



Board of Directors

Meeting Date

January 24, 2020





Board of Directors

Lonnie Reed

Chair

Mary Sotos

Senior Policy Advisor of Energy,
DEEP

Binu Chandy

Deputy Director,
DECD

Betsy Crum

Former Executive Director, Women's
Housing Institute

Shawn Wooden

Treasurer, State of Connecticut

Thomas M. Flynn

Managing Member, Coral Drive Partners
LLC

Matthew Ranelli, Secretary

Partner, Shipman & Goodwin LLP

Eric Brown

Senior Counsel, CT Business & Industry
Association

Kevin Walsh

GE Energy Financial Services' Power and
Renewable Energy

John Harrity

President, Connecticut State Council of
Machinists

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



January 17, 2020

Dear Connecticut Green Bank Board of Directors:

We have a regular meeting of the Board of Directors scheduled on **Friday, January 24, 2020 from 9:00 to 11:00 a.m.** in the Colonel Albert Pope Board Room of the Connecticut Green Bank ("Green Bank") at 845 Brook Street, Rocky Hill, CT 06067.

We have a rather straight-forward agenda for this time on year, including the following:

- **Consent Agenda** – approval of meeting minutes for December 20, 2019 and progress to targets update for FY 2020 through Q2.
- **Committee Recommendations** – Budget & Operations Committee to recommend approval of FY 2020 target and budget revisions.
- **Financing Programs** – recommendations on the following:
 1. **C-PACE Transaction** – support the increase in prior approved C-PACE project financing for Cargill Falls in Putnam – a mixed-use residential (including low income) and commercial building; and
 2. **Open RFP Framework** – continued discussion about the Open RFP we will be releasing in 2020 to encourage external organizations to apply for investment from the Green Bank for their projects, programs, and products. Please take note of the redline draft revisions (page 20) to the Operating Procedures for proposed adjustments.
- **Other Business** – we have included an update on our Smart-E Loan interest rate buydown using the ARRA-SEP funds in support of addressing the climate change wedges per our Comprehensive Plan, and most importantly for the meeting, we will be having an annual ethics training – a “best practice” we are looking to annually implement brought to us by Connecticut Innovations.

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

Until then, enjoy the upcoming weekend!

Sincerely,

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

Bryan Garcia
President and CEO



AGENDA

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

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

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

1. Call to order
2. Public Comments – 5 minutes
3. Consent Agenda – 5 minutes
4. Committee Recommendations and Updates – 30 minutes
 - a. Budget and Operations Committee – 30 minutes
 - i. Proposed Revisions to FY 2020 Targets
 - ii. Proposed Revisions to FY 2020 Budget
5. Financing Programs Recommendations and Updates – 30 minutes
 - a. Cargill Falls – Update / Recommendation
 - b. Open Request for Proposals ("RFP") Framework
6. Other Business – 45 minutes
 - a. Smart-E Loan – ARRA IRB (Update)
 - b. Ethics Training
 - c. Other Business
7. Adjourn

Join the meeting online at <https://global.gotomeeting.com/install/257581429>

Or call in using your telephone:
Dial (872) 240-3311
Access Code: 257-581-429

Next Regular Meeting: Wednesday, March 25, 2020 from 2:00-3:00 p.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

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

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

1. Call to order
2. Public Comments – 5 minutes
3. Consent Agenda – 5 minutes

Resolution #1

Motion to approve the meeting minutes of the Board of Directors for December 20, 2019

4. Committee Recommendations and Updates – 30 minutes
 - a. Budget and Operations Committee – 30 minutes
 - i. Proposed Revisions to FY 2020 Targets
 - ii. Proposed Revisions to FY 2020 Budget

Resolution #2

WHEREAS, the Connecticut Green Bank Staff has assessed program and product performance through the second quarter of the fiscal year 2020,

WHEREAS, the Connecticut Green Bank Staff has revised budget needs to achieve targets,

WHEREAS, the Connecticut Green Bank Board of Directors Budget and Operations Committee has discussed, reviewed & recommended these updated targets and budget,

RESOLVED, the Connecticut Green Bank Board of Directors approves the fiscal year 2020 budget and target adjustments outlined in Attachment A.

5. Financing Programs Recommendations and Updates – 30 minutes
 - a. Cargill Falls – Update / Recommendation

Resolution #3

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 Board of Directors (“Board”) of the Green Bank previously approved a construction and term loan, secured by a C-PACE benefit assessment, not-to-exceed amount of \$6,200,000 (the “Current Loan”) to Historic Cargill Falls Mill, LLC (“HCFM”), the property owner of 52 and 58 Pomfret Street, Putnam, Connecticut, to finance the construction of specified clean energy measures (the “Project”) in line with the State’s Comprehensive Energy Strategy and the Green Bank’s Strategic Plan;

WHEREAS, the Project as part of a larger property redevelopment effort (the “Mill Redevelopment”) requires additional gap financing from the Green Bank in the amount of \$300,000 to achieve closing on approximately \$33,000,000 in total funds;

WHEREAS, the Mill Redevelopment includes numerous energy conservation measures that align with the goals and priorities of the Green Bank’s multifamily housing program;

WHEREAS, the Green Bank now seeks approval to amend the Current Loan to HCFM to provide up to \$300,000 in additional funding (the “Loan Amendment”) for the Mill Redevelopment effort, inclusive of finalizing the existing Project work.

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 Amendment in a total amount not to exceed the sum of (i) the existing C-PACE benefit assessment, plus any and all interest accrued, plus (ii) \$300,000, with terms and conditions consistent with the memorandum submitted to the Board dated January 17, 2020, and as he or she shall deem to be in the interests of the Green Bank and the ratepayers no later than 180 days from January 24, 2020; and

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

- b. Open Request for Proposals (“RFP”) Framework

Resolution #4

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

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

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

WHEREAS, the Comprehensive Plan and FY 2020 budget identify the need as well as the capacity to manage an initial Open RFP Program; and

WHEREAS, Green Bank staff recommends that the Board approve the establishment of the Open RFP Program as explained in a memorandum to the Board dated December 17, 2019.

NOW, therefore be it:

RESOLVED, that the Board approves Green Bank to establish the Open RFP Program as explained in a memorandum to the Board dated December 17, 2019;

RESOLVED, that the Board directs the Green Bank staff to publicize revisions to the Green Bank’s Operating Procedures in the Connecticut Law Journal and a notice of Intent to Amend Operating Procedures in accordance with Section 1-121 of the Connecticut General Statutes;

RESOLVED, that the Board approves of the revised Operating Procedures contingent upon receiving no material adverse public comment; 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 establishment and operation of the Open RFP Program.

6. Other Business – 45 minutes
 - a. Smart-E Loan – ARRA IRB (Update)
 - b. Ethics Training
 - c. Other Business

7. Adjourn

Join the meeting online at <https://global.gotomeeting.com/install/257581429>

Or call in using your telephone:
Dial (872) 240-3311
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Next Regular Meeting: Wednesday, March 25, 2020 from 2:00-3:00 p.m.
Connecticut Green Bank, 845 Brook Street, Rocky Hill, CT



CONNECTICUT
GREEN BANKSM

Board of Directors Meeting

January 24, 2020

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

Resolution 1



1. **Meeting Minutes** – approve meeting minutes of December 20, 2019
- **Progress to Target Update** – FY 2020 Q1 and Q2 progress to target updates – see Memo (January 17, 2020)

Board of Directors
Agenda Item #4a
Committee Recommendations and Updates
Budget and Operations Committee

Comprehensive Plan

FY 2019 Targets – Proposed Revisions



| Segment | Product | Channel | Targets | | | |
|--------------------------|--------------------------------------|-----------------------------|-----------------------------|---------------------------------|-------------------------------|-----------------------------|
| | | | Number of Projects (Recast) | Total Capital Deployed (Recast) | CGB Capital Deployed (Recast) | Capacity Installed (Recast) |
| Financing Programs | CSPACE | Total CSPACE | 56 | \$ 25,000,000 | \$ 9,500,000 | 7.0 |
| | PPA | PPA Total | 33 | \$ 27,960,000 | \$ 16,776,000 | 12.6 |
| | SBEA | | 1000 | \$ 20,000,000 | \$ 2,000,000 | |
| | SMART-E | Smart-E Total | 540 | \$ 7,182,000 | \$ 596,106 | 0.5 |
| | Low Income Loans/Leases (PosiGen) | | 615 | \$ 17,202,165 | \$ - | 4.2 |
| | Multi-Family Pre-Dev | | 2 | \$ 140,000 | \$ - | |
| | Multi-Family Term | Multi-Family Term Total | 8 | \$ 1,328,000 | \$ 2,396,000 | 0.2 |
| | Multi-Family Health and Safety Total | | 2 | \$ 110,000 | | |
| | Strategic Investments | Strategic Investments Total | 2 | \$ 7,500,000 | \$ 7,500,000 | - |
| Financing Programs Total | | | 2239 | \$ 101,262,165 | \$ 38,372,106 | 22.3 |
| Segment | Program | | Targets | | | |
| Incentive Programs | Residential Solar | | 7059 | \$ 214,200,000 | \$ 15,416,149 | 60.0 |
| | EEPP-Battery Storage | | | | | |
| | Incentive Programs Total | | 7059 | \$ 214,200,000 | \$ 15,416,149 | 60.0 |
| Segment | Business Segment | | Targets | | | |
| CGB | Financing Programs Total | | 2239 | \$ 101,262,165 | \$ 38,372,106 | 22.3 |
| | Incentive Programs Total | | 7059 | \$ 214,200,000 | \$ 15,416,149 | 60.0 |
| | Green Bank Total | | 8629 | \$ 296,910,000 | \$ 53,676,205 | 77.6 |

To support between no less than **8,629 projects** ~~9,130 projects~~ requiring investment of no less than **\$296.9 million** ~~\$299.5 million~~ to deploy at least **77.6 MW** ~~76.3 MW~~ of clean energy

REFERENCES

Budget Incentive Programs



- Revenues from RECs have been updated (increase of \$138,430 vs. original estimates)
- The following expenses are all cost recoverable:
 - Reallocation of \$75,000 from the Investment Business related to Lamont Financial;
 - An additional \$1.62 million in bond issuance costs to cover the legal expenses and fees associated with the issuance;
 - \$80,000 in consulting for RSIP and the SHREC issuance.
 - \$85,000 in marketing expenses related to the sale of the retail green bonds for the SHREC offering in April;
 - \$190,000 in additional legal expenses reflect the costs associated with securing a credit facility backed by the tranche 3 systems; and
 - reduction of \$75,000 in Evaluation, Measurement and Verification expenses.

Budget



Financing Programs and General Operations

- Increased revenue of \$350,375 based on higher than expected LREC/ZREC income and a higher clearing price for RGGI auctions.
- Additional Expenses:
 - Additional \$30,000 in technology to support the monitoring of the systems in the PPA funds;
 - \$16,000 in dues to support the Green Bank network and other similar organizations that benefit the Green Bank's mission;
 - \$10,000 increase in inspections for Smart-E;
 - Reduction of \$55,000 in Evaluation, Measurement and Verification expenses.
 - Increase in R&D expenses by \$20,000.
- Addition of \$120,000 in consulting expenses related to the anticipated move next fiscal year. This is split between both the incentive business and investment business (\$29,378 in Incentives vs. \$95,622 in Financing).

Board of Directors

Agenda Item #5a

Financing Programs Recommendations and Updates

Cargill Falls

Historic Cargill Falls Mill



Background

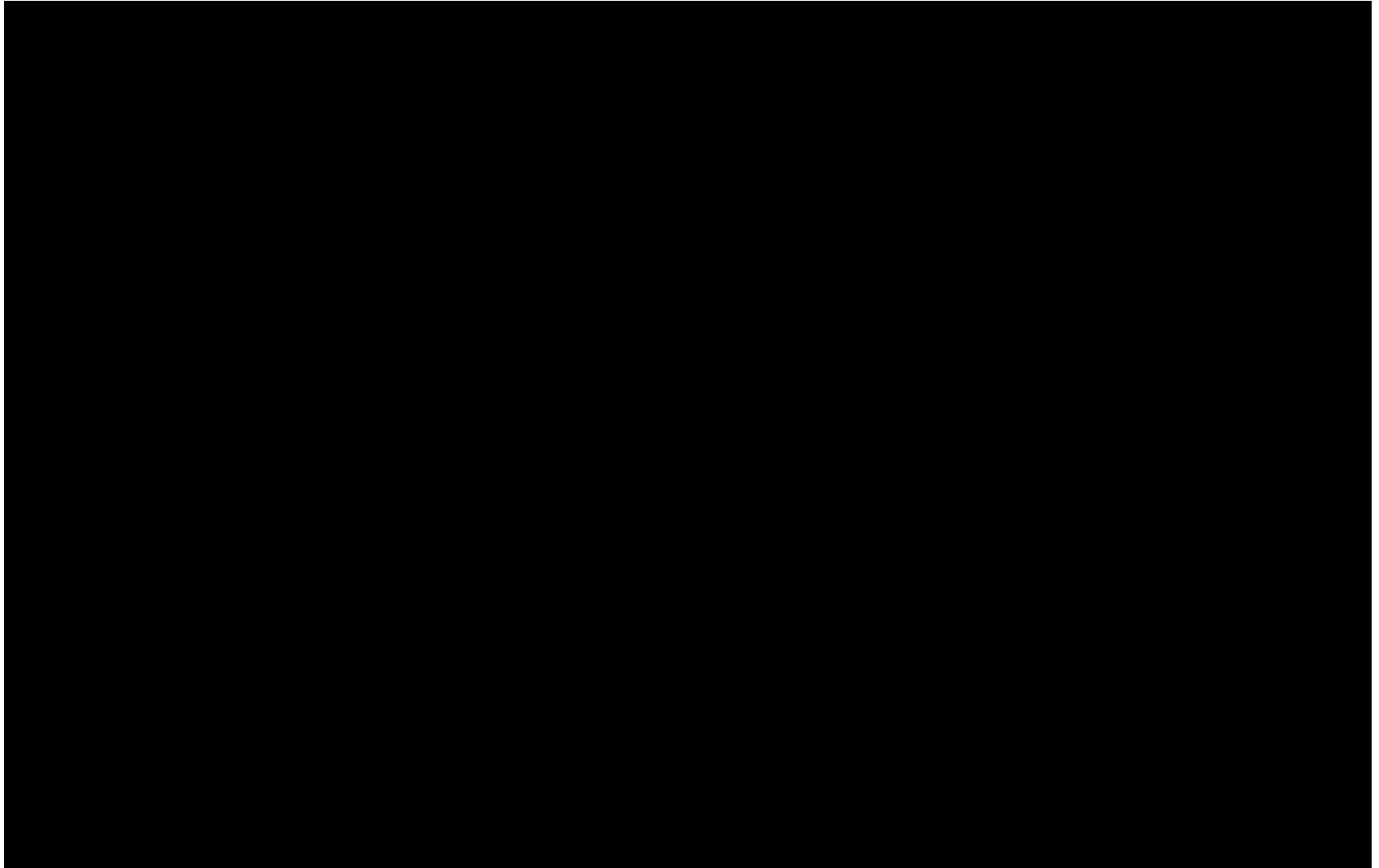
- Early Green Bank C-PACE project (originally approved in 2015) and the country's first PACE-secured hydro project
- Hydro project came online in May 2017
- \$6,200,000 invested to date (excluding accrued interest)
- Two-turbine project: larger (600 kW) is operational, having generated 1,200,000 kWh to date (in limited operation); 300 kW turbine to come online by end of summer 2020
- Initial ZREC and net metering revenues realized

Historic Cargill Falls Mill

Cost Overruns + Gap Funding



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-
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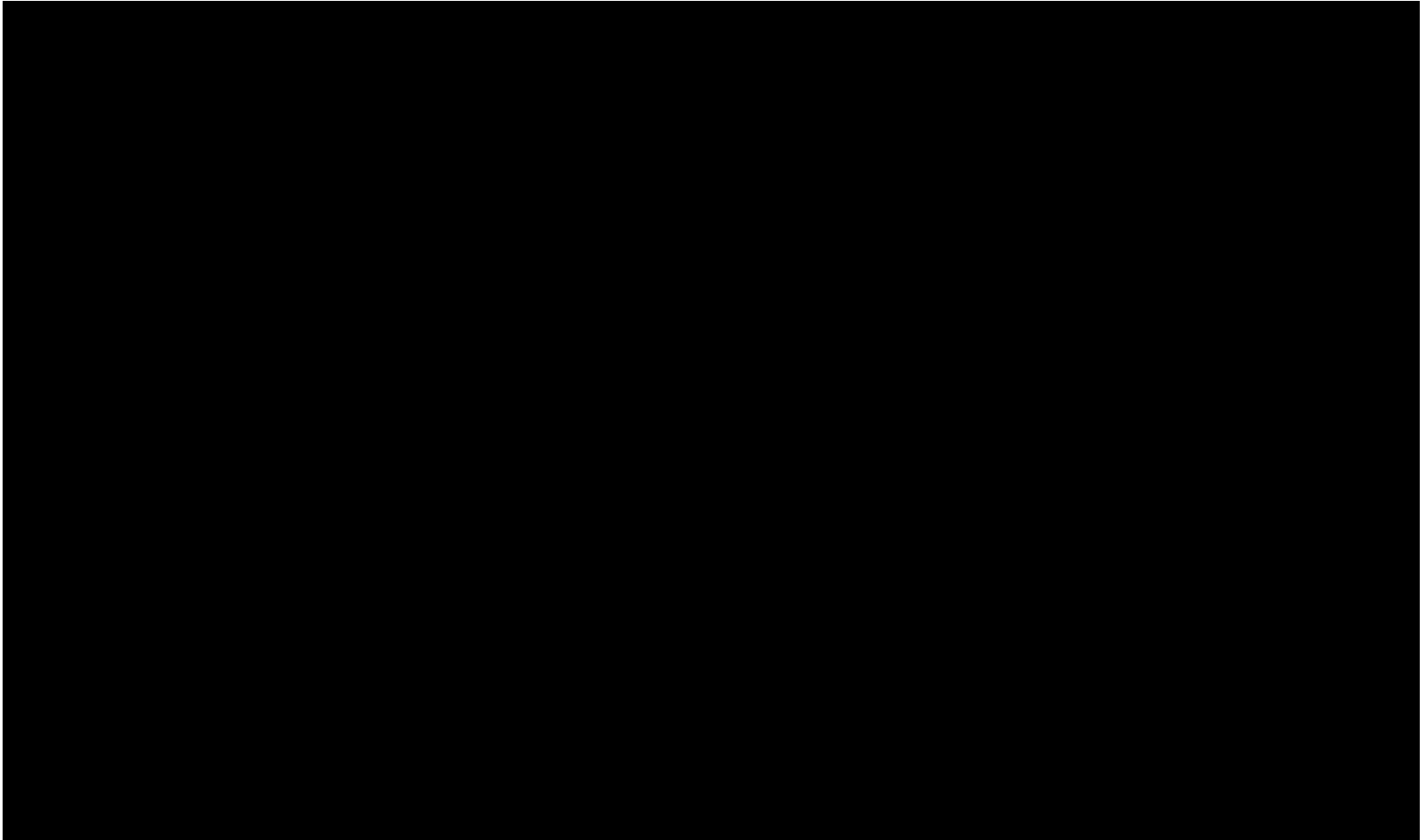


