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

CONNECTICUT
GREEN BANK

November 27, 2017

Dear Connecticut Green Bank Board of Directors:

I hope you all had a restful Thanksgiving holiday weekend.

We have a special meeting of the Board of Directors scheduled this week for Friday, December 1, 2017 from 2:00-4:00 p.m. in the Colonel Albert Pope Board Room of the Connecticut Green Bank at 845 Brook Street, Rocky Hill, CT 06067.

Given the nature of the conversation, it would be great if you were to come and join the meeting in person as we will be covering many critical items.

On the agenda we have the following:

- **Consent Agenda** – approval of the meeting minutes for meetings held on October 20, 2017, November 6, 2017, and November 13, 2017.

- **Mitigation Plan** – given the $16.3 million in sweeps from the Green Bank to the General Fund in FY 2018 and FY 2019, senior management has assembled a mitigation plan to keep us cash flow positive through this period, while putting us on track for breakeven and helping us make progress towards sustainability. We will present a number of actions we can take to reduce expenses, increase revenues, and manage investment opportunities – essentially, in unfortunate times like this, managing our cash flow. As we are still working through the quantification of a number of these actions, we anticipate getting you the mitigation plan by the close of business on Wednesday – my apologies in advance!

- **FY 2018 Budget Revisions** – coinciding with the mitigation plan, we are proposing revisions to the FY 2018 budget for your review and approval. These documents will also be distributed by the close of business on Wednesday.

- **Executive Session** – if there is a need to go into executive session for personnel related matters, we have scheduled some time on the agenda to do so.

These are difficult times at the Green Bank, which will require us having to make tough choices in order to continue to live within our means, while at the same time continuing to serve our mission.

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

We look forward to seeing you later this week.

Sincerely,

Bryan Garcia
President and CEO

AGENDA

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

Friday, December 1, 2017
2:00-4:00 p.m.

Staff Invited: George Bellas, Craig Connolly, Mackey Dykes, Brian Farnen, Bryan Garcia, Dale Hedman, Bert Hunter, Sue Kaswan, Kerry O'Neill, Eric Shrago, and Kim Stevenson

1. Call to order

2. Public Comments – 5 minutes

3. Consent Agenda – 5 minutes

4. Mitigation Plan to Address the State Budget Sweeps – 90 minutes

5. Proposed Revisions to FY 2018 Budget – 10 minutes

6. Executive Session – Personnel Related Matters – 10 minutes

7. Adjourn

Join the meeting online at https://global.gotomeeting.com/join/517887493

Or call in using your telephone:
Dial (872) 240-3212
Access Code: 517-887-493

Next Regular Meeting: Friday, December 15, 2017 from 9:00-11:00 a.m.
Connecticut Green Bank, 845 Brook Street, Rocky Hill, CT

RESOLUTIONS

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

Friday, December 1, 2017
2:00-4:00 p.m.

Staff Invited: George Bellas, Craig Connolly, Mackey Dykes, Brian Farnen, Bryan Garcia, Dale Hedman, Bert Hunter, Sue Kaswan, Kerry O'Neill, Eric Shrago, and Kim Stevenson

1. Call to order

2. Public Comments – 5 minutes

3. Consent Agenda – 5 minutes

   Resolution #1

   Motion to approve the minutes of the Board of Directors Meetings for October 20, 2017, November 6, 2017, and November 13, 2017.

4. Mitigation Plan to Address the State Budget Sweeps – 90 minutes

5. Proposed Revisions to FY 2018 Budget – 10 minutes

6. Executive Session – Personnel Related Matters – 10 minutes

7. Adjourn

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Next Regular Meeting: Friday, December 15, 2017 from 9:00-11:00 a.m.
Connecticut Green Bank, 845 Brook Street, Rocky Hill, CT

Board of Directors Meeting

December 1, 2017

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. **<u>Meeting Minutes</u>*** – approval of meeting minutes of October 20, 2017, November 6, 2017, and November 13, 2017

CONNECTICUT GREEN BANK

Board of Directors

Agenda Item #4

Mitigation Plan to Address the State Budget Sweeps

November 13, 2017

Board of Director Follow-Ups

1. **Further Expense Reductions** – reviewing all programs to further reduce FY 2018 and FY 2019 operating expenses through efficiency improvements
2. **RSIP Restructuring** – will present separation of RSIP (i.e., incentives and grants) and SHREC securitization to pay for future and recover past costs (i.e., administrative costs and incentives) from core business (i.e., investments and finance)
3. **Borrowing akin to a Traditional Finance Organization and rethinking Obligations** – assessing outstanding commitments, investment pipeline, and working capital needs to determine viability and determine role of borrowing (December 15 mtg)

November 13, 2017
Board of Director Follow-Ups (cont'd)

4. **Impact on Reputation** – always need to watch how we communicate to minimize impacts on reputation
5. **Legal Requirement of RSIP** – Green Bank contractually responsible for existing RSIP payments; CGB, not the State liable; legislature provided funding mechanism through Sec 106 and SHREC (non-impairment claim not viable)
6. **Communications** – once the mitigation plan is adopted, then we will focus on communications:
   - ✓ **Press** – following mitigation plan adoption
   - ✓ **OFA** – meeting with on December 4th
   - ✓ **REEBA** – keynote on December 6th
   - ✓ **Legislators** – ongoing with Republican and Democrat leaders in the House and Senate
   - ✓ **Stakeholders** – property owners, contractors, advocates, etc.

Sustainable Path
Incentives vs. Investments

1. **<u>Sustainable Path</u>** – identify pathways towards accelerating sustainability (e.g., breakeven) where organization can survive through the sweeps and restructuring while modestly satisfying its mission

2. **<u>Isolate Business Units</u>** – administer two lines of business:
   (1) incentives through RSIP & SHREC, and
   (2) finance through investments.

   - **<u>Incentives</u>** – administer the RSIP program that provides incentives (i.e., grants) that get cost recovered through Sec 106 (SBC), RECs and the monetization of a 15-year stream of SHREC revenue – self-contained system

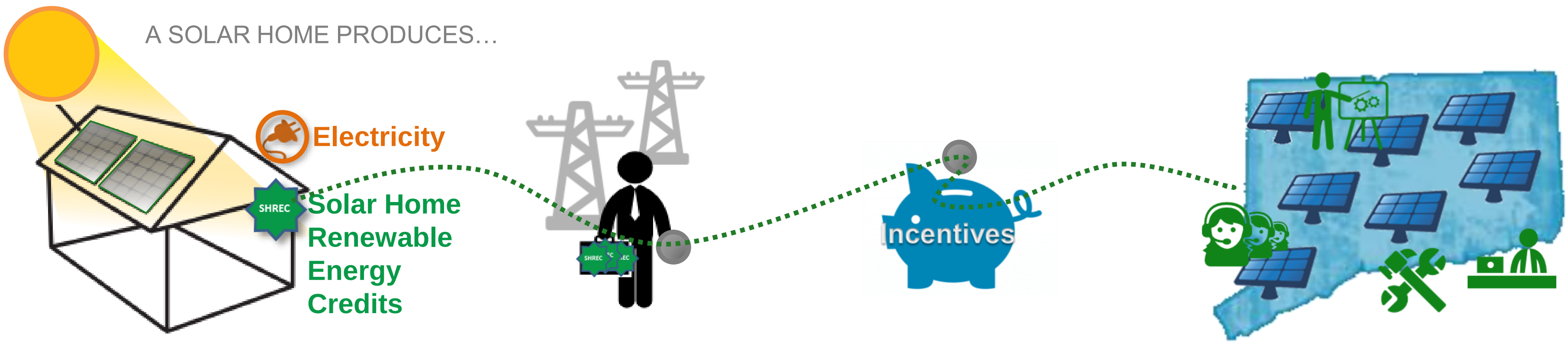
   - **<u>Investments</u>** – administer various financing programs (e.g., C-PACE, Smart-E Loan, etc.) that use credit enhancements (e.g., LLRs) and investment strategies (e.g., loans) to attract and deploy private investment

     ✓ **<u>Increase Revenues</u>** – focus investment activity on producing higher ROI

     ✓ **<u>Decrease Expenses</u>** – reduce all operating expenses (i.e., 25 to 35%)

     ✓ **<u>Breakeven</u>** – over time (i.e., 5 to 10 years), get to a point where revenues (i.e., non-public sources) equal (then exceed) operating expenses

Incentive Business
RSIP and SHREC



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

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

The Green Bank would then use the revenues from the 15-year fixed price contracts to support the RSIP incentives (i.e., PBI and EPBB), cover admin costs, and fund securitization or financing costs.

A public policy with 300 MW target will create more locally-sourced sustainable energy, helping make our power grid more secure and less congested, and also curb pollution.

Incentive Business
RSIP's 300 MW Target

300 MW

RSIP public policy target
by the end of 2022

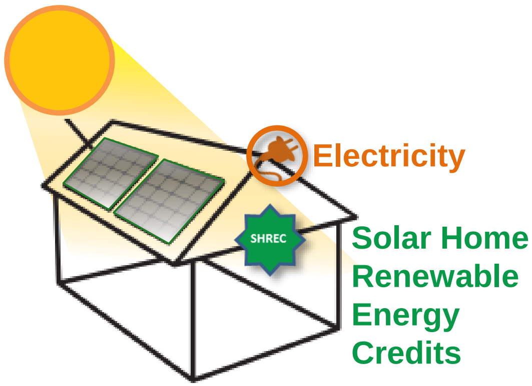
~50 MW

Non-SHREC RECs
RSIP projects prior to 2015
Class I RPS (spot market or 2-3 year strips)
REC price determined by market

~250 MW

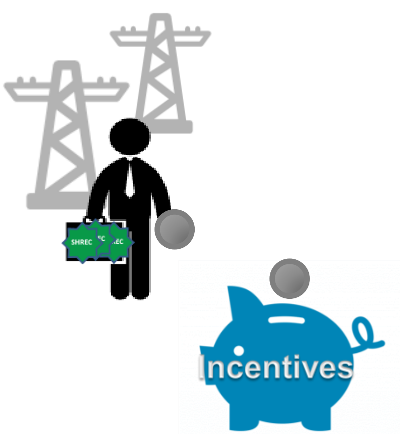
SHREC RECs
RSIP projects approved 2015 through 2022
Class I RPS (MPA for 15 years with EDCs)
REC price determined by Green Bank

Incentive Business
SHREC Mechanism



<u>Household Level SHREC Asset Creation</u>

- Average system size of solar PV on home is 7 kW
- RSIP incentive value of $3,028 per home in 2015
- Est. ann. production of 7,358 kWh (or 7.358 RECs)
- Est. 15-year production of 106,589 kWh (or 106.6 RECs)
- Est. nominal value of $5,330 per home at $50 SHREC price

