



Budget and Operations Committee

Meeting Date

June 12, 2019





Budget & Operations Committee

John Harrity, Chair

President, Connecticut State Council of
Machinists

Eric Brown

Senior Counsel, CT Business & Industry
Association

Mary Sotos

Deputy Commissioner of Energy,
DEEP

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



7 June 2019

Dear Connecticut Green Bank Budget and Operations Committee:

I hope your summer is off to a great start. We have a meeting of the Budget and Operations Committee scheduled for Wednesday, June 12, 2019 from 1:00-2:30 p.m. in the Bernard Baker Conference Room of the Connecticut Green Bank at 845 Brook Street, Rocky Hill, CT 06067.

On the agenda we have the following items:

- **Meeting Minutes** – review and approval of the meeting minutes for our two most recent meetings.
- **FY 2020 Targets and Budget** – The team has finalized the budget and targets for your review for the next fiscal year. We are including updated versions of previously submitted items (targets and revenues) and intend to focus this meeting on expenses and the finalization of the budget package.
- **Bonding Strategy and Authorization** – as we begin to put our bonding capabilities and strategies in place, we will provide an overview on where we are at to date and discuss our overall bond strategy.
- **Update on Sustainability Plan** – Staff will update the committee as to our progress against the Green Bank’s financial sustainability plan that was approved by the Board on December 15, 2017 and immediately implemented in FY 2018 and FY 2019 after the legislative sweeps.
- **FY2020 and Beyond Comprehensive Plan** – The team has completed a draft of the proposed comprehensive plan and is looking forward to the committee’s input and feedback. There are still areas of the Comprehensive Plan to complete (i.e., see “yellow” highlights), but the main components are included.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Eric Shrago". The signature is fluid and cursive, with a long horizontal stroke at the end.

Eric Shrago
Managing Director of Operations



AGENDA

Budget and Operations Committee of the
Connecticut Green Bank
845 Brook Street
Rocky Hill, CT 06067

Wednesday, June 12, 2019
1:00-2:30 p.m.

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

1. Call to order
2. Public Comments – 5 minutes
3. Approve Meeting Minutes for December 6, 2018 and May 15, 2019 Regular Meetings* – 5 minutes
4. FY 2020 – Budget and Targets** – 50 minutes
5. Green Bank Bond Strategy and Authorization Resolution – 10 minutes
6. Update on Green Bank Financial Sustainability Plan – 10 Minutes
7. FY2020 and Beyond Comprehensive Plan (Draft) – 10 Minutes
8. Adjourn

*Denotes item requiring Committee action

** Denotes item requiring Committee action and recommendation to the Board for approval

Please join my meeting from your computer, tablet or smartphone.

<https://global.gotomeeting.com/join/258087069>

You can also dial in using your phone.

(For supported devices, tap a one-touch number below to join instantly.)

United States: +1 (646) 749-3122

- One-touch: <tel:+16467493122,,258087069#> Access Code: 258-087-069



Resolutions

Budget and Operations Committee of the
Connecticut Green Bank
845 Brook Street
Rocky Hill, CT 06067

Wednesday, June 12, 2019
1:00-2:30 p.m.

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

1. Call to order
2. Public Comments – 5 minutes
3. Approve Meeting Minutes for December 6, 2018 and May 15, 2019 Regular Meetings* – 5 minutes

Resolution #1

Motion to approve the minutes of the Budget and Operations Committee meeting for December 6, 2018 and May 15, 2019.

Second. Discussion. Vote

4. FY 2020 – Budget and Targets** – 60 minutes

Resolution #2

RESOLVED, the Connecticut Green Bank's (Green Bank) Budget and Operations Committee recommends that the Green Bank Board of Directors approve the Fiscal Year 2020 Targets and Budget;

RESOLVED, the Budget and Operations Committee recommends that the Board of Directors authorizes Green Bank staff to extend the professional services agreements (PSAs) currently in place with the following, contingent upon a competitive bid process having occurred in the last three years (except Cortland Capital Services and Inclusive Prosperity Capital):

- I. Adnet Technologies, LLC

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

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

RESOLVED, the Budget and Operations Committee recommends that the Board of Directors authorize and empower the proper Green Bank officers to do all other acts and execute and deliver all other documents and instruments as they shall deem necessary and desirable to execute these extensions.

Second. Discussion. Vote

5. Green Bank Bond Strategy and Authorization Resolution – 10 minutes
6. Update on Green Bank Financial Sustainability Plan – 10 Minutes
7. FY2020 and Beyond Comprehensive Plan (Draft) – 10 Minutes
8. Adjourn

*Denotes item requiring Committee action

** Denotes item requiring Committee action and recommendation to the Board for approval

Please join my meeting from your computer, tablet or smartphone.

<https://global.gotomeeting.com/join/258087069>

You can also dial in using your phone.

(For supported devices, tap a one-touch number below to join instantly.)

United States: +1 (646) 749-3122

- One-touch: <tel:+16467493122,,258087069#>

Access Code: 258-087-069



**BUDGET AND OPERATIONS COMMITTEE OF THE
CONNECTICUT GREEN BANK**

Draft Minutes – Regular Meeting
845 Brook Street
Rocky Hill, CT 06067

Thursday, December 6, 2018
10:00 – 11:00 a.m.

A regular meeting of the Budget and Operations Committee of the Connecticut Green Bank (the “Green Bank”) was held on December 6, 2018, at the office of the Connecticut Green Bank, 845 Brook Street, Rocky Hill, CT, in the Colonel Albert Pope Board Room.

1. Call to Order

John Harrity called the meeting to order at 10:01am.

Committee members participating: John Harrity, Rob Klee, Eric Brown

Others attending:

Staff attending: George Bellas, Brian Farnen (by phone), Bryan Garcia, Jane Murphy, Eric Shrago

2. Public Comments

There were no public comments.

3. Approve Meeting Minutes for July 6, 2018 Special Meeting

Resolution #1

Motion to approve the minutes of the Budget and Operations Committee meeting for July 6, 2018

Upon a motion made by Rob Klee and seconded by Eric Brown, the Resolution passed unanimously.

4. FY 2019 Targets and Budget

- Discussion began with Mr. Shrago stating that targets were mostly flat and Residential sector on track for what planned—no changes there. There is a request for changes in RSIP as work is deployment faster in this sector than originally expected.
- Mr. Garcia pointed out tariffs on steel and aluminum or the threat thereof are driving potential clients to speed up delivery and installation. Also, contractors are increasing their prices as their prior margins were so tight and one would think that would drive potential clients to rethink but it is actually encouraging them to proceed with installations now so tariffs may not affect their pricing.
- Further pointed out that PURA needs to speed up their ruling regarding tariffs. There is a new capacity target due to high demand.
- Mr. Klee asked Mr. Shrago if there is a seasonal or cyclable pattern to when new jobs close? To which Mr. Shrago answered that it is not so much seasonal as cyclical. Mr. Garcia pointed out that there is a longer sales cycle for industrial jobs as they may have a longer approval process. Mr. Harrity voiced a concern about how CGB can “crack that nut” better to help companies sign up for green initiatives. Mr. Brown stated CPACE may be limited and will seek to find out why some still hold out.
- Mackey Dykes entered room at this time and discussion regarding CPACE continued. Mr. Harrity wants to try and determine why companies are not jumping on CPACE opportunities. Mr. Dykes stated that the ZREC auction was delayed which held up some of those projects but now those are beginning to move forward. Mr. Dykes went on to say that the broader issue of why there are not more industrial installations under CPACE is the education component; his team is trying to educate businesses, speaking at all types of events they can to educate and draw interest, trying to double-down on contractors so they can determine why some of the commercial installers are not using the program to finance more projects and what barriers there may be. Mr. Dykes hopes increased coordination with the utilities could yield more project. The metrics devised by the Joint Committee will determine what the utility pipeline of larger projects looks like. Mr. Harrity pointed out that companies may be stating that the utilities are already doing green initiatives and that they don’t have to do anything to which Mr. Dykes stated they are hearing a lot of that. Mr. Klee pointed out that the utilities also have different goals.
- Mr. Dykes stated that solar drives a lot of our projects and there is a market for energy efficiency just for that however all the risk is on the building owner. Mr. Dykes said staff was in the early stages of determining the viability of performance insurance. Mr. Brown stated that the installation of solar is that it will cost less than the savings they will receive on a monthly basis from energy costs—are they looking for insurance to insure that? Mr. Dykes stated that once solar installation completed the “expected” energy savings is to exceed cost but there is no guarantee that will materialize. Mr. Brown asked if projects are not going forward because of this cause? Mr. Dykes is not certain but there are not a lot of complaints Mr. Dykes stated the tracking of ongoing projects to determine trends and obtaining feedback from owners is the next step in finding out what is driving companies to not go forward.
- Mr. Klee pointed out the prior effort to segment marketing to certain industries like car dealerships, boat marinas and mid-size shopping strip malls. These are more streamlined and we should work on and plan to win these types of projects. Mr. Dykes agreed that marketing to car dealerships was a great idea and also coordinated with non-profits to market solar assessments. Not a lot of traction on these

however and may be spread too thin. Mr. Dykes stated if anyone has any suggestions to address these issues to please bring them to his attention. Mr. Harrity stated they will keep all this in mind.

- Mr. Shrago talked about the previous inaccurate pricing for the Solar Home Renewable Energy Credits (SHREC's). It was also a slightly rainier year than planned which also affected the REC's. The CGB overbudgeted what the price was going to be; the volume was good, but price variance affected the bottom line. Looking forward, the prepared price estimate is secured at \$20 so CGB will be more comfortable to not overestimate income.
- Mr. Shrago pointed out that CGB spending more but not on staff. To ensure properly working SHREC meters, they are being replaced incurring more costs. CGB is looking to spend \$57,500 to attract investment from regular citizens to which Mr. Harrity thought people should be enthusiastic about. Mr. Shrago stated that they will issue an RFP for a company to handle the marketing and bond issuance. The purpose being the co-investing by regular citizens with a \$200-\$300 per bond investment. Mr. Garcia reviewed that small investors would be able to invest in future endeavors of CGB. Mr. Harrity recalled receiving US Savings Bonds as kids and feels that these small bond investments in green initiatives will be "snapped up" but pointed out that the \$300 may be harder to reach than amounts of \$200-\$250.
- Mr. Brown was putting his skeptic hat on voicing concern about increased compensation costs as noted in the budget report. Mr. Garcia pointed out that the compensation should be a wash and may not be reflected that way in the report. Further, the newly formed Inclusive Prosperity Capital (IPC) should lower CGB expenditures due to CGB carrying personnel costs when IPC first spun off; putting a narrative to the adjustment for the IPC salary and benefit expenses and notation/adjustments will be made for the next Board meeting. Mr. Shrago noted that some funding cutting in to marketing budget but CPACE budget going forward with marketing plans. Mr. Garcia said team would make a graph of current year and prior year and define the IPC changes and note narrative.

Resolution #2

RESOLVED, the Budget and Operations Committee recommends the Connecticut Green Bank Board of Directors approve the fiscal year 2019 budget and target adjustments outlined in Attachment A.

Upon a motion made by Rob Klee and seconded by John Harrity, the Resolution passed unanimously.

Issue still under discussion as Mr. Brown stated the resolution goes right to the numbers under Residential solar and Catherine [Smith] will have her eagle eyes on it. Mr. Garcia stated the team will work on updates [for the next Board meeting] in accordance with suggestions from the Budget & Operations Committee.

- Mr. Shrago advised the Committee that the Stamford and Rocky Hill leases are up in year 2020 and his team has begun reviewing real estate options in both areas looking for commercial property with green initiatives and close to public transportation to meet the needs of personnel in both offices. CGB has issued Requests for Proposals (RFP's) and has received 13 responses. Mr. Shrago feels that being out in front of this so early in process will permit CGB to find the best options and his plan is to bring presentation to the Board by early spring. Mr. Brown asked if the plan is to keep two offices and Mr. Shrago answered affirmative. Mr. Klee pointed out that Stamford is in the heart of the city and easily accessible to public transit however, both Mr. Shrago and Mr. Garcia pointed out that the heat/AC does

not work properly in that location and the employees are open to moving. Mr. Harrity joked that Essex on the shore would be good.... Mr. Brown voiced that the PURA facility may be an option as well. Mr. Harrity asked that the Committee be kept apprised of this review.

5. Adjourn

Upon a motion made by Rob Klee and seconded by Eric Brown, the Committee unanimously agreed to adjourn meeting at 10:55 a.m.

Respectfully submitted,

DRAFT

John Harrity, Chairperson



**BUDGET AND OPERATIONS COMMITTEE OF THE
CONNECTICUT GREEN BANK**

Draft Minutes – Regular Meeting
845 Brook Street
Rocky Hill, CT 06067

Wednesday, May 15, 2019
2:00 – 3:00 p.m.

A regular meeting of the Budget and Operations Committee of the Connecticut Green Bank (the “Green Bank”) was held on Wednesday, May 15, 2019 at the office of the Connecticut Green Bank, 845 Brook Street, Rocky Hill, CT, in the Colonel Albert Pope Board Room.

1. Call to Order

John Harranty called the meeting to order at 2:00pm

Committee members participating: John Harranty

Note – A quorum was not achieved for today’s meeting – no resolutions were presented for consideration

Members absent: **Eric Brown**

Others attending:

Staff attendees: Brian Farnen (by phone), Bert Hunter (by phone), Jane Murphy, Eric Shrago, Cheryl Samuels

2. Public Comments

There were no public comments.

3. Approve Meeting Minutes for December 6, 2018 Regular Meeting

This will require Committee action so this agenda item was postponed until the next scheduled Committee meeting.

4. FY 2020 Comprehensive Plan – Budget and Targets

Mr Shrago presented the plan for budget approval and recommendations to the Committee. This meeting would focus on program targets and budget revenues for FY 2020. The next committee meeting, on Wednesday, June 5, 2019, will focus on expenses.

Mr. Shrago began with “where we’ve been”—a review of results 2019 to-date—targets and what targets have been met. Mr. Harrity asked how the Green Bank compares to other states. He has been reviewing results from internet reports and that Connecticut is currently 45th out of 50 states regarding renewables. Mr. Shrago will pull some numbers for Mr. Harrity and connect with him separately.

Mr. Shrago presented a ‘target’ table defining the Investment Business and Incentive Business—as part of the overall review of growth. Mr. Shrago walked the committee through the program targets as they were proposed in the memorandum to the committee starting with those comprising the Investment Business, followed by those in the Incentive Business.

When discussing SBEA, Mr. Harrity asked if the hassles staff were experiencing operationalizing the purchase of the loans were due to working with Eversource or their systems. Mr. Hunter stated that the Eversource systems were not “built” for a loan repayment structure and they have been working to split and define the energy payments from the loan repayments. Catherine Duncan, Loan Administrator and Shawne Cartelli, Controller continue their work with Eversource to ascertain all the relevant loan repayment accounts. The 2nd purchase of loans is scheduled for June 2019.

Mr. Harrity asked if even with bumps in the road, is IPC’s business in line with where everyone thought it would be?

Mr. Shrago stated that from a Green Bank perspective, programs were operating at a reduced cost and were expecting continued savings the next year due (strategic migration of SMART-E platforms). He mentioned that IPC still establishing itself. Recently they have obtained external pools of capital enabling them to get beyond CT. Mr. Hunter pointed out that IPC is a little bit behind their intended schedule due to their starting in August 2018 instead of July 2018, but emphasized that IPC is doing well.