Historic Cargill Falls Mill

CGB Gap Funding

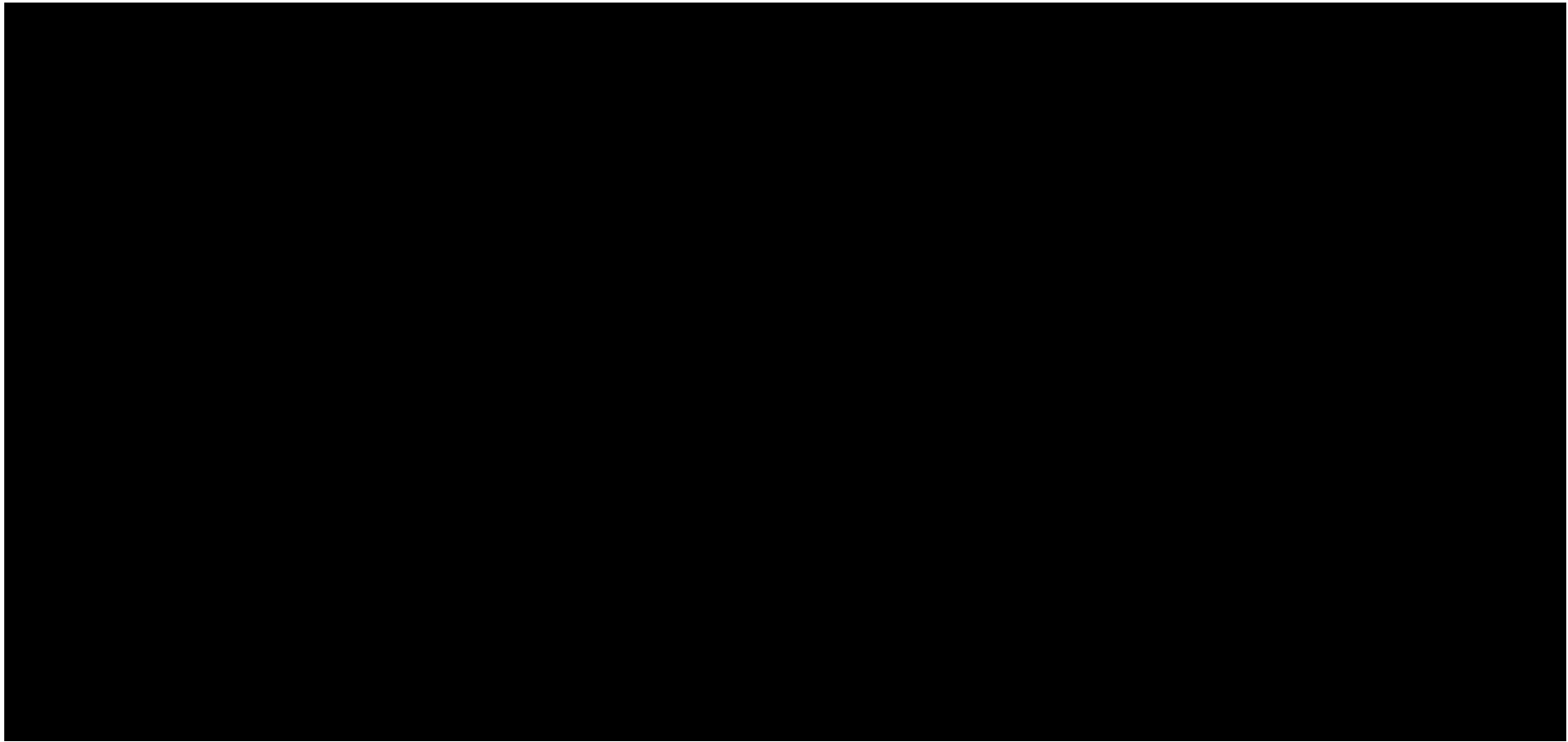


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Historic Cargill Falls Mill

Debt Service Coverage



Historic Cargill Falls Mill Resolutions



- Approve an increased C-PACE loan to Cargill Falls with a not to exceed amount of \$6.5M

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 Amendment in a total amount not to exceed the sum of (i) the existing C-PACE benefit assessment, plus any and all interest accrued, plus (ii) \$300,000, with terms and conditions consistent with the memorandum submitted to the Board dated January 17, 2020 (and revised January 23, 2020), as he or she shall deem to be in the interests of the Green Bank and the ratepayers no later than 180 days from January 24, 2020; and

RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents and instruments 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; Mackey Dykes, VP Commercial, Industrial, and Institutional Programs

Board of Directors

Agenda Item #5b

Financing Programs Recommendations and Updates

Open RFP

Open RFP Framework

Rationale



Per the Comprehensive Plan of the Green Bank:

- Increase and accelerate the impact of its model to support the implementation of Connecticut's climate change plan;
- Scale up investment and impact in Connecticut;
- Draw into the market more investment from private capital sources leveraged by innovative public sector financing; and
- Expand our use of green bonds to increase our access to capital beyond our current sources of funding to scale-up its investment activity, while providing more opportunities to engage Connecticut citizens in the state's growing green economy.

Open RFP Framework Proposal



Green Bank proposes an Open RFP to:

- Receive proposals for Green Bank investment on an open and rolling basis, as received;
- Evaluate such proposals in accordance with objective and transparent criteria;
- To be “market responsive” and adaptable
 - ❑ Render preliminary responses to proposals in days and weeks rather than months
 - ❑ Offer guidance to those proposals that fall short of our criteria where the proposals offer the promise of significant market potential; and
 - ❑ Have a sufficient budget for investment in order to deliver significant impact quickly.

Open RFP Framework Potential



Other considerations:

- Potential for Activity
- Based on analysis of peers (NYGB) Connecticut might expect \$100 to \$125 million in proposals annually
- “Actual transactions” worthy of investment – \$20 to \$25m/yr
- Eligible Technologies
 - Any technology that is able to help the Green Bank achieve its statutory mandate as voiced through its Comprehensive Plan:
 - A. is either already commercially viable or
 - B. has demonstrated clear potential for commercial viability through, for instance, well-documented feasibility studies and pilot programs where there is clear evidence of a viable business model and a path to substantial impact

Open RFP Framework

Potential (cont'd)



Other considerations (2):

- Financing Arrangements and Capital Support
 - Green Bank not to be prescriptive
 - Maximize potential for leverage of Green Bank resources
 - Balance the need for risk containment and Green Bank sustainability (i.e., the Green Bank's financial returns vs. the potential for financial losses)
 - Usual investments: senior and subordinate loans; construction loans; bridge loans; working capital loans; term loans; loan loss reserves; loan guarantees; other forms of credit enhancement; participation in other lender's loans; equity
- All of the above - in accordance with Green Bank operating procedures and its enabling statute.

Open RFP Framework Operating Procedures



Strategic Selection and Award

Other Requirements: Awards made by strategic selection and award shall to the extent applicable be otherwise subject to the same [\(i\) Board of Director or Deployment Committee approval requirements and \(ii\)](#) procedures set forth with respect to competitive selection and award under the headings “Negotiation”, “Award”, “Fees and Expenses”, “State Contracting Requirements”, and “Other Terms and Conditions”.

[If the Board of Directors approves of an open competitive process of selection and award with established criteria to encourage the investment and deployment of clean energy sources in Connecticut, such award will not be considered a strategic selection and the additional requirements for a strategic selection shall not be required.](#)

Open RFP Framework

Revised Resolutions



RESOLVED, that the Board approves Green Bank to establish the Open RFP Program as explained in a memorandum to the Board dated December 17, 2019;

RESOLVED, that the Board directs the Green Bank staff to publicize revisions to the Green Bank's Operating Procedures, as submitted to the Board for its meeting held January 24, 2020, in the Connecticut Law Journal and a notice of Intent to Amend Operating Procedures in accordance with Section 1-121 of the Connecticut General Statutes;

RESOLVED, that the Board approves of the revised Operating Procedures contingent upon receiving no material adverse public comment; 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 establishment and operation of the Open RFP Program.

Board of Directors
Agenda Item #6a
Other Business
Smart-E Loan

Smart-E Loan Special Offer

Residential Energy Financing



- **Target Launch:** March 2, 2020
- **Budget:** \$1M ARRA-SEP funds
- **Loan Terms (Standard Rates):**
 - 5 Years – 4.49%
 - 7 Years – 4.99%
 - 10 Years – 5.99%
- **Special Offer Rate:** 2.99%
- **Estimated IRB / Loan:**
\$1,000 – \$2,000
- **Estimated Loan Count:**
500-1,000

Qualifying technologies to support Connecticut's climate change mitigation wedges:

- **Decarbonizing Buildings**
 - Heat Pump Technology
- **Decarbonizing Electricity Generation**
 - Battery Storage Systems
- **Decarbonizing Transportation**
 - EV Recharging Equipment

Board of Directors
Agenda Item #6b
Other Business
Ethics Training

POSTPONED

Board of Directors
Agenda Item #7
Adjourn



Board of Directors of the
Connecticut Green Bank
Regular Meeting Minutes

Friday, December 20, 2019
9:00-11:00 a.m.

A regular meeting of the Board of Directors of the **Connecticut Green Bank (the “Green Bank”)** was held on December 20, 2019 at the office of the Connecticut Green Bank, 845 Brook Street, Rocky Hill, CT, in the Colonel Albert Pope Board Room.

Board Members Present: Bettina Bronisz, Eric Brown (phone), Binu Chandry (phone), Betsy Crum (phone), Thomas Flynn (phone), John Harrity, Michael Li, Matt Ranelli (phone), Lonnie Reed

Board Members Absent: Kevin Walsh

Staff Attending: Emily Basham, Mackey Dykes, Brian Farnen, Bryan Garcia, Bert Hunter, Jane Murphy, Selya Price, Eric Shrago (phone), Rudy Sturk, Michael Yu (phone), Nicholas Zuba (phone)

Others present: Bruce Chudwick (Shipman & Goodwin), Brad Friedman (Ramirez & Co, phone), Alfredo Quintero (Ramirez & Co, phone), Bob Lamb (Lamont Financial, phone), Guy West,

1. Call to Order

- Lonnie Reed called the meeting to order at 9:09 am.

2. Public Comments

- No public comments.

3. Consent Agenda

- a. Meeting Minutes from November 20, 2019

Resolution #1

Motion to approve the meeting minutes of the Board of Directors for November 20, 2019

Upon a motion made by Bettina Bronisz and seconded by Betsy Crum, the Board voted

Subject to Changes and Deletions

to approve Resolution 1. None opposed or abstained. Motion approved unanimously.

b. Under \$500,000 and No More in Aggregate than \$1,000,000

- Bryan Garcia summarized the resolution to allow the Board of Directors to approve projects under \$500,000 but no more than \$1,000,000 which are typically reviewed by the Deployment Committee meeting.
- Bryan Garcia explained the Board Meeting date revision of March 25, 2020. That date was scheduled for a Deployment Committee Meeting but has become rescheduled as a full Board Meeting in order to review the Green Bonds US bond indenture and get approvals.

Resolution #2

WHEREAS, on January 18, 2013, the Connecticut Green Bank (the "Green Bank") Board of Directors (the "Board") authorized the Green Bank staff to evaluate and approve funding requests less than \$300,000 which are pursuant to an established formal approval process requiring the signature of a Green Bank officer, consistent with the Green Bank Comprehensive Plan, approved within Green Bank's fiscal budget and in an aggregate amount not to exceed \$500,000 from the date of the last Deployment Committee meeting, on July 18, 2014 the Board increased the aggregate not to exceed limit to \$1,000,000 ("Staff Approval Policy for Projects Under \$300,000"), on October 20, 2017 the Board increased the finding requests to less than \$500,000 ("Staff Approval Policy for Projects Under \$500,000"); and

WHEREAS, Green Bank staff seeks Board review and approval of the funding requests listed in the Memo to the Board dated December 20, 2019 which were approved by Green Bank staff since the last Deployment Committee meeting and which are consistent with the Staff Approval Policy for Projects Under \$500,000;

NOW, therefore be it:

RESOLVED, that the Board approves the funding requests listed in the Memo to the Board dated December 20, 2019 which were approved by Green Bank staff since the last Deployment Committee meeting. The Board authorizes Green Bank staff to approve funding requests in accordance with the Staff Approval Policy for Projects Under \$500,000 in an aggregate amount to exceed \$1,000,000 from the date of this Board meeting until the next Deployment Committee meeting.

Resolution #3

Motion to approve the Revised Regular Meeting Schedule for 2020 for the Board of Directors.

Upon a motion made by John Harrity and seconded by Bettina Bronisz, the Board voted to approve Resolutions 2 and 3. None opposed or abstained. Motions approved unanimously.

4. Financing Programs Recommendations and Updates

a. C-PACE Transaction – Brookfield

Subject to Changes and Deletions

- Mackey presented the project at 1106 Federal Rd, Brookfield for approval. It is for \$549,472 for a 144kw roof mounted system and lighting upgrade that also incorporates an SBEA loan. He noted the loan to value (LTV) ratio is slightly higher than typical requirements, but the project meets CGB's underwriting exception criteria.
- The projected savings are 12,493 MMBtu.
 - Bettina Bronisz asked what kind of business the location is. Mackey answered that It's a tile and marble importer and fabricator for kitchens, homes, etc. He noted the project is fairly straightforward aside from higher loan to value due to their mortgage.
 - Matt Ranelli asked if the Green Bank is named as an additional insured. Mackey clarified yes, as part of the closing process the Green Bank collects insurance certificates that name the Green Bank, and that there are insurance requirements in the financing agreement.

Resolution #4

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

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

WHEREAS, the Green Bank seeks to provide a **\$549,472** construction and (potentially) term loan under the C-PACE program to 1106 Federal Road, LLC., the building owner of 1106 Federal Road, Brookfield, Connecticut (the "Loan"), to finance the construction of specified clean energy measures in line with the State's Comprehensive Energy Strategy and the Green Bank's Strategic Plan; and

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

NOW, therefore be it:

RESOLVED, that the President of the Green Bank and any other duly authorized officer of the Green Bank is authorized to execute and deliver the Loan and, if applicable, a Feasibility Study Loan in an amount not to be greater than one hundred ten percent of the Loan amount with terms and conditions consistent with the memorandum submitted to the Committee dated December 17, 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

Subject to Changes and Deletions

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 Bettina Bronisz and seconded by John Harray, the Board voted to approve Resolution 4. None opposed or abstained. Motion approved unanimously.

Resolution #5

No Resolution was presented or motioned on the CPACE Simsbury transaction as it was removed from the agenda.

- Bettina Bronisz asked why Resolution 5 was pulled. Mackey Dykes clarified that it is a complicated project involving submetering and more time is needed, but it will be brought forth soon.
- Mackey Dykes explained the Green Bank still has funds remaining from the Manufacturing Innovation Fund (MIF) and that Nick Zuba did a great job leading the push to get an extension for the project. The Green Bank now has until the end of December 2020 to use the remaining funds, about \$200,000 of \$800,000.
- Bryan Garcia further explained the MIF was issued by DECD. When considering the incentive for manufacturing, Colin Cooper who was the CEO of Whitcraft, worked with Beverly Dacey on the MIF Board. They both felt that by making clean energy improvements, manufacturers can lower their operating expenses and doing so sets them up for success for retention. It was also noted that Colin Cooper is now the Manufacturing Czar for Governor Lamont.

b. PosiGen Transaction

- Bert Hunter explained the request for modification to the maturity date for the PosiGen transaction. At the November 20th Board Meeting, the Board approved the replacement of LibreMax Capital with Ares Capital. The change is expected to close within the next few business days, or due to the holidays in early January. The maturity date is for 3 years after the closing date, but it wasn't indicated to the Board that the maturity date will adjust. Depending on the closing date, the Green Bank will extend its maturity date under the LibreMax facility by about one year, from December 2021 (existing) to either December 2022 or January 2023 (proposed), to match the Ares Capital maturity date. All other conditions would remain as approved.
 - Bettina Bronisz asked if it will change interest rate. Bert Hunter clarified no, it just moves the maturity date to be in sync with the maturity date for the Ares Capital facility.

c. Lead by Example – State Solar PPA RFP Update

Subject to Changes and Deletions

- Mackey Dykes presented a list of projects and stated the Board had approved moving forward with the RFPs and that the list is a group of pilot projects for State facilities. The Green Bank completed the EPC RFP process and selected just 1 candidate, the clear front runner. Negotiations are open and the hope is to have a selection by the end of the year. There have been no deal killers identified so far. Mackey Dykes clarified he doesn't want to disclose the information in open session (since negotiations are ongoing and a final selection has yet to be made, but can do so privately. He continued to explain that the pricing was good and given the complexity, pricing was a concern, but the preliminary results of the negotiations have been good..
- Mackey Dykes continued that on the financing side, an RFI was done to gauge interest and review the period for qualification. The Green Bank heard from 16 financiers and all are reputable and qualified. The Green Bank ran a short comment period to collect feedback on the PPA. The hope is to have the EPC selected by December 31. Regarding capturing the 2019 ITC, the IRS has allowances to get the 2019 ITC if certain procedures are completed and several of the prequalified financiers can take those steps to secure the 2019 rate.
 - Michael Li asked what happens if the Green Bank doesn't get the 2019 ITC rate. Mackey clarified the PPA price will be higher. He believes it is still a good savings, just not as good.
- Mackey Dykes stated the Green Bank submitted the interconnection applications for a subset of the projects on a constrained portion of the grid. Some were approved but some require an impact study .That process will start in January 2020. He clarified there will be additional cost to innerconnect some of the projects, and the impact study will identify those.
 - John Harranty asked if there is currently an estimate to inner connect. Mackey Dykes answered it is \$200,000 to \$500,000 which is a significant cost, but the overall construction cost is \$21 million. The Green Bank will use an estimate on the high side for the PPA RFP to make sure everything is accounted for and so everyone can bid on a worst-case scenario. When the study is completed, the Green Bank will know for sure.
 - Lonnie Reed asked if the Green Bank maintains the project or does the owner when the project is done. Mackey Dykes clarified that on the meter side, the owner, not the Green Bank, will provide the O&M to keep it running. Part of the owner selection decision is the owner's ability to maintain it for the next 20 years, as the Green Bank wants someone with experience to do so.
 - Michael Li asked if the interconnection agreement will be 3-party or just between the Utility and Vendor. Mackey stated it will likely be with the Utility, State agency, and the Green Bank. The agreement was just received from the 2 projects which were approved, but he is not sure if it is the correct one as State may have its own. In the end, if it will be a 3-party agreement, then just the Green Bank thru CEFIA Holdings, then passed to the ultimate owner (per the RFP). But the State will be a counterparty as well.

No motion or resolution was needed for Agenda Item 4c. It was only an update.

d. Open Request for Proposals ("RFP") Framework

- Bert Hunter stated he followed up from discussions from Board with the staff. The consensus is that the Green Bank may not be hearing from enough developers. One of

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the suggestions from the CEO was an introduction for an ongoing proposal program, which is used by the NY Green Bank (“NYGB”) and the Australia Green Bank (the “Clean Energy Finance Corporation” or “CEFC”). Bert Hunter stated he has had conversations with NYGB and CEFC to discuss how their RFPs are structured, their successes, and the Green Bank decided based on that and the Board’s request to create a more of an open funnel to our platform to proceed with an Open RFP program.

- Bert Hunter stated this is in support of the Green Bank’s comprehensive plan to accelerate the impact of our model. The idea is since we don’t know how much demand will be available for funding, the Green Bank can use our own resources from various revenues (the system benefit charge and RGGI funds), funds from existing investments and the Green Bond market for investment in selected projects. The process is to receive proposals on an open and rolling basis with no closure date. The Green Bank will evaluate proposals based on criteria, which will be developed, then the Deployment Committee or Board will have to approve every transaction. As well, until the criteria for evaluation is finalized, even proposals that are at staff approval level will be reviewed by the Deployment Committee or the Board. After the criteria are finalized, staff will be able to approve projects less than \$500,000. Bert Hunter stated the Green Bank wants to establish a framework for new proposals to be reviewed and wants to make the market aware that our funding is available. As examples, Mackey Dykes and Bert Hunter are talking to a developer of a CHP heating loop for the state, and another developer came forward with an idea for an electric ferry for organic food between Connecticut and the north shore of Long Island NY. The Green Bank doesn’t currently have a program to fit like these into a funding program, but this less restrictive plan will allow staff to evaluate those ideas for consideration and potential approval.
 - Bettina Bronisz commented that usually RFPs are used for a specific service, but this seems very nebulous. She asked if the Green Bank is actively looking for projects to invest in. Bert Hunter stated yes. Bettina Bronisz continued to ask if we are going to funnel and filter every idea that comes in. Mackey stated yes, the Green Bank has that already in place, but we are hoping to have actual criteria to evaluate them now. Bert Hunter clarified that some proposals may be worthwhile but currently staff has been unable to address them. Previously, those types of proposals had to be dismissed because the Green Bank didn’t have a program for them. Brian Farnen clarified that this is just a more open RFP, but it still will be given to the Board to approve so they are made fully aware.
- Lonnie asked how word about the new initiative will be publicized. Bert Hunter stated he is working with the marketing team to let people know online, on social media, etc. Bryan Garcia noted it is a constant beat to push and that even in the early days of the Green Bank it was a constant push to get RFPs.
- John Harrity asked about the Green Bank’s obligation to proposals. Bert Hunter clarified that there is none. Once we receive ideas, they are heard out, evaluated, and presented to the Deployment Committee, they can still be turned down for various reasons.
- Bettina Bronisz asked if there a maximum or minimum dollar threshold cap Bert Hunter stated that it will be part of criteria to establish. He is planning on speaking with the Deployment Committee and Treasurer’s office to get ideas on size and exposure.
- Matt Ranelli asked if this a programmatic selection or a strategic selection, and where it all would fit in the operating procedures. Brian Farnen stated that proposals under \$500,000 could be at staff level, but since the nature of the RFP is so broad, anything at or above \$500,000 would go to the Deployment Committee.
 - Matt Ranelli asked if there aren’t any one set of underwriting principles. Brian Farnen suggested the Board could request that proposals even under \$500,000

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should be reviewed by the Board since there are no established guidelines. Matt clarified that he wants the innovation part but is a bit confused about the operating procedures. Mackey stated until guidelines are established, everything must go to Board for strategic selection. The group discussed various possible changes to the operating procedures, bylaws, or process. Brian Farnen suggested that all projects go through the Board and that we wait 6 months before making any potential changes to governance documents, to better establish how many projects may even be presented. Bert Hunter stated he doesn't believe there will be many projects under \$500,000 and that the Board and Deployment Committee meet often enough that he doesn't believe there will be a backlog. Brian Farnen mentioned that all projects would need to go through the Board for approval as they would be considered strategic selections. A potential change to the operating procedures as it relates to strategic selections under a Board approved RFP so that they could be approved at the Deployment Committee was discussed.