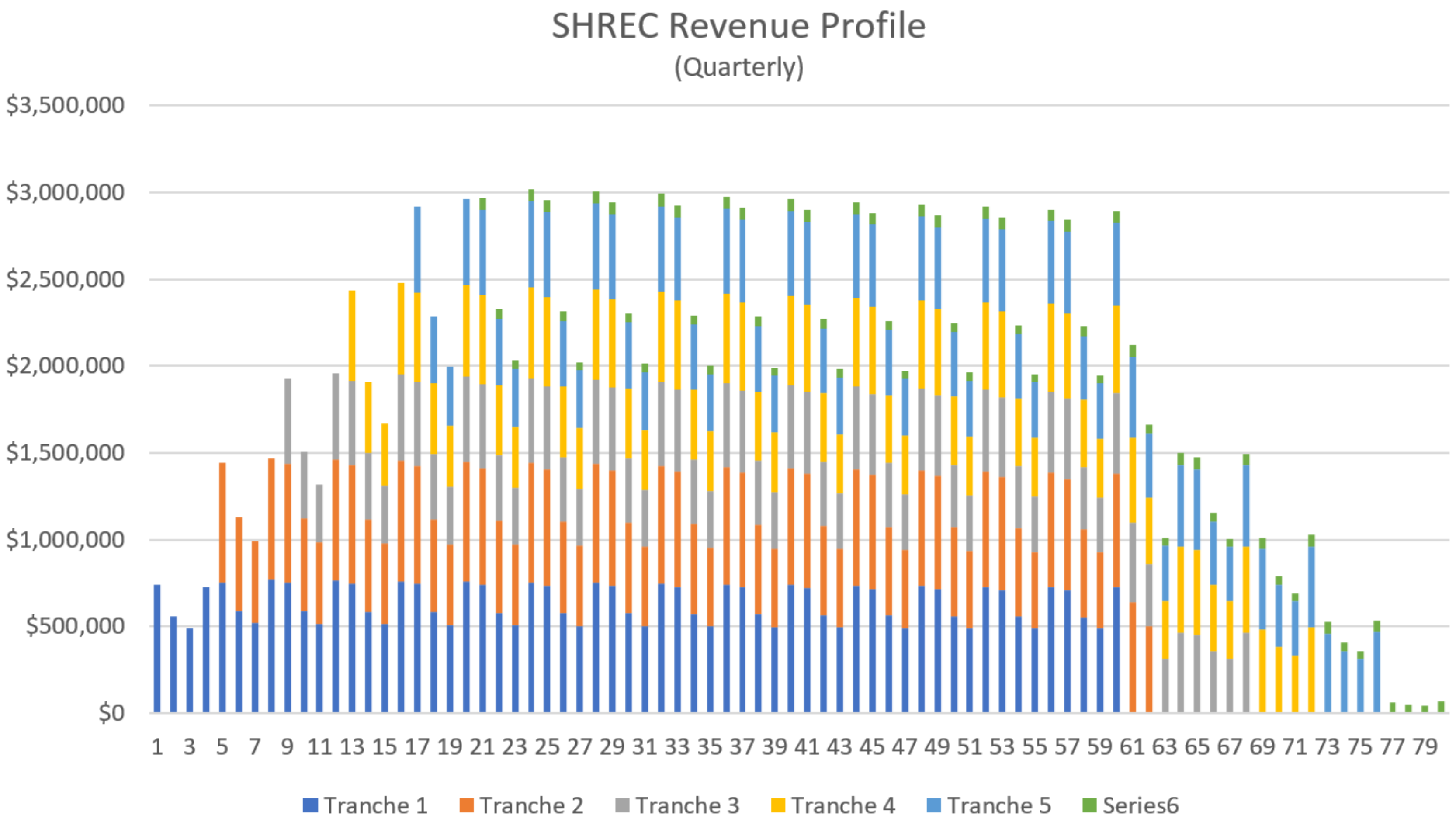


<u>Aggregation Level Securitization Asset Value Potential</u>

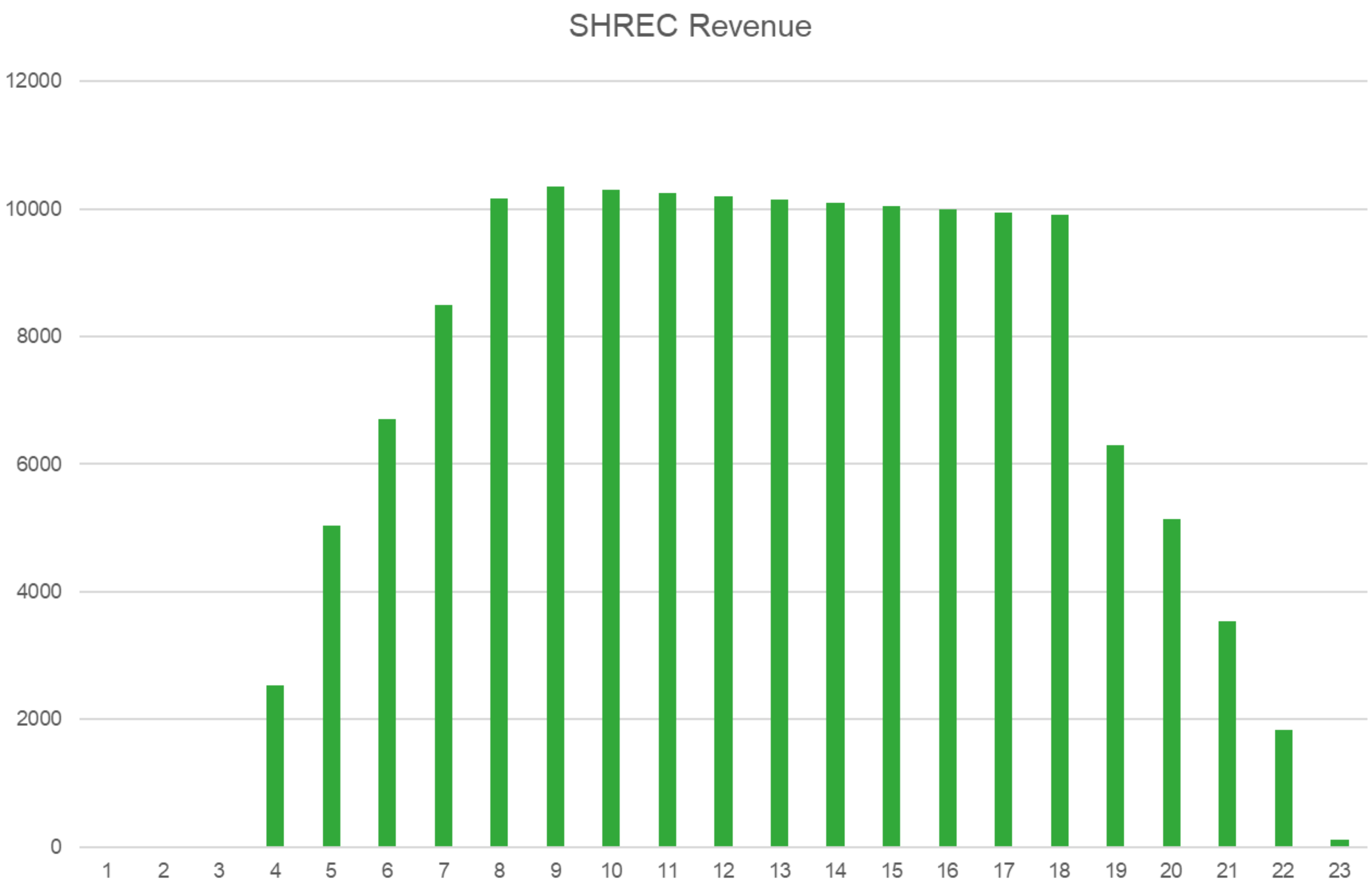
- Master Purchase Agreement (MPA) approved by PURA and executed with the EDCs
- Tranche 1 = 49,176 kW from 6,797 homes in 2015 and 2016 with SHREC price of $50 per REC
- Est. 15-year production of 748,847 MWh (or 748,847 SHRECs)
- Invoiced EDCs and received payment for Q1 and Q2 SHRECs in CY 2017 – the cash flow mechanism works!
- Est. nominal value of $37,442,361
- Next step is to securitize this future stream of cash flows as the policy always envisioned

1. Capacity factor of 12%, degradation of 0.5% per year

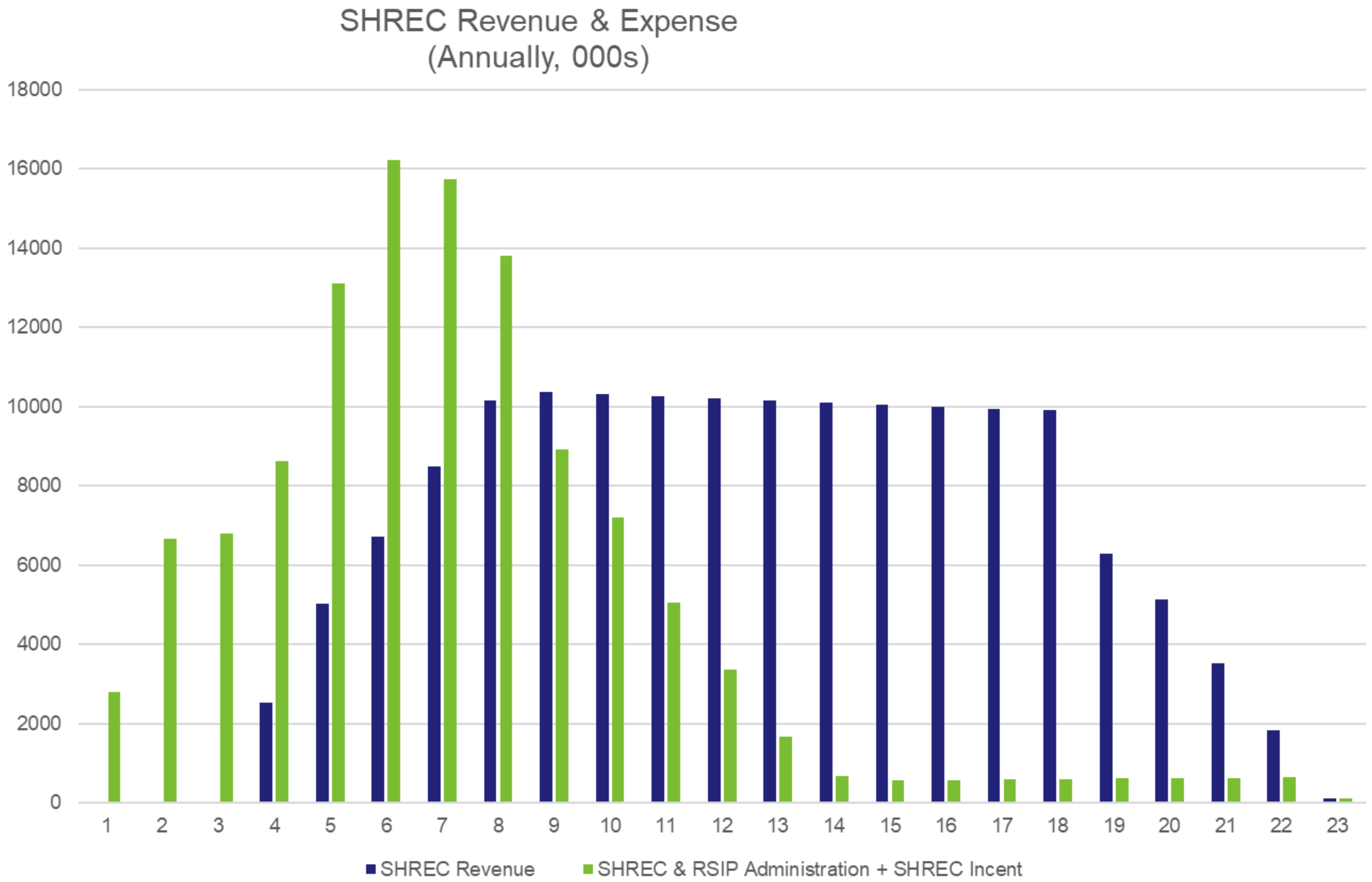
SHREC
Securitization (cont'd)



SHREC
Securitization (cont'd)



SHREC
Securitization (cont'd)



Sustainable Path

Maintain Mission with Leaner Organization

#	Action	Type	Targeted Amount	Timing
1	↓ Non-Personnel Related Oper. Exp.	P&L		Immediate
2	↓ Personnel Related Oper. Exp. (non-staff)	P&L		Immediate
3	↓ Personnel Related Oper. Exp. (staff)	P&L		Immediate
4	Cancel R&D Initiatives	P&L		Immediate
5	Work with CI on Leases – 845 and 865	P&L		CY 2018
6	↓ Add. Personnel Related Oper. Exp.- Loan	P&L		FY 2019
7	↓ Add. Personnel Related Oper. Exp.- Affiliate	P&L		FY 2019
8	↓ Add. Non-Personnel Related Oper. Exp.	P&L		FY 2019
9	Incentive Mgt (i.e., RSIP) / Securitization	Balance Sheet		Q2 2018
10	Cancel Outstanding Commitments	Balance Sheet		Q1 2018
11	Transfer Outstanding Commitments	Balance Sheet		Q1 2018
12	Borrow to Offset Incremental New Cap. Inv.	Balance Sheet		Q1 2018
13	Borrow from Existing Assets	Balance Sheet		Q1 2018
14	Sell Assets	Balance Sheet		As Needed

Board of Directors

Agenda Item #5 – Proposed Revisions to FY 2018 Budget

Board of Directors

Agenda Item #6 – Executive Session

Board of Directors

Agenda Item #7 – Adjourn

Board of Directors

Appendix

Sec. 16-245ff. Residential solar investment program

(g) Funding for the residential solar investment program (1) may include up to one-third of the moneys collected annually under the surcharge specified in section 16-245n; (2) shall include all of the revenue from the solar home renewable energy credit program; and (3) may be supplemented by federal funding as may become available.

CONNECTICUT GREEN BANK
Board of Directors
Draft Minutes
Friday, October 20, 2017

1. **Call to Order**

Commissioner Smith, Chairperson of the Green Bank, called the meeting to order at 9:05 a.m. Board members participating: Eric Brown, Bettina Bronisz, Matt Ranelli (by phone), John Harrity, Betsy Crum (by phone), Reed Hundt (by phone), Tom Flynn (by phone), Deputy Commissioner Mary Sotos representing the Department of Energy and Environmental Protection and Gina McCarthy

Members Absent: Rob Klee and Kevin Walsh

Staff Attending: Kerry O'Neill, Eric Shrago, Brian Farnen, Bert Hunter, Bryan Garcia, Dale Hedman, Mackey Dykes, George Bellas, Cheryl Samuels, Selya Price, Craig Connolly, Matt Macunas, Isabelle Hazlewood, Rick Ross, Suzanne Kaswan (by phone) and Kim Stevenson (by phone)

Others Attending: Guy West from Clean Water Fund, Janet Scott, Jerry Kardas from KardasLarson, LLC.

