capital toward low-carbon, sustainable business activities and helping to develop solutions to climate change and other environmental challenges. In prior years, our company has financed the Connecticut Green Bank’s solar installations at housing authorities and nonprofit housing providers. In 2018, through financing structured using the last available Clean Renewable Energy Bonds allocation, we helped the Green Bank and its partners add solar energy units to the Connecticut State Colleges and Universities system.”

Chris Giuliano, Head of Banc of America Public Capital Corp

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

Christopher Gorman, Vice Ch[redacted]ident of Banking, KeyBank

“Liberty Bank has bee[redacted]ecticut Green Bank from the start. Liberty Bank recently provided[redacted]en Bank’s capital needs for solar on homes across the state, [redacted]g green economy.”

Chandler Howard, President and CEO, Liberty Bank

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

Larry Holderman, President and CEO, Mutual Security Credit Union

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

Sara Ross, Co-Founder and CEO, Sungage Financial

Learn more by visiting ctgreenbank.com/strategy-impact/impact

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CONNECTICUT GREEN BANK

Memo

To: Board of Directors of the Connecticut Green Bank

From: Brian Farnen, CLO and General Counsel, Matt Ranelli, Chair of the Audit, Compliance and Governance Committee

Date: July 18, 2019

Re: Overview of Compliance Reporting and the Board of Directors and Committees for FY 2019

Overview
This memo provides a summary report of the FY 2019 governance as it pertains to the Board of Directors and its Committees.

This summary report also includes status of Statement of Financial Interest (SFI) filing requirements, report filings that are statutorily required by the Connecticut General Assembly for the Connecticut Green Bank (Green Bank), and review of governance documents (i.e., bylaws, operating procedures, etc.).

Pursuant to Section 16-245n of the General Statutes of Connecticut, the powers of the Green Bank are vested in and exercised by the Board of Directors that is comprised by up to eleven voting and one non-voting member, each with knowledge and expertise in matters related to the purpose of the organization (see Table 1).

Table 1. Composition of the Board of Directors of the Green Bank in FY 2019

Position	Name	Status (as of 06-30-19)	Voting
Commissioner of DECD (or designee)	Catherine Smith[1] Binu Chandy	Ex Officio	Yes
Commissioner of DEEP (or designee)	Rob Klee[2] Mary Sotos	Ex Officio	Yes
State Treasurer (or designee)	Bettina Bronisz	Ex Officio	Yes
Finance of Renewable Energy	Vacant	Vacant	Yes
Finance of Renewable Energy	Kevin Walsh	Appointed	Yes
Labor Organization	John Harrity	Appointed	Yes
R&D or Manufacturing	Gina McCarthy[3]	Vacant	Yes
Investment Fund Management	Eric Brown	Appointed	Yes
Environmental Organization	Matthew Ranelli	Appointed	Yes
Finance or Deployment	Tom Flynn	Appointed	Yes
Residential or Low Income	Betsy Crum	Appointed	Yes
President of the Green Bank	Bryan Garcia	Ex Officio	No

[1] Last board meeting for Catherine Smith was December 14, 2018. She was replaced by Binu Chandy.
[2] Last board meeting for Rob Klee was December 14, 2018. He was replaced by Mary Sotos.
[3] Last board meeting for Gina McCarthy was December 14, 2018. As of the date of this memo a new appointee has not been named.

Board of Directors
The Board of Directors of the Green Bank is comprised of eleven (11) ex officio and appointed voting members, and one (1) ex officio non-voting members. A quorum for a meeting of the Board of Directors is six (6) voting members at each meeting. Please note that the Board of Directors currently has nine (9) appointees and requires five (5) voting members for a quorum. The Green Bank is actively working with the Governor's Office to fill these positions.

The leadership of the Board of Directors, includes:

- **Chair** – Vacant
- **Vice Chair** and Acting Chair– Mary Sotos, Commissioner of DEEP (voted in by her peers of the Connecticut Green Bank Board of Directors)
- **Secretary** – Matthew Ranelli, Partner at Shipman and Goodwin (voted in by his peers of the Connecticut Green Bank Board of Directors)
- **Staff Lead** – Bryan Garcia, President and CEO

For FY 2019, the Board of Directors of the Green Bank met nine (9) times, including seven (7) regularly scheduled meetings and two (2) special meetings (see Table 2).

Table 2. Summary of Board of Directors Meetings for FY 2018

Date	Regular or Special Meeting	Attendees / % Attendance	# of Resolutions Approved[4]
July 27,2018	Regular	8 / 80%	6
August 21, 2018	Special	7 / 70%	4
September 18, 2018	Special	8 / 80%	1
October 26,2018	Regular	6 / 60%	6
December 14, 2018	Regular	7 / 70%	4
February 22, 2019[5]	Regular	6/66%	0
March 29, 2019	Regular	6/66%	3
April 26, 2019	Regular	5/55%	4
June 28, 2019	Regular	6/66%	2
Total	2 Special Meetings 7 Regular Meetings **9 Total Meetings**	75% 66% **70%**	5 37 **42**

Overall, the attendance for each meeting established a quorum – 6 of the 10 (or 5 of the 9) voting members present – in order to enable business decisions, and on average there were 7 of 10 (or 6 of 9) members present at each meeting, of which 5 attended on average by phone.

For a link to the materials from the Board of Directors meetings that is publicly accessible – click here.

Statement of Financial Interest

[4] Excludes approval of meeting minutes.
[5] With the resignation of Gina McCarthy on 12/14/2018 there are 9 board members.

It is required by state ethics laws that senior-level staff (i.e., Director level and above) and members of the Board of Directors annually file a Statement of Financial Interest (SFI). With respect to the 2018 SFI filing – required by May 1, 2019 – the Connecticut Office of State Ethics received the following from the Connecticut Green Bank (see Table 3):

Table 3. Summary of State of Financial Interest Filings with the Office of State Ethics for CY 2017

	Number of SFIs Submitted	% Submitted on Time
Senior Staff	7	100%
Board of Directors	6	100%

Of the 13 SFI filings by Senior Staff and the Board of Directors, all were filed online. The Green Bank was recognized in the May 2019 OSE newsletter for being one of only forty-two state agencies to earn the distinction of not only achieving 100% timely compliance but also had 100% submit filings electronically.

Audit, Compliance and Governance Committee

The Audit, Compliance and Governance Committee (ACG Committee) of the Green Bank is comprised of three (3) ex officio and appointed voting members. A quorum for a meeting of the ACG Committee is three (3) voting members at each meeting. Note, that if there aren't enough voting members of the ACG Committee present at a meeting, then the Chair and/or Vice Chair of the Connecticut Green Bank can participate in the meeting to establish a quorum. The leadership of the ACG Committee, includes:

- **Chair** – Matthew Ranelli, Partner and Shipman and Goodwin (designated as the Chair by Catherine Smith)
- **Members** – Tom Flynn and Gina McCarthy (designated as a member of the Committee by Catherine Smith)
- **Staff Lead** – Brian Farnen, CLO and General Counsel

For FY 2019, the ACG Committee of the Connecticut Green Bank met one time with one scheduled meeting cancelled. (see Table 4).

Table 4. Summary of Audit, Compliance and Governance Committee Meetings for FY 2018

Date	Regular or Special Meeting	Attendees / % Attendance	# of Resolutions Approved
October 10, 2018	Regular	3 / 100%	2
May 22, 2019	Regular	CANCELLED	
Total	1 Regular Meeting	**3 / 100%**	**2**

The attendance established a quorum with 3 of the 3 voting members present – in order to enable business decisions, of which 100% attended on average by phone.

For a link to the materials from the ACG Committee meetings that is publicly accessible – click here.

Review of Governance Documents and Statutory Reporting
With respect to annual review of governance documents and statutory reporting, the following applies:

- Annual review by the ACG Committee of the Governance Documents (i.e., Bylaws, Operating Procedures, and Statement of Purpose) completed on October 10, 2018.

- Statutory Responsibilities and Reporting Checklist attached hereto as Exhibit A for continuous reporting tracking. Of note, George Bellas retired from his position as Vice President of Finance effective January 31, 2019. While Jane Murphy transitioned from Controller to VP of Finance, we were unable to complete these reports in a timely manner.

Budget and Operations Committee

The Budget & Operations Committee (B&O Committee) of the Green Bank is comprised of three (3) ex officio and appointed voting members. A quorum for a meeting of the B&O Committee is three (3) voting members at each meeting. Note, that if there aren't enough voting members of the B&O Committee present at a meeting, then the Chair and/or Vice Chair of the Green Bank can participate in the meeting to establish a quorum. The leadership of the B&O Committee, includes:

- **Chair** –John Harrity, Labor Union Representative (designated as the Chair by Catherine Smith)

- **Members**[6] –John Harrity, Rob Klee, Commissioner of DEEP[7] and Eric Brown (designated as a member of the Committee by Catherine Smith)

- **Staff Lead** – Eric Shrago, Director of Operations

For FY 2019, the B&O Committee of the Green Bank met four (4) times, three (3) were regularly scheduled and one (1) was special (see Table 5).

Table 5. Summary of Budget and Operations Committee Meetings for FY 2018

Date	Regular or Special Meeting	Attendees / % Attendance	# of Resolutions Approved
July 6, 2018	Special	4 / 100%	1
December 6, 2018	Regular	3 / 75%	1
May 15, 2019[8]	Regular	1 / 50%	0
June 12, 2019	Regular	2 / 66%	0
Total	1 Special Meeting 3 Regular Meetings **4 Total Meetings**	100% 64% **73%**	1 2 **3**

Overall, the attendance for each meeting established a quorum – 3 of 4 (or 2 of 3) voting members present – in order to enable business decisions, and on average there were 3 members present at each meeting, of which 12% attended by phone.

For a link to the materials from the B&O Committee meetings that is publicly accessible – click here.

Deployment Committee

[7] Mary Sotos replaced Rob Klee effective at the 6/12/2019 meeting.
[8] As no Resolutions were presented, a quorum was not necessary for the 5/15/19 meeting

The Deployment Committee of the Green Bank is comprised of four (4) ex officio and appointed voting members. A quorum for a meeting of the Deployment Committee is three (3) voting members at each meeting. Note, that if there aren't enough voting members of the Deployment Committee present at a meeting, then the Chair and/or Vice Chair of the Green Bank can participate in the meeting to establish a quorum. The leadership of the Deployment Committee, includes:

- **Chair**[9] –Rob Klee, Commissioner of DEEP (designated as the Chair by Catherine Smith)
- **Members**[10] – Bettina Bronisz (ex officio per bylaws), Matthew Ranelli, and Betsy Crum (designated as a member of the Committee by Catherine Smith)
- **Staff Lead** – Bryan Garcia, President and CEO, and Bert Hunter, EVP and CIO

For FY 2019, the Deployment Committee of the Green Bank met five (5) times, including four (4) regularly scheduled meetings (see Table 6).

Table 6. Summary of Deployment Committee Meetings for FY 2018

Date	Regular or Special Meeting	Attendees / % Attendance	# of Resolutions Approved
September 18, 2018	Regular	3 / 75%	1
November 13, 2018	Regular	3 / 75%	2
January 29, 2019	Special	4 / 100%	4
March 27, 2019	Regular	3 / 75%	1
May 29, 2019	Regular	3 / 75%	2
Total	4 Regular Meetings **5 Total Meetings**	3 / 75% **3 / 80%**	**6** **10**

Overall, the attendance for each meeting established a quorum – 3 of the 4 voting members present – in order to enable business decisions, and on average there were 3 members present at each meeting, of which 90% attended by phone.

For a link to the materials from the Deployment Committee meetings that is publicly accessible – click here.

Joint Committee of the EEB and the CGB

Section 16-245m(d)(2) of the Connecticut General Statutes created a Joint Committee of the Energy Efficiency Board (EEB) and the Connecticut Green Bank. Per bylaws established and approved by the EEB and the Green Bank, the Joint Committee is comprised of four (4) appointed and voting members, one (1) ex officio and voting member, and four (4) ex officio and non-voting members. A quorum for a meeting of the Joint Committee is three (3) voting members at each meeting. The leadership of the Joint Committee, includes:

- **Chair** – Eric Brown, Attorney with CBIA (voted in by his peers of the EEB and the Connecticut Green Bank)

[9] Mary Sotos replaced Rob Klee effective at the 1/29/2019 meeting

- **Vice Chair**[11] – Diane Duva, DEEP (voted in by her peers of the EEB and the Connecticut Green Bank)

- **Secretary** – Bryan Garcia, Connecticut Green Bank, and Craig Diamond, Connecticut Energy Efficiency Fund (voted in by their peers of the EEB and the Connecticut Green Bank)

- **Members**[12] – Bryan Garcia (non-voting), Bert Hunter (non-voting), and John Harrity (designated as members of the Committee by Catherine Smith)[13]

- **Staff Lead** – Bryan Garcia, President and CEO of the Connecticut Green Bank

For FY 2019, the Joint Committee of the EEB and the Green Bank met four (4) times, including four (4) regularly scheduled meetings (see Table 7).

Table 7. Summary of Joint Committee Meetings for FY 2018

Date	Regular or Special Meeting	Attendees / % Attendance Voting	Non-voting (CGB)	# of Resolutions Approved
July 18, 2018	Regular	3 / 75%	2 / 100%	0
October 17, 2018	Regular	4 / 100%	1 / 50%	0
January 23, 2019	Regular	4 / 100%	1 / 50%	0
April 17, 2019	Regular	3 / 75%	2 / 100%	0
Total	4 Regular Meetings **4 Total Meetings**	**3/ 88%**	**1-2 / 75%**	**0**

Overall, the attendance for each meeting established a quorum – 3 of the 4 voting members present – in order to enable business decisions, and on average there were 3-4 members present at each meeting, of which 25% attended on average by phone.

For a link to the materials from the Joint Committee meetings that is publicly accessible – click here.

[11] Mary Sotos replaced Diane Duva effective at the 4/17/2019 meeting
[12] Note – these 3 members are representatives from the Connecticut Green Bank.

Exhibit A

Quarterly Cash Flow		Quarterly Human Resources		Annual CAFR		REEEFA Bonding		SCRF Notice		RSIP		Annual Report		Board Meetings				OpenCT Checkbook Data to Comptroller	
Due	*Submitted*	*Due*	*Submitted*	*Due*	*Submitted*	*Due*	*Submitted*	*Reason Required*	*Submitted*	*Due*	*Submitted*	*Due*	*Submitted*	*Held*	*Type*	*Held*	*Type*	*Requested by*	*Delivered*
9/30/13	3/14/14	10/1/13	6/17/14	1/1/2015	12/30/2014	1/1/13	2/8/13	CSCU deal	12/1/17	1/1/2014	-	1/1/15	12/30/14	12/16/15	regular	1/26/18	regular	1/15/19	1/10/19
12/31/13	3/14/14	1/1/14	6/17/14	1/1/2016	12/31/2015	1/1/14	1/15/14	CSCU, Meriden	11/30/18	1/1/2017	1/30/2017	1/1/16	12/31/15	1/15/16	regular	2/15/18	special		
3/31/14	4/21/15	4/1/14	6/17/14	1/1/2017	12/29/2016	1/1/15	3/15/15			1/1/2019	1/11/2019	1/1/17	10/17/16	2/26/16	special	4/3/18	regular		
6/30/14	4/21/15	7/1/14	8/5/14	1/1/2018	12/27/2017	1/1/16	12/23/15			Sunset		1/1/18	12/1/17	3/3/16	special	4/27/18	regular		
9/30/14	6/16/16	10/1/14	10/2/14	1/1/2019	12/31/2018	1/1/17	12/15/16					1/1/19	1/11/19	4/22/16	regular	5/25/18	special		
12/31/14	6/16/16	1/1/15	1/12/15	1/1/2020		1/1/18	12/1/17					1/1/20		6/17/16	regular	6/13/18	regular		
3/31/15	6/16/16	4/1/15	4/12/15			1/1/19	12/31/18							7/6/16	special	6/28/18	regular		
6/30/15	6/16/16	7/1/15	7/9/15											7/22/16	regular	7/27/18	regular		
9/30/15	5/31/16	10/1/15	10/9/15											10/21/16	regular	8/21/18	special		
12/31/15	5/31/16	1/1/16	1/8/16											12/16/16	regular	9/18/18	special		
3/31/16	5/31/16	4/1/16	3/31/16											1/5/17	special	10/26/18	regular		
6/30/16	8/10/16	7/1/16	7/5/16											1/20/17	regular	12/14/18	regular		
9/30/16	11/8/16	10/1/16	10/5/16											3/10/17	special	2/22/19	regular		
12/31/16	2/23/17	1/1/17	2/21/17											4/28/17	regular	3/29/19	regular		
3/31/17	5/10/17	4/1/17	4/10/17											6/9/17	special	4/26/19	regular		
6/30/17	8/9/17	7/1/17	7/17/17											6/23/17	regular	6/28/19	regular		
9/30/17	12/21/17	10/1/17	10/6/17											7/21/17	regular				
12/31/17	2/28/18	1/1/18	1/9/18											9/28/17	regular				
3/31/18	5/17/18	4/1/18	4/2/18											10/3/17	special				
6/30/18	9/5/18	7/1/18	7/5/18											10/20/17	regular				
9/30/18	11/28/18	10/1/18	10/3/18											11/6/17	special				
12/31/18	7/11/19	1/1/19	1/3/19											11/13/17	special				
3/31/19	1/0/00	4/1/19	4/1/19											12/1/17	special				
6/30/19	1/0/00													12/15/17	regular				

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CONNECTICUT
GREEN BANK

Memo

To: Board of Directors of the Connecticut Green Bank

From: Brian Farnen, Loyola French, and Bryan T. Garcia

Date: July 18, 2019

Re: Overview of Requests for Approvals for Professional Services Agreements over $75,000 for FY 2019 per Operating Procedures

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Overview

This memo provides a summary report of the requested approvals for those Professional Services Agreement ("PSA") with a not-to-exceed amount of over $75,000 in the 2019 fiscal year ("FY2019"). This approval process is outlined in Section IX (ii) of the Connecticut Green Bank Operating Procedures, as follows:

> "(ii) for such contracts requiring an expenditure by the Green Bank over seventy-five thousand dollars ($75,000) and up to and including one hundred fifty thousand dollars ($150,000) over a period of one (1) fiscal year, the President and the Chairperson must both approve the expenditure, and (iii) for such contracts requiring an expenditure by the Green Bank of over one hundred fifty thousand dollars ($150,000), such contract shall, whenever possible, be awarded on the basis of a process of competitive negotiation where proposals are solicited from at least three (3) qualified parties. To the extent permitted by any contract for administrative support and services between the Green Bank and Connecticut Innovations, Incorporated, professional services may also be provided by consultants and professionals selected by and under contract to Connecticut Innovations, Incorporated, subject to appropriate cost sharing. The provisions of Section 1-127 of the General Statutes shall apply to the engagement of auditors by the Green Bank".

Green Bank staff requested a total of 15 PSAs, or amendments to existing PSAs, with not-to-exceed amounts over the $75,000 threshold for FY2019, for a total amount of $2,936,288. Approval for 7 of the 15 were requested, and subsequently granted, by either Commissioner Smith or Deputy Commissioner Sotos who took over as Vice Chair of the Board at the 2/22/2019 meeting . The others all gained approval of the full Board of Directors, as either a one-time approval or as strategic selections for FY 2019 at the 6/28/18 BOD meeting (see Table 2). This number is slightly down from that of FY 2018 by $27,072, when approval was sought for eighteen PSAs and/or amendments over $75,000, for a total amount of $2,963,360, with ten being approved by direct request of Commissioner Smith and approval for the remaining eight being granted by the full Board. A breakdown of the agreements for FY2019 follows.

Table 1. FY 2019 PSAs over $75,000 approved by Commissioners Smith/Sotos

Date	Agreement	Division / Program	Amount
6/26/2018	drinkCaffeine – PSA 5335 3rd Amendment	Marketing	Extend Term
8/21/2018	DNV KEMA Renewables – PSA 5403 1st Amendment	S&I – SHREC	$61,900
9/1/2018	Go, LLC – PSA 5474	Marketing	$200,000
1/31/2019	Navigant Consulting – PSA 5467 1st Amendment	C&I	$56,000*
11/12/2018	CSW, LLC – PSA 5483	C&I – CPACE	$145,000**
3/1/2019	drinkCaffeine – PSA 5499	Marketing	$120,000***
4/30/2019	CSW, LLC – PSA 5498	C&I – CPACE	$322,500****
		Total:	**$905,400**

* Extends term through 6/30/2019
** Term runs through 11/11/2020
*** Term runs through 9/30/2019
**** Term runs through 4/30/2020; different scope of work from PSA 5483.

Table 2. FY 2019 PSAs over $75,000 approved by Green Bank BOD

Date	Agreement	Division / Program	Amount
7/1/2018	Sustainable Real Estate Solutions PSA 5242 3rd Amendment	C&I – CPACE	Extend term*
7/1/2018	Clean Power Research PSA 5443	Infrastructure - RSIP	$373,104
7/1/2018	Locus (Also Energy) PSA 5444	Infrastructure - RSIP	$607,784
7/1/2018	Adnet Technologies PSA 5419	General Operations	$355,000
7/1/2018	Green & Healthy Homes Initiative PSA 5445	Resi/MF – LMI	$200,000
7/1/2018	Cortland Capital Market PSA 5457	C&I – CPACE	$100,000
7/1/2018	New Ecology PSA 5482	Resi/MF – Sherpa	$145,000
10/1/2018	Sustainable Real Estate Solutions PSA 5471	C&I – CPACE	$250,000**
		Total:	**2,030,888**

* Extends term through 9/30/2018
** Term runs through 9/30/2019

Connecticut Green Bank
FY 2020 Operating and Program Budget - DRAFT
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Presented to Board of Directors on June 28, 2019 and July 18, 2019

Presented to B&O Committee on June 12, 2019

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FY 2020 Operations and Program Budget - DRAFT
Statement of Revenues and Expenses - Incentive Programs vs. Financing Programs

	Total CGB			Incentive Programs			Financing Programs			
	FY20 Budget	**FY19 Budget**	**Variance**	**FY20 Budget**	**FY19 Budget**	**Variance**	**FY20 Budget**	**FY19 Budget**	**Variance**	**Variance excl non cash items**
Revenue										
Operating Income (Excl SBC and RGGI)										
CPACE Closing Fees	$ 135,000	$ 135,000	$ -	$ -	$ -	$ -	$ 135,000	$ 135,000	$ -	$ -
REC Sales	8,086,325	5,033,976	3,052,350	7,875,545	4,974,976	2,900,570	210,780	59,000	151,780	151,780
Grant Income-Federal Programs	30,000	98,507	(68,507)	-	-	-	30,000	98,507	(68,507)	(68,507)
Grant Income-Private Foundations	-	200,000	(200,000)	-	-	-	-	200,000	(200,000)	(200,000)
PPA Income	252,000	41,000	211,000	-	-	-	252,000	41,000	211,000	211,000
LREC/ZREC Income	50,000	16,170	33,830	-	-	-	50,000	16,170	33,830	33,830
Total Operating Income	8,553,325	5,524,653	3,028,673	7,875,545	4,974,976	2,900,570	677,780	549,677	128,103	128,103
Interest Income	5,061,466	3,356,461	1,705,005	78,000	78,000	-	4,983,466	3,278,461	1,705,005	1,705,005
Interest Income, Capitalized	367,018	358,288	8,730	-	-	-	367,018	358,288	8,730	8,730
Less: Interest Expense	(2,636,672)	(428,218)	(2,208,454)	(2,209,161)	(333,750)	(1,875,411)	(427,511)	(94,468)	(333,043)	(333,043)
Total Interest Income	2,791,811	3,286,531	(494,719)	(2,131,161)	(255,750)	(1,875,411)	4,922,972	3,542,281	1,380,692	1,380,692
Other Income	135,000	236,600	(101,600)	-	-	-	135,000	236,600	(101,600)	(101,600)
Total Revenue	**$ 11,480,137**	**$ 9,047,783**	**$ 2,432,353**	**$ 5,744,384**	**$ 4,719,226**	**$ 1,025,159**	**$ 5,735,752**	**$ 4,328,558**	**$ 1,407,195**	**$ 1,407,195**
Operating Expenses										
Compensation and Benefits										
Employee Compensation	4,552,130	4,268,927	283,203	1,153,935	1,090,389	63,547	3,398,195	3,178,539	219,656	219,656
Employee Benefits	3,925,744	3,797,892	127,852	920,269	970,390	(50,121)	3,005,475	2,827,502	177,973	177,973
Total Compensation and Benefits	8,477,874	8,066,819	411,055	2,074,205	2,060,779	13,426	6,403,670	6,006,041	397,629	397,629
Program Development & Administration	2,858,929	3,077,650	(218,721)	1,614,895	1,685,000	(70,105)	1,244,034	1,392,650	(148,616)	(148,616)
Program Administration-IPC Fee	1,297,956	1,179,944	118,013	-	-	-	1,297,956	1,179,944	118,013	118,013
Marketing Expense	856,055	746,500	109,555	46,900	95,000	(48,100)	809,155	651,500	157,655	157,655
E M & V	525,000	485,000	40,000	200,000	100,000	100,000	325,000	385,000	(60,000)	(60,000)
Consulting and Professional Fees										
Consulting/Advisory Fees	460,900	313,000	147,900	132,400	92,500	39,900	328,500	220,500	108,000	108,000
Accounting and Auditing Fees	248,750	159,950	88,800	-	-	-	248,750	159,950	88,800	88,800
Legal Fees & Related Expenses	284,499	267,500	16,999	20,000	15,000	5,000	264,499	252,500	11,999	11,999
Bond Issuance Costs	180,000	88,889	91,111	180,000	88,889	91,111	-	-	-	-
Total Consulting and Professional Fees	1,174,149	829,339	344,810	332,400	196,389	136,011	841,749	632,950	208,799	208,799
Research and Development	290,000	40,000	250,000	-	-	-	290,000	40,000	250,000	250,000
Rent and Location Related Expenses										
Rent/Utilities/Maintenance	309,999	300,000	9,999	72,856	78,579	(5,723)	237,143	221,421	15,722	15,722
Telephone/Communication	124,599	99,760	24,839	29,283	26,130	3,153	95,316	73,630	21,686	21,686
Depreciation & Amortization	348,834	67,406	281,428	8,454	17,656	(9,202)	340,380	49,750	290,630	
Total-Rent and Location Related Expenses	783,431	467,166	316,265	110,593	122,365	(11,772)	672,838	344,801	328,037	37,407
Office, Computer & Other Expenses	950,633	824,605	126,028	208,834	145,188	63,646	741,799	679,417	62,381	62,381
Total Operating Expenses	**$ 17,214,027**	**$ 15,717,024**	**$ 1,497,004**	**$ 4,587,827**	**$ 4,404,721**	**$ 183,106**	**$ 12,626,200**	**$ 11,312,303**	**$ 1,313,897**	**$ 1,023,268**
Program Incentives and Grants										
Financial Incentives-CGB Grants	100,000	100,000	-	-	-	-	100,000	100,000	-	-
Program Expenditures-Federal Grants	30,000	98,507	(68,507)	-	-	-	30,000	98,507	(68,507)	(68,507)
EPBB/PBI/HOPBI Incentives	15,505,131	13,746,354	1,758,777	15,505,131	13,746,354	1,758,777	-	-	-	-
Interest Rate Buydowns-CGB	-	125,000	(125,000)	-	-	-	-	125,000	(125,000)	(125,000)
Total Program Incentives and Grants	**$ 15,635,131**	**$ 14,069,861**	**$ 1,565,270**	**$ 15,505,131**	**$ 13,746,354**	**$ 1,758,777**	**$ 130,000**	**$ 323,507**	**$ (193,507)**	**$ (193,507)**
Operating Income/(Loss)	**$ (21,369,022)**	**$ (20,739,101)**	**$ (629,921)**	**$ (14,348,574)**	**$ (13,431,849)**	**$ (916,725)**	**$ (7,020,448)**	**$ (7,307,252)**	**$ 286,804**	**$ 577,434**
Non-Operating Expenses										
Provision for Loan Loss	2,965,625	2,923,674	41,951	-	-	-	2,965,625	2,923,674	41,951	
Total Non-Operating Expenses	**$ 2,965,625**	**$ 2,923,674**	**$ 41,951**	**$ -**	**$ -**	**$ -**	**$ 2,965,625**	**$ 2,923,674**	**$ 41,951**	
Net Revenues Over (Under) Expenses excl SBC, RGGI and ARRA IRB	**$ (24,334,647)**	**$ (23,662,775)**	**$ (671,872)**	**$ (14,348,574)**	**$ (13,431,849)**	**$ (916,725)**	**$ (9,986,073)**	**$ (10,230,926)**	**$ 244,853**	
SBC net of Sweeps and RGGI Proceeds										
Utility Customer Assessments	$ 25,986,400	$ 25,969,100	$ 17,300	$ -	$ -	$ -	$ 25,986,400	$ 25,969,100	$ 17,300	
Payments to State of Connecticut	-	(14,000,000)	14,000,000	-	-	-	-	(14,000,000)	14,000,000	
RGGI Auction Proceeds-Renewables	4,031,800	750,700	3,281,100	-	-	-	4,031,800	750,700	3,281,100	
Total SBC net of Sweeps and RGGI Proceeds	**$ 30,018,200**	**$ 12,719,800**	**$ 17,298,400**	**$ -**	**$ -**	**$ -**	**$ 30,018,200**	**$ 12,719,800**	**$ 17,298,400**	
Interest Rate Buydowns-ARRA	1,800,000	25,000	1,775,000	1,800,000	25,000	1,775,000	-	-	-	
Net Revenues Over (Under) Expenses	**$ 3,883,553**	**$ (10,967,975)**	**$ 14,851,528**	**$ (16,148,574)**	**$ (13,456,849)**	**$ (2,691,725)**	**$ 20,032,127**	**$ 2,488,874**	**$ 17,543,253**	

Connecticut Green Bank
FY 2020 Operations and Program Budget - DRAFT
Statement of Revenues and General Operations and Program Expenses

	GenOps Fiscal Year 06/30/2020 Budget	Programs Fiscal Year 06/30/2020 Budget	Total Fiscal Year 06/30/2020 Budget	Fiscal Year 06/30/2019 Budget	YOY Budget $ Variance	% Variance	Fiscal YTD As of 06/19/19 Actual	Budget vs Actual Variance
Revenue								
Operating Income								
Utility Customer Assessments	25,986,400	0	25,986,400	25,969,100	17,300	0 %	23,851,952	(2,117,148)
Payments to State of Connecticut	0	0	0	(14,000,000)	14,000,000	(100) %	0	14,000,000
RGGI Auction Proceeds-Renewables	4,031,800	0	4,031,800	750,700	3,281,100	437 %	2,130,254	1,379,554
CPACE Closing Fees	0	135,000	135,000	135,000	0	0 %	88,894	(46,106)
REC Sales	0	8,086,325	8,086,325	5,033,976	3,052,350	61 %	5,336,117	302,141
Grant Income-Federal Programs	0	30,000	30,000	98,507	(68,507)	(70) %	14,589	(83,918)
Grant Income-Private Foundations	0	0	0	200,000	(200,000)	(100) %	0	(200,000)
Grant Income-DEEP	0	0	0	0	0	0 %	6,500,000	6,500,000
PPA Income	0	252,000	252,000	41,000	211,000	515 %	204,954	163,954
LREC/ZREC Income	0	50,000	50,000	16,170	33,830	209 %	16,170	0
Total Operating Income	30,018,200	8,553,325	38,571,525	18,244,453	20,327,073	111 %	38,142,930	19,898,477
Interest Income	292,712	4,768,754	5,061,466	3,356,461	1,705,005	31 %	3,095,890	(260,571)
Interest Income, Capitalized	0	367,018	367,018	358,288	8,730	2 %	247,271	(111,017)
Other Income	100,000	35,000	135,000	236,600	(101,600)	(43) %	609,319	372,719
Total Revenue	**$ 30,410,912**	**$ 13,724,097**	**$ 44,135,009**	**$ 22,195,801**	**$ 21,939,207**	**96 %**	**$ 42,095,410**	**$ 19,899,609**
Operating Expenses								
Compensation and Benefits								
Employee Compensation	986,737	3,565,393	4,552,130	4,268,927	283,203	7 %	4,036,720	(232,207)
Employee Benefits	879,963	3,045,781	3,925,744	3,797,892	127,852	3 %	3,656,722	(141,170)
Total Compensation and Benefits	1,866,700	6,611,174	8,477,874	8,066,819	411,055	5 %	7,693,442	(373,377)
Program Development & Administration	0	2,858,929	2,858,929	3,077,650	(218,721)	(7) %	1,937,606	(1,140,044)
Program Administration-IPC Fee	0	1,297,956	1,297,956	1,179,944	118,013	10 %	1,018,468	(161,476)
Marketing Expense	317,055	539,000	856,055	746,500	109,555	15 %	406,212	(340,288)
E M & V	145,000	380,000	525,000	485,000	40,000	8 %	384,676	(100,324)
Commitment Fees	0	0	0	0	0	0 %	45,763	45,763
Consulting and Professional Fees								
Consulting/Advisory Fees	113,500	347,400	460,900	313,000	147,900	47 %	338,513	25,513
Accounting and Auditing Fees	248,750	0	248,750	159,950	88,800	56 %	48,998	(110,952)
Legal Fees & Related Expenses	50,000	234,499	284,499	267,500	16,999	6 %	338,816	71,316
Bond Issuance Costs	0	180,000	180,000	88,889	91,111	102 %	0	(88,889)
Total Consulting and Professional Fees	412,250	761,899	1,174,149	829,339	344,810	42 %	726,327	(103,012)
Research and Program Development	290,000	0	290,000	40,000	250,000	625 %	38,247	(1,753)
Rent and Location Related Expenses								
Rent/Utilities/Maintenance	69,065	240,934	309,999	300,000	9,999	3 %	261,343	(38,657)
Telephone/Communication	27,760	96,839	124,599	99,760	24,839	25 %	81,130	(18,630)
Depreciation & Amortization	8,014	340,820	348,834	67,406	281,428	418 %	37,599	(29,807)
Total-Rent and Location Related Expenses	104,838	678,593	783,431	467,166	316,265	68 %	380,072	(87,094)
Office, Computer & Other Expenses	353,598	597,035	950,633	824,605	126,028	15 %	678,546	(146,059)
Total Operating Expenses	**$ 3,489,442**	**$ 13,724,585**	**$ 17,214,027**	**$ 15,717,024**	**$ 1,497,004**	**10 %**	**$ 13,309,359**	**$ (2,407,665)**
Program Incentives and Grants								
Financial Incentives-CGB Grants	0	100,000	100,000	100,000	0	0 %	6,480,000	6,380,000
Program Expenditures-Federal Grants	0	30,000	30,000	98,507	(68,507)	(70) %	15,779	(82,728)
EPBB/PBI/HOPBI Incentives	0	15,505,131	15,505,131	13,746,354	1,758,777	13 %	12,776,701	(969,653)
Incr/(Decr) in Reserve for RSIP Payments	0	0	0	0	0	0 %	3,182,780	3,182,780
Interest Rate Buydowns-CGB	0	0	0	125,000	(125,000)	(100) %	125,309	309
Total Program Incentives and Grants	**$ 0**	**$ 15,635,131**	**$ 15,635,131**	**$ 14,069,861**	**$ 1,565,270**	**11 %**	**$ 22,580,569**	**$ 8,510,708**
Operating Income/(Loss)	**$ 26,921,470**	**$ (15,635,620)**	**$ 11,285,850**	**$ (7,591,083)**	**$ 18,876,933**	**(249) %**	**$ 6,205,482**	**$ 13,796,565**
Non-Operating Expenses								
Interest Expense	0	2,636,672	2,636,672	428,218	2,208,454	516 %	460,592	32,374
Realized (Gain) Loss	0	0	0	0	0	0 %	104,465	104,465
Provision for Loan Loss	0	2,965,625	2,965,625	2,923,674	41,951	1 %	2,808,067	(115,607)
Interest Rate Buydowns-ARRA	0	1,800,000	1,800,000	25,000	1,775,000	7,100 %	897,428	872,428
Total Non-Operating Expenses	**$ 0**	**$ 7,402,297**	**$ 7,402,297**	**$ 3,376,892**	**$ 4,025,405**	**119 %**	**$ 4,270,552**	**$ 893,660**
Net Revenues Over (Under) Expenses	**$ 26,921,470**	**$ (23,037,917)**	**$ 3,883,553**	**$ (10,967,975)**	**$ 14,851,528**	**(135) %**	**$ 1,934,930**	**$ 12,902,905**