- Lonnie Reed asked if there were any suggestions from the NY or Australia Green Banks. Bert Hunter clarified that NY has an approval from their credit committee but is unsure about Australia. Bryan Garcia notes that the NY Green Bank is a billion-dollar investment fund, but ours is a much smaller amount in pieces throughout the year. The only similar project was when the NYGB invested \$5 million in SEALED.
- Bert Hunter summarized the potential for activity. He stated the Green Bank can expect about \$100 million to \$125 million in proposals per year, which means the actual transactions will be about \$20 million to \$25 million per year, about 20%. These figures are based on the NY Green Bank's feedback.
 - Bettina Bronisz asked if the NY Green Bank has gotten any very atypical proposals that turned out to be successful. Bert Hunter stated he is not sure. He continued to say the NY Green Bank has gotten a variety of proposals which just required too much risk participation, but they do listen and try to work with the developers to try to adjust the proposal so that it may work better. It is not often hard rejection as it is a possible acceptance, pending changed. He clarified it can take years to make those adjustments, so many proposals don't come to fruition in the end, and because of that it is hard to know the volume until it begins.
 - Michael Li asked where the capital is coming from to fund these proposals. Bert Hunter clarified that the Green Bank can finance out of its capital allocation annually, but this year it had a capital reserve so approximately only \$2.5 million of \$7.5 million has been allocated. The other \$5 million is what will be allocated for this. He continued to say that there is one transaction which may use some of the capital reserve but if there is a sizable need for additional capital then we may go to the Green Bond market.
 - Bryan Garcia stated a conversation that hasn't been had before is how to scale up the Green Bank's funding, which is the next agenda item: the green bonds. Bert Hunter then briefly discussed the possibilities for the Green Bank's expansion of capital through other means in the future.
- John Harry commented that he likes that this new RFP system gives people the opportunity to present their ideas but doesn't require the Green Bank to be automatically obligated to it. It really encourages people to think about it as a business project which he thinks will help sustain the Green Bank and the community.
- Bryan Garcia stated that he and Lonnie Reed were discussing the option of tabling Resolution 6 so it can be further discussed in January. This would allow the Green Bank

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to establish more framework and come back with a revised Resolution. That suggestion was accepted.

Resolution 6 was tabled until the next Board Meeting on January 24, 2020.

5. Green Bonds US – Discussion on Bond Issuance and Master Bond Indenture in Development

- Bryan Garcia introduced the Green Bonds US campaign to reacquaint the Board with it and summarize its goals. Green Bonds US is a play on words – “Green” or “the environment” and “us” could mean community or USA – the environment brings us together as the hope is the campaign will eventually go national, allowing people in CT and beyond to participate. There is a website people can sign up to receive updates when bonds are ready to be issued, those people can be contacted again.
- Bryan Garcia summarized the roles and members of the Green Bond Team and Master Bond Indenture goals. This includes scaling of investment to expand project deployment, defending funds from other project revenue sources, and lowering the cost of capital for institutional investors and individual citizens. Bryan Garcia then had Bob Lamb explain the structure of the Master Bond Indenture.
- Bob Lamb stated the general idea is to show the strength of the Green Bank by putting all the transactions that are made under one master indenture. The benefit is that some programs will be part of the Green Bank’s core portfolio and will have various cash flow coverages which will benefit the Green Bank over time. There will also be other indentures which will be more disparate and need to be put together, but they will all contribute to the portfolio. The goal was also to create a mechanism to a) combine everything and provide support from a credit point of view and b) view all the programs that help fulfill the mission from a program point of view.
- Bob Lamb explained the master trust indenture Flow of Funds and related financing indentures. He stated it was a pretty typical flow but it does divert from the norm at the Deficiency Reserve Fund (DRF). The DRF is designed to look at other indentures for any weaknesses, and if there are any found to use the money in it, which flowed from the various other indentures into the master, to solve those problems. Bob Lamb stated it has been done before and received AAA ratings. He is not promising the same rating, but used it to prove that the system does work.
- Bob Lamb continued, pointing out the Excess Revenue Fund (ERF). He stated the goal is to have money flow through the Master, and if there is money not ready to be declared as surplus, it would sit in the ERF. He explained there may be time when there is a need to wait for investments, and during those times would be when to utilize the ERF so the money that is available can be held aside so that it is not consumed by other demands.
- Bob Lamb also pointed out the New Commitment Fund and Surplus Fund, both of which can rotate back into the top-level Revenue Fund. He stated the key concept to understand is that there will be several different indentures, but it can’t all be under one coverage. The hope is to have a program rating for all the bonds as they are implemented. Those ratings may not be immediate, but that is the goal.
- Bruce Chudwick from Shipman and Goodwin clarified that an indenture isn’t anything new to the Green Bank, and in its simplest form is a contract between 2 parties. The master trust indenture supports the other bonds that are in place underneath the umbrella structure of the master trust indenture. The key factor is in the revenue fund.

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The concept is that the revenues of the Green Bank are going to go into the indenture and then flow through to fill up different sub-funds.

- The first is the Admin Fund, to allow the Green Bank to continue its operations. Bruce Chudwick stated it is typical to keep at least 3 months of operating expenses in the Admin Fund.
- Another key factor is the Granting Clause, which grants the trustee the right to those funds. The clause automatically creates a lien on those funds in favor of the bond holder. It's a statutory lien that is enforceable which is important for all parties to know.
- The second factor is that there is a Non-Impairment Clause. Bruce Chudwick clarified that in 2016 there was additional language introduced that says the State will not impair the bond holder's rights as they get their bonds repaid.
- Michael Li asked what if the State take away the system benefits charge. Bruce Chudwick clarified that the State can change it, but whatever is put in is there. If they try to take it away, the Non-Impairment Clause kicks in. Matt Ranelli noted that if the benefits charge is due to expire, we would then not have a requirement that it be maintained, but if it were received in the future, it would flow in, which is a limitation that the Green Bank can handle. Brian Farnen also noted that this structure will prohibit the State from sweeping funds from the Green Bank in the future but asked for clarification on how bond holders are made whole if things change. Bob Lamb stated that in the indenture is a provision that the state will not move to Impair the rights of bond holders, unless they've been defeased essentially.
- The group discussed at length the situations that may cause an impairment or for a bond holder to make a claim.
 - Bob Lamb stated that the bonds would normally be redeemable after 10 years but could be done in less time, but it would cost more.
- Lonnie Reed asked how the treasurer will react. Bettina Bronisz stated they will be interested when the Green Bank comes to the Secretary and Treasurer for SCRF certificates, but it is currently seen as a good move. Lonnie Reed noted that bond can be very reactive, so it's good to consider all the possibilities before its presented.
- Bryan Garcia stated the last fund in the master trust indenture is the Surplus Fund, and that there should hopefully be \$0 in it. The hope is that money is constantly being reinvested and the overall capital is being scaling up to tackle the climate problems.
 - John Harrity asked if it could be named something else, and Lonnie Reed suggested the Transitionally Committed Fund. The staff will recommend new names for various funds in the Master Bond Indenture.
 - Bob Lamb noted that the Excess Revenue Fund is just a way to keep money in the indenture that is expected to be used later, and not to show up as surplus which could be grabbed.
 - Bettina Bronisz asked if there are set definitions for specific use or if it could be more nebulous. Bob Lamb clarified to think of it more as a rate-stabilization fund. It could be used for any purpose that is part of the corporation's purpose and the indenture's purpose.
- Bert Hunter asked if the thinking is that the indentures will be able to call upon use of the Deficiency Reserve Fund to improve their rating. Bob Lamb clarified that the other indentures would define them as related indentures which allows them to retain certain benefits, one of which is use of the DRF, which would trigger if there was ever a problem at the financing level. Bruce Chudwick further clarified that yes, the financing indentures can call on the need for the DRF.

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- Bert Hunter stated he was satisfied with that as he wanted to make sure the DRF was not discretionary, and that there is more communication as to its use. The reason is because there have been funding raids and drops in the past, which creates uncertainty. He wanted to make sure this would insulate the indentures against a future raid against the funding. Bob Lamb notes that some entities are not comfortable starting with a \$0 balance in the DRF, and the Green Bank can put some money in it to start just in case, as a safety net. It is very flexible as to when money is funneled into it.
- Bettina Bronisz suggested considering a raise to the coverage ratios. She stated it increases the strength of the funds overall, so that less is in the Surplus Fund. Bob Lamb stated he did not want to propose it himself because it limits the ability of the Green Bank to recapture money, but if the Board approves it, then it is possible. Bettina stated she believes it would result in a higher credit rating.
- Michael Yu summarized the Taxable Municipal Issuance for the SHREC. He stated that for Tranche 3, it was decided to use a taxable municipal bond with a retail component. He stated it couldn't be rated by Kroll anymore if the aim was to successfully include a retail component as Kroll is not as recognized in the retail space. So the decision was made to go with a SCRF credit enhancement as this would enable a rating from S&P's municipal desk (vs their asset backed securities desk) as well as a retail-friendly serial bond structure. He also noted that the Green Bank is currently working through the key diligence items in order to prove self-sufficiency for SCRF and satisfy ratings requirements. In order to use data through the year end 2019, it will take 4-6 weeks to turn that data into an independent engineer approved production analysis. He continued that once the production analysis is done, it'll turn into a cash bond model which will go through the SCRF application process. Once a SCRF designation is attained, it'll go through the rating process. Michael Yu stated the Green Bank has a pretty clear timeline to get to the Earth Day presentation in April 2020.
 - Bettina Bronisz asked if the Green Bank is getting an underlining rating in addition to the SCRF rating. Al Quintero stated that there is the option to do so but that may be a discussion to have aside. He continued that one of the great things about the structure proposed is that it is calibrated to credit strength, and if all agree, then it may not be necessary to reach out to other rating agencies. However, if getting additional ratings creates more comfort for others, it can be done.
 - Bob Lamb stated that one of the reasons for selecting S&P is because it is viewed as more valuable to retail investors than Kroll.
- John Harrity asked if there is an idea of how low the denominations will be. Bruce Chudwick stated it will be approximately \$1000. John Harrity commented that he heard there is a way to get \$500 bonds, which is much more in the realm of the average citizen. Bob Lamb clarified that the issue is to get the \$500 bonds, the Green Bank would likely end up spending the additional \$500 in servicing costs and that the lower denomination bonds are very expensive to manage in that way.
 - Bruce Chudwick clarified that the Green Bank would have to handle the issuances themselves instead of through an outside company in order to justify it.
 - Bryan Garcia stated that the Green Bonds Team is continuing to think of other ways, outside of the bond structure, to get the lower denomination participation, but are starting with the \$1000 bond.
 - Bob Lamb asked if bonds could be purchased as part of a 529 plan. Bruce Chudwick state he could not think of a reason, at the moment, why it wouldn't be possible. Bob Lamb stated that it may allow people to do it at a lower level

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through the Treasurer's office, but they would get a small tax benefit by doing it through a 529 plan.

- Bettina Bronisz asked if everything will be certified as green bonds. Bryan Garcia confirmed yes. Eric Shrago clarified that the Green Bank is working with Kestrel Verifiers to get multiple verifications.

6. Other Business

- Emily Basham summarized the recent recognition and analysis of the Residential Solar Investment Program and the Solar for All program in particular. Both programs have allowed Low-to-Moderate Income (LMI) families and communities of color to gain access to solar energy. She stated that initially RSIP programs saw heavy adoption upper income tracks. In 2013 less than 30% were in LMI tracks, so the Green Bank created higher incentives to encourage participation from LMI families. She continued that in 2017 the Green Bank reached "solar parity", meaning about 50% of the incentives are going to LMI tracks and the goal is to continue to improve. The achievement was recently recognized in CESA's Solar with Justice report which is available on the Green Bank website. The milestone of increasing solar in these communities is bucking national trends. Earlier this year, an analysis by Tufts University and UC Berkeley was released that communities of color are less likely to adopt solar power than communities with no predominant ethnic identity, and that white communities 21% more likely. Emily continued by summarizing the results of the comparison of the Green Bank's results with the national analysis.
- Emily Basham stated that the analysis starts with the national American Community Survey data based on race and ethnicity. She clarified that if 50% of a census tract identified as a single race or ethnicity, then it was categorized as that predominant race or ethnicity. A census tract is essentially a neighborhood in size. Using that, about 4 population types were identified: Majority Hispanic (7.8%), Majority Black (3.1%), Majority White (74.4%), and No Majority Race (14.7%).
- Emily explained that the information was then compared to Owner Occupied Housing (OOH). Unfortunately, a very low percent of people own their homes in communities with a Hispanic majority (3.6% home ownership) or a black majority (2.1% home ownership). However, when compared to the amount of RSIP participation overall, the distribution of RSIP projects is on par or exceeds the distribution of OOH.
- The information about RSIP project distribution and OOH was then compared to AMI Income Bands. The Green Bank considers Low Income to be anything under 80% AMI, Moderate Income as 80-100% AMI, and High Income as anything over 100% AMI. This analysis uses the same methodology as a Tufts study but uses the AMI Bands as a proxy for median income. What was found is that the distribution of RSIP projects is on par or exceeds distribution of OOH in communities of color, inclusive of income.
- The same analysis was then done but for the Solar for All program, which was designed to reach more LMI families. The analysis proves Solar for All is even more effective in reaching those communities than the RSIP Program. The distribution of Solar for All projects far exceeds the distribution of OOH in communities of color.
- Emily stated that overall the Green Bank is reaching the home owners that qualify for the programs. While 4.1% of RSIP installations are in mostly Hispanic census tracts it is about 10.2% of Solar for All installations. For mostly black census tracts, it's about 3.8% of RSIP installations but about 16.2% of Solar for All installations.
- Emily summarized the story of Melvin in Bridgeport who went solar through the Solar for

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All program in 2015. He has a 20-year lease and after factoring in his monthly lease payments, he should see an estimated \$16,533.00 in savings over the 20-year lease. The evidence of the success is further noted in that since Melvin got solar panels, his neighbors have too after seeing the savings they create.

- Betsy Crum expressed her congratulations to the success of the program.
- Lonnie Reed stated that she recently attended a 3-day event at Yale and that getting solar to LMI families was one of the big issues alongside increasing home ownership and better transportation. She stated Connecticut really needs to pump up the efforts on that to improve the quality of life for everyone.

7. Adjourn

Upon a motion made by Bettina Bronisz and seconded by John Harrity, the Board Meeting adjourned at 11:07 am.

Respectfully submitted,

Lonnie Reed, Chairperson



Memo

To: Connecticut Green Bank Board of Directors
From: Eric Shrago, Director of Operations
CC: Bryan Garcia, President and CEO
Date: January 17, 2020
Re: Fiscal Year 2020 Progress to Targets through Q2

The following memo outlines Connecticut Green Bank (CGB) progress to targets for Fiscal Year (FY) 2020 as of December 31, 2019¹.

Infrastructure Sector

Table 1. Infrastructure Sector FY 2020 Progress to Targets

| Product/Program | Projects | | | Capital Deployed | | | Capacity (MW) | | |
|-----------------------------|--------------|--------------|-------------|----------------------|----------------------|-------------|---------------|-------------|-------------|
| | Closed | Target | % to Target | Closed | Target | % to Target | Closed | Target | % to Target |
| Battery Storage | - | 500 | - | - | \$5,500,000 | - | - | 2.0 | - |
| RSIP | 4,611 | 7,059 | 65% | \$136,253,247 | \$214,200,000 | 64% | 38.4 | 60.0 | 64% |
| Infrastructure Total | 4,611 | 7,559 | 61% | \$136,253,247 | \$219,700,000 | 62% | 38.4 | 62.0 | 62% |

- RSIP is continuing towards its statutory goal of 350 MW installed. The program is experiencing higher volumes than forecast and this is evidence by it being ahead of its targets fiscal year-to-date.
- Reasons for the high volume include contractors rushing to secure the 30% Investment Tax Credit before the stepdown January 1, 2020 and the impending end of the RSIP.
- It is estimated RSIP will achieve its target of 350 MW in Q1 Fiscal year 2021.
- While the Green Bank was approved by PURA as a partner under the Electric Efficiency Partners Program, proposed program for battery storage was not approved.

Residential Sector

Table 2. Residential Sector FY 2020 Progress to Targets

| Product/Program | Projects | | | Capital Deployed | | | Capacity (MW) | | |
|-----------------|----------|--------|-------------|------------------|-------------|-------------|---------------|--------|-------------|
| | Closed | Target | % to Target | Closed | Target | % to Target | Closed | Target | % to Target |
| Smart-E | 517 | 540 | 96% | \$7,441,601 | \$7,182,000 | 104% | 0.7 | 0.5 | 140% |

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

| | | | | | | | | | |
|------------------------------|------------|--------------|------------|---------------------|---------------------|------------|------------|------------|------------|
| Low Income Loans/Leases | 234 | 615 | 38% | \$6,288,439 | \$17,202,165 | 37% | 1.6 | 4.2 | 38% |
| Multi-Family Pre-Development | 4 | 2 | 200% | \$998,036 | \$140,000 | 713% | - | - | - |
| Multi-Family Term | 7 | 9 | 78% | \$5,754,857 | \$1,493,000 | 385% | 1.3 | 0.3 | 433% |
| Residential Total | 762 | 1,166 | 65% | \$20,482,933 | \$26,017,165 | 79% | 3.6 | 5.0 | 72% |

- Smart-E is 96% of the way to the FY target. The program is having a stellar year so far having closed 517 of 540 closed loans, equaling nearly \$7.4M of private capital deployed across 9 lenders. Most loans are for HVAC upgrades, though the end of the year had an increase in windows projects and a handful of solar in advance of the ITC change.
 - In the first quarter, the program will work with contractors on engaging LMI customers and will launch a special offer rate for certain technologies.
- PosiGen is presently we're 34% of the way to the FY20 target. Delay in installs for two month due to investor issues impacted sales (many sales come from referrals) as well as not having a Solar for All campaign ongoing. Issues are resolved but takes a while to ramp back up.
 - Working with Sustainable CT to lock in towns for Spring campaigns. Talking to Waterbury, Bristol, West Haven, Mansfield/Windham
- Multifamily Predevelopment loans have exceeded the fiscal year targets.
 - An expanded predevelopment loan for Seabury Cooperative that has been in the works for years finally closed this year.
- Multifamily Term Lending has exceeded the fiscal year targets for capital and capacity and is expected to hit targets for number loans.
 - The Green Bank recapitalized the LIME loan facility for Capital for Change for \$3million allowing the program to continue lending.

Table 3. Smart-E Channels

| Smart-E Loan Channels | Closed | % of Loans |
|-----------------------|------------|-------------|
| EV | - | - |
| Home Performance | 33 | 6% |
| HVAC | 311 | 60% |
| Solar | 69 | 13% |
| (blank) | 104 | 20% |
| Total | 517 | 100% |

Table 4. Multi-Family Units

| MFH # of Units | Closed |
|----------------|--------------|
| Affordable | 1,112 |
| Market Rate | 32 |
| Total | 1,144 |

Commercial, Industrial, & Institutional Sector

Table 4. Commercial, Industrial and Institutional Sector FY 2020 Progress to Targets

| Product/Program | Projects | | | Capital Deployed | | | Capacity (MW) | | |
|----------------------|----------|--------|-------------|------------------|--------------|-------------|---------------|--------|-------------|
| | Closed | Target | % to Target | Closed | Target | % to Target | Closed | Target | % to Target |
| CPACE | 34 | 56 | 61% | \$20,102,664 | \$28,125,000 | 71% | 5.4 | 12.7 | 42% |
| Green Bank Solar PPA | 5 | 34 | 15% | \$1,975,220 | \$28,125,000 | 7% | 0.6 | 12.7 | 5% |

| | | | | | | | | | |
|-----------------------|------------|--------------|------------|---------------------|---------------------|------------|------------|-------------|------------|
| SBEA | 468 | 1,000 | 47% | \$8,402,867 | \$20,000,000 | 42% | - | - | - |
| CI&I Total | 504 | 1,075 | 47% | \$29,116,986 | \$71,750,000 | 41% | 5.6 | 23.4 | 24% |

- CPACE is presently ahead of its original targets with higher than expected volume coming from third-party CPACE developers. This is expected to grow in the second half of the year and will be bolstered by the Green Bank's loan to Greenworks Lending.
- The Green Bank Solar PPA is behind targets due to timing on state solar projects. These have been in development during the first half of the year and are expected to close in the second half of the fiscal year.
- SBEA is on target for the year having had two loan purchases this fiscal year.