Mr. Shrago reviewed target goals reflected in a chart for residential solar and EEPP – battery storage program. The RSIP is set to hit the statutory cap sometime this autumn but expectations are that the Connecticut legislature will increase the MegaWatts (MW) by 50. Mr. Farnen stated all are cautiously optimistic that the CT legislature will increase the statutory cap by 50MW to bridge the transition from *incentive* to the new *tariff* program.

When discussing the EEPP Battery Storage Program, Mr. Harrity asked if electricity would still be on the grid. And would this negate the savings of customers energy expenses? Mr. Shrago stated

team is still working through the design but customer savings and resiliency are core components of why someone would participate.

a.

Mr. Shrago reviewed the forecast revenue report with detailed schedules, including interest income, Utility Customer Receipts (CEF) and RGGI Proceeds restored to pre-sweep levels, and REC sales. He mentioned that staff are expecting new income from monetizing Forward Capacity Markets and that the Green Bank is continuing to look at bonding as a source of funding. He thanked Mr. Hunter's team—especially Louise Venables—for identifying the opportunity in the Forward Capacity Markets. Mr. Harrity said whatever revenue is received, it “beats a poke in the eye”.

b. Investment

Although still being finalized, the Green Bank is looking to invest \$57M of its own capital in FY2020, which is well beyond the target set forth to the Board in the cash flow model Mr. Shrago provided a high level walk through of the proposed investments.

Mr. Shrago went on the state that expenses are using the previously presented sustainability plan as a guide but highlighted that the organization recognizes that it needs to continue to innovate and that they would be presenting a research and development budget again with a focus on renewable heating and cooling as a particular area ripe for innovation.

He also highlighted that while staff recognizes the need to keep the Green Bank lean, making more investments leads to additional and staffing requirements. He said that staff were proposing new headcount specifically for asset management (to optimize revenue) & accounting (to address compliance and reporting needs), and for the finance team (to source capital and support bonding efforts). Mr. Harrity asked if there is enough staffing for marketing C-PACE? Per Mr. Shrago there was a 4th requested “headcount” to help origination customers and projects and Mr. Harrity stated he felt that focus is important. Mr. Shrago declared there are a lot of customers still out there for Green Bank funding opportunities. Mr. Harrity pointed out those funding opportunities may look at the business as opaque and they may be nervous about world events/policy (Trump/Chinese) which may ratchet up pricing. Mr. Harrity asked how that will affect the Green Bank? Mr. Hunter asked if Mr. Harrity meant affecting solar in particular? Yes, but Mr. Harrity pointed out that these concerns may impact the Green Bank in other ways as well and asked “When might this affect or cause problems” for the Green Bank? Mr. Shrago stated there is a study/review/report about how these prices/tariffs would affect Green Bank business and feels—from this review—only a modest impact. Mr. Hunter pointed out that solar panels are a small portion of overall installation costs—smaller than one may think. Mr. Hunter went on to say that all other increased costs may be passed on to customers and that general administration and engineering costs may be affected more.

Mr. Shrago concluded stating this information is what he wanted to review today and will reach out to Mr. Harrity before the next Committee meeting in preparation to present information to Board members. Mr. Harrity acknowledged that this review consists of hundreds of hours of work and is appreciative of everyone's hard work. Mr. Shrago thanked him on behalf of team.

There were no further questions and Mr. Harrity said a warm farewell to

5. Adjourn

Meeting was adjourned at 2:51pm

Respectfully submitted,

John Harrity, Chairperson

DRAFT



Memo

To: Budget and Operations Committee

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

Date: June 7, 2019

Re: Proposed FY2020 Targets and Budget

I. Targets

The Green Bank has proposed the following targets for each sector's programs for the upcoming fiscal year:

Segment	Program/Product	FY 2020 Proposed			FY 2019 (as of 5/8/19)		
		Projects	Investment	Capacity	Projects	Investment	Capacity
Financing Programs	CSPACE	56	\$ 22,000,000	5.6	35	\$ 20,137,169	5.0
	PPA	34	\$ 28,125,000	12.7	18	\$ 12,482,583	3.9
	SBEA	1000	\$ 20,000,000	-	4011	\$ 38,632,963	
	SMART-E	540	\$ 7,182,000	0.5	562	\$ 7,195,625	0.6
	Low Income Leases (PosiGen)	615	\$ 17,202,165	4.2	646	\$ 18,624,068	4.5
	Multifamily PreDev	2	\$ 140,000	-	4	\$ 258,250	
	Multifamily Term	9	\$ 1,493,000	0.3	10	\$ 34,467,479	0.3
	Multifamily Catalyst	2	\$ 110,000	-			
	Strategic Investments	2	\$ 7,500,000	-			
	Investment Business Total	2240	\$ 98,427,165	21.0	5286	\$ 131,798,137	14.3
Segment	Program/Product	FY 2020 Proposed			FY 2019 (as of 5/8/19)		
		Projects	Investment	Capacity	Projects	Investment	Capacity
Incentive Programs	EEPP-Battery Storage	500	\$ 5,500,000	2.0			
	RSIP	7059	\$ 214,200,000	60.0	6435	\$ 192,285,427	55.0
	Incentive Business Total	7559	\$ 219,700,000	62.0	6435	\$ 192,285,427	55.0
Segment	Program/Product	FY 2020 Proposed			FY 2019 (as of 5/8/19)		
		Projects	Investment	Capacity	Projects	Investment	Capacity
CGB	Investment Business	2240	\$ 98,427,165	21.0	5286	\$ 131,798,137	14.3
	Incentive Business	7559	\$ 219,700,000	62.0	6435	\$ 192,285,427	55.0
	CGB Total	9130	\$ 299,575,000	76.3	10907	\$ 302,229,879	63.3

These targets are all the same as those discussed at our previous meeting with a slight adjustment in Investment in the Strategic Investments.

II. Proposed Green Bank FY 2020 Operating and Program Budget

Enclosed is the proposed Green Bank's FY 2020 budget for review and discussion at the June 12th meeting.

At the May 15th B&O Committee meeting, we focused on the above targets and the revenue side of the FY 2020 budget. Staff has revised these estimates and projects revenues for FY 2020 of \$43,567,735. This estimate includes utility customer assessments, RGGI auction proceeds, interest income, REC sales, grants, and closing fees. The public revenues (i.e., utility customer assessments and RGGI auction proceeds) are \$30,018,200, or 69% of total revenues – while the non-public revenues (i.e., interest income, REC sales, grants, closing fees) are \$13,549,535, or 31% of total revenues.

Projected expenses for FY2020 are forecast at \$17,472,027 – or \$8,465,874 for personnel and \$9,006,153 for non-personnel related operating expenses.

I am sure you will all notice our updated format reflecting our move to doing our budgets in our new budgeting software and in our accounting system. If there are questions, staff are more than happy to walk through them in detail prior to the meeting.

Resolution

RESOLVED, the Connecticut Green Bank's (Green Bank) Budget and Operations Committee recommends that the Green Bank Board of Directors approve the Fiscal Year 2020 Targets and Budget;

RESOLVED, the Budget and Operations Committee recommends that the Board of Directors authorizes Green Bank staff to extend the professional services agreements (PSAs) currently in place with the following, contingent upon a competitive bid process having occurred in the last three years (except Cortland Capital Services and Inclusive Prosperity Capital):

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

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

RESOLVED, the Budget and Operations Committee recommends that the Board of Directors authorize and empower the proper Green Bank officers to do all other acts and execute and deliver all other documents and instruments as they shall deem necessary and desirable to execute these extensions.

**Connecticut Green Bank
FY 2020 Operating and Program Budget - DRAFT
Table of Contents**

Presented to B&O Committee on June 12, 2019

Page	Primary Schedules
P1	Projected Revenues and Expenses FYE June 30, 2020 (Total CGB, Financing Programs and Incentive Programs Detail)
P1a	Revenue Detail
P2	Projected Utility Remittances
P3	Projected RGGI Auction Proceeds
P4	Projected REC Revenue
P5	Employee Staffing Plan

Page	Supplementary Schedules
S1	Program Loans and Working Capital Advances
S2	Credit Enhancements
S3	Program Grants and Incentives
S4	Statutory and Infrastructure Budget
S5	Residential Budget
S6	Multifamily Budget
S7	Commercial, Industrial and Institutional Budget
S8	Finance Budget
S9	General Operations Budget
S10	Marketing Budget
S11	Research & Development Expenditures
S12	Other Operating Expenses
S13	Capital Expenditures
S14	Strategic Partners

**Connecticut Green Bank
FY 2020 Operations and Program Budget - DRAFT**

Statement of Revenues and General Operations and Program Expenses

	GenOps Fiscal Year 06/30/2020 Budget	Programs Fiscal Year 06/30/2020 Budget	Fiscal Year 06/30/2020 Budget	Fiscal Year 06/30/2019 Budget	Variance	Percentage	Fiscal YTD As of Today Actual
Revenue							
Operating Income							
Utility Customer Assessments	25,988,400	0	25,988,400	25,969,100	17,300	0 %	22,036,249
Payments to State of Connecticut	0	0	0	(14,000,000)	14,000,000	(100) %	0
RGGI Auction Proceeds-Renewables	4,031,800	0	4,031,800	750,700	3,281,100	437 %	904,185
CPACE Closing Fees	0	135,000	135,000	135,000	0	0 %	88,893
REC Sales	0	8,086,325	8,086,325	5,033,976	3,052,350	61 %	5,336,117
Grant Income-Federal Programs	0	30,000	30,000	98,507	(68,507)	(70) %	14,589
Grant Income-Private Foundations	0	0	0	200,000	(200,000)	(100) %	0
Grant Income-DEEP	0	0	0	0	0	0 %	6,500,000
PPA Income	0	252,000	252,000	41,000	211,000	515 %	204,954
LREC/ZREC Income	0	50,000	50,000	16,170	33,830	209 %	16,170
Total Operating Income	30,018,200	8,553,325	38,571,525	18,244,453	20,327,073	111 %	35,101,157
Interest Income	292,712	4,101,480	4,394,192	3,356,461	1,037,730	31 %	2,949,755
Interest Income, Capitalized	0	367,018	367,018	358,287	8,730	2 %	247,272
Other Income	200,000	35,000	235,000	236,800	(1,800)	(1) %	609,168
Total Revenue	\$30,510,912	\$13,056,823	\$43,567,735	\$22,195,801	21,371,933	96 %	\$38,907,352
Operating Expenses							
Compensation and Benefits							
Employee Compensation	988,737	3,553,393	4,540,130	4,268,927	271,203	6 %	3,836,584
Employee Benefits	879,983	3,045,781	3,925,744	3,797,892	127,852	3 %	3,485,487
Total Compensation and Benefits	1,868,720	6,599,174	8,465,874	8,066,819	399,055	5 %	7,322,071
Program Development & Administration	0	4,156,885	4,156,885	4,257,594	(100,709)	(2) %	2,750,441
Marketing Expense	317,055	539,000	856,055	746,500	109,555	15 %	311,510
E M & V	145,000	380,000	525,000	485,000	40,000	8 %	376,644
Commitment Fees	0	0	0	0	0	0 %	45,764
Consulting and Professional Fees							
Consulting/Advisory Fees	113,500	347,400	460,900	313,000	147,900	47 %	331,094
Accounting and Auditing Fees	248,750	0	248,750	159,950	88,800	56 %	48,998
Legal Fees & Related Expenses	50,000	234,499	284,499	267,500	16,999	6 %	322,048
Bond Issuance Costs	0	330,000	330,000	88,889	241,111	271 %	0
Total Consulting and Professional Fees	412,250	911,899	1,324,149	829,339	494,810	60 %	702,140
Research and Development	410,000	0	410,000	40,000	369,999	925 %	38,246
Rent and Location Related Expenses							
Rent/Utilities/Maintenance	69,065	240,934	309,999	300,000	9,999	3 %	237,116
Telephone/Communication	27,759	96,839	124,598	99,760	24,839	25 %	77,109
Depreciation & Amortization	77,718	271,116	348,834	67,406	281,428	418 %	34,609
Total-Rent and Location Related Expenses	174,542	608,889	783,431	467,166	316,266	68 %	348,834
Office, Computer & Other Expenses							
Office Expense	23,259	81,136	104,395	100,000	4,394	4 %	80,295
Insurance	89,999	0	90,000	90,000	0	(0) %	68,853
Subscriptions	5,000	115,000	119,999	71,000	49,000	69 %	65,102
Training & Education	87,000	23,750	110,750	66,750	44,000	66 %	51,279
IT Operations	90,340	315,149	405,489	358,856	46,634	13 %	322,705
Travel, Meeting & Related Expenses	58,000	62,000	120,000	138,000	(18,001)	(13) %	74,219
Total-Office, Computer & Other Exp	353,598	597,035	950,633	824,606	126,027	15 %	662,453
Total Operating Expenses	\$3,679,145	\$13,792,882	\$17,472,027	\$15,717,024	1,755,003	11 %	\$12,558,103
Program Incentives and Grants							
Financial Incentives-CGB Grants	0	100,000	100,000	100,000	0	0 %	6,480,000
Program Expenditures-Federal Grants	0	30,000	30,000	98,507	(68,507)	(70) %	14,589
EPBB/PBI/HOPBI Incentives	0	15,505,131	15,505,131	13,746,354	1,758,777	13 %	12,239,878
Incr/(Decr) in Reserve for RSIP Payments	0	0	0	0	0	0 %	3,182,780
Interest Rate Buydowns-CGB	0	0	0	125,000	(125,000)	(100) %	125,309
Total Program Incentives and Grants	\$0	\$15,635,131	\$15,635,131	\$14,069,861	1,565,270	11 %	\$22,042,557
Operating Income/(Loss)	\$26,831,767	\$(16,371,191)	\$10,460,576	\$(7,591,083)	18,051,659	(238) %	\$4,306,692
Non-Operating Expenses							
Interest Expense	0	2,636,672	2,636,672	428,218	2,208,454	516 %	460,592
Realized (Gain) Loss	0	0	0	0	0	0 %	104,465
Provision for Loan Loss	0	2,965,625	2,965,625	2,923,674	41,951	1 %	2,757,067
Interest Rate Buydowns-ARRA	0	1,800,000	1,800,000	25,000	1,775,000	7,100 %	897,428
Total Non-Operating Expenses	\$0	\$7,402,297	\$7,402,297	\$3,376,892	4,025,405	119 %	\$4,219,552
Net Revenues Over (Under) Expenses	\$26,831,767	\$(23,773,488)	\$3,058,279	\$(10,967,975)	14,026,254	(128) %	\$87,140

**Connecticut Green Bank
FY 2020 Operations and Program Budget - DRAFT**

Statement of Revenues and General Operations and Program Expenses - FINANCING PROGRAMS