Connecticut Green Bank
FY 2020 Operations and Program Budget - DRAFT
Statement of Revenues and General Operations and Program Expenses - INCENTIVE PROGRAMS

	Res Solar PV Invest Prgm Fiscal Year 06/30/2020 Budget	Battery Storage Fiscal Year 06/30/2020 Budget	Battery Storage EEP Fiscal Year 06/30/2020 Budget	Smart-E IRBs Fiscal Year 06/30/2020 Budget	Incentive Programs Fiscal Year 06/30/2020 Budget	Incentive Programs Fiscal Year 06/30/2019 Budget	YOY Budget $ Variance	YOY Budget % Variance	Incentive Programs Fiscal YTD As of 06/19/19 Actual	Budget vs Actual Variance
Revenue										
Operating Income										
REC Sales	7,875,545	0	0		7,875,545	4,974,976	2,900,570	58 %	4,916,117	(58,859)
Total Operating Income	7,875,545	0	0	0	7,875,545	4,974,976	2,900,570	58 %	4,916,117	(58,859)
Interest Income	78,000	0	0		78,000	78,000	0	0 %	67,238	(10,762)
Other Income	0	0	0		0	0	0	0 %	1,300	1,300
Total Revenue	**$ 7,953,545**	**$ 0**	**$ 0**	**$ 0**	**$ 7,953,545**	**$ 5,052,976**	**$ 2,900,570**	**57 %**	**$ 4,984,655**	**$ (68,321)**
Operating Expenses										
Compensation and Benefits										
Employee Compensation	990,802	103,008	60,125	0	1,153,935	1,090,389	63,547	6 %	1,067,775	(22,614)
Employee Benefits	827,562	92,707	0	0	920,269	970,390	(50,121)	(5) %	919,600	(50,790)
Total Compensation and Benefits	1,818,364	195,715	60,125	0	2,074,205	2,060,779	13,426	1 %	1,987,375	(73,404)
Program Development & Administration	1,594,895	0	20,000	0	1,614,895	1,685,000	(70,105)	(4) %	1,025,445	(659,555)
Marketing Expense	46,900	0	0	0	46,900	95,000	(48,100)	(51) %	44,152	(50,848)
E M & V	100,000	0	100,000	0	200,000	100,000	100,000	100 %	102,884	2,884
Commitment Fees	0	0	0	0	0	0	0	0 %	25,764	25,764
Consulting and Professional Fees										
Consulting/Advisory Fees	132,400	0	0	0	132,400	92,500	39,900	43 %	138,457	45,957
Legal Fees & Related Expenses	20,000	0	0	0	20,000	15,000	5,000	33 %	58,904	43,904
Bond Issuance Costs	180,000	0	0	0	180,000	88,889	91,111	102 %	0	(88,889)
Total Consulting and Professional Fees	332,400	0	0	0	332,400	196,389	136,011	69 %	197,361	972
Rent and Location Related Expenses										
Rent/Utilities/Maintenance	65,580	7,276	0	0	72,856	78,579	(5,723)	(7) %	61,408	(17,171)
Telephone/Communication	26,359	2,925	0	0	29,283	26,130	3,153	12 %	17,928	(8,202)
Depreciation & Amortization	7,609	844	0	0	8,454	17,656	(9,202)	(52) %	8,963	(8,693)
Total-Rent and Location Related Expenses	99,548	11,045	0	0	110,593	122,365	(11,772)	(10) %	88,299	(34,066)
Office, Computer & Other Expenses	196,867	11,968	0	0	208,834	145,188	63,646	44 %	108,242	(36,946)
Total Operating Expenses	**$ 4,188,974**	**$ 218,728**	**$ 180,125**	**$ 0**	**$ 4,587,827**	**$ 4,404,721**	**$ 183,106**	**4 %**	**$ 3,579,522**	**$ (825,199)**
Program Incentives and Grants										
EPBB/PBI/HOPBI Incentives	15,505,131	0	0	0	15,505,131	13,746,354	1,758,777	13 %	12,776,701	(969,653)
Incr/(Decr) in Reserve for RSIP Payments	0	0	0	0	0	0	0	0 %	3,182,780	3,182,780
Total Program Incentives and Grants	**$ 15,505,131**	**$ 0**	**$ 0**	**$ 0**	**$ 15,505,131**	**$ 13,746,354**	**$ 1,758,777**	**13 %**	**$ 15,959,481**	**$ 2,213,127**
Operating Income/(Loss)	**$ (11,740,560)**	**$ (218,728)**	**$ (180,125)**	**$ 0**	**$ (12,139,413)**	**$ (13,098,099)**	**$ 958,686**	**(7) %**	**$ (14,554,348)**	**$ (1,456,249)**
Non-Operating Expenses										
Interest Expense	2,209,161	0	0		2,209,161	333,750	1,875,411	562 %	351,582	17,832
Provision for Loan Loss	0	0	0		0	0	0	0 %	22,892	22,892
Interest Rate Buydowns-ARRA	0	0	0	1,800,000	1,800,000	25,000	1,775,000	7,100 %	897,429	872,429
Total Non-Operating Expenses	**$ 2,209,161**	**$ 0**	**$ 0**	**$ 1,800,000**	**$ 4,009,161**	**$ 358,750**	**$ 3,650,411**	**1,018 %**	**$ 1,271,903**	**$ 913,153**
Net Revenues Over (Under) Expenses	**$ (13,949,721)**	**$ (218,728)**	**$ (180,125)**	**$ (1,800,000)**	**$ (16,148,574)**	**$ (13,456,849)**	**$ (2,691,725)**	**20 %**	**$ (15,826,251)**	**$ (2,369,402)**

Connecticut Green Bank
FY 2020 Operations and Program Budget - DRAFT
Statement of Revenues and General Operations and Program Expenses - FINANCING PROGRAMS

	GenOps Fiscal Year 06/30/2020 Budget	Programs Fiscal Year 06/30/2020 Budget	Financing Programs Fiscal Year 06/30/2020 Budget	Financing Programs Fiscal Year 06/30/2019 Budget	YOY Budget $ Variance	YOY Budget % Variance	Financing Programs Fiscal YTD As of 06/19/19 Actual	Budget vs Actual Variance
Revenue								
Operating Income								
Utility Customer Assessments	25,986,400	0	25,986,400	25,969,100	17,300	0 %	23,851,952	(2,117,148)
Payments to State of Connecticut	0	0	0	(14,000,000)	14,000,000	(100) %	0	14,000,000
RGGI Auction Proceeds-Renewables	4,031,800	0	4,031,800	750,700	3,281,100	437 %	2,130,254	1,379,554
CPACE Closing Fees	0	135,000	135,000	135,000	0	0 %	88,894	(46,106)
REC Sales	0	210,780	210,780	59,000	151,780	257 %	420,000	361,000
Grant Income-Federal Programs	0	30,000	30,000	98,507	(68,507)	(70) %	14,589	(83,918)
Grant Income-Private Foundations	0	0	0	200,000	(200,000)	(100) %	0	(200,000)
Grant Income-DEEP	0	0	0	0	0	0 %	6,500,000	6,500,000
PPA Income	0	252,000	252,000	41,000	211,000	515 %	204,954	163,954
LREC/ZREC Income	0	50,000	50,000	16,170	33,830	209 %	16,170	0
Total Operating Income	30,018,200	677,780	30,695,980	13,269,477	17,426,503	131 %	33,226,813	19,957,336
Interest Income	292,712	4,690,754	4,983,466	3,278,461	1,705,005	52 %	3,028,651	(249,810)
Interest Income, Capitalized	0	367,018	367,018	358,288	8,730	2 %	247,272	(111,016)
Other Income	100,000	35,000	135,000	236,600	(101,600)	(43) %	608,019	371,419
Total Revenue	**$ 30,410,912**	**$ 5,770,551**	**$ 36,181,463**	**$ 17,142,826**	**$ 19,038,638**	**111 %**	**$ 37,110,755**	**$ 19,967,929**
Operating Expenses								
Compensation and Benefits								
Employee Compensation	986,737	2,411,458	3,398,195	3,178,539	219,656	7 %	2,968,945	(209,594)
Employee Benefits	879,963	2,125,512	3,005,475	2,827,502	177,973	6 %	2,737,121	(90,381)
Total Compensation and Benefits	1,866,700	4,536,969	6,403,670	6,006,041	397,629	7 %	5,706,066	(299,975)
Program Development & Administration	0	1,244,034	1,244,034	1,392,650	(148,616)	(11) %	912,162	(480,488)
Program Administration-IPC Fee	0	1,297,956	1,297,956	1,179,944	118,013	10 %	1,018,467	(161,477)
Marketing Expense	317,055	492,100	809,155	651,500	157,655	24 %	362,060	(289,440)
E M & V	145,000	180,000	325,000	385,000	(60,000)	(16) %	281,793	(103,207)
Commitment Fees	0	0	0	0	0	0 %	20,000	20,000
Consulting and Professional Fees								
Consulting/Advisory Fees	113,500	215,000	328,500	220,500	108,000	49 %	200,055	(20,445)
Accounting and Auditing Fees	248,750	0	248,750	159,950	88,800	56 %	48,998	(110,952)
Legal Fees & Related Expenses	50,000	214,499	264,499	252,500	11,999	5 %	279,912	27,412
Total Consulting and Professional Fees	412,250	429,499	841,749	632,950	208,799	33 %	528,965	(103,985)
Research and Program Development	290,000	0	290,000	40,000	250,000	625 %	38,246	(1,754)
Rent and Location Related Expenses								
Rent/Utilities/Maintenance	69,065	168,078	237,143	221,421	15,722	7 %	199,936	(21,485)
Telephone/Communication	27,760	67,556	95,316	73,630	21,686	29 %	63,202	(10,428)
Depreciation & Amortization	8,014	332,367	340,380	49,750	290,630	584 %	28,636	(21,114)
Total-Rent and Location Related Expenses	104,838	568,000	672,838	344,801	328,037	95 %	291,774	(53,027)
Office, Computer & Other Expenses	353,598	388,200	741,799	679,417	62,381	9 %	570,304	(109,113)
Total Operating Expenses	**$ 3,489,442**	**$ 9,136,759**	**$ 12,626,200**	**$ 11,312,303**	**$ 1,313,897**	**12 %**	**$ 9,729,837**	**$ (1,582,466)**
Program Incentives and Grants								
Financial Incentives-CGB Grants	0	100,000	100,000	100,000	0	0 %	6,480,000	6,380,000
Program Expenditures-Federal Grants	0	30,000	30,000	98,507	(68,507)	(70) %	15,779	(82,728)
Interest Rate Buydowns-CGB	0	0	0	125,000	(125,000)	(100) %	125,309	309
Total Program Incentives and Grants	**$ 0**	**$ 130,000**	**$ 130,000**	**$ 323,507**	**$ (193,507)**	**(60) %**	**$ 6,621,088**	**$ 6,297,581**
Operating Income/(Loss)	**$ 26,921,470**	**$ (3,496,208)**	**$ 23,425,263**	**$ 5,507,016**	**$ 17,918,247**	**325 %**	**$ 20,759,830**	**$ 15,252,814**
Non-Operating Expenses								
Interest Expense	0	427,511	427,511	94,468	333,043	353 %	109,010	14,542
Realized (Gain) Loss	0	0	0	0	0	0 %	104,465	104,465
Provision for Loan Loss	0	2,965,625	2,965,625	2,923,674	41,951	1 %	2,785,174	(138,500)
Total Non-Operating Expenses	**$ 0**	**$ 3,393,136**	**$ 3,393,136**	**$ 3,018,142**	**$ 374,994**	**12 %**	**$ 2,998,649**	**$ (19,493)**
Net Revenues Over (Under) Expenses	**$ 26,921,470**	**$ (6,889,344)**	**$ 20,032,127**	**$ 2,488,874**	**$ 17,543,253**	**705 %**	**$ 17,761,181**	**$ 15,272,307**

Connecticut Green Bank
FY 2020 Operating and Program Budget - DRAFT
Revenue Detail

	FY20 Budget	FY19 Revised Budget	$ Increase / (Decrease)	FY19 Actuals As of 06/19/19
Revenues				
Utility customer assessments	$ 25,986,400	$ 25,969,100	$ 17,300	$ 23,851,952
Utility customer assessments - Sweep	-	(14,000,000)	14,000,000	-
RGGI auction proceeds - renewables	4,031,800	3,050,700	981,100	4,430,254
RGGI auction proceeds - renewables - Sweep	-	(2,300,000)	2,300,000	(2,300,000)
Interest Income - Cash Intercompany	64,712	64,544	168	59,231
Interest Income - Cash deposits	240,900	195,424	45,476	300,163
Interest Income - Delinquent CPACE payments	-	-	-	5,903
Interest Income - Capitalized construction interest	367,018	358,288	251	247,271
Interest Income - CPACE Warehouse, benefit assessments	1,905,176	1,271,250	633,926	1,012,364
Interest Income - Loan portfolio, other programs	2,595,459	1,395,651	850,558	1,358,479
Interest Income - CPACE Selldown Bonds	177,219	180,187	(2,968)	165,075
Interest Income - HA CPACE Promissory Notes	-	171,405	(171,405)	127,712
Interest Income - Solar lease I promissory notes, net	78,000	78,000	-	66,963
CPACE closing fees	135,000	135,000	-	88,894
Grant income (federal programs)	30,000	98,507	(68,507)	14,589
Grant income (DEEP)	-	-	-	6,500,000
Grant income (private foundations)	-	200,000	(200,000)	-
REC sales	955,296	256,852	698,444	-
REC sales to utilities under SHREC program	7,131,030	4,777,124	2,353,905	5,336,117
Other income - Programs	337,000	93,770	243,230	221,124
Other income - General	100,000	200,000	(100,000)	609,319
Total Sources of revenue:	$ 44,135,009	$ 22,195,801	$ 21,581,478	$ 42,095,410

Connecticut Green Bank
FY 2020 General Operations Budget - DRAFT
Utility Customer Assessment Projections

	FY20 Budget	FY19 Budget	FY19 Actual / Estimate	FY20 Budget Incr / (Decr) FY19 Budget	FY20 Budget Incr / (Decr) FY19 Projected
July	$ 2,433,800	$ 2,423,700	$ 2,478,916	$ 10,100	$ (45,116)
August	2,632,100	2,591,800	2,739,979	40,300	(107,879)
September	2,388,400	2,349,100	2,491,816	39,300	(103,416)
October	1,951,600	1,960,500	1,953,417	(8,900)	(1,817)
November	1,914,300	1,907,200	1,947,686	7,100	(33,386)
December	2,164,600	2,155,600	2,204,779	9,000	(40,179)
January	2,360,600	2,432,800	2,238,262	(72,200)	122,338
February	2,193,600	2,149,200	2,305,525	44,400	(111,925)
March	2,073,100	2,065,700	2,121,445	7,400	(48,345)
April	2,007,600	1,995,600	1,918,794	12,000	88,806
May	1,791,000	1,786,300	1,800,099	4,700	(9,099)
June	2,075,700	2,151,600	2,151,600	(75,900)	(75,900)
Total assessments:	$ 25,986,400	$ 25,969,100	$ 26,352,317	$ 17,300	$ (365,917)
				0.1%	-1.4%

Connecticut Green Bank
FY 2020 General Operations Budget - DRAFT
RGGI Auction Receipts

	Price	Allowances	FY20 Budget	FY19 Budget	FY19 Actual	FY20 Budget Incr / (Decr) FY19 Budget	FY20 Budget Incr / (Decr) FY19 Projected
September Auction #45	$ 5.06	901,684	$ 1,049,400	$ 776,800	$ 965,091	$ 272,600	$ 188,291
December Auction #46	$ 4.96	901,684	1,028,600	761,800	1,147,386	266,800	385,586
March Auction #47	$ 4.86	870,052	972,500	721,500	1,091,708	251,000	370,208
June Auction #48	$ 4.76	896,361	981,300	790,600	1,226,070	190,700	435,470
September Sweep			-	(776,800)	(965,091)	776,800	(188,291)
December Sweep			-	(761,800)	(1,147,386)	761,800	(385,586)
March Sweep			-	(721,500)	(187,523)	721,500	533,977
June Sweep			-	(39,900)	-	39,900	39,900
	Total auction receipts:		$ 4,031,800	$ 750,700	$ 2,130,255	$ 3,281,100	$ 1,379,555
						0.0%	0.0%

		FY20 Budget	FY19 Budget	FY19 Actual	FY20 Budget Incr / (Decr) FY19 Budget	FY20 Budget Incr / (Decr) FY19 Projected
Auction Proceeds		$ 4,031,800	$ 3,050,700	$ 4,430,255	$ 981,100	$ 1,379,555
Sweep		-	(2,300,000)	(2,300,000)	2,300,000	-
	Total auction receipts:	$ 4,031,800	$ 750,700	$ 2,130,255	$ 3,281,100	$ 1,379,555

Connecticut Green Bank
FY 2020 RSIP Budget - DRAFT
REC Revenue

Tranche	Description	FY20 Budget - DRAFT Fiscal Q1 2020	Fiscal Q2 2020	Fiscal Q3 2020	Fiscal Q4 2020	Total Fiscal 2020	FY19 Budget-Revised	Increase / (Decrease)	FY19 Apr YTD Actuals
	Generation Month	**Calendar Q1 2019**	**Calendar Q2 2019**	**Calendar Q3 2019**	**Calendar Q4 2019**	**Total Calendar 2019**	**Total Calendar 2018**	**Total Calendar**	
SHREC T1	P90 Generation (mWh)	8,800.6	15,219.1	14,686.8	6,681.5	45,388.0	43,634.4	1,753.6	
SHREC T1	Revenue @ $50 / mWh	$ 440,030	$ 760,957	$ 734,341	$ 334,073	$ 2,269,401	$ 2,181,719	$ 87,681	
SHREC T2	P90 Generation (mWh)	11,165.4	18,935.6	18,318.1	8,513.1	56,932.1	52,967.4	3,964.6	
SHREC T2	Revenue @ $49 / mWh	$ 547,103	$ 927,842	$ 897,585	$ 417,142	$ 2,789,672	$ 2,595,405	$ 194,268	
SHREC T3	P90 Generation (mWh)	8,890.0	13,804.4	13,421.4	7,050.0	43,165.8	-	43,165.8	
SHREC T3	Revenue @ $48 / mWh	$ 426,720	$ 662,611	$ 644,226	$ 338,400	$ 2,071,957	$ -	$ 2,071,957	
	Total SHREC Revenue	$ 1,413,853	$ 2,351,411	$ 2,276,152	$ 1,089,614	$ 7,131,030	$ 4,777,124	$ 2,353,905	$ 4,916,117
	Generation Month	**Calendar Q1 2019**	**Calendar Q2 2019**	**Calendar Q3 2019**	**Calendar Q4 2019**	**Total Calendar 2019**	**Total Calendar 2018**	**Total Calendar**	
Non-SHREC Residential	Residential P90 Generation (mWh)	9,669.0	15,392.2	15,023.1	7,518.9	47,603.3	39,570.3	8,033.0	
Non-SHREC Residential	YTD Residential P90 Generation (mWh)	9,669.0	25,061.2	40,084.4	47,603.3	47,603.3	39,570.3	8,033.0	
Non-SHREC Residential	Revenue @ $15.64* / mWh	$ -	$ -	$ -	$ 744,516	$ 744,516	$ 197,852	$ 546,664	
Non-SHREC Commercial	Commercial P90 Generation (mWh)	-	-	-	14,500.0	14,500.0	15,000.0	(500.0)	
Non-SHREC Commercial	YTD Commercial P90 Generation (mWh)	-	-	-	14,500.0	14,500.0	15,000.0	(500.0)	
Non-SHREC Commercial	Revenue @ $15.64* / mWh	$ -	$ -	$ -	$ 226,780	$ 226,780	$ 75,000	$ 151,780	
	Commission Expense	-	-	-	(16,000)	(16,000)	(16,000)	-	
	Total Non-SHREC Revenue	$ -	$ -	$ -	$ 955,296	$ 955,296	$ 256,852	$ 698,444	$ 420,000
	Total REC Revenue	$ 1,413,853	$ 2,351,411	$ 2,276,152	$ 2,044,910	$ 8,086,325	$ 5,033,976	$ 3,052,350	$ 5,336,117

Notes:

*The Green Bank manages its price risk by selling its RECS in advance to buyers. To date we have sold 15,000 @ $24.25/REC, 15,000 @ $12.50/REC, and 10,000 @ $8.00 per REC. $15.64 is the Weighted average price of all contracts entered into by the Green Bank for vintage 2019 RECS and it is used for all budget estimates.

Connecticut Green Bank
FY 2020 Operations and Program Budget - DRAFT
Staffing Plan

Position / Department	Name	FY20 Staffing Budget Hours	FY19 Staffing Budget Hours
Associate, Residential Programs	Basham, Emily	2,080	2,080
VP, Finance and Administration	Bellas, George	-	1,360
Controller	Cartelli, Shawne	2,080	800
Senior Manager of Resources and Impact Assessment	Charpentier, Lucy	2,080	2,080
Associate Director, Commercial & Industrial Programs	Clark, Anthony	2,080	2,080
Senior Manager, Statutory & Infrastructure Programs	Colonis, Bill	2,080	2,080
Managing Director of Marketing	Connolly, Craig	2,080	2,080
Senior Loan Investment Administrator	Duncan, Catherine	2,080	2,080
VP Commercial & Industrial Programs and Officer	Dykes, Mackey	2,080	2,080
General Counsel & Chief Legal Officer	Farnen, Brian	2,080	2,080
Senior Manager, Clean Energy Finance	Fidao, Laura	-	693
Senior Contracts Administrator	French, Loyola	2,080	2,080
President & Chief Executive Officer	Garcia, Bryan	2,080	2,080
Manager, Statutory & Infrastructure Programs	Hazlewood, Isabelle	2,080	2,080
Managing Director, Statutory & Infrastructure Programs	Hedman, Dale	-	1,040
Executive Vice President and Chief Investment Officer	Hunter, Bert	2,080	2,080
Manager, Marketing	Janecko, Andrea	2,080	2,080
Administrative Coordinator	Johnson, Barbara	2,080	2,080
Senior Manager & Senior Counsel, Commercial and Industrial Programs	Kovtunenko, Alex	2,080	2,080
Associate Manager, Statutory & Infrastructure Programs	Kranich, Ed	2,080	2,080
Senior Accountant (P/T)	Landry, Joe	1,560	1,560
Manager, Commercial & Industrial Programs	Lembo-Buzzelli, Alysse	2,080	2,080
Senior Assistant, Statutory & Infrastructure Programs	Lewis, Lynne	2,080	2,080
Legislative Liaison & Associate Director, Marketing	Macunas, Matt	2,080	2,080
Senior Manager, Clean Energy Finance	Miller, Desiree	2,080	1,387
VP, Finance and Administration	Murphy, Jane	2,080	2,080
Director, Statutory & Infrastructure Programs	Price, Selya	2,080	2,080
Associate Manager, Statutory & Infrastructure Programs	Pyne, Sara	2,080	2,080
Executive Assistant	Samuels, Cheryl	2,080	2,080
Manager, Marketing	Schmitt, Robert	2,080	2,080
Managing Director of Operations	Shrago, Eric	2,080	2,080
Senior Accountant	Soares, Natalia	2,080	2,080
Director, Multifamily Housing Programs	Stevenson, Kim	320	2,080
Manager, Clean Energy Finance	Stewart, Fiona	2,080	2,080
Senior Manager, Marketing	Sturk, Rudy	2,080	2,080
Staff Accountant/Contracts Administrator (CI)	Turker, Irene	2,080	2,080
Senior Manager, Clean Energy Finance (Durational)	Venables, Louise	2,080	2,080
Senior Assistant, Statutory & Infrastructure Programs	Vigil, Marycruz	2,080	2,080
Associate Director, Marketing	Waters, Barbara	2,080	2,080
Director, Clean Energy Finance	Yu, Mike	2,080	2,080
Senior Manager, Commercial & Industrial Programs	Zuba, Nick	2,080	2,080
New - Senior Accountant	Open	2,080	800
	Subtotal:	78,840	80,440

Connecticut Green Bank
FY 2020 Operations and Program Budget - DRAFT
Staffing Plan

Position / Department	Name	FY20 Staffing Budget Hours	FY19 Staffing Budget Hours	
New Hires and Interns				
New - Senior Manager, Clean Energy Finance		1,600	-	
New - Senior Associate/Asset Manager		2,080	-	
New - Senior Manager Commercial, Industrial, & Institutional Programs		1,600	-	
New - Associate, Statutory and Infrastructure Programs (Durational)		2,080	-	
Intern - Finance 1		480	-	
Intern - CI&I 1		480	-	
Intern - SI 1		480	-	
	Total Hours:	87,640	80,440	
	FTEs:			
	Employees	41.44	38.67	2.77
	Interns	0.69	-	0.69
	Total	42.13	38.67	3.46
	Dollars:			YOY Incr / (Decr)
	CGB Employees	$ 4,172,750	$ 3,969,163	$ 203,587
	(1) Merit Pool	120,794	119,046	1,748
	(2) Promotion Pool	65,061	59,523	5,538
	(3) Delay in Movement of IPC Employees	-	121,196	(121,196)
	Intern Pool-CGB	30,000	-	30,000
	Total:	$ 4,388,605	$ 4,268,927	$ 119,678

Notes:

(1) FY20 and FY19 Merit Pool is 3%.

(2) FY20 and FY19 Promotion Pool is 1.5%.

(3) During FY19 employees did not move to IPC until 08/03/18, four pay periods.

Connecticut Green Bank
FY 2020 Program Budget - DRAFT
Program Loans

Program Type - CGB portfolio loan (Asset) advances

Dept	Prg Code	Prg Name	Description		Interest Rate	Term in Years	FY20 Budget Q1	FY20 Budget Q2	FY20 Budget Q3	FY20 Budget Q4	FY20 Budget Total	FY19 Budget Recast	FY19 YTD Actuals
MultiFamily	52250	MF Programs	Recapitalization of C4C Lime		3.0%	10	$ 2,000,000	$ -	$ -	$ -	$ 2,000,000		
MultiFamily	52250						-	-	-	-	-		
				Total MultiFamily Program Loans:			***$ 2,000,000***	***$ -***	***$ -***	***$ -***	***$ 2,000,000***	***$ 180,000***	
				Total Resi 1-4 Program Loans:			***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ 2,500,000***	
CI&I	51800	CPACE	CGB Portfolio	Current & Future Pipeline	5.83%	16	$ 1,125,000	$ 1,125,000	$ 1,125,000	$ 1,125,000	$ 4,500,000		
CI&I	51800	CPACE	3rd party lending RFP	Projects to be determined	5.3%	5	500,000	1,500,000	1,500,000	1,500,000	5,000,000		
CI&I	51810	New Product Dev.	ESA with State	Projects to be determined	5.0%	10	-	-	3,750,000	3,750,000	7,500,000		
CI&I	53002	CGB SBEA LLC	Regular Loan Purchases		4.75%	4	500,000	500,000	500,000	500,000	2,000,000		
				Total CI&I Program Loans:			***$ 2,125,000***	***$ 3,125,000***	***$ 6,875,000***	***$ 6,875,000***	***$ 19,000,000***	***$ 26,690,279***	
Finance	52200	CE Finance Prg	PPA Sub Debt into fund SL4	Debt financing	5.5%	15	$ 4,218,750	$ 4,218,750	$ 4,218,750	$ 4,218,750	$ 16,875,000		
Finance	52200	CE Finance Prg					-	-	-	-	-		
				Total CE Finance Program Loans:			***$ 4,218,750***	***$ 4,218,750***	***$ 4,218,750***	***$ 4,218,750***	***$ 16,875,000***	***$ 6,500,000***	
				Total of all Program Loans:			***$ 8,343,750***	***$ 7,343,750***	***$ 11,093,750***	***$ 11,093,750***	***$ 37,875,000***	***$ 35,870,279***	

Program Type - CGB Loans: Provisions for Loan Losses

	Prob.	Ratio	FY20 Budget Q1	FY20 Budget Q2	FY20 Budget Q3	FY20 Budget Q4	FY20 Budget Total	FY19 Budget Recast	FY19 YTD Actuals
Total MultiFamily Program Loans:	85%	15%	$ 255,000	$ -	$ -	$ -	$ 255,000	$ 180,000	$ 9,000
Total Resi 1-4 Program Loans:	100%	10%	-	-	-	-	$ -	250,000	-
Total CI&I Program Loans-CPACE:	85%	10%	138,125	223,125	223,125	223,125	807,500	1,996,674	1,962,674
Total CI&I Program Loans-Other CI&I Pgms:	85%	10%	-	-	318,750	318,750	637,500	272,000	436,916
Total CE Finance Program Loans:	75%	10%	316,406	316,406	316,406	316,407	1,265,625	225,000	357,477
Total Provision for Loan Losses:			***$ 709,531***	***$ 539,531***	***$ 858,281***	***$ 858,282***	***$ 2,965,625***	***$ 2,923,674***	***$ 2,766,066***

Program Type - Interest Expense

Dept	Prg	Prg Name	Description	Interest	Term	FY20 Budget Q1	FY20 Budget Q2	FY20 Budget Q3	FY20 Budget Q4	FY20 Budget Total	FY19 Budget Recast	FY19 YTD Actuals
Multi	52251	Multifamily	HDF/MacArthur Interest Expense - $5.0m draw	1%	15	$ 12,500	$ 12,500	$ 12,500	12,500	$ 50,000	$ 50,000	$ 50,000
SI	51100	RSIP	Interest Expense-SHREC ABS - Class A	5%	15	467,058	462,731	451,813	440,603	1,822,205	-	-
SI	51100	RSIP	Interest Expense-SHREC ABS - Class B	7%	15	31,592	31,310	30,571	29,814	123,287	-	-
SI	51100	RSIP	Liberty/Webster SHREC Warehouse - Tranche 3	5%	1	20,445	51,111	80,890	111,223	263,669	333,750	351,582
Finance	52200	CE Finance Prg	Amalgamated LOC	4%	1	52,389	52,389	51,820	51,819	208,417	-	-
Finance	52302	Clean Renewable Energy Bonds	New England Hydro CREBs net of Treasury Subsidy	5%	20	-	152,559	-	-	152,559	28,968	59,010
Finance	52302	Clean Renewable Energy Bonds	CSCU CREBs net of Treasury Subsidy	5%	20	-	16,535	-	-	16,535	-	-
						$ 583,984	$ 779,135	$ 627,594	$ 645,959	$ 2,636,672	$ 412,718	$ 460,592

Connecticut Green Bank
FY 2020 Program Budget - DRAFT
Credit Enhancements

Credit Enhancements - Loan Loss Reserves - ARRA Funds

Dept	Prg Code	Prg Name	Description	FY20 Budget Q1	FY20 Budget Q2	FY20 Budget Q3	FY20 Budget Q4	FY20 Budget Total	FY19 Budget	FY19 Actual
				$ -	$ -	$ -	$ -	$ -	$ -	$ -
				-	-	-	-	-	-	-
				$ -	$ -	$ -	$ -	$ -	$ -	$ -

Credit Enhancements - Loan Loss Reserves - DEEP Funds

Dept	Prg Code	Prg Name	Description	FY20 Budget Q1	FY20 Budget Q2	FY20 Budget Q3	FY20 Budget Q4	FY20 Budget Total	FY19 Budget	FY19 Actual
				$ -	$ -	$ -	$ -	$ -	$ 500,000	$ -
				$ -	$ -	$ -	$ -	$ -	$ 500,000	$ -

Credit Enhancements - Loan Loss Reserves - CGB Funds

Dept	Prg Code	Prg Name	Description	FY20 Budget Q1	FY20 Budget Q2	FY20 Budget Q3	FY20 Budget Q4	FY20 Budget Total	FY19 Budget	FY19 Actual
Resi	52210	SmartE	CGB/Smart E loans	$ 149,027	$ 149,027	$ 149,027	$ 149,027	$ 596,106	$ 850,000	$ -
Multi	52230	CHIF PEL	CHIF/MPEL product	-	-	-	-	-	120,000	-
				$ 149,027	$ 149,027	$ 149,027	$ 149,027	$ 596,106	$ 970,000	$ -

Credit Enhancements - Interest rate Buydowns - ARRA Funds

Dept	Prg Code	Prg Name	Description	FY20 Budget Q1	FY20 Budget Q2	FY20 Budget Q3	FY20 Budget Q4	FY20 Budget Total	FY19 Budget	FY19 Actual
Resi	52210	SmartE	CGB/Smart-E loans	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 1,000,000	$ 1,570,800	$ -
Resi	52210	SmartE	Smart-E for Ground Source Heat Pumps	200,000	200,000	200,000	200,000	800,000	-	-
				$ 450,000	$ 450,000	$ 450,000	$ 450,000	$ 1,800,000	$ 1,570,800	$ -

Credit Enhancements - Interest rate Buydowns - CGB Funds

Dept	Prg Code	Prg Name	Description	FY20 Budget Q1	FY20 Budget Q2	FY20 Budget Q3	FY20 Budget Q4	FY20 Budget Total	FY19 Budget	FY19 Actual
Resi	52210	SmartE	CGB/Smart-E EV Loans	-	-	-	-	-	125,000	-
				$ -	$ -	$ -	$ -	$ -	$ 125,000	$ -

Connecticut Green Bank
FY 2020 Program Budget - DRAFT
Financial Incentives - Grants and Rebates

		FY20 Budget						
Program Name	Description	Q1	Q2	Q3	Q4	Total	FY19 Budget (Recast)	FY19 Actuals As of 06/19/19
RSIP	PBI Incentives	$ 3,183,771	$ 1,558,301	$ 2,089,750	$ 3,660,884	$ 10,492,705	$ 9,546,354	$ 8,612,291
RSIP	EPBB Incentives	1,308,207	1,667,225	1,041,487	995,507	5,012,426	4,200,000	4,166,209
RSIP	HOPBI Incentives	-	-	-	-	-	-	(1,799)
Pre-FY2013 Programs	Legacy projects	25,000	25,000	25,000	25,000	100,000	100,000	-
		$ 4,516,979	$ 3,250,526	$ 3,156,236	$ 4,681,391	$ 15,605,131	$13,846,354	$ 12,776,701

Connecticut Green Bank
FY 2020 General Operations Budget - DRAFT
Research and Program Development Expenditures

Project	Purpose	FY20 Budget	FY19 Budget Recast	FY19 Actuals As of 06/19/19
Renewable Thermal Technology	RH&C	$ 15,000	$ 25,000	$ 38,246
LMI	Solar Pathways (value proposition in LMI space)	-	15,000	-
Community Engagement	Sustainable CT	100,000	-	-
GHHI	Completion of Phase 2	45,000	-	-
LMI	Energy Burden in Transportation Study	50,000	-	-
Community Solar	Identify opportunities for investment (e.g., brownfields)	50,000	-	-
EMV	Joint Jobs Study with EEB	10,000	-	-
EMV	ESA	20,000	-	-
		$ 290,000	$ 40,000	$ 38,246

Connecticut Green Bank
FY 2020 General Operations Budget - DRAFT
Capital Expenditure Budget

	FY20 Budget	FY19 Budget	FY19 Actuals As of 06/19/19
IT Hardware & Software			
New/Replacement Desktops & Laptops	$ 30,000	$ 30,000	$ 12,718
Phones	15,000	15,000	-
Firewalls and Traffic Analyzer	-	-	-
Other Capitalized IT Hardware	-	-	-
	$ 45,000	$ 45,000	$ 12,718
Office Furniture & Equipment			
Rocky Hill-Cubicles/Furniture	$ -	$ -	$ -
Rocky Hill	-	-	-
	$ -	$ -	$ -
Leasehold Improvements			
Rocky Hill-Leasehold Improvements	$ -	$ -	$ -
Stamford-Leasehold Improvements	-	-	-
	$ -	$ -	$ -
Total Capital Expenditures	$ 45,000	$ 45,000	$ 12,718

Connecticut Green Bank
FY 2020 General Operations Budget - DRAFT
Strategic Partners

Partner	Department	RFP	Year of RFP	Work Performed	FY20 Budget	FY19 Budget
Adnet Technologies, LLC	General Operations	Y	2017	IT Outsourcing	$ 420,000	$ 400,000
Clean Power Research, LLC	Infrastructure	Y	2016	PowerClerk Software	448,895	430,000
Cortland Capital Services	CI&I	Y	2013	CPACE - Loan Servicing	130,000	84,860
CSW, LLC.	CI&I	Y	2019	PPA/Municipal Project Management	177,000	-
Inclusive Prosperity Capital	multiple	N		Program Execution and Investment Management	1,297,956	1,265,710
Locus Energy LLC	Infrastructure	Y	2016	Monitoring Platform, Active Monitoring, RGM replacement	830,000	570,000
ReCurve Analytics	CI&I	Y	2018	CPACE EM&V	135,000	50,000
Sustainable Real Estate Solutions, Inc.	CI&I	Y	2018	CPACE Third Party Administrator	200,000	619,750
Stephen Turner, Inc.	Multifamily	N		Progam Management	75,000	70,000
					$ 3,713,851	$ 3,490,320

Inclusive Prosperity Capital Breakdown

PSA	Human Capital Component	Administrative Component	Total FY20 Budget	Total FY19 Budget
Solar PPA	$ 271,077	$ 3,695	$ 274,772	$ 160,006
LMI	215,675	11,690	227,365	270,687
Smart-E	282,802	13,855	296,656	399,950
Multifamily	477,652	21,511	499,163	349,301
	$ 1,247,206	$ 50,750	$ 1,297,956	$ 1,179,944

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CONNECTICUT
GREEN BANK

Memo

To: Board of Directors of the Connecticut Green Bank

From: Jane Murphy (Vice President of Finance and Administration) and Eric Shrago (Managing Director of Operations)

CC: Bryan Garcia (President and CEO)

Date: July 18, 2019

Re: Clarification of the FY2020 Budget Variances

To explain the budget variances from FY2019 to FY2020, it is important not to look at the Green Bank as a whole, but at its two distinct business units:

- **<u>Incentive Programs</u>** – that pay grants and incentives (e.g., RSIP) or provide credit enhancements like interest rate buy-downs (e.g., Smart-E loan) as their primary way to stimulate markets and who's cost are recovered (e.g., through the sale of Solar Home Renewable Energy Credits) or use of third-party funds to fund those incentives (e.g., AARA funds); and

- **<u>Financing Programs</u>** – consisting of products that are meant to generate a return for the organization (i.e., cash flow from a 5% return over a 10-year term for the portfolio of investments).