CGB Total

Table 5. CGB FY 2020 Progress to Targets

| Sector | Projects | | | Capital Deployed | | | Capacity (MW) | | |
|--|--------------|--------------|-------------|----------------------|----------------------|-------------|---------------|-------------|-------------|
| | Closed | Target | % to Target | Closed | Target | % to Target | Closed | Target | % to Target |
| Infrastructure | 4,611 | 7,559 | 61% | \$136,253,247 | \$219,700,000 | 62% | 38.4 | 62.0 | 62% |
| Residential | 762 | 1,166 | 65% | \$20,482,933 | \$26,017,165 | 79% | 3.6 | 5.0 | 73% |
| Commercial, Industrial and Institutional | 504 | 1,075 | 47% | \$29,116,986 | \$71,750,000 | 41% | 5.6 | 23.4 | 24% |
| Other Strategic Investments | - | 2 | - | - | \$7,500,000 | - | - | - | - |
| CGB Total² | 5,415 | 9,130 | 59% | \$168,191,784 | \$299,575,000 | 56% | 43.7 | 76.3 | 57% |

² CGB Totals have been adjusted to avoid double counting RSIP projects using residential financing products and commercial solar lease projects using CPACE.

| Segment | Product | Channel | Targets | | | | | | | |
|--------------------|--------------------------------------|-----------------------------|--------------------|-----------------------------|------------------------|---------------------------------|----------------------|-------------------------------|--------------------|-----------------------------|
| | | | Number of Projects | Number of Projects (Recast) | Total Capital Deployed | Total Capital Deployed (Recast) | CGB Capital Deployed | CGB Capital Deployed (Recast) | Capacity Installed | Capacity Installed (Recast) |
| Financing Programs | CPACE | Total CPACE | 56 | 56 | \$ 22,000,000 | \$ 25,000,000 | \$ 9,500,000 | \$ 9,500,000 | 5.6 | 7.0 |
| | PPA | PPA Total | 34 | 33 | \$ 28,125,000 | \$ 27,960,000 | \$ 16,875,000 | \$ 16,776,000 | 12.7 | 12.6 |
| | SBFA | | 1000 | 1000 | \$ 20,000,000 | \$ 20,000,000 | \$ 2,000,000 | \$ 2,000,000 | | |
| | SMART-E | Smart-E Total | 540 | 540 | \$ 7,182,000 | \$ 7,182,000 | \$ 596,106 | \$ 596,106 | 0.5 | 0.5 |
| | Low Income Loans/Leases (PosiGen) | | 615 | 615 | \$ 17,202,165 | \$ 17,202,165 | \$ - | \$ - | 4.2 | 4.2 |
| | Multi-Family Pre-Dev | | 2 | 2 | \$ 140,000 | \$ 140,000 | \$ - | \$ - | | |
| | Multi-Family Term | Multi-Family Term Total | 9 | 8 | \$ 1,493,000 | \$ 1,328,000 | \$ 2,495,000 | \$ 2,396,000 | 0.3 | 0.2 |
| | Multi-Family Health and Safety Total | | 2 | 2 | \$ 110,000 | \$ 110,000 | \$ - | \$ - | | |
| | Strategic Investments | Strategic Investments Total | 2 | 2 | \$ 7,500,000 | \$ 7,500,000 | \$ 7,500,000 | \$ 7,500,000 | | - |
| | Financing Programs Total | | 2240 | 2239 | \$ 98,427,165 | \$ 101,262,165 | \$ 38,471,106 | \$ 38,372,106 | 21.0 | 22.3 |

| Segment | Program | Targets | | | | | | | |
|--------------------|--------------------------|--------------------|------|------------------------|----------------|----------------------|---------------|--------------------|------|
| | | Number of Projects | | Total Capital Deployed | | CGB Capital Deployed | | Capacity Installed | |
| Incentive Programs | Residential Solar | 7059 | 7059 | \$ 214,200,000 | \$ 214,200,000 | \$ 15,416,149 | \$ 15,416,149 | 60.0 | 60.0 |
| | EEPP-Battery Storage | 500 | | \$ 5,500,000 | | \$ 2,000,000 | | 2.0 | |
| | Incentive Programs Total | 7559 | 7059 | \$ 219,700,000 | \$ 214,200,000 | \$ 17,416,149 | \$ 15,416,149 | 60.0 | 60.0 |

| Segment | Business Segment | Targets | | | | | | | |
|---------|--------------------------|--------------------|------|------------------------|----------------|----------------------|---------------|--------------------|------|
| | | Number of Projects | | Total Capital Deployed | | CGB Capital Deployed | | Capacity Installed | |
| CGB | Financing Programs Total | 2240 | 2239 | \$ 98,427,165 | \$ 101,262,165 | \$ 38,471,106 | \$ 38,372,106 | 21.0 | 22.3 |
| | Incentive Programs Total | 7559 | 7059 | \$ 219,700,000 | \$ 214,200,000 | \$ 17,416,149 | \$ 15,416,149 | 60.0 | 60.0 |
| | Green Bank Total | 9130 | 8629 | \$ 299,575,000 | \$ 296,910,000 | \$ 55,775,205 | \$ 53,676,205 | 76.3 | 77.6 |

\$ 5



Memo

To: Connecticut Green Bank Board of Directors

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

Date: January 6, 2020

Re: Proposed updates to FY2020 Targets and Budget

On January 10, 2020, the Green Bank Board of Directors' Budget and Operations Committee met and reviewed the below updates to the FY2020 targets and operating budget. They are recommending that these be approved by the full Board of Directors.

I. Targets

After two quarters of assessing program performance and market conditions, the Green Bank staff has proposed keeping targets where we initially set them for all programs except for CPACE, PPA and Multifamily.

- Staff are proposing reducing the PPA and Multifamily goal by 1 project, \$165K in capital deployment, and 0.1 MW of capacity.
- Due to the 3rd party activity seen in the CPACE market thus far this year, staff expects to see an additional \$3 million in capital deployment by third party financiers that should deliver an additional 1.4 MW in capacity.
- Staff are proposing removing the EEPP Battery Storage targets for FY 2020 as the EEPP Battery storage program has not been approved by PURA.

Overall, targets for the organization are relatively flat after these proposed changes and are summarized in the attached chart.

II. Proposed Changes to the Green Bank Investment and Operating Budgets

The overall net proposed budget represents an increased spend of \$1.936 Million. The proposed updated budget differs from the original, approved budget in the following ways:

Incentive Business:

Staff proposes a total of \$1.895 million additional expenses and investment in the Incentive Business to reflect the cost of the issuance of the new SHREC backed bond and to prepare for the wind down of the RSIP. Note that all of these expenses in the Incentive Business are

cost recoverable through the sale of SHREC's as part of the Green Bank's administration of the RSIP.

- Revenues from RECs have been updated (increase of \$138,430 vs. original estimates)
- The following expenses are all cost recoverable:
 - Reallocation of \$75,000 from the Investment business related to Lamont Financial's consulting on bonding to the SHREC Tranche 3 issuance of the municipal bond (i.e., versus the asset back securitization for Tranche 1 and 2);
 - An additional \$1.62 million in bond issuance costs to cover the legal expenses and fees associated with the issuance. When the budget was originally created, staff were operating with the understanding that this would be amortized over the life of the bond and expense realized in the current fiscal year would be significantly less. We have since received guidance to the contrary and are updating this budget to reflect the actual cost of these expenses upfront for this fiscal year as opposed to over time through the term of the bond;
 - \$80,000 in consulting for RSIP and the SHREC issuance. This is to cover any policy related work associated with implementation of battery storage programs, or the transition to a tariff as well as consulting by the organization's outside engineers with regard to the production of systems in tranche 3;
 - \$85,000 in marketing expenses related to the sale of the retail green bonds for the SHREC offering in April;
 - Additional \$26,100 for dues to organizations that support the Green Bank's mission. These usually pay for themselves as we raise grants through these relationships;
 - \$190,000 in additional legal expenses reflect the costs associated with securing a credit facility backed by the tranche 3 systems.
 - These additional expenses are offset by a reduction of \$75,000 in Evaluation, Measurement and Verification expenses achieved by delaying a GIS visualization project and delays in battery storage programs.

Investment Business

The Green Bank is proposing adjusting the Investment business revenue upward by \$350,375 based on higher than expected LREC/ZREC income and a higher clearing price for RGGI auctions. Staff also proposes additional expenses of \$41,000 in the Investment Business to cover the resourcing needed to hit targets. It breaks down as follows:

- Additional \$30,000 in technology to support the monitoring of the systems in the PPA funds;
- \$16,000 in dues to support the Green Bank network and other similar organizations that benefit the Green Bank's mission;
- \$10,000 increase in inspections to support anticipated volume stemming from the special offer interest rate buy-down for Smart-E;
- Reduction of \$55,000 in Evaluation, Measurement and Verification expenses achieved by delaying a GIS visualization project, delays in battery storage programs, and other cuts.

- Increase in R&D expenses by \$20,000 to cover implementation of the transportation carbon offset pilot. This expense is offset by reducing expected projects related to ESA's and renewable heating and cooling.

In terms of general operations, staff are requesting an addition of \$120,000 in consulting expenses related to the anticipated move next fiscal year. This is split between both the incentive business and investment business (\$29,378 in Incentives vs. \$95,622 in Investment).

We look forward to our meeting this week and to discussing these with you at that time.

| Segment | Product | Channel | Targets | | | | | | | |
|--------------------|--------------------------------------|-----------------------------|--------------------|-----------------------------|------------------------|---------------------------------|----------------------|-------------------------------|--------------------|-----------------------------|
| | | | Number of Projects | Number of Projects (Recast) | Total Capital Deployed | Total Capital Deployed (Recast) | CGB Capital Deployed | CGB Capital Deployed (Recast) | Capacity Installed | Capacity Installed (Recast) |
| Financing Programs | CPACE | Total CPACE | 56 | 56 | \$ 22,000,000 | \$ 25,000,000 | \$ 9,500,000 | \$ 9,500,000 | 5.6 | 7.0 |
| | PPA | PPA Total | 34 | 33 | \$ 28,125,000 | \$ 27,960,000 | \$ 16,875,000 | \$ 16,776,000 | 12.7 | 12.6 |
| | SBFA | | 1000 | 1000 | \$ 20,000,000 | \$ 20,000,000 | \$ 2,000,000 | \$ 2,000,000 | | |
| | SMART-E | Smart-E Total | 540 | 540 | \$ 7,182,000 | \$ 7,182,000 | \$ 596,106 | \$ 596,106 | 0.5 | 0.5 |
| | Low Income Loans/Leases (PosiGen) | | 615 | 615 | \$ 17,202,165 | \$ 17,202,165 | \$ - | \$ - | 4.2 | 4.2 |
| | Multi-Family Pre-Dev | | 2 | 2 | \$ 140,000 | \$ 140,000 | \$ - | \$ - | | |
| | Multi-Family Term | Multi-Family Term Total | 9 | 8 | \$ 1,493,000 | \$ 1,328,000 | \$ 2,495,000 | \$ 2,396,000 | 0.3 | 0.2 |
| | Multi-Family Health and Safety Total | | 2 | 2 | \$ 110,000 | \$ 110,000 | \$ - | \$ - | | |
| | Strategic Investments | Strategic Investments Total | 2 | 2 | \$ 7,500,000 | \$ 7,500,000 | \$ 7,500,000 | \$ 7,500,000 | | - |
| | Financing Programs Total | | 2240 | 2239 | \$ 98,427,165 | \$ 101,262,165 | \$ 38,471,106 | \$ 38,372,106 | 21.0 | 22.3 |

| Segment | Program | Targets | | | | | | | |
|--------------------|--------------------------|--------------------|------|------------------------|----------------|----------------------|---------------|--------------------|------|
| | | Number of Projects | | Total Capital Deployed | | CGB Capital Deployed | | Capacity Installed | |
| Incentive Programs | Residential Solar | 7059 | 7059 | \$ 214,200,000 | \$ 214,200,000 | \$ 15,416,149 | \$ 15,416,149 | 60.0 | 60.0 |
| | EEPP-Battery Storage | 500 | | \$ 5,500,000 | | \$ 2,000,000 | | 2.0 | |
| | Incentive Programs Total | 7559 | 7059 | \$ 219,700,000 | \$ 214,200,000 | \$ 17,416,149 | \$ 15,416,149 | 60.0 | 60.0 |

| Segment | Business Segment | Targets | | | | | | | |
|---------|--------------------------|--------------------|------|------------------------|----------------|----------------------|---------------|--------------------|------|
| | | Number of Projects | | Total Capital Deployed | | CGB Capital Deployed | | Capacity Installed | |
| CGB | Financing Programs Total | 2240 | 2239 | \$ 98,427,165 | \$ 101,262,165 | \$ 38,471,106 | \$ 38,372,106 | 21.0 | 22.3 |
| | Incentive Programs Total | 7559 | 7059 | \$ 219,700,000 | \$ 214,200,000 | \$ 17,416,149 | \$ 15,416,149 | 60.0 | 60.0 |
| | Green Bank Total | 9130 | 8629 | \$ 299,575,000 | \$ 296,910,000 | \$ 55,775,205 | \$ 53,676,205 | 76.3 | 77.6 |

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Connecticut Green Bank
Fiscal Year Budget - Recast vs. Original
Fiscal Year ended June 30, 2020

| | Fiscal Year 06/30/2020 | | | Incentive Programs Fiscal Year 06/30/2020 | | | Financing Programs Fiscal Year 06/30/2020 | | |
|---|---------------------------|-------------------------|------------------|---|-------------------------|------------------|---|-------------------------|-----------------|
| | Budget | FY20 Original Budget | Variance | Budget | FY20 Original Budget | Variance | Budget | FY20 Original Budget | Variance |
| Revenue | | | | | | | | | |
| Operating Income | | | | | | | | | |
| Utility Customer Assessments | 25,986,400 | 25,986,400 | 0 | 0 | 0 | 0 | 25,986,400 | 25,986,400 | 0 |
| RGGI Auction Proceeds-Renewables | 4,193,148 | 4,031,800 | 161,348 | 0 | 0 | 0 | 4,193,148 | 4,031,800 | 161,348 |
| CPACE Closing Fees | 135,000 | 135,000 | 0 | 0 | 0 | 0 | 135,000 | 135,000 | 0 |
| REC Sales | 8,224,755 | 8,086,325 | 138,430 | 8,013,975 | 7,875,545 | 138,430 | 210,780 | 210,780 | 0 |
| Grant Income-Federal Programs | 30,000 | 30,000 | 0 | 0 | 0 | 0 | 30,000 | 30,000 | 0 |
| PPA Income | 252,000 | 252,000 | 0 | 0 | 0 | 0 | 252,000 | 252,000 | 0 |
| LREC/ZREC Income | 239,027 | 50,000 | 189,027 | 0 | 0 | 0 | 239,027 | 50,000 | 189,027 |
| Total Operating Income | 39,060,330 | 38,571,525 | 488,805 | 8,013,975 | 7,875,545 | 138,430 | 31,046,355 | 30,695,980 | 350,375 |
| Interest Income | 5,061,466 | 5,061,466 | 0 | 78,000 | 78,000 | 0 | 4,983,466 | 4,983,466 | 0 |
| Interest Income, Capitalized | 367,017 | 367,018 | 0 | 0 | 0 | 0 | 367,017 | 367,017 | 0 |
| Other Income | 135,000 | 135,000 | 0 | 0 | 0 | 0 | 135,000 | 135,000 | 0 |
| Total Revenue | \$ 44,623,813 | \$ 44,135,009 | 488,805 | \$ 8,091,975 | \$ 7,953,545 | 138,430 | \$ 36,531,838 | \$ 36,181,463 | 350,375 |
| Operating Expenses | | | | | | | | | |
| Compensation and Benefits | | | | | | | | | |
| Employee Compensation | 4,552,130 | 4,552,130 | 0 | 1,153,935 | 1,153,935 | 0 | 3,398,195 | 3,398,195 | 0 |
| Employee Benefits | 3,925,744 | 3,925,744 | 0 | 920,270 | 920,270 | 0 | 3,005,475 | 3,005,475 | 0 |
| Total Compensation and Benefits | 8,477,874 | 8,477,874 | 0 | 2,074,205 | 2,074,205 | 0 | 6,403,670 | 6,403,670 | 0 |
| Program Development & Administration | 2,863,929 | 2,858,929 | 5,000 | 1,609,895 | 1,614,895 | (5,000) | 1,254,033 | 1,244,033 | 10,000 |
| Program Administration-IPC Fee | 1,297,956 | 1,297,956 | 0 | 0 | 0 | 0 | 1,297,957 | 1,297,957 | 0 |
| Marketing Expense | 985,155 | 856,055 | 129,100 | 160,000 | 46,900 | 113,100 | 825,155 | 809,155 | 16,000 |
| E M & V | 395,000 | 525,000 | (130,000) | 125,000 | 199,999 | (75,000) | 270,000 | 325,000 | (55,000) |
| Consulting and Professional Fees | | | | | | | | | |
| Consulting/Advisory Fees | 540,900 | 460,900 | 80,000 | 287,400 | 132,400 | 155,000 | 253,500 | 328,499 | (75,000) |
| Accounting and Auditing Fees | 248,750 | 248,750 | 0 | 0 | 0 | 0 | 248,749 | 248,750 | 0 |
| Legal Fees & Related Expenses | 414,499 | 284,499 | 130,000 | 150,000 | 20,000 | 130,000 | 264,500 | 264,499 | 0 |
| Bond Issuance Costs | 1,800,000 | 180,000 | 1,620,000 | 1,800,000 | 180,000 | 1,620,000 | 0 | 0 | 0 |
| Total Consulting and Professional Fees | 3,004,149 | 1,174,149 | 1,830,000 | 2,237,400 | 332,400 | 1,905,000 | 766,749 | 841,748 | (75,000) |
| Research and Development | 310,000 | 290,000 | 20,000 | 0 | 0 | 0 | 310,000 | 290,000 | 20,000 |
| Rent and Location Related Expenses | | | | | | | | | |
| Rent/Utilities/Maintenance | 309,999 | 309,999 | 0 | 72,856 | 72,856 | 0 | 237,142 | 237,143 | 0 |
| Telephone/Communication | 124,599 | 124,598 | 0 | 29,283 | 29,284 | 0 | 95,316 | 95,316 | 0 |
| Depreciation & Amortization | 348,833 | 348,834 | 0 | 8,454 | 8,453 | 0 | 340,380 | 340,380 | 0 |
| Total-Rent and Location Related Expenses | 783,431 | 783,431 | 0 | 110,593 | 110,593 | 0 | 672,838 | 672,839 | 0 |