	GenOps Fiscal Year 06/30/2020 Budget	Programs Fiscal Year 06/30/2020 Budget	Fiscal Year 06/30/2020 Budget	Fiscal Year 06/30/2019 Budget	Variance	Percentage	Fiscal YTD As of Today Actual
Revenue							
Operating Income							
Utility Customer Assessments	25,988,400	0	25,988,400	25,969,100	17,300	0 %	22,036,249
Payments to State of Connecticut	0	0	0	(14,000,000)	14,000,000	(100) %	0
RGGI Auction Proceeds-Renewables	4,031,800	0	4,031,800	750,700	3,281,100	437 %	904,185
CPACE Closing Fees	0	135,000	135,000	135,000	0	0 %	88,893
REC Sales	0	8,086,325	8,086,325	5,033,976	3,052,350	61 %	5,336,117
Grant Income-Federal Programs	0	30,000	30,000	98,507	(68,507)	(70) %	14,589
Grant Income-Private Foundations	0	0	0	200,000	(200,000)	(100) %	0
Grant Income-DEEP	0	0	0	0	0	0 %	6,500,000
PPA Income	0	252,000	252,000	41,000	211,000	515 %	204,954
LREC/ZREC Income	0	50,000	50,000	16,170	33,830	209 %	16,170
Total Operating Income	30,018,200	8,553,325	38,571,525	18,244,453	20,327,073	111 %	35,101,157
Interest Income	292,712	4,101,480	4,394,192	3,356,461	1,037,730	31 %	2,949,755
Interest Income, Capitalized	0	367,018	367,018	358,287	8,730	2 %	247,272
Other Income	200,000	35,000	235,000	236,600	(1,600)	(1) %	609,188
Total Revenue	\$30,510,912	\$13,056,823	\$43,567,735	\$22,195,801	21,371,933	96 %	\$38,907,352
Operating Expenses							
Compensation and Benefits							
Employee Compensation	988,737	3,553,393	4,540,130	4,268,927	271,203	6 %	3,836,584
Employee Benefits	879,983	3,045,781	3,925,744	3,797,892	127,852	3 %	3,485,487
Total Compensation and Benefits	1,868,700	6,599,174	8,465,874	8,066,819	399,055	5 %	7,322,071
Program Development & Administration	0	4,156,885	4,156,885	4,257,594	(100,709)	(2) %	2,750,441
Marketing Expense	317,055	539,000	856,055	746,500	109,555	15 %	311,510
E M & V	145,000	380,000	525,000	485,000	40,000	8 %	376,644
Commitment Fees	0	0	0	0	0	0 %	45,764
Consulting and Professional Fees							
Consulting/Advisory Fees	113,500	347,400	460,900	313,000	147,900	47 %	331,094
Accounting and Auditing Fees	248,750	0	248,750	159,950	88,800	56 %	48,998
Legal Fees & Related Expenses	50,000	234,499	284,499	267,500	16,999	6 %	322,048
Bond Issuance Costs	0	330,000	330,000	88,899	241,111	271 %	0
Total Consulting and Professional Fees	412,250	911,899	1,324,149	829,339	494,810	60 %	702,140
Research and Development	410,000	0	410,000	40,000	369,999	925 %	38,246
Rent and Location Related Expenses							
Rent/Utilities/Maintenance	69,085	240,934	309,999	300,000	9,999	3 %	237,116
Telephone/Communication	27,759	96,839	124,598	99,760	24,839	25 %	77,109
Depreciation & Amortization	77,718	271,116	348,834	67,406	281,428	418 %	34,609
Total-Rent and Location Related Expenses	174,542	608,889	783,431	467,166	316,266	68 %	348,834
Office, Computer & Other Expenses							
Office Expense	23,259	81,136	104,395	100,000	4,394	4 %	80,295
Insurance	89,999	0	90,000	90,000	0	(0) %	68,853
Subscriptions	5,000	115,000	119,999	71,000	49,000	69 %	65,102
Training & Education	87,000	23,750	110,750	66,750	44,000	66 %	51,279
IT Operations	90,340	315,149	405,489	358,856	46,634	13 %	322,705
Travel, Meeting & Related Expenses	58,000	62,000	120,000	138,000	(18,001)	(13) %	74,219
Total-Office, Computer & Other Exp	353,598	597,035	950,633	824,606	126,027	15 %	662,453
Total Operating Expenses	\$3,679,145	\$13,792,882	\$17,472,027	\$15,717,024	1,755,003	11 %	\$12,558,103
Program Incentives and Grants							
Financial Incentives-CGB Grants	0	100,000	100,000	100,000	0	0 %	6,480,000
Program Expenditures-Federal Grants	0	30,000	30,000	98,507	(68,507)	(70) %	14,589
EPB/PBI/HOPB Incentives	0	15,505,131	15,505,131	13,746,354	1,758,777	13 %	12,239,878
Incr/(Deor) in Reserve for RSIP Payments	0	0	0	0	0	0 %	3,182,780
Interest Rate Buydowns-CGB	0	0	0	125,000	(125,000)	(100) %	125,309
Total Program Incentives and Grants	\$0	\$15,635,131	\$15,635,131	\$14,069,861	1,565,270	11 %	\$22,042,557
Operating Income/(Loss)	\$26,831,767	\$(16,371,191)	\$10,460,576	\$(7,591,083)	18,051,659	(238) %	\$4,306,692
Non-Operating Expenses							
Interest Expense	0	2,636,672	2,636,672	428,218	2,208,454	516 %	480,592
Realized (Gain) Loss	0	0	0	0	0	0 %	104,465
Provision for Loan Loss	0	2,965,625	2,965,625	2,923,674	41,951	1 %	2,757,067
Interest Rate Buydowns-ARRA	0	1,800,000	1,800,000	25,000	1,775,000	7,100 %	897,428
Total Non-Operating Expenses	\$0	\$7,402,297	\$7,402,297	\$3,376,892	4,025,405	119 %	\$4,219,552
Net Revenues Over (Under) Expenses	\$26,831,767	\$(23,773,488)	\$3,058,279	\$(10,967,975)	14,026,254	(128) %	\$87,140

**Connecticut Green Bank
FY 2020 Operations and Program Budget - DRAFT**

Statement of Revenues and General Operations and Program Expenses - INCENTIVE PROGRAMS

	GenOps Fiscal Year 06/30/2020 Budget	Programs Fiscal Year 06/30/2020 Budget	Fiscal Year 06/30/2020 Budget	Fiscal Year 06/30/2019 Budget	Variance	Percentage	Fiscal YTD As of Today Actual
Revenue							
Operating Income							
REC Sales	0	8,086,325	8,086,325	5,033,976	3,052,350	61 %	5,336,117
Total Operating Income	0	8,086,325	8,086,325	5,033,976	3,052,350	61 %	5,336,117
Interest Income	0	78,000	78,000	78,000	0	0 %	73,025
Other Income	0	0	0	0	0	0 %	1,300
Total Revenue	\$0	\$8,164,325	\$8,164,325	\$5,111,976	3,052,350	60 %	\$5,410,442
Operating Expenses							
Compensation and Benefits							
Employee Compensation	0	1,153,935	1,153,935	1,090,389	63,547	6 %	985,818
Employee Benefits	0	920,270	920,270	970,390	(50,121)	(5) %	850,321
Total Compensation and Benefits	0	2,074,205	2,074,205	2,060,779	13,426	1 %	1,836,139
Program Development & Administration	0	1,614,895	1,614,895	1,685,000	(70,105)	(4) %	1,015,120
Marketing Expense	0	46,900	46,900	95,000	(48,100)	(51) %	41,813
E M & V	0	199,999	199,999	100,000	100,000	100 %	94,851
Commitment Fees	0	0	0	0	0	0 %	25,764
Consulting and Professional Fees							
Consulting/Advisory Fees	0	132,400	132,400	92,500	39,900	43 %	137,388
Legal Fees & Related Expenses	0	20,000	20,000	15,000	5,000	33 %	42,136
Bond Issuance Costs	0	180,000	180,000	88,889	91,111	102 %	0
Total Consulting and Professional Fees	0	332,400	332,400	196,389	136,011	69 %	179,524
Rent and Location Related Expenses							
Rent/Utilities/Maintenance	0	72,856	72,856	78,579	(5,723)	(7) %	61,409
Telephone/Communication	0	29,284	29,284	26,130	3,153	12 %	17,927
Depreciation & Amortization	0	81,983	81,983	17,656	64,328	364 %	8,963
Total-Rent and Location Related Expenses	0	184,123	184,123	122,365	61,758	50 %	88,299
Office, Computer & Other Expenses							
Office Expense	0	24,536	24,536	26,193	(1,658)	(6) %	20,663
Subscriptions	0	62,000	62,000	10,000	52,000	520 %	8,000
Training & Education	0	17,000	17,000	5,000	12,000	240 %	1,500
IT Operations	0	95,298	95,298	93,995	1,304	1 %	71,618
Travel, Meeting & Related Expenses	0	10,000	10,000	10,000	0	(0) %	5,589
Total-Office, Computer & Other Exp	0	208,834	208,834	145,188	63,646	44 %	107,370
Total Operating Expenses	\$0	\$4,661,356	\$4,661,356	\$4,404,721	256,636	6 %	\$3,388,880
Program Incentives and Grants							
EPBB/PBI/HOPBI Incentives	0	15,505,131	15,505,131	13,746,354	1,758,777	13 %	12,239,879
Incr/(Decr) in Reserve for RSIP Payments	0	0	0	0	0	0 %	3,182,780
Total Program Incentives and Grants	\$0	\$15,505,131	\$15,505,131	\$13,746,354	1,758,777	13 %	\$15,422,659
Operating Income/(Loss)	\$0	\$(12,002,162)	\$(12,002,162)	\$(13,039,099)	1,036,936	(8) %	\$(13,401,097)
Non-Operating Expenses							
Interest Expense	0	2,209,161	2,209,161	333,750	1,875,411	562 %	351,582
Provision for Loan Loss	0	0	0	0	0	0 %	22,892
Total Non-Operating Expenses	\$0	\$2,209,161	\$2,209,161	\$333,750	1,875,411	562 %	\$374,474
Net Revenues Over (Under) Expenses	\$0	\$(14,211,323)	\$(14,211,323)	\$(13,372,849)	(838,475)	6 %	\$(13,775,571)

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

	FY20 Budget	FY19 Revised Budget	\$ Increase / (Decrease)	FY19 Apr YTD Actuals
Revenues				
Utility customer assessments	\$ 25,986,400	\$ 25,969,100	\$ 17,300	\$ 20,062,827
Utility customer assessments - Sweep	-	(14,000,000)	14,000,000	-
RGGI auction proceeds - renewables	4,031,800	3,050,700	981,100	3,204,185
RGGI auction proceeds - renewables - Sweep	-	(2,300,000)	2,300,000	(2,300,000)
Interest Income - Cash Intercompany	64,712	64,544	168	48,446
Interest Income - Cash deposits	240,900	195,424	45,476	272,080
Interest Income - Delinquent CPACE payments	-	-	-	4,001
Interest Income - Capitalized construction interest	367,018	358,288	251	358,171
Interest Income - CPACE Warehouse, benefit assessments	1,905,176	1,271,250	633,926	961,380
Interest Income - Loan portfolio, other programs	1,928,185	1,395,651	532,534	1,137,589
Interest Income - CPACE Selldown Bonds	177,218.76	180,187	(2,968)	135,573
Interest Income - HA CPACE Promissory Notes	-	171,405	(171,405)	127,712
Interest Income - Solar lease I promissory notes, net	78,000	78,000	-	67,912
CPACE closing fees	135,000	135,000	-	88,894
Grant income (federal programs)	30,000	98,507	(68,507)	14,000
Grant income (DEEP)	-	-	-	6,500,000
Grant income (private foundations)	-	200,000	(200,000)	-
REC sales	955,296	256,852	698,444	-
REC sales to utilities under SHREC program	7,131,030	4,777,124	2,353,905	4,916,117
Other income - Programs	337,000	93,770	243,230	220,295
Other income - General	200,000	200,000	-	542,635
Total Sources of revenue:	\$ 43,567,735	\$ 22,195,801	\$ 21,363,454	\$ 36,361,816

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

	<u>FY20 Budget</u>	<u>FY19 Budget</u>	<u>FY19 Actual / Estimate</u>	<u>FY20 Budget Incr / (Decr) FY19 Budget</u>	<u>FY20 Budget Incr / (Decr) FY19 Projected</u>
July	\$ 2,433,800	\$ 2,423,700	\$ 2,478,916	\$ 10,100	\$ (45,116)
August	2,632,100	2,591,800	2,739,979	40,300	(107,879)
September	2,388,400	2,349,100	2,491,816	39,300	(103,416)
October	1,951,600	1,960,500	1,953,417	(8,900)	(1,817)
November	1,914,300	1,907,200	1,947,686	7,100	(33,386)
December	2,164,600	2,155,600	2,204,779	9,000	(40,179)
January	2,360,600	2,432,800	2,238,262	(72,200)	122,338
February	2,193,600	2,149,200	2,305,525	44,400	(111,925)
March	2,073,100	2,065,700	2,105,147	7,400	(32,047)
April	2,007,600	1,995,600	1,995,600	12,000	12,000
May	1,791,000	1,786,300	1,786,300	4,700	4,700
June	2,075,700	2,151,600	2,151,600	(75,900)	(75,900)
Total assessments:	<u>\$ 25,986,400</u>	<u>\$ 25,969,100</u>	<u>\$ 26,399,027</u>	<u>\$ 17,300</u>	<u>\$ (412,627)</u>
				<u>0.1%</u>	<u>-1.6%</u>

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

	<u>Price</u>	<u>Allowances</u>	<u>FY20 Budget</u>	<u>FY19 Budget</u>	<u>FY19 Actual / Estimate</u>	<u>FY20 Budget Incr / (Decr) FY19 Budget</u>	<u>FY20 Budget Incr / (Decr) FY19 Projected</u>
September Auction #45	\$ 5.06	901,684	\$ 1,049,400	\$ 776,800	\$ 965,091	\$ 272,600	\$ 188,291
December Auction #46	\$ 4.96	901,684	1,028,600	761,800	1,147,386	266,800	385,586
March Auction #47	\$ 4.86	870,052	972,500	721,500	1,091,708	251,000	370,208
June Auction #48	\$ 4.76	896,361	981,300	790,600	1,125,700	190,700	335,100
September Sweep			-	(776,800)	(965,091)	776,800	(188,291)
December Sweep			-	(761,800)	(1,147,386)	761,800	(385,586)
March Sweep			-	(721,500)	(187,523)	721,500	533,977
June Sweep			-	(39,900)	-	39,900	39,900
Total auction receipts:			<u>\$ 4,031,800</u>	<u>\$ 750,700</u>	<u>\$ 2,029,885</u>	<u>\$ 3,281,100</u>	<u>\$ 1,279,185</u>
						<u>0.0%</u>	<u>0.0%</u>
Auction Proceeds			\$ 4,031,800	\$ 3,050,700	\$ 4,329,885	\$ 981,100	\$ 1,279,185
Sweep			-	(2,300,000)	(2,300,000)	2,300,000	-
Total auction receipts:			<u>\$ 4,031,800</u>	<u>\$ 750,700</u>	<u>\$ 2,029,885</u>	<u>\$ 3,281,100</u>	<u>\$ 1,279,185</u>

**Connecticut Green Bank
FY 2020 RSIP Budget - DRAFT
REC Revenue**

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

Notes:

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

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

Position / Department	Name	FY20 Staffing Budget Hours	FY19 Staffing Budget Hours
Associate, Residential Programs	Basham, Emily	2,080	2,080
VP, Finance and Administration	Bellas, George	-	1,213
Controller	Cartelli, Shawne	2,080	520
Senior Manager of Resources and Impact Assessment	Charpentier, Lucy	2,080	2,080
Associate Director, Commercial & Industrial Programs	Clark, Anthony	2,080	2,080
Senior Manager, Statutory & Infrastructure Programs	Colonis, Bill	2,080	2,080
Managing Director of Marketing	Connolly, Craig	2,080	2,080
Senior Loan Investment Administrator	Duncan, Catherine	2,080	2,080
VP Commercial & Industrial Programs and Officer	Dykes, Mackey	2,080	2,080
General Counsel & Chief Legal Officer	Farnen, Brian	2,080	2,080
Senior Manager, Clean Energy Finance	Fidao, Laura	-	693
Senior Contracts Administrator	French, Loyola	2,080	2,080
President & Chief Executive Officer	Garcia, Bryan	2,080	2,080
Manager, Statutory & Infrastructure Programs	Hazlewood, Isabelle	2,080	2,080
Managing Director, Statutory & Infrastructure Programs	Hedman, Dale	-	1,040
Executive Vice President and Chief Investment Officer	Hunter, Bert	2,080	2,080
Manager, Marketing	Janecko, Andrea	2,080	2,080
Administrative Coordinator	Johnson, Barbara	2,080	2,080
VP, Human Resources (P/T)	Kaswan, Suzanne	-	520
Senior Manager & Senior Counsel, Commercial and Industrial Programs	Kovtunenکو, Alex	2,080	2,080
Associate Manager, Statutory & Infrastructure Programs	Kranich, Ed	2,080	2,080
Senior Accountant (P/T)	Landry, Joe	1,560	1,560
Manager, Commercial & Industrial Programs	Lembo-Buzzelli, Alysse	2,080	2,080
Senior Assistant, Statutory & Infrastructure Programs	Lewis, Lynne	2,080	2,080
Legislative Liaison & Associate Director, Marketing	Macunas, Matt	2,080	2,080
Senior Manager, Clean Energy Finance	Miller, Desiree	2,080	1,213
VP, Finance and Administration	Murphy, Jane	2,080	2,080
Director, Statutory & Infrastructure Programs	Price, Selya	2,080	2,080
Associate Manager, Statutory & Infrastructure Programs	Pyne, Sara	2,080	2,080
Executive Assistant	Samuels, Cheryl	2,080	2,080
Manager, Marketing	Schmitt, Robert	2,080	2,080
Managing Director of Operations	Shrago, Eric	2,080	2,080
Senior Accountant	Soares, Natalia	2,080	2,080
Director, Multifamily Housing Programs	Stevenson, Kim	320	2,080
Manager, Clean Energy Finance	Stewart, Fiona	2,080	2,080
Senior Manager, Marketing	Sturk, Rudy	2,080	2,080
Staff Accountant/Contracts Administrator (CI)	Turker, Irene	2,080	2,080
Senior Manager, Clean Energy Finance (Durational)	Venables, Louise	2,080	2,080
Senior Assistant, Statutory & Infrastructure Programs	Vigil, Marycruz	2,080	2,080
Associate Director, Marketing	Waters, Barbara	2,080	2,080
Director, Clean Energy Finance	Yu, Mike	2,080	2,080
Senior Manager, Commercial & Industrial Programs	Zuba, Nick	2,080	2,080
Subtotal:		76,760	79,560

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

Position / Department	Name	FY20 Staffing Budget Hours	FY19 Staffing Budget Hours	
New Hires and Interns				
New - Senior Accountant		2,080	2,080	
New - Senior Manager, Clean Energy Finance		1,600	-	
New - Senior Associate/Asset Manager		2,080	-	
New - Senior Manager Comercial, Industrial, & Institutional Programs		1,600	-	
New - Associate, Statutory and Infrastructure Programs (Durantional)		2,080	-	
Intern - Finance 1		480	-	
Intern - CI&I 1		480	-	
Intern - SI 1		480	-	
Total Hours:		87,640	81,640	
FTEs:				
Employees		41.44	39.25	
Interns		0.69	-	
Total		42.13	39.25	
				YOY
Dollars:				Incr / (Decr)
CGB Employees		\$ 4,172,750	\$ 3,969,163	\$ 203,587
(1) Merit Pool		120,794	119,046	1,748
(2) Promotion Pool		65,061	59,523	5,538
(3) Delay in Movement of IPC Employees		-	121,196	(121,196)
Intern Pool-CGB		30,000	-	30,000
Total:		\$ 4,388,605	\$ 4,268,927	\$ 119,678

Notes:

- (1) FY20 and FY19 Merit Pool is 3%.
- (2) FY20 and FY19 Promotion Pool is 1.5%.
- (3) During FY19 employees did not move to IPC until 08/03/18, four pay periods.

**Connecticut Green Bank
FY 2020 Program Budget - DRAFT
Program Loans**

Program Type - CGB portfolio loan (Asset) advances												
Dept	Prg Code	Prg Name	Description	Interest Rate	Term in Years	FY20 Budget					FY19 Budget Recast	FY19 YTD Actuals
						Q1	Q2	Q3	Q4	Total		
MultiFamily	52250	MF Programs	Recapitalization of C4C Lime	3.0%	10	\$ 3,000,000	\$ -	\$ -	\$ -	\$ 3,000,000		
MultiFamily	52250					-	-	-	-	-		
Total MultiFamily Program Loans:						\$ 3,000,000	\$ -	\$ -	\$ -	\$ 3,000,000	\$ 180,000	
Total Resi 1-4 Program Loans:						\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,500,000	
CI&I	51800	CPACE	CGB Portfolio	5.83%	16	\$ 1,125,000	\$ 1,125,000	\$ 1,125,000	\$ 1,125,000	\$ 4,500,000		
CI&I	51800	CPACE	3rd party lending RFP	5.3%	5	500,000	1,500,000	1,500,000	1,500,000	5,000,000		
CI&I	51810	New Product Dev.	ESA with State	5.0%	10	-	-	3,750,000	3,750,000	7,500,000		
CI&I	53002	CGB SBEA LLC	Regular Loan Purchases	4.75%	4	500,000	500,000	500,000	500,000	2,000,000		
Total CI&I Program Loans:						\$ 2,125,000	\$ 3,125,000	\$ 6,875,000	\$ 6,875,000	\$ 19,000,000	\$ 26,690,279	
Finance	52200	CE Finance Prg	PPA Sub Debt into fund SL4	5.5%	15	\$ 4,218,750	\$ 4,218,750	\$ 4,218,750	\$ 4,218,750	\$ 16,875,000		
Finance	52200	CE Finance Prg	Debt financing			-	-	-	-	-		
Total CE Finance Program Loans:						\$ 4,218,750	\$ 4,218,750	\$ 4,218,750	\$ 4,218,750	\$ 16,875,000	\$ 6,500,000	
Total of all Program Loans:						\$ 9,343,750	\$ 7,343,750	\$ 11,093,750	\$ 11,093,750	\$ 38,875,000	\$ 35,870,279	

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

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

**Connecticut Green Bank
FY 2020 Program Budget - DRAFT
Credit Enhancements**

Credit Enhancements - Loan Loss Reserves - ARRA Funds										
Dept	Prg Code	Prg Name	Description	FY20 Budget					FY19 Budget	FY19 Actual
				Q1	Q2	Q3	Q4	Total		
				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
				-	-	-	-	-	-	-
				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Credit Enhancements - Loan Loss Reserves - DEEP Funds										
Dept	Prg Code	Prg Name	Description	FY20 Budget					FY19 Budget	FY19 Actual
				Q1	Q2	Q3	Q4	Total		
				\$ -	\$ -	\$ -	\$ -	\$ -	\$ 500,000	\$ -
				-	-	-	-	-	500,000	-
				\$ -	\$ -	\$ -	\$ -	\$ -	\$ 500,000	\$ -

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

Credit Enhancements - Interest rate Buydowns - ARRA Funds										
Dept	Prg Code	Prg Name	Description	FY20 Budget					FY19 Budget	FY19 Actual
				Q1	Q2	Q3	Q4	Total		
Resi	52210	SmartE	CGB/Smart E loans	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 1,000,000	\$ 1,570,800	\$ -
Resi	52210	SmartE	Smart-E for renewable Heating and cooling	200,000	200,000	200,000	200,000	800,000	-	-
				\$ 450,000	\$ 450,000	\$ 450,000	\$ 450,000	\$ 1,800,000	\$ 1,570,800	\$ -

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

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

Program Name	Description	FY20 Budget					Total	FY19 Budget (Recast)	FY19 Actuals
		Q1	Q2	Q3	Q4				
RSIP	PBI Incentives	\$ 3,183,771	\$ 1,558,301	\$ 2,089,750	\$ 3,660,884	\$ 10,492,705	\$ 9,546,354	\$ 8,612,291	
RSIP	EPBB Incentives	1,308,207	1,667,225	1,041,487	995,507	5,012,426	4,200,000	3,629,386	
RSIP	HOPBI Incentives	-	-	-	-	-	-	(1,799)	
Pre-FY2013 Programs	Legacy projects	25,000	25,000	25,000	25,000	100,000	100,000	-	
		<u>\$ 4,516,979</u>	<u>\$ 3,250,526</u>	<u>\$ 3,156,236</u>	<u>\$ 4,681,391</u>	<u>\$ 15,605,131</u>	<u>\$ 13,846,354</u>	<u>\$ 12,239,878</u>	

**Connecticut Green Bank
FY 2020 Budget - DRAFT**

Department: Statutory & Infrastructure

	Fiscal Year 06/30/2020 Budget	Fiscal Year 06/30/2019 Budget	YOY Budget Variance	Fiscal YTD As of Today Actual	Budget vs Actual Variance
Revenue					
Operating Income					
REC Sales	8,086,325	5,033,976	3,052,350	5,336,117	302,141
Grant Income-Federal Programs	30,000	98,507	(68,507)	14,589	(83,918)
Total Operating Income	8,116,325	5,132,483	2,983,843	5,350,706	218,223
Interest Income	119,936	122,945	(3,011)	117,186	(5,759)
Other Income	0	0	0	1,300	1,300
Total Revenue	\$8,236,261	\$5,255,428	2,980,832	\$5,469,192	213,764
Operating Expenses					
Compensation and Benefits					
Employee Compensation	1,168,155	1,134,145	34,010	1,042,696	(91,450)
Employee Benefits	933,067	1,009,291	(76,223)	899,612	(109,677)
Total Compensation and Benefits	2,101,222	2,143,436	(42,213)	1,942,308	(201,127)
Program Development & Administration	1,614,895	1,685,000	(70,105)	1,015,120	(669,881)
Marketing Expense	46,900	95,000	(48,100)	41,813	(53,187)
E M & V	200,000	100,000	99,999	94,852	(5,148)
Commitment Fees	0	0	0	25,763	25,764
Consulting and Professional Fees					
Consulting/Advisory Fees	132,400	92,500	39,900	137,389	44,888
Legal Fees & Related Expenses	23,000	18,000	5,000	42,136	24,136
Bond Issuance Costs	180,000	88,889	91,111	0	(88,889)
Total Consulting and Professional Fees	335,400	199,389	136,011	179,525	(19,865)
Rent and Location Related Expenses					
Rent/Utilities/Maintenance	73,861	81,522	(7,661)	63,736	(17,785)
Telephone/Communication	29,687	27,109	2,578	18,606	(8,503)
Depreciation & Amortization	83,113	18,317	64,797	9,303	(9,014)
Total-Rent and Location Related Expenses	186,661	126,948	59,714	91,645	(35,302)
Office, Computer & Other Expenses					
Office Expense	24,874	27,174	(2,301)	21,072	(6,103)
Subscriptions	62,000	10,000	52,000	8,000	(2,000)
Training & Education	17,000	5,000	12,000	1,500	(3,500)
IT Operations	96,612	97,515	(903)	74,334	(23,181)
Travel, Meeting & Related Expenses	10,000	10,000	0	5,653	(4,347)
Total-Office, Computer & Other Exp	210,486	149,689	60,796	110,559	(39,131)
Total Operating Expenses	\$4,695,564	\$4,499,462	196,102	\$3,501,585	(997,877)
Program Incentives and Grants					
Program Expenditures-Federal Grants	30,000	98,507	(68,507)	14,589	(83,918)
EPBB/PBI/HOPBI Incentives	15,505,131	13,746,354	1,758,777	12,239,878	(1,506,476)
Incr/(Decr) in Reserve for RSIP Payments	0	0	0	3,182,780	3,182,780
Total Program Incentives and Grants	\$15,535,131	\$13,844,861	1,690,270	\$15,437,247	1,592,386
Operating Income/(Loss)	\$(11,994,435)	\$(13,088,895)	1,094,460	\$(13,469,640)	(380,745)
Non-Operating Expenses					
Interest Expense	2,209,161	333,750	1,875,411	351,582	17,832
Provision for Loan Loss	0	0	0	22,892	22,892
Total Non-Operating Expenses	\$2,209,161	\$333,750	1,875,411	\$374,474	40,724
Net Revenues Over (Under) Expenses	\$(14,203,596)	\$(13,422,645)	(780,951)	\$(13,844,114)	(421,469)

**Connecticut Green Bank
FY 2020 Budget - DRAFT**

Department: Residential - 1-4 Family

	Fiscal Year 06/30/2020 Budget	Fiscal Year 06/30/2019 Budget	YOY Budget Variance	Fiscal YTD As of Today Actual	Budget vs Actual Variance
Revenue					
Operating Income					
Grant Income-Private Foundations	0	200,000	(200,000)	0	(200,000)
Grant Income-DEEP	0	0	0	5,000,000	5,000,000
Total Operating Income	0	200,000	(200,000)	5,000,000	4,800,000
Interest Income	1,080,000	467,599	612,401	637,216	169,617
Other Income	0	0	0	25,000	25,000
Total Revenue	\$1,080,000	\$667,599	412,401	\$5,662,216	4,994,617
Operating Expenses					
Compensation and Benefits					
Employee Compensation	194,129	292,000	(97,871)	307,871	15,872
Employee Benefits	174,715	259,317	(84,602)	264,457	5,139
Total Compensation and Benefits	368,844	551,317	(182,473)	572,328	21,011
Program Development & Administration	644,951	883,990	(239,038)	714,413	(169,577)
Marketing Expense	120,000	130,000	(10,000)	58,158	(71,842)
E M & V	45,000	200,000	(155,000)	201,810	1,810
Consulting and Professional Fees					
Legal Fees & Related Expenses	42,000	17,000	24,999	5,521	(11,479)
Total Consulting and Professional Fees	42,000	17,000	24,999	5,521	(11,479)
Rent and Location Related Expenses					
Rent/Utilities/Maintenance	13,713	17,787	(4,074)	14,417	(3,370)
Telephone/Communication	5,511	5,915	(403)	4,244	(1,671)
Depreciation & Amortization	15,430	3,996	11,433	2,104	(1,892)
Total-Rent and Location Related Expenses	34,654	27,698	6,956	20,765	(6,933)
Office, Computer & Other Expenses					
Office Expense	4,618	5,929	(1,312)	4,188	(1,741)
IT Operations	17,936	21,277	(3,340)	16,813	(4,463)
Travel, Meeting & Related Expenses	0	0	0	1,662	1,661
Total-Office, Computer & Other Exp	22,554	27,206	(4,652)	22,663	(4,543)
Total Operating Expenses	\$1,278,003	\$1,837,211	(559,208)	\$1,595,658	(241,553)
Program Incentives and Grants					
Financial Incentives-CGB Grants	0	0	0	5,000,000	5,000,000
Interest Rate Buydowns-CGB	0	125,000	(125,000)	125,309	309
Total Program Incentives and Grants	\$0	\$125,000	(125,000)	\$5,125,309	5,000,309
Operating Income/(Loss)	\$(198,003)	\$(1,294,611)	1,096,609	\$(1,058,751)	235,860
Non-Operating Expenses					
Interest Expense	0	8,000	(8,000)	0	(8,000)
Provision for Loan Loss	0	250,000	(250,000)	250,000	0
Interest Rate Buydowns-ARRA	1,800,000	25,000	1,775,000	897,428	872,428
Total Non-Operating Expenses	\$1,800,000	\$283,000	1,517,000	\$1,147,428	864,428
Net Revenues Over (Under) Expenses	\$(1,998,003)	\$(1,577,611)	(420,391)	\$(2,206,180)	(628,568)