Upon the discussion at the last board meeting, staff has reviewed the budget and has included additional revenues and has revised some expenses. For detail on this analysis, see Attachment A "Statement of Revenues and Expenses – Incentive Programs vs. Financing Programs"

In the Incentive Programs, there has been a nominal increase in operating expenses ($13K personnel related and $169K non-personnel related) and significant but normal annual increase in incentives paid ($1.8M). This increase in incentives is for systems approved last year that are now coming on line and incremental systems that will be approved in FY2020. Additionally, a significant portion of the increase in the Incentive Programs is $1.9M in interest expense that is for the SHREC securitization completed in April which the Board approved, and the Green Bank is contractually obligated to pay.

It is important to note that **<u>ALL</u>** these expenses are cost-recoverable through the sale of SHRECs to the electric distribution companies through the master purchase agreements with Eversource and United Illuminating as the Green Bank planned (and the Board approved).

Also included in the Incentive Programs is the interest rate buy-downs for Smart-E for $1.8 million. Note that these funds originally came to the Green Bank as part of the American Recovery and Reinvestment Act (ARRA) State Energy Programs (via DEEP) and have significant restrictions on their use. Ultimately, the Green Bank is the State conduit for the use of these resources as agreed by contract with DEEP.

The Financing Programs are meant to generate a return for the organization to get the Green Bank to financial sustainability while achieving the State's carbon/GHG reduction and economic development goals. In the attached presentation of the budget, you can see revenue for the investment segment (from investments and excluding new ratepayer or RGGI funds) is increasing year on year by $1.4 million from $4.3 million in FY19.

There are also new expense variances that total $1.3 Million. Each of these increases have been proposed by staff to either increase revenue and manage risk or to develop new products.

These include:

- Staffing Changes that have allowed us to refocus staff on bringing in new investments, ensuring that they are underwritten and capitalized efficiently, and ensuring that they are performing while executing on the personnel changes determined by the Sustainability Plan (i.e., position eliminations and transfers to Inclusive Prosperity Capital);

- Depreciation of specific investments that is not impacting cash as well as additional expenses for specialized software, consulting and training;

- Employment of specialists (consultants and auditors) that help us navigate the operational complexities of specific transactions (hydropower projects), identify new financial structures (bond indenture), meet audit requirements (SOC2), and determine how best to account for all of our activities;

- Design and implementation of our brand that improves awareness in the market for our activities which support and complement the State's efforts to reduce carbon/GHG emissions and expand green opportunities for all stakeholders;

- Product development that builds the top of the funnel of projects for the Green Bank by engaging potential customers and capital providers;

- Research that informs the next round of Green Bank products such as renewable heating and cooling and transportation – a specific emphasis of the State's Comprehensive Energy Strategy.

All of these get Green Bank funds invested in clean energy to accelerate returns so that we can continue advancing our mission while minimizing portfolio risk.

Achieving financial sustainability is important to the future of the organization and we keep making progress towards it. Looking at Operating Income/(Loss), the annual measure of how the business is moving towards our goal, we see an improvement for the Financing Programs business unit of $286K year-on-year on a non-cash basis (including depreciation and amortization) and $577K on a cash basis. This budget reflects the Green Bank's continued progress toward the point of break even for the Financing Programs business unit, because it enables us to deploy capital at a rate that will generate more income and cash flow, more rapidly and safely.

In the attached, you will see a revised presentation of the budget consolidated and by business unit (i.e., Incentive Programs and Financing Programs). This shows each unit's self-generated revenue separately vs. its expenses and how the Green Bank is moving toward self-sufficiency. Additionally, there is an addendum to this memo that explains each variance from year to year.

Addendum to Budget Variances Memo

After the Board of Directors meeting on June 28, 2019, staff realized the need to provide further clarification on the proposed FY2020 budget, including revenue and expense variances from FY2019 to FY2020. Overall, as was highlighted by members of the Board of Directors, revenues have increased by $5.6 million beyond the restoration of the swept CEF (i.e., $14.0 million) and RGGI (i.e., $2.3 million) funds from prior years, while expenses have increased by $7.1 million.

This memo will provide clarity on these year-to-year changes as well as explain the rationale for these variances with respect to the business units the Connecticut Green Bank operates – Incentive Programs and Financing Programs.

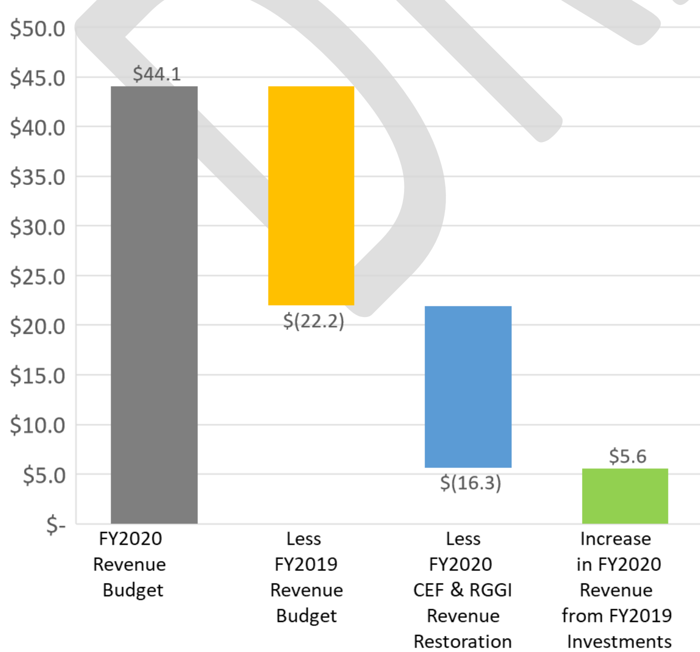
Revenue Variances

As mentioned in the Board of Directors' meeting, revenues are increasing by a total of $21.9 million, however, of that increase $16.3 million is due to the restoration of the Clean Energy Fund (i.e., $14.0 million) and RGGI (i.e., $2.3 million) funds previously swept by the Connecticut General Assembly to the General Fund.

That means that revenues are increasing by approximately $5.6 million from FY2019 to FY2020 – see Figure 1.

This growth in revenue is driven by an additional $3.3 million in REC income (primarily from the installation of new RSIP systems, but also from PPA income) and an additional $1.7 million of interest income resulting primarily from investments made in FY2019.

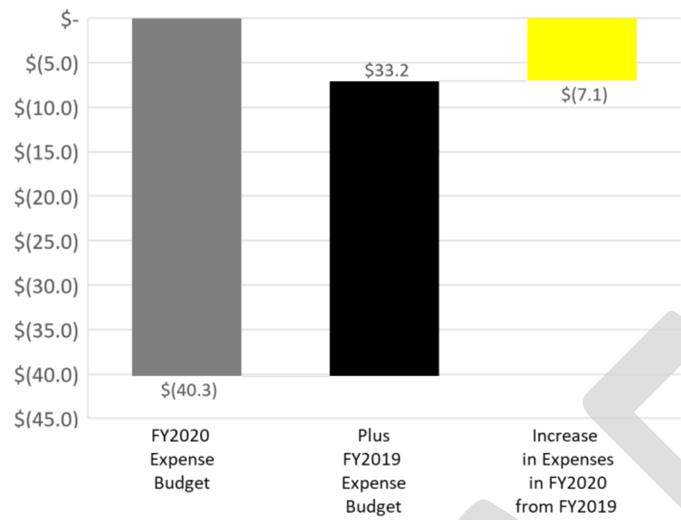
Figure 1. Revenue Variance FY 2019 to FY2020



Expense Variances

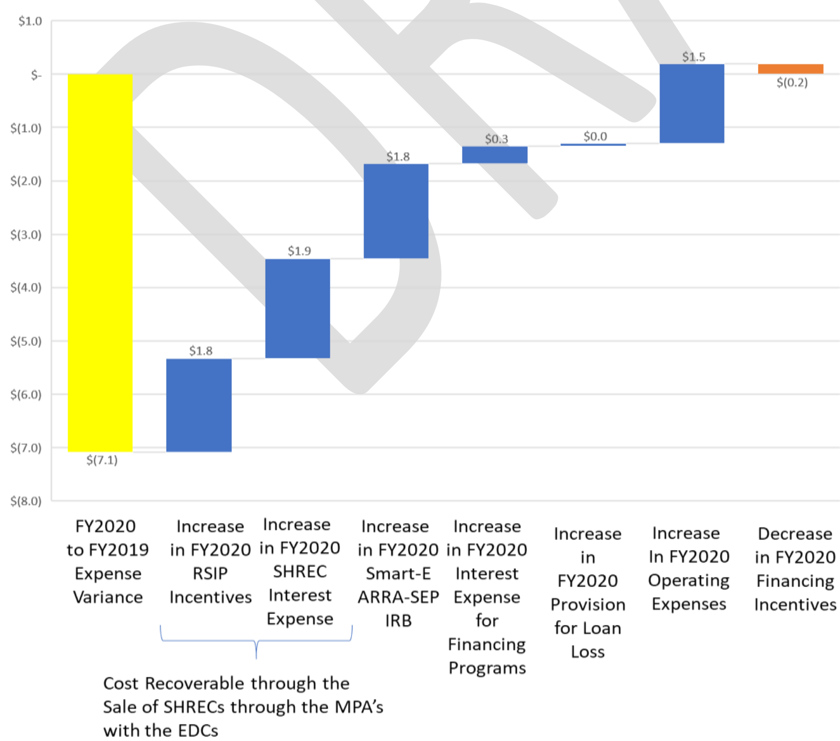
As mentioned in the Board of Directors' meeting, the expenses from FY2019 to FY2020 have increased by $7.1 million above the expense budget from FY2019 – see Figure 2.

Figure 2. Expense Variance FY 2019 to FY2020



This increase is comprised of increases in RSIP Incentives ($1.8M), increases in SHREC Green Bond Interest Expense ($1.9M), Increase in Smart-E ARRA-SEP Interest Rate Buydowns ($1.8M), slight increases in interest expense for financing programs and provision for loan losses, and an increase in operating expenses ($1.5M) – see Figure 3.

Figure 3. Expense Variance Components FY 2019 to FY2020



Non-Operating Expense Variances

The following is an explanation of the non-operating expense variances: that apply to the Incentive Programs:

- **RSIP Incentives (Cost Recoverable)** – $1.8M increase in RSIP Incentive is driven by new RSIP systems brought on approved in FY2019 and FY2020 for which we will have to pay incentives starting in FY2020;

- **SHREC Interest Expense (Cost Recoverable)** – $1.9M increase in SHREC Interest Expense is owed for the cash received in the securitization of the first two tranches of the SHREC in FY2019;

- **Smart-E Loan Interest Rate Buydown (IRB)**[1] – $1.8M in Smart-E Loan ARRA-SEP Interest Rate Buydowns are a programmatic related expenditure in the FY2020 budget aimed to:

    - **Product Line Transition** – stabilize the market during the business transformation of the Smart-E Loan from one technology platform to another and from a free program to a fee driven program for contractors through a limited IRB; and

    - **Catalyze Renewable Heating and Cooling Markets** – accelerate the deployment of renewable heating and cooling technologies (e.g., catalyze new markets for ground source heat pumps) to support Connecticut's climate change efforts through a targeted IRB;

- **Financing Programs Interest Expense** – staff is forecasting $333K in interest expenses related to lines of credit employed by the organization to manage its cash and investments throughout the year; and

- **Provision for Loan Loss** – an additional $42K in loan loss reserves is budgeted for FY2020 vs. FY2019 due to the increased investments completed in FY2019 and the scheduled investments for FY2020. This is not a cash impacting item but is a reserve in case there are losses in the future.

[1] It is important to note that the Deployment Committee would have to approve of the use of the restricted ARRA-SEP funds for these proposed purposes for the IRB and that the only reason that these funds flow through P&L is due to their original accounting treatment as a grant from the Federal Government through the Recovery Act

Operating Expense Variances

Overall Operating Expenses are budgeted to increase by $1.5M in FY2020.

The $1.5M in Operating Expenses stem from a variety of drivers across the organization including changes in overhead expenses, changes in personnel, and other expenses that seek to drive investment, mitigate risk, innovate new products in the Incentive Programs and Financing Programs business units.

Organization-Wide Operational Expense Variances

When Green Bank Staff prepare the annual budget, we allocate specific expenses across all programs in the organization, including:

- **Shared Resources** – increase of $36K in rent, utilities, technology infrastructure, etc. variance;

- **Depreciation and Amortization** – depreciation and amortization which, in FY2020 are the principle driver of the increase. The expense incurred for depreciation in FY2020 is $348K or an increase of $281K from FY2019. This increase is due to the Green Bank's ownership of the solar arrays installed on the campuses of the Connecticut State Colleges and Universities. It is not a cash impacting item;

- **Office, Computer & Other Expenses** – increase of $126K in Office, Computer, and Other Expenses that is due to cover the further development of Green Bank systems including salesforce, data warehouse, and Intacct for $46K. Additionally, there is $50K for a system called TRECs that drastically saves time and effort for the finance team and $44K for training. These are offset by a reduction in Travel and expenses. Staff expect the increased expenses related to building out Salesforce to facilitate new investments that achieve the investment targets starting this year.

The $442K increase in organization-wide operational expense variances is a result of shared resources, depreciation, and amortization.

Across the organization, Personnel expenses increase from compensation and benefits of $411K has multiple components including:

- **Staff Changes from Sustainability Plan** – due to retirements, staff transfers to Inclusive Prosperity Capital, and severances resulting from the Sustainability Plan, the Green Bank will save $738K in compensation and benefits in FY20;

- **Implementation of FY2019 Merit and Promotions** – As a result of the FY2019 performance review process and promotions earned in FY2019, the year on year budget is increased by $376K;

- **New Positions** – the Green Bank has proposed the following new positions to mitigate risk and drive investment costing $566K:

    - Finance Senior Manager – to support new investments and bonding;
    - Asset Manager – to help optimize income from green bank investments and monitor risk;
    - CI&I Originator – to grow the pipeline of new investments;
    - Infrastructure Associate/SL2 Customer Support (durational) – support the increased applications in RSIP and help triage customer issues from SL2 residential projects; and
    - Interns – return of summer interns to attract future talent into the organization;

- **Temporary Employees** – temporary employees ($165K) to help manage the growth in applications for the RSIP program;

- **Merit Pool** – 3.0% merit pool includes compensation for $124K, to recognize FY2019 performance and benefits for $110K for a total of $234K which is 22K more than FY2019; and

- **Promotion Pool** – 1.5% promotion pool consists of $65K and $58K of benefits, $11K more than FY2019, to advance personnel per the Compensation Structure (i.e., Job Grades Map).

Incentive and Financing Programs Operational Expense Variances

Starting in FY2018, as part of the Sustainability Plan, the organization began to think about its business in two units:

- **Incentive Programs (Cost Recoverable)** – that pay grants and incentives as their primary way to stimulate markets and who's cost are recovered (e.g., through the sale of Solar Home Renewable Energy Credits); and

- **Financing Programs** – consisting of products that are meant to generate a return for the organization (i.e., cash flow from a 5% return over a 10-year term for the portfolio of investments).

To understand the increased expenses proposed in the FY2020 budget, we will review the two business units and how they contribute to the increase in operational expenses and their associated revenues.

Incentive Programs Operational Expense Variances

The Incentive Programs' operating expense increases are for $180K. It is important to note that all the expenses allocated to this business unit are cost recovered through the sale of SHRECs to recover the incentives paid, as well as the expenses incurred in administering and financing the program.

The additional expenses are driven primarily by the organization's administration of public policy (i.e., RSIP) with the objective of 350 MW of residential solar PV deployment by the end of 2022, and the sustained orderly development of a local industry. As the industry undergoes a transition from the RSIP and net metering policy, to a tariff-based structure starting January 1, 2022, the Green Bank efforts will help ensure an orderly transition.

- **Evaluation Measurement and Verification (EM&V)** – increase of $100K in EM&V to pay for work with Kevala and Navigant Consulting. Kevala is an analytics partner with a bespoke solution for grid visualization that will help staff analyze solar PV production of the Green Bank fleet of residential solar PV systems during peak periods at various locations on the grid. Navigant will continue to assist the Green Bank in terms of program design and integration of battery storage to further grow this part of the market;

- **Consulting** – increase of about $40K in consulting fees to cover the need for additional staff to manage the backlog of RSIP applications and paperwork and to assist staff with the process of asset creation (i.e., registration and aggregation of systems with ISO NE and PURA) and management.[2] The RSIP is currently backlogged in its incentive processing as a result of increased demand for residential solar seen in FY2019. These mitigate risk and maximize SHREC revenue to recover costs;

- **Bond Issuance Costs** – increase of $91K in bond issuance costs including legal fees, third party due diligence, and green bond certification to support the Tranche 3 SHREC securitization. In FY2019, we did not appropriately include this as an operating expense in the budget; and

- **Net Savings from Other Expense Cuts** – there were other minor expense changes netting to a savings of approximately $113K in the Incentive Programs' budget.

Financing Programs Operational Expense Variances

The Financing Programs' operating expense variance increases are for $1.4M, with $725K stemming from organization wide expenses allocated to the programs and $588K from programs themselves. The additional operating expenses stem from investment, including mitigation of risk and brand building, as well as research and product development.

It is important to note that the sustainability goal of the Financing Programs business unit is to invest Clean Energy Fund and RGGI revenues in a portfolio of programs, products, and projects that yield an average 5% return over a 10-year term.

Investment Driven Expenses – Mitigation of Risk and Brand Building

The following $355K in operating expense increases will help accelerate the growth of the organization's balance sheet starting in FY2020:

[2] Dale Hedman, former Managing Director of Infrastructure Programs on a consulting contract

- **Consulting** – increase in consulting fees by $108K to support investment underwriting[3] (e.g., underwriting PPA's, project management of hydro projects) and capital raising[4] (i.e., financial advisor for the Green Bank's bonding strategy;

- **Accounting and Audit** – additional accounting expenses of $89K to support additional audit requirements (SOC2) and advisory[5]; and

- **Marketing** – increase of $158K in marketing,[6] to support the rebuilding of the Green Bank brand through the promotion of the "Green Bonds Us" campaign.

Investment Driven Expenses – Research and Product Development

The following $290K, or $250K of variance, is to assist the Green Bank in developing new programs and products that will generate revenues, as well studies that will aid the mission of the organization:

- **Research and Product Development (Product Development)** – increase of $150K in research and product development for the following areas which are likely to be revenue producing:

    - **Sustainable Connecticut** – $100K for community engagement through Sustainable CT that will lead to new investment opportunities through the various Green Bank Financing Programs (e.g., C-PACE, Green Bank Solar PPA, SBEA, etc.) as well as broaden our brand through the Green Bonds Us campaign[7] by supporting community pursuit of sustainability (Note that $75k of this is funded by a grant to the Green Bank from Harvard University); and

    - **Community Solar** – $50K to support evaluation of brownfields for the development of community solar projects in collaboration with DECD that could lead to future project finance opportunities.

- **Research and Product Development (Research)** – $140K in operating expenses are intended to help the organization identify new opportunities, including:

    - **Renewable Heating and Cooling** – $15K in support for regional Renewable Heating and Cooling markets (e.g., RH&C calculator) as directed by DEEP and the CES, and through collaboration with the Clean Energy States Alliance, northeast region system benefit funds (e.g., NYSERDA) and utilities (e.g., Eversource Energy and Avangrid);

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[3] MonteVerde
[4] Lamont Financial
[5] George Bellas, former VP of Finance on a consulting contract
[6] It is important to note that there was a $48,100 reduction in marketing expenses for the Incentive Programs business unit
[7] It should be noted that the Green Bank received a $100,000 grant from the Ash Center at Harvard's Kennedy School to support (1) $75,000 for Sustainable CT, and (2) $25,000 for Inclusive Prosperity Capital to increase the impact of the green bank model locally and nationally.

- **<u>Green and Healthy Homes Initiative</u>** – $45K in grant support to continue to support of the Green and Healthy Homes Initiative (GHHI) with other state agencies (e.g., DEEP, DPH, DOH, DSS, etc.) and foundations;

- **<u>Energy Burden Study - Transportation</u>** – $50K in support for energy burden study that includes transportation that will help us target future product development and bring EV's and electrification of transportation to the LMI community;

- **<u>Clean Energy Jobs Study</u>** – in partnership with the EEB, through the Joint Committee, $10K to support a Connecticut job study to feature economic development of the clean energy industry in Connecticut; and

- **<u>Energy Savings Agreement</u>** – $20K to support Energy Savings Agreement product development in support of the Governor's Executive Order 1.

All of the above are aimed at delivering opportunities for organization to deploy its capital at or above the targets. The impact of these expenses will start to be seen in FY2021 by delivering additional projects. These projects will be used as backing for future bond issuance.

Comprehensive Plan

Green Bonds US

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CONNECTICUT GREEN BANK℠

Comprehensive Plan

Fiscal Year 2020 & Beyond

July 2019

Table of Contents

1. Executive Summary

"The civilization of New England has been like a beacon lit upon a hill, which, after it has diffused its warmth around, tinges the distant horizon with its glow."

Alexis de Tocqueville, Democracy in America

Although Connecticut is one of the smallest states in the country, its decades of legislative leadership on climate change has had an influential impact across the country and around the world. One example of this was on July 1, 2011, when in a bipartisan manner, Public Act 11-80[1] was passed. Within Section 99 of that seminal act, the nation's first state-level green bank was formed. The Connecticut Green Bank ("the Green Bank") is a public policy innovation, a catalyst that helps mobilize greater local and global investment to address climate change.

Since its inception, the Green Bank has mobilized over $1.6 billion of investment into Connecticut's clean energy economy at nearly a 7 to 1 leverage ratio of private to public funds, supported the creation of nearly 20,000 direct, indirect, and induced job-years, reduced the energy burden on over 45,000 families (in particular low-to-moderate income families) and businesses, deployed over 360 MW of clean energy that will help reduce 6.5 million tons of CO_2 emissions and save nearly $200 million of public health costs over the life of the projects, and helped generate $82.9 million in individual income, corporate, and sales tax revenues to the State of Connecticut.[2]

As a result of the Green Bank's success as an integral public policy tool addressing climate change in Connecticut, there has been growing national public policy interest at the local,[3] federal,[4] and international[5] levels to realize similar results. This green bank movement is about increasing and accelerating the flow of capital into markets that energize the green economy to confront climate change and provide society a healthier, more prosperous future. As the "spark" to the green bank movement, the Green Bank was awarded the prestigious 2017 Innovations in American Government Awards by the Ash Center at Harvard University's Kennedy School of Government[6].

At home and abroad, there is agreement that accelerating the flow of capital into the green economy is one key to addressing the climate crisis. The Paris Agreement's third aim (beyond mitigation of greenhouse gas emissions and adaptation to climate change impacts) is making finance flows

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[1] An Act Concerning the Establishment of the Department of Energy and Environmental Protection and Planning for Connecticut's Energy Future.

[2] From July 1, 2011 through June 30, 2019

[3] American Green Bank Consortium – https://greenbankconsortium.org/

[4] US Green Bank Act of 2019 introduced by Senators Blumenthal (CT), Markey (MA), Murphy (CT), Van Hollen (MD), and Whitehouse (RI) in the Senate, National Climate Bank Act of 2019 introduced by Senators Markey (MA) and Van Hollen (MD), with co-sponsors Blumenthal (CT) and Schatz (HI), the US Green Bank Act of 2019 by Representative Himes (CT) and 13 others in the House. Democratic Presidential Candidates Inslee and Bennet proposed $90 billion and $1 trillion "green bank" and "climate banks," respectively as part of their campaigns.

[5] Green Bank Network – https://greenbanknetwork.org/

[6] https://ash.harvard.edu/news/connecticut-green-bank-awarded-harvards-2017-innovations-american-government-award

consistent with a pathway towards reduced emissions and increased climate resilient development. The Center for American Progress estimates that the U.S. needs at least $200 billion in renewable energy and energy efficiency investment a year for 20 years to reduce carbon emissions and avert climate disaster.[7] In a similar vein, the United Nations estimates that $90 trillion of investment is needed over the next 15 years to advance sustainable development and confront the worst effects of climate change.[8]

To put these numbers into perspective, this is the equivalent of between $620 to $800 of investment per person per year for the next 15 years, respectively – or, the equivalent of nearly $3 billion a year of investment in Connecticut's green economy!

Faced with the magnitude of investment required to put society on a more sustainable path to confront climate change, the Green Bank convened a group of stakeholders at the Pocantico Conference Center of the Rockefeller Brothers Fund in February of 2019 for a two-day strategic retreat entitled "Connecticut Green Bank 2.0 – From 1 to 2 Orders of Magnitude". Having convened at the Pocantico Conference Center in November of 2011 to establish the Green Bank's first strategic plan (i.e., Green Bank 1.0), this new group of stakeholders met to reflect on the past seven years and then to envision an even bigger future for the Green Bank (i.e., Green Bank 2.0) consistent with the larger investment required.[9]

The retreat identified several key findings and recommendations for the Green Bank, including:

- **Commitment to Address Climate Change** – as the most urgent issue to address, the Green Bank needs to increase and accelerate the impact of its model to support the implementation of Connecticut's climate change plan;[10]
- **Scaling Up Investment and Impact in Connecticut and Beyond** – in order to achieve the climate change goals set forth, more investment from private capital sources leveraged by innovative public sector financing will be needed to scale-up and scale-out the green bank model's impact; and
- **Green Bonds to Increase Access to Capital** – with the ability to issue bonds, the Green Bank is able to increase its access to capital beyond the current sources of funding to scale-up its investment activity, while providing more opportunities to engage citizens in new ways to invest in the state's growing green economy, including through the issuance of "mini green bonds" that will engage citizens in making investments alongside the Green Bank.

Increasing and accelerating investment in the green economy by using limited public resources to attract and mobilize multiples of private capital investment is paramount to society's efforts to pursue

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[7] "Green Growth: A U.S. Program for Controlling Climate Change and Expanding Job Opportunities" by the Center for American Progress (September 2014).
[8] "Financing Sustainable Development: Moving from Momentum to Transformation in a Time of Turmoil" by the UNEP (September 2016).
[9] "Connecticut Green Bank 2.0 – From 1 to 2 Orders of Magnitude" at the Pocantico Conference Center of the Rockefeller Brothers Fund (February 6-7, 2019)
[10] "Building a Low Carbon Future for Connecticut – Achieving a 45% GHG Reduction by 2030" recommendations from the Governor's Council on Climate Change (December 18, 2018)

sustainable development, while confronting climate change. More investment in the green economy creates more jobs in our communities, reduces the burden of energy costs on our families and businesses (especially the most vulnerable), and reduces fossil fuel pollution that causes local public health problems and global climate change.

Investment for the sake of investment is not enough unless we have an engaged citizenry that is active in communities across the state! Whether through markets or within communities in partnership with other community-based organizations, the Green Bank is bringing people together and strengthening the bonds we share with one another. In order to confront climate change and provide society a healthier and more prosperous future by increasing and accelerating the flow of capital into markets that energize the green economy, the Green Bank is launching the "Green Bonds US" campaign, that seeks to promote a simple but critically important message; green brings us together, green <u>bonds</u> us.

As the cover to the Comprehensive Plan of the Green Bank suggests, by making clean energy more accessible and affordable to everyone – Green Bonds US – society will reap significant gains from moving forward in the same direction together – for we can't have environmentalism without humanitarianism.

2. Organizational Overview

The Green Bank[11] was established by Governor Malloy and Connecticut's General Assembly on July 1, 2011 through Public Act 11-80 as a quasi-public agency that supersedes the former Connecticut Clean Energy Fund ("CCEF"). As the nation's first state green bank, the Green Bank leverages public and private funds to drive investment and scale-up clean energy deployment in Connecticut.

The Green Bank's statutory purposes are:

- To develop programs to finance and otherwise support clean energy investment in residential, municipal, small business and larger 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's purposes are codified in Section 16-245n(d)(1) of the Connecticut General Statutes ("CGS") and restated in the Green Bank's Board approved Resolution of Purposes.

The Green Bank is a public policy innovation that exemplifies Connecticut's nearly two-decade history of bipartisan gubernatorial leadership on the issue of climate change. Other leadership highlights include:

- **Governor Rowland** – co-chaired the New England Governors and Eastern Canadian Premiers Conference, which established a regional commitment to reduce greenhouse gas emissions (i.e., 1990 levels by 2010, 10% below 1990 levels by 2020, and 80% below 2001 levels by 2050);[12]
- **Governor Rell** – supported Public Act 08-98[13] codifying the regional commitment into state law, appointing Gina McCarthy to be the Commissioner of the Department of Environmental Protection who would help lead the development of the Regional Greenhouse Gas Initiative and later become the EPA Administrator under President Obama leading the development of the Clean Power Plan and the U.S. participation in the Paris Agreement;
- **Governor Malloy** – led the passage of PA 11-80 establishing the Department of Energy and Environmental Protection ("DEEP"), creating the Green Bank, and other policies catalyzing the market for clean energy, as well as Public Acts 18-50[14] and 18-82[15] increasing the state's renewable portfolio standard to 40% by 2030 and establishing a midterm greenhouse gas emissions reduction target of 45% below 2001 levels by 2030, respectively; and

[11] Public Act 11-80 repurposed the Connecticut Clean Energy Fund (CCEF) administered by Connecticut Innovations, into a separate quasi-public organization called the Clean Energy Finance and Investment Authority (CEFIA). Per Public Act 14-94, CEFIA was renamed to the Connecticut Green Bank.

[12] NEG-ECP Resolution 26-4 adopting the "Climate Change Action Plan 2001" (August 2001 in Westbrook, CT)

[13] An Act Concerning Connecticut Global Warming Solutions

[14] An Act Concerning Connecticut's Energy Future

[15] An Act Concerning Climate Change Planning and Resiliency

- **Governor Lamont** – his campaign plan for Connecticut[16] seeks to achieve carbon neutrality by 2050 and setting a 100% renewable portfolio standard by 2050 which would help the state realize green jobs in energy efficiency and clean energy (e.g., fuel cells, offshore wind, solar PV, etc.), while reducing energy costs.

The Connecticut General Assembly has worked hand-in-hand with these Governors and the citizens of the state over the years to devise and support public policies that promote clean energy and lead the movement on climate change action.

2.1 Vision
…a world empowered by the renewable energy of community.

2.2 Mission
Confront climate change and provide society a healthier and more prosperous future by increasing and accelerating the flow of capital into markets that energize the green economy.

2.3 Goals
To achieve its vision and mission, the Green Bank has established the following three 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.

The vision, mission, and goals support the implementation of Connecticut's clean energy policies be they statutorily required (e.g., CGS 16-245ff), planning (e.g., Comprehensive Energy Strategy), or regulatory in nature.

2.4 Definition – Clean Energy
The Green Bank's investment focus is on "clean energy" as defined by CGS Section 16-245n:

- **Clean Energy** – clean energy means solar photovoltaic energy, solar thermal, geothermal energy, wind, ocean thermal energy, wave or tidal energy, fuel cells, landfill gas, hydropower that meets the low-impact standards of the Low-Impact Hydropower Institute, hydrogen production and hydrogen conversion technologies, low emission advanced biomass conversion technologies, alternative fuels, used for electricity generation including ethanol, biodiesel or other fuel produced in Connecticut and derived from agricultural produce, food waste or waste vegetable oil, provided the Commissioner of Energy and Environmental Protection determines that such fuels provide net reductions in greenhouse gas emissions and fossil fuel consumption, usable electricity from combined heat and power systems with waste heat recovery systems, thermal storage systems, other energy resources and emerging technologies which have significant potential for commercialization and which do not involve the combustion of coal,

[16] Ned's Plan for Connecticut – Addressing Climate Change & Expanding Renewable Energy

petroleum or petroleum products, municipal solid waste or nuclear fission, financing of energy efficiency projects, projects that seek to deploy electric, electric hybrid, natural gas or alternative fuel vehicles and associated infrastructure, any related storage, distribution, manufacturing technologies or facilities and any Class I renewable energy source, as defined in section 16-1.

3. Governance and Organizational Structure

The Green Bank is overseen by a governing Board of Directors comprised of ex officio and appointed members, while the organization of the Green Bank is administered by a professional staff overseeing two business units – Incentive Programs and Financing Programs.