Connecticut Green Bank
Fiscal Year Budget - Recast vs. Original
Fiscal Year ended June 30, 2020

| | Fiscal Year 06/30/2020 | | | Incentive Programs Fiscal Year 06/30/2020 | | | Financing Programs Fiscal Year 06/30/2020 | | |
|--|-----------------------------------|---------------------------------|--------------------|--|---------------------------------|--------------------|--|---------------------------------|-----------------|
| | Budget | FY20 Original Budget | Variance | Budget | FY20 Original Budget | Variance | Budget | FY20 Original Budget | Variance |
| Office, Computer & Other Expenses | 1,075,633 | 950,633 | 125,000 | 238,212 | 208,835 | 29,378 | 837,420 | 741,798 | 95,622 |
| Total Operating Expenses | 19,193,127 | 17,214,027 | 1,979,100 | 6,555,305 | 4,587,827 | 1,967,478 | 12,637,822 | 12,626,200 | 11,622 |
| Program Incentives and Grants | | | | | | | | | |
| Financial Incentives-CGB Grants | 100,000 | 100,000 | 0 | 0 | 0 | 0 | 100,000 | 100,000 | 0 |
| Program Expenditures-Federal Grants | 30,000 | 30,000 | 0 | 0 | 0 | 0 | 30,000 | 30,000 | 0 |
| EPBB/PBI/HOPBI Incentives | 15,505,131 | 15,505,131 | 0 | 15,505,131 | 15,505,131 | 0 | 0 | 0 | 0 |
| Total Program Incentives and Grants | \$ 15,635,131 | \$ 15,635,131 | 0 | \$ 15,505,131 | \$ 15,505,131 | 0 | \$ 130,000 | \$ 130,000 | 0 |
| Operating Income/(Loss) | \$ 9,795,554 | \$ 11,285,850 | (1,490,296) | \$ (13,968,461) | \$ (12,139,413) | (1,829,049) | \$ 23,764,016 | \$ 23,425,263 | 338,753 |
| Non-Operating Expenses | | | | | | | | | |
| Interest Expense | 2,636,672 | 2,636,672 | 0 | 2,209,161 | 2,209,161 | 0 | 427,511 | 427,511 | 0 |
| Provision for Loan Loss | 2,965,625 | 2,965,625 | 0 | 0 | 0 | 0 | 2,965,625 | 2,965,625 | 0 |
| Interest Rate Buydowns-ARRA | 1,800,000 | 1,800,000 | 0 | 1,800,000 | 1,800,000 | 0 | 0 | 0 | 0 |
| Total Non-Operating Expenses | \$ 7,402,297 | \$ 7,402,297 | 0 | \$ 4,009,161 | \$ 4,009,161 | 0 | \$ 3,393,136 | \$ 3,393,136 | 0 |
| Net Revenues Over (Under) Expenses | \$ 2,393,257 | \$ 3,883,553 | (1,490,296) | \$ (17,977,622) | \$ (16,148,574) | (1,829,049) | \$ 20,370,880 | \$ 20,032,127 | 338,753 |



845 Brook Street
Rocky Hill, Connecticut 06067

300 Main Street, 4th Floor
Stamford, Connecticut 06901

T: 860.563.0015
F: 860.563.4877
www.ctcleanenergy.com

Memo

To: Connecticut Green Bank Board of Directors

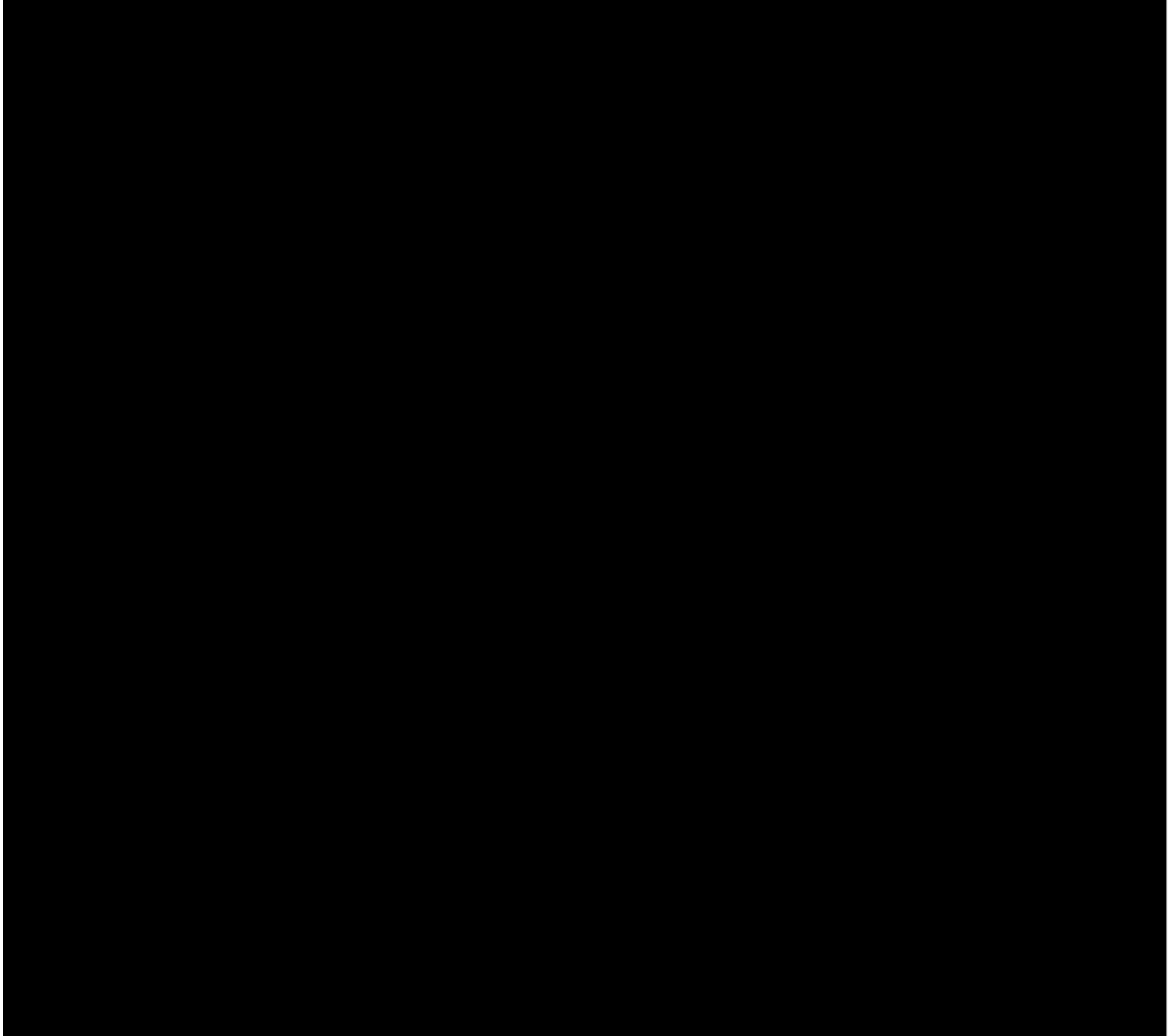
From: Mariana Trief, Consultant, Clean Energy Finance; Mackey Dykes, VP Financing Programs;

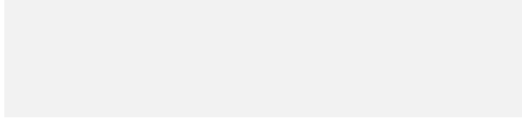
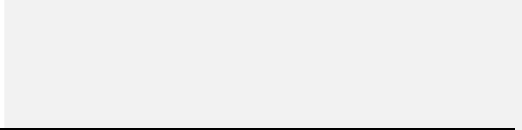
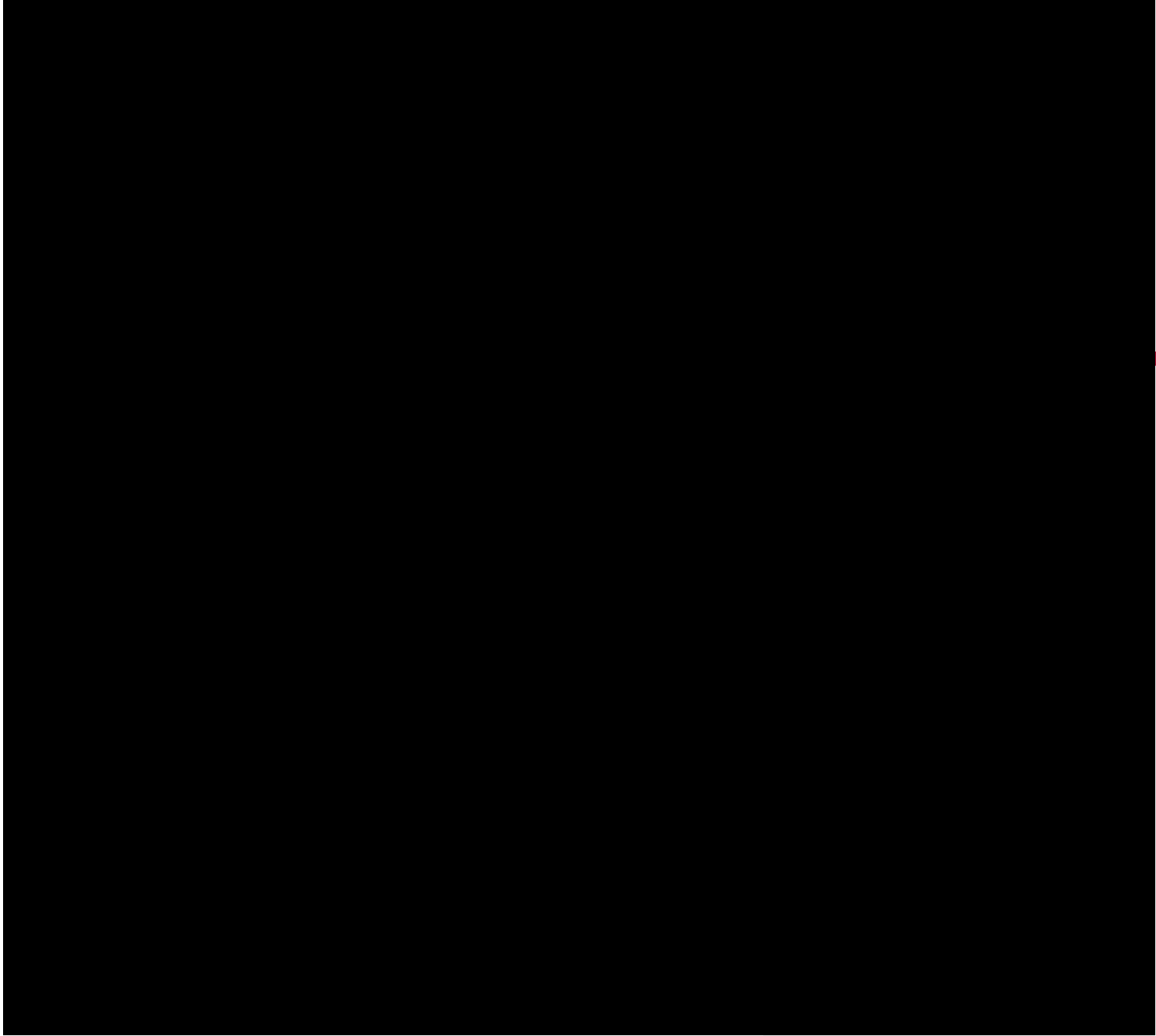
Cc: Bryan Garcia, President and CEO; Bert Hunter, EVP and CIO; Brian Farnen, General Counsel and CLO

Date: January 17, 2020 (revised January 23, 2020)

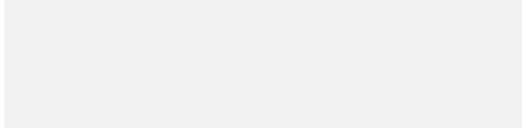
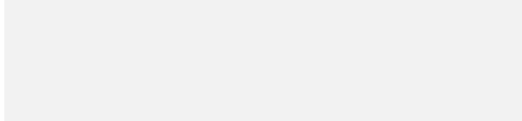
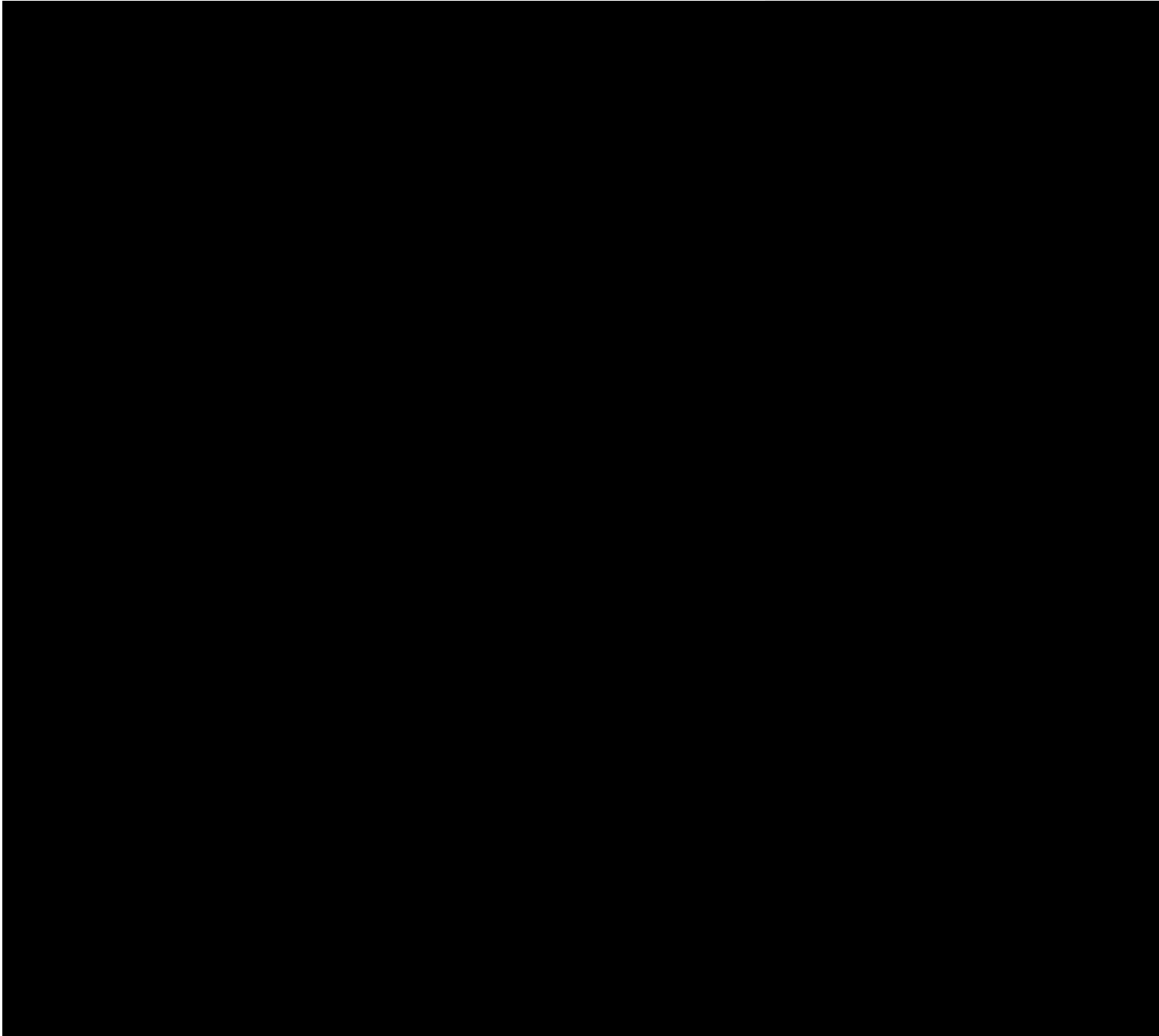
Re: C-PACE "Gap" Financing for Historic Cargill Falls Mill Redevelopment Project

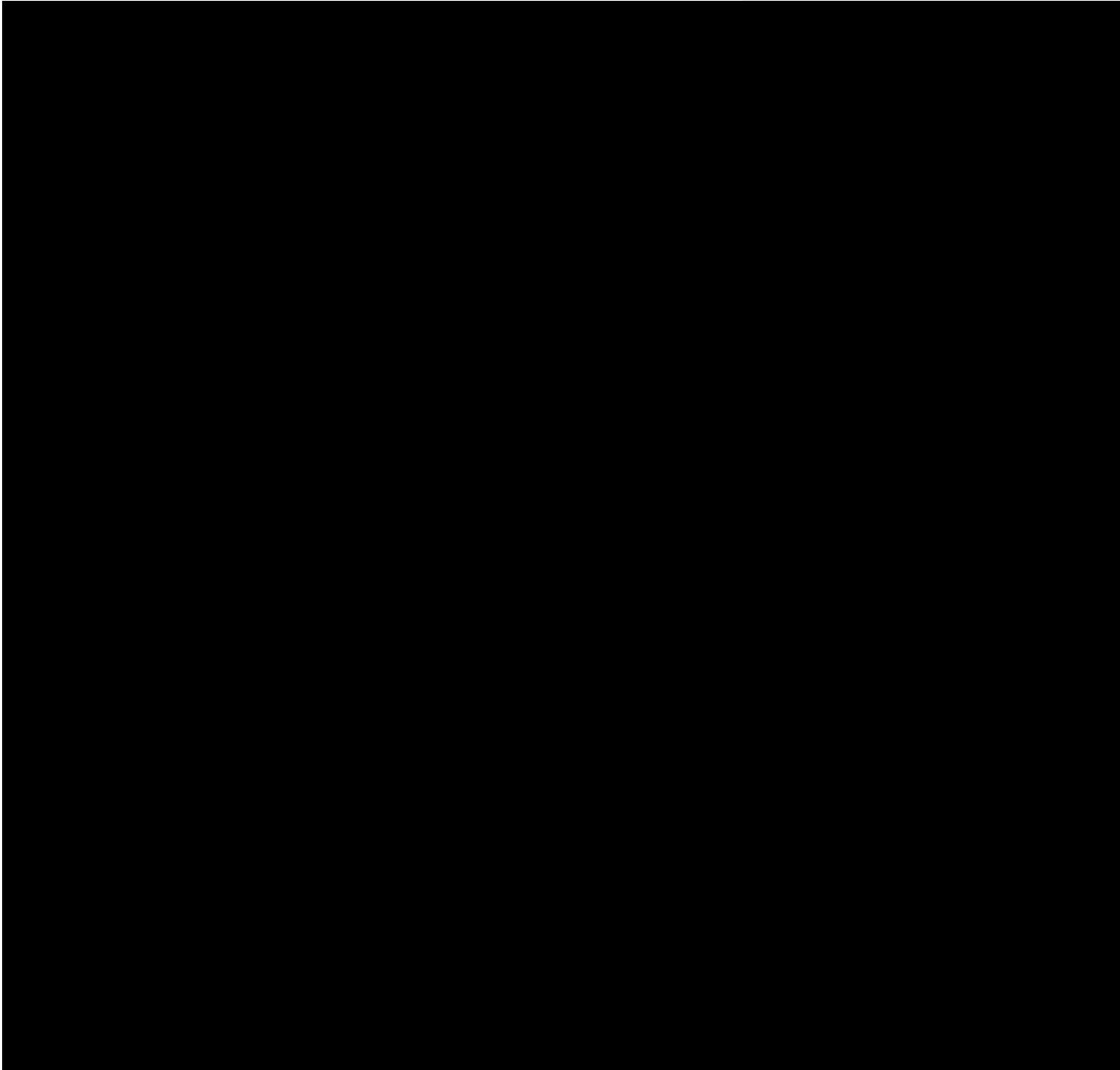






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Resolutions

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 Board of Directors ("Board") of the Green Bank previously approved a construction and term loan, secured by a C-PACE benefit assessment, not-to-exceed amount of \$6,200,000 (the "Current Loan") to Historic Cargill Falls Mill, LLC ("HCFM"), the property owner of 52 and 58 Pomfret Street, Putnam, Connecticut, to finance the construction of specified clean energy measures (the "Project") in line with the State's Comprehensive Energy Strategy and the Green Bank's Strategic Plan;

WHEREAS, the Project as part of a larger property redevelopment effort (the "Mill Redevelopment") requires additional gap financing from the Green Bank in the amount of \$300,000 to achieve closing on approximately \$33,000,000 in total funds;

WHEREAS, the Mill Redevelopment includes numerous energy conservation measures that align with the goals and priorities of the Green Bank's multifamily housing program;

WHEREAS, the Green Bank now seeks approval to amend the Current Loan to HCFM to provide up to \$300,000 in additional funding (the "Loan Amendment") for the Mill Redevelopment effort, inclusive of finalizing the existing Project work.