2. **Public Comments**

There were no public comments.

3. **Consent Agenda**

a. **Approval of Meeting Minutes for September 28, 2017* and October 3, 2017**

Resolution #1

Motion to approve the minutes of the Board of Directors Meetings for September 28, 2017 and October 3, 2017.

b. **Infrastructure Sector Programs – Progress towards Targets through FY 2017 – Revised Memo (October 20, 2017)**

c. **Residential Sector Programs – Progress towards Targets through FY 2017 – Revised Memo (October 20, 2017)**

d. **Commercial, Industrial, and Institutional Sector Programs – Progress towards Targets through FY 2017 – Revised Memo (October 20, 2017)**

e. **Connecticut Green Bank – Investment and Public Benefit Performance from Clean Energy Projects from FY 2012 through FY 2017**

Resolution #2

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

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

WHEREAS, on July 22, 2016, the Board of Directors of the Connecticut Green Bank approved a Comprehensive Plan for FY 2017 and FY 2018, including an annual budget and targets for FY 2017; and

WHEREAS, on July 21, 2017, the Board of Directors of the Connecticut Green Bank approved of the draft Program Performance towards Targets for FY 2017 memos for the Infrastructure, Residential, Commercial, Industrial, and Institutional sectors.

NOW, therefore be it:

RESOLVED, that Board has reviewed and approved the restated red-line Program Performance towards Targets for FY 2017 memos dated October 20, 2017, which provide an overview of the performance of the Infrastructure, Residential, Commercial, Industrial, and Institutional sectors with respect to their FY 2017 targets.

RESOLVED, that Board has also reviewed and approved the Investment and Public Benefit Performance memo dated October 20, 2017.

f. Approval of Regular Meeting Schedules for 2018 for the Committees of the Board of Directors

Resolution #3

Motion to approve the Regular Committee Meeting Schedules for 2018 for the ACG Committee, B&O Committee, Deployment Committee, and Joint Committee.

g. Review and Approval of EPA Methodology for Public Health Benefits using COBRA

Resolution #4

WHEREAS, the Connecticut Green Bank, Connecticut Department of Energy and Environmental Protection (DEEP), and Connecticut Department of Public Health working with the U.S. Environmental Protection Agency (EPA) to assess the Co-Benefit Risk Assessment (COBRA) model to quantify public health benefits resulting from improved air quality with the deployment of clean energy;

WHEREAS, DEEP, DPH, and the EPA have demonstrated support for the environmental emissions methodology; and

WHEREAS, the Audit, Compliance, and Governance Committee at a meeting on October 11, 2017, reviewed and now recommends that the Board of Directors (the "Board") approve through the Consent Agenda the proposed Connecticut Green Bank, DPH, and DEEP Evaluation Framework – Societal Perspective – Public Health Benefit Methodology documentation;

NOW, therefore be it:

RESOLVED, that the Board approves the proposed Connecticut Green Bank DPH, and DEEP Evaluation Framework – Societal Perspective – Public Health Benefit Methodology documentation to be used for reporting, communication, and other purposes as deemed necessary.

h. Financial Statements for August 2017

i. FY 2018 Q1 Progress to Targets

Upon a motion made by John Harrity and, seconded by Bettina Bronisz the Consent Agenda passed unanimously.

4. Committee Updates and Recommendations

a. Audit, Compliance, and Governance Committee

i. Review and approval of FY 2017 Comprehensive Annual Financial Report (CAFR) – Financial Statistics Audit

Bryan Garcia provided a brief overview on the Financial Statistics Audit.

George Bellas discussed the 2017 CAFR. He stated that the audit and compilation of the CAFR was more efficient this year as a result of the Green Bank's new accounting software. He stated that Blum Shapiro performed the annual audit of the financial statements and will be issuing a clean, unmodified opinion. He stated that Blum Shapiro did not identify any material weaknesses nor instances of non-compliance with internal controls over the financial reporting. He stated that Blum Shapiro will be issuing a letter to the Board as part of their audit discussing these matters.

Mr.Bellas stated that Blum Shapiro did not identify any transactions the Green Bank entered into that lacked authoritative guidance or consensus. He stated that all transactions have been recognized in the proper period in the financial statements. He stated that there were no material misstatements or disagreements with the Green Bank regarding transactions. He stated that the CAFR should be issued by October 31st. once minor adjustments are made to the draft being presented to the Board today. He stated that they have several partners and lenders looking for the audited financials. He provided the Board with the contact information of the Blum Shapiro audit team in the event Board members wished to contact them directly with questions or concerns.

Mr. Bellas provided a high-level overview of the results of operations. He discussed the GASB68, pension liabilities. He stated that the current liability on the Statement of Net Position is $25 million. The State allocates a portion of its overall GASB 68 pension liability to the Quasi-Public agencies using the percentage of a Quasi's contributions to total contributions to the plan. Bert Hunter stated that this is the method that the State allocates pension liabilities to the Green Bank. Commissioner Smith questioned if this includes all staff past and present. Mr. Hunter stated that yes, but $25 million is unfunded, stating that there is a disconnect, and it really doesn't sync up correctly. Commissioner Smith questioned if the $9 million annual increase in the pension liability can be expected in future years. Mr. Bellas stated that this increase will fluctuate in future years because it is dependent on future contributions to the plan and the State's overall unfunded pension liability as calculated by its actuaries.

Mr. Bellas stated that the long-term debt has increased as a result of advances to CT Solar Lease 2 to fund acquisitions of commercial solar facilites.. He stated that the total net position has increased by approximately $18 million. He stated that utility remittances are fairly flat and that they don't expect to see significant increases in the future. He stated that RGGI auctions are becoming less of a major source of revenue. He stated that REC sales have continued to increase year over year. He stated that the SHREC program is beginning to generate revenue in fiscal 2018 so REC revenues in general will continue to increase in the future., Fiscal 2017 REC revenue is non-SHREC based. He stated that the increase in total operating expenses is due mainly to Performance Based Incentives paid out to owners of solar facilities which was expected, He stated that another revenue source for the Green Bank is interest earned on the Green Bank's portfolio of loans made to finance solar and energy efficiency projects. He stated that revenues from interest income will continue to increase in the future. He stated that in his opinion the Green

Bank's balance sheet is strong. Bettina Bronisz commented that she feels this is a superb CAFR.

Eric Brown questioned the volume and timing of the Green Bank's receipt of utility company remittances. Mr. Bellas stated that the Green Bank receives the remittances monthly from the State's two privately held electric utilities but not from the municipal-owned utilities. Volume is down because of reductions is electricity usage over the past several years.

Resolution #5

WHEREAS, Article V, Section 5.3.1(ii) of the Connecticut Green Bank ("Green Bank") Operating Procedures requires the Audit, Compliance, and the Governance Committee (the "Committee") to meet with the auditors to review the annual audit and formulation of an appropriate report and recommendations to the Board of Directors of the Green Bank (the "Board") with respect to the approval of the audit report;

WHEREAS, the Committee met on October 11, 2017 and recommends to the Board the approval of the proposed draft Comprehensive Annual Financial Report (CAFR) contingent upon no further adjustments to the financial statements or additional required disclosures which would materially change the financial position of the Green Bank as presented.

NOW, therefore be it:

RESOLVED, that the Board hereby recommends approval of the proposed draft Comprehensive Annual Financial Report (CAFR) contingent upon no further adjustments to the financial statements or additional required disclosures which would materially change the financial position of the Green Bank as presented.

ii. Review and approval of FY 2017 Comprehensive Annual Financial Report – Non-Financial Statistics Audit

Eric Shrago provided an overview of non-financial statistics audit. He stated that they have included the details of their activities and their impact over the past year. He stated that they are doing this in compliance with the CAFR standards. He stated that next year it will include EPA COBRA to provide an overview on the public health benefits created from the deployment of clean energy displacing fossil fuels. He stated that they work with Marcum to assess their processes last year. He stated that they are building on that. He stated that the Green Bank was compared to a few other banks and that Marcum felt that the Green Bank has one of the highest degrees of transparency.

Bryan Garcia stated that they have been working with Denise Mulholland on the AVERT Model. He stated that on the GHG perspective they are using AVERT as part of their functional analysis system. He stated that this will enable them to have conversations about public health through the outputs of AVERT as inputs into COBRA. Matt Ranelli stated that this is a really good effort. He stated that they need to figure out how to tell the story visually.

Commissioner Smith thanked the group for their outstanding CAFR.

Upon a motion made by Bettina Bronisz and, seconded by John Harrity, with an abstention from Tom Flynn, the Board voted to approved the Resolution.

b. Budget and Operations Committee

i. **Proposed Revisions to Compensation Structure**

Eric Shrago discussed the proposed revisions to the Compensation Structure. He noted that in October of 2013 was the last assessment done with Connecticut Innovations and Buck Consulting. He stated that they went out for an RFP approximately two years ago for the new study. He stated that they engaged Kardas Larson, a local company.

Jerry Kardas provided an overview of their company. He said that CGB's Succession Planning document calls for a comprehensive benchmark compensation analysis and he discussed the Project Summary that was a result of this analysis. Eric Shrago stated that it's important for the Green Bank to retain its talent so, they need to make sure they are paying comparatively and competitively versus the market.

Jerry Kardas discussed the two parts of the assessment on the study of compensation. He stated that they did a comprehensive review of CGB's job descriptions and compared them to the market.

Janet Scott stated that the benchmarks were representative of the work that was being done by CGB employees. She stated that they did market pricing and looked at a number of sources to price CGB positions against the marketplace. She stated that they developed a simplified salary structure. She stated that they compared present CGB salaries to the marketplace and that nothing appeared out of sync. She stated that CGB had provided a list of comparable organizations to participate in the benchmark compensation analysis but that very few elected to participate. She stated that they received responses from 10 organizations. The results of the benchmark compensation analysis were supplemented with some propriety benchmark data from KardasLarson. She stated that the survey was a mix of private and public organizations. She stated that they did competitive market pricing. She stated that they were able to collect reportable data on only 10 of the 37 positions of the Green Bank. She stated that they did find that all of the salaries were very competitive. She stated that they had developed a job grades map. She stated that it is a very simple document. She stated that they did a comprehensive analysis by race, ethnicity, and gender. She stated that they did determine that the Green Bank is in very good shape, but that they could improve diversity in the professional ranks. Commissioner Smith stated that that is something to pay attention to as they're hiring.

Janet Scott stated that they came up with a new job grades structure that contains 11 grades and includes all of the positions throughout the organization. She stated that the midpoint for the lower grade is set by the market and that everything else is built off of that. Commissioner Smith stated that this makes a lot more sense and she was appreciative of the work that has gone into this. She stated that having it market based is very important. She stated that it gives more ability to manage performance in a comprehensive manner.

Jerry Kardas stated that the key takeaway is that they have a simpler grade structure that provides more transparency and fluidity in the organization. He also stated that they have more information on where things stand on race, ethnicity, and gender. He stated that there are no compensational adjustments. John Harrity stated that it adds professionalism to the organization. He stated that it makes a lot of sense. Reed Hundt questioned if this could be put in the context of the current political situation. Commissioner Smith stated that the current political situation has no impact on this effort because there is not any financial impact as a result of this implementation, and if anything, it's positive on the political side. Bettina reminded the Board that the State employees are currently in a salary freeze.

Eric Shrago thanked Kardas Larson for their work. Matt Ranelli stated that this is great, but his question was why they needed to increase the upper pay scale. Jerry Kardas stated that it's just the way that the math works out when it's constructed. He stated that they do have the option of not indicating a maximum salary. Suzanne stated that the ranges that are currently in place are the result of the last compensation study and at that time in order to have the study approved, the maximum of the executive range was based on the market midpoint and the ranges were not accurately reflected at the top of the market before. Matt Ranelli stated that he was a little bit uneasy about doing this in the current climate. Commissioner Smith questioned if instead of using the minimum and maximum if they could go to 25%, 75%. Suzanne stated that this structure really works and that everything above Director would need Board approval. Matt Ranelli was in favor of changing to the 25%, 75%.

Jerry Kardas stated that the structure that is being presented to the Board shows salaries at the minimum and maximum grade. John Harrity stated that this is usually how this is done. Commissioner Smith requested that Eric Shrago pull up the current data to understand where they are to date. Matt Ranelli stated that it looks like they're increasing the maximum. Jerry Kardas stated that by collapsing the grades from 33 down to 11 they have to accommodate for a few more people within a range. Commissioner Smith questioned if it was the maximum level that they were concerned about. Eric Shrago stated that the average change is a 6% increase in each grade. Gina McCarthy stated that she feels that it makes sense.