3.1 Governance

Pursuant to Section 16-245n of the CGS, the powers of the Green Bank are vested in and exercised by a Board of Directors[17] that is comprised of eleven voting and one non-voting members each with knowledge and expertise in matters related to the purpose of the organization – see Table 1.[18]

Table 1. Board of Directors of the Connecticut Green Bank

Position	Status	Appointer	Voting
State Treasurer (or designee)	Ex Officio	Ex Officio	Yes
Commissioner of DEEP (or designee)	Ex Officio	Ex Officio	Yes
Commissioner of DECD (or designee)	Ex Officio	Ex Officio	Yes
Residential or Low-Income Group	Appointed	Speaker of the House	Yes
Investment Fund Management	Appointed	Minority Leader of the House	Yes
Environmental Organization	Appointed	President Pro Tempore of the Senate	Yes
Finance or Deployment of Renewable Energy	Appointed	Minority Leader of the Senate	Yes
Finance of Renewable Energy	Appointed	Governor	Yes
Finance of Renewable Energy	Appointed	Governor	Yes
Labor	Appointed	Governor	Yes
R&D or Manufacturing	Appointed	Governor	Yes
President of the Green Bank	Ex Officio	Ex Officio	No

There are four (4) committees of the Board of Directors of the Green Bank, including Audit, Compliance and Governance Committee, Budget and Operations Committee, Deployment Committee, and the Joint Committee of the Energy Efficiency Board ("EEB") and the Green Bank.[19]

To support the Joint Committee of the EEB and the Green Bank, the following is a principal statement to guide its activities:

The EEB and the Green Bank have a shared goal to implement state energy policy throughout all sectors and populations of Connecticut with continuous innovation towards greater leveraging of ratepayer funds and a uniformly positive customer experience.

[17] https://www.ctgreenbank.com/about-us/governance/board-of-directors/
[18] https://www.ctgreenbank.com/about-us/governance/
[19] Pursuant to Section 16-245m(d)(2) of the Connecticut General Statutes

The Board of Directors of the Green Bank is governed through enabling legislation, as well as by an Ethics Statement and Ethical Conduct Policy, Resolutions of Purposes, Bylaws, Joint Committee Bylaws, and a Comprehensive Plan. All meetings, agendas, and materials of the Green Bank's Board of Directors and its Committees are publicly available on the organization's website.[20,21]

3.2 Organizational Structure

The organizational structure of the Green Bank is comprised of two (2) business units, including:

- **Incentive Programs** – the Governor and the Connecticut General Assembly from time-to-time may decide that there are certain incentive (or grant) programs that they seek to have the Green Bank administer (e.g., CGS 16-245ff). The Green Bank administers such programs with the goal of delivering on the public policy objectives, while at the same time ensuring that funds invested by the Green Bank are cost recoverable. For example, the Green Bank administers the Residential Solar Investment Program ("RSIP") whereby through a declining incentive block structure no more than 350 MW of new residential solar PV systems are deployed, while nurturing the sustained orderly development of a local state-based solar PV industry. Through the public policy creation of a Solar Home Renewable Energy Credit ("SHREC"), the Green Bank is able to recover its costs for administering the RSIP by selling such credits to the Electric Distribution Companies ("EDCs") through a Master Purchase Agreement ("MPA") to support their compliance under the Class I Renewable Portfolio Standard ("RPS"). Costs recovered from such mechanisms are expected to cover the incentive, administrative expenses, and financing expenses of the Incentive Programs business unit.
- **Financing Programs** – the Green Bank's core business is financing projects. The Green Bank's focus is to leverage limited public funds to attract and mobilize multiples of private capital investment to finance clean energy projects. In other words, the use of resources by the Green Bank are to be invested with the expectation of principal and interest being paid back over time. For example, the Green Bank administers the Commercial Property Assessed Clean Energy ("C-PACE") program. Through C-PACE, the Green Bank provides capital to building owners to make clean energy improvements on their properties that is paid back over time from a benefit assessment on the building owner's property tax bill. The interest from these types of investments, over time, is expected to cover the operational expenses and a return for the Financing Programs business unit.

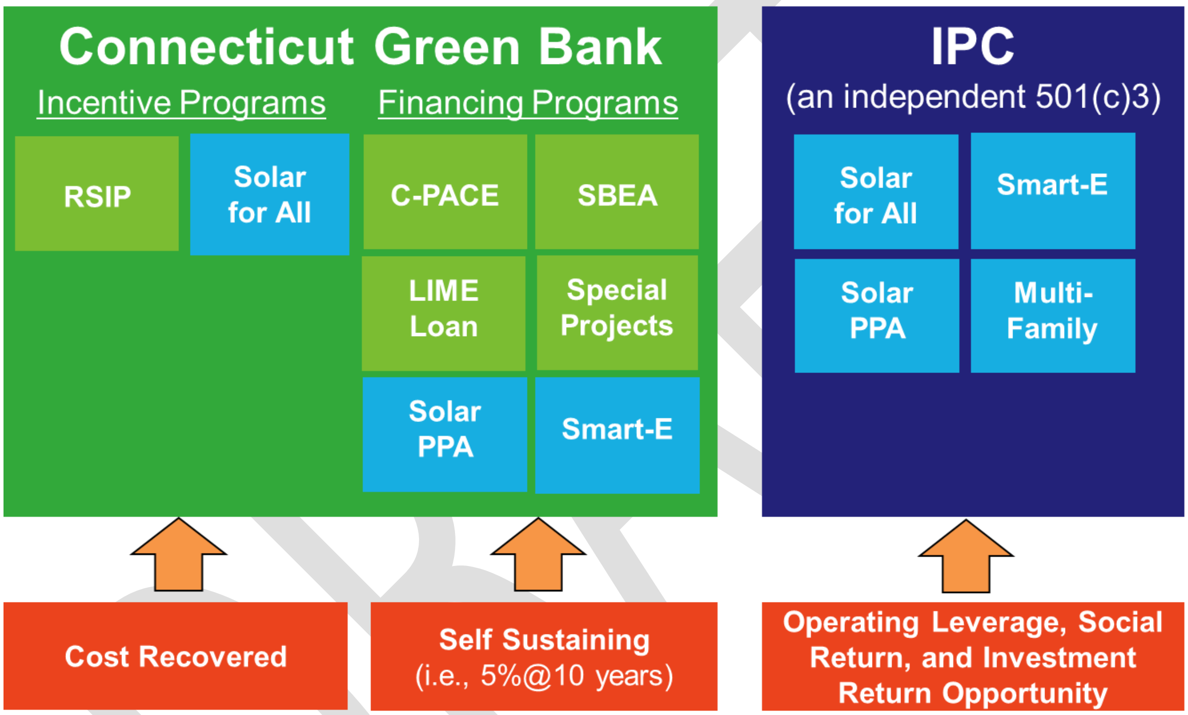
These two business units – Incentive Programs and Financing Programs – serve the purposes of the Green Bank. To support the business units and their investments, the Green Bank has administrative support from finance, legal, marketing and operations.

An Employee Handbook and Operating Procedures have been approved by the Board of Directors and serve to guide the staff to ensure that it is following proper contracting, financial assistance, and other requirements.

[20] http://www.ctgreenbank.com/about-us/board-member-resources/connecticut-grboard-meetings/
[21] http://www.ctgreenbank.com/about-us/board-member-resources/connecticut-grittee-meetings/

In 2018, the Green Bank, in partnership with DEEP and the Kresge Foundation, formed a nonprofit organization called Inclusive Prosperity Capital ("IPC"). The mission of IPC is to attract mission-oriented investors in underserved clean energy market segments (e.g., low-to-moderate income single and multifamily properties) of the green economy. Although not an affiliate, nor a component unit of the Green Bank, IPC serves an important role supporting the goals of Connecticut public policy by administering programs on behalf of the Green Bank. For an overview of the organizational structure of the Green Bank, and its partnership with IPC – see Figure 1.

Figure 1. Organizational Structure of the Green Bank with Support from Inclusive Prosperity Capital



4. Incentive Programs

The Green Bank manages incentive programs. That is to say that it oversees grant or subsidy program(s) that deploy clean energy, while at the same time cost recovering the expenses associated with those programs within the business unit – including, but not limited to, incentives, administrative expenses, and financing expenses.

Per CGS 16-245ff, updated by Public Act 19-35[22], the Green Bank administers the RSIP that includes a declining incentive block structure to deploy no more than 350 megawatts of new residential solar PV systems on or before December 31, 2022, while ensuring the sustained orderly development of a local state-based solar PV industry. It should be noted that the Green Bank has also strategically sought to ensure that low-to-moderate income households have equal access to residential solar PV than non-

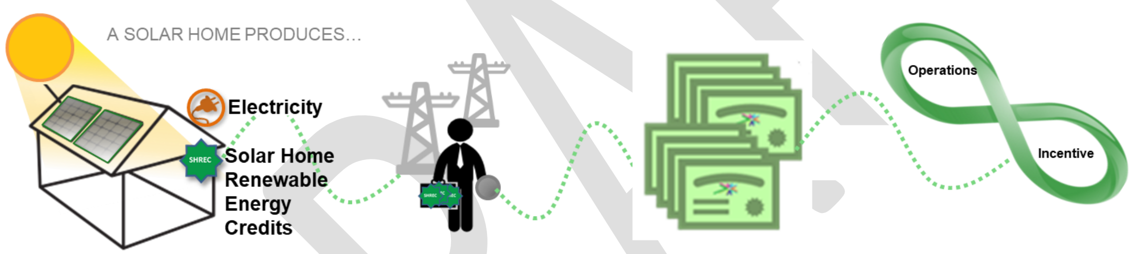
[22] An Act Concerning a Green Economy and Environmental Protection

low-to-moderate income households.[23] Through the Solar for All program, the Green Bank and its partners are enabling low-to-moderate income households to reach "solar parity" such that the proportion of solar PV installed on low-to-moderate income households is no less than non-low-to-moderate income households.

As of June 30, 2019, 273 megawatts of residential solar PV systems have been approved through RSIP, supporting 34,498 projects across the state and nearly $1.1 billion of investment.[24]

To support the Green Bank's implementation of the RSIP, the EDCs are required to purchase the SHRECs to assist them in their compliance with the RPS. The SHREC price is established by the Green Bank to recover its costs for administering the RSIP through a 15-year MPA with the EDCs. The cash flow from the sale of current and future SHRECs produced by these systems can be sold as a "green bond"[25] to generate cash flow upfront to support the cost recovery of the program – see Figure 2.

Figure 2. Incentive Program – Overview of the RSIP and the SHREC



When panels produce electricity for a home, they will also produce **Solar Home Renewable Energy Credits (SHRECs)**. The Green Bank provides upfront incentives through RSIP and collects all the SHRECs produced per statute.

Utilities required to enter into **15-year contracts with the Green Bank to purchase the stream of SHRECs produced**. This helps utilities comply with their clean energy goals (i.e., Class I RPS).

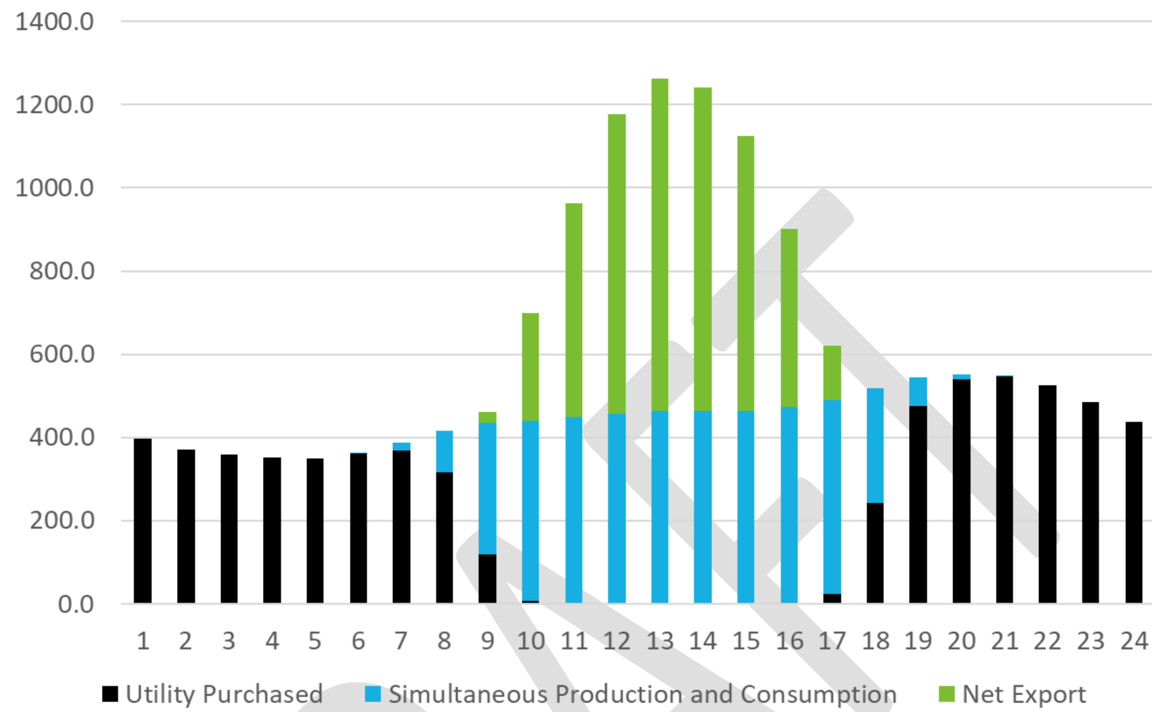
Green bonds are created from the 15-year SHREC revenues and **sold to institutional investors**

The Green Bank would then use the revenues from the 15-year fixed price contracts and green bonds to support the RSIP incentives (i.e., PBI and EPBB), cover admin costs, and financing costs (i.e., **business model that covers cost of the program**)

In general, over the course of a year, a typical residential solar PV system produces, and the household simultaneously consumes, about fifty percent of the production from the system – meaning that about fifty percent of the system's production is being exported to the grid – see Figure 3.

[23] Sharing Solar Benefits – Reaching Households in Underserved Communities of Color in Connecticut by the Connecticut Green Bank (May 2019) – click here.
[24] Prior to the RSIP, through incentives provided by the Connecticut Clean Energy Fund, the predecessor of the Green Bank, there are another 2,018 residential solar PV projects totaling 13.4 MW.
[25] https://www.ctgreenbank.com/cgb-enters-green-bond-market/

Figure 3. Average Residential Consumption and Solar PV Production Over the Course of a Year by Hour of the Day



In order to store the system's production that would have been exported to the grid for the purposes of later using it for (1) back-up power that would benefit the household, and/or (2) reducing demand, specifically peak demand, that would benefit all ratepayers, the Green Bank submitted an application into the Electric Efficiency Partners Program (EEPP) demonstrating the "cost effectiveness" of residential solar PV in combination with battery storage.[26] In collaboration with DEEP and the EDCs through the Joint Committee,[27] efforts are being made to enable residential solar PV in combination with battery storage to deliver greater benefits to participating households as well as all ratepayers on the electric grid.

The Green Bank has set targets for its Incentive Programs business unit for FY 2020 in terms of the number of projects, total investment (i.e., public and private), and installed capacity – see Table 2.

Table 2. Proposed FY 2020 Targets for the Incentive Programs Business Unit

Program / Product	Projects	Total Investment	Installed Capacity (kW)
Residential Solar Investment Program	7,059	$214,200,000	60,000
Electric Efficiency Partners Program[28]	500	$5,500,000	2,000

[26] Section 94 of Public Act 07-242

[27] Pursuant to Section 16-245m(d)(2) of the Connecticut General Statutes

[28] The Connecticut Green Bank has submitted a Technology Application (i.e., Docket No. 18-12-35) into PURA through the Electric Efficiency Partners Program in support of a residential battery storage incentive program that would retrofit existing

Program / Product	Projects	Total Investment	Installed Capacity (kW)
Total	**7,559**	**$219,700,000**	**62,000**

As a result of successfully achieving these targets, the Green Bank will reduce the energy burden on Connecticut families (including low-to-moderate income households and communities of color, as well as ratepayers by reducing demand, specifically peak demand, through the use of solar PV and battery storage), create jobs in our communities, raise tax revenues for the State of Connecticut, and reduce air pollution causing local public health problems and contributing to global climate change.

5. Financing Programs

The Green Bank manages financing programs. That is to say that it oversees financing programs that provide capital upfront to deploy clean energy, while at the same time returning principal and interest over time from the financing of projects, products, or programs to ensure the financial sustainability of the business unit.

The Green Bank has a number of clean energy financing products, including:

- **Commercial Property Assessed Clean Energy ("C-PACE")**[29] – enables building owners to pay for clean energy improvements over time through a voluntary benefit assessment on their property tax bills. This process makes it easier for building owners to secure low-interest capital to fund energy improvements and is structured so that energy savings more than offset the benefit assessment.
- **Green Bank Solar PPA** – third-party ownership structure to deploy solar PV systems for commercial end-use customers (e.g., businesses, nonprofits, municipal and state governments, etc.) that uses a multi-year Power Purchase Agreement ("PPA") to finance projects while reducing energy costs for the host customer.
- **Small Business Energy Advantage ("SBEA")** – Eversource Energy administered on-bill commercial energy efficiency loan program for small businesses, in partnership with low-cost capital provided by Amalgamated Bank with a credit enhancement (i.e., subordinated debt) from the Green Bank.
- **Smart-E Loan** – residential loan program in partnership with local community banks and credit unions that provides easy access to affordable capital for homeowners to finance energy, as well as health & safety, improvements on their properties through a partnership between local contractors and financial institutions, IPC, and the Green Bank.
- **Multifamily Products** – defined as buildings with 5 or more units, the Green Bank provides a suite of financing options through IPC that support property owners to assess, design, fund, and monitor high impact clean energy and health & safety improvements for their properties.

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residential solar PV systems installed through the RSIP. Beyond existing solar PV systems that could be retrofit with battery storage, RSIP Step 15 proposes a combined residential solar PV and battery storage upfront incentive for new installations that demonstrates significant "cost effectiveness" of distributed energy systems.

[29] CGS 16a-40g

- **<u>Special Projects</u>** – as opportunities present themselves, the Green Bank from time-to-time invests as part of a capital structure in various projects (e.g., fuel cell, hydropower, food waste to energy, LBE-ESA, etc.). These projects are selected based on the opportunity to expand the organization's experience with specific technologies, advance economic development in a specific locale, or to drive adoption of clean energy that would otherwise not occur, while also earning a rate of return.

The Green Bank has set targets for its Financing Programs business unit for FY 2020 in terms of the number of projects, total investment (i.e., public and private), and installed capacity – see Table 3.

Table 3. Proposed FY 2020 Targets for the Financing Programs Business Unit

Program / Product	Projects	Total Investment	Installed Capacity (kW)
Commercial PACE	56	$22,000,000	5,600
Green Bank Solar PPA	34	$28,125,000	12,700
Small Business Energy Advantage[30]	1,000	$20,000,000	-
Smart-E Loan	540	$7,182,000	500
Solar for All	615	$17,202,165	4,200
Multifamily Predevelopment Loan	2	$140,000	-
Multifamily Term Loan	9	$1,493,000	300
Multifamily Catalyst Loan	2	$110,000	-
Strategic Investments	2	$7,500,000	-
Total	**2,240**	**$98,427,165**	**21,000**

The capital provided by the Green Bank, which is a portion of the total investment, is expected to yield a return commensurate with the financial sustainability objectives of the organization and business unit.

As a result of successfully achieving these targets, the Green Bank will contribute to its financial sustainability, while also reducing the energy burden on Connecticut families and businesses, create jobs in our communities, raise tax revenues for the State of Connecticut, and reduce air pollution that cause local public health problems and global climate change.

6. Impact Investment

The Green Bank pursues investment strategies that advance market transformation in green investing while supporting the organization's pursuit of financial sustainability. With the mission to confront climate change and provide society a healthier and more prosperous future by increasing and accelerating the flow of capital into markets that energize the green economy, the Green Bank leverages limited public resources to scale-up and mobilize private capital investment in the green economy of Connecticut.

[30] In partnership with Eversource Energy and Amalgamated Bank, the Connecticut Green Bank provides capital in support of the utility-administered Small Business Energy Advantage program to provide 0% on-bill financing up to 4-years for energy efficiency projects.

6.1 State Funds

The Green Bank receives public capital from a number of ratepayer and state sources that it leverages to scale-up and mobilize private capital investment in the green economy of Connecticut.

System Benefit Charge – Clean Energy Fund

As its primary source of public capital, the Green Bank through CGS 16-245n(b) receives a 1 mill surcharge called the Clean Energy Fund ("CEF") from ratepayers of Eversource Energy and Avangrid. The CEF has been in existence since Connecticut deregulated its electric industry in the late 1990's.[31] On average, households contribute between $7-$10 a year for the CEF, which the Green Bank leverages to attract multiples of private capital investment in the green economy of Connecticut.[32]

Regional Greenhouse Gas Emission Allowance Proceeds

As a secondary source of public capital, the Green Bank receives a portion (i.e., 23%) of Connecticut's Regional Greenhouse Gas Initiative ("RGGI") allowance proceeds through the Regulation of Connecticut State Agencies Section 22a-174(f)(6)(B). The Green Bank invests RGGI proceeds from the nation's first cap-and-trade program to finance clean energy improvements (i.e., renewable energy projects).

6.2 Federal Funds

The Green Bank receives public capital through a number of past, current, and future sources[33] of federal funds as well that it leverages to scale-up and mobilize private capital investment in the green economy of Connecticut.

American Recovery and Reinvestment Act

Through the American Recovery and Reinvestment Act ("ARRA") the CCEF received $20 million for its programs and initiatives. After nearly $12 million of those funds were invested as grants, the Green Bank invested the remaining $8.2 million in financing programs. With nearly $2 million of ARRA funds left,[34] the Green Bank invested over $6.4 million of ARRA funds to attract and mobilize more than $110 million of public and private investment in residential clean energy financing programs.

United States Department of Agriculture

The Green Bank is seeking to apply to the United States Department of Agriculture ("USDA") to seek access to low-cost and long-term federal loan funds for the deployment of clean energy in rural communities.[35] The USDA has vast lending authority under the Rural Electrification Act of 1936, which enables direct loans, project financing and loan guarantees to a variety of borrowers.

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[31] Public Act 98-28 "An Act Concerning Electric Restructuring"

[32] The Clean Energy Fund should not be mistaken with the Conservation Adjustment Mechanism (or the Conservation and Loan Management Fund), which is administered by the EDCs

[33] There have been ongoing public policy proposals at the national level that the Connecticut Green Bank has been a part of to create a US Green Bank. If such a public policy were passed, then the Connecticut Green Bank would have access to significant federal funds to leverage to scale-up and mobilize private capital investment in the green economy of Connecticut.

[34] As of July 1, 2019

[35] "Rural" communities are defined by a population bound and the various limits depend on the program; at the broadest, "rural" may be considered a town that has a population not greater than 50,000 people. Despite its positioning in a mostly-developed corridor, we estimate Connecticut would have 69% of towns eligible at the 20,000-person limit and 89% of towns at the 50,000-person limit.

6.3 Green Bonds

The future of green bonds is growing in the U.S. Thus far in 2019, countries, companies, and local governments have sold nearly $90 billion of green bonds that fund projects that are good for the environment.[36] In July of 2019, Connecticut Treasurer Shawn Wooden announced that the Clean Water Fund's Green Bond Sale shattered state records. The AAA-rated green bond had a record low interest rate of 2.69% and received retail investor orders topping $240 million in one day! This is the highest level of retail investor orders (i.e., from Separately Managed Accounts (SMA's) or individuals) in the 20-year history of this program – with the balance of the bonds offered to institutional investors generating an additional $128 million in orders.

Green Banks have an essential role in leveraging limited public funds with private capital to drive investment in the green economy to achieve climate change goals, create jobs in our communities, and reduce the burden of energy costs on our families and businesses. CGS Section 16-245n(d)(1)(C) is the enabling statute that allows the Green Bank to issue revenues bonds to support its purposes. Green Bonds are bonds whose proceeds are used for projects or activities with environmental or climate benefits, most usually climate change mitigation and adaptation.

Connecticut's climate change plan[37] focuses on three mitigation wedges (see Figure 4), including:

- **Decarbonizing Electricity Generation** – representing 23% of Connecticut's economy-wide GHG emissions, electricity generation must be transitioned to zero-carbon renewable energy sources. Strategies include financing for in-state or regional utility-scale renewable energy resources (e.g., community solar, wind, run-of-the-river hydro, food-waste-to-energy, etc.) and financing and incentives for in-state distributed energy resources (e.g., behind the meter solar PV, battery storage, fuel cells, combined heat and power, etc.) that assist with the implementation of the Class I and III Renewable Portfolio Standard, Regional Greenhouse Gas Initiative, and other public policies. To ensure a sustainable downward trajectory to meet the State's 2050 target, electricity generation must be 66% and 84% carbon-free by 2030 and 2050, respectively.
- **Decarbonizing Transportation** – representing over 35% of Connecticut's economy-wide GHG emissions, the transportation sector is the largest source of statewide emissions and must be transitioned to zero- and low-carbon technologies. Strategies for zero- and low-carbon transportation include adopting innovative financing models for ZEV deployment (i.e., EVs and FCEVs) and ZEV charging infrastructure, ensuring equitable access to clean transportation options such as electric bus fleets and ride sharing or hailing services. Also important is supporting voluntary (e.g., carbon offset) and regulatory (e.g., Transportation Climate Initiative) markets for cleaner transportation that transitions us away from fossil fuel to renewable energy. More specifically, to meet the 2030 target, 20% of the passenger fleet and

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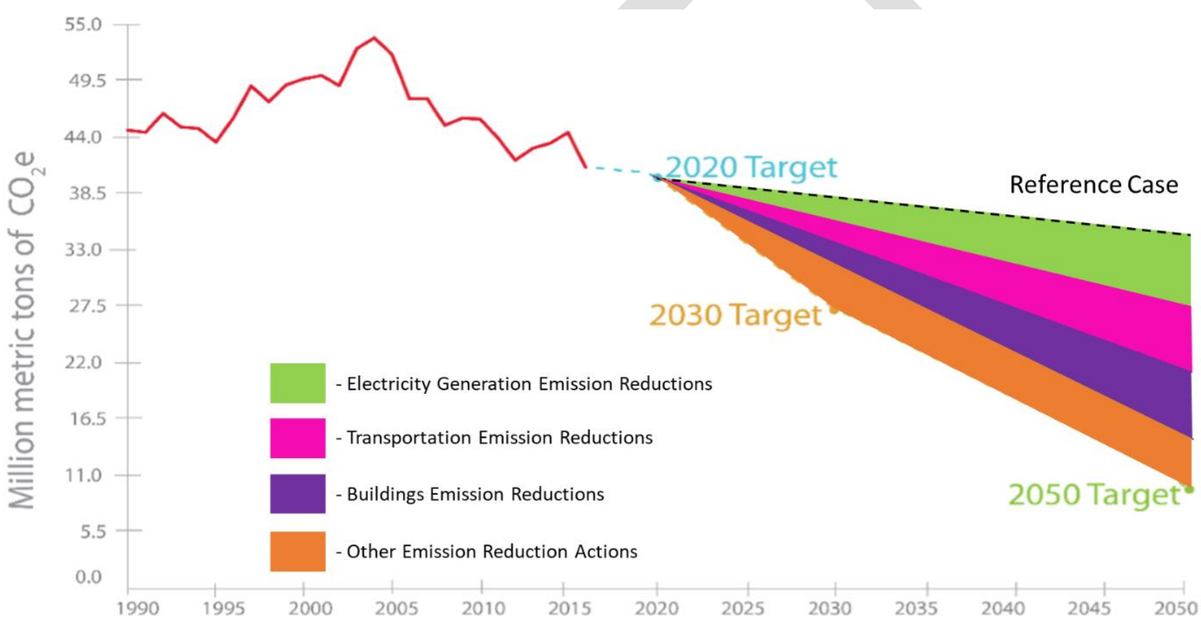
[36] "Green Bonds are Finally Sprouting Up All Over the Globe" by Brian Chappatta of Bloomberg News (June 18, 2019)

[37] "Building a Low Carbon Future for Connecticut – Achieving a 45% GHG Reduction by 2030" recommendations from the Governor's Council on Climate Change (December 18, 2018)

30% of the heavy duty fleet must be zero emission; and to meet the 2050 target, 95% of the passenger fleet and 80% of the heavy duty fleet must be zero emission.

- **Decarbonizing Buildings** – representing over 30% of Connecticut's economy-wide GHG emissions, residential, commercial, and industrial buildings are the second largest emitting sector that must transition away from fossil fuels to renewable thermal technology. Strategies for zero-carbon buildings include financing and incentives for energy efficiency (e.g., thermal insulation, appliances, etc.) and renewable heating and cooling (e.g., air source heat pumps, ground source heat pumps, heat pump water heaters, etc.). To meet the economy-wide 2030 and 2050 targets for Buildings, renewable heating and cooling technologies must be significantly deployed to 11% and 26% for residential, and 9% and 20% for commercial, by 2030 and 2050 respectively.

Figure 4. Example of Key GHG Emission Reduction Measures (i.e., Mitigation Wedges) for Connecticut to Achieve Targets



The size of investment required and long-term revenue streams from clean energy, lend themselves well to bond structures. Issuing green bonds can provide the Green Bank a lower-cost, longer-term source of capital, enabling the Green Bank to further leverage state and federal funds to increase its impact in Connecticut by attracting and mobilizing private investment in the state's green economy. The Green Bank has an important role to play in advancing green bonds in the U.S., especially given its history of engaging citizens and communities and its expertise in developing impact methodologies and a thorough and transparent reporting framework.

7. Citizen Engagement

The Green Bank, and its predecessor the Connecticut Clean Energy Fund (CCEF), have a long-standing history of citizen engagement within the communities of Connecticut. In 2002, the CCEF partnered with six private foundations[38] to co-found SmartPower – which launched the 20 percent by 2010 campaign and led the administration of the CCEF's EPA award-winning Connecticut Clean Energy Communities Program.[39] Then in 2013, the Green Bank launched a series of Solarize campaigns in communities across the state in partnership with SmartPower and the Yale Center for Business and the Environment,[40] while also advancing the SunShot Initiative of the U.S. Department of Energy (DOE) in partnership with the Clean Energy States Alliance through projects that reduce soft-costs for solar PV (i.e., customer acquisition, permitting, and financing) and provide better access to solar PV for low-to-moderate income households.

Engaging citizens has been in the DNA of the Green Bank since its inception.

7.1 Green Bonds US® Campaign

From the air we breathe to the products we consume; the world's population is inescapably connected. And while that may present challenges in the context of global climate change, it also affords incredible opportunities for collaboration and progress.

Whether through markets or within communities, the Connecticut Green Bank is bringing people together and strengthening the bonds we share with one another. As its name suggests, the "Green Bonds US" campaign, seeks to promote a simple but critically important message; green brings us together, green bonds us. The multimedia, brand awareness and green-bond promotional campaign will promote the benefits of green energy, as well as a brand-new green energy investment opportunity provided by the Green Bank.

Mini Bonds

Despite the rising demand for green energy in the state, barriers still exist that may prevent more people from participating in Connecticut's growing green economy. For example, a homeowner who, despite having a strong desire to "go solar", is not able to because of factors like price, siting, or other issues. To allow more people to benefit from, and invest in, green energy, the Green Bank is offering another way. For the first time in its history, the Green Bank will issue "mini" green-bonds (e.g., small denomination bonds, certificate of deposits, and/or other fixed income investments) for sale to institutions and retail investors (i.e., SMAs and individuals). Launching as a pilot program, the mini-bonds represent another step forward on the path to inclusive prosperity.

Market Research

To gauge the public's interest and assess market demand for mini-green-bonds, the Green Bank performed primary and secondary research such as an online survey, interviews with industry professionals, as well as internal review of recent market data and investment reports.

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[38] Emily Hall Tremaine Foundation, The John Merck Fund, Pew Charitable Trust, The Oak Foundation, Rockefeller Brothers Fund, and Surdna Foundation

[39] "Climate Policy and Voluntary Initiatives: An Evaluation of the Connecticut Clean Energy Communities Program," by Matthew Kotchen for the National Bureau of Economic Research (Working Paper 16117).

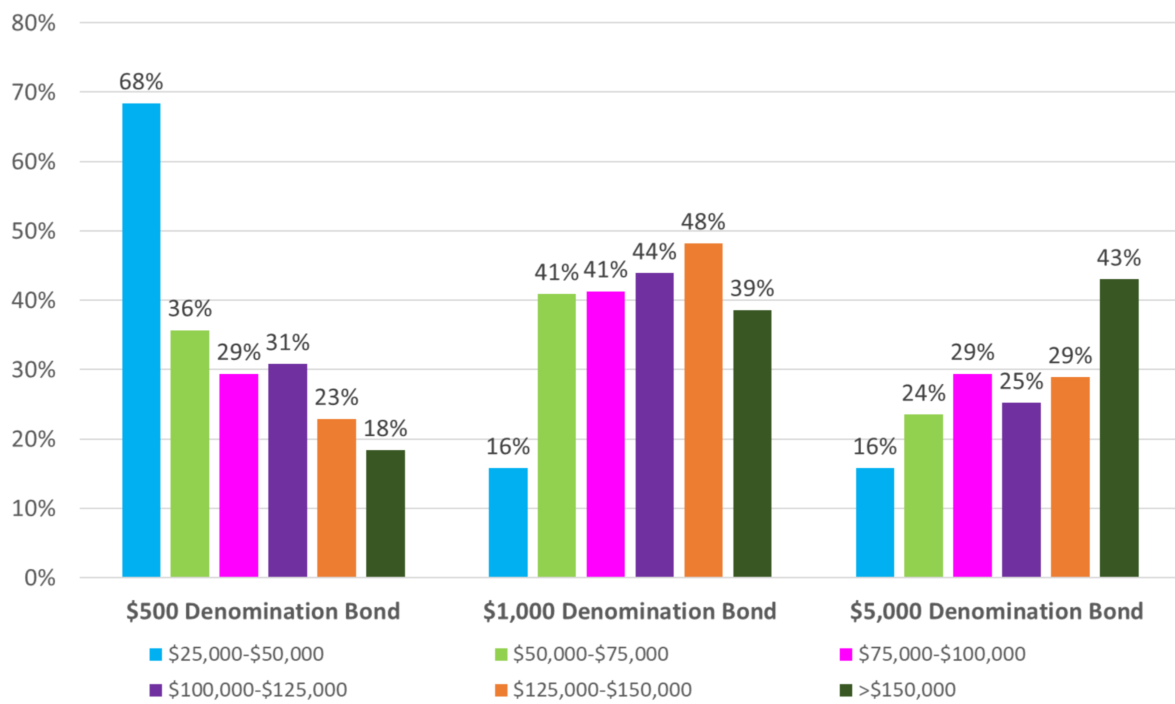
[40] "Solarize Your Community: An Evidence-Based Guide for Accelerating the Adoption of Residential Solar" by the Yale Center for Business and the Environment.

In June of 2019, the Green Bank engaged GreatBlue Research to conduct primary research throughout Connecticut, measuring the market potential for "mini-bonds". A digital survey was sent to two target audiences: 1.) households that have installed solar PV through the RSIP and 2.) the general population (i.e., households that haven't participated in a Green Bank program). When asked "what types of green projects would you support through your private investments," the survey participants had the following responses:

- Recycling and waste reduction – 69.5%
- Clean water – 67.3%
- Roof-top solar – 64.5%
- High efficiency heating and cooling systems – 58.8%
- Home energy efficiency projects – 56.7%
- Land conservation – 49.3%
- Energy efficiency appliance rebates – 45.6%
- Electric vehicles – 41.2%

The Green Bank and GreatBlue research also highlighted that the income of the investor, alongside the denomination of the bond, represents an opportunity for increasing equitable access to greater investment in the environment – see Figure 5.