NOW, therefore be it:

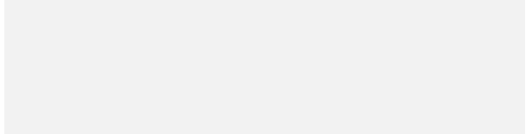
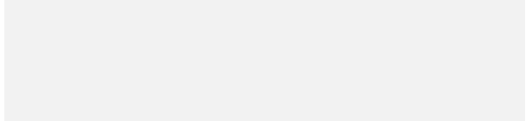
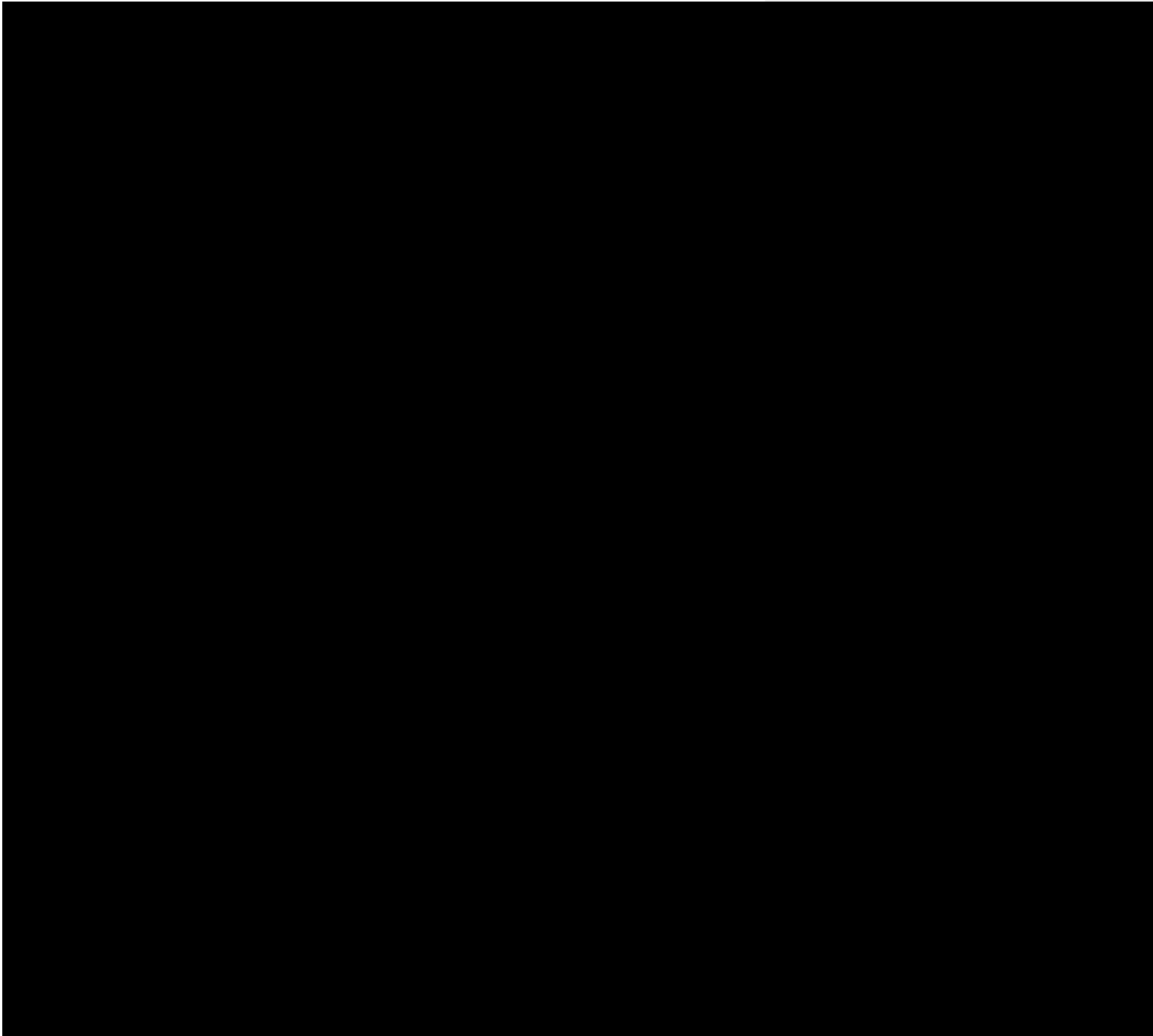
RESOLVED, that the President of the Green Bank and any other duly authorized officer of the Green Bank is authorized to execute and deliver the Loan Amendment in a total amount not to exceed the sum of (i) the existing C-PACE benefit assessment, plus any and all interest accrued, plus (ii) \$300,000, with terms and conditions consistent with the memorandum submitted to the Board dated January 17, 2020 (and revised January 23, 2020), and as he or she shall deem to be in the interests of the Green Bank and the ratepayers no later than 180 days from January 24, 2020; and

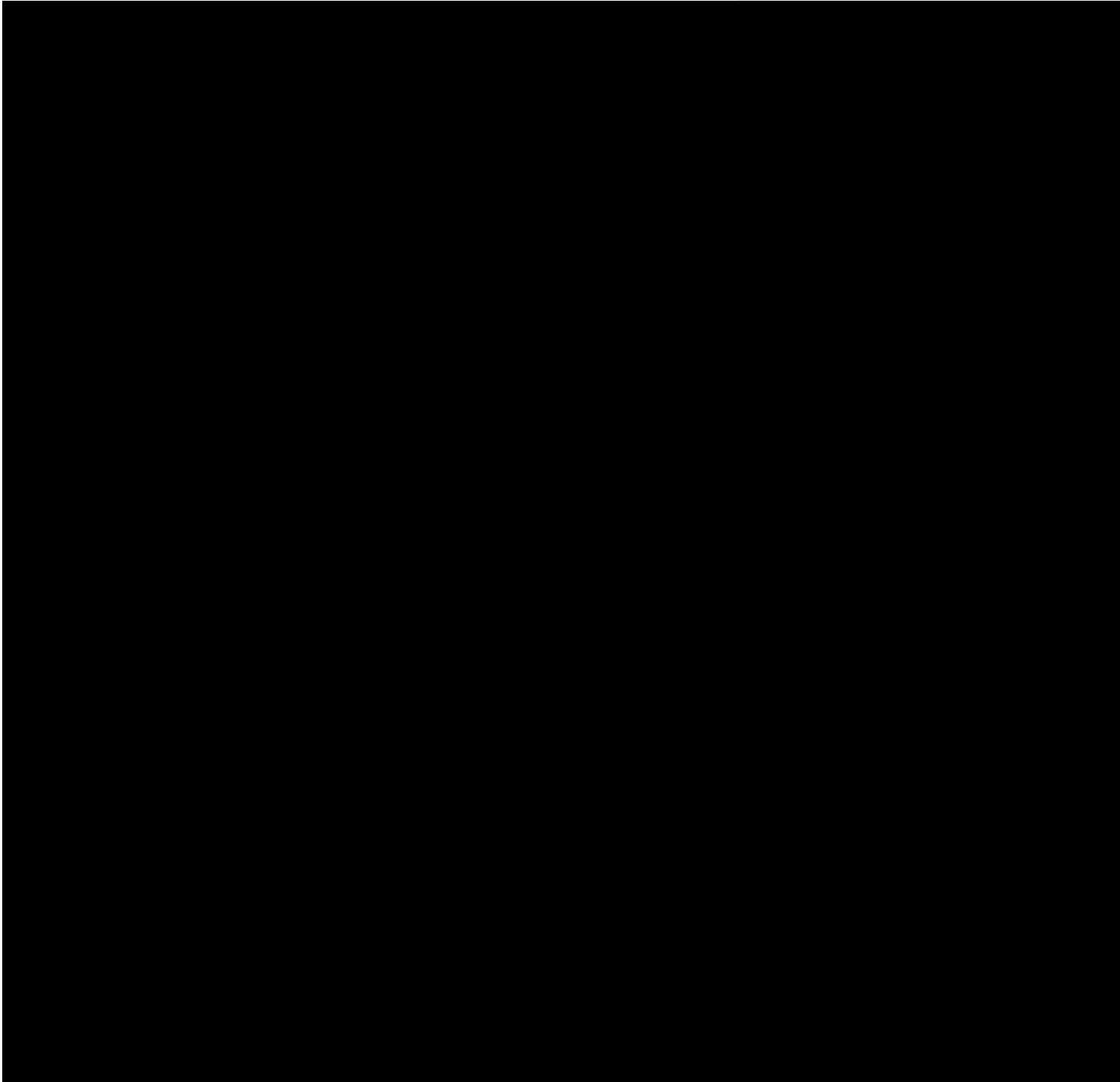
RESOLVED, that the proper Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents and instruments as they shall deem necessary and desirable to effect the above-mentioned legal instrument.

Submitted by: Bryan Garcia, President and CEO; Bert Hunter, EVP and CIO; Mackey Dykes, VP Financing Programs,

Deleted: Commercial, Industrial, and Institutional

Deleted: ; Kim Stevenson, Director, Multifamily Programs





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



Memo

To: Connecticut Green Bank Board of Directors
From: Bert Hunter, EVP and CIO
CC: Bryan Garcia, President & CEO; Brian Farnen, General Counsel & CLO; Selya Price, Director, Statutory & Infrastructure Programs; Mackey Dykes, VP, Commercial, Industrial & Institutional Programs; Jane Murphy, Finance and Administration
Date: December 17, 2019
Re: Clean Energy Financing Requests For Proposals (General Solicitations)

Background & Purpose

Per the Comprehensive Plan of the Connecticut Green Bank ("Green Bank"), considerable investment is needed in our state in order to continue progress toward reducing carbon emissions and pursuing sustainable development while confronting climate change. To achieve this overall objective, the Green Bank must:

- Increase and accelerate the impact of its model to support the implementation of Connecticut's climate change plan;
- Scale up investment and impact in Connecticut;
- Draw into the market more investment from private capital sources leveraged by innovative public sector financing; and
- Expand our use of green bonds to increase our access to capital beyond our current sources of funding to scale-up its investment activity, while providing more opportunities to engage Connecticut citizens in the state's growing green economy.

The Green Bank has been recognized for its leadership in financial innovation, leverage of private capital with its limited public resources, as well as positive impact on our environment, public health, jobs and economic development. Programs such as Solar Lease 2 which provided access to capital for contractors to deploy solar PV at scale for commercial and industrial properties across the state changed the way such solar projects are underwritten and financed. Our award-winning commercial PACE program has deployed more than \$150 million over 300 projects across the state – and continues to expand. Green Bank's "Solar for All" program has resulted in "solar parity" where low-to-moderate income families now demand solar PV at rates greater than their more affluent counterparts and "beyond parity" when it comes to race (i.e., Black and Hispanic households). Our multifamily programs are bringing the benefits of solar PV and energy efficiency to those families that rent or those that live in common ownership communities.

At the same time, we need to increase our efforts to achieve more impact. Following a discussion with the Green Bank Board of Directors (the “Board”) on alternatives for developers and capital providers to gain access to Green Bank resources while affording staff the ability to consider additional investment opportunities, the President and CEO proposed the introduction of an open and ongoing “Request for Proposals” program. In the meantime, staff has reached out to fellow green banks in New York (“NYGB”) and Australia (Clean Energy Finance Corporation or “CEFC”) to gauge the success and utility of open and ongoing solicitations for project proposals that they have managed for the past 5 plus years.

Following this outreach, staff returns to the Board to seek approval at a broad level to introduce an open and ongoing “Request for Proposals” program (the “Open RFP”) in early 2020. This Open RFP will support a variety of developers and capital providers – from emerging developers of commercially established technologies, to well-established manufacturers of emerging technologies and lenders and investors of all types. It is important to note that the Open RFP is not intended to be a venture capital program nor will it seek to assume risks that are more appropriate for other elements of a project’s or business’s capital stack. At its core, the Green Bank is a special purpose financial institution, with a responsibility to be good stewards of funds committed to it by statute to promote the clean energy and resiliency goals of the state.

The Financing Opportunity

The Open RFP is intended to provide access by project developers and capital providers / investors to Green Bank capital that will catalyze investment which – but for the Green Bank’s participation – would either not happen or be realized at a much slower pace or with less impact. Since inception, the Green Bank has demonstrated its ability to work with a variety of developers and capital providers to accelerate investment in clean energy, including energy efficiency as well as commonly known renewable technologies like solar PV, on-shore wind, run-of-the-river hydroelectric power, fuel cells and anaerobic digesters. The Green Bank proposes to commence a process through the Open RFP to:

- Receive proposals for Green Bank investment on an open and rolling basis, as received;
- Evaluate such proposals in accordance with objective and transparent criteria;
- To be “market responsive” and adaptable – meaning that the Green Bank will endeavor to render preliminary responses to proposals in days and weeks rather than months and to offer guidance to those proposals that fall short of our criteria where the proposals offer the promise of significant market potential; and
- To have a sufficient budget for investment in order to deliver significant impact quickly.

Potential for Activity

In discussions with NYGB and CEFC, representatives expressed a positive view of their RFP process. In terms of volume, NYGB has considered approximately \$3.5 billion in proposals. While it was not entirely clear whether CEFC track aggregate volume of proposals over time, it is a multiple of the NYGB – with transactions via this process under consideration as of June 30, 2019 totaling requests for A\$4 billion (US\$2.7 billion) across 80 projects. Clearly, by any measure, the RFP process successfully attracts transactions to these two Green Banks and suggests that the Connecticut Green Bank could expect similar success on a scale more commensurate with the relative size of Connecticut’s economy. For example,

New York's economy is roughly 5x the size of Connecticut. With about \$600 million in proposals on average over 6 years for NYGB, Connecticut might expect \$100 to \$125 million in proposals annually. While it is not possible to anticipate how many proposals may result in actual transactions worthy of investment – NYGB has committed approximately 20% (or circa \$700 million) towards these projects. A similar “yield” for our Green Bank would suggest an annual pace of about \$20 to \$25 million – well within our financing capacity.

Eligible Technologies

In order to not limit access to promising technologies, some of which may be on the verge of becoming commercially established, staff recommends that the Open RFP be available to any technology that is able to help the Green Bank achieve its statutory mandate as voiced through its Comprehensive Plan which staff reasonably determines: (a) is either already commercially viable (based on success in markets other than Connecticut or even other than the United States) or (b) has demonstrated clear potential for commercial viability through, for instance, well-documented feasibility studies and pilot programs where there is clear evidence of a viable business model and a path to substantial impact.

Financing Arrangements and Capital Support

Staff does not intend for the role of the Green Bank to be prescriptive, but to be determined in a manner that maximizes the potential for leverage of Green Bank resources while balancing the need for risk containment and Green Bank sustainability (i.e., the Green Bank's financial returns vs. the potential for financial losses). As such, staff expects Green Bank investments to take the usual forms, such as:

- Senior and Subordinate loans
 - Construction loans
 - Bridge loans
 - Working Capital loans
 - Term loans
- Loan loss reserves
- Loan guarantees
- Other forms of credit enhancement
- Participation in other lender's loans
- Equity (including participation as a member of a limited liability company, holder of preferred stock or other instruments that could be a hybrid of debt and equity, debt with conversion rights, debt with warrants for equity, etc.)

All of the above, of course, would be considered in accordance with Green Bank operating procedures and its enabling statute.

Eligible Proposers

The Open RFP would accept proposals from:

- 1) Private sector financial institutions or other third-party capital providers that finance, or intend to finance, clean energy technologies in State of Connecticut (although proposals that are part of a “multi-state” concept will also be welcomed and encouraged); and/or
- 2) Industry participants including project developers, energy service companies ("ESCOs"), building and facility owner/operators, equipment manufacturers, or others that provide equipment, materials and/or services related to eligible technologies where the object of the activity being proposed is entirely or meaningfully related to the State of Connecticut.

Proposers can apply on a standalone basis or as part of a team, such as a developer/sponsor, lead equipment provider, lead equity and/or debt provider.

Regardless of whether the proposal comes from a standalone entity or as part of a team, proposers must have directly relevant experience in the transaction/project type being submitted, and the relevant technologies.

Requirement for Clean Energy and Financial Impact

Of considerable importance to the program will be achieving leverage of private capital with its limited public resources as the Green Bank seeks to act in furtherance of the Connecticut’s ambitious environmental / GHG and CO2 reduction goals, Green Bank clean energy deployment objectives, and in support of public health outcomes, jobs and economic development.

The most successful proposals to this Open RFP will demonstrate the ability to make significant impact across all of these desired outcomes and the ability to measure and track such performance over time.

Green Bank Capital Commitment

As noted above, if the success of NYGB can be analogous to our condition, the Green Bank may (ultimately) expect upwards of \$20 to \$25 million in capital requirements for submitted proposals which could annually top \$100 million. This capital requirement is quite manageable in the context of both anticipated revenues from the system benefit charge, RGGI revenues, portfolio income and financing capacity (including recently executed lines of credit with commercial banks and the Green Bonds US campaign). Staff proposes for the current fiscal year allocation of up to \$5 million in Green Bank capital resources which could come from an existing capital set aside (hence no additional request for FY20). For FY21 and beyond, and depending upon the success of the program, staff will make budgetary requests (e.g., including additional revenues from green bonds issued) commensurate with the Open RFP program’s progress and expected timing of investment needs.

Recommendation

Since the establishment of the finance and program teams, Green Bank has been responsible for the deployment of more than \$1.8 billion in capital toward clean energy projects in Connecticut. At the same time, as explained herein, not only does more need to be done, but other Green Banks have demonstrated the success of open and ongoing RFPs to solicit investment proposals. Given the potential for success in Connecticut and our current financial capacity to meet anticipated proposal demands, staff recommends:

- A. Board approval for the Open RFP process and the requested \$5 million capital allocation for FY20 from existing budgetary authority, with the process eligible for release to the market as soon as possible in calendar 2020; conditioned upon
- B. Approval of each transaction under the RFP in accordance with Green Bank operating procedures.

Strategic Plan

Is the program proposed, consistent with the Board approved Comprehensive Plan and Budget for the fiscal year?

Yes – the proposed Open RFP operates in support of Green Bank’s Comprehensive Plan for Fiscal Year 2020 & Beyond and FY20 budget allocation of \$7,500,000 (approximately \$2,500,000 of which has been allocated to date to other investments).

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?

To be determined based upon transactions submitted to the Open RFP.

Terms and Conditions

What are the terms and conditions of ratepayer payback, if any?

To be determined based upon transactions submitted to the Open RFP.

Capital Expended

How much of the ratepayer and other capital that Green Bank manages is being expended on the project?

For FY2020, from the overall budget allocation of \$7,500,000 (approximately \$2,500,000 of which has been allocated to date to other investments), an allocation of \$5,000,000 of Green Bank capital is requested.

Risk

What is the maximum risk exposure of ratepayer funds for the program?

The maximum risk exposure is \$5,000,000 for FY20 resources once committed with the annual program being estimated to result in \$20 to \$25 million of investments annually.

Financial Statements

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

To be determined based upon transactions submitted to the Open RFP.

Target Market

Who are the end-users of the engagement?

Multiple end-users throughout the State of Connecticut to be determined based upon transactions submitted to the Open RFP.

Green Bank Role, Financial Assistance & Selection/Award Process

The Green Bank will award the capital pursuant to an RFP evaluation process TBD.

Program Partners

To be determined based upon transactions submitted to the Open RFP.

Risks and Mitigation Strategies

To be determined based upon transactions submitted to the Open RFP.

Resolutions

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

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

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

WHEREAS, the Comprehensive Plan and FY 2020 budget identify the need as well as the capacity to manage an initial Open RFP Program; and

WHEREAS, Green Bank staff recommends that the Board approve the establishment of the Open RFP Program as explained in a memorandum to the Board dated December 17, 2019.

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

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WHEREAS, the Comprehensive Plan and FY 2020 budget identify the need as well as the capacity to manage an initial Open RFP Program; and¶

WHEREAS, Green Bank staff recommends that the Board approve the establishment of the Open RFP Program as explained in a memorandum to the Board dated December 17, 2019.¶

NOW, therefore be it:¶

RESOLVED, that the Board approves Green Bank to establish the Open RFP Program as explained in a memorandum to the Board dated December 17, 2019; ¶

RESOLVED, that all investments from the Open RFP Program above staff level approval limits, presently over \$500,000, will require final authorization and approval from either the Deployment Committee (\$2.5 million and below) or the Board;¶

Resolved, that all investments from the Open RFP at or below staff level approval limits, presently under \$500,000, will require final authorization and approval from either the Deployment Committee or the Board until the establishment of Board approved program guidelines;¶
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 establishment and operation of the Open RFP Program. ¶

NOW, therefore be it:

RESOLVED, that the Board approves Green Bank to establish the Open RFP Program as explained in a memorandum to the Board dated December 17, 2019;

RESOLVED, that the Board directs the Green Bank staff to publicize revisions to the Green Bank's Operating Procedures in the Connecticut Law Journal and a notice of Intent to Amend Operating Procedures in accordance with Section 1-121 of the Connecticut General Statutes;

RESOLVED, that the Board approves of the revised Operating Procedures contingent upon receiving no material adverse public comment; 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 establishment and operation of the Open RFP Program.

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

CONNECTICUT GREEN BANK

OPERATING PROCEDURES

PURSUANT TO

**Section 16-245n of the
Connecticut General Statutes**

Adopted July 18, 2014
Revised December 16, 2016

I. DEFINITIONS

Definitions of terms used in these Operating Procedures are as stated in the Green Bank's Bylaws or in Section 16-245n of the General Statutes.