The consensus is to move to the 25%, 75%, methodology Commissioner Smith stated that they need to modify the Resolution.

Upon a motion made by John Harrity and, seconded by Gina McCarthy the modified Resolution passed.

Resolution #6

WHEREAS, per the Operating Procedures and Section VII Personnel Policies of the Connecticut Green Bank, grade classifications for each job title are established by the President, subject to Board approval,

WHEREAS, pursuant to the Succession Plan developed by the President of the Connecticut Green Bank, there is a need to conduct a market compensation analysis every 3 to 5 years,

WHEREAS, through a competitive Request for Proposals (RFP), the Connecticut Green Bank engaged KardasLarson to conduct a compensation study that benchmarks the current salaries of staff at the Connecticut Green Bank with other comparable public and private organizations to determine market competitiveness of compensation,

WHEREAS, the Budget and Operations committee has reviewed the results of the study prepared by KardasLarson and recommends their adoption by the Green Bank Board of Directors,

WHEREAS, the adoption of such ranges will not cause any immediate financial impact to the Green Bank or its staff,

NOW, therefore the following be resolved

RESOLVED, the Connecticut Green Bank's Board of Directors recommends the approval of the grade classifications and salary ranges for the positions as outlined in Attachment A and that this document be modified to reflect these salary ranges be presented at the 25th and 75th percentiles.

c. Deployment Committee

i. Proposed Revision to Under $300,000 and No More than $1,000,000 Investment Policy

Bryan Garcia discussed the proposed revision to the Investment Policy. He stated that they are coming to the Board with a recommendation from the Deployment Committee to increase the funding request amounts per project. The recommendation is to increase from $300,000 to $500,000, the aggregate will stay the same at $1 million. He stated that this will require a change in the Bylaws. Commissioner Smith stated that her assumption is that that Committee is in favor of this. Bryan Garcia stated that they are.

Upon a motion made by Bettina Bronisz and, seconded by John Harrity, the Board voted unanimously to approve.

<u>Resolution #7</u>

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

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

WHEREAS, on July 18, 2014, the Green Bank Board of Directors approved of a recommendation brought forth by the ACG Committee and Deployment Committee to approve the authorization of Green Bank staff to evaluate and approve program funding requests less than $300,000 which are pursuant to an established formal approval process requiring the signature of a Green Bank officer, consistent with the Green Bank Comprehensive Plan, approved within Green Bank's fiscal budget and in an aggregate amount not to exceed $1,000,000 from the date of the last Deployment Committee meeting; and

WHEREAS, that the Green Bank ACG Committee hereby recommended on October 10, 2017 that the Board of Directors adopt a resolution amending the Staff Approval
Policy to increase the program funding request for Projects Under $300,000 to $500,000 with an aggregate amount limit of $1,000,000 from the date of the last Deployment Committee meeting.

NOW, therefore be it:

RESOLVED, that the Green Bank Board of Directors approve amending the Staff Approval Policy to increase the program funding request for Projects Under $300,000 to $500,000 with an aggregate amount limit of $1,000,000 from the date of the last Deployment Committee meeting.

RESOLVED, that the Board of Directors approves the proposed draft revisions to the Green Bank Bylaws to effectuate the revised staff authorization amount of $500,000.

d. Joint Committee of the Energy Efficiency Board and Connecticut Green Bank

i. Update on Working Group Progress to Goals and Proposed New Goals

Bryan Garcia provided a high-level overview of the Joint Committee and the proposed goals. He discussed the joint goal and the principle that guides the discussions. He stated that there are several different working groups to implement a set of goals within the Comprehensive Plan.

Kerry O'Neill discussed the Residential 1-4 Sector. She stated that they have been collaborating since 2013. She stated that the work of the group is going well. She stated that they are focusing on aligning with the new CES.

Kerry O'Neill stated that in the Multifamily Sector there is an intensive amount of work to align programs and processes. She stated that there is a lot of work needed to realize that vision. She stated that it took four years to see loans come through the utility channel on the single-family side. She stated that they are hoping to minimize that time from for Multifamily.

Mackey Dykes discussed C and I and Government. He stated that there is not as close to a level of coordination. He stated that they've identified a first project to coordinate around, identifying a cheaper source of capital for the Small Business Energy Advantage Program and felt that that would get them off to a positive start. He stated that that has not been as easy as they had envisioned. He stated that there are issues that the EEB sees with the deal with JP Morgan. He stated that they did identify a process to come to a resolution. He stated that they also laid out the beginnings of the plan to dive into data to see what types of projects are being done by both utility and CGB programs. He stated that they need to see what types of projects are being done to identify markets that we're both serving and opportunities to collaborate our products there. In markets we're not serving, we can work together to identify financing solutions. He stated that they will be able to unlock great opportunities if they can bring in the private capital from JP Morgan.

John Harrity discussed the previous meeting of the Joint Committee and the issue with the JP Morgan deal. He stated that his concern is that if they wait too long they will lose the investor. He thanked Eric Brown for chairing the meeting and stated that he looks forward to substantive discussions. Commissioner Smith stated that she feels there's still a lot of work to be done and that they need to continue working on it. Bryan Garcia stated that it felt like evidence of progress. He stated that Kim Stevenson provided a very candid response to a question that was raised at that meeting, and that although contentious, the utility partners responded and weren't put off. He stated that it felt good to see that. He feels that there's still work to be done. Commissioner Smith stated that she's thrilled to see them trying to make things easier for customers. She stated that the more they can streamline the process for the customer the better. She stated that they need to continue to try to figure out a way to settle the JP Morgan issue.

5. **Other Business**

a. **Strategic Retreat – Progress to Date**

b. **Other Business**

Bryan Garcia discussed the relationship with the EEB and referred to the prior conversation. He discussed the Board's director to assess the creation of a private entity (e.g., CDFI) to achieve a greater impact and deliver more efficient operations. He stated that they have raised some foundation funding to help think about how such an organization could address opportunities outside of Connecticut as well. He noted that the team is meeting with members of the Board individually and will bring back for further discussion with the full Board in December. He stated that they will identify areas of operational improvements and changes. He stated that they talked a lot about improving efficiencies and showing how the Green Bank model improves impact. He stated that they are developing a battery storage component and steadily chipping away at that. He stated that there is a big GHG reduction effort, including renewable heating and cooling and EV's, and expanding existing programs to support the balance sheet. He stated that they are increasing their PosiGen investment and shift some of their loan loss reserves. He stated that they have expanded the low-income multifamily energy loan, the LIME Loan. He stated that they've put a lot of their balance sheet to work for the organization and strengthening it. He stated that George Bellas has done a great job in presenting the balance sheet. He stated that the focus is now on the budget. He stated that they're doing great things and leading the green bank movement. He stated that the US Green Bank Act will continue to chip away at that.

Bryan Garcia discussed the Legislative strategy. He stated that they have been working to limit the impact of a Green Bank raid. Brian Farnen stated that they've received some information from some reliable sources regarding what the amounts might be. He stated that they are trying to confirm. He stated that the Governor's Office has been great. He stated that they are relying on their Legislative partners. He stated that there is a level of complexity in what the Green Bank does and a Legislator and the Office of Fiscal Analysis struggles with the model, because of that. He stated that the strength of the balance sheet gives them the ability to leverage private capital. He stated that they need to help them understand that. Commissioner Smith stated that they need to ask for no raid of the Green Bank. Brian Farnen stated that they continue to educate. Eric Brown commented that it sounds like a lost opportunity for the Joint Committee.

Bettina Bronisz stated that they need to remind people that they have SCRF backing their bonds. Brian Farnen stated that it would be hard for them to prove that in a clear way. He stated that they are trying to focus on capital flight and other issues. Commissioner Smith stated that the biggest issue would be if they cut dollars they will cut off the Green Bank's ability to leverage private capital. Gina McCarthy stated that they're failing to explain that the Green Bank is a bank. Bert Hunter stated that the Green Bank trades on capital and confidence.

Bryan Garcia discussed the GC3 Meeting. He stated that they act on climate change by reducing Greenhouse gases. He touched on a slide that was discussed at the meeting regarding REMI. Commissioner Smith stated that REMI is a tool that the GC3 uses to show the action that has been taken to reduce Carbon Emissions. She stated that there has been some debate on what should be included in this model. She stated that it shows an increase in employment by 16,000 and goes up to 26,000 of you try a steeper curve, meaning the more you invest the better it is for employment. She stated that this is very impressive. Eric Brown questioned if this was total green jobs. Commissioner Smith stated that this is total jobs, a mix of direct and indirect. Gina McCarthy stated that it is just jobs and does not include any environmental impact. It's just to determine if going green decreases or increases jobs. John Harrity stated that this indicates the folly of taking money from the Green Bank. Betsy Crum stated that this model speaks to multiple audiences and that it is for a specific audience. She stated that it provides a very powerful talking point. She stated that having this data is very important, but who the audience is and how the data is used is the more important.

6. **<u>Executive Session – Personnel Matters</u>**

Upon a motion made by Bettina Bronisz and, seconded by John Harrity, the Board voted unanimously to go into Executive Session.

7. Adjourn

Upon a motion made by John Harrity and, seconded by Bettina Bronisz the meeting was adjourned at 11:02 am.

Respectfully Submitted,

____

Catherine Smith, Chairperson

CONNECTICUT GREEN BANK
Board of Directors
Draft Minutes
Monday, November 6, 2017

1. **Call to Order**

Commissioner Smith, Chairperson of the Green Bank, called the meeting to order at 5:08 p.m. Board members participating: Eric Brown (by phone), Bettina Bronisz (by phone), Betsy Crum (by phone), John Harrity (by phone), Reed Hundt (by phone), Commissioner Rob Klee (by phone), Matt Ranelli (by phone), Catherine Smith (by phone), and Kevin Walsh (by phone)

Members Absent: Tom Flynn and Gina McCarthy

Staff Attending: George Bellas, Craig Connolly, Mackey Dykes, Brian Farnen, Bryan Garcia, Bert Hunter (by phone), and Eric Shrago

2. **Public Comments**

There were no public comments.

3. **Executive Session**

Bryan Garcia requested that the Board of Directors go into Executive Session to discuss personnel related matters as it applies to the recent state budget situation.

> **Upon a motion made by Catherine Smith and, seconded by Rob Klee, the Board voted unanimously to go into Executive Session.**

4. **Adjourn**

> **Upon a motion made by Catherine Smith and, seconded by Bettina Bronisz the meeting was adjourned at 6:16 p.m.**

Respectfully Submitted,

____

Catherine Smith, Chairperson

CONNECTICUT GREEN BANK
Board of Directors
Draft Minutes
Monday, November 13, 2017

A special meeting of the Board of Directors of the **Connecticut Green Bank (the "Green Bank")** was held on November 13, 2017 at the office of the Green Bank, 845 Brook Street, Rocky Hill, CT, in the Colonel Albert Pope board room.

1. **Call to Order**

   Catherine Smith, Chairperson of the Green Bank, called the meeting to order at 5:02 p.m. Board members participating: Rob Klee (by phone), John Harrity (by phone), Reed Hundt (by phone), Betsy Crum (by phone), Gina McCarthy (by phone), Matt Ranelli (by phone), and Eric Brown (by phone)

   Members Absent: Tom Flynn and Kevin Walsh

   Others Attending:

   Staff Attending: Bert Hunter (by phone), Eric Shrago, Bryan Garcia, Cheryl Samuels, George Bellas, Dale Hedman, Brian Farnen, and Jeff Schub (by phone)

2. **Public Comments**

   There were no public comments.

3. **Mitigation Plan to Address the Recently Approved Budget**

   Commissioner Smith commended the team for their hard work. She stated that the team has worked very hard to come to conclusions, in what is not an easy situation. She stated that it's very challenging to think about running programs that require cash when that is what has been taken. She stated that staff need to really think hard about the way that they manage the remaining cash. She stated that what comes in is barely enough to cover the basic expenses. She stated that the challenges before them are how do they make sure that they are solvent over the next 12 – 18 months and how do they create a business model that's much less dependent on ratepayer money.

   Reed Hundt stated that he does not agree with the idea of borrowing funds. He stated that they cannot continue to borrow into a business model that is inevitably going to produce the reality that they will go out of business. Commissioner Smith stated that they need to get to a breakeven point in the next 18 – 24 months and that the borrowing does not go into the long term.

   Bryan Garcia thanked the Board for reconvening following last week's special meeting, which was held in Executive Session, due to the State budget sweeps and the impact on the Green Bank's mission, certain commercial commitments, as well as, personnel-related matters.