Figure 5. Comparison of Interest in Bond Denomination Value by Income of Survey Respondents



After taking into account the results of our state-wide primary research, current national trends and conversations with various industry experts, there is sufficient data to suggest that the green bond market for individual investors in Connecticut may be quite large. As a result, the Green Bank intends to issue mini-green-bonds, with proceeds going to support the development of green energy projects within Connecticut.

For more information on the Green Bonds US campaign, visit www.greenbondsus.com

7.2 Sustainable CT

Sustainable CT and the Green Bank are developing an engagement and investment platform to raise capital in support of local projects that provide individuals, families, and businesses with investment opportunities to make an impact on sustainability in their communities. The partnership between Sustainable CT and the Green Bank is focused on the following key priorities:

- Driving investment in projects in our communities, with a goal to accelerate over time;
- Community-level engagement, from project origination through financing, that is inclusive, diverse, and "knitted";
- Creating a structure that harnesses all types of capital for impact – from donations to investment;
- Developing a business model that covers the cost of the program; and
- Creating a measurable impact, both qualitative and quantitative.

Through a partnership between Sustainable CT and IOBY (In Our Backyard), an online crowdfunding platform will enable citizen leaders to have access to financial resources that they need for local sustainability projects.

For more information on Sustainable CT, visit www.sustainablect.com

8. Evaluation Framework and Impact Methodologies

The Green Bank's evaluation efforts seek to understand how the increase in investment and deployment of clean energy supported through the Green Bank, result in benefits to society. To that end, the Green Bank has devised an Evaluation Framework and impact methodologies for various societal benefits.

8.1 Evaluation Framework

The Green Bank has established an Evaluation Framework to guide the assessment, monitoring and reporting of the program impacts and processes, including, but not limited to energy savings and clean energy production and the resulting societal impacts or benefits arising from clean energy investment.[41] This framework focuses primarily on assessing the market transformation the Green Bank is enabling, including:

- **Supply of Capital** – including affordable interest rates, longer term maturity options, improved underwriting standards, etc.

[41] https://ctgreenbank.com/wp-content/uploads/2017/02/CTGreenBank-Evaluation-Framework-July-2016.pdf

- **Consumer Demand** – increasing the number of projects, increasing the comprehensiveness of projects, etc.
- **Financing Performance Data and Risk Profile** – making data publicly available to reduce perceived technology risks by current or potential private investors.
- **Societal Impact** – the benefits society receives from more investment and deployment of clean energy.

With the goal of pursuing investment strategies that advance market transformation in green investing, the Green Bank's evaluation framework provides the foundation for determining the impact it is supporting in Connecticut and beyond.

8.2 Impact Methodologies

To support the implementation of the Evaluation Framework, the Green Bank, working with various public sector organizations, has developed methodologies that estimate the impact from the investment, installation and operation of clean energy projects, including:

- **Jobs** – working in consultation with the Connecticut Department of Economic and Community Development ("DECD"), through the work of Navigant Consulting, the Green Bank devised a methodology that takes investment in clean energy to reasonably estimate the direct, indirect, and induced job-years resulting from clean energy deployment.[42]
- **Tax Revenues** – working in consultation with the Connecticut Department of Revenue Services ("DRS"), through the work of Navigant Consulting, the Green Bank devised a methodology that takes investment in clean energy to reasonably estimate the individual income, corporate, and sales tax revenues from clean energy deployment.[43]
- **Environmental Protection** – working in consultation with the United States Environmental Protection Agency ("EPA") and DEEP, the Green Bank devised a methodology that takes the reduction in consumption of energy and increase in the production of clean energy to reasonably estimate the air emission reductions (i.e., CO_2, NO_x, SO_2, and $PM_{2.5}$) resulting from clean energy deployment.[44]
- **Public Health Improvement** – working in consultation with the EPA, DEEP, and the Connecticut Department of Public Health ("DPH"), the Green Bank devised a methodology that takes air emission reductions to reasonably estimate the public health benefits (e.g., reduced hospitalizations, reduced sick days, etc.) and associated savings to society resulting from clean energy deployment.[45]

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[42] https://www.ctgreenbank.com/wp-content/uploads/2018/03/CGB_DECD_Jobs-Study_Fact-Sheet.pdf
[43] https://www.ctgreenbank.com/wp-content/uploads/2018/09/CGB-Eval-Tax-Methodology-7-24-18.pdf
[44] https://www.ctgreenbank.com/wp-content/uploads/2018/01/CGB-Eval-IMPACT-091917-Bv2.pdf
[45] https://www.ctgreenbank.com/wp-content/uploads/2018/03/CGB-Eval-PUBLICHEALTH-1-25-18-new.pdf

Each year, the Green Bank develops additional methodologies that value the impact the Green Bank is helping create in Connecticut and all of society. For more information on the Green Bank's impact methodologies, visit the Impact page of the website.[46]

The Green Bank's efforts to increase investment in and deployment of clean energy projects – which result in increased benefits to Connecticut and all of society – can also be looked at through the lens of the United Nation's Sustainable Development Goals ("UNSDG's").[47] The UNSDG's include, but are not limited to – reducing poverty, improving health and well-being, making clean energy affordable, increasing economic development, reducing inequalities, supporting sustainable communities, and confronting climate change – areas where the Green Bank is measuring (or will measure) the impacts of its investments.

9. Reporting and Transparency

The Green Bank has extensive reporting on its financial management and societal impact through various mechanisms. As an administrator of ratepayer (i.e., Clean Energy Fund) and taxpayer (e.g., Regional Greenhouse Gas Initiative) resources, the Green Bank believes that complete transparency is important to ensure the public's continued trust in serving its purpose.

9.1 Comprehensive Annual Financial Report (CAFR)

A Comprehensive Annual Financial Report ("CAFR") is a set of government financing statements that includes the financial report of a state, municipal or other government entity that complies with the accounting requirements promulgated by the Governmental Accounting Standards Board ("GASB"). GASB provides standards for the content of a CAFR in its annually updated publication *Codification of Governmental Accounting and Financial Reporting Standards*. A CAFR is compiled by a public agency's accounting staff and audited by an external American Institute of Certified Public Accountants ("AICPA") certified accounting firm utilizing GASB requirements. It is composed of three sections – Introductory, Financial, and Statistical. The independent audit of the CAFR is not intended to include an assessment of the financial health of participating governments, but rather to ensure that users of their financial statements have the information they need to make those assessments themselves.[48]

To date, the Green Bank has issued five CAFR's, including:

- Fiscal Year Ended June 30, 2014 (Certificate of Achievement)
- Fiscal Year Ended June 30, 2015 (Certificate of Achievement)
- Fiscal Year Ended June 30, 2016 (Certificate of Achievement)
- Fiscal Year Ended June 30, 2017 (Certificate of Achievement)
- Fiscal Year Ended June 30, 2018 (Certificate of Achievement)

46 http://www.ctgreenbank.com/strategy-impact/impact/

47 https://www.un.org/sustainabledevelopment/sustainable-development-goals/

48 The Government Finance Officers Association (GFOA), founded in 1906, represents public finance officials throughout the United States and Canada. GFOA's mission is to enhance and promote the professional management of governmental financial resources by identifying, developing, and advancing fiscal strategies, policies, and practices for the public benefit. GFOA established the Certificate of Achievement for Excellent in Financial Reporting Program (CAFR Program) in 1945 to encourage and assist state and local governments to go beyond the minimum requirements of generally accepted accounting principles to prepare comprehensive annual financial reports that evidence the spirit of transparency and full disclosure and then to recognize individual governments that succeed in achieving that goal.

As the "gold standard" in government reporting, the CAFR is the mechanism the Green Bank uses to report its fiscal year financial and investment performance – including societal benefits and impacts – to its stakeholders. For each of its five years filing the CAFR with the Government Finance Officers Association the Green Bank has received a Certificate of Achievement for Excellence in Financial Reporting.

9.2 Annual Report

Beyond the CAFR, the annual reports of the Green Bank are compiled by the marketing staff and include consolidated financial statement information and narratives of various program achievements in a condensed format that can be widely distributed.

To date, the Green Bank has issued seven annual reports, including:

- Fiscal Year 2012 Annual Report
- Fiscal Year 2013 Annual Report
- Fiscal Year 2014 Annual Report
- Fiscal Year 2015 Annual Report
- Fiscal Year 2016 Annual Report
- Fiscal Year 2017 Annual Report
- Fiscal Year 2018 Annual Report

9.3 Auditors of Public Account

The office of the Auditors of Public Accounts ("APA") is a legislative agency of the State of Connecticut whose primary mission is to conduct audits of all state agencies, including quasi-public agencies. Included in such audits is an annual Statewide Single Audit of the State of Connecticut to meet federal requirements. The office is under the direction of two state auditors appointed by the state legislature. The APA audited certain operations of the Connecticut Green Bank in fulfillment of its duties under Sections 1-122 and Section 2-90 of the Connecticut General Statutes.

To date, the APA has conducted two audits, including:

- Fiscal Years 2012 and 2013
- Fiscal Years 2014 and 2015

9.4 Open Connecticut

Open Connecticut centralizes state financial information to make it easier to follow state dollars. In Connecticut quasi-public agencies are required to submit annual reports to the legislature, including a summary of their activities and financial information. In addition to that, the Comptroller's office requested that quasi-public agencies voluntarily provide checkbook-level vendor payment data for display on Open Connecticut. The Green Bank, which was among the first quasi-public organizations to participate, has voluntarily submitted this information since the inception of Open Connecticut.[49]

[49] https://www.osc.ct.gov/openCT/quasi.html

9.5 Stakeholder Communications

The Green Bank holds quarterly stakeholder webinars to update the general public on the progress it is making with respect to its Comprehensive Plan and annual targets.[50] Through these webinars, the Green Bank staff invite questions from the audience. These webinars are announced through the Green Bank's list serve consisting of thousands of stakeholders as well as the events page of its website.[51]

The Green Bank also issues an e-newsletter through its list serve that provides key topics in the news and important information on products, programs and services.[52]

10. Research and Product Development

As the Green Bank implements its Comprehensive Plan, there will be ongoing efforts to develop new market opportunities for future green investments. With the lessons being learned and best practices being discovered in the green economy, the Green Bank's ability to deliver more societal benefits requires understanding potential opportunities and the development of pilot programs and initiatives to increase impact, including, for example:

- **Shared Clean Energy Facilities** – to support decarbonizing the electricity infrastructure climate change wedge, while reducing the burden of energy costs on Connecticut's families and businesses, the Green Bank will seek to apply its experience administering the RSIP to supporting and investing in shared clean energy facilities (or community solar projects) with a focus on low-to-moderate income families;
- **Energy Burden from Transportation** – as Operation Fuel has done an exceptional job quantifying the energy burden for electricity use and heating of homes, understanding the energy burden from transportation (i.e., gasoline to alternative fuel vehicles) will help the Green Bank and others (e.g., Department of Housing, Connecticut Housing and Finance Authority, Partnership for Strong Communities, DEEP, etc.) understand its role in addressing the decarbonization of transportation emissions climate change wedge; and
- **Environmental Infrastructure** – if there were an expansion of scope for the Green Bank beyond "clean energy," the Green Bank could apply the green bank model to mobilize private investment in "environmental infrastructure".[53] Working with DEEP and other state agencies, local governments, nonprofit organizations, academic institutions, and businesses, the Green Bank could, for example, identify new areas for increased investment in climate change adaptation and resiliency through the issuance of green bonds.[54]

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[50] https://www.ctgreenbank.com/news-events/webinars/
[51] https://www.ctgreenbank.com/news-events/events-calendar/
[52] https://www.ctgreenbank.com/newsletters/
[53] Proposed Senate Bill 927 in the 2019 Legislative Session
[54] Section 10.3 Sustainability of the Comprehensive Plan of the Connecticut Green Bank for FY 2017 through FY 2019 recognizes that other green banks invest beyond "clean energy" and include "environmental infrastructure".

The Green Bank's research product development efforts are intended to open-up new market channels for private investment in Connecticut's green economy through studies, pilot projects, and other initiatives that have the potential for expanding the impact of the Green Bank.

11. Budget

11.1 FY 2020 Budget

For the details on the FY 2020 budget– click here.

For details on the FY 2019 to FY 2020 variance analysis supporting the continuation of the Sustainability Plan – click here.

INNOVATIONS IN AMERICAN GOVERNMENT AWARD

WINNER

HARVARD Kennedy School

ASH CENTER

for Democratic Governance and Innovation

CONNECTICUT GREEN BANK℠

Connecticut Green Bank

Comprehensive Plan

Green Bonds US

July 2019

Overview

- **Who Are We** – who is the Connecticut Green Bank?
- **What Do We Do** – what sorts of programs does the Connecticut Green Bank oversee within its portfolio?
- **Why Do We Do It** – why does the Connecticut Green Bank focus on delivering inclusive prosperity through the climate economy?
- **Fiscal Year Investment** – the targets, budget, and estimated societal impact by fiscal year

Who Are We?

Connecticut Green Bank
About Us

- **Quasi-public organization** – Created by PA 11-80 (Section 99) and the successor to the Connecticut Clean Energy Fund
- **Focus** – Finance clean energy (e.g., renewable energy, energy efficiency, and alternative fuel vehicles and infrastructure) by leveraging public capital with multiples of private capital
- **Support** – from a variety of sources, including:
  - **State Support** – $0.001/kWh surcharge (i.e., Clean Energy Fund) on electric ratepayer bills (about $7-$10 per household per year ≈ $26 MM per year) and RGGI about $3-5 MM per year (for renewable energy)
  - **Federal Support** – competitive solicitations (e.g., SunShot, USDA, etc.) and non-competitive resources (e.g., ARRA-SEP)
  - **Other Support** – issue "green bonds," interest income, private capital (e.g., impact investors), and foundations (e.g., PRI's)

Connecticut Green Bank

Mission Statement and Goals

Confront climate change and provide society a healthier and more prosperous future by increasing and accelerating the flow of capital into markets that energize the green economy.

- Leverage limited public resources to scale-up and mobilize private capital investment in the green economy of Connecticut.
- Strengthen Connecticut's communities by making the benefits of the green economy inclusive and accessible to all individuals, families, and business.
- Pursue investment strategies that advance market transformation in green investing while supporting the organization's pursuit of financial sustainability.

Connecticut Green Bank

Vision Statement

…a world empowered

by the renewable energy

of community

REFERENCES

Vision Statement inspired by the Innovations in American Government Awards at the Ash Center of Harvard University's Kennedy School of Government, Maya Angelou's "On the Pulse of Morning," and the powerful words of Mary Evelyn Tucker on "inclusive capitalism".

Connecticut Green Bank

Delivering Results for Connecticut

CONNECTICUT GREEN BANK

- **Investment** – mobilized nearly **$1.7 billion of investment** into Connecticut's green energy economy.
- **Economic Development** – created nearly **20,000 direct, indirect, and induced job-years,** while **raising over $82 million in tax revenues** for the State of Connecticut.
- **Energy Burden** – reduced the energy burden on over **45,000 families and businesses**, including **"parity"** for LMI households and **"beyond parity"** for communities of color for single-family residential solar PV
- **Environmental Protection** – deployed more than **360 MW** of renewable energy helping to **reduce over 6.5 MTCO$_2$** that cause climate change and **reducing public health costs by $200 million**

REFERENCES

CT Green Bank data warehouse report from July 1, 2011 through June 30, 2019

Connecticut Green Bank

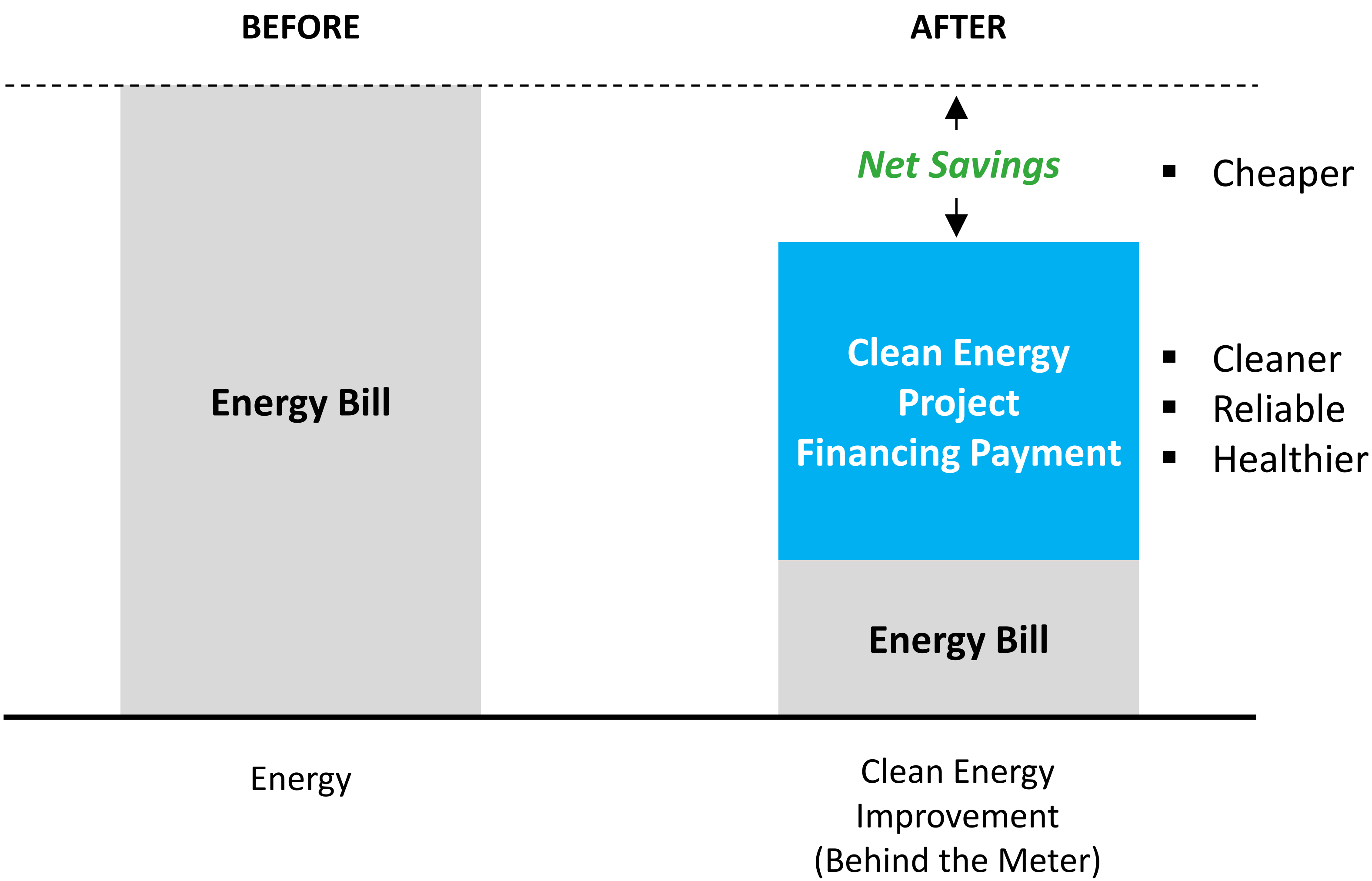
Sparking the Green Bank Movement

HARVARD Kennedy School
ASH CENTER
for Democratic Governance and Innovation

What Do We Do?

Connecticut Green Bank

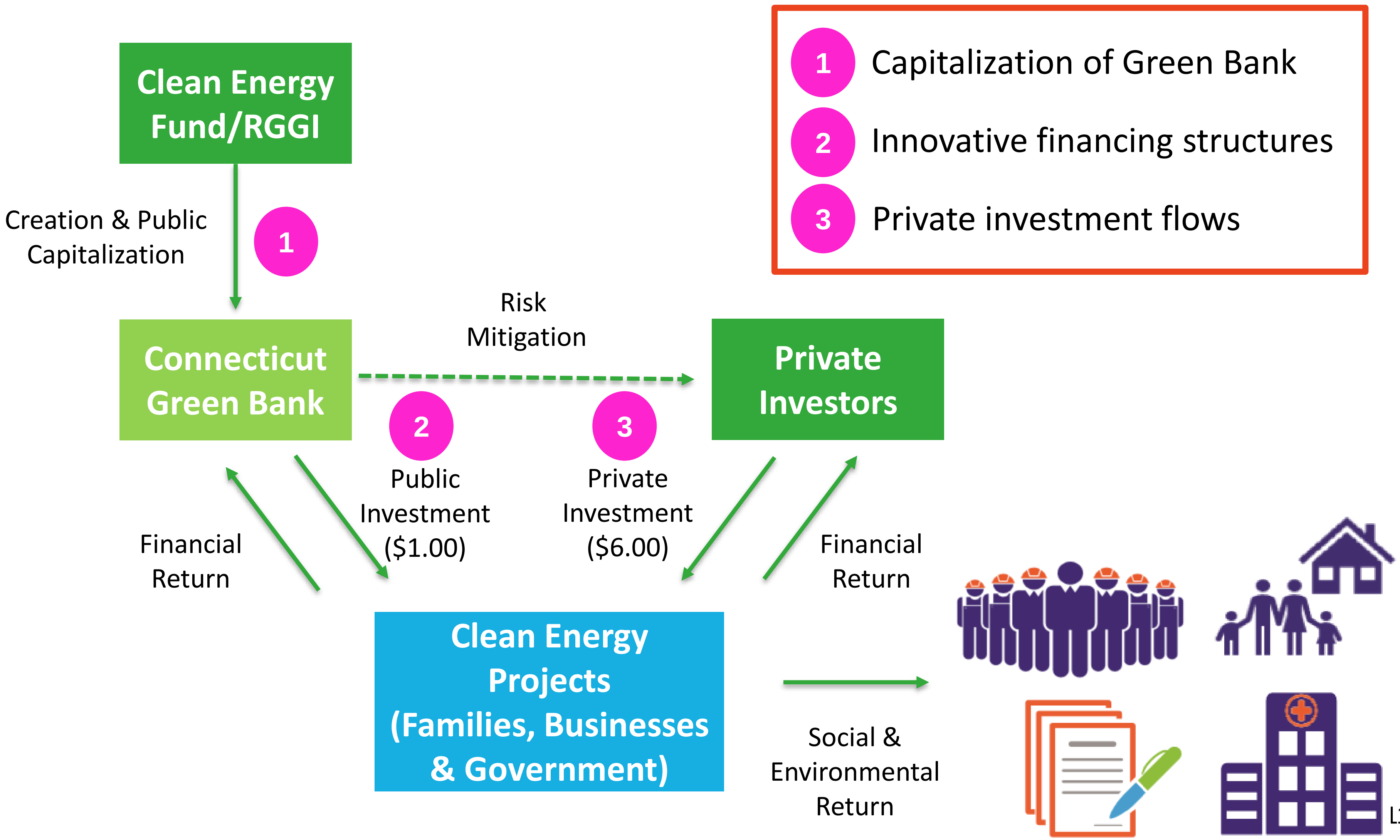
Reduce Costs – Increase Customer Demand



REFERENCE
Definition provided by the Coalition for Green Capital and adapted by the Connecticut Green Bank

Connecticut Green Bank

Reduce Risk – Increase Supply of Private Capital



Connecticut Green Bank
Organizational Structure

CONNECTICUT GREEN BANK

Connecticut Green Bank

Incentive Programs

- RSIP
- Solar for All

Financing Programs

- C-PACE
- SBEA
- LIME Loan
- Special Projects
- Solar PPA
- Smart-E
- Multi-Family

IPC
(an independent 501(c)3)

- Solar for All
- Smart-E
- Solar PPA
- Multi-Family

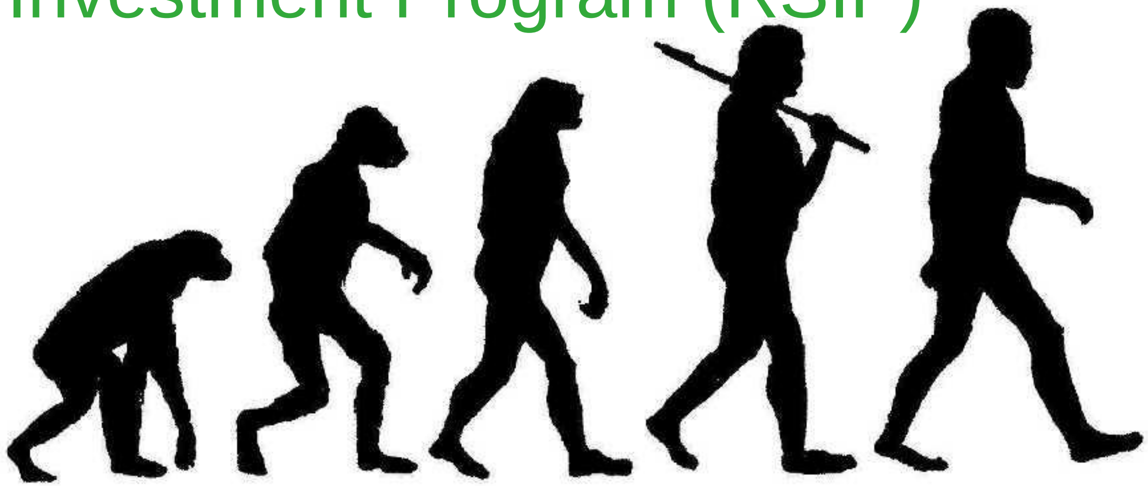
Cost Recovered

Self Sustaining
(i.e., 5%@10 years)

Operating Leverage, Social Return, and Investment Return Opportunity

Incentive Program

Residential Solar Investment Program (RSIP)



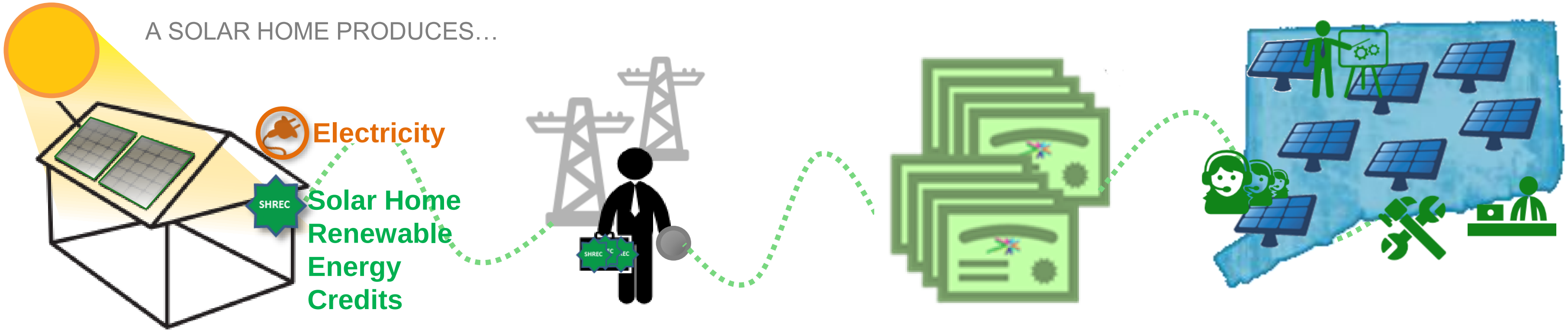
Policy Period	2004-2007	2008-2011	2012-2014 (PA 11-80)	2015-2019 (PA 15-194)	Post-RSIP (PA 18-50, 19-35)
Period of Time (years)	4.0	4.0	3.0	4.5	Sustained Orderly Development
Approved Capacity (MW)	2.0	11.2	49.3	223.6	
Approved Capacity per year (MW/yr)	0.5	2.8	16.4	49.7	
Investment per Year	$4.3 MM	$19.9 MM	$70.9 MM	$187.2 MM	
Installed Cost – EPBB ($/W)	$8.63	$6.85	$4.42	$3.77	
State Subsidy – EPBB ($/W)	$4.27	$3.26	$1.12	$0.33	
Customer Cost – EPBB ($/W)	$4.36	$3.81	$3.30	$3.43	
Retail Electric Rates ($/kWh)	$0.15	$0.19	$0.18	$0.21	

REFERENCES

RSIP data as of June 18, 2019 by calendar year for approved projects. 86% of approved projects are completed. Electricity rates from EIA

Incentive Program (cont'd)

Solar Home Renewable Energy Credits (SHRECs)



When panels produce electricity for a home, they also produce **<u>Solar Home Renewable Energy Credits (SHRECs)</u>**. The Green Bank provides upfront incentives through RSIP and collects all the SHRECs produced per statute (i.e., PA 15-194).

Utilities required to enter into **<u>15-year Master Purchase Agreement (MPA) with the Green Bank to purchase the stream of SHRECs produced</u>**. This helps utilities comply with their clean energy goals (i.e., Class I RPS).

<u>Green bonds are created</u> from the SHREC revenues received through the MPA and **<u>sold to institutional</u>** (i.e., pension funds, insurance companies, etc.) and **<u>retail investors</u>** (i.e., friends and family) to **<u>receive proceeds upfront</u>**.

The Green Bank uses the SHREC revenues and green bond proceeds to **<u>support the RSIP incentives</u>** (i.e., PBI and EPBB), **<u>cover admin costs</u>**, and **<u>financing costs</u>** to achieve **<u>350 MW of solar PV deployment and development of local solar PV industry</u>**

Financing Programs

Portfolio of Public-Private Partnerships

CONNECTICUT GREEN BANK

Credit Enhance	Warehousing	Tax Equity Finance		Project Finance	PRI	Tax Credit Bonds
$59 MM OPEN 20:1[1] smart-e loan energize CONNECTICUT CT Residential Energy	$50+ MM CLOSED 9:1 HANNON ARMSTRONG FINANCING THE FUTURE OF ENERGY C-PACE	$75 MM CLOSED 7.5:1 usbank KeyBank Webster Bank Residential Solar Commercial Solar	$60+ MM CLOSED 6:1[3] ONYX Green Bank Solar PPA	$65 MM CLOSED 10:1 FuelCell Energy Dominion Grid-Tied	$5 MM OPEN 100%[2] MacArthur Foundation hdf Multifamily Energy	$9 MM CLOSED 9:1 CSCU Bank of America Green Bank Solar PPA
$6 MM CLOSED 6:1 Sungage Financial Residential Solar	$30 MM CLOSED 4:1 CLEANFUND Commercial PACE Capital C-PACE	$65+ MM OPEN 4:1 PosiGen Solar Solutions usbank Enhanced Capital Solar for All		$22 MM CLOSED 8:1 Colebrook Wind Webster Bank 5 MW Wind Project	$3 MM OPEN 100%[4] THE KRESGE FOUNDATION Residential and Commercial Storage	$3 MM CLOSED 3:1 City of Meriden CT Bank of America Archimedes Screw Hydroelectric Project

REFERENCES

1. LLR yields high leverage – and it is 2nd loss and thus with no to low defaults, we haven't used to date. IRB's not considered in the leverage ratio.
2. Foundation PRI is to HDF, guaranteed by the CGB in the case of MacArthur Foundation.
3. Onyx Partnership has no upper limit and CGB currently has authorization to commit up to $15mm.
4. Foundation PRI's are backed by CGB balance sheet
5. Data from Power BI through June 30, 2019

Financing Program

Energize CT Smart-E Loan

Market Segment	Residential Single Family (Credit Enhancement)
Product Summary	Partnership with eleven (11) local community banks and credit union to provide easy access to affordable financing for comprehensive clean energy measures, including H&S. 5-20 year terms at rates ranging from 4.99-6.99% for \$500-\$40,000 of borrowing.
Support Needed	▪ Provide 2nd Loan Loss Reserve (LLR) up to 7.5% of losses ▪ EV pilot
CT Results	3,804 projects for \$59.3 MM financed (with \$5.9 MM of IRB), 8.8 MW, 85% projects have EE

REFERENCES
Data from Power BI through 6/30/19

Financing Program

Solar for All – Solar PV Lease and EE ESA

CONNECTICUT GREEN BANK

Market Segment	**Residential Single Family LMI** (Co-Investment)
Product Summary	Solar lease + energy efficiency package (fixed 20 years) to reduce energy burden with alternative underwrite/no credit score using community based marketing approach
Support Needed	▪ Good solar economics including tiered LMI incentive ▪ Municipal, community and nonprofit introductions ▪ Subordinated debt capital – if available, but not required
CT Results	2,430 leases for \$68.6 MM investment, 16.2 MW, 99.9% get EE (HES), 63% ESA, and reached 75% LMI

PosiGen Solar Solutions

REFERENCES
Data from Power BI through 6/30/19

Financing Products
Multifamily

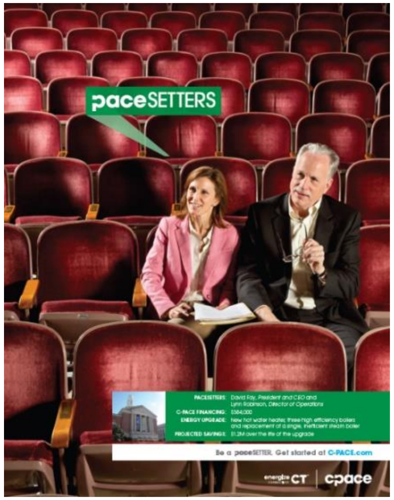
Market Segment	**Naturally occurring and subsidized/regulated affordable housing (5+ units)** (Investment)
Product Summary	Pre-development and term financing products (including unsecured) for renewables, efficiency, storage, resiliency, health & safety and other building improvements
Support Needed	▪ Overview of utility and state affordable housing program/ incentive landscape ▪ Portfolio owner introductions ▪ Municipal, community and nonprofit introductions ▪ Subordinated debt capital – if available, but not required
CT Results	95 loans for $127.7 MM investment in EE, RE, and H&S

REFERENCES
Data from Power BI through 6/30/19

Financing Program

C-PACE

Market Segment	**Commercial, Industrial, Nonprofit and Multifamily** (Warehousing)
Product Summary	Commercial Property Assessed Clean Energy (C-PACE) applies a benefit assessment to a property to finance clean energy improvements with SIR>1
Support Needed	• Capital to finance clean energy improvements • Contractors to install clean energy improvements • Supportive municipality • Supportive mortgage lender
CT Results	270 projects for $158.5 MM investment, 34.0 MW of RE, 32% projects have EE

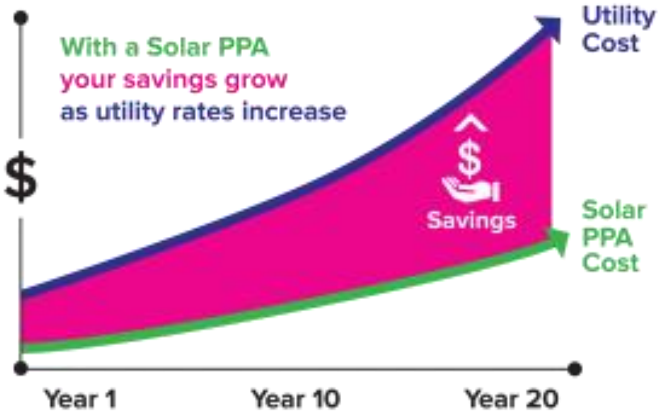


REFERENCES
Data from Power BI through 6/30/19

Financing Program
Green Bank Solar PPA

Market Segment	**Small/medium commercial, MUSH, affordable housing, nonprofits, community assets** (Co-Investment)
Product Summary	3rd party solar power purchase agreement, backed by C-PACE lien where possible
Support Needed	▪ Good solar economics for C&I ▪ Local solar installer & project developer introductions ▪ Municipal, community and nonprofit introductions ▪ Subordinated debt capital – if available, but not required
CT Results	123 PPAs closed/completed, $102.6 MM, and 33.1 MW

green bank solar ppa



REFERENCES
Data from Power BI through 6/30/19

Special Project

New England Hydropower

Market Segment	**Virtual Net Metering – Municipality** (Investment)
Project Summary	Long-term PPA (i.e., 30+ years) for behind the meter (VNM) for this run-of-the-river hydro facility in Meriden – first of its kind in the U.S.
Support Needed	▪ Project finance ▪ Support for start-up developer using European technology ▪ Working capital (Webster Bank), construction financing (Key Bank), and green bonds (BAML)
CT Results	$3 MM investment using federal CREBs and 193 kW hydro project

Special Project

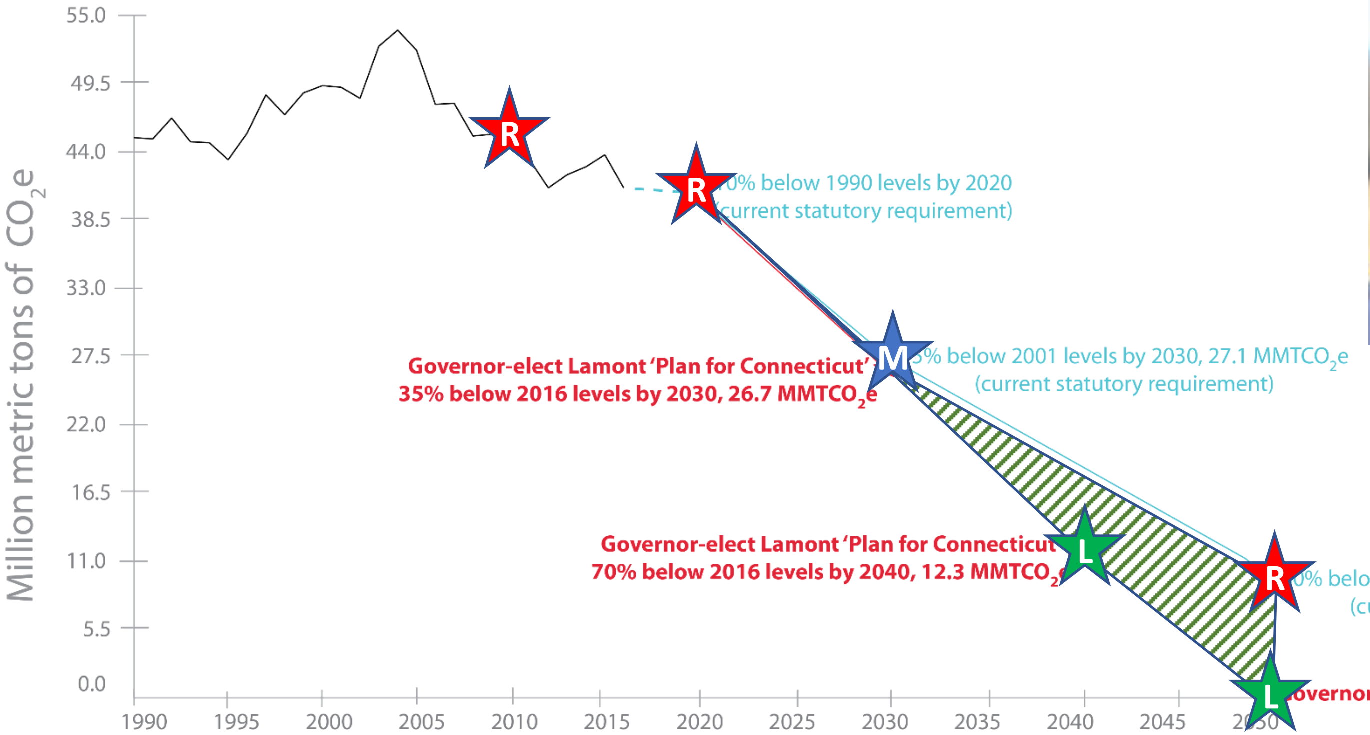
Food Waste to Energy AD Project

Market Segment	**Project Finance** (Co-Investment)
Project Summary	Provided long-term subordinated debt (i.e., 15 years) at low interest rate (i.e., 2%) for 20% of the capital structure to finance the 1st AD project of its kind in CT
Support Needed	▪ Links to food waste collection policy (PA 11-127) ▪ Attracted local lender as a senior debt provider (i.e., Peoples Bank) along with equity and tax equity
CT Results	\$10 MM project, 1 MW, diverts organic materials from waste stream while producing renewable energy

Why Do We Do It?