Clean Energy Project: An activity that (i) promotes investment in clean energy; (ii) fosters the growth, development, and commercialization of clean energy sources and related enterprises; (iii) stimulates demand for clean energy and deployment of clean energy sources that serve end use customers in this state; or (iv) supports the development of advanced technologies that reduce energy use from traditional sources. For purposes of this definition, "clean energy" has the meaning as provided in Connecticut General Statutes § 16-245n(a), as may be amended from time to time.

II. GENERAL PURPOSES

The general purposes of the Connecticut Green Bank shall be as prescribed in Section 16-245n of the General Statutes, and in a resolution of purposes adopted by the Board pursuant to Section 16-245n(d)(1) of the Connecticut General Statutes, including implementation of the Comprehensive Plan (all together referred to in these Operating Procedures as "the purposes of the Green Bank").

III. GOVERNANCE

The Green Bank, a quasi-public authority of the State of Connecticut, shall be governed by a Board of Directors comprised of a number and appointed in a manner as prescribed in Section

16-245n(e) of the General Statutes. The affairs of the Board shall be conducted in accordance with applicable law, the Green Bank's Bylaws, and such policies with respect to corporate governance as may be adopted by the Board.

IV. ADMINISTRATION

The affairs of the Green Bank shall be administered in accordance with applicable law, the Bylaws, these Operating Procedures and other administrative policies as may be adopted by the President in consultation with the Board. The Board shall appoint a President and such other officers as provided in the Bylaws. Under the direction of the Board, such officers shall conduct the business of the Green Bank and shall have such authority as is conferred by applicable law, the Bylaws, these Operating Procedures, and the Board. References in these Operating Procedures to approval by the Board shall mean and include approval by the Board or by any duly constituted committee thereof authorized to act on behalf of the Board pursuant to the Bylaws of the Green Bank.

V. ADOPTION OF ANNUAL OPERATING BUDGET AND PLAN OF OPERATION

Sixty (60) days prior to the close of each fiscal year, the President shall cause to be prepared a suggested Annual Operating Budget for the forthcoming fiscal year, which shall also comprise the Annual Plan of Operation. The suggested Annual Operating Budget for the forthcoming fiscal year shall be considered by the Board prior the close of the then current fiscal year, modified if deemed necessary, and adopted to be effective beginning the first day of the forthcoming fiscal year.

Any expenditure that exceeds the amount annually budgeted for a specific line item in the Annual Operating Budget by an amount greater than ten thousand dollars (\$10,000) shall require the approval of the Board.

The Annual Operating Budget shall incorporate the Green Bank's Annual Plan of Operation by specifying operating, programmatic, investment, and other expenses for the forthcoming fiscal year.

VI. COMMUNITY DEVELOPMENT FINANCIAL INSTITUTION

The Green Bank or an affiliate may seek to qualify as a Community Development Financial Institution under Section 4702 of the United States Code. If approved as a Community Development Financial Institution, then the Green Bank would be treated as a qualified community development entity for purposes of Section 45D and Section 1400N(m) of the Internal Revenue Code.

VII. PERSONNEL POLICIES

All employees shall be exempt from the classified service and shall have all rights and benefits provided by applicable law. Grade classifications for each job title shall be established by the President, subject to Board approval.

Hiring & Promotions: The President shall, in accordance with the Green Bank's Bylaws, establish a schedule of positions and total staffing levels for the Green Bank. The schedule of positions shall describe the signature authority, if any, of each position. The President, acting on

behalf of the Board, may from time to time fill any position on such schedule of positions and within such total staffing levels, except as may otherwise be provided in the Bylaws or any applicable resolution of the Board. The creation of any new Director-level position shall require the separate approval of the Board. For these purposes, "Director-level" means a Green Bank staff position one level under the officers in the Green Bank's staff organizational chart.

Whenever possible, the Green Bank shall maintain an identifiable career path for each class of positions on the schedule of positions approved by the Board. If the President determines it to be appropriate, then a current employee's position may be reclassified to another position within said career path. New positions approved by the Board and existing positions that become available as a result of a current employee vacating such position shall be posted internally and, if the President determines it to be appropriate, then publicly advertised in a manner reasonably designed to reach a range of possible applicants. A current employee shall be eligible for reclassification or promotion to an existing or new position only if such employee has at least six (6) months of service with the Green Bank and meets the minimum qualifications for such position.

Notwithstanding any other provision of this section or any employee handbook or other personnel policies of the Green Bank, the position of the President, the manner of the conduct of any search for qualified applicants for such position, and the terms and conditions of employment in such position, including matters of compensation, dismissal, and severance, shall be in the discretion and subject to the approval of the Board. Hiring and promotion shall in all cases be in accordance with the Green Bank's Affirmative Action Plan and applicable statutes.

Compensation and Benefits: The Board shall establish and may from time to time modify reasonable compensation plans and employee benefits programs and policies as the Board determines to be necessary or appropriate to attract and retain qualified employees and carry out the Green Bank's statutory mission, including:

- (a) A compensation plan, which shall consist of sufficient salary grades to provide such compensation rates as may be determined to be necessary or desirable for all job classifications within the Green Bank, and which may include an incentive compensation program for all jobs classifications;
- (b) An employee benefits program, which may include, but is not limited to, vacation days, holidays, sick days, group health, life, and disability insurance, tuition reimbursement, length of service awards and other benefits, including eligibility criteria and benefit levels;
- (c) A performance evaluation system, which may be used to determine merit increases in salary and incentive compensation levels;
- (d) Policies with respect to compensatory time, flex-time, and telecommuting;
- (e) Policies with respect to severance pay and benefits;
- (f) Policies with respect to business and travel reimbursement; and
- (g) Other reasonable compensation and employee benefits programs and policies as the Board determines to be necessary and appropriate to attract and retain qualified employees.

The President shall be empowered to administer the Green Bank's compensation plan and employee benefit programs and policies as approved by the Board, and shall have the authority to approve performance evaluations, determine merit increases and incentive compensation payments, and carry out such other duties and responsibilities as appropriate within the overall salary and employee benefits administration plan, except that performance evaluations and determination of merit or other salary increases and bonus payments for the position of President shall be reserved to the Board or the committee of the Board with responsibility for matters of compensation. The President has the authority to establish and modify certain employee policies involving workplace flexibility that do not in the aggregate have an adverse financial impact on the Green Bank. The Board shall review the Green Bank's compensation plan and employee benefit programs a part of its annual review of the Green Bank's Operating Budget and Plan of Operation.

Dismissal: Employment with the Green Bank is at-will, which means that either the employee or the Green Bank may terminate the relationship at any time and for any reason, with or without cause. The President may impose any level of disciplinary action, including termination, based upon the severity of the offense requiring discipline and the employee's past work record. This in no way alters the at-will employment policy.

VIII. PURCHASE, LEASE, ACQUISITION POLICY

FOR REAL AND PERSONAL PROPERTY

The Green Bank, acting through the President or another duly authorized officer, shall have the authority to invest in, acquire, lease, purchase, own, manage, hold, and dispose of real and personal property, and to lease, convey, or deal in or enter into agreements with respect to such real and personal property, on any terms necessary or incidental to the carrying out of the purposes of the Green Bank.

Procurement Procedures: The Green Bank may purchase, lease, or acquire real and personal property on a bid, negotiated, or open-market basis, including through a sole-source procurement or in such other manner as the President determines to be appropriate and in the best interests of the Green Bank in the circumstances, provided that in the case of any contract or agreement for the purchase, lease, or acquisition of real or personal property requiring an expenditure by the Green Bank in excess of seventy-five thousand dollars (\$75,000), wherever possible bids or proposals shall be solicited from at least three (3) qualified parties. The requirements of this subsection shall not be applicable to transactions entered into by the Green Bank primarily for the purpose of providing financial assistance pursuant to Articles XII, XIII and XIV of these Operating Procedures.

IX. CONTRACTING FOR PROFESSIONAL SERVICES

The Green Bank, acting through the President or another duly authorized officer, shall have the authority to engage accountants, attorneys, appraisers, financial advisers, investment advisors, underwriters, investment managers, investment bankers, brokers, architects, construction

managers, engineers, and other consultants and professionals on any terms necessary or incidental to the carrying out of the purposes of the Green Bank.

Procurement Procedures: Contracts for professional services shall be awarded by the Green Bank in such manner, including on the basis of a sole-source procurement, as the Board determines to be appropriate and in the best interests of the Green Bank in the circumstances, provided that (i) for such contracts requiring an expenditure by the Green Bank up to and including seventy-five thousand dollars (\$75,000) over a period of one (1) fiscal year, the President has sole approval authority; (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. The provisions of Section 1-127 of the General Statutes shall apply to the engagement of auditors by the Green Bank.

X. STATE CONTRACTING REQUIREMENTS

Any solicitation of bids or proposals by the Green Bank, and any award of a contract by the Green Bank, shall be subject to all state procurement and contracting requirements applicable to the Green Bank as a quasi public agency of the state

**XI. FUNDING SOURCES AND PROCEDURES OF
GENERAL APPLICABILITY TO FINANCIAL ASSISTANCE**

Funding Sources: Funding sources specifically authorized by the Statute include, but are not limited to:

- (a) Funds repurposed from existing programs providing financing support for clean energy projects, provided any transfer of funds from such existing programs shall be subject to approval by the General Assembly and shall be used for expenses of financing, grants, and loans;
- (b) Any federal funds that can be used for the purposes specified in Section 16-245n(c) of the General Statutes;
- (c) Charitable gifts, grants, and contributions, as well as loans from individuals, corporations, university endowments, and philanthropic foundations;
- (d) Earnings and interest derived from financing support activities for clean energy projects backed by the Green Bank;
- (e) If and to the extent that the Green Bank or an affiliate qualifies as a Community Development Financing Institution under Section 4702 of the United States Code, then funding from the Community Development Financing Institution Fund administered by the United States Department of Treasury, as well as loans from and investments by depository institutions seeking to comply with their obligations under the United States Community Reinvestment Act of 1977; and
- (f) The Green Bank may enter into contracts with private sources to raise capital. The average rate of return on such debt or equity shall be set by the Board.

Procedures of General Applicability to Financial Assistance:

- (a) For clean energy projects, the amount to be financed by the Green Bank and other nonequity financing sources cannot exceed eighty per cent (80%) of the cost of developing and deploying such projects.
- (b) For energy efficiency projects the amount to be financed by the Green Bank and other nonequity financing sources cannot exceed one hundred per cent (100%) of the cost of financing such projects.
- (c) The Green Bank may assess reasonable fees on its financing activities to cover its reasonable costs and expenses, as determined by the Board.
- (d) The Green Bank shall make information regarding the rates, terms, and conditions for all of its financing support transactions available to the public for inspection, including formal annual reviews by both a private auditor conducted pursuant to Section 16-245n(f)(2) of the General Statutes and the Comptroller, and providing details to the public on the Green Bank's Web site; provided that public disclosure shall be restricted for patentable ideas, trade secrets, proprietary or confidential commercial or financial information, disclosure of which may cause commercial harm to a nongovernmental recipient of such financing support and for other information exempt from public records disclosure pursuant to Section 1-210 of the General Statutes.
- (e) Any entity that receives financing for a clean energy project from the Clean Energy Fund (Fund) shall provide the board an annual statement during the time period that funds are dispersed, certified as correct by the chief financial officer of the recipient of such

financing, setting forth all sources and uses of funds for such project in such detail as may be required by the Green Bank. The Green Bank shall maintain any such audits for not less than five (5) years. Residential projects for buildings with one to four dwelling units are exempt from this and any other annual auditing requirements, except that residential projects may be required to grant their utility companies' permission to release their usage data to the Green Bank.

**XII. FINANCIAL ASSISTANCE—GRANTS, LOANS OR LOAN GUARANTEES,
DEBT AND EQUITY INVESTMENTS**

The procedures in this section are generally applicable to the award of grants, loans or loan guarantees, and debt and equity investments for clean energy projects when the Board determines that one of the following methods be used in the selection and award process: (i) competitive selection and award; (ii) programmatic selection and award; or (iii) strategic selection and award. The factors to be considered in choosing the appropriate selection and award method, and the general procedures to be followed in each such case are set forth below.

Competitive Selection and Award

Applicability: Competitive selection and award shall be the preferred method when the Board determines that it is appropriate in the circumstances to invite and consider proposals for a particular clean energy project or projects in a competitive process under an established schedule and pursuant to formal qualification and selection criteria so that proposers and proposals may be evaluated fairly and thoroughly on a comparative basis.

Issuance of RFP: A request for proposals (RFP) shall be published or distributed in a manner that the Green Bank determines will promote broad participation in the competitive process. Deadlines for particular stages in the competitive selection process will be set forth in the RFP. Notice of the RFP shall be posted on the Web site of the Green Bank, may be published in one or more major daily newspapers published in the State, and may also be posted on the Web site of the Connecticut Department of Administrative Services. The RFP itself shall also be posted on the Web site of the Green Bank and shall be mailed to or otherwise made available to interested parties in a reasonable manner.

Eligibility: Each RFP shall be issued pursuant to guidelines established by the Green Bank consistent with the Green Bank's Comprehensive Plan and Annual Operating Budget. Such guidelines shall at a minimum set forth: (i) proposer qualification requirements; (ii) project eligibility criteria; (iii) the nature and amount of financial assistance available from the Green Bank under the program; (iv) the principal selection criteria; (v) any mandatory terms and conditions under which such funding is available; (vi) applicable application, processing, or other program fees; and (vii) the process by which proposals will be considered and acted upon. Such guidelines may be modified, in whole or in part, from time to time and at any time by the Green Bank, consistent with the authorizing resolution of the Board.

Selection Criteria: Selection criteria shall include, as applicable, (i) the eligibility of the proposer; (ii) the proposer's qualifications and experience; (iii) the financial feasibility of the project, including the availability and firmness of required financing; (iv) the cost-effectiveness of the project; (v) the technological characteristics of the project, including

the potential for technological improvements and advancements; the project's operational feasibility and commercial applicability; (vi) the jobs created by the project; (vii) the environmental benefits stemming from the project; and (viii) the contributions to be made by the project toward the statutory purposes of the Green Bank and the furtherance of the Comprehensive Plan. Other selection criteria may be established for any RFP, and any weighting of selection criteria shall be in the discretion of the Green Bank as provided in such RFP. If appropriate in the circumstances, then an RFP may be first issued as a request for qualifications, following which those respondents found to be qualified are invited to respond to a final RFP.

Selection Process: The selection process shall be designed to provide for a fair and thorough evaluation of each eligible and qualified proposal, and shall be described in the RFP. The selection process may include the use of a review or scoring team, which may include members of any advisory committee, members of the staff of the Green Bank, and independent members with relevant industry, academic, or governmental experience. No member of any such review or scoring team shall have any financial or other personal interest in any proposed project. Any such review or scoring team shall act in an advisory capacity only and shall not constitute a committee or subcommittee of the Board, and the members of any such review or scoring team shall not be deemed to be public officials as a result of their service thereon. If the Green Bank determines that the responses to the RFP have been insufficient in number or quality to achieve the objectives of a competitive selection and award process or otherwise determines it to be in the best interest of the Green Bank, then the RFP may be extended, withdrawn and reissued, or cancelled at any time.

Selection Decision: One or more proposers may be selected for the purpose of entering into negotiations, if applicable, with respect to a project. Such selection shall be made by the Green Bank after taking into account the established selection criteria, any report or recommendation by staff of the Green Bank, the report of any review or scoring team, and the results of any review and recommendation by any advisory committee to the Board, applied on an equitable basis. If more than one proposal is selected, then they may be ranked in order of preference, which ranking may be based on the recommendation of staff of the Green Bank, such advisory committee, or the review or scoring team.

Notification to Proposers; Effect of Selection: All proposers shall be promptly notified of the results of the selection process. Such results may also be posted on the Web site of the Green Bank. Any such selection and notification is solely for the purpose of qualification for possible negotiation and does not constitute a financing commitment or the award of a contract.

Negotiation: The Green Bank may enter into good faith negotiations with one or more of the selected proposers at such time and in such order as the Green Bank may determine in its discretion consistent with the terms of the RFP. The commencement of such negotiations does not signify a commitment to provide financial assistance or to enter into a contract with a proposer. Either the proposer or the Green Bank may terminate such negotiations at any time for any reason. The Green Bank reserves the right to enter into negotiations with any other proposer at any time. Such negotiations shall not be limited to the scope or terms of the proposal but may include such other matters or different terms as the Green Bank may determine to be in the best interests of the Green Bank.

Award: Upon mutual agreement regarding the terms and conditions of the financial assistance, the Green Bank and the selected proposer may enter into a contract which memorializes the agreed-upon terms and conditions subject to all necessary Green Bank approvals, including the Board or a duly authorized committee of the Board.

Fees and Expenses: The Green Bank may impose reasonable application, processing, or similar fees in connection with the submission and processing of proposals, and may require, as a condition of negotiation with any selected proposer, that such proposer agree to pay costs incurred by the Green Bank, including fees and disbursements of the Green Bank's counsel, consultants, and other professional advisors. Any pre-established application, processing, or other program fees shall be set forth in the RFP.

State Contracting Requirements: Any RFP shall be subject to, and any definitive financing or contracting documents shall include, such provisions as may be required by applicable laws or executive orders, including with respect to non-discrimination and affirmative action.

Other Terms and Conditions: Any RFP may be subject to and include such other terms and conditions, not inconsistent with the requirements of these procedures, as the Green Bank may determine in its discretion to be appropriate and in the best interests of the Green Bank.

Programmatic Selection and Award

Applicability: Programmatic selection and award shall be the preferred method when the Board determines that it is appropriate in the circumstances to invite applications on a

continuing or periodic basis for clean energy projects with identified characteristics and to consider such applications under pre-established program-based qualification, eligibility, and selection criteria, but that it is not necessary or appropriate to evaluate such applications on a comparative basis as part of a competitive RFP process. Any such program may be discontinued, suspended, extended, or expanded at any time by the Board based on its determination of what is appropriate and in the best interests of the Green Bank.

Program Guidelines: Each such program shall be authorized by resolution of the Board and operated and administered by the Green Bank pursuant to program guidelines established by the Green Bank consistent with such Board authorization, which shall at a minimum set forth: (i) applicant qualification requirements; (ii) project eligibility criteria; (iii) the nature and amount of financial assistance available from the Green Bank under the program; (iv) the principal selection criteria; (v) any mandatory terms and conditions under which such funding is available; (vi) the application process, including a standard application form; (vii) applicable application, processing, or other program fees; and (viii) the process by which applications will be considered and acted upon. Such program guidelines may be modified, in whole or in part, from time to time and at any time by the Green Bank, consistent with the authorizing resolution of the Board. A general description of each such program, including the applicable program guidelines, and all such modifications, if any, shall be posted on the Web site of the Green Bank.

Approval; Terms and Conditions of Award: Applications shall be subject to the approval of the Board, or of the President or other officer of the Green Bank if and to the extent so authorized in the authorizing resolution of the Board, after taking into account any report

or recommendations of the staff of the Green Bank or an advisory committee, if applicable. Financial support for a project under any such program shall be in such amount, and shall be subject to such project-specific terms, conditions, and requirements, as may be determined by the Green Bank within the limits established by the authorizing resolution of the Board and consistent with the program guidelines.

Fees and Expenses: The Green Bank may impose reasonable application, processing, or similar fees in connection with the submission and processing of proposals, and may require, as a condition of negotiation with any selected proposer, that such proposer agree to pay costs incurred by the Green Bank, including fees and disbursements of the Green Bank's counsel, consultants, and other professional advisors. Any pre-established application, processing, or other program fees shall be set forth in the applicable program guidelines.