Bryan Garcia stated that there were four areas that were going to be covered in the current meeting. The first being the current situation for the FY18 budget given ratepayer and RGGI sweeps to the General Fund, including the burn rate and the impact on the Green Bank's cash position.

Bryan Garcia stated that the second area of focus would be the actions to remedy the situation. He stated that this would include Senior Staff's plan to reduce operating expenses and increase revenues/cash flow to cope with the ratepayer and RGGI sweeps while continuing to make progress towards maintaining the Green Bank's mission. He stated that they are confident that they have a mitigation strategy that reduces expenses, keeps the Green Bank cash flow positive, and minimizes the impact on the programs that the Green Bank offers.

Bryan Garcia stated that the third area of focus that was requested by the Board would be the assets that are on the balance sheet that could be used to raise capital for further revenue generating investments.

Bryan Garcia stated that the last area of focus would be the covenants associated with some of the transactions, as well as, guarantees that were issued in support of other transactions with the Green Bank's private capital providers.

George Bellas provided an overview of the FY18 Budget and the cash projections through June 30, 2018, and 2019. Bert Hunter explained the cash projections graph. He stated that it shows the impact of the expenditures that are be made over the next few months before the impact of mitigating adjustments that staff will be proposing. He stated that as expenses stand today, without any adjustments to reduce operating expenses and cash impact costs, that by April the Green Bank would be at the end of their cash. He stated that this assumes the System Benefit charge being paid in June, based off of prior discussions with OPM on sweeps that occurred several years ago. He stated that if that assumption is incorrect and that the Green Bank has to pay what is due from July of this Fiscal Year through the current date in a lump sum, as well as pay off the balance of the sweep as it comes due in the next several months, then the cash flow would be underwater quicker. Bryan Garcia stated that the sweeps have put the Green Bank into a projected negative cash flow in May of 2018.

Bryan Garcia discussed the actions to remedy the situation. He stated that the Green Bank wants the Board to understand that Senior Staff has a plan of attack to cope with the ratepayer and RGGI sweeps while minimizing the impact on the Green Bank's mission and clean energy goals. He stated that this is their statutory charge and the purpose of the ratepayer dollars and the RGGI Funds. He stated that their immediate focus is addressing the P&L and reducing operating expenses. He stated that with regards to non-personnel related operating expenses he had tasked the Senior Staff with reducing operating expenses significantly. He stated that Reed Hundt and Jeff Schub of the Coalition for

Green Capital had suggested an exercise to him. The exercise was to start with $0 of non-personnel related operating expenses and have the staff justify expenses from there. He stated that the focus was to think about operating expenses that actually contribute to revenues or where, in the staff's judgment, a significant investment had been made to date, towards programs that have both, significant community impact, as well as, revenue potential. They would keep those. He mentioned an example. He stated that for statutory and infrastructure programs, they have a large inspector budget for the RSIP. He stated that they hire outside inspectors to randomly check projects. He stated that as they approach the 300 MW goal for the RSIP, of which they are at about 200 MW, they want to transition the market need for inspectors. The exception would be for new market entrants and problematic contractors. He stated that after 300 MW's is reached, the market will not have inspections as the RSIP incentives will no longer be offered. He stated that Dale Hedman and Eric Shrago feel that they can make significant cuts to their inspector budget by focusing on new and problematic contractors and using their resources more efficiently. He stated that for those expenses that don't contribute to revenue, they will need a strong justification to keep those. He provided an example. The Green and Healthy Homes initiative with state agency partners, they want to advance that because it is important for the low to moderate income household market development. He stated that they will reduce marketing expenses. He explained that they engage with customers a lot to educate them about the importance of Green Energy, as well as, its accessibility and affordability, along with the solutions provided by the Green Bank's products.

Bryan Garcia stated that taking all of this into consideration, they believe that they can significantly reduce the non-personnel related operating expenses. He stated that with regards to personnel related operating expenses, that discussion should be done in Executive Session.

Bryan Garcia discussed canceling the Green Bank's Research and Development initiatives. He stated that this would help them to manage their cash. He stated that there are opportunities for leadership, innovation, and new market development that they would need to forego on. He stated that the Green Bank prides itself on being a leader and innovator, but they need to set that aside to remain focused on what they need to get done to make progress towards maintaining their mission of clean energy deployment, that lowers the energy burden on families and businesses, while still creating jobs in the communities, through their existing programs.

Bryan Garcia stated that those four actions need to be addressed immediately. He proposed that they assemble a Budget & Operations Committee Meeting this week to discuss. He suggested that a recommendation by that Committee be brought to the Board before the Thanksgiving holiday.

Bryan Garcia discussed the canceling or transferring of outstanding commitments. He stated that they will take a hard look at the status of projects that have been approved by the Board, but whose transactions have not yet closed and/or are not expected to close in the near future. He stated that they have a number of Anaerobic Digestion and combined heat and power projects that have a lot of outstanding commitments to them, in the tens of millions of dollars that are not in a position to close in the near future. He stated that those developers can always come back to the Green Bank when they have made significant progress and are closer to being shovel ready. He stated that they will need to decide which projects they should cancel outstanding commitments for, or transfer the projects to private capital providers, perhaps with credit enhancements from the Green Bank. He stated that they can address the outstanding commitments in the new year.

Bryan Garcia discussed the actions to increase revenues and access to cash by using the balance sheet. He stated that Bert Hunter would lead the way, as he has always done. He stated that the Green Bank model is all about how they use limited public funds to mobilize more private investment in Connecticut's Green Economy. He stated that last year, they used $25 million in public funds to mobilize $190 million of private investment. He stated that that was their greatest leverage ratio year to date. He stated that that created nearly 1,700 jobs by deploying green energy in nearly 5,500 buildings, and 1,250 units reducing the energy burden on families and businesses.

Bryan Garcia stated that they have built a balance sheet of non-current assets with loans of about $60 million that they can use to help them borrow low and lend high, to increase revenues. He stated that Bert Hunter has a strategy for how they can increase revenues by using their balance sheet. He stated that many of the strategies that they will deploy by reducing operating expenses will help them on their path to self-sustainability. He stated that there are certain necessary actions for them to remain cash flow positive over the next two years that will also delay this goal. He stated that in some situations, it will make more sense to have private lenders step in and provide more of the financing so that the Green Bank can free up cash on their balance sheet. He stated that they have considered these needs and have developed a balanced approach.

Bryan Garcia stated that they need to look at office space to address another P&L issue. He stated that they currently sublease space from Connecticut Innovations at 865 Brook Street. He stated that they will need to do some consolidation to further live within their means. He stated that perhaps their colleagues at Connecticut Innovations would understand the situation that the Green Bank is in and would be willing to release them from the sublease. He stated that he feels confident that they understand the situation, and that management has a plan of attack to cope with the ratepayer and RGGI sweeps and continue to make progress towards maintaining their mission.

Commissioner Smith stated that they need to identify the level of expenses. She stated that when you look at the P&L, income is going to be around $14 - $15 million. She stated that there will be nothing left for expenses. George Bellas stated that they will be doing roughly a third of the reduction in operating expenses between now and June 30th.

Commissioner Smith questioned the canceling of outstanding commitments. Brian Farnen stated to think of them as stale projects that have gone silent over the last year. Farnen stated that those developers can always come back to us at a later date. George Bellas discussed balance sheet requirements to meet certain loan covenants in place with lenders., stating that the Green Bank must maintain $4 million in liquid assets for this purpose. In addition, based on the strength of its balance sheet, the Green Bank has also provided loan guarantees to several 3rd party lenders who provide loans to residential and commercial borrowers that are participating in Green Bank programs. These guarantees total approximately $6 million. The Green Bank would have a legal obligation to make the 3rd party lender whole if there were to be a default by one of its borrowers.

Commissioners Smith and Klee questioned whether these guarantees were against the balance sheet. Bert Hunter stated yes, that the Green Bank would have to make the lender whole if there was a default. George Bellas stated that by contractual obligation the Green Bank has set aside $1.2 million as restricted cash on its balance sheet to meet these potential obligations. Any payments made in excess of this $1.2 million would have to come from existing unrestricted cash balances. He emphasized the importance of maintaining a minimum unrestricted cash balance of $5 million to meet these loan covenants and guarantees.

Commissioner Smith stated that they did not discuss securitization of funding in the future. She stated that she agrees that it's not ideal to be borrowing without knowing the long-term future of the organization.

Betsy Crum stated that she thinks that the Green Bank staff has taken a hard look at a lot of things. She stated that she didn't completely understand what was being proposed around the borrowing structure. She suggested maybe restructuring the existing debt or sell some of the Green Bank's assets. She stated that this is a one time approach. She stated that this is not sustainable. She stated that she is supportive, but that they need to keep a really close eye and be willing to revisit over the next 12 – 18 months.
Brian Farnen stated that they're not talking about borrowing to pay operating expenses. He stated that they are suggesting using assets on their balance sheet to borrow against for new projects. He stated that they can minimize the use of lending off the balance sheet if we target a larger SHREC securitization. Bryan Garcia stated that they had worked into the policy, the creation of a Master Purchase Agreement with the utilities. He stated that they would purchase over a 15-year period at a price that the Green Bank had set. Brian Farnen stated that the SHREC legislation and the related MPA was done with a securitization in mind.

John Harrity stated that they need to have a strategy for preventing the Legislature from doing this in the future. He questioned if there was room to go back at this to make sure that this doesn't happen again.

Reed Hundt thanked everyone for their hard work. He stated that the operating income is $5 million a year and that operating expenses are $15 million a year, in addition to that, they have grants of $9 million. He stated that they are minus $10 million a year. He suggested a way out of paying the grants by reducing the RSIP incentive. He stated that unless they can increase revenue significantly, he doesn't see a lot of choices.

Commissioner Smith stated that it sounds like RSIP is the one outflow that they are obligated to do, but that they still have a $10 million gap. She stated that they have ways to go to get operating expenses down. She questioned the obligation to pay the grants.

Brian Farnen stated that these are RSIP incentives that the Green Bank has already committed to for closed projects. He stated that he doesn't feel that they have a contractual out to not pay the grants.

Reed Hundt stated that they should consider it an option. He stated that as to the expenses they need to cut them to get some kind of bearable status quo. He stated that it seems that they need to reduce operating expenses significantly.

Gina McCarthy stated that they have a fundamental question to answer, and that is, do they feel that they can absorb the cuts and have a strategy to be sustainable without weakening the fundamental structures of the Green Bank. She questioned if it would be responsible to keep functioning if there's likely to be more cuts in the future.

Matt Ranelli stated that they need to decide what the cut point is, and when is it as a Board that they are at the point that it's not recoverable. He stated that the options provided have given the Board a good view, but that they need to be aware that all of the steps are attached to professionals that have poured their hard work into all of this. He stated that they need to realize that the decisions impact people that are working hard on the mission. He stated that they need to alert the Legislature. Commissioner Smith stated that they do need to communicate effectively to the decision makers.

Eric Brown stated that his sense is that the staff has been going this direction to keep achieving the mission of the Green Bank to the maximum extent in the short term. He stated that he would like them to do everything possible to maintain the integrity of the Green Bank and to sustain the mission. He noted that the Green Bank should communicate to the legislature how the sweep has slowed down their progress towards sustainability.

Commissioner Klee stated that they need to do what they can to get to that point to have a conversation with the Legislature in the sustainable future.

Reed Hundt stated that they need to consider another arm of government to take over the grant-making activities.

Brian Farnen stated that the issue with shortchanging the RSIP is that they have Legislation passed, the SHREC, which acts as the funding source for the RSIP. He stated that his concern is that this would make a non-impairment argument doubtful and cause more issues with the Legislature if we reneged on existing RSIP commitments as opposed to making reductions elsewhere.

Commissioner Smith stated that there have been a lot of ideas to follow up on and regroup after a few days of thinking. She stated that they need to consider further expense reduction and look at the RSIP situation. She stated that there has been a lot of discussion around borrowing. She stated that they need to do a deeper dive on that.

Betsy Crum stated that they need to look at the impact on their integrity and reputation.

Matt Ranelli questioned if there is an opportunity to put staff on loan to other Green Banks as a way of reducing operating expenses. Reed Hundt stated that as a coalition other Green Banks would do that.

Gina McCarthy stated that they need to make sure that someone is taking a look at the legal requirements. Brian Farnen stated that he would take the initiative on that. He stated that it would not likely create any liability to the State, only to the Green Bank.

Bryan Garcia stated that they wanted to move forward on the immediate operating expense items. Commissioner Smith stated she didn't feel that anyone would object to that, but before they make any decisions they need to have a conversation with the Budget and Operations Committee.

4. **Adjourn**

Upon a motion by Reed Hundt and, seconded by Matt Ranelli the meeting was adjourned at 6:14 p.m.