**Connecticut Green Bank
FY 2020 Budget - DRAFT**

Department: Multifamily Programs

	Fiscal Year 06/30/2020 Budget	Fiscal Year 06/30/2019 Budget	YOY Budget Variance	Fiscal YTD As of Today Actual	Budget vs Actual Variance
Revenue					
Operating Income					
Grant Income-DEEP	0	0	0	1,500,000	1,500,000
Total Operating Income	0	0	0	1,500,000	1,500,000
Interest Income	89,226	93,803	(4,577)	85,828	(7,975)
Total Revenue	\$89,226	\$93,803	(4,577)	\$1,585,828	1,492,025
Operating Expenses					
Compensation and Benefits					
Employee Compensation	117,039	269,138	(152,099)	251,683	(17,455)
Employee Benefits	87,335	239,193	(151,859)	217,521	(21,672)
Total Compensation and Benefits	204,374	508,331	(303,958)	469,204	(39,127)
Program Development & Administration	920,099	792,301	127,799	554,420	(237,881)
Marketing Expense	72,100	80,500	(8,400)	33,067	(47,433)
E M & V	0	20,000	(20,000)	0	(20,000)
Consulting and Professional Fees					
Legal Fees & Related Expenses	9,000	9,000	0	7,384	(1,616)
Total Consulting and Professional Fees	9,000	9,000	0	7,384	(1,616)
Rent and Location Related Expenses					
Rent/Utilities/Maintenance	6,855	17,475	(10,620)	13,814	(3,661)
Telephone/Communication	2,755	5,811	(3,056)	4,524	(1,287)
Depreciation & Amortization	7,713	3,926	3,786	2,017	(1,910)
Total-Rent and Location Related Expenses	17,323	27,212	(9,890)	20,355	(6,858)
Office, Computer & Other Expenses					
Office Expense	2,308	5,825	(3,517)	2,565	(3,259)
Training & Education	0	5,000	(5,000)	1,650	(3,350)
IT Operations	8,965	20,904	(11,937)	16,112	(4,792)
Travel, Meeting & Related Expenses	0	10,000	(10,000)	4,268	(5,731)
Total-Office, Computer & Other Exp	11,273	41,729	(30,454)	24,595	(17,132)
Total Operating Expenses	\$1,234,169	\$1,479,073	(244,903)	\$1,109,025	(370,047)
Program Incentives and Grants					
Financial Incentives-CGB Grants	0	0	0	50,000	50,000
Total Program Incentives and Grants	\$0	\$0	0	\$50,000	50,000
Operating Income/(Loss)	\$(1,144,943)	\$(1,385,270)	240,327	\$426,803	1,812,072
Non-Operating Expenses					
Interest Expense	50,000	50,000	0	50,000	0
Provision for Loan Loss	255,000	180,000	75,000	84,000	(96,000)
Total Non-Operating Expenses	\$305,000	\$230,000	75,000	\$134,000	(96,000)
Net Revenues Over (Under) Expenses	\$(1,449,943)	\$(1,615,270)	165,327	\$292,803	1,908,072

**Connecticut Green Bank
FY 2020 Budget - DRAFT**

Department: Commercial, Industrial & Institutional

	Fiscal Year 06/30/2020 Budget	Fiscal Year 06/30/2019 Budget	YOY Budget Variance	Fiscal YTD As of Today Actual	Budget vs Actual Variance
Revenue					
Operating Income					
CPACE Closing Fees	135,000	135,000	0	88,894	(46,106)
Total Operating Income	135,000	135,000	0	88,894	(46,106)
Interest Income	2,202,617	1,729,686	472,931	1,301,067	(428,619)
Interest Income, Capitalized	367,017	358,287	8,730	247,271	(111,016)
Other Income	35,000	36,600	(1,600)	481,622	445,021
Total Revenue	\$2,739,634	\$2,259,573	480,061	\$2,118,854	(140,720)
Operating Expenses					
Compensation and Benefits					
Employee Compensation	1,225,835	967,154	258,681	908,442	(58,712)
Employee Benefits	1,095,251	860,692	234,559	782,168	(78,524)
Total Compensation and Benefits	2,321,086	1,827,846	493,240	1,690,610	(137,236)
Program Development & Administration	523,329	731,797	(208,469)	425,694	(306,103)
Marketing Expense	300,000	300,000	0	93,557	(206,443)
E M & V	135,000	5,000	130,000	5,000	0
Consulting and Professional Fees					
Consulting/Advisory Fees	39,999	60,000	(20,000)	26,950	(33,050)
Legal Fees & Related Expenses	52,500	46,500	6,000	43,913	(2,588)
Total Consulting and Professional Fees	92,499	106,500	(14,000)	70,863	(35,638)
Rent and Location Related Expenses					
Rent/Utilities/Maintenance	86,590	69,555	17,035	55,864	(13,690)
Telephone/Communication	34,803	23,130	11,674	17,184	(5,946)
Depreciation & Amortization	97,437	15,628	81,809	8,154	(7,474)
Total-Rent and Location Related Expenses	218,830	108,313	110,518	81,202	(27,110)
Office, Computer & Other Expenses					
Office Expense	29,160	23,185	5,975	24,209	1,024
Training & Education	6,750	6,750	0	9,149	2,399
IT Operations	113,263	83,200	30,061	68,552	(14,648)
Travel, Meeting & Related Expenses	16,999	17,000	0	9,569	(7,431)
Total-Office, Computer & Other Exp	166,172	130,135	36,036	111,479	(18,656)
Total Operating Expenses	\$3,756,916	\$3,209,591	547,325	\$2,478,405	(731,186)
Operating Income/(Loss)	\$(1,017,282)	\$(950,018)	(67,265)	\$(359,551)	590,467
Non-Operating Expenses					
Interest Expense	0	7,500	(7,500)	0	(7,500)
Realized (Gain) Loss	0	0	0	104,466	104,466
Provision for Loan Loss	1,445,000	2,268,674	(823,674)	2,175,174	(93,500)
Total Non-Operating Expenses	\$1,445,000	\$2,276,174	(831,174)	\$2,279,640	3,466
Net Revenues Over (Under) Expenses	\$(2,462,282)	\$(3,226,192)	763,909	\$(2,639,191)	587,001

**Connecticut Green Bank
FY 2020 Budget - DRAFT
Department: Finance**

	Fiscal Year 06/30/2020 Budget	Fiscal Year 06/30/2019 Budget	YOY Budget Variance	Fiscal YTD As of Today Actual	Budget vs Actual Variance
Revenue					
Operating Income					
PPA Income	252,000	41,000	211,000	204,954	163,954
LREC/ZREC Income	50,000	16,170	33,830	16,170	0
Total Operating Income	302,000	57,170	244,830	221,124	163,954
Interest Income	63,900	0	63,900	35,490	35,490
Total Revenue	\$365,900	\$57,170	308,730	\$256,614	199,444
Operating Expenses					
Compensation and Benefits					
Employee Compensation	848,236	653,476	194,760	620,130	(33,346)
Employee Benefits	755,411	581,233	174,178	533,687	(47,547)
Total Compensation and Benefits	1,603,647	1,234,709	368,938	1,153,817	(80,893)
Program Development & Administration	453,611	164,506	289,105	4,569	(159,937)
Marketing Expense	0	0	0	(296)	(295)
Commitment Fees	0	0	0	20,000	20,000
Consulting and Professional Fees					
Consulting/Advisory Fees	175,000	47,500	127,500	69,746	22,246
Legal Fees & Related Expenses	106,000	126,000	(20,000)	188,685	62,684
Bond Issuance Costs	150,000	0	150,000	0	0
Total Consulting and Professional Fees	431,000	173,500	257,500	258,431	84,930
Rent and Location Related Expenses					
Rent/Utilities/Maintenance	59,917	44,814	15,102	36,482	(8,331)
Telephone/Communication	24,082	14,902	9,181	10,659	(4,243)
Depreciation & Amortization	67,423	10,069	57,353	5,325	(4,744)
Total-Rent and Location Related Expenses	151,422	69,785	81,636	52,466	(17,318)
Office, Computer & Other Expenses					
Office Expense	20,177	14,938	5,239	8,382	(6,556)
Subscriptions	53,000	46,000	7,000	45,127	(874)
IT Operations	78,372	53,606	24,767	42,502	(11,103)
Travel, Meeting & Related Expenses	35,000	0	35,000	1,553	1,553
Total-Office, Computer & Other Exp	186,549	114,544	72,006	97,564	(16,980)
Total Operating Expenses	\$2,826,229	\$1,757,044	1,069,185	\$1,586,551	(170,493)
Program Incentives and Grants					
Financial Incentives-CGB Grants	0	0	0	1,430,000	1,430,000
Total Program Incentives and Grants	\$0	\$0	0	\$1,430,000	1,430,000
Operating Income/(Loss)	\$(2,460,329)	\$(1,699,874)	(760,455)	\$(2,759,937)	(1,060,062)
Non-Operating Expenses					
Interest Expense	377,511	28,968	348,543	59,010	30,042
Provision for Loan Loss	1,265,625	225,000	1,040,625	225,000	0
Total Non-Operating Expenses	\$1,643,136	\$253,968	1,389,168	\$284,010	30,042
Net Revenues Over (Under) Expenses	\$(4,103,465)	\$(1,953,842)	(2,149,623)	\$(3,043,946)	(1,090,104)

**Connecticut Green Bank
FY 2020 Budget - DRAFT**

Department: General Operations

	Fiscal Year 06/30/2020 Budget	Fiscal Year 06/30/2019 Budget	YOY Budget Variance	Fiscal YTD As of Today Actual	Budget vs Actual Variance
Revenue					
Operating Income					
Utility Customer Assessments	25,986,400	25,969,100	17,300	22,036,249	(3,932,851)
Payments to State of Connecticut	0	(14,000,000)	14,000,000	0	14,000,000
RGGI Auction Proceeds-Renewables	4,031,800	750,700	3,281,100	904,185	153,485
Total Operating Income	30,018,200	12,719,800	17,298,400	22,940,434	10,220,634
Interest Income	292,712	283,968	8,744	305,925	21,957
Other Income	200,000	200,000	0	101,247	(98,753)
Total Revenue	\$30,510,912	\$13,203,768	17,307,144	\$23,347,606	10,143,838
Operating Expenses					
Compensation and Benefits					
Employee Compensation	986,737	953,014	33,723	705,762	(247,253)
Employee Benefits	879,963	848,166	31,797	788,042	(60,123)
Total Compensation and Benefits	1,866,700	1,801,180	65,520	1,493,804	(307,376)
Program Development & Administration	0	0	0	36,226	36,226
Marketing Expense	317,055	141,000	176,055	85,209	(55,791)
E M & V	145,000	160,000	(15,000)	74,982	(85,018)
Consulting and Professional Fees					
Consulting/Advisory Fees	113,500	113,000	500	97,011	(15,990)
Accounting and Auditing Fees	248,750	159,950	88,800	48,998	(110,952)
Legal Fees & Related Expenses	50,000	50,000	0	33,285	(16,714)
Total Consulting and Professional Fees	412,250	322,950	89,300	179,294	(143,656)
Research and Development	410,000	40,000	370,000	38,246	(1,754)
Rent and Location Related Expenses					
Rent/Utilities/Maintenance	69,065	68,847	218	52,801	(16,046)
Telephone/Communication	27,759	22,894	4,865	21,893	(1,001)
Depreciation & Amortization	77,718	15,469	62,248	7,707	(7,763)
Total-Rent and Location Related Expenses	174,542	107,210	67,331	82,401	(24,810)
Office, Computer & Other Expenses					
Office Expense	23,259	22,949	310	19,878	(3,070)
Insurance	89,999	90,000	0	68,853	(21,147)
Subscriptions	5,000	15,000	(10,000)	11,975	(3,025)
Training & Education	87,000	50,000	37,000	38,980	(11,020)
IT Operations	90,340	82,354	7,986	104,392	22,038
Travel, Meeting & Related Expenses	58,000	101,000	(43,000)	51,514	(49,485)
Total-Office, Computer & Other Exp	353,598	361,303	(7,704)	295,592	(65,709)
Total Operating Expenses	\$3,679,145	\$2,933,643	745,502	\$2,285,754	(647,888)
Operating Income/(Loss)	\$26,831,767	\$10,270,125	16,561,642	\$21,061,852	10,791,727
Net Revenues Over (Under) Expenses	\$26,831,767	\$10,270,125	16,561,642	\$21,061,852	10,791,727

**Connecticut Green Bank
FY 2020 Budget - DRAFT
Department: Marketing**

	RSIP Fiscal YE 06/30/2020 Budget	CPACE Fiscal YE 06/30/2020 Budget	Smart-E Fiscal YE 06/30/2020 Budget	Multifamily Fiscal YE 06/30/2020 Budget	Total Programs Fiscal YE 06/30/2020 Budget	General Operations Fiscal YE 06/30/2020 Budget	Total Fiscal YE 06/30/2020 Budget	Total Fiscal YE 06/30/2019 Budget
685010-Marketing-Membership Dues and Sponsorships								
MAR-MS-01 Dues	29,400	6,500	2,775	700	39,375	20,812	60,187	37,750
MAR-MS-02 Sponsorships	1,000	8,000	0	14,300	23,300	17,343	40,643	33,400
Total 685010-Marketing-Membership Dues and Sponsorships	30,400	14,500	2,775	15,000	62,675	38,155	100,830	71,150
685030-Marketing-Research								
MAR-RS-01 Research	0	0	225	2,000	2,225	15,000	17,225	39,000
Total 685030-Marketing-Research	0	0	225	2,000	2,225	15,000	17,225	39,000
685060-Marketing-Websites								
MAR-WB-01 Hosting	3,000	6,000	0	0	9,000	4,200	13,200	10,150
MAR-WB-02 Maintenance	12,000	12,000	0	0	24,000	15,000	39,000	14,000
MAR-WB-03 Design	0	12,000	0	500	12,500	35,000	47,500	85,000
Total 685060-Marketing-Websites	15,000	30,000	0	500	45,500	54,200	99,700	109,150
685070-Marketing-Events								
MAR-EV-01 Consultants	0	4,500	1,000	0	5,500	4,000	9,500	14,000
MAR-EV-02 Expenses	0	25,500	4,000	1,000	30,500	15,500	46,000	43,100
Total 685070-Marketing-Events	0	30,000	5,000	1,000	36,000	19,500	55,500	57,100
685080-Marketing-Branding								
MAR-BR-02 Premiums	0	0	0	0	0	6,000	6,000	2,650
Total 685080-Marketing-Branding	0	0	0	0	0	6,000	6,000	2,650
685090-Marketing-Agency Management								
MAR-AM-01 Agency Fees	0	60,000	28,000	0	88,000	10,000	98,000	1,200
MAR-AM-02 Tools	0	0	0	0	0	38,200	38,200	24,000
Total 685090-Marketing-Agency Management	0	60,000	28,000	0	88,000	48,200	136,200	25,200
685100-Marketing-Public Relations								
MAR-PR-01 Public Relations	0	20,004	0	3,500	23,504	30,000	53,504	1,750
Total 685100-Marketing-Public Relations	0	20,004	0	3,500	23,504	30,000	53,504	1,750
685120-Marketing-Outreach								
MAR-OR-01 Outreach	0	0	0	0	0	0	0	10,500
Total 685120-Marketing-Outreach	0	0	0	0	0	0	0	10,500
685140-Marketing-Paid Media								
MAR-PM-01 SEO	0	0	25,000	0	25,000	9,000	34,000	32,000
MAR-PM-02 Paid Search	0	0	0	0	0	9,000	9,000	112,000
MAR-PM-04 Social Media	0	15,000	30,000	0	45,000	9,000	54,000	58,000
MAR-PM-05 Display	0	0	25,000	0	25,000	2,000	27,000	4,500
MAR-PM-06 Print	0	0	0	2,100	2,100	3,000	5,100	2,200
MAR-PM-08 OOH	0	0	0	0	0	18,000	18,000	0
Total 685140-Marketing-Paid Media	0	15,000	80,000	2,100	97,100	50,000	147,100	208,700
685160-Marketing-Production								
MAR-PD-01 Direct Mail	0	1,200	0	2,000	3,200	16,000	19,200	6,000
MAR-PD-02 Print	1,500	9,600	0	1,000	12,100	0	12,100	6,500
MAR-PD-03 Signage	0	600	0	0	600	0	600	2,000
MAR-PD-04 Photography/Footage	0	0	0	0	0	5,000	5,000	0
MAR-PD-05 Video	0	0	0	10,000	10,000	15,000	25,000	17,800
MAR-PD-06 Digital	0	3,600	4,000	0	7,600	20,000	27,600	0
Total 685160-Marketing-Production	1,500	15,000	4,000	13,000	33,500	56,000	89,500	32,300
685180-Marketing-Incentive Promotions								
MAR-IP-01 Incentive Promotions	0	79,496	0	0	79,496	0	79,496	0
Total 685180-Marketing-Incentive Promotions	0	79,496	0	0	79,496	0	79,496	0
685220-Marketing-Relationship Managers								
MAR-RM-01 Relationship Managers	0	36,000	0	35,000	71,000	0	71,000	189,000
Total 685220-Marketing-Relationship Managers	0	36,000	0	35,000	71,000	0	71,000	189,000
Marketing Expenses	46,900	300,000	120,000	72,100	539,000	317,055	856,055	746,500

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

Project	Purpose	FY20 Budget	FY19 Budget Recast	FY19 Actuals
Renewable Thermal Technology	RH&C	\$ 15,000	\$ 25,000	\$ 40,434
LMI	Solar Pathways (value proposition in LMI space)	-	15,000	-
Community Engagement	Sustainable CT	100,000	-	-
GHHI	Completion of Phase 2	45,000	-	-
Environmental Infrastructure	Convening and Planning	100,000	-	-
LMI	Energy Burden in Transportation Study	50,000	-	-
Storage	General	-	-	-
Transportation		-	-	-
Community Solar	Identify opportunities for investment (e.g., brownfields)	50,000	-	-
Transportation	SEA	-	-	-
Transportation	Atlas	-	-	-
EMV	Joint Jobs Study with EEB	10,000	-	-
Transportation	Joint coordination with CIB	20,000	-	-
EMV	ESA	20,000	-	-
		\$ 410,000	\$ 40,000	\$ 40,434

**Connecticut Green Bank
FY 2020 General Operations Budget - DRAFT
Other Operating Expenses**

	FY20 Budget	FY19 Budget Recast	FY19 Actuals
<u>Rent</u>	\$ 310,000	\$ 300,000	\$ 212,888
<u>Telephone/Communications</u>	\$ 124,600	\$ 99,760	\$ 76,793
<u>Office expense</u>	\$ 104,400	\$ 100,000	\$ 79,678
<u>IT operations</u>	\$ 405,494	\$ 358,855	\$ 301,832
<i>Noncapitalized hardware & supplies</i>	\$ 10,210	\$ 10,210	\$ 2,333
<i>Software Maintenance/Annual Licenses/Services</i>	\$ 47,500	\$ 45,000	\$ 33,670
<i>Consultant/IT Support Services</i>	\$ 223,076	\$ 156,076	\$ 135,298
<i>Network Costs</i>	\$ 124,708	\$ 147,569	\$ 130,531
<u>Staff development/continuing education</u>	\$ 110,750	\$ 66,750	\$ 50,979
<u>Subscriptions</u>	\$ 118,000	\$ 71,000	\$ 65,102
<u>Travel & Travel Related Expense</u>	\$ 120,000	\$ 138,000	\$ 73,819
<u>Insurance</u>	\$ 90,000	\$ 90,000	\$ 61,876
<u>Depreciation & Amortization</u>	\$ 348,836	\$ 67,406	\$ 31,567
Total:	\$ 1,732,081	\$ 1,291,771	\$ 954,533
Operating expenses excluding rent:	\$ 1,422,081	\$ 991,771	\$ 741,644

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

	FY20 Budget	FY19 Budget	FY19 Actuals
<u>IT Hardware & Software</u>			
New/Replacement Desktops & Laptops	\$ 30,000	\$ 30,000	\$ -
Phones	15,000	15,000	-
Firewalls and Traffic Analyzer	-	-	-
Other Capitalized IT Hardware	-	-	-
	\$ 45,000	\$ 45,000	\$ -
<u>Office Furniture & Equipment</u>			
Rocky Hill-Cubicles/Furniture	\$ -	\$ -	\$ -
Rocky Hill	-	-	-
	\$ -	\$ -	\$ -
<u>Leasehold Improvements</u>			
Rocky Hill-Leasehold Improvements	\$ -	\$ -	\$ -
Stamford-Leasehold Improvements	-	-	-
	\$ -	\$ -	\$ -
 Total Capital Expenditures	 \$ 45,000	 \$ 45,000	 \$ -

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

Partner	Department	Year of			FY20 Budget	FY19 Budget
		RFP	RFP	Work Performed		
Adnet Technologies, LLC	General Operations	Y	2017	IT Outsourcing	\$ 420,000	\$ 400,000
Clean Power Research, LLC	Infrastructure	Y	2016	PowerClerk Software	448,895	430,000
Cortland Capital Services	CI&I	Y	2013	CPACE - Loan Servicing	130,000	84,860
CSW, LLC.	CI&I	Y	2019	PPA/Municipal Project Management	177,000	-
Inclusive Prosperity Capital	multiple	N		Program Execution and Investment Management	1,297,956	1,265,710
Locus Energy LLC	Infrastructure	Y	2016	Monitoring Platform, Active Monitoring, RGM replacement	830,000	570,000
ReCurve Analytics	CI&I	Y	2018	CPACE EM&V	135,000	50,000
Sustainable Real Estate Solutions, Inc.	CI&I	Y	2018	CPACE Third Party Administrator	200,000	619,750
					\$ 3,638,851	\$ 3,420,320

Inclusive Prosperity Capital Breakdown

PSA	Human Capital Component	Administrative Component	Total	
			FY20 Budget	FY19 Budget
Solar PPA	\$ 271,077	\$ 3,695	\$ 274,772	\$ 173,123
LMI	215,675	11,690	227,365	292,160
Smart-E	282,802	13,855	296,656	425,770
Multifamily	477,652	21,511	499,163	374,657
	\$ 1,247,206	\$ 50,750	\$ 1,297,956	\$ 1,265,710

CONNECTICUT GREEN BANK
TIMELINE FOR BOND ISSUANCE
5/27/19

The Connecticut Green Bank (“Green Bank”) is considering the issuance of bonds to finance various clean energy projects. The draft bond resolution has been provided to Green Bank in order to authorize the expenditure of funds and the issuance of bonds and uses for clean energy projects with a revenue stream. One element of the bond authorization provides for the ability of Green Bank to temporarily advance its other available funds to projects and subsequently reimburse Green Bank for those advances from the proceeds of the bonds. This provision allows the Green Bank to include any expenditures it makes within the 60 days prior to the adoption of the resolution in the bond issuance.

A draft timeline for the bond issuance would be as follows:

1. [SEPTEMBER 2019] - Green Bank Board of Directors adopts appropriation and bond authorization resolution.

Any expenditures incurred by Green Bank 60 days prior to the approval of the resolution, and all expenditures paid thereafter, may be reimbursed from the proceeds of bonds issued by Green Bank, provided that the bonds are issued not later than 18 months after the later of (i) the date the original expenditure is paid; or (ii) the date the projects are placed in service, but in no event more than three years after the original expenditure is paid.

2. [OCTOBER 2019] - Green Bank staff, financial advisor and bond counsel prepare a master trust indenture, to be described at the Green Bank Board of Directors meeting, upon approval of the Board of Directors to move forward with that structure.
3. [NOVEMBER 2019] – Based on the final master trust indenture, Green Bank staff, financial advisor and bond counsel will prepare all other documents and instruments, including the form of bond and terms and conditions of said bond, for future approval by the Green Bank Board of Directors.
4. [DECEMBER 2019 (morning of the Board approval in #5)] If the bonds are to be issued as qualified private activity bonds, Green Bank holds a public hearing in accordance with the Internal Revenue Code provisions, as applicable.
5. [DECEMEER 2019] - Green Bank Board of Directors approves the master trust indenture, including a possible debt reserve fund, the form of bond and other terms and conditions of the bond issuance. Green Bank Officers and staff work with financial advisor and bond counsel to issue the bonds, reimburse Green Bank for previously expended funds, and provide future funds for clean energy projects.

BOND RESOLUTION
REGARDING THE ISSUANCE OF
CONNECTICUT GREEN BANK REVENUE BONDS
C-PACE PROJECT EXAMPLE

WHEREAS, various third-party entities (the “Borrowers”) intend to finance the acquisition and installation of clean energy properties and equipment (the “Projects”); and

WHEREAS, Borrowers have requested that the Connecticut Green Bank (“Green Bank”) provide assistance in financing the cost of the Projects pursuant to the [commercial sustainable energy program for Connecticut, known as the Commercial Property Assessed Clean Energy program, pursuant to Section 16a-40g of the Connecticut General Statutes, as amended (“C-PACE”)], by the issuance of bonds of Green Bank pursuant to Sections 16-245n and 16-245kk through 16-245mm, as amended (the “Act”), which bonds (i) will be special obligations of Green Bank payable solely from the revenues or other receipts, funds or monies of Green Bank pledged therefor, which shall consist of the monies received by Green Bank pursuant to a loan agreements with Borrowers, (ii) do not constitute a debt or liability of the State of Connecticut (the “State”) or of any municipality thereof, and (iii) shall not constitute or give rise to an indebtedness or charge against the general credit of Green Bank; and

WHEREAS, Green Bank understands that the financing of the Projects by Green Bank pursuant to the Act promotes investment in clean energy in accordance with a comprehensive plan developed by Green Bank to foster the growth, development and commercialization of clean energy sources, related enterprises and stimulate demand for clean energy and deployment of clean energy sources that serve end use customers in this state and for the further purpose of supporting operational demonstration projects for advanced technologies that reduce energy use from traditional sources, and that based upon the Borrowers’ requests, Green Bank has determined that the availability of financial assistance will be an important inducement to Borrowers to proceed with the Projects, and therefore the assistance by Green Bank by the issuance of such bonds will be in furtherance of the policy of the State and in furtherance of the purposes of Green Bank and the Act, all as set forth in the Act; and

Deleted: , which may include environmental infrastructure projects

WHEREAS, the Projects and the financing thereof qualify as clean energy projects for which Green Bank may issue bonds under the Act.

NOW, THEREFORE, BE IT RESOLVED THAT:

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

and instruments required to issue and deliver the bonds, shall be determined by a further resolution of Green Bank.

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

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

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

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

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

Section 7. The law firm of Shipman & Goodwin LLP, as one of Green Bank's designated outside counsel law firms, is hereby retained as Bond Counsel with respect to the issuance of bonds. Said firm shall prepare and submit to Green Bank, in consultation with Green Bank staff and Borrowers and their counsel, drafts of the necessary legal documents.

Commented [A1]: Clause 4 and 6 are necessary to the extent we would like to preserve the right to issue all or a portion of tax-exempt bonds and be reimbursed through the bond issuance – if we are issuing purely taxable bonds, we could continue business as usual and authorize the bond issuance at a later date once we have a significant sized portfolio

EXHIBIT A
Description of the Projects



Memo

To: Connecticut Green Bank Budget & Operations Committee
From: Bryan Garcia (President and CEO)
CC: Mackey Dykes (VP of CI&I and Officer), Brian Farnen (General Counsel and CLO), Bert Hunter (EVP and CIO), Jane Murphy (VP of Finance), and Eric Shrago (Managing Director of Operations)
Date: June 12, 2019
Re: Sustainability Plan – Status Update from Original Restructuring Plan

On December 15, 2017, in response to legislative sweeps by the Connecticut General Assembly (“CGA”),¹ the Board of Directors of the Connecticut Green Bank (“the Green Bank”) approved of a financial Sustainability Pathway (“Sustainability Plan”) to enable the organization to manage through the sweeps while continuing to deliver on its mission and purpose. The Sustainability Plan would pivot the Green Bank away from an investment strategy since inception geared towards maximizing leverage of private capital towards one focused on retaining more investments on the Green Bank’s own balance sheet that collectively earn a rate of return that generate sufficient revenues to make the Green Bank financially sustainable over time.²

The Sustainability Plan includes the following key elements:

- **Business Units** – separating the financial performance of two (2) distinct business units – Incentive Business and Investment Business – with a focus on each business unit pursuing breakeven or financial sustainability;
 - **Incentive Business** – managing the cash flow demands on the Green Bank as a result of administering the statutorily required Residential Solar Investment Program (“RSIP”),³ by successfully securitizing Solar Home Renewable Energy Credits (“SHRECs”). This would enable the Incentive Business to fully cost recover its expenses, including incentives, administration, financing, and other costs associated with the RSIP administration through the sale of SHRECs and 15-year Master Purchase Agreements (“MPAs”) between the Green Bank and the Electric Distribution Companies (“EDCs”);

¹ For each of the fiscal years 2018 and 2019, the legislative sweeps from the Green Bank to the General Fund included \$2.3 million from the Regional Greenhouse Gas Initiative allowance proceeds (i.e., 23% of \$10.0 million swept from RGGI) and \$14.0 million from the Clean Energy Fund (i.e., over 50% of the annual funds received by the Green Bank).