Deleted: ¶

Strategic Selection and Award

Applicability: While the utilization of an open and public process, either competitive or programmatic, for awards from the Green Bank is anticipated most often to be in the best interest of the Green Bank and is to be strongly preferred, there are nevertheless recognized to be certain circumstances in which, based on special capabilities, uniqueness of the opportunity, urgency of need, cost, and similar factors, the public interest and the strategic mission of the Green Bank is best served by direct participation by the Green Bank in, and funding of, a particular clean energy project outside of an existing program and absent a competitive process of selection and award. Such strategic

selection and award method may be utilized upon an affirmative resolution, adopted by a two-thirds majority of the members of the Board present at a meeting of the Board, determining that the advantages of strategic selection and award clearly outweigh the general public interest in an open and public process based on a finding that at least three (3) of the following characteristics are present and are of predominant importance to the Green Bank:

- (a) Special Capabilities: The opportunity is presented by a party with exceptional experience, expertise, or availability, or holding patent or other proprietary rights of special value to the Green Bank.
- (b) Uniqueness: The opportunity is one-of-a-kind by virtue of location, high visibility, and leverage with other already committed public or private funding or similar unique attributes.
- (c) Strategic Importance: The opportunity has exceptionally strong compatibility with the mission of the Green Bank, including the jobs created by the project or the environmental benefits stemming from the project, or offers the Green Bank an organizational role, participation in governance, a formative or other key role in the industry, high funding leverage potential, broad market reach, exceptional educational or public relations value, or similar special strategic advantages important to the Green Bank.
- (d) Urgency and Timeliness: There is an urgent need to act on the opportunity as a result of public exigency or emergency, or a strategically important opportunity would become unavailable as a result of delay, or it would

take an unacceptable length of time for a similar opportunity to reach the same level of readiness.

- (e) Multiphase Project; Follow-on Investment: The opportunity relates to the next phase of a multiphase proposal or the expenditure is necessary to support or protect an existing the Green Bank investment or initiative.

Other Requirements: Awards made by strategic selection and award shall to the extent applicable be otherwise subject to the same (i) Board of Director or Deployment Committee approval requirements and (ii) procedures set forth with respect to competitive selection and award under the headings “Negotiation”, “Award”, “Fees and Expenses”, “State Contracting Requirements”, and “Other Terms and Conditions”.

If the Board of Directors approves of an open competitive process of selection and award with established criteria to encourage the investment and deployment of clean energy sources in Connecticut, such award will not be considered a strategic selection and the additional requirements for a strategic selection shall not be required.

XIII. ISSUING AND RETIRING BONDS, BOND ANTICIPATION NOTES, AND OTHER OBLIGATIONS OF THE GREEN BANK

The Board shall approve the issuance and retirement of all bonds, bond anticipation notes, and other obligations of the Green Bank. Such approval may include, but not be limited to, their form, denominations, maturities, rates, prices, public or private sales, and other provisions important or necessary for their issuance or retirement, including the payment of all expenses, premiums, and commissions in connection therewith.

XIV. SURPLUS FUNDS

Surplus funds generated through the sale of bonds, bond anticipation notes, or other obligations of the Green Bank, to the extent not needed for the payment of interest and principal due on any payment of said bonds, bond anticipation notes, or other obligations, if any accrued by the Green Bank, shall be withdrawn and transferred to the Green Bank's Operating Account at such times as is permitted under applicable resolutions for the bonds, bond anticipation notes, or other obligations to be used for any lawful purposes of the Green Bank.

XV. PERIODIC REVIEW; AMENDMENT OF PROCEDURES

At least annually, the Audit, Compliance, and Governance Committee of the Board shall meet to review and discuss the matters addressed by these Procedures and, if deemed necessary, to make recommendations for amendment of these Procedures to Board. Amendments to these Procedures shall be effective only upon adoption of such amendments by a two-thirds vote of the Board.

* * *



Memo

To: Bryan Garcia, President and CEO, CT Green Bank and CT Green Bank Senior Staff
From: Joe Buonannata, Manager, Program Operations
CC: Kerry O'Neill, President and CEO; Madeline Priest, Senior Manager, Market Engagement
Date: January 17, 2020
Re: Smart-E Loan Interest Rate Buydown Program Proposal

Purpose

The purpose of this memorandum is to request approval from Connecticut Green Bank ("Green Bank") Senior Staff of the Smart-E Loan Program team's ("Program Staff") proposal to restart the Interest Rate Buy-Down Program ("IRB") associated with the Smart-E Loan ("Smart-E").

The Green Bank has an estimated \$1.5 million of American Recovery and Reinvestment Act State Energy Program ("ARRA-SEP") funds allocated for the Smart-E IRB for FY20, per the approved Green Bank budget. Program Staff is proposing to deploy \$1M¹ of these funds strategically to buy-down the interest rates of Smart-E Loans for residential energy projects that support Connecticut's climate change plan, as outlined in the Green Bank's FY20 and Beyond Comprehensive Plan², focused on three key climate change mitigation wedges: decarbonizing electricity generation, decarbonizing transportation, and decarbonizing buildings.

Program Staff is proposing a special offer rate of 2.99% for qualifying 5, 7 and 10-year loans. The target promotional period for the 2.99% offer is March 1, 2020 – December 31, 2020, or until \$1 million of the \$1.5 million budget is expended.

¹ Per Green Bank Accounting, remaining ARRA-SEP allocations are: \$1.5M for Smart-E IRB, \$300,000 for LIME Loan (multifamily) and \$300,000 for CT Solar Loan. Program Staff propose reserving \$500,000 of the \$1.5M Smart-E allocation for a future promotion related to contractor engagement following potential implementation of a contractor fee to participate in the program.

² [Connecticut Green Bank Comprehensive Plan – Fiscal Year 2020 & Beyond](#), July 2019

A reminder that this reduced rate is made possible by the Green Bank Board of Directors'- approved increase of the pool of appropriated IRB funds from \$1.5 million to \$6 million, effective March 15, 2017. Program Staff are confident that the market – homeowners, contractors, lenders and utility partners – will respond positively to this IRB and that it will incentivize homeowners to implement the target project upgrades, resulting in greater energy and financial savings, and achievement of important state policy goals.

Background

To date, Program Staff have managed several successful IRB promotional periods focused on technologies or technology pairings that support the state’s energy policy goals.

Most recently, in 2017, Program Staff launched an aggressive special offer at 0.99% in support of the Comprehensive Energy Strategy and the Governor’s Council on Climate Change that, in part, referenced the need for electrification of heating and cooling, deployment of renewable heating and cooling, and promotion of zero emission vehicles (where ARRA-SEP funds were used for IRBs for electric vehicle chargers attached to residential homes).

The Smart-E 0.99% special offer resulted in:

- 1,272 closed loans over a period of about eight months
- Approximately \$20.6M in private capital deployed across eleven lenders
- Approximately \$4M in ARRA-SEP funds deployed into IRBs
- Approximately 18,065 MMBTU savings (excluding solar PV)
- Approximately 6,132 tons of CO2 saved

| Smart-E 0.99% Special Offer Results | | | | |
|--|--------------|-------------------------------------|--------------------------|--------------------|
| Term | Count | Percent of Total 0.99% Loans | Average Principal | Average IRB |
| 5 Years | 205 | 16% | \$10,635 | \$860 |
| 7 Years | 128 | 10% | \$11,637 | \$1,502 |
| 10 Years | 939 | 74% | \$18,040 | \$3,859 |

On December 1, 2018, Program Staff instructed Smart-E’s lenders (community banks, credit unions, and one community development financial institution - Capital for Change) to return to the program’s standard offering: 5-year loans at 4.49%, 7-year loans at 4.99%, 10-year loans at 5.99% and 12-year loans at 6.99%.

Smart-E has operated strongly in the wake of the 0.99% special offer, with nearly 1,800 loans closed in calendar years 2018 and 2019 equaling approximately \$23.5M in private capital deployed.

Of note, heat pumps were a major thrust of the 0.99% special offer and since the promotional period ended, heat pump volume has continued steadily – as shown below - demonstrating a significant level of market transformation. That said, there is still a long way to go to significantly increase market penetration for heat pumps, deployment of which is critical to decarbonization of the building sector.

| Smart-E Loans with Heat Pumps | |
|--------------------------------------|---------------------|
| Period | Closed Loans |
| 2013 – 2016 (Pre-0.99%) | 174 |
| 2017 (0.99%) | 400 |
| 2018 – 2019 (Standard Rates) | 210 |

The overall portfolio of over 4,500 closed loans (equaling approximately \$69.6M of private capital deployed) also continues optimal performance as of December 31, 2019, with 80 delinquencies equaling approximate \$1.16M (1.8%) and 28 defaults/charge offs equaling approximately \$468,000 (0.67%). Of these defaults/charge-offs, Green Bank has only paid out \$73,265 to date from its loan loss reserve (structured as a 2nd loss reserve).

2.99% Smart-E Promotion

What Qualifies?

Program Staff is continuing to finalize details of the qualifying special offer packages, with a keen focus on deploying the \$1M IRB budget strategically to support technologies that are important to the Green Bank and State of Connecticut’s climate plan.

Proposed special offer packages to be financed at 2.99% for the borrower’s choice of a 5, 7 or 10-year term include:

- **Heat Pumps** (air source / ducted systems, ductless mini splits, heat pump water heaters)
 - o Paired with an energy assessment through the Energize CT Home Energy Solutions program (“HES”); or,
 - o Paired with HES plus any recommendations that come from the assessment (e.g., additional air sealing, insulation)

Program Staff provided an overview of the proposed Heat Pump + HES bundle to Program Administrators and staff at Eversource and Avangrid (“Utility Partners”), all of whom gave positive feedback. Success of this special offer package would help support the Utility Partners’ priorities outlined in their current Conservation and Load

Management Plan³ and the Green Bank's efforts to decarbonize buildings, which represent over 30% of the state's greenhouse gas ("GHG") emissions.

- **Ground Source Heat Pumps**

Program Staff propose to include **ground source heat pumps ("GSHP" or "geothermal")** as qualifying special offer technology. Heat pumps "concentrate naturally existing heat, rather than by producing heat through the combustion of fossil fuels⁴." GSHP are typically designed so that they can replace a home's fossil fuel heating system, making them important technologies to support the decarbonization of buildings; however, their assumed installed cost is \$40,000 or more (Smart-E's maximum loan amount), as compared to air source heat pumps which range between \$10,000 - \$15,000, so Program Staff will closely monitor deployment of these systems to ensure we remain within budget.

Program Staff will continue to work with GSHP contractors to review projects to determine if a split between Smart-E (2.99%) and CT Heat Loan (0.99%) financing is possible.

- **Electric Vehicle Chargers**

Program Staff is proposing a special offer on electric vehicle supply equipment ("EVSE"), most commonly referred to as Level 1 (120 volt) or Level 2 (240 volt) EVSE, to support the Green Bank's effort to decarbonize transportation, which represents over 35% of the state's emissions.

Level 1 EVSE are simple chargers that plug into most standard household outlets and do not require special equipment. According to a review of multiple EVSE manufacturers' offerings, average installed cost is less than \$500 for this type of charger.

Level 2 EVSE are better suited for providing a quicker and stronger charge – adding between 10-60 miles of range per hour of charging, as compared to a Level 1's 2-5 miles of range per hour, according to the US Department of Energy⁵. Average installed cost for Level 2 EVSE is between \$500-\$2,000 but could increase if an electric service upgrade is required at the home, which a Smart-E Loan can also cover as part of the approved 25% "other/related" measure carveout.

During the 0.99% promotional period, 21 Smart-E Loans included EVSE, mostly coupled with solar PV.

³ [2019-2021 Plan Conservation & Load Management Plan Update](#), March 1, 2019

⁴ <https://www.energy.gov/eere/geothermal/geothermal-heat-pumps>

⁵ <https://www.energy.gov/eere/electricvehicles/charging-home>

- **Battery Storage**

Program Staff is proposing a special offer on battery storage technologies to support the Green Bank's effort to decarbonize electricity generation, which represent 23% of the state's GHG emissions.

Battery storage enables peak reduction, thereby allowing for better integration of renewables, particularly solar PV, into the electric grid. Program Staff have also heard an increased demand from homeowners for battery storage technologies for purposes of back-up power and resiliency.

Program Staff will work alongside the Green Bank's Incentive Team to manage the technical review of battery storage applications that are add-ons to existing solar PV systems and/or paired with new solar PV installations.

To date, Smart-E has financed less than 10 battery storage projects, all of which were paired with solar PV. Program Staff have approved a small number of Tesla Powerwall batteries, one in January 2020 and two during the 0.99% promotional period. Assumed installed cost of battery storage technologies is \$11,000.

It should be noted that the IRB promotion being proposed here will not be available for solar PV systems, though they can be financed at a blended Smart-E rate.

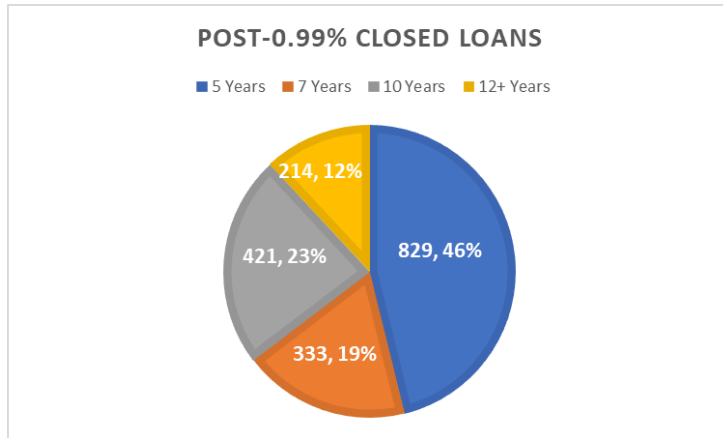
- **Blended Rate Loans**

Program Staff are working to design a special offer that balances strategic deployment of the \$1M IRB budget while maintaining a key pillar of Smart-E: being a flexible, accessible product that can be used to finance over 40 qualifying energy improvements. Program Staff propose a blended interest rate calculation for loans that include qualifying special offer packages and other Smart-E eligible measures not covered by the promotion (e.g., solar PV, central air conditioning, high efficiency boilers and furnaces, windows, etc.). Program Staff will work with the Green Bank's Finance team to develop a calculator tool for use by Smart-E lenders and contractors.

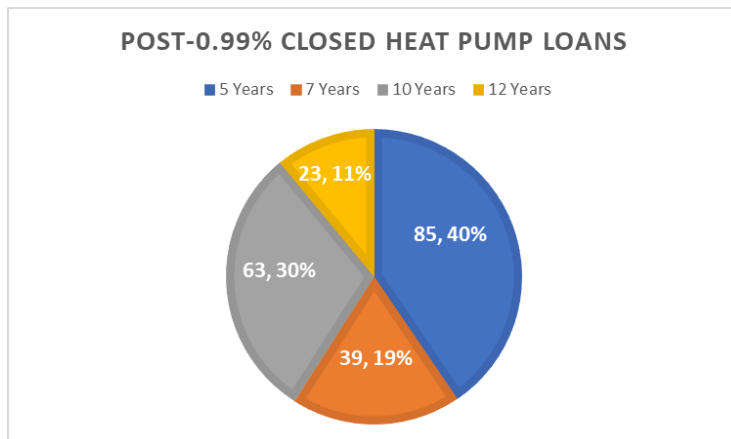
IRB Volume

Without a Smart-E special offer in the market, the nearly 1,800 closed loans in calendar years 2018 and 2019 heavily favored the 5-year term at 4.49% - the shortest term and lowest rate available through Smart-E.

Of note, 82 of the 214 loans that closed at a 12+ year term (i.e., 12, 15 and 20-year terms) are solar projects for which the contractor directly funded an IRB at the 12-year term.



The 210 loans for heat pumps that closed after the 0.99% promotional period ended had a very similar distribution to the overall portfolio, as shown below.



IRB Projections

The following assumptions are made by applying the 0.99% special offer's volume distribution to \$10,000, \$20,000 and \$30,000 Smart-E Loans at 2.99% for 5, 7 and 10-year terms, to determine an estimated loan count based on the \$1M budget of ARRA-SEP funds.

Program Staff will monitor volume on a weekly basis to ensure that volume remains at a sustainable level that can be supported by the \$1M IRB budget. Program Staff will provide monthly volume and balance updates to the Green Bank and will request approval of the Green Bank to end the special offer with no less than 30 days' notice to the market (contractors and lenders).

Assumed Loan Amount: \$10,000

- *Example project:* Ductless Mini Split Heat Pump + HES Assessment

| Term | % of Total Loans | Estimated Loan Count | Estimated Monthly Payment | Estimated IRB (\$) / Loan | IRB (\$) / MMBTU | Total IRB Spend |
|------------------------------------|-------------------------|-----------------------------|----------------------------------|----------------------------------|-------------------------|------------------------|
| 5 Years | 20% | 201 | \$170.66 | \$344 | \$36.33 | \$68,986 |
| 7 Years | 10% | 100 | \$125.48 | \$619 | \$65.42 | \$62,068 |
| 10 Years | 70% | 702 | \$91.69 | \$1,238 | \$130.82 | \$868,946 |
| Portfolio Totals / Averages | 100% | 1,003 | | \$997.30 | | \$1,000,000 |

Assumed Loan Amount: \$20,000

- *Example project:* Air Source Heat Pump + Heat Pump Hot Water Heater + Attic Insulation

| Term | % of Total Loans | Estimated Loan Count | Estimated Monthly Payment | Estimated IRB (\$) / Loan | IRB (\$) / MMBTU | Total IRB Spend |
|------------------------------------|-------------------------|-----------------------------|----------------------------------|----------------------------------|-------------------------|------------------------|
| 5 Years | 20% | 107 | \$320.66 | \$646 | \$19.39 | \$68,980 |
| 7 Years | 10% | 53 | \$235.78 | \$1,163 | \$34.92 | \$62,093 |
| 10 Years | 70% | 374 | \$172.28 | \$2,325 | \$69.83 | \$868,927 |
| Portfolio Totals / Averages | 100% | 534 | | \$1,873 | | \$1,000,000 |

Assumed Loan Amount: \$30,000

- *Example project:* Ductless Mini Split, Battery Storage, Level 2 EVSE; **OR,** \$30,000 towards a Geothermal project

| Term | % of Total Loans | Estimated Loan Count | Estimated Monthly Payment | Estimated IRB (\$) / Loan | IRB (\$) / MMBTU | Total IRB Spend |
|-------------|-------------------------|-----------------------------|----------------------------------|----------------------------------|-------------------------|------------------------|
| 5 Years | 20% | 65 | \$529.95 | \$1,067 | \$112.80 | \$68,934 |
| 7 Years | 10% | 32 | \$389.66 | \$1,922 | \$203.14 | \$62,086 |
| 10 Years | 70% | 226 | \$284.72 | \$3,843 | \$406.22 | \$868,980 |

| | | | | | | |
|------------------------------------|------|------------|--|----------------|--|--------------------|
| Portfolio Totals / Averages | 100% | 323 | | \$3,096 | | \$1,000,000 |
|------------------------------------|------|------------|--|----------------|--|--------------------|

It is impossible to predict which project types, corresponding loan amounts and terms will dominate in a flexible promotion such as the one being proposed; however, a \$1M IRB promotion could support between 500-1,000 loans in the target categories outlined above.

Of note, Program Staff will track the average CO2 saved per IRB (\$) throughout the promotional period and will update Green Bank staff accordingly.

Next Steps

Pending Green Bank approval, Program Staff has selected March 1, 2020 as the target launch of the 2.99% special offer. In advance of the launch, the following items will be addressed:

- *Official Notification Given to the Residential Committee of the Energy Efficiency Board ("EEB") and the EEB-Green Bank Board Joint Committee*
 - o Program Staff will notify the EEB of the 2.99% special offer at their February 13, 2020 meeting and the Joint Committee at their March 18, 2020 meeting.
- *Official Notification Given to Lenders*
 - o As currently written, Smart-E Lender Financing Agreements state that \$6M has been appropriated for Smart-E IRBs and that "no Interest Rate Buy-Down Funds will be available for any Program Loans closed and funded after December 31, 2017, unless extended per written notice from the Green Bank."
 - o Program Staff do not feel that Amendments to the Financing Agreements are necessary since the same appropriated ARRA-SEP funds would be used for this special offer.
 - o Program Staff propose to give lenders written preliminary notice of the special offer the week of Monday, January 27, 2020 in case any internal operating processes need to be adjusted, followed by a formal, written memorandum, likely the week of February 17, 2020.
- *Official Notification Given to Contractors*
 - o Program Staff will issue a formal, written announcement via email to the approximately 400 Smart-E eligible contractors, likely the week of February 17, 2020 (aligned with the formal lender announcement).
- *Marketing Support*
 - o Program Staff will work alongside the Green Bank's Marketing team to update existing, and create new, special offer-themed print and digital materials for homeowners, contractors and lenders.

- *Build Appropriate IRB-Related Fields in the Smart-E NGEN Portal*
 - Program Staff will work with the web developer of NGEN (Smart-E's customized online platform) to develop the appropriate IRB-related fields that can be properly exported / migrated to the Green Bank's data warehouse.

- *Reporting*
 - Program Staff will develop reports for the Green Bank and implement them once the special offer launches.



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GREEN BANKSM

845 Brook Street
Rocky Hill, CT 06067

| 300 Main Street, 4th Floor
Stamford, CT 06901