Respectfully Submitted,

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Catherine Smith, Chairperson

Case Study

Connecticut's Residential Solar Program

Kristofer Holz
Milagros De Camps

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Acknowledgments

This work was supported by Yale Center for Business and the Environment.

The authors are Kristofer Holz, Yale MBA/MEM Candidate 2018, and Milagros De Camps, MEM 2017.

The authors were advised by Jeffrey Schub, Executive Director at the Coalition for Green Capital, and Stuart DeCew, Program Director at Yale Center for Business and the Environment. The draft was reviewed by Connecticut Green Bank staff including Bryan Garcia, President and CEO; Brian Farnen, General Counsel and Chief Legal Officer; Dale Hedman, Managing Director of Statutory and Infrastructure Programs; Matt Macunas, Legislative Liaison and Marketing Manager; Selya Price, Senior Manager of Statutory and Infrastructure Programs; and Mike Yu, Assistant Director. The report was edited by Kat Friedrich, News Editor at Clean Energy Finance Forum at Yale Center for Business and the Environment. The graphic design was created by Henk van Assen, Senior Critic at Yale University School of Art, together with Kelly Bryan and Igor Korenfeld, Designers at HvADESIGN. The authors thank these individuals for their valuable insights, support and assistance.

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July 24, 2017

Executive Summary

As the Connecticut Green Bank works to design high-impact programs for the solar market, it has supported the design and adoption of legislation that expanded the Residential Solar Investment Program (RSIP)[1] by creating the Solar Home Renewable Energy Credit (SHREC). The SHREC provides a stable funding structure for an expanded RSIP.

The design of the RSIP was more effective than it was set out to do. It accomplished its goals eight years ahead of schedule and far below the anticipated budget. And therefore, one of Governor Malloy's gubernatorial campaign promises in 2015 was to increase the RSIP tenfold.

Meanwhile, the reliance on renewable-energy credits (RECs) to satisfy the state's renewable portfolio standard (RPS) was being predominantly met with out-of-state resources from Maine, New Hampshire, and Vermont, yielding little economic development benefits to Connecticut.

Decision makers saw the state's approach needed to be retooled to incentivize in-state market development. Solar-market demand was accelerating faster than incentives could fulfill it—falling incentives dropped more rapidly than decreasing installed costs.

The need to maintain the momentum of the solar market's growth led to a proposal for fine-tuning the incentive programs the state offered.

This led to the creation of a bill, HB 6838 (Public Act 15-194), proposing a flexible outline for expansion of RSIP through creation of the SHREC.

This bill passed with support from a range of stakeholders including the leadership of the Governor of Connecticut and, in general, bipartisan support from the Connecticut General Assembly.

The legislation did not change how the state interfaces with customers and contractors, but it did transform how the state handles REC transactions for residential solar PV projects and recovers the costs to the Connecticut Green Bank for RSIP incentives and administration and potential securitization. It set up a Master Purchase Agreement (MPA) model that wraps the RECs into a multiyear contract at a fixed REC price with the electric distribution companies who must satisfy the RPS.

The state has had to adjust the timeline for program implementation based on developments that occurred since the legislation was proposed, passed and revised.[2]

1 The RSIP provides an upfront incentive for homeowner-owned projects and performance-based incentives for third-party-owned projects.

2 PA 15-194: https://www.cga.ct.gov/2015/act/pa/pdf/2015PA-00194-R00HB-06838-PA.pdf and PA 16-212: https://www.cga.ct.gov/2016/act/pa/pdf/2016PA-00212-R00SB-00366-PA.pdf

Problem

Although the RSIP proved to be very effective, it was a victim of its own success.

The program achieved the state's statutory goal of producing 30 MW of new, in-state residential solar PV under budget and eight years ahead of schedule.

By the end of 2014, the RSIP had allowed the Connecticut Green Bank to meet and nearly double the 30 MW installation target using only 65% of the allocated resources.

However, the rapid success in growing Connecticut's residential solar market created an environment where the demand for solar power outpaced the incentives available through RSIP.

The funding source for RSIP, a portion of the surcharge on electric customers allocated to the Connecticut Green Bank, was simply not enough to continue catalyzing residential solar growth at the high rates observed between 2012 and 2014.

Another complication resulting from the rise and popularity of the RSIP was the influx to the Connecticut Green Bank of a large volume of RECs from pre-SHREC RSIP projects.[3]

The conditions of participation in the RSIP require that owners of residential solar systems, whether they are the property owners or third-party owners/operators leasing the systems to the property owners, would cede ownership of the RECs to the Connecticut Green Bank. While the RECs provided the Connecticut Green Bank with access to a new value stream, it also created new management complications and cash-flow uncertainty.

By 2013, the Connecticut Green Bank had approved about 2000 systems for the RSIP program.

As each system generated an average of 8 RECs per year, the Connecticut Green Bank now had an incoming annual stream of 16,000 RECs. This number was growing. As of the end of June 2017, according to Selya Price, Senior Manager of Statutory and Infrastructure Programs at the Connecticut Green Bank, 145 MW were approved and completed and about 170 MW were just approved.[4]

The Connecticut Green Bank issued a request for qualifications (RFQ) for brokers to market and sell the RSIP RECs in open-market auctions.

The qualified brokers would then provide Connecticut Green Bank with price quotes when requested—which the organization could decide to act upon when it was advantageous to do so.

3 RSIP projects approved for an incentive starting January 1, 2015 are eligible for the SHREC. Projects approved before that provide non-SHREC RECs.

4 Draft Guidelines and Procedures for CEFIA Management of Class I REC Asset Portfolio Memo, CEFIA. Note that CEFIA is the Clean Energy Finance and Investment Authority, the former name of the Connecticut Green Bank.

While brokers would provide the Connecticut Green Bank with REC future prices 3–5 years out, this was far less than the REC-generating lifetime of a system.

Therefore, the Connecticut Green Bank was required to consult frequently with its brokers to find new forward contract buyers or else incur out-year risk in selling into the spot market. In either case, management of new RECs brought about a new source of risk and its associated transaction costs.

Furthermore, Connecticut had been experiencing an increasing reliance on out-of-state generation for compliance with the RPS.

Rather than purchase RECs from Connecticut Class I generators, the utilities and competitive suppliers of electricity were either importing RECs across Connecticut's borders or simply complying via the Alternative Compliance Payment (ACP), a $55 charge statutorily fixed at a higher $/MWh price than the other in-state RECs.

By 2014, about 15% of renewable-electricity compliance was coming from in-state generation.[5]

Thus, while Connecticut ratepayers were paying for RPS compliance through their utility bills, they were creating demand for renewable-energy generation and its attendant economic benefits in other states. This was mostly for biomass in Vermont and New Hampshire and wind in Maine.

In 2015, the Connecticut legislature, the Connecticut Green Bank, and the state's Department of Energy and Environmental Protection (DEEP) decided to shift the RPS's tax-revenue and job-creation benefits back to the state of Connecticut—in part, through the SHREC policy.

MARKET

Eversource Energy (Eversource)[6] and Avangrid[7] are the state's two investor-owned utilities. Nearly all electricity generation in the state comes from independent producers and municipal utilities.

The state of Connecticut has one of the highest average residential electricity prices in the United States—20.12 cents per kWh as of April 2017.[8] Approximately 54% of the state's net electricity generation is sourced from the Millstone nuclear power station. 41% is from natural gas-fired power plants. In addition, 1% is from hydroelectricity and 2.4% is from non-hydro renewables.[9]

Also, 20% of the state's greenhouse gas emissions come from the electricity sector.

5 Docket No. 15-09-18

6 Used to be Connecticut Light & Power

7 Used to be United Illuminating

8 U.S. Energy Information Administration 2017 average price of electricity to ultimate consumers (https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_5_6_a)

9 U.S. Energy Information Administration March 2017 data (https://www.eia.gov/state/?sid=CT#tabs-4)

To reduce these emissions, the state's RPS sets the goal of obtaining 23% of the state's electricity from renewable-energy resources by 2020. It also targets sourcing another 4% from energy-efficient technologies that include combined heat and power.

RECs are one tool the state uses to accomplish its sustainable-energy goals.

The Connecticut Green Bank's memo, "Solar Home Renewable Energy Credits (SHRECs): Growing Connecticut's Solar Market," describes RECs as follows:

> **Utilities comply with RPS by purchasing renewable-energy certificates (RECs). A REC is a tradable certificate that represents all the positive environmental attributes of electricity generated from a residential solar-electric system, separate from the actual electricity itself.**
>
> **Each time a clean-energy system generates 1,000 kWh of electricity, a REC is metered that can be sold or traded as a transferable commodity.**
>
> **When a buyer makes an environmental claim based on a REC, the REC is considered used. The buyer then can no longer sell the REC and it is permanently retired.**

Connecticut recognizes three classes of RECs, distinguishable by the type of generator used to produce them. When utilities buy too few RECs, they instead must pay an ACP. For example, in 2014, per Docket No. 15-09-18, there was an ACP of over $7 million paid through the RPS.

The state implemented several utility incentive programs to promote solar photovoltaic (PV) systems, including a requirement by statute to provide net metering to customers that generate electricity using "Class I" [10] renewable-energy resources.[11]

This program allows owners of solar PV systems to feed the excess generated electricity back into the grid, thus creating a charge in the final consumer's bill for only the net electricity used.

Through the Connecticut Green Bank, the state also offers incentives for the development of renewables for residential customers.

Starting in 2004, Connecticut implemented a rebate program for residential installation of solar PV systems up to 5 kW.

In 2011, with the passage of Public Act 11-80, the structure of the incentives evolved to create the RSIP, which would spur the deployment of no less than 30 MW of new residential PV installations by the end of 2022.

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10 This is legally defined as "electricity derived from solar power; wind power; a fuel cell; geothermal; landfill methane gas, anaerobic digestion or other biogas derived from biological sources; thermal electric direct energy conversion from a certified Class I renewable energy source; ocean thermal power; wave or tidal power; low emission advanced renewable energy conversion technologies; a run of-the-river hydropower facility that began operation after July 1, 2003, and has a generating capacity of not more than 30 megawatts, provided the facility is not based on a new dam or a dam identified as a candidate for removal; or a biomass facility that uses sustainable biomass fuel, as defined in Conn. Gen. Stat. §16-1(a)(39), (cultivated and harvested in a sustainable manner)."

11 CGS § 16-243H.

The RSIP rebate program was developed by the Connecticut Green Bank [12] with the goal of supporting development of the 30 megawatts of residential solar PV while creating jobs and supporting local economic development.

The Connecticut Green Bank established and implemented a declining incentive program through a combination of rebates and performance-based payments with an umbrella of private third-party capital-financing support for both homeowners and contractors. A goal of the Connecticut Green Bank was to reduce the market reliance on subsidies by attracting and deploying more private capital investment in financing programs, the RSIP would be a transition to the sustained orderly development of a local residential solar PV industry in Connecticut.

Connecticut launched a suite of financing programs to support this incentive-decline strategy. These included the CT Solar Lease ($45 million), the CT Solar Loan (from $6 million to $100 million), and the Smart E-Loan.[13]

Specifically, RSIP provides homeowners an expected performance based buydown incentive as a $-per-watt upfront cost reduction to contractors on behalf of homeowners who purchase solar systems. Alternatively, it can also provide a performance-based incentive for third-party owners of systems leased to homeowners or for solar PV energy supplied to homeowners under power-purchase agreements with few or no upfront costs. These costs consist of quarterly payments for 6 years based on actual system performance and are adjusted, per statute, to be economically comparable to the upfront incentive.

As part of the contract with home owners or installers, the Connecticut Green Bank receives the Class I RECs from the distributed-generation system.

The purpose is to sell the RECs and create capital to channel back to the organization for future investment.

As of the end of June of 2017, the state has approved and completed nearly 145 MW of projects.

12 Section 106 of Public Act 11-80.

13 The CT Solar Lease is a public-private partnership with US Bank, Key Bank, and Webster Bank. The CT Solar Loan is a public-private partnership with Sungage Financial. The Smart E-Loan is a public-private partnership with local community banks and credit unions across Connecticut.

Solution

In 2015, the Connecticut Green Bank proposed an alteration to the existing RSIP program in order to maintain the success of the program and allow the state and its economy to capture a larger portion of its benefits.

The program would have a new REC funding source called SHREC—Solar Home Renewable Energy Credit. It would allow the Connecticut Green Bank to monetize a 15-year stream of RECs from residential solar PV systems through the sale of the actual RECs under a 15-year fixed-price contract with the utilities called a Master Purchase Agreement (MPA).

The MPA was approved by PURA through Docket No. 16-05-07 in January of 2017.

PURA is Connecticut's regulatory commission mandated with overseeing regulated utilities to ensure safe and reliable service at reasonable rates. Its oversight includes approval of utility procurement. Therefore, it must review and approve the MPA before the SHREC program can be implemented. This includes making decisions about the SHREC REC aggregation process for the thousands of systems included in each.