Gubernatorial Leadership

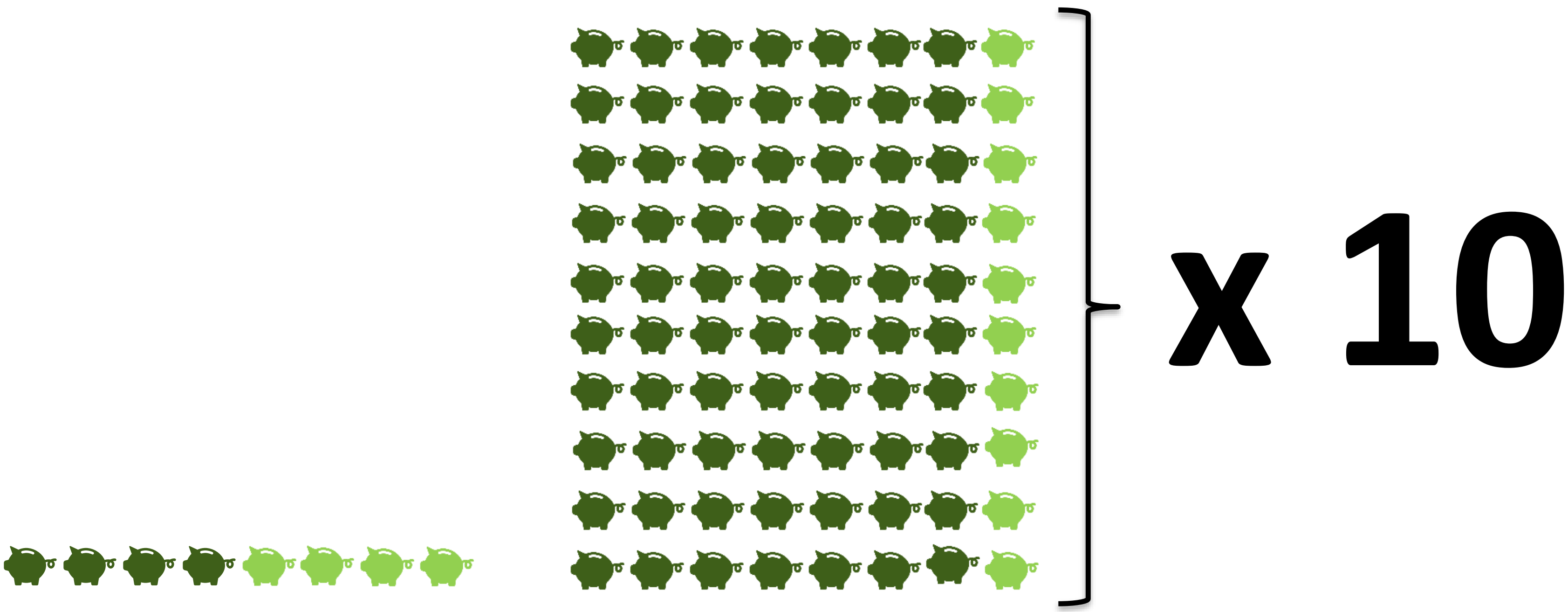
Confront Climate Change in Connecticut



*"These targets are **<u>tougher than required under the Paris Agreement</u>**, but are achievable, measurable goals that will **<u>guide our state's energy and environmental policy</u>**."*

Increase Investment
From 1 to 2 Orders of Magnitude

= $1 in public investment in clean energy per person per year
= $1 in private investment in clean energy per person per year



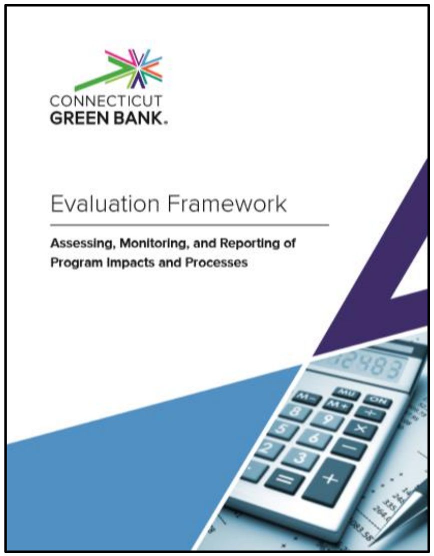
Connecticut Clean Energy Fund $9/person/year	Connecticut Green Bank $80/person/year	UN 2030 Agenda for Sustainable Development $800

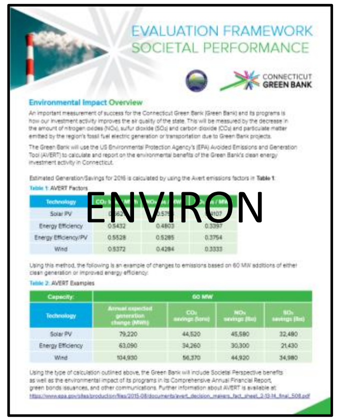
REFERENCES
1. CT Population = 3,600,000. US Population = 321,400,000. World Population = 7,500,000,000.
2. CCEF Annual Investment = $32 MM (1:1). CGB Average Annual 4-Year Investment = $280 MM (6:1). UN Report = $6 T assuming $90 T over 15-years (i.e., since 2016).

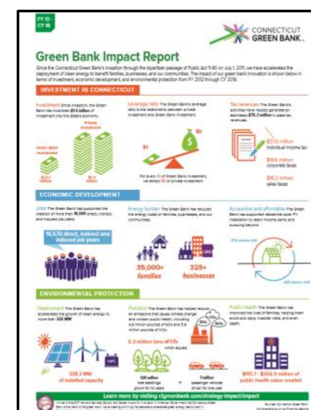
Impact Investment
Measuring Results

CONNECTICUT GREEN BANK

Evaluation Framework	Impact Methodologies	Comprehensive Annual Financial Report	Annual Report / Fact Sheet







Impact Investment

Reporting and Transparency

- **<u>Comprehensive Annual Financial Report (CAFR)</u>** – government financing statements using GASB and audited by AICPA certified firm;
- **<u>Annual Report</u>** – consolidated financial statements with condensed narratives on various program achievements;
- **<u>Auditors of Public Account</u>** – APA is a legislative agency whose primary mission is to conduct audits of state agencies, including quasi-publics;
- **<u>Open Connecticut</u>** – a voluntary initiative of the Comptroller whereby agencies provide checkbook-level vendor payment data;
- **<u>Board and Committee Meetings</u>** – publicly accessible real-time and online access to deliberations and decisions; and
- **<u>Stakeholder Communications</u>** – quarterly online stakeholder webinars on progress to date and monthly e-newsletters on information on products, programs and services.

Connecticut Green Bank

Impact Investment – Social and Environmental

INVESTMENT

Private Investment

Green Bank Investment

$270 MM

$1.4 B

ECONOMIC DEVELOPMENT

19,905 direct, indirect, and induced job-years

ENVIRONMENTAL PROTECTION

6.5

million tons of CO_2

which equals

153 million

tree seedlings grown for 10 years

or

1.2 million

passenger vehicles driven for one year

TAX REVENUES

$41.1MM

individual income tax

$21.5 MM

corporate taxes

$20.3 MM

sales taxes

ENERGY BURDEN REDUCED

families

45,000

businesses

360

PUBLIC HEALTH SAVINGS

$125 to $275 million of public health value created

REFERENCES

Connecticut Green Bank Data Warehouse – July 1, 2011 through June 30, 2019

Reframing Climate Change

To Increase Engagement

Global **ISSUE**

CLIMATE CHANGE

Behavioral **CHALLENGE**

APATHY

Social **CRISIS**

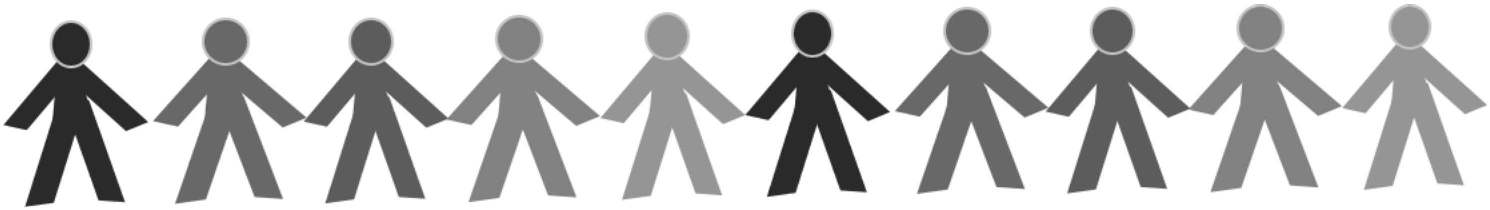
ISOLATION

Community self-worth
EMPATHY Equity LOVE Partnership Selfless
SHARING diversity ACCEPTANCE
Stability UNITY goals access
Collaboration Security CONNECTION
team hope Cooperation
INCLUSIVITY health
Humanity engagement
freedom NEEDS
validation RESPECT TRUST
resilience dedicated
SUPPORT Together
Confidence CARE potential

Achieving the volume of engagement needed to mitigate the impact of climate change requires more **emotional**, as well as financial investment in our global community.

Connecting with People, As People

Green Bonds US® Campaign



The "**Green Bonds Us**" campaign promotes a simple but critically important global message; green brings us together, green <u>bonds</u> us.

A multi-phased, brand awareness and new product marketing campaign:

- Promoting the Green Bank and benefits of green energy
- CGB issued mini-green-bonds, a new green energy investment opportunity provided by the Green Bank.

GBU Phase 1

Increase stakeholders awareness of CGB, create an emotional connection to the brand. Key messages:

- Invest in "green" as we do our children, both connect the present to the future
- We are bonded by our behaviors
- CGB's vision of a world empowered by the renewable energy of community.

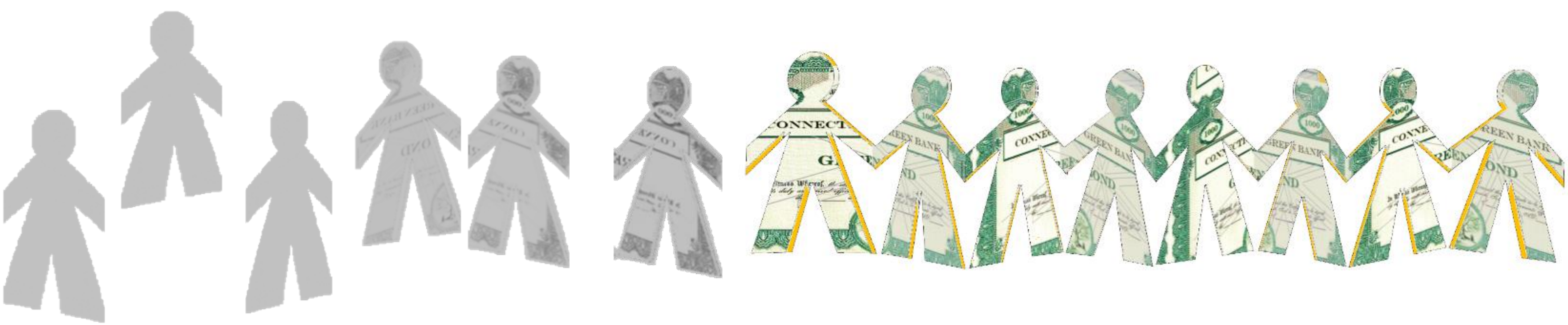
Green Bonds US® Campaign
Mini Green Bond Offering

GBU Phase 2:

Promotion of the inaugural issuance of CGB mini-green bonds

- Aligned with CGB’s mission to make “green” benefits more accessible and affordable
- Low denomination, or “mini” green bonds increases opportunities for people to benefit from the green economy

For illustrative purposes only. Physical bonds will not be issued



www.greenbondsus.com

Increase Citizen Engagement

Partnership with Sustainable CT

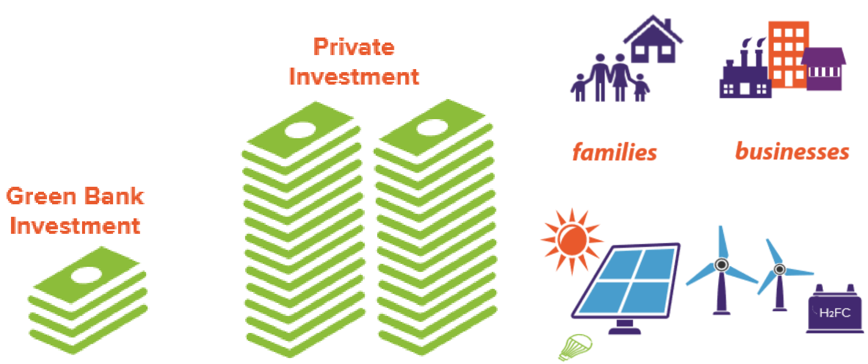
The partnership between the Sustainable CT and the Connecticut Green Bank is focused on the following key priorities:

- Driving investment in projects in our communities, with a goal to accelerate over time;
- Community-level engagement, from project origination through financing, that is inclusive, diverse and “knitted”;
- Creating a structure that harnesses all types of capital for impact – from donations to investments;
- Developing a business model that covers the cost of the program; and
- Creating a measurable impact, both qualitative and quantitative.

Connecticut Green Bank
FY 2020 Targets

Incentive Programs

Program / Product	Projects	Total Investment	Installed Capacity (kW)
RSIP	7,059	$214,200,000	60,000
EEP – Battery Storage[1]	500	$5,500,000	2,000
Total	**7,559**	**$219,700,000**	**62,000**



Financing Programs

Products / Projects	Projects	Total Investment	Installed Capacity (kW)
C-PACE	56	$22,000,000	5,600
Green Bank Solar PPA	34	$28,125,000	12,700
SBEA	1,000	$20,000,000	-
Smart-E Loan	540	$7,182,000	500
Solar for All	615	$17,202,165	4,200
Multifamily Predev	2	$140,000	-
Multifamily Term	9	$1,493,000	300
Multifamily Catalyst	2	$110,000	-
Strategic Investments	2	$7,500,000	-
Total	**2,240**	**$98,427,165**	**21,000**

In FY 2020, the Connecticut Green Bank will **invest $53.4 MM** in incentive and financing programs to **attract $245.2 MM in private investment** to **support over 9,000 projects** and **over 75 MW of clean energy** deployment

Thank You

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CONNECTICUT
GREEN BANK

CONFIDENTIAL TO THE BOARD

(ACTIVE RFP PROPOSALS UNDER NEGOTIATION)

Memo

To: Connecticut Green Bank Board of Directors

From: Bert Hunter, EVP and CIO and Mike Yu, Director, Clean Energy Finance

CC: Bryan Garcia, President and CEO; Brian Farnen, General Counsel and CLO; Dale Hedman, Consultant (Retiree); Eric Shrago, Director of Operations, Jane Murphy, Vice President of Finance and Administration; Selya Price, Director, Infrastructure Programs

Date: July 11, 2019

Re: SHREC Securitization Update

In a memo to the Connecticut Green Bank (the "Green Bank") Board of Directors dated March 29th 2019, staff provided an update on its Solar Home Renewable Energy Credit ("SHREC") monetization efforts and received final approval to enter into transaction documentation for asset-backed green bonds backed by the first and second tranches ("Tranche 1" and "Tranche 2") issued under the Master Purchase Agreements with Eversource and United Illuminating. Please see Appendix A for Transaction Review.

Since closing the securitization of Tranches 1 and 2, we have continued working on a monetization of the third tranche ("Tranche 3") of SHREC systems. Tranche 3 was executed with the utilities on June 28, 2019 and is comprised of 4,818 systems that have received PURA approval as Class I REC generators. Generation projections for Tranche 3 based on P50[1] estimates from Solar Anywhere indicate approximately $31.5 million of gross SHREC revenue over the 15-year life of the tranche based on a price of $48 per SHREC. A green bond issuance in Q4 2019 backed by Tranche 3 would likely generate $16 million to $18 million of gross cash for the Green Bank.

Staff issued an RFP for underwriters on June 28th and expects proposals in early August. Staff is soliciting both asset-backed and taxable municipal bond securitization proposals and expects to close a transaction in Q4 2019.

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[1] P50 is a statistical level of confidence suggesting that we expect to exceed the predicted solar resource/energy yield 50% of the time. P90 indicates we expect to exceed the yield 90% of time.

Advance Rate	Discount Rate			
	8%	7.00%	6.00%	5.00%
75%	$14,273,842	$15,085,599	$15,976,581	$16,956,564
80%	$15,225,431	$16,091,306	$17,041,687	$18,087,002
85%	$16,177,021	$17,097,013	$18,106,792	$19,217,439
90%	$17,128,610	$18,102,719	$19,171,898	$20,347,877

Short-Term SHREC Warehouse Facility Recommendation

While a securitization will provide a low-cost, long-term monetization option for SHRECs, staff recommends utilizing a short-term warehouse facility that provides a bridge to the securitization and allows the Green Bank to meet its significant obligations. This approach was used for Tranche 1 and 2, in which the Green Bank executed a $16 million warehouse facility in 2018 with two Connecticut banks (Webster and Liberty, collectively "Warehouse Lenders") whereby the two banks jointly funded the facility and shared 50:50 in draw requests.

Staff has received an updated proposal from the Warehouse Lenders for a revolver backed by Tranche 3 receivables (please see Appendix). This facility is an improvement over the previous warehouse, as it is a revolving credit facility as opposed to a non-restoring credit facility. A "non-restoring" facility operates as it suggests: any amounts drawn down and subsequently repaid are not able to be borrowed again. The revolving credit allows the Green Bank to borrow, repay and then re-borrow multiple times during the facility's life, providing the Green Bank with more flexibility in draws and repayments. Given the proven success of the asset in the securitization marketplace, the warehouse facility can be more aggressively sized to meet the Green Bank's liquidity needs over the next 12 months. Other key economic terms (rate, interest-only payments (i.e., no required repayment of principal except at facility maturity or upon a "monetization event" (such as green bond issuance), fees) remain the same as before. Staff has reviewed the proposal and recommends it as a bridge to a securitization.

Staff requests approval by the Board of Directors to move forward with the warehouse funding facility (Confidential Appendix 1). The transaction documentation terms and conditions are quite similar to the prior facility with Webster and Liberty, except for the revolving nature of the facility noted above and the fact that the facility borrower will be SHREC Warehouse 1, LLC (the "SPE"), an entity 100% owned by Green Bank, with Green Bank providing an unconditional guarantee of repayment to the Warehouse Lenders of the SPE's obligations. Recommendation for the RFP and securitization will be made in a later meeting.

SHREC Warehouse

Resolutions

WHEREAS, Connecticut Green Bank ("Green Bank") staff recommends to the Green Bank Board of Directors ("Board") a proposal for Green Bank to enter into an agreement with Webster Bank and Liberty Bank (the "Lenders") for a $14,000,000 secured revolving line of credit ("SHREC Revolving Credit Facility") whereby the SHREC Revolving Credit Facility would be used for a period of up to one year in order to bridge Green Bank's short-term liquidity and working capital needs prior to funding anticipated from the permanent asset backed securitization ("ABS") or municipal bond financing of Tranche 3 of the Solar Home Renewable Energy Credit ("SHREC") program;

WHEREAS, along with a general repayment obligation by SHREC WAREHOUSE 1 LLC, a wholly-owned subsidiary of Green Bank ("CGB SPV Borrower"), Webster-Liberty would be secured by a Green Bank guaranty of CGB SPV Borrower's obligations under the SHREC Revolving Credit Facility in addition to a first priority security interest in, and an absolute assignment of all cash flows associated with Tranche 3 of the SHREC program and, in the event of a payment default under the SHREC Revolving Credit Facility, such additional Tranches of SHRECs as required by the Lenders together with all commercially necessary rights thereunder (the "SHREC Collateral"); and

WHEREAS, Green Bank staff recommends that the Board approve the proposed SHREC Revolving Credit Facility, generally in accordance with the terms of the summary term sheet presented to the Board on July 18, 2019.

NOW, therefore be it:

RESOLVED, that the Board approves Green Bank to enter into the SHREC Revolving Credit Facility with the Lenders substantially as set forth in the memorandum to the Board dated July 11, 2019;

RESOLVED, that the Board approves and ratifies the establishment by Green Bank of SHREC WAREHOUSE 1 LLC as a wholly-owned subsidiary of Green Bank ("CGB SPV") and to provide the Lenders with a guaranty of CGB SPV obligations as borrower under the SHREC Revolving Credit Facility in addition to the SHREC Collateral;

RESOLVED, that the President, and any other duly authorized officer of Green Bank, is authorized to execute and deliver on behalf of Green Bank and CGB SPV any of the definitive agreements related to the SHREC Revolving Credit Facility and the establishment of CGB SPV 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; 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 effect the above-mentioned legal instrument or instruments.

Appendix A – Transaction Review

Case Study: SHREC ABS 1 LLC, Series 2019-1

Connecticut Green Bank priced its inaugural $38.6 million securitization of Solar Home Renewable Energy Credits (“SHRECs”)

CONNECTICUT GREEN BANK

Solar Home Renewable Energy Credits Backed Notes

SHREC 2019-1

$38,600,000

RBC

Sole Structuring & Placement Agent

March 2019

Transaction Highlights

- On March 26, 2019, Connecticut Green Bank successfully issued its inaugural ABS transaction backed by SHREC receivables generated by residential solar PV systems participating in the Green Bank’s RSIP program
- SHREC 2019-1 was the Green Bank’s first securitization for any of their financing and incentive programs and introduced a new asset class to the ABS market
- The marketing effort was focused on a select group of investors including previous buyers of solar and renewable energy bonds
  - Connecticut Green Bank met with 11 investors during the ABS East and SFIG Vegas conferences and held calls with 5 other potential accounts

[redacted]

Full Pricing Details

Class	Balance	Rating (KBRA)	WAL (yrs)	Expected Final Maturity	Legal Final Maturity	Benchmark	Spread (bps)	Coupon (%)	Yield (%)
A	[redacted]								
B									
Total									

CGB in the Solar ABS Market

SHREC 2019-1 achieved several milestones in the solar ABS market

Highlights

- SHREC 2019-1 stands out in the ABS market as a one-of-its-kind securitization of REC-only revenue streams and compares favorably to its peers
- The current yield environment served CGB well, allowing SHREC 2019-1 to achieve a lower all-in yield than more established issuers
  - SHREC 2019-1 ultimately priced ~40-60bps tighter on a weighted-average yield basis than SunStrong and SunRun, which came to market in November and December 2018, respectively
- Also of note, SHREC 2019-1 was able to achieve the highest single-A advance rate among recent peer solar lease/PPA deals of 80.2%, ~5-15% higher than comparable deals

Recent SHREC & Solar Lease/PPA ABS Pricing

[redacted]

SunRun (SUNRN) 2018-1						Priced December 11, 201
Class	Amount ($mm)	WAL	Rating (K)	Benchmark	Spread (bps)	Yield (%
A	322.00	9.57	A-	I-Swaps	+265	5.553
B	56.50	11.02	NR	*Not Offered*		
Total	322.00	9.57			+265	5.553

SunStrong (SNSTR) 2018-1						Priced November 20, 201
Class	Amount ($mm)	WAL	Rating (K)	Benchmark	Spread (bps)	Yield (%
A	400.00	8.24	A	I-Swaps	+265	5.725
Total	400.00	8.24			+265	5.725

Single-A Advance Rates

Single-A Yields

[redacted]

June 10, 2019

Mr. Bert Hunter
EVP & Chief Investment Officer
Connecticut Green Bank
845 Brook Street, Rocky Hill, CT 06067

RE: **$14,000,000 Revolving Line of Credit Facility**

Mr. Hunter:

SHREC Warehouse 1, LLC, (a special purpose vehicle wholly owned by the Connecticut Green Bank – hereinafter "**Company**" or "**Borrower**") has applied to Webster Bank, National Association ("**Webster**") and Liberty Bank ("**Liberty**" – each of Webster and Liberty a "**Bank**" and together the "**Banks**") for up to $14,000,000 of credit (the "**Loan**"). This letter provides an outline of the terms and conditions under which the Banks would consider providing the Loan to the Borrower. This term sheet is provided for discussion purposes only and is not a commitment. A commitment by the Banks is subject to satisfactory completion of due diligence, credit approval, completion of documentation (which may include material terms not in this letter), and the Banks' satisfaction with the terms and conditions of all transactions and documentation related to the contemplated financing.

Borrower:	SHREC Warehouse 1, LLC— a special purpose vehicle and direct wholly owned "single member" LLC subsidiary of the Connecticut Green Bank.
Guarantor:	The Connecticut Green Bank ("**Guarantor**")
Credit Facility:	Revolving Line of Credit not to exceed $14,000,000.
Use of Proceeds:	For working capital purpose of the Guarantor and to make incentive payments under the Guarantor's Residential Solar Investment Program (RSIP); and, bridge finance the securitization of Tranche 3.
Facility Maturity:	1 year from the closing date (the "**Maturity Date**") and annually renewable at the full discretion of the Banks.
Interest Rate:	[redacted]
Payment:	Interest only on a monthly basis; all principal and remaining interest due at the earlier of the Maturity Date or sale of the collateral.
Unused Fee:	[redacted]

Commitment Fee:	[redacted]
Security:	First priority lien on all assets of Borrower. Guarantor or Borrower shall collaterally assign to the Banks (i) its rights in respect of each SHREC Tranche 3; (ii) its rights in each SHREC MPA (shared with existing SHREC noteholders under the SHREC 2019-1 ABS securitization (iii) full and unconditional guarantee of payment from Connecticut Green Bank and any rights of payment guarantee under state statutes; and, (iv) assignment of the Guarantor's membership interest in the Borrower.
Debt Service Reserve:	[redacted]
Deposit Accounts:	The Borrower will maintain all of its primary operating accounts at the Agent Bank and the Reserve Account to be held pro-rata at the Banks.
Loan Documents:	The Loan Documents shall contain representations and warranties, conditions precedent to closing, affirmative and negative covenants, and events of default as are customary for loans of this size, type and purpose.
Financial Covenants:	Financial covenants to be determined.
Financial Reporting	Audited financial statements of the Borrower and Guarantor to be submitted within 120 days of each fiscal year end and tax returns within 15 days of filing. All financial statements will be prepared in accordance with GAAP or GASB consistently applied and accompanied by an unqualified statement from an independent certified public accountant (such independent certified public accountant shall be acceptable to the Banks). Within 45 days after the close of the 1st, 2nd and 3rd fiscal quarters, unaudited financial statements of the Borrower and Guarantor. All financial statements shall be accompanied by a covenant compliance certificate.
Expenses:	The Borrower agrees to reimburse each Bank for its reasonable attorneys' fees and expenses.

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CONNECTICUT
GREEN BANK

CONFIDENTIAL TO THE BOARD

(ACTIVE FINANCING FACILITY PROPOSAL UNDER NEGOTIATION)

Memo

To: Connecticut Green Bank Board of Directors

From: Bert Hunter, EVP and CIO, Mike Yu, Director, Clean Energy Finance and Louise Venables, Associate Director, Clean Energy Finance

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

Date: July 13, 2019

Re: Amalgamated Bank Commercial PACE Warehouse Funding Secured Credit Facility

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Purpose

This memo seeks approval from the Connecticut Green Bank Board of Directors (the "Board") for Connecticut Green Bank ("Green Bank") to enter into an arrangement with Amalgamated Bank ("Amalgamated") for a $10 million Commercial PACE Warehouse Funding secured credit facility (the "Credit Facility"). The Credit Facility would be provided by Amalgamated to a Green Bank wholly-owned subsidiary ("CGB SPV"), to allow the Green Bank to make commercial property assessed clean energy ("C-PACE") investments, cover C-PACE programmatic expenses and free up capital that Green Bank has invested in an existing portfolio of C-PACE transactions. Along with a general repayment obligation by the CGB SPV, Amalgamated would be secured by a first priority security interest in a portfolio of 36 C-PACE loans (the "Collateral") which will be held by CGB SPV (the "Borrower") that will be wholly owned and created by the Green Bank. Such Collateral may be modified or supplemented from time to time as agreed between Green Bank and Amalgamated. In addition, Amalgamated will benefit from an unconditional guarantee of repayment of CGB SPV's obligations.

The selection of Amalgamated as the provider of the Credit Facility follows the closure of a separate transaction with Amalgamated, which established a $5 million secured revolving credit facility (the "RCF"). Amalgamated was selected as the provider of the RCF following a Request for Proposals process that closed October 19, 2018, and the transaction was approved by the Board in December 2018.

Background

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 Green Bank is directed to, amongst other things, establish a commercial sustainable energy program for Connecticut, known as C-PACE.

The Green Bank has extended ~$160 million of C-PACE assessment financing since the program was initiated, and it is targeting the deployment of a further $9 million in FY2020. The Credit Facility from Amalgamated will provide short term liquidity to meet the FY2020 capital deployment target and free up capital for other Green Bank investments.

Business need for the Credit Facility

Shortly following the announcement of the budget sweeps, the VP Finance and Administration (the "VP F/A") and the Chief Investment Officer (the "CIO") together with their teams assessed future liquidity needs of the Green Bank given the material redirection of funding that needed to pass from the Green Bank to the General Fund prior to the end of FY2018 ($14 million in June 2018) and during FY2019 (approximately $1.167 million each month).

Related to the need for liquidity are covenants associated with guaranties by the Green Bank to various financial institutions, notably US Bank under the Solar Lease 2 and Solar Lease 3 facilities (required minimum cash balance of $4 million).

After weighing the requisite minimum cash balance requirement plus the difficulty in predicting from one month to the next the swings in cash advances needed for various projects, in particular C-PACE and CT Solar Power Purchase Agreement transactions – along with the Green Bank commitment to the Small Business Energy Advantage collaboration with the utilities, the VP F/A and CIO jointly determined the benefits to the Green Bank of a Credit Facility.

The decision by Staff to pursue a liquidity facility in order to meet upcoming cash flow needs is predicated on the pursuit of an effective, yet flexible, means of managing transaction timelines without having to sacrifice optimal closing terms and conditions for liquidity concerns. By effectively managing gaps between uses of cash, in the form of outgoing program and project related investments, and sources of cash, in the form of capitalization from the system benefit charges and Regional Greenhouse Gas Initiative funds, inflows from Green Bank's portfolio, the Solar Home Renewable Energy Credit securitization or otherwise, Green Bank staff can optimize its cash flow management while minimizing the risk of short-term liquidity squeezes. The results of effective cash flow management include increased market confidence in the Green Bank's capacity to close C-PACE transactions.

Credit Facility Structure (NOTE: subject to modification during transaction documentation negotiation)

The Credit Facility will be structured as a secured line of credit whereby the Green Bank may, at any point in time while the line of credit is available, borrow funds in an amount not to exceed the maximum borrowing limit of $10,000,000. The Green Bank is required to pay monthly, in arrears interest-only payments on borrowed funds, together with an unused fee in the amount of [REDACTED]% of the portion of the facility that is not drawn.

Amalgamated has offered the Green Bank a variable interest rate of 1-month LIBOR plus [REDACTED]% ([REDACTED]% as of July 8, 2019). The Credit Facility will mature 364 days after the closing date.

The financial covenants of the Credit Facility require that cash collections under the Collateral (i.e. the borrower repayments under the portfolio of 36 C-PACE loans) must maintain a ratio of ([REDACTED]x) the debt service due on the Credit Facility, tested semi-annually. Staff is comfortable that this covenant is easily met, even under the assumption that the full $10 million loan is drawn on 'day 1' of the facility. Staff has confirmed the DSCR test with Amalgamated.