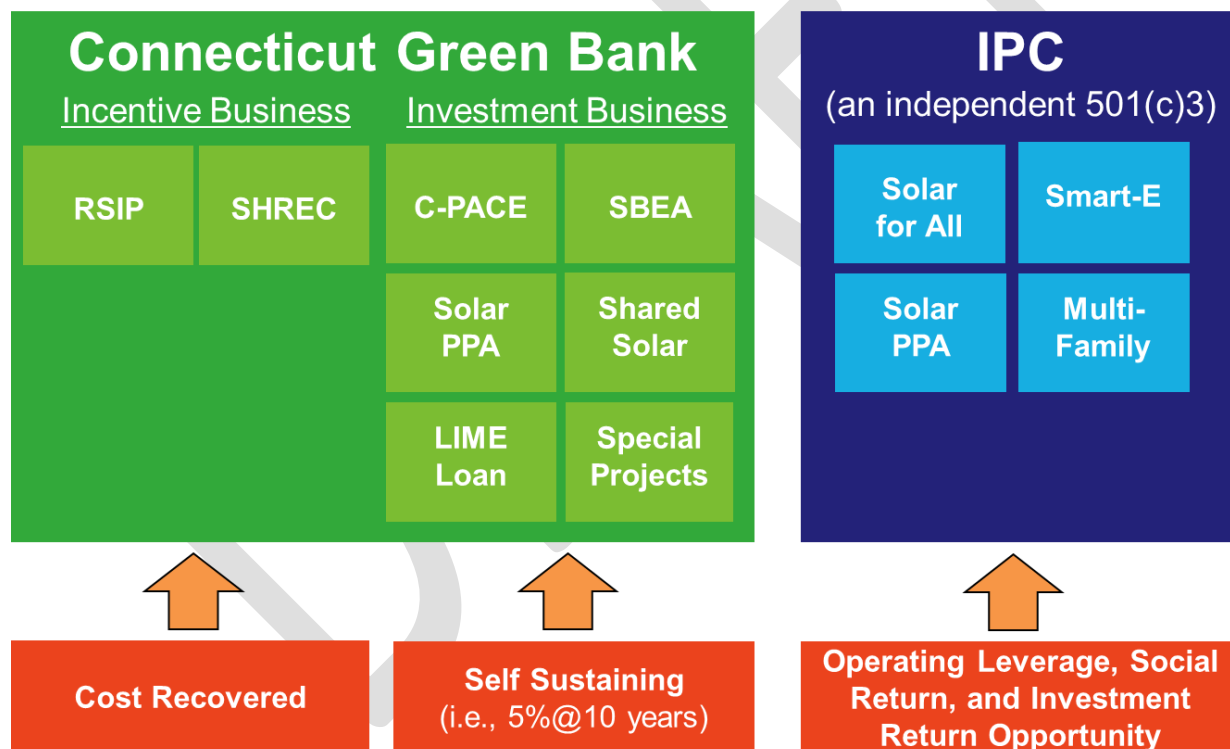
² “Financially Wounded, Pioneering CT Green Bank Has a Path Forward” by Matt Pilon of the Hartford Business Journal (January 8, 2018)

³ CGS 16-245ff

- **Investment Business** –reducing the operating expenses of the Investment Business by 27% (i.e., \$4.6 million) from FY 2018 (i.e., \$16.3 million) to FY 2019 (i.e., \$11.3 million), and implementing an investment strategy that generates cash flow (i.e., returns of principal and interest) from a portfolio of investments (e.g., Commercial Property Assessed Clean Energy – “C-PACE”) that delivers an average 5% return over a 10-year term, would enable the Investment Business to breakeven in 4 to 7 years; and
- **Nonprofit Organization** – creating a mission-aligned independent 501(c)3 nonprofit organization (i.e., Inclusive Prosperity Capital – “IPC”) to efficiently deliver capital to underserved segments of the market in Connecticut and beyond, while transitioning certain staff at the Green Bank to become employees of this nonprofit organization and helping the Green Bank reduce its operating expenses over time as it pursues financial sustainability.

The diagram below provides an overview of the Sustainability Plan, including where various products and programs reside – see Figure 1.

Figure 1. Sustainability Plan of the Connecticut Green Bank – Incentive Business, Investment Business, and an Independent 501(c)3 Nonprofit Organization

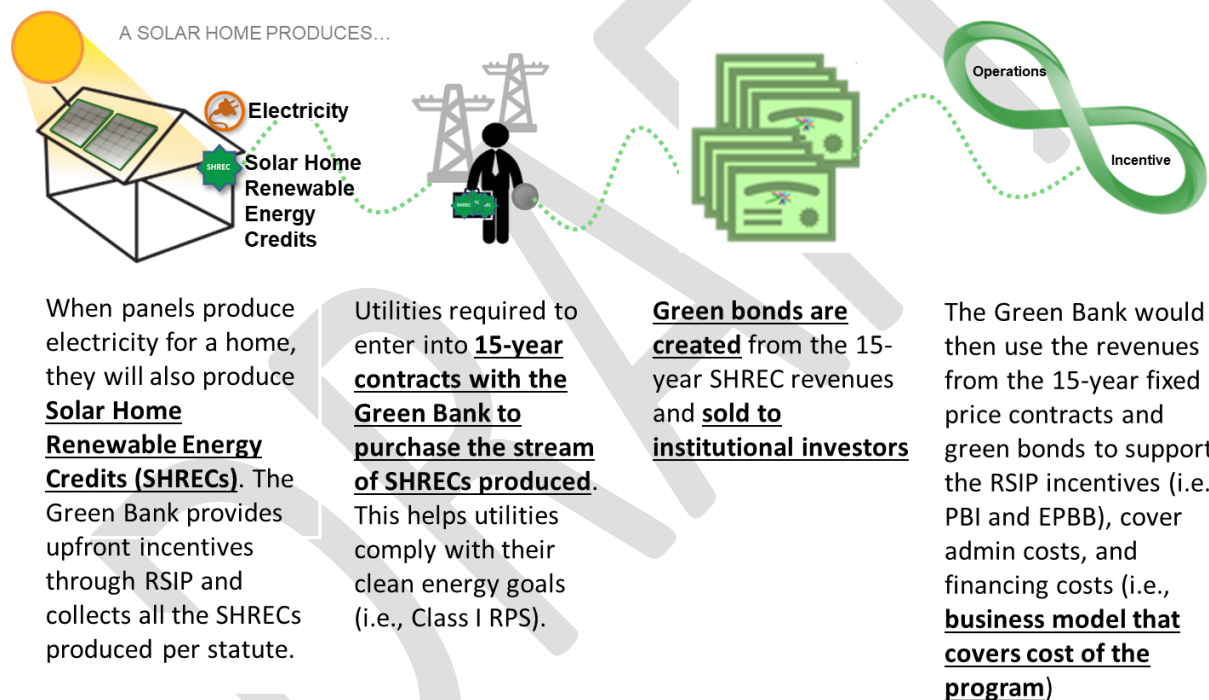


This memo provides a status update on the implementation of the Sustainability Plan (i.e., since December 15, 2017) following on the legislative sweeps of FY 2018 and FY 2019, including descriptions of each of the business units above (e.g., Incentive Business and Investment Business) and outsourcing specific programs and targets to Inclusive Prosperity Capital.

Incentive Business

One of the key elements of the Sustainability Plan is to ensure that the Green Bank can manage its operational cash flow needs, while implementing a statutorily required incentive program that requires a substantial amount of upfront resources. By aligning the upfront cash flow needs of the RSIP (e.g., incentives, administrative costs, financing costs, etc.) with the revenues generated through the MPAs with the EDCs and from a successful SHREC securitization, the Green Bank is able to continue supporting the residential solar PV market without disruptions resulting from the legislative sweeps – see Figure 2.⁴

Figure 2. Incentive Business – Overview of Sustainability Plan for RSIP Continuity, Program Cost Recovery, and Cash Flow Management



In order to continue efforts to meet a target of 350 MW and support the sustained orderly development of the residential solar PV market in Connecticut, the following FY 2019 RSIP targets were established and achieved to date – see Table 1.

Table 1. Residential Solar Investment Program (RSIP) – Budget to Actual Targets for FY 2019 (as of June 4, 2019)

FY 2019	Projects	Installed Capacity (kW)	Investment
Original Targets (of 06-28-18)	6,000	48,000	\$168,000,000
Revised Targets (of 12-14-18)	7,250	58,000	\$203,000,000

⁴ For more details, see “Connecticut’s Residential Solar Program” Case Study by the Yale Center for Business and the Environment by Kristofer Holz and Milagros De Camps.

Actual (of 06-04-19)	7,014	59,500	\$210,600,000
----------------------	-------	--------	---------------

As of June 1, 2019, 231 MW of the 300 MW public policy target under the RSIP has been installed from 267 MW of approved projects.

In order to manage cash flow to support the Green Bank, and its administration of the RSIP, a SHREC securitization was required. To support its securitization of SHRECs, the Green Bank issued various Requests for Proposals (“RFP”), and hired the following contractors:

- **Royal Bank of Canada Capital Markets** (“RBC”) – as the underwriter for the transaction;
- **DNV-GL** – as the independent engineer providing a third-party assessment of the projects composing Tranches 1 and 2 of the securitization that are producing SHRECs over the terms of the MPAs;
- **Kestrel Verifiers** – in collaboration with Climate Action Reserve, the “green bond” certifier for the transaction in conformation with the Climate Bonds Initiative standard; and
- **Kroll Bond Rating Agency** – as the bond rating agency for the transaction.

The SHREC securitization is comprised of two (2) tranches of projects – Tranche 1 (i.e., 6,788 systems, 49.1 MW_{DC}, and \$50 SHREC price) and Tranche 2 (i.e., 7,250 systems, 59.7 MW_{DC}, and \$49 SHREC price) – with 14,038 residential solar PV systems providing 108.8 MW_{DC} of clean renewable energy. The estimated total asset value of the SHRECs produced from these tranches is \$71.5 million in nominal value and \$45.9 million in discounted value (i.e., 7% discount rate). In March of 2019, the Green Bank closed a \$38.6 million securitization of SHRECs – see Table 2.⁵

Table 2. SHREC Securitization Details

Class	Initial Amount	Interest Rate (%) (Taxable)	Stated Maturity Date	Kroll Rating
A Notes	\$36,800,000	5.153%	June 15, 2044	A-
B Notes	\$1,800,000	7.153%	June 15, 2044	BBB-

This successful securitization of SHRECs will help the Green Bank better manage its organizational cash flow in order to continue to support the implementation of the RSIP, while at the same time managing through the legislative sweeps of FY 2018 and FY 2019.

- ☑ **Incentive Business** – the successful execution of the SHREC securitization provides the Green Bank with the cash flow necessary to maintain its statutory obligation to continue its administration of the RSIP, while also providing the necessary financial resources for the Green Bank to manage its organizational cash position.

⁵ “Amid Cash Shortfall, CT Green Bank Engineers a Financial Lifeline” by Matt Pilon of the Hartford Business Journal (April 29, 2019)

Investment Business

The second key element of the Sustainability Plan was to reduce operating expenses and increase revenues for the Investment Business – the core business of clean energy financing for the Green Bank. The strategy of reducing operating expenses and increasing revenues would put the Green Bank’s Investment Business on a pathway to sustainability, or breakeven where the operating expenses would be offset by revenues (e.g., principal and interest) from the investments.

Operating Expense Reductions

Reducing operating expenses for the Investment Business by no less than 27% from FY 2018 to FY 2019 is a reduction of \$4.6 million – see Table 3.

Table 3. Performance in Reducing Operating Expenses for the Investment Business from FY 2018 to FY 2019

Operating Expenses	FY 2018 Budget	FY 2019 Budget	FY 2019 YTD Actual (June 1, 2019)
Personnel Related	\$7,887,428	\$6,006,041	\$5,485,932
Non-Personnel Related	\$8,442,801	\$5,306,262	\$3,668,800
Total	\$16,330,229	\$11,312,303	\$9,154,732
Year-to-Year Reduction		\$5,017,926	\$7,175,497

The FY 2019 budget proposed an operating expense reduction of 31% (i.e., \$5.0 million) from the FY 2018 budget. To date, the FY 2019 budget to actual is \$9.2 million for operating expenses for the Investment Business, which is expected to be well below the FY 2019 budget of \$11.3 million.

Investment Business – the successful reduction of operating expenses by at least \$5.0 million for the Investment Business from FY 2018 to FY 2019 will reduce the amount of time and investment needed for sustainability or breakeven.

Increasing Revenues through Investments

Increasing revenues from principal and interest for the Investment Business by pursuing a portfolio strategy targeting a 5% return over a 10-year term in FY 2019 and beyond, is another key aspect of the Sustainability Plan.

The investment target for program loans for FY 2019 was originally \$35.9 million (of June 28, 2018) and then modified to \$40.9 million (of December 14, 2018) – see Table 4. The total interest income over the term of this portfolio is estimated at \$15.9 million nominal value, or \$12.2 million discounted. If successful, and not assuming any loan losses, the present value of the interest income from the portfolio of projects would be greater than the operating expenses for the Investment Business in FY 2019.

Table 4. FY 2019 Investment Budget (Revised) – December 14, 2018

Investment	Principal	Return	Term
Multifamily – Predevelopment Loans	\$180,000	0.00%	2.0
PosiGen – Solar for All	\$2,500,000	5.00%	10.0
C-PACE – CGB Portfolio	\$9,990,279	6.05%	18.0

C-PACE – Hannon Portfolio	\$13,500,000	4.56%	15.0
Kresge – Battery Storage and Solar PV	\$3,000,000	3.00%	10.0
ESA – Pilot	\$200,000	5.00%	10.0
SBEA	\$5,000,000	3.50%	4.0
Fuel Cell – Project Finance	\$3,000,000	6.00%	15.0
Green Bank Solar PPA – IPC Fund	\$3,500,000	5.00%	10.0
Total	\$40,870,279	5.05%⁶	7.6⁷

The actual investments closed in FY 2019 include the following – see Table 5.

Table 5. Investments Closed by the Green Bank in FY 2019 (as of June 1, 2019)

Investment	Principal	Return	Term
C-PACE Portfolio	\$1,384,358	5.8%	15.6
HAC-PACE Portfolio	\$12,865,259	5.6%	15.0
PosiGen	\$15,000,000	7.5%	3.0
FuelCell Energy – Bridgeport	\$6,046,000	8.0%	7.0
Canton Hydro	\$1,200,000	8.0%	15.0
FuelCell Energy – Bridgeport	\$1,800,000	8.0%	10.5
Small Business Energy Advantage	\$3,892,133	4.4%	4.0
Total	\$42,187,750	6.7%	8.0

Between the revised investment budget target of \$40.9 million of investment, in FY 2019, \$42.2 million of closed investments were achieved with total interest income over the term of this portfolio estimated at \$15.4 million nominal value, or \$11.8 million discounted. The present value of the interest income from the portfolio of projects closed in FY 2019 (i.e., \$11.8 million) is greater than the operating expenses for the Investment Business in FY 2019 (i.e., \$11.3 million). As a result of these investments, interest income in FY 2020 will increase by \$2.8 million.

Investment Business – the successful investment of \$42.2 million in transactions through the Investment Business keeps the Green Bank on the pathway to sustainability by generating revenues (i.e., principal and interest), that in time, will offset operating expenses.

Nonprofit Organization – Inclusive Prosperity Capital

The final element of the Sustainability Plan was to create an independent 501(c)3 nonprofit organization for the purposes of reducing operating expenses of the Green Bank, while seeking to continue to serve its mission by attracting mission-oriented investors in underserved market segments and providing investment opportunities for the Green Bank.⁸

The following is a shortlist of accomplishments for the nonprofit organization – Inclusive Prosperity Capital (“IPC”):

⁶ Customer Portfolio Return – Benchmark Loan and Portfolio Calculator by Chris Magalhaes

⁷ Custom Portfolio WAL – Benchmark Loan and Portfolio Calculator by Chris Magalhaes

⁸ “CT Green Bank Takes Novel Approach to Preserve Clean Energy Mission” by Matt Pilon of the Hartford Business Journal (August 6, 2018)

- **PSAs and MOUs** – executed PSAs with the Green Bank, outlining the four (4) areas of support, including targets and funding, as well as joint venture funding from DEEP for underserved markets (i.e., \$5.0 million grant) and health & safety in Connecticut (i.e., \$1.5 million grant and revolving loan fund) through various capital grant agreements;
- **Operations** – seven (7) members of the Green Bank staff successfully transitioned to IPC,⁹ stood up the organization including implementing employee benefits, IT systems, banking, and corporate policies and procedures;
- **Independent Nonprofit Status** – received a determination letter from Blum Shapiro (auditors of the Green Bank) that the nonprofit organization is not to be considered a component unit of the Green Bank, submitted the 1023 application to the IRS, and received independent 501(c)3 nonprofit status for IPC; and
- **Foundation Partnerships** – received a \$50,000 seed grant from the Hampshire Foundation matched by the Green Bank to investigate the role of a nonprofit to help expand the impact of the Green Bank model in FY 2017, \$250,000 competitive operating grant from the Hewlett Foundation to support the development of a Smart-E cloud-based program management systems in partnership with Michigan Saves in FY 2019, and a \$10.0 million balance sheet guaranty from the Kresge Foundation to support a capital raise of up to \$40.0 million in addition to a \$300,000 three-year operating grant to support expansion outside Connecticut in FY 2019.