This would allow the Connecticut Green Bank to continue to monetize the value of all RECs produced by the residential PV installations, yet eliminate the existing price risk and transaction costs of REC management.

The aggregation of nearly 55 MW of SHRECs generated from thousands of residential solar PV systems was approved by PURA in May 2017 through Docket Nos. 16-08-45 (7.58 MW), 17-03-37 (20.60 MW), 17-03-38 (6.90 MW), 17-03-39 (4.30 MW), 17-03-40 (6.43 MW), and 17-03-41 (8.73 MW).[14]

Sales of the RECs to the utilities would generate a fixed, reliable source of funding for the RSIP program. Further, by establishing a fixed stream of CT residential RECs for the utilities, the SHREC program would ensure that a portion of RPS expenditures were channeled toward in-state generation.

In sum, the Connecticut Green Bank's objectives are to create a policy to achieve residential-solar-PV-market scale and system affordability in line with Connecticut's overall policy agenda.

One important difference between the current RSIP with SHRECs and the pre-SHREC RSIP is that with the SHREC, the Connecticut Green Bank would not accumulate funds from resale of SHRECs to reinvest in other programs. These funds would be used via securitization and other methods to fund the RSIP installation incentives, administrative costs, and securitization costs.

14 It should also be noted that non-SHREC REC aggregations (i.e., solar PV systems approved prior to January 1, 2015) for residential solar PV systems were approved by PURA through Docket Nos. 16-06-06 (30.0 MW), 16-06-07 (14.45 MW) and 16-08-44 (2.73 MW).

LEGISLATION

HB 6838 contains several important provisions. While the bill does not make clear exactly how the Connecticut Green Bank should manage the RSIP/SHREC program, it does codify expectations for the bank's economic research and describes the intended market effects of creating the incentive schedule.

According to the bill, the Connecticut Green Bank should undertake "willingness to pay studies and verified solar photovoltaic system characteristics such as operational efficiency, size, location, shading and orientation when determining the type and amount of incentive."

The bill also lists the various cost and revenue components the Connecticut Green Bank should consider when setting the incentive to a level "sufficient to meet reasonable payback expectations of the residential consumer and provide such consumer with a competitive electricity price."

HB 6838 makes clear that the RSIP will be designed to both spur residential solar-market development while encouraging competition through a declining schedule of incentives. Simultaneously, it attempts to avoid encouraging one ownership structure over another (i.e., the lease model versus the purchase model) by requiring that the incentive structure "provide comparable economic incentives for the purchase or lease" of a home solar system.

In addition to defining the Connecticut Green Bank's agenda for market creation and management, the statute related to HB 6838 clarifies the various actors' roles and responsibilities in maintaining the program.

Importantly, the bill text notes that the Connecticut Green Bank will retain full flexibility regarding modifying the RSIP/SHREC incentive structure to account for market shifts due to federal or state law changes or changing economic conditions that would significantly alter a typical solar home's return on investment.

It also creates a timeline for implementation of the program, which has been difficult to meet for various reasons discussed below.

Perhaps most importantly, HB 6838 lays out the structure for the SHREC.

STRUCTURE

In the RSIP, solar homeowners exchange their RECs for the RSIP incentive — as has been done since 2012.

In fact, from a customer or contractor perspective, the RSIP has not changed aside from the new capacity target of 300 MW. The major programmatic change relates to how the Connecticut Green Bank sells the RECs it receives from the solar homeowners and third-party owners.

Rather than contract into the forward or spot markets through a broker, the Connecticut Green Bank will now, as of January 1, 2015, sell any RECs received through the RSIP program (SHRECs) directly to the utilities.

The revenue from the sale will go directly into funding the RSIP. The process for this portion of the SHREC structure is governed by a 15-year MPA.

The MPA essentially allows the Connecticut Green Bank to lock in a 15-year REC buyer for each year's worth of residential solar projects that receive the RSIP.

The MPA is the crux of the program, as is explained further below.

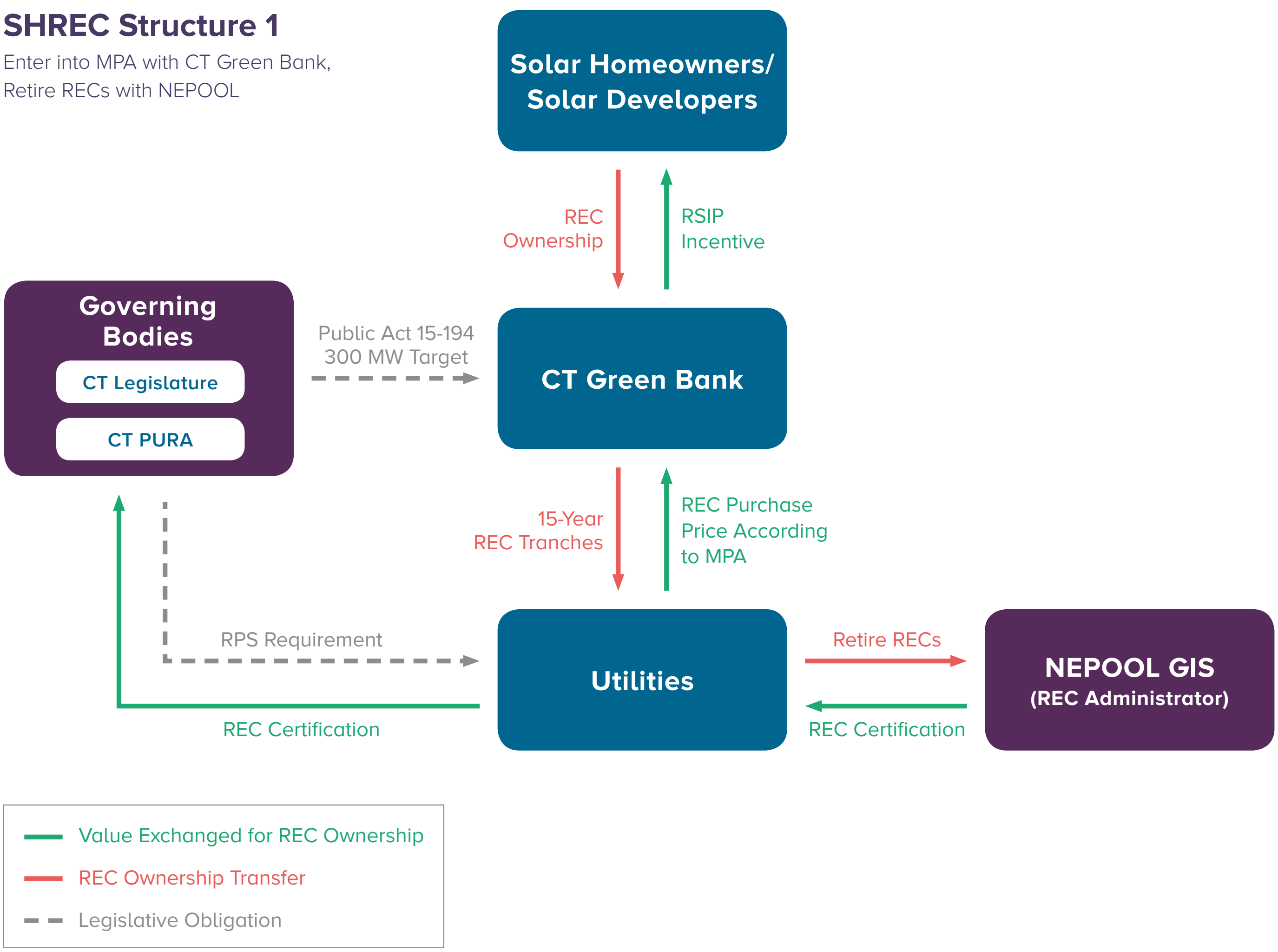
The buyer, a non-municipal utility, then has two options after receiving the RECs.

As depicted below, the utility may retire the purchased SHRECs with the New England Power Pool Generation Information System, the agency tasked with issuing and tracking certificates for electricity generation in New England ISO.

They can then use the certificates obtained to satisfy their RPS requirements with the Public Utilities Regulatory Agency (PURA).

SHREC Structure 1

Enter into MPA with CT Green Bank,
Retire RECs with NEPOOL



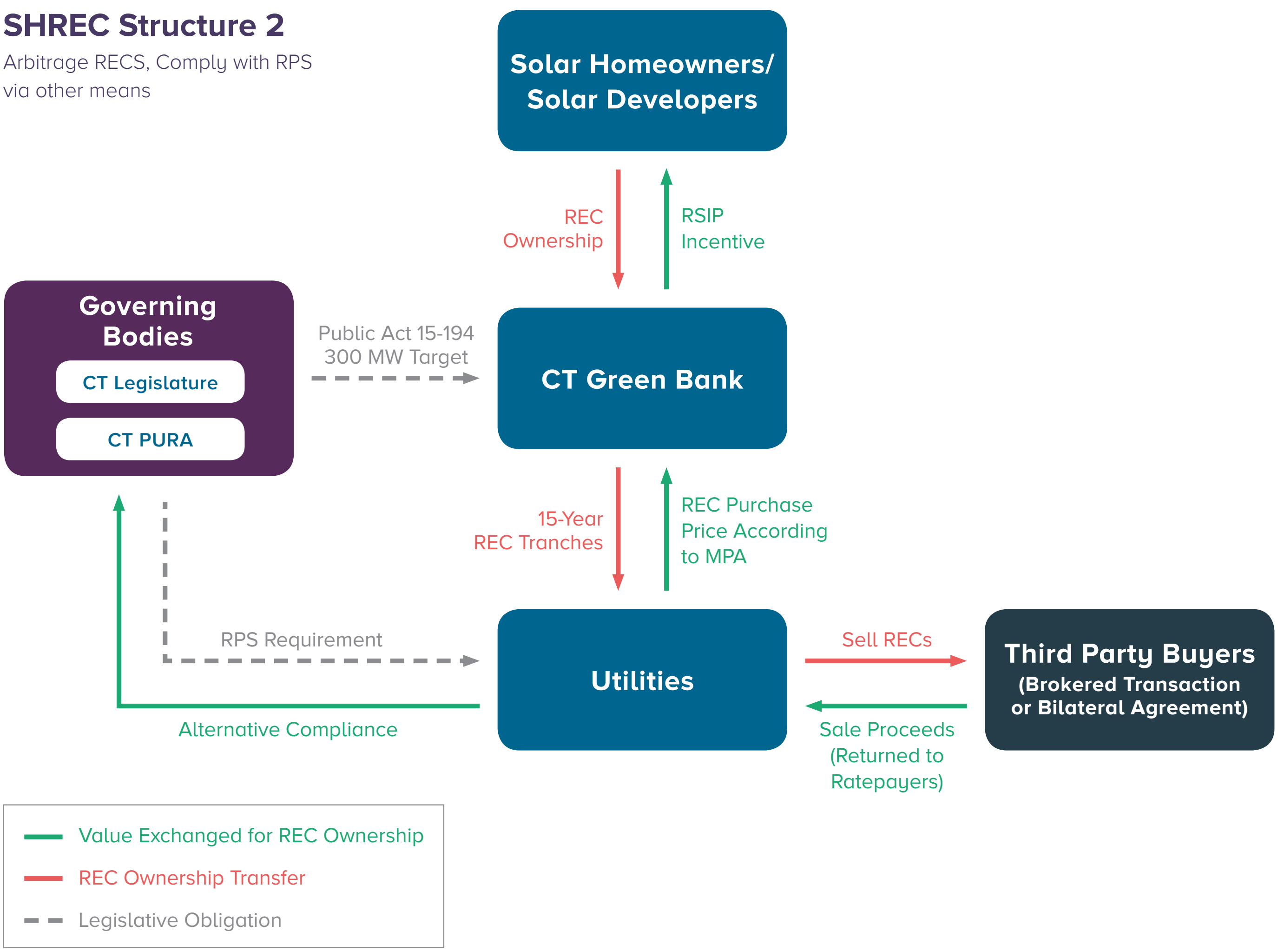
Alternatively, the utilities can elect to sell their RECs into the open market, where they may be able to negotiate a higher price than the MPA price for SHRECs. For example, in Massachusetts, the ACP is greater than $65.

In this case, the utilities would still have to comply with their RPS via some alternative means—by paying the ACP or retiring LRECs (Low-Emission Renewable-Energy Credits) or ZRECs (Zero-Emission Renewable-Energy Credits), for example.

Any income realized via SHREC arbitrage would then have to be returned to ratepayers via reconciliation during the utility ratemaking proceedings with PURA. This flexibility allows the utilities to monitor the REC markets and decide how to use the SHRECs in the best interest of their ratepayers.