Additional key requirements and conditions associated with the Credit Facility include [the full set of terms and conditions can be found in the **Appendix I – Term Sheet** section below]:

- An upfront facility fee of [REDACTED];
- An unused fee equal to [REDACTED]% of the unused portion of the Credit Facility
- Payment of Amalgamated's legal fees;
- Submission of bi-annual C-PACE servicing report;
- Quarterly circulation of internally prepared financial statements; and
- Annual submission to Amalgamated of Green Bank's audited financial statements, within 120 days of the Green Bank's fiscal year end.

Based on staff's experience with structuring credit facilities, and given conversations with other providers of short-term liquidity facilities during the recently concluded RFP process, Staff is confident that the above-listed requirements and conditions are both reasonable and manageable.

Strategic Plan

Is the program proposed, consistent with the Board approved Comprehensive Plan and Budget for the fiscal year?

Yes – the proposed facility enables Green Bank to fund advances in respect of the C-PACE program, which is active under Green Bank's Comprehensive Plan.

Ratepayer Payback

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

N/A (funds from the Credit Facility are being borrowed, not advanced)

Terms and Conditions

What are the terms and conditions of ratepayer payback, if any?

N/A (funds from the Credit Facility are being borrowed, not advanced); however, see **Appendix I – Term Sheet** section below for terms of the Amalgamated Credit Facility.

Capital Expended

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

N/A (funds from the Credit Facility are being borrowed, not advanced)

Risk

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

N/A (funds from the Credit Facility are being borrowed, not advanced)

Financial Statements

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

When funds are borrowed:

$x Debit: Cash

$x Credit: Short Term Borrowings

When funds are repaid:

$x Debit: Short Term Borrowings

$x Credit: Cash

Target Market

Who are the end-users of the engagement?

The end users of the Credit Facility are the Green Bank (to cover the expenses of its C-PACE program) as well as the borrowers to whom C-PACE loans are extended.

Green Bank Role, Financial Assistance & Selection/Award Process

The Green Bank role is as guarantor, a special purpose entity wholly owned by the Green Bank is the borrower, and Amalgamated was chosen as the lender as a follow on transaction after its selection via RFP process to provide a similar facility, documentation for which was signed in May 2019. The approval process may alternatively be considered by the Board under the Strategic Selection and Award process under Green Bank's Operating procedures as the credit facility satisfies three of the requisite criteria:

1. Strategic Importance: The Lender, Amalgamated Bank, has proven to be a reliable partner to Green Bank, and has participated in several facilities with Green Bank during the past year or so, including:
    a. $5 million RCF for Green Bank explained above
    b. $50 million facility for the Eversource SBEA Loan program (being increased to $60 million shortly); and
    c. $9 million for the Groton / US Naval Submarine Base (New London) Fuel Cell project

    The proposed facility deepens our relationship with this strategic partner.
2. Follow-on Investment: Amalgamated successfully competed for the $5 million RCF for Green Bank explained above. The material terms and conditions for the proposed facility are substantially the same and benefits from similar documentation.
3. Urgency and Timeliness: Green Bank Finance team has a number of initiatives underway and there are large credit requirements under the budget for FY20. The ability to secure this additional credit facility plugs a gap in anticipated capital needs. Green Bank will benefit from being able to document the facility quickly using substantially similar loan documentation at low legal cost.

Program Partners

Amalgamated Bank.

Established 95 years ago, Amalgamated Bank is the largest socially responsible bank in America. Through its treasury management, lending and investment management capacities, Amalgamated aims to provide the financial support to its clients who pursue socially and economically responsible objectives. Amalgamated provides the day-to-day banking services and clean finance solutions to environmentally-focused organizations.

Risks and Mitigation Strategies

The main risk associated with the Credit Facility is that, in the event of default by the Green Bank, the amount outstanding under the facility becomes due. Such repayment risk is mitigated by the following structural components of the Credit Facility:

1.) The Green Bank is able to repay the Credit Facility with available cash held in accounts on its balance sheet, and given the overall health of the Green Bank's long-term balance sheet position, there is ample coverage in the form of available net assets relative to the size of the line of credit to raise other credit facilities if needed.

2.) Because the Credit Facility is short-term in nature, to be used in between a financing opportunity and a capital sourcing/monetization event, there is less uncertainty with regards to the economic position of the Green Bank while amounts drawn are outstanding relative to other types of longer-term credit facilities. The Green Bank will operationalize the utilization of the Credit Facility so that a definitive "source" of short term revenue is identified to repay the "use" of the Credit Facility within the requirements of the definitive transaction documentation.

Resolutions

WHEREAS, Connecticut Green Bank ("Green Bank") staff has submitted to the Green Bank Board of Directors ("Board") a proposal for Green Bank to enter into an arrangement with Amalgamated Bank ("Amalgamated") for a $10,000,000 secured line of credit ("Credit Facility") extended to a Green Bank special purpose vehicle ("CGB SPV") whereby the Credit Facility would be used in order to cover the short-term expenses of the C-PACE program and to extend C-PACE loans; and

WHEREAS, the selection of Amalgamated as the provider of the Credit Facility follows the closure of a similar credit facility transaction, for which Amalgamated was selected as provider after completion of a Request for Proposals ("RFP") process in accordance with Green Bank operating procedures;

WHEREAS, the Board may alternatively consider the selection of Amalgamated by the Board under the Strategic Selection and Award process of Green Bank's Operating procedures as the credit facility satisfies three of the requisite criteria: (1) Strategic Importance, (2) Follow-on Investment, and (3) Urgency and Timeliness;

WHEREAS, along with a general repayment obligation by the CGB SPV, Amalgamated would be secured by a first priority security interest in and portfolio of 36 C-PACE loans (the "Collateral") and a guarantee by Green Bank of CGB SPV's obligations; and

WHEREAS, Green Bank staff recommends that the Board approve the proposed Credit Facility, generally in accordance with memorandum summarizing the Credit Facility and the terms of the summary term sheet, both presented to the Board on July 19, 2019.

NOW, therefore be it:

RESOLVED, that the Board approves CGB SPV to enter into the Credit Facility with Amalgamated guaranteed by Green Bank and approves of Amalgamated to be the sole source provider of the Credit Facility; and

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 Credit Facility 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 effect the above-mentioned legal instrument or instruments.

Submitted by: Bert Hunter, EVP and CIO and Louise Venables, Associate Director, Clean Energy Finance

Appendix I – Term Sheet

Indicative Summary of Terms
Connecticut Green Bank
Up to $10,000,000 Secured Credit Facility
July 9, 2019

Borrower:	A special purpose entity wholly owned and created by Connecticut Green Bank, (the "Borrower")
Credit Facility:	Up to $10,000,000 364-day secured line of credit (the "Line of Credit" or the "Credit Facility")
Availability Limits:	Fully available at closing
Security:	1. All obligations to AB will be secured by a first priority perfected security interest in and lien on the Borrower's existing and future assets, including equity interests of Borrower owned by the Guarantor, and the proceeds thereof 2. A first priority interest in the C-PACE Collateral Portfolio owned by Borrower.
Guarantor:	Connecticut Green Bank (the "Guarantor")
Use of Proceeds:	The Line of Credit will be used for additional C-PACE investments and C-PACE programmatic expenses.
Interest Rate:	The interest rate on the Line of Credit shall be 1-month LIBO[redacted]
Fees:	1) Upfront fee[redacted] 2) Unused fee:[redacted]
Financial Covenants:	The Collateral Portfolio must maintain a DSCR of[redacted]
Reporting Covenants:	1) Annual audited financials for the Borrower, including independent auditor's report, prepared by a CPA acceptable to Bank within one hundred twenty (120) days of fiscal year end; 2) Quarterly financial statements, internally prepared and attested to by chief financial officer of the Borrower within forty-five (45) days of quarter end; 3) Bi-Annual C-PACE servicing reports
Expenses:	The Borrower shall reimburse AB for the costs and expenses, including the fees of outside counsel, incurred by AB in connection with the preparation and execution of the Credit Facility, whether or not it closes

amalgamated
bank

Indicative Summary of Terms
Connecticut Green Bank
Up to $10,000,000 Secured Credit Facility
July 9, 2019

Borrower: A special purpose entity wholly owned and created by Connecticut Green Bank, (the "Borrower")

Credit Facility: Up to $10,000,000 364-day secured line of credit (the "Line of Credit" or the "Credit Facility")

Availability Limits: Fully available at closing

Security:

1. All obligations to AB will be secured by a first priority perfected security interest in and lien on the Borrower's existing and future assets, including equity interests of Borrower owned by the Guarantor, and the proceeds thereof

2. A first priority interest in the C-PACE Collateral Portfolio owned by Borrower.

Guarantor: Guarantcc of Connecticut Green Bank (the "Guarantor")

Use of Proceeds: The Line of Credit will be used for additional C-PACE investments and C-PACE programmatic expenses.

Interest Rate: The interest rate on the Line of Credit shall be 1-month LIBOR [REDACTED], payable monthly in arrears

Fees:
1) Upfront fee: [REDACTED] of the loan amount, payable on the closing date
2) Unused fee: [REDACTED] of the unused amount of the Line of Credit, payable monthly in arrears

Financial Covenants: The Collateral Portfolio must maintain a DSCR of [REDACTED]x, tested semi-annually.

Reporting Covenants:
1) Annual audited financials for the Borrower, including independent auditor's report, prepared by a CPA acceptable to Bank within one hundred twenty (120) days of fiscal year end;
2) Quarterly financial statements, internally prepared and attested to by chief financial officer of the Borrower within forty-five (45) days of quarter end;
1) Bi-Annual C-PACE servicing reports

Expenses: The Borrower shall reimburse AB for the costs and expenses, including the fees of outside

This Term Sheet is a non-binding preliminary indication of interest and is not intended to be a commitment on the part of Amalgamated Bank or any affiliate to provide or arrange for financing on the terms and conditions set forth herein or otherwise; any such commitment would be in a separate written instrument signed by Amalgamated Bank or such affiliate following satisfactory completion of due diligence, internal review and approval process, including approval by Amalgamated Bank's or such affiliate's credit committee (which approvals have not yet been sought or obtained) and Amalgamated Bank may, at any level of its approval process, decline any further consideration of the financing and terminate its approval process. The pricing and terms included in this Term Sheet are based on market conditions on the date hereof and are subject to change. If this term sheet is not countersigned and returned to the Bank by the close of business on July 18, 2019, the conditions described in this letter will be considered null and void.

AMALGAMATED BANK

By: ____________________________

Name:

Title:

Acknowledged and Agreed:

Connecticut Green Bank ______________

By:

Name:

Title:

Date: _______________________

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CONNECTICUT GREEN BANK

Memo

To: Connecticut Green Bank Board of Directors

From: Bert Hunter, EVP and CIO and Mike Yu, Director, Clean Energy Finance

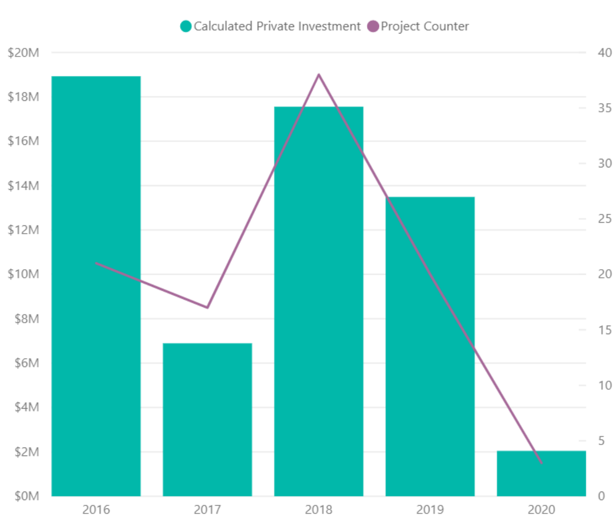
CC: Bryan Garcia, President and CEO; Brian Farnen, General Counsel and Mackey Dykes

Date: July 11, 2019

Re: C-PACE Credit Enhancement RFP

The Connecticut Green Bank (the "Green Bank") administers and seeks to further develop the market for investing in commercial energy improvement for Connecticut through the Commercial Property Assessed Clean Energy ("C-PACE") program. Pursuant to that goal and as part of the State's Comprehensive Energy Strategy and the Green Bank's Strategic Plan, the Green Bank Board of Directors (the "Board") approved a $40,000,000 C-PACE construction and term loan program to originate C-PACE transactions. In addition to funding C-PACE transactions itself, the Green Bank supports a robust and competitive C-PACE market in Connecticut, with alternative sources of financing provided Qualified Capital Providers ("CPs"). Figure 1 summarizes CP activity over the life of the program. Strengthening the CP market, with multiple capital providers, will allow a larger deployment of clean energy at a more affordable cost to customers.

Figure 1. C-PACE CP Activity by Fiscal Year (FY20 is to-date)



To further its goal of building a robust and competitive C-PACE market in Connecticut, the Green Bank issued a Request for Proposals ("RFP") on June 17th, 2019 to develop a CP-owned capital facility with the goal of accelerating market growth. The Green Bank is seeking a structure that would enable greater C-PACE deployment with up to $5 million of Green Bank credit enhancement. The structure would (1) be an external facility (i.e., not funded on the books of the Green Bank) and (2) establish or be under the control of an entity as the lender of record for C-PACE loans separate and not under the control of the Green Bank.

A credit enhancement could be in the form of junior debt, a loan loss reserve, or another structure, as proposed by the CPs.

Based on the results of the RFP, the Green Bank is currently in discussions with Greenworks Lending ("GWL") to provide financing at a general corporate level with security to be agreed to facilitate greater C-PACE growth within Connecticut.

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Small Business Energy Advantage Program Loan Facility

Amendment, Expansion and Assignment

Approval Request

July 11, 2019

Document Purpose: This document contains background information and a request for aa amendment to the Master Purchase and Servicing Agreement between the Connecticut Green Bank ("Green Bank"), Amalgamated Bank ("AB"), each as a purchaser, and The Connecticut Light and Power Company ("CL&P"), as seller and as servicer approved by Green Bank Board of Directors during 2018. This information is provided to the Connecticut Green Bank Board of Directors for the purposes of reviewing and approving recommendations made by the staff of the Connecticut Green Bank.

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

Program Qualification Memo

To: Connecticut Green Bank Board of Directors

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

Bert Hunter, EVP & Chief Investment Officer

Cc: Bryan Garcia, President & CEO; Alex Kovtunenko, Senior Counsel, Commercial, Industrial and Institutional Programs

Date: July 11, 2019

Re: Small Business Energy Advantage Program Loan Facility
Amendment, Expansion and Assignment Approval Request

Background & Summary

In October 2018, the Connecticut Green Bank ("Green Bank") Board of Directors approved a request for a $5MM commitment to support a facility to recapitalize the Small Business Energy Advantage (SBEA) program and deliver lower-cost capital to support financing for The Connecticut Light and Power Company ("CL&P") (d/b/a Eversource) SBEA customers in Connecticut. Green Bank's co-lender, Amalgamated Bank ("AB"), committed to making available a maximum of $50MM for this facility. In December 2018, the Green Bank Board approved an increase in Green Bank commitment to $5.56M and a total facility size of approximately $55.56M to make use of the full available AB commitment abiding by the 90/10 split (between AB and Green Bank) in the facility. Later in December 2018, Green Bank and AB, each as a purchaser, and The Connecticut Light and Power Company ("CL&P"), as seller and as servicer, entered into a Master Purchase and Servicing Agreement (the "Master Agreement"). In accordance with the Master Agreement, Green Bank and AB purchased a portfolio of loans from CL&P that CL&P originated under the SBEA Program.

In April 2019, the Green Bank Board approved amending the Master Agreements to allow qualifying SBEA loans to municipal customers to aggregate to a maximum of $1,000,000 (increased from $500,000); permit the Green Bank to manage more effectively deficiencies in the repayments from CL&P; and make non-material amendments to the Master Agreement to resolve operational issues related to purchases of loans and payments by CL&P.

In June 2019, the Green Bank and AB closed on the purchase of a second portfolio of SBEA loans originated by CL&P with a total purchase of approximately $6 million and a Green Bank funded amount of approximately $600,000.

Second Amendment Approval Request

In the six months initially establishing the SBEA loan facility and purchasing the initial portfolio of loans, the Green Bank, AB and CL&P have made significant improvements in the servicing, loan collections data management, and invoicing processes. In addition, demand for SBEA financing on the part of state and municipal borrowers increased and was buoyed recently by Governor Lamont's Executive Order 1 directing state agencies to reduce energy consumption. Green Bank staff propose further amendment to the Master Agreement to achieve the following:

- increase the total capital available for the facility by $11,111,112 from $55,555,555 to $66,666,667 with the incremental increase dedicated to serving state and municipal borrowers;
- maintain the 90/10 split between AB and Green Bank will result in AB committing $60,000,000 (an increase of $10,000,000) and the Green Bank committing $6,666,667 (an increase of $1,111,112);
- allow longer maximum loan tenor of seven (7) years for state and municipal borrowers;
- allow maximum individual original loan principal balance of $1,000,000 for both state and municipal borrowers (an increase from the $100,000 maximum for commercial customers);
- maintain the $1,000,000 aggregate outstanding loan balance for municipal borrowers and clarify the definition of municipal borrower as a municipality, department, board, commission, instrumentality or other political subdivision thereof, pertaining to local government;
- clarify the exemption from the $1,000,000 aggregate outstanding loan balance for state borrowers;
- make additional changes to the Master Agreement to reflect improved loan servicing, loan collections data management, and invoicing processes as well as handling of loan prepayments.

Additionally, Green Bank staff proposes that Green Bank's interest in the Master Agreement, together with the SBEA loans previously purchased thereunder, be assigned to CEFIA Holdings, LLC, Green Bank's wholly owned subsidiary. This assignment would help facilitate the management of Green Bank's interest in the SBEA loan portfolio and potential 3rd party impact investment in the portfolio.

Resolutions

WHEREAS, pursuant to Conn. Gen. Stat. Section 16-24n the Connecticut Green Bank ("Green Bank") has a mandate to develop programs to finance clean energy investment for small business, industrial, and municipal customers in the State;

WHEREAS, Green Bank's Board of Directors (the "Board") approved, at its October 26, 2018 meeting, a such approval was modified by the Board at its December 14, 2018 meeting, Green Bank's $5,555,555 participation as a subordinated lender in a Master Purchase and Servicing Agreement (the "Master Agreement") which was later entered into by Green Bank, AB, each as a purchaser, and The Connecticut Light and Power Company ("CL&P"), as seller on December 20, 2018;

WHEREAS, the Board approved, at its April 18, 2019 meeting, certain modifications to the Master Agreement;

WHEREAS, staff recommends the Board approve: (i) further amendments to the Master Agreement (including, but not limited to, an increase of Green Bank's commitment by $1,111,112) as more particularly described in that certain memorandum dated July 11, 2019 and submitted to the Board, and (ii) an assignment of all of Green Bank's interest in the Master Agreement and all SBEA loans previously purchased thereunder to CEFIA Holdings, LLC, Green Bank's wholly owned subsidiary;

NOW, therefore be it:

RESOLVED, that the President of the Green Bank and any other duly authorized officer of the Green Bank, is authorized to execute and deliver any amendment to the Master Agreement and assignment thereof to CEFIA Holdings, LLC materially consistent within the memorandum submitted to the Board dated July 11, 2019 and as he or she shall deem to be in the interests of the Green Bank and the ratepayers no later than 270 days from the date of authorization by the Board; 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.

Submitted by: Bryan Garcia, President and CEO; Bert Hunter, EVP and CIO; Mackey Dykes, Vice President, Commercial, Industrial & Institutional Programs; Alex Kovtunenko, Senior Counsel, Commercial, Industrial and Institutional Programs

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CONNECTICUT GREEN BANK

CONFIDENTIAL TO THE BOARD OF DIRECTORS

(ACTIVE FINANCING FACILITY PROPOSAL UNDER NEGOTIATION)

Memo

To: Connecticut Green Bank Board of Directors

From: Bert Hunter, EVP and CIO and Louise Venables, Senior Manager, Clean Energy Finance

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

Date: July 12, 2019

Re: Impact Investor – Small Business Energy Advantage Program

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Purpose

This memo seeks approval from the Connecticut Green Bank ("Green Bank") Board of Directors (the "Board") for Green Bank or one of Green Bank's wholly-owned special purpose entities ("SPE") to enter into an agreement with the New York Quarterly Meeting of the Society of Friends (QMSF), or an organization related to QMSF, for an impact investment of up to $1,000,000 (the "QMSF Impact Investment") whereby the QMSF Impact Investment would be used in order to reinvest funds in other Green Bank investments, programs or its operations. This transaction was considered by the Green Bank's Deployment Committee (the "Deployment Committee") during its meeting held July 12, 2019. For reasons due to it this transaction being a Strategic Selection and Award and in accordance with Green Bank Operating Procedures, the Deployment Committee has referred this transaction to the Board for consideration.

The QMSF initially approached Green Bank's spin-off entity: Inclusive Prosperity Capital ("IPC") with respect to a Program Related Investment. QMSF and IPC have both approved the PRI and are in the process of documenting the investment.

QMSF is the Quarterly Meeting for the Monthly Meetings in New York City of the Religious Society of Friends (QMSF), including Fifteenth St., Brooklyn, Flushing, Morningside, Manhattan and Staten Island. (The Religious Society of Friends is also referred to as "Quakers" or "Friends".) The Quarterly Meeting office is in the building alongside the Fifteenth St. Meetinghouse at 15 Rutherford Place, New York, NY. The Religious Society of Friends has had a historic commitment to social justice and charity. Friends have been active in the abolition of slavery, the advancement of equal rights for women, fairness in immigration, and ending war. Friends commitment to simplicity—to resisting materialism and consumerism—finds expression today in work on behalf of sustainability. It is this commitment to sustainability that attracted QMSF to IPC and Green Bank in search of suitable impact investments.

At the same time, and following from Green Bank's strategic meetings in 2019, Green Bank seeks to attract more impact investors to Green Bank's activities. Similar to funding facilities Green Bank has arranged over the years, such as with Mosaic, The Reinvestment Fund, Webster Bank, Liberty Bank and Amalgamated Bank, the Finance Team has discussed with QMSF an impact investment supported by a general obligation of Green Bank (or a Green Bank SPE) together with cash flows from specific investments. In NYQM's case, the suitable investment was determined to be the Small Business Energy Advantage portfolio of loans acquired with Amalgamated Bank. The pledge would be of the economic interests held by Green Bank or the Green Bank SPE in the portfolio of loans, but not a pledge of the ownership of the loans themselves. This is necessary as this is a "non-exclusive" pledge so as to enable Green Bank to potentially invite other impact investors into the arrangement if desired in future.

Green Bank is pursuing this arrangement and approval from Board on the basis of a Strategic Selection. The proposed impact investment satisfies three criteria of the Strategic Selection and Award process of Green Bank operating procedures, namely: (1) uniqueness, (2) strategic importance and (3) urgency and timeliness:

(1) Uniqueness
The Green Bank has yet to arrange an impact investment with a foundation whereby the investment can be directed by the goals of Green Bank rather than by the foundation. In this case, the Green Bank desired to test the waters with an investor open to a variety of collateral support, but with a preference by Green Bank to use shorter-term assets so as to progress up the maturity ladder to longer dated investments which would be more complex to structure.

(2) Strategic Importance
At the strategic meetings earlier this year, it was agreed that Green Bank needed to diversify funding sources to include foundations and other impact investors, including green bonds. QMSF offers the opportunity to test this strategy with a limited impact investment up to $1 million.

(3) Urgency and Timeliness
The QMSF is very motivated to move quickly – following on with its PRI with IPC. Moving quickly we can secure this impact investment and use it to test the interest of other impact investors.

Background

On October 26, 2018, the Green Bank Board of Directors (the "Board") passed resolutions approving up to $5 million for the Green Bank to finance a portfolio of Small Business Energy Advantage Loans with Amalgamated Bank (the "SBEA Facility"). In December 2018, the Board increased this limit by a further $560,000. The SBEA Facility was executed in December 2018 and 2 purchases of loans have taken place (~$48 million). Green Bank's share of this loan portfolio is approximately $4.8 million with funding by the Green Bank of approximately $4.4 million.

Business need for a Revolving Credit Facility

Shortly following the announcement of the budget sweeps, the VP Finance and Administration (the "VP F/A") and the Chief Investment Officer (the "CIO") together with their teams assessed future liquidity needs of the Green Bank given the material redirection of funding that needs to pass from the Green Bank to the

General Fund prior to the end of FY2018 ($14 million in June 2018) and during FY2019 (approximately $1.167 million each month).

Related to the need for liquidity are covenants associated with guaranties by the Green Bank to various financial institutions, notably US Bank under the Solar Lease 2 and Solar Lease 3 facilities (required minimum cash balance of $4 million).

The VP Finance and Administration and CIO jointly determined the benefits to the Green Bank of a short term revolving credit facility and to diversify funding sources. To this end, Green Bank secured a $5 million line of credit from Amalgamated Bank. The up to $1 million impact investment would augment the access to funds with access to liquidity for additional investment in accordance with the proposed FY2020 budget.

QMSF and Green Bank are negotiating the terms of the impact investment. It would be best structured through an SPE. If a guarantee of Green Bank is desired, additional conditions may apply to the impact investment yet to be negotiated but which would be explored with counsel.

The effective interest rate for the impact investment would the SBEA yield ***less*** 100 basis points.

Conclusion & Recommendation

The QMSF Impact Investment offers a unique opportunity for Green Bank to test and shape an impact investment with a willing impact investor. The effective funding rate for the Green Bank is LIBOR +[REDACTED]% which is less than the LIBOR [REDACTED]% recently agreed with Amalgamated Bank.

At the same time, through discussions with members of the Deployment Committee, staff recognizes the benefits of a process that would open the door of the Green Bank to a broader array of impact investors to supplement funding sources for the Green Bank and diversify the Green Bank's base of stakeholders.

Accordingly, while staff seeks approval for the transaction with QMSF given the uniqueness of the opportunity and the competitive pricing available, and staff recommends this impact investment to the Board for approval, staff will develop a process in collaboration with members of the Deployment Committee for opening the door of the Green Bank to impact investment for the Board's approval prior to the end of calendar year 2019.

Strategic Plan

Is the program proposed, consistent with the Board approved Comprehensive Plan and Budget for the fiscal year?

Yes – the proposed facility enables Green Bank to fund advances in respect of various programs active under Green Bank's Comprehensive Plan (C-PACE, Commercial Solar PPA, SBEA, etc.).

Ratepayer Payback

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

N/A (funds from the Impact Investment are being borrowed, not advanced)

Terms and Conditions

What are the terms and conditions of ratepayer payback, if any?

N/A (funds from the Impact Investment are being borrowed, not advanced); however, see **Appendix I – Term Sheet** for terms of the Impact Investment.

Capital Expended

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

N/A (funds from the Impact Investment are being borrowed, not advanced)

Risk

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

N/A (funds from the Impact Investment are being borrowed, not advanced)

Financial Statements

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

When funds are borrowed:

$x	Debit: Cash		
	$x	Credit: Short Term Borrowings	

When funds are repaid:

$x	Debit: Short Term Borrowings		
	$x	Credit: Cash	

Target Market

Who are the end-users of the engagement?

The end users of the Impact Investment are Green Bank as well as the underlying programs and projects that receive short-term funding from the underlying line of credit.

Green Bank Role, Financial Assistance & Selection/Award Process

The Green Bank role is as the borrower, and QMSF was chosen as the lender via Strategic Selection and Award process.

Program Partners

New York Quarterly Meeting of the Society of Friends

Risks and Mitigation Strategies

The main risk associated with the Impact Investment is that, in the event of default by the Green Bank, the amount outstanding under the facility becomes due. Such repayment risk is mitigated by the following structural components of the Impact Investment:

1.) The Green Bank is able to repay the Impact Investment with available cash held in accounts on its balance sheet, and given the overall health of the Green Bank's long-term balance sheet position, there is ample coverage in the form of available net assets relative to the size of the line of credit to raise other credit facilities if needed.

2.) Because the Impact Investment is short-term in nature, to be used in between a financing opportunity and a capital sourcing/monetization event, there is less uncertainty with regards to the economic position of the Green Bank while amounts drawn are outstanding relative to other types of longer-term credit facilities. The Green Bank will operationalize the utilization of the Impact Investment so that a definitive "source" of short term revenue is identified to repay the "use" of the Revolving Credit Facility within the requirements of the definitive transaction documentation.

Resolutions

WHEREAS, Connecticut Green Bank ("Green Bank") staff has submitted to the Green Bank Board of Directors (the "Board") a proposal for Green Bank or one of Green Bank's wholly-owned entities ("SPEs") to enter into an agreement with the New York Quarterly Meeting of the Society of Friends (QMSF), or an organization related to QMSF, for an impact investment of up to $1,000,000 (the "QMSF Impact Investment") whereby the QMSF Impact Investment would be used in order to reinvest funds in other Green Bank investments, programs or its operations; and

WHEREAS, the QMSF satisfies three criteria of the Strategic Selection and Award process of Green Bank operating procedures, namely: (1) uniqueness, (2) strategic importance and (3) urgency and timeliness;

WHEREAS, along with a general repayment obligation by the Green Bank (or, if such obligation of general repayment is by a Green Bank SPE, a general repayment obligation by such SPE together with, if necessary, a guarantee of the Green Bank), QMSF would be secured by a general non-exclusive pledge of a portfolio of loans owned in part by Green Bank or its SPEs together with their related cash flows associated with the Small Business Energy Advantage financing facility;

WHEREAS, Green Bank staff recommends that the Board approve the proposed QMSF Impact Investment, generally in accordance with memorandum summarizing the QMSF Impact Investment and the terms of the summary term sheet, both presented to the Board on July 12, 2019; and

WHEREAS, Green Bank would benefit from a process that would open the door of the Green Bank to a broader array of impact investors to supplement funding sources for the Green Bank and diversify the Green Bank's base of stakeholders;

NOW, therefore be it:

RESOLVED, that the Board approves Green Bank (or one of its wholly-owned SPEs on behalf of Green Bank and, if necessary, with a guarantee of the Green Bank) to enter into the QMSF Impact Investment as a strategic selection;

RESOLVED, that the Board directs staff to develop a process in collaboration with members of the Deployment Committee for opening the door of the Green Bank to impact investment for the Board's approval prior to the end of calendar year 2019;

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 QMSF Impact Investment 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 effect the above-mentioned legal instrument or instruments.

Submitted by: Bert Hunter, EVP and CIO and Louise Venables, Senior Manager, Clean Energy Finance

Appendix I – Term Sheet

Summary Term Sheet

QMSF Impact Investment

1. **Borrower:** Connecticut Green Bank / Green Bank SPE ("SPE")

2. **Guarantor:** Connecticut Green Bank (if applicable)

3. **Amount and Loan Type:** Up to $1,000,000 Impact Investment

4. **Purpose:** Provide for working capital

5. **Interest Rate:** Blended yield on the Collateral ***less*** 100 basis points

   The present yield to QMSF would be 3.4% (roughly 1.4% over the 1 year UST). SBEA gross yield goes from a fixed 4.4% on the first $42m of loans to 1M LIBOR +2.25% on further loans - so QMSF net yield would be LIBOR +1.25%.

   The incremental loans (after the initial purchase of $42m) are pricing at about 2.3% (LIBOR) +2.25% = 4.55% (QMSF net 3.55% … and blended with the slightly higher spread loans brings the yield to ~3.42%).

   QMSF can exit annually on 90 days notice – which means Green Bank pays QMSF irrespective of the performance of the underlying pool.

6. **Maturity:** 1 year from initial investment the closing date

7. **Repayment**: participation on the following basis:

   a. One year secured participation automatically renewable for two additional years but with a call at QMSF option annually upon 90-days notice (in other words, if QMSF does not call back their funds, the facility renews for a further year, with an additional call in the second year);
   b. CGB would retain a 1% skim with full risk in the underlying SBEA assets

8.	**Payments:**	TBD (Interest-only in arrears)
9.	**Collateral:**	i. General repayment obligation of the Connecticut Green Bank or its SPE ii. Pledge of the revenues associated with the Small Business Energy Advantage portfolio iii. (Optional if Borrower is SPE) Guarantee of Green Bank

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Connecticut Green Bank Solar PPA Program Update – Inclusive Prosperity Capital Construction Finance Facility

Due Diligence Package

July 11, 2019

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

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

Program Qualification Memo

To: Connecticut Green Bank Board of Directors

From: Louise Venables, Associate Director, Clean Energy Finance; Bert Hunter, EVP & CIO

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

Date: July 11, 2019

Re: Connecticut Green Bank Solar PPA Program Update – IPC Construction Financing Facility

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Purpose

The purpose of this memo is to request approval from the Connecticut Green Bank ("Green Bank") Board of Directors (the "Board") to establish a construction financing facility with Inclusive Prosperity Capital, Inc. ("IPC"). This facility will support the Green Bank's participation in various financing and development roles with respect to commercial solar photovoltaic ("PV") PPA projects within Connecticut – specifically, roles that the Green Bank has played at various times in the past and is continuing to operate across, for the benefit of both the Green Bank and the Connecticut market, per the authority granted by the Board on October 19, 2018. Since its spin-out from the Green Bank in August 2018, IPC has been developing its Green Bank Solar PPA Program, a platform to own and operate commercial scale solar PV systems for a variety of end users throughout the United States with a near-term focus on the Connecticut market for the Green Bank under the PSA for this product executed in August 2018 by Green Bank and IPC. This program enables property owners and lessees (with owner authorization), especially non-profit, affordable multifamily, governmental and faith-based institutional property owners, the ability to purchase electricity from third-party owned ("TPO") solar PV and storage systems installed on their property. IPC in turn, by means of its own growth strategy and partnership formations in developing the program, is attracting additional financing and development players into Connecticut, such as Sunwealth Power, Inc. ("Sunwealth"), a Massachusetts-based commercial solar developer who can bring development capital, term financing, and tax equity to a diverse array of small projects with unconventional credit profiles[1] and Coastal Enterprises Inc., a Maine-based CDFI[2].

Once IPC's Green Bank Solar PPA Program kicks off, it is the intent of IPC to play a collaborative role with the Green Bank in supporting CT's commercial solar market. The role of the Green Bank necessarily changes away from (a.) having to be a foundational player that sets and communicates out a specific financing structure in order to move projects forward and towards (b.) being a "bridge" player that leverages ratepayer capital through multiple structures and platforms in order to continue to drive access to capital and cost savings to customers, as the market builds momentum and scales towards fully private capital solutions. Importantly, the Green Bank continues to develop a strong pipeline of commercial solar PPA projects in this evolving market, due to institutional knowledge derived over time, as well as a network of relationships with developers, customers, and key local players who facilitate project origination. By continuing to develop a strong pipeline of projects, the Green Bank will nurture a revenue

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[1] https://www.sunwealth.com/

[2] https://www.ceimaine.org/about/

stream that supports its sustainability goals: in return for its market expertise, the Green Bank will receive development/origination fees and interest income from term debt financing by feeding projects into IPC's Green Bank Solar PPA Program. The Green Bank will ensure that such fees and income will be comparable with current Green Bank commercial PPA business terms. The $5 million construction lending facility will only be drawn down if the above condition is met, otherwise alternative partners could be sought to ensure the Green Bank's financial sustainability objectives are met.

Staff is thus seeking approval to continue to deploy capital towards commercial solar PV PPA projects in Connecticut. Specifically, Staff seeks approval of a $5 million construction lending facility which IPC will draw down against to develop and construct commercial scale solar PV projects in Connecticut. This facility will be structured, priced and administered in line with financing roles that the Green Bank has played in the past via the C-PACE program and the Groton Fuel Cell project, for example. The following sections herein further detail this facility, including the structuring, operational and economic considerations.