IPC, though its PSAs with the Green Bank, is delivering on the targets established – see Table 6.

Table 6. FY 2019 Targets and Actuals (as of June 1, 2019) for IPC

Product	PSA	Project Targets	Project Actuals (06-01-19)	Investment Target (\$MM)	Investment Actuals (\$MM) (06-01-19)	Installed Capacity Target (kW)	Installed Capacity Actuals (kW) (06-01-19)
Smart-E Loan	5410	540	595	\$8.8	\$7.6	600	700
Multifamily ¹⁰	5411	19	18	\$2.6	\$2.8	300	260
Solar PPA	5412	25	18	\$14.1	\$12.5	6,300	3,900
Solar for All	5413	586	645	\$15.6	\$18.6	3,600	4,500
Total		1,170	1,276	\$41.1	\$41.4	10,800	9,360

In its first-year contract with the Green Bank, IPC has delivered measurable results supporting its mission to reach underserved market segments.

- ☑ **Nonprofit Organization** – the successful creation of Inclusive Prosperity Capital, led by its partners (DEEP, Kresge Foundation, and the Green Bank), has led to a reduction in operating expenses and an increase in investment opportunities for the Green Bank, while attracting other mission-related investors in underserved market segments.

⁹ See State of Connecticut Office of State Ethics Advisory Opinion No. 2018-2 for details

¹⁰ The total investment in multifamily projects is \$35.4 million, of which energy comprises \$2.8 million (including predevelopment loans) and \$0.2 million in health and safety.

Conclusion

Given the significance of the FY 2018 and FY 2019 budget sweeps by the CGA, the Green Bank Board of Directors approved of a Sustainability Plan on December 15, 2017 for the staff of the Green Bank to implement over the subsequent years. The successful implementation of the Sustainability Plan required three (3) organizational parts and various strategies, including:

- **Incentive Business** – successfully securitizing the SHREC revenues through the MPAs with the EDCs, in order to better match the cash flow needs of the RSIP (e.g., incentives, administrative costs, financing costs, etc.) and maintaining the sustained orderly development of a local residential solar PV industry, while at the same time ensuring the viability of the organization as it manages its cash flow needs and focus on cost recovery;
- **Investment Business** – reducing the operating expenses by 27% and executing on an investment strategy that delivers a portfolio return of 5% over an average 10-year term, will put the Investment Business on track to be sustainable in 4 to 7 years; and
- **Nonprofit Organization** – creating an independent 501(c)3 nonprofit organization that will reduce the operating expenses of the Green Bank by transitioning no more than 8 staff members to IPC, enabling private investment into underserved market segments through IPC, and providing the Green Bank with investment opportunities through IPC.

The Green Bank has successfully implemented the Sustainability Plan for FY 2018 and FY 2019, and will continue to focus its efforts on organizational sustainability in FY 2020 and beyond.

It should be noted, that in November of 2018, elections were held in Connecticut and Ned Lamont became Governor. Governor Lamont has expressed his support of the Green Bank on numerous occasions, including:

- **Campaign Pledge** – “Ned’s Plan for Connecticut,” the campaign plan for Governor Lamont states “I will never support a budget that diverts money from our Energy Efficiency Fund, the Green Bank, and other dedicated funding sources. These programs are funded by ratepayers and make important investments in energy efficiency, conservation, and the development of new renewable energy markets. It is simply short-sighted to shortchange these programs since they are crucial to our state’s response to climate change, and to our development of a renewable energy platform essential for the energy independence of our citizens.”
- **Energy Policy Transition Committee** – Governor Lamont assembled experts in December of 2018 through an Energy Policy Transition Committee¹¹ to advise him on the key energy policy recommendations his administration should consider. In the proposed “Green New Deal,” the second highest priority recommendation was “Protect Ratepayers,” including preventing future diversions of ratepayer funds (i.e., C&LMF-CAM, CEF, and RGGI) for energy efficiency and renewable energy to the General Fund.

¹¹ Co-chaired by Representative Lonnie Reed (former Co-Chair of the Energy & Technology Committee) and Bryan Garcia (President and CEO of the Connecticut Green Bank).

- **Biennial Budget Address and Subsequent Budget** – in Governor Lamont’s Biennial Budget Address in February 2019, he stated “I also support fully funding our clean energy and energy efficiency programs, which have been shortchanged over the last few years. These funds help bring down electricity costs for working families, and they further reduce our carbon footprint. I will make sure that we work with labor and v-tech schools so that more of our citizens get the skills training they need for good paying, green collar jobs.” This statement was received by a standing ovation from the members of the Connecticut General Assembly.¹² Subsequently, in June, the Connecticut General Assembly and the Governor passed a budget that does not include sweeps to the Green Bank, nor the Energy Efficiency Fund and RGGI.

As the Green Bank looks back on the past two years, it was indeed a difficult period of time. Through the successful implementation of the Sustainability Plan, the Green Bank can now begin to look ahead at its future, and how it will continue to mobilize more private investment in Connecticut’s growing green economy helping create jobs in our communities, reducing the burden of energy costs on our families and businesses, and reducing the harmful pollution that causes global climate change.

¹² <https://portal.ct.gov/Office-of-the-Governor/News/Speeches/Governor-Lamont-Fiscal-Year-2020-2021-Biennial-Budget-Address> (25:20)



Comprehensive Plan

Fiscal Year 2020 & Beyond



Comprehensive Plan

July 2019

Table of Contents

1. Executive Summary	3
2. Organizational Overview	6
2.1 Vision	6
2.2 Mission	6
2.3 Goals	6
2.4 Definition – Clean Energy	7
3. Governance and Organizational Structure	7
3.1 Governance	7
3.2 Organizational Structure	8
4. Incentive Programs	10
5. Financing Programs	12
6. Impact Investment	14
6.1 State Funds	14
6.2 Federal Funds	14
6.3 Green Bonds	15
7. Citizen Engagement	16
7.1 Green Bonds US Campaign	17
7.2 Sustainable CT	17
8. Evaluation Framework and Impact Methodologies	17
8.1 Evaluation Framework	18
8.2 Impact Methodologies	18
9. Reporting and Transparency	19
9.1 Comprehensive Annual Financial Report (CAFR)	19
9.2 Annual Report	20
9.3 Auditors of Public Account	20
9.4 Open Connecticut	21
9.5 Stakeholder Communications	21
10. Research and Product Development	21
11. Budgets and Investments	23
11.1 FY 2020 Budget and Investments	23

1. Executive Summary

On July 1, 2011, in a bipartisan manner, Public Act 11-80¹ was passed. Within Section 99 of that seminal act, the nation's first state-level green bank was formed – Connecticut Green Bank (“the Green Bank”). Since its inception, the Green Bank has mobilized [\$X] billion of investment into Connecticut's clean energy economy at a [X] to 1 leverage ratio or private to public funds, supported the creation of over [X] direct, indirect, and induced job-years, reduced the energy burden on over [X] families and businesses (in particular low-to-moderate income families), deployed nearly [X] MW of clean energy that will help reduce over [X] million tons of CO₂ emissions over the life of the projects, and helped generate over [\$X] million in individual income, corporate, and sales tax revenues to the State of Connecticut.²

For its leadership, innovation, and results, the Green Bank was awarded the prestigious Innovations in American Government Awards in 2017 by the Ash Center at Harvard University's Kennedy School of Government for “Sparking the Green Bank Movement”.³ As a result of the Green Bank's success in demonstrating the model's implementation in Connecticut, there has been growing national public policy interest at the federal⁴ and local⁵ levels to realize similar results. Increasing and accelerating the flow of capital into markets that energize the green economy and extend the reach of its benefits to all of society is what green banks do. Green banks are an integral public policy tool to address global climate change.

The State of Connecticut has nearly a two-decade history of bipartisan gubernatorial leadership on the issue of climate change, including:

- **Governor Rowland** – co-chaired the New England Governors and Eastern Canadian Premiers Conference, which established a regional commitment to reduce greenhouse gas emissions (i.e., 1990 levels by 2010, 10% below 1990 levels by 2020, and 80% below 2001 levels by 2050),⁶
- **Governor Rell** – supported Public Act 08-98⁷ codifying the regional commitment into state law, appointing Gina McCarthy to be the Commissioner of the Department of Environmental Protection who would help lead the development of the Regional Greenhouse Gas Initiative and later become the EPA Administrator under President Obama leading the development of the Clean Power Plan and the U.S. participation in the Paris Agreement;

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

² From July 1, 2011 through June 30, 2019

³ <https://ash.harvard.edu/news/connecticut-green-bank-awarded-harvards-2017-innovations-american-government-award>

⁴ US Green Bank Act of 2019 introduced by Senators Blumenthal (CT), Markey (MA), Murphy (CT), Van Hollen (MD), and Whitehouse (RI). Democratic Presidential Candidates Inslee and Bennet proposed \$90 billion and \$1 trillion “green bank” and “climate banks,” respectively as part of their campaigns.

⁵ American Green Bank Consortium – <https://greenbankconsortium.org/> and the Green Bank Network – <https://greenbanknetwork.org/>

⁶ NEG-ECP Resolution 26-4 adopting the “Climate Change Action Plan 2001” (August 2001 in Westbrook, CT)

⁷ An Act Concerning Connecticut Global Warming Solutions

- **Governor Malloy** – led the passage of PA 11-80 establishing the Department of Energy and Environmental Protection (“DEEP”), creating the Green Bank, and other policies catalyzing the market for clean energy, as well as Public Acts 18-50⁸ and 18-82⁹ increasing the state’s renewable portfolio standard to 40% by 2030 and establishing a midterm greenhouse gas emissions reduction target of 45% below 2001 levels by 2030, respectively; and
- **Governor Lamont** – his campaign plan for Connecticut¹⁰ seeks to achieve carbon neutrality by 2050 and setting a 100% renewable portfolio standard by 2050 which will help the state realize green jobs in energy efficiency and clean energy (e.g., fuel cells, offshore wind, solar PV, etc.), while reducing energy costs.

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

“The civilization of New England has been like a beacon lit upon a hill, which, after it has diffused its warmth around, tinges the distant horizon with its glow.”¹¹

Although Connecticut is one of the smallest states in the country, its leadership on climate change has had an influential impact across the country and around the world. As the “spark” to the green bank movement, the Connecticut Green Bank is a public policy innovation, a catalyst helping to mobilize greater local and global investment in addressing climate change.

For example, the Paris Agreement’s third aim – beyond mitigation of greenhouse gas emissions and adaptation to climate change impacts – recognizes the importance of making finance flows consistent with a pathway towards reduced emissions and increased climate-resilient development. The Center for American Progress estimates that the U.S. needs at least \$200 billion in renewable energy and energy efficiency investment a year for 20 years to reduce carbon emissions and avert climate disaster.¹² In a similar vein, the United Nations estimates that \$90 trillion of investment is needed over the next 15 years to advance sustainable development and confront the worst effects of climate change.¹³ To put these numbers into perspective, this is the equivalent of between \$620 to \$800 of investment per person per year for the next 15 years, respectively – or, the equivalent of nearly \$3 billion a year of investment in Connecticut’s green economy!

As a result of the magnitude of this level of investment required to put society on a more sustainable path to confront climate change, the Green Bank convened a group of stakeholders at the Pocantico

⁸ An Act Concerning Connecticut’s Energy Future

⁹ An Act Concerning Climate Change Planning and Resiliency

¹⁰ Ned’s Plan for Connecticut – Addressing Climate Change & Expanding Renewable Energy

¹¹ Alexis de Tocqueville, *Democracy in America*

¹² “Green Growth: A U.S. Program for Controlling Climate Change and Expanding Job Opportunities” by the Center for American Progress (September 2014).

¹³ “Financing Sustainable Development: Moving from Momentum to Transformation in a Time of Turmoil” by the UNEP (September 2016).

Conference Center of the Rockefeller Brothers Fund in February of 2019 for a two-day strategic retreat entitled “Connecticut Green Bank 2.0 – From 1 to 2 Orders of Magnitude”. Having convened at the Pocantico Conference Center in November of 2011 to establish the Green Bank’s first strategic plan (i.e., Green Bank 1.0), this new group of stakeholders met to reflect on the past seven years and then to envision an even bigger future for the Green Bank (i.e., Green Bank 2.0) consistent with the larger investment required.¹⁴

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

- **Commitment to Address Climate Change** – as the most urgent issue to address, the Green Bank needs to increase and accelerate the impact of its model to support the implementation of Connecticut’s climate change plan;¹⁵
- **Scaling Up Investment and Impact in Connecticut and Beyond** – in order to achieve the climate change goals set forth, more investment from private capital sources leveraged by innovative public sector financing will be needed to scale-up and scale-out the green bank model’s impact; and
- **Green Bonds to Increase Access to Capital** – with the ability to issue bonds, the Green Bank is able to increase its access to capital beyond the current sources of funding to scale-up its investment activity, while providing more opportunities to engage citizens in new ways to invest in the state’s growing green economy, including through the issuance of “mini green bonds” that will engage citizens in making investments alongside the Green Bank.

Increasing and accelerating investment in the green economy by using limited public resources to attract and mobilize multiples of private capital investment is paramount to society’s efforts to pursue sustainable development, while confronting climate change. More investment in the green economy creates more jobs in our communities, reduces the burden of energy costs on our families and businesses (especially the most vulnerable), and reduces fossil fuel pollution that causes local public health problems and global climate change. However, investment for the sake of investment is not enough unless we have an engaged citizenry that is active in communities across the state! By making clean energy more accessible and affordable to everyone, society will reap significant gains from moving forward in the same direction together – for we can’t have environmentalism without humanitarianism.

¹⁴ “Connecticut Green Bank 2.0 – From 1 to 2 Orders of Magnitude” at the Pocantico Conference Center of the Rockefeller Brothers Fund (February 6-7, 2019)

¹⁵ “Building a Low Carbon Future for Connecticut – Achieving a 45% GHG Reduction by 2030” recommendations from the Governor’s Council on Climate Change (December 18, 2018)

2. Organizational Overview

The Green Bank¹⁶ was established by Governor Malloy and Connecticut's General Assembly on July 1, 2011 through Public Act 11-80 as a quasi-public agency that supersedes the former Connecticut Clean Energy Fund ("CCEF"). As the nation's first state green Bank, the Green Bank leverages public and private funds to drive investment and scale-up clean energy deployment in Connecticut.

The Green Bank's statutory purposes are:

- To develop programs to finance and otherwise support clean energy investment in residential, municipal, small business and larger commercial projects and such other programs as the Green Bank may determine;
- To support financing or other expenditures that promote investment in clean energy sources to foster the growth, development and commercialization of clean energy sources and related enterprises; and
- To stimulate demand for clean energy and the deployment of clean energy sources within the state that serves end-use customers in the state.

The Green Bank's purposes are codified in Section 16-245n(d)(1) of the Connecticut General Statutes ("CGS") and restated in the Green Bank's Board approved [Resolution of Purposes](#).

2.1 Vision

...a world empowered by the renewable energy of community.

2.2 Mission

Increase and accelerate the flow of capital into markets that energize the green economy and **extend the reach** of **its benefits** to all of society.

2.3 Goals

To achieve its vision and mission, the Green Bank has established the following three goals:

1. To leverage limited public resources to scale-up and mobilize private capital investment in the green economy of Connecticut.
2. To strengthen Connecticut's communities by making the benefits of the green economy inclusive and accessible to all individuals, families, and businesses.