SHREC Structure 2

Arbitrage RECS, Comply with RPS via other means



AGREEMENT

The MPA is a negotiated agreement between the Connecticut Green Bank and the state's two investor-owned utilities, Avangrid and Eversource. The critical components of the agreement are below.

Tranche Term Definition

The MPA is intended to govern an annual transaction between the Connecticut Green Bank and the utilities in which the utilities will purchase a new tranche at varying SHREC prices each year.

The MPA defines a given year's tranche as all SHRECs generated by SHREC projects that were not included in a prior tranche over the entire duration of the tranche term. The MPA sets each tranche term for 15 years at a fixed price.

The 2017 tranche, for example, which is the first tranche, would include all SHRECs created from residential solar projects in 2015 and 2016 and all of the RECs produced thereafter by these residential solar projects for 15 years.

The total number of tranches will be equal to the number of years between the effective date of the MPA and the Final Tranche Delivery Term, as described below.

Tranche Purchase Price

Price and terms of payment will be finalized with the executed MPA, which is expected to be ready in the summer and fall of 2017.

The first tranche SHREC price will be \$50–\$5 below the ACP of the Class I RPS.

Key Seller Obligations

Prior to selling SHRECs to the utilities via the MPA, the Connecticut Green Bank must ensure that certain preconditions are met.

These conditions include

1. A full regulatory approval of the MPA (Docket No. 16-05-07)
2. Preparedness of the SHREC aggregation process (Docket Nos. 16-08-45, 17-03-37, 17-03-38, 17-03-39, 17-03-40, and 17-03-41)
3. Execution of a Tranche Confirmation Agreement between buyer and seller detailing the quantity and price of SHRECs to be purchased
4. Verification of certain qualitative aspects of the SHREC projects

The Connecticut Green Bank is also required to maintain this aspect of quality control over the lifetime of the agreement and notify the buyer when individual SHREC projects go out of service and will no longer be producing RECs.

Under the MPA, the Connecticut Green Bank must deliver the SHRECs to the utility as provided by their percentage allotment—unless they are assigned as described below.

Key Buyer Obligations

The utilities are obligated to purchase their entire allotment of each tranche of SHRECs through the length of each tranche term.

Final Tranche Delivery Term and MPA Termination

Once the 300 MW residential solar target has been met, the utilities are no longer bound by the terms of the MPA.

While they are still required to purchase SHRECs generated for the entirety of each tranche's 15-year term, they will not be required to continue purchasing new tranches once the target has been met.

Specifically, the target date is set based on one of the following two criteria: 300 MW of CT residential solar PV development or December 31, 2022.

Policy Risk Reduction

Recognizing that the value for the utilities in entering into such a contract centers around easing the management burden of meeting their RPS, certain portions of the MPA allow for the utilities to retain some value in the event of a policy change eliminating the intended use of the SHRECs.

If, for example, the SHREC or the regulatory framework governing it (like the classification of solar home RECs as Class I RECs) is amended, the MPA provides that the utilities may then qualify the SHREC projects in another state program for REC certificates in order to meet the Connecticut RPS.

Buyer Percentage Entitlement

Importantly, utilities are entitled to an out-year "Buyer's Percentage Entitlement" portion of the RECs generated from SHREC projects beyond the 15-year term at *no charge*.

For Eversource, "Buyer's Percentage Entitlement" is 80% of the SHRECs created by NEPOOL GIS within each tranche. For Avangrid, it is 20%.

The delivery of such out-year SHRECs constitutes another obligation of the Connecticut Green Bank. The RECs will be sold or retained by the utilities in the best way for the ratepayers.

Assignment and Securitization

The MPA prohibits unilateral assignment of the contract by the buyer without the consent of the seller except in the case of a corporate consolidation event where the buyer's interests are transferred to another entity.

On the seller side, however, the MPA provides for the collateral assignment without consent of the buyer as it relates to financing the future revenue stream of the SHRECs.

This was done with the intent of allowing Connecticut Green Bank to securitize SHRECs in order to sell to third party investors.

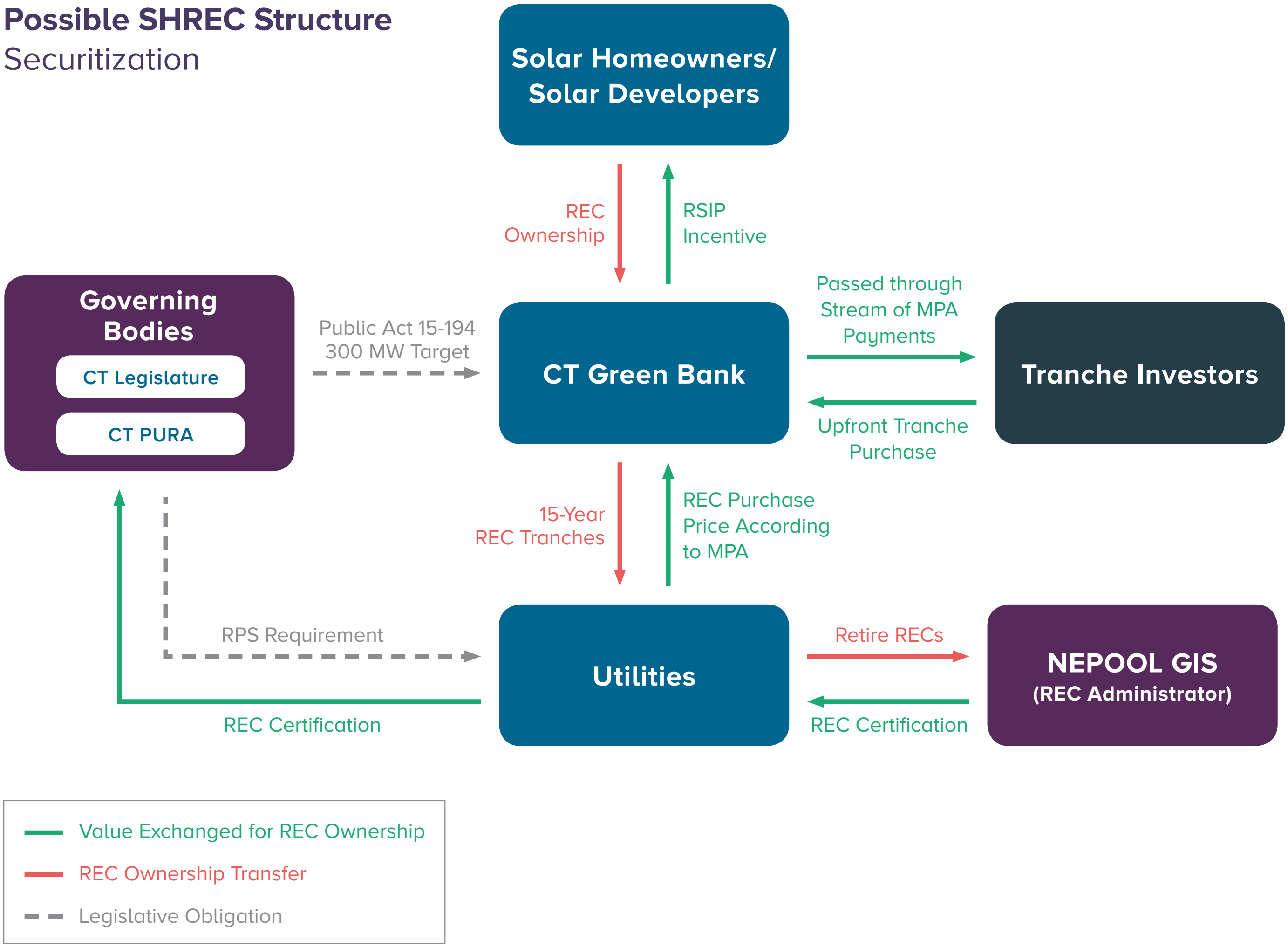
Connecticut Green Bank would receive an upfront payment in exchange for the rights to all RECs generated from a tranche of SHREC projects.

According to a study conducted by consulting group Sustainability Energy Advantage, SHRECs are expected to save ratepayers between $68 and $186 million (in 2015 dollars) compared to a scenario in which utilities simply comply with their Class I RPS obligations using the ACP.

Meanwhile, in supporting the residential solar market in Connecticut, SHRECs are expected to contribute to the creation of over 6,300 private sector jobs and $530 million of economic development.[15]

15 Connecticut Center for Economic Analysis, "Connecticut Green Bank's Residential Solar Investment Program: Economic Impact Analysis of Existing Commitments and Future Scenarios"

Possible SHREC Structure
Securitization



RESULTS

The legislation passed without any outright opposition—nearly unanimously in the Senate and with 11 "no" votes out of 151 total votes in the House of Representatives.

There was a supportive coalition behind the legislation consisting of environmental organizations, solar developers, and related industry associations.

Additionally, the University of Connecticut Economic Center weighed in with a study on the economic-development benefits of the SHRECs.

Recommendations

Reevaluating the structure and size of state solar-power incentives is periodically necessary. However, if decision makers can anticipate market growth in response to policy changes like the RSIP, they can design programs in advance to continue matching funding supply with incentive demand and reduce the need for market redesigns.

The SHREC structure appears to be a solution that will maintain and support the rapid market growth that the solar industry is experiencing in Connecticut. It will also help to bring the economic benefits of this growth within state lines to a greater extent than the previous structure required. Other states may encounter the issue of benefit export as the solar market grows, so decision makers should keep Connecticut's example in mind.

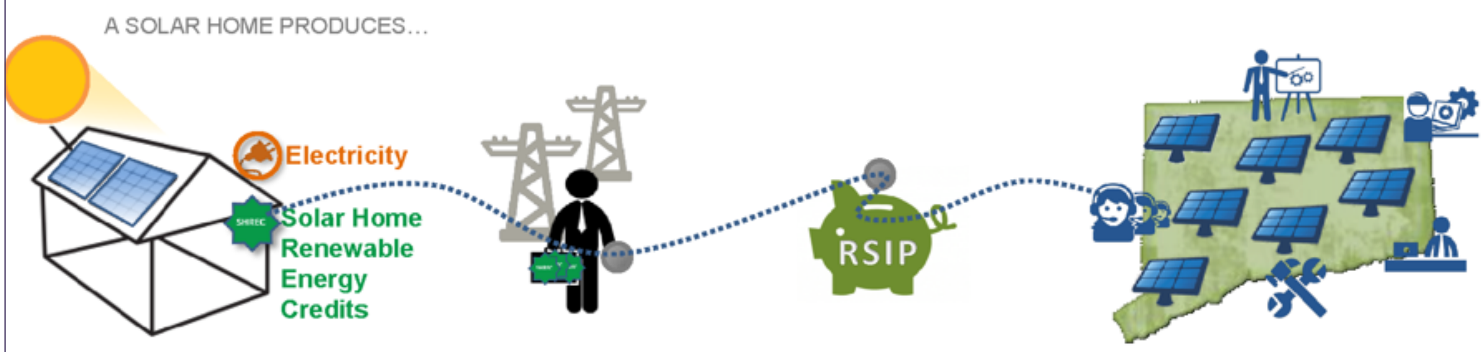
Consensus-building is a key component of creating new financing programs and their associated legislation. The Connecticut Green Bank worked successfully to help build consensus around the SHREC structure. A key element to bringing Governor Malloy's support to the conversation was demonstrating a secure revenue stream to pay for the program. The prospects of economic development and job creation resulted in support from the legislature. So did the potential reduction in RPS policy costs arising from the SHREC program.

Other states developing similar programs should also pay attention to stakeholder priorities, including discussing jobs creation through market development. The SHREC funding structure for RSIP came in at the intersection of economic development and more renewable power for the state.

The financial advantages of these solutions should be emphasized. For example, the deployment of renewable energy in Connecticut would allow utilities to pick up RECs at a reduced price over time. The only issue has been making sure that utilities receive cost recovery from ratepayers.

Appendix

SHREC
Environmental Finance



When panels produce electricity for a home, they will also produce Solar Home Renewable Energy Credits (SHRECs). The green bank collects all the SHRECs produced.

Utilities would enter in to 15-year contracts with the green bank to purchase the stream of SHRECs produce from residential solar systems for RPS policy compliance.

The green bank would then use the revenues from the 15-year fixed price contracts to continue attracting private investment into the residential solar market through the RSIP program.

A SHREC policy for over 300 MW will attract over $1 billion of private investment in residential solar in CT, contribute $532 million to the state economy, create 6,000 job-years, and save ratepayers estimated $68 million in energy costs from Class I RPS policy.

1 Connecticut Center for Economic Analysis at the University of Connecticut (February, 10, 2015)

2 Sustainable Energy Advantage (February 10, 2015) – Energy cost savings based on IRP assumptions of RPS compliance costs.