Background and Context

The Green Bank has successfully run two commercial solar PPA funds, CT Solar Lease 2 LLC ("SL2") and CT Solar Lease 3 LLC ("SL3"), through which the Green Bank previously developed and now continues to own and operate projects via an ownership platform that was capitalized by a combination of ratepayer funds and 3rd-party capital providers (including local bank financing and tax equity investment). In addition, the Green Bank entered into sourcing and servicing arrangements with Onyx Renewable Partners ("Onyx"[3]) and Sunwealth, under which the Green Bank has developed projects and then sold those projects into Onyx- and Sunwealth-owned ownership platforms.[4]

The following table summarizes the number and capacity of projects deployed into each of those fund structures, along with projects that are currently in development with the Green Bank but not yet designated for a final financing structure:

[redacted]

The 102 completed projects detailed in the table above are reducing the energy burden on the PPA customers. The PPA rates are as much as 40% lower than the customers' utility rates were at the time the projects were initiated, representing significant financial savings.

Projects currently in development represent strategic assets that the Green Bank can monetize via different financing structures and ownership vehicles as the Green Bank deems to be in the best interest

[3] Onxy Renewables is a Blackstone (private equity) portfolio company

[4] A similar arrangement with Coastal Enterprises Inc. is in documentation

of both the Green Bank itself and the broader market, as dictated by project fundamentals, partner strengths, and market conditions. The ability to monetize projects without the restrictions of a single financing structure means that the Green Bank can continue to develop a pipeline of projects, to the benefit of both the Green Bank and the development / financing landscape that we are working to support for the benefit of Connecticut's GHG, carbon reduction and environmental goals. It should also be noted that as the commercial solar PV market transitions from a net metering and ZREC-LREC incentive policy to a "tariff-based" approach, the Green Bank having an operating partnership in place with IPC's Green Bank Solar PPA Program will assist the market in its transition to this tariff-based structure. The requested approval for a $5M construction financing facility is a crucial step in launching that partnership.

Parameters for Construction Financing

Pursuant to the approval granted by the Board in October 2018, for the Green Bank to continue participating in various financing roles in the Connecticut commercial solar market, including the role of construction lender, Green Bank staff requests authorization to deploy short-term capital for construction purposes with its sister entity, IPC. As a nascent, mission-driven platform, IPC's efforts to support underserved customers within the commercial solar sector are dependent on securing efficient financing and tapping into reliable development pipelines. This arrangement will allow the Green Bank to deploy short term capital at a market rate return, as well as support the parallel revenue streams from development/origination fees and interest income from term loans to IPC as a third-party owner-operator of commercial solar assets. This deployment of capital into commercial solar construction activities is identical to the funding that CEFIA Holdings provided for this same construction activity before the transition of the commercial solar PV development business from the Green Bank to IPC agreed by the Board in 2018 when the IPC spin-off was approved.

An example of how this partnership will work in practice is the relationship between the Green Bank and Onyx, who have enjoyed a sourcing and servicing partnership since February 2017. Under the Commercial Solar Project Sourcing & Servicing Agreement (the "Onyx Agreement"), the Green Bank originates commercial PPA projects and provides continuing C-PACE related administrative services for C-PACE secured PPA projects. The Onyx Agreement was set to expire on September 30, 2018; however, due to its success, the parties extended it by an additional year, to September 30, 2019. Under this extension, Onyx financed commercial PPA projects originated by the Green Bank that are greater than 500kW AC and meet a defined hurdle IRR in exchange for agreed upon sourcing and referral fees. By way of reference, the Green Bank has, to date, earned more than $[REDACTED] in sourcing fees associated with the first [REDACTED] MW+ of projects originated under the Onyx Agreement. Under the planned IPC partnership, Green Bank staff anticipates a similarly successful arrangement, augmented by the additional revenue stream of interest income from the requested construction facility.

Capital deployed under the construction finance facility would be subject to the following terms:

- **<u>Investment Type</u>**: Short-term debt, maximum tenor of 24 months with the option for Green Bank to renew the facility prior to its expiration;
- **<u>Investment Return Profile</u>**: Market returns based upon underlying project cash flows, with an expectation for a full, short-term return of capital. Loans would be advanced at multiple draw request points as projects demonstrate achievement of Green Bank-approved milestones. Interest will be capitalized and repaid in full along with the loan amount once the project receives

permanent financing in the form of term debt and tax equity, expected at or near the commercial operation date. Interest rate to be set at 5% in line with the Green Bank's progress payment facilities for Commercial PACE and the Investment Risk Profile;

- **Investment Risk Profile:** Standard development risk (principally, for projects of this size / credit quality, a lack of potential term financing) to be mitigated either through a solution for unconventional credits (such as C-PACE), or via a predetermined credit box with IPC. Green Bank staff anticipate alignment on project underwriting with IPC as IPC's underwriting criteria are largely built on those of the Green Bank for projects of this size / credit quality (see Exhibit A);
- **Investment Amount:** Not to exceed $5 million in revolving funds.

Green Bank Participation and Financial Benefit

Structure Diagram

The diagram below, represents the scenario in which the Green Bank provides a construction financing facility to IPC, which is drawn upon for a project being developed by IPC from the Green Bank's commercial solar pipeline. To avoid confusion, this structure diagram does not depict interactions or cashflows related to the Green Bank providing other forms of financing to IPC via, for example, debt directly to the solar project or back-leverage to the project sponsor (though IPC and Green Bank may explore such an arrangement in the future). To ringfence projects eligible for Green Bank construction financing, IPC will set up a dedicated entity ("Connecticut DEV Co." below). **For the avoidance of doubt, other exact structures on the IPC side are indicative only.**

[redacted]

Ratepayer Payback

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

At a level of $5 million of construction credit deployed, expected generation would be approximately 140 GWh over 25 years from an anticipated 5 MW of solar PV systems constructed each year,[5] resulting in 28 kWh deployed per ratepayer dollar at risk. Given this is a revolving facility, the same ratepayer dollars would generate an additional 28 kWh/$ every year they are deployed as construction credit.

Financial Statements

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

The capital deployed by the Green Bank as authorized herein will result in a decrease in Unrestricted Cash on the Green Bank's balance sheet and an equivalent increase in either a) short- or long-term promissory

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[5] Assuming $5 million is used for 100% of a project's construction costs, with an average built cost of $2.00/W, average project yields of 1,200 kWh / kW and an average construction time of 6 months and panel degradation of 0.5%/year

notes receivable. Interest income will be recognized in the Statement of Revenues, Expenditures and Changes in Net Position.

Risk to Ratepayer Funds

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

The maximum risk exposure of ratepayer funds for the program is a not-to-exceed amount of $5 million, in the form of construction debt capital provided to IPC. This facility is part of the $15 million Solar PPA Program Platform that was approved by the Board on October 19, 2018.

Target Market

Who are the end-users of the engagement?

The construction credit facility will be used by IPC as part of its Green Bank Solar PPA Program - which the Green Bank has transitioned over to IPC as part of its strategy – to finance the construction phase of PV systems for commercial, municipal, and institutional PPA off-takers within the state of Connecticut, particularly of benefit to nonprofits and unrated small and medium-sized businesses and corporates that might otherwise struggle to access solar PV in the current market environment.

Green Bank Strategic Alignment

Providing construction finance to IPC is of strategic importance to the Green Bank. The construction financing opportunity exhibits the following criteria, which are required of all Green Bank strategic selection and award investments:

- **Special Capabilities –** As a spin-out from the Green Bank, IPC and its staff have significant experience in the development and financing of renewable energy projects within Connecticut, including deep knowledge of the permitting, utility, and incentive processes involved as well as the network of available engineering, procurement and construction (“EPC”) and operations and maintenance providers. Moreover, the Green Bank’s close working relationship with IPC will minimize transaction costs and startup challenges as the Green Bank Solar PPA Program is rolled out and the construction financing facility is utilized

- **Uniqueness –** IPC is aligned with the Green Bank’s mission to enable increased access to renewable energy throughout the state of Connecticut and the partnership of the two organizations under IPC’s Green Bank Solar PPA Program will enable the Green Bank to secure a route to energize small-scale projects and credit-challenged customers. These customers might otherwise be unable to attract financing and benefit from entering into solar PPAs.

- **Strategic Importance –** The requested construction finance facility will enable the Green Bank to deploy short-term capital at a market rate of return with minimal incremental risk (vs the existing construction financing arrangement via CEFIA Holdings), and will also enable another Green Bank revenue stream via project development/origination fees.

- **Multiphase Project –** A construction finance facility is critical first step in IPC’s ability to develop and construct the first projects under its Green Bank Solar PPA program. As IPC builds its portfolio of commercial solar assets, there are likely to be follow-on opportunities for the Green Bank to provide term loans or sponsor equity for IPC’s commercial solar platform.

Program Partners

The Green Bank is offering the construction credit facility contemplated herein to its existing partner IPC as part of the transitioning of the Commercial Solar PPA program to IPC. IPC will use the funds to pay EPC contractors and for other Green Bank-approved construction costs as relevant.

IPC's Solar PPA Program Policies and Procedures are attached Exhibit A to this memo. The EPC contractors IPC will partner with might vary across projects, they will however always satisfy the 'Contractor Eligibility Criteria' as set out in Appendix C of the attached Policies & Procedures document.

Program Risks and Mitigation Strategies

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

Market and Origination Risk:

Risks:

- Green Bank is unable to originate enough qualified projects resulting in low utilization of the construction credit facility
- If the pricing of future PPAs developed by the Green Bank is materially different from existing projects due to partner return requirements, the market may not be able to support pricing
- Public policy changes (e.g., from net metering to a tariff) that have an adverse impact on energy savings to end-use customers

Mitigation Strategy:

- Continued reliance on the Green Bank's institutional knowledge derived over time, as well as a network of relationships with developers, customers, and key local players to facilitate project origination
- Close collaboration with IPC and flexibility on both construction and term loan rates by the Green Bank to make more projects financially viable
- Advocating appropriate tariff rates before PURA for behind the meter solar PV that balance ratepayer impact with end-use customer savings

Structural risk:

Risks:

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

Mitigation Strategy:

- IPC will create a separate SPE "Connecticut DEV Co." above to ringfence projects that are (i) in Connecticut, (ii) pre-construction, and (iii) meet the Green Bank / IPC agreed upon underwriting criteria and (iv) will be construction-financed solely by the requested Green Bank construction finance facility, thus avoiding any other entity having claim to assets or cash flows related to projects financed by the Green Bank
- The Green Bank construction loan will be secured by the underlying project assets owned by the "Connecticut DEV Co." in addition to IPC's equity interests in Connecticut DEV Co.

Credit Risk:

Risk:

- The project financed for construction fails to secure term financing

Mitigation Strategy:

- Projects are originated by the Green Bank with terms agreed to with IPC based on the Green Bank's experience and well understood credit requirements from term lenders, this is especially true given the Green Bank's interest in being the term lender for such projects themselves and can hence incorporate exact requirements at the origination stage
- Following underwriting guidelines mirroring the Green Bank's successful track record, including the use of well-established technologies and equipment (See Exhibit A)
- Availability of data from years of similar transactions in the Connecticut market enabling lenders to quantify the risk involved
- Utilizing term lenders who have provided term financing for similar projects in Connecticut over the past years including the Green Bank itself as well as IPC's ongoing cultivation of a diverse set of potential providers
- IPC staff's experience and comfort with providing appropriate credit enhancements such as C-PACE as necessary
- IPC expects permanent financing, including term debt, tax equity and sponsor investment to be arranged before the requested construction facility is drawn upon, enabling IPC and the Green Bank early visibility into the financing requirements for each project and limiting the likelihood a constructed project is rejected by the tax equity or term debt provider
- If IPC fails to secure term financing for projects once constructed, the Green Bank can exercise its appropriate rights to its collateral of the underlying project assets owned by the "Connecticut DEV Co." as well as IPC's ownership of the equity interests of Connecticut DEV Co.

Development Risk:

Risk:

- Projects developed via IPC's "Connecticut DEV Co." fail to reach completion

Mitigation Strategy:

- Continuation of Green Bank best practices and related experience at IPC, such as on project pricing, early fatal flaw analysis, rigorous negotiation of documentation, conditions precedent to construction, permissions, and contractor oversight
- IPC utilizing EPC contractors that have a successful track record in Connecticut including contractors the Green Bank is already using for such purposes
- All contractors being subject to rigorous vetting based on well defined criteria as set out in Appendix C 'Contractor Eligibility Application' of the attached Exhibit A 'Policies & Procedures document of IPC's Solar PPA program'
- Use of well-established equipment and technologies matched with contractors with experience with the same

Resolutions

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

WHEREAS, the Green Bank has established a strategic partnership with Inclusive Prosperity Capital Inc. ("IPC") for development and long-term ownership of commercial solar PPA projects originated by the Green Bank in order to leverage private capital and free up resources for the Green Bank;

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

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

NOW, therefore be it:

RESOLVED, that the Board of Directors approves funding, in a total not-to-exceed amount of $5 million in new credit, subject to budget constraints, for a revolving construction financing facility provided by Green Bank to IPC to be utilized for the construction of commercial solar PPA projects in Connecticut.

RESOLVED, that the President of Green Bank; and any other duly authorized officer of Green Bank, is authorized to execute and deliver, any contract or other legal instrument necessary to create such facility and authorize advances from it on such terms and conditions as are materially consistent with the memorandum submitted to the Green Bank Board on July 18, 2019; and

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

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

Exhibit A
IPC Green Bank Solar PPA Program Policies and Procedures

[Attached]

Plus other exhibits mentioned in the memorandum

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Connecticut Green Bank Solar PPA Program Updates

Revised Due Diligence Package

July 9, 2019 (originally circulated: October 19, 2018)

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

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

Program Qualification Memo

To: Connecticut Green Bank Board of Directors

From: Bert Hunter, EVP & CIO; Mariana Cardenas, Consultant, Clean Energy Finance; Louise Venables, Assistant Director, Clean Energy Finance;

Deleted: Laura Fidao, Senior Manager;

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

Date: July 9, 2018 (originally circulated October 19, 2018)

Re: Connecticut Green Bank Solar PPA Program Updates

Purpose

The purpose of this memo is to request approval from the Connecticut Green Bank ("Green Bank") Board of Directors (the "Board") to confirm the authority of the Green Bank to participate in various financing and development roles with respect to commercial solar photovoltaic ("PV") PPA projects within Connecticut – specifically, roles that the Green Bank has played at various times in the past and now would like to continue to operate across, for the benefit of both the Green Bank and the Connecticut market. In the past few years, as the commercial solar sector has evolved more generally, there have been new entrants into the commercial solar market in Connecticut who can contribute to financing and developing projects, including – just for the most "close to home" example – the Green Bank's recent spin-out entity Inclusive Prosperity Capital, Inc. ("IPC"). IPC in turn, by means of its own growth strategy and partnership formations, is attracting additional financing and development players into Connecticut, such as Sunwealth Power, Inc. ("Sunwealth"), a Massachusetts-based commercial solar developer who can bring development capital, term financing, and tax equity to a diverse array of small projects with unconventional credit profiles[1].

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

With the ability to determine, based on project fundamentals, partner strengths, and market conditions, how the Green Bank ultimately participates in specific projects and fund structures (e.g. whether via (i.) providing development and construction capital, or (ii.) providing term financing in the form of either debt or equity to projects developed by CEFIA Holdings LLC ("Holdings") and sold to a 3rd party platform (e.g.

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[1] https://www.sunwealth.com/

IPC or Sunwealth)), the Green Bank can optimize the use of ratepayer funds for leveraging private capital and developing quality projects to benefit local communities.

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

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

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

Background and Context

The Green Bank has successfully run two commercial solar PPA funds, CT Solar Lease 2 LLC ("SL2") and CT Solar Lease 3 LLC ("SL3"), through which the Green Bank previously developed and now continues to own and operate projects via an ownership platform that was capitalized by a combination of ratepayer funds and 3rd-party capital providers. In addition, and most recently, the Green Bank entered into a sourcing and servicing arrangement with Onyx Renewable Partners ("Onyx"), under which the Green Bank has developed projects and then sold those projects into an Onyx-owned ownership platform. The following table summarizes the number and capacity of projects deployed into each of those fund structures, along with projects that are currently in development with the Green Bank but not yet designated for a final financing structure:

[redacted]

With the addition of new entrants and evolving market dynamics, as summarized in the "Purpose" section above, projects currently in development represent strategic assets that the Green Bank can monetize via different financing structures and ownership vehicles as the Green Bank deems to be in the best interest of both the Green Bank itself and the broader market, as dictated by project fundamentals, partner strengths, and market conditions. The ability to monetize projects without the restrictions of a single financing structure means that the Green Bank can continue to develop a pipeline of projects, to the benefit of both the Green Bank and the development / financing ecosystem that we are working to

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support. It should also be noted that as the commercial solar PV market transitions from a net metering and ZREC-LREC incentive policy, that the Green Bank having a financing product in place will assist the market in its transition to a tariff-based structure.

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

Parameters for Financing 3rd-Party Ownership Platforms

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

Green Bank staff has expertise in developing PPA projects, selling them to third party owners and subsequently structuring term financing, as it is the type of investment that the Green Bank has done before (most specifically via the term debt authority embedded in our Onyx Agreement, further discussed below), and the Green Bank's position in this role represents a stepping stone in further market evolution towards fully private capital solutions (i.e. the market has evolved to the point where 3rd-party sponsors are willing to own the types of underserved and unconventional credits typically served by the Green Bank, but the fund-level economics still need a boost from the Green Bank in order to deliver project savings to the customers).

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

- **Investment Type**: Debt (likely) or Equity (opportunistically);
- **Investment Return Profile**: An investment IRR not less than Green Bank return requirements across comparable investments (e.g. a C-PACE equivalent note yielding a C-PACE equivalent rate) nor more than a private investment in a similar facility given the risk-return expectations of the project portfolio;
- **Investment Risk Profile:** Underlying security, cashflow coverage, collateral, or otherwise equivalent to Green Bank risk requirements across comparable investments (e.g. a C-PACE equivalent IRR and structure carrying a C-PACE equivalent [over]collateral profile);
- **Investment Amount:** Anticipated to constitute no less than $5 million of the total not-to-exceed amount of $15 million in new money authorized herein, subject to budget constraints.

Parameters for Development Capital and Construction Financing

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

Green Bank staff therefore requests continuing authorization, pursuant to the Board approvals most recently granted at the Board's August 21, 2018 meeting, for the Green Bank to maintain its ability to deploy short-term capital for development and/or construction purposes. An example of how this works in practice is the relationship between the Green Bank and Onyx, who have enjoyed a sourcing and servicing partnership since February 2017. Under the Commercial Solar Project Sourcing & Servicing Agreement (the "Onyx Agreement"), the Green Bank originates commercial PPA projects and provides continuing C-PACE related administrative services for C-PACE secured PPA projects. The Onyx Agreement was set to expire on September 30, 2018; however, due to its success, the parties are in the process of extending it by an additional year, to September 30, 2019. Under this extension, Onyx will finance commercial PPA projects originated by the Green Bank that are greater than 500kW AC and meet a defined hurdle IRR in exchange for agreed upon sourcing and referral fees. By way of reference, the Green Bank has, to date, earned more than $[REDACTED] in sourcing fees associated with the first 9 MW+ of projects originated under the Onyx Agreement.

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

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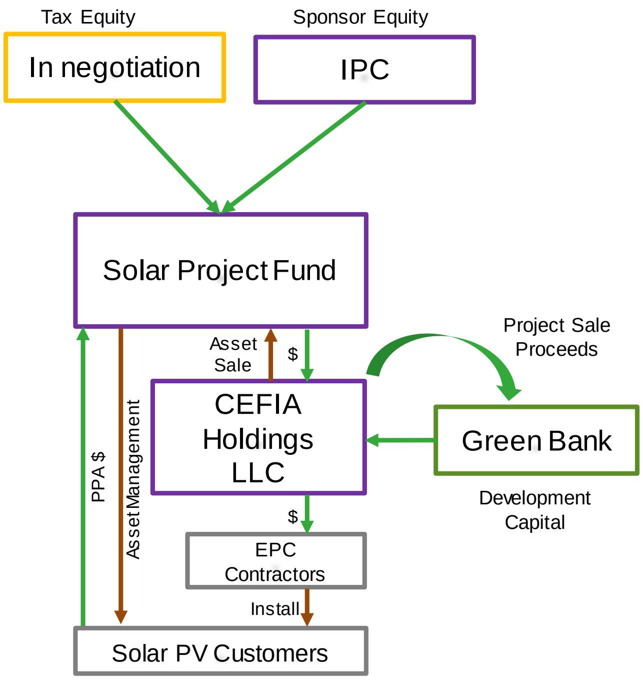
Capital deployed under this construct would be subject to the following terms:

- **Investment Type**: Debt (opportunistically) or Equity (likely);
- **Investment Return Profile**: Market returns based upon underlying project cash flows, with an expectation for a full, short-term return of capital plus either a reasonable developer markup or a sourcing fee / rights to residual cash flows depending on partnership structure;
- **Investment Risk Profile:** Standard development risk (principally, for projects of this size / credit quality, a lack of potential term financing) to be mitigated either through an internal Green Bank solution for unconventional credits, or via a predetermined credit box with one or more long-term 3rd-party owners;
- **Investment Amount:** Anticipated to constitute approximately $5 million in revolving funds, out of the total not-to-exceed amount of $15 million in new money authorized herein, subject to budget constraints.

Green Bank Participation and Financial Benefit

Structure Diagram

The diagram below, taken from the August 21, 2018 memo to the Board of Directors, represents the world in the instance where the Green Bank provides development financing and actively develops a project itself. To avoid confusion, rather than providing multiple diagrams, the authorizations requested in this memo would also allow the Green Bank to provide financing to a 3rd-party owner (in the case below, IPC) via, for example, debt directly to the solar project fund or back-leverage to the project sponsor.



Ratepayer Payback

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

At a level of $10 million of term capital deployed, expected generation would be approximately 240 GWh over 25 years from an anticipated REDACTED MW of solar PV systems,[2] resulting in 240 kWh deployed per ratepayer dollar at risk.

Financial Statements

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

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

Risk to Ratepayer Funds

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

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

The maximum risk exposure of ratepayer funds for the program is a not-to-exceed amount of $15 million (subject to budget constraints), which may be development capital, construction or term debt capital to a 3rd-party solar project owner, or sponsor equity for a retained project.

Target Market

Who are the end-users of the engagement?

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

Program Partners

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

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

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

Program Risks and Mitigation Strategies

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

Market and Origination Risk:

Risks:

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

Mitigation Strategy:

- Flexible approach to capitalizing these projects such that there are multiple potential partners available for term financing (including IPC), with the option for the Green Bank to place long-term debt (in addition to providing development capital) to ensure return hurdles are hit while retaining attractive pricing for customers

- Advocating appropriate tariff rates before PURA for behind the meter solar PV that balance ratepayer impact with end-use customer savings

Structural risk:

Risks:

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

Mitigation Strategy:

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

Credit Risk:

Risk:

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

Mitigation Strategy:

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

System Performance Risk:

Risk:

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

Mitigation Strategy:

- Strict EPC approval requirements ensuring EPCs have adequate experience, insurance, and finances to undertake project in a safe and effective manner, as well as ongoing oversight
- Enhanced commissioning protocols

- List of approved technologies, actively maintained/updated ensuring that technologies used are the most efficient, cost effective, and that manufacturers with the highest likelihood of being able to stand by their warranties are used

Development Risk:
Risk:

- Projects developed via CEFIA Holdings fail to reach completion

Mitigation Strategy:

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

Resolutions

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

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

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

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

NOW, therefore be it:

RESOLVED, that the Board of Directors approves funding, in a total not-to-exceed amount of $15 million in new money, subject to budget constraints, for the continued development of commercial-scale solar PV PPA projects, to be utilized for the following purposes pursuant to market conditions and opportunities:

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

Deleted: and

Deleted: .

RESOLVED, that the President of Green Bank; and any other duly authorized officer of Green Bank, is authorized to execute and deliver, any contract or other legal instrument necessary to continue to develop and finance commercial PPA projects on such terms and conditions as are materially consistent with the memorandum submitted to the Green Bank Board on October 19, 2018; and

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

Submitted by: Bryan Garcia, President and CEO; Bert Hunter, EVP and CIO; Laura Fidao, Senior Manager, Clean Energy Finance

Exhibit A
Potential Commercial Solar PPA Program Partners

IPC

INCLUSIVE
PROSPERITY CAPITAL

A CONNECTICUT GREEN BANK SPIN-OUT

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

EXECUTIVE SUMMARY

INCLUSIVE
PROSPERITY CAPITAL

Opportunity & Approach

Inclusive Prosperity Capital, Inc. is a not-for-profit specialty financing intermediary focused on aligning investment capital with organizations, projects, and community initiatives that successfully scale traditionally underserved markets:

- **Low-to-Moderate Income** Residential Solar
- **Multifamily Housing** Developments & Retrofits
- **Solar** for C&I, Community Assets, and Nonprofits
- **Hydro** (Small-scale)
- **Fuel Cells**
- **Anaerobic Digestion**

Capital + Products + Strategy honed by key members of the IPC leadership team at the Connecticut Green Bank

Fund Level Investment Options:

Instruments:
- Debt + "Equity Equivalent"

Collateral: Unsecured
Recourse: Full Recourse

Portfolio Investment Support:

- Warehouse Financing
- Tax Equity Placement
- Direct Investment

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APPENDIX

Distributed Solar PPAs

- **Target Market**: Municipalities, Non-Profits, Multifamily housing developments, Housing Authorities, Mid-Market Commercial
- **Credit Profile**: Investment Grade, Non-Investment Grade but credit-conforming or acceptable guarantor, or PACE-secured
- **Financing Structure**: Special Purpose Entity (SPE) with Sponsor Equity and Tax Equity participations, Levered as applicable (structured as either a partnership flip or inverted lease); IPC to serve as Sponsor based on experience deploying 35 MW+ to date
- **Repayment & Security Mechanisms**: PPA cash flows, REC cash flows, Tax benefits, asset liens, PACE liens (as applicable)
- [redacted]
- **CRA Eligibility**: Likely partially qualifying

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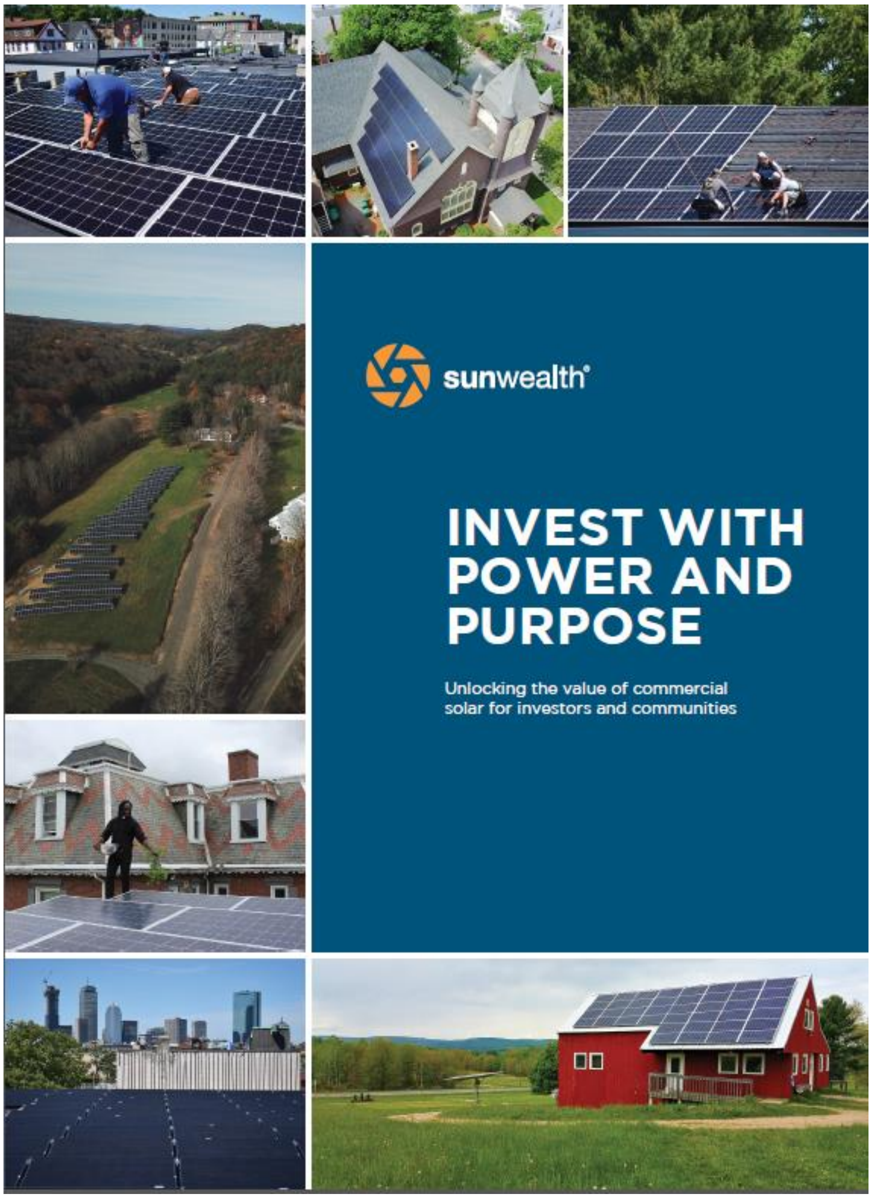
Sunwealth


sunwealth
INVEST WITH POWER AND PURPOSE
Unlocking the value of commercial solar for investors and communities

PURPOSEFUL INVESTMENT

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

DIVERSE PROJECTS

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

STRONG UNDERWRITING

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

SOLAR IMPACT FUND

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

POWERFUL RETURNS

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

COMMUNITIES
Solar access and energy savings

LOCAL ECONOMY
Jobs and income for local solar developers and installers

ENVIRONMENT
Carbon reduction

INVESTORS
Fixed income from an alternative asset

[redacted]

Enhanced
(Representative Term Sheet)

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

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

REDACTED

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Kresge Community Finance (KCF)

Program Related Investment

PRI Transfer to Inclusive Prosperity Capital

Approval Request

July 11, 2019

Document Purpose: This document contains background information and a request for an modification to the arrangements related to a Program Related Investment ("PRI") from the Kresge Foundation ("Kresge") to the Connecticut Green Bank ("Green Bank").

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

Program Qualification Memo

To: Connecticut Green Bank Board of Directors

From: Mackey Dykes, Vice President, Commercial, Industrial and Institutional Programs; Bert Hunter, EVP & Chief Investment Officer

Cc: Bryan Garcia, President & CEO

Date: July 11, 2019

Re: Transfer of Kresge Community Finance Program Related Investment for Solar + Storage from Connecticut Green Bank ("Green Bank") to Inclusive Prosperity Capital, Inc. ("IPC")

Background & Summary

In January 2017, the Green Bank Board approved a request to accept a $3,000,000 Program Related Investment ("PRI") from the Kresge Foundation to support the deployment of clean energy systems that provide energy resilience and are installed at affordable housing and other buildings that might act as hubs during major grid outage events in coastal and urban Connecticut. The Board further approved authorizing the creation of a Special Purpose Entity (CGB KCF LLC or "CGB KCF"), to be wholly owned by the Green Bank to take on the Kresge PRI obligation.

The PRI made available up to $3,000,000 with the following terms:

- [redacted]

In December 2018, the CGB KCF made an initial draw of $1,000,000 for deployment into solar + storage projects in Connecticut. While the loan could be drawn at any time prior to the 18th month anniversary of the closing date for the loan (such closing date being December 6, 2017 and the 18th month anniversary being June 6, 2019), Kresge requested in November 2018 that CGB KCF draw $1 million of the funds prior to the end of 2018 to help Kresge compensate for several other unrelated PRI disbursements that were to occur by year's end 2018 but would no longer be drawn. As such, CGB KCF has a loan balance of $1,000,000 outstanding at the present time and the funds have yet to be applied to qualifying projects.

In June 2019, as the 18-month window for drawing the Kresge funds approached and still without significant demand within Connecticut to warrant drawing the remaining $2,000,000 available through the PRI, the Green Bank and IPC approached Kresge with a request to transfer the LLC to IPC and to expand the geographic jurisdictions in which the PRI funding could be deployed in support of solar + storage projects to include those areas with much stronger incentives and support. Kresge is in support of this request.

Transfer of PRI Resources and Obligations to IPC

As discussions between Green Bank, IPC and Kresge progressed, the parties thought initially that a simple "sale" by Green Bank of CGB KCF to IPC (with the consent of Kresge) plus an amendment of the loan agreement between CGB KCF and Kresge (the "Loan Agreement") would accomplish the shift of the arrangements to IPC. However, upon further review, it was determined by all parties that the Loan Agreement contained far too many provisions related to Green Bank, its "quasi" status and unique relationship to CGB KCF. Accordingly, the proposal for Green Bank to sell CGB KCF to IPC and to amend the Loan Agreement was set aside in favor of a new loan agreement ("New Loan") to be entered into between a to be formed wholly-owned subsidiary of IPC ("IPC SPV") and Kresge.

Green Bank staff together with IPC staff hereby request Board approval of the proposed transfer of the arrangements.

The intent of the proposal is to:

1. Either:
    a. Assign the funding drawn by CGB KCF LLC to IPC SPV and pay any accrued interest payable through the date of assignment in return for a full release by Kresge of the Green Bank's and CGB KCF's obligations under the Loan Agreement and related documents; or
    b. CGB KCF to repay the $1,000,000 together with any accrued interest payable through the date of loan repayment and terminate the Loan Agreement.

2. If Green Bank should proceed along the lines of 1.a. above, CGB KCF would also assign to IPC SPV $50,000 in matching grant funds (the "Matching Grant" - 5% of the loan amount drawn in December 2018).
3. If Green Bank should proceed along the lines of 1.b. above, CGB KCF would also repay to Kresge the Matching Grant.

As the precise path has yet to be decided by Green Bank, IPC and Kresge, staff requests Board grant staff the authority to determine the ultimate approach (i.e., either (a) assignment and assumption of Loan Agreement by CGB KCF to IPC or (b) repayment by CGB KCF to Kresge of the outstanding balance and repayment to Kresge of the Matching Grant with a New Loan established by Kresge with IPC SPV with no further liability from the Green Bank).

Resolutions

WHEREAS, the Connecticut Green Bank ("Green Bank") will continue to pursue opportunities to deploy private capital to support affordable, clean, and resilient energy to property owners in Connecticut in collaboration with Kresge and Inclusive Prosperity Capital ("IPC");

WHEREAS, the Kresge Foundation ("Kresge") is a private foundation that funds arts and culture, environment, education, health, community development and human resources;

WHEREAS, the Connecticut Green Bank's ("Green Bank") success in securing a Program Related Investment ("PRI") through a Kresge competitive solicitation can be leveraged to expand investment opportunities for IPC in and beyond Connecticut;

WHEREAS, Kresge is eager to partner with IPC to support the deployment of clean energy systems that also provide energy resilience; and

WHEREAS, Green Bank staff recommends that the Board authorize staff to determine the final arrangements to effect the transfer of the Kresge PRI from Green Bank and its wholly-owned subsidiary, CGB KCF LLC, to IPC as outlined in the memorandum to the Board dated June 11, 2018 (the "Board Memo").

NOW, therefore be it:

RESOLVED, that the Board approves staff's proposal to transfer the PRI from Kresge to IPC using one of the approaches outlined in the Board Memo or such other approach that results in Green Bank and any of its subsidiaries from having any further payment obligation in respect of the Loan Agreement entered into by and between Kresge and CGB KCF LLC on December 6, 2017 or any material residual obligation (other than repayment) in respect of these arrangements; and

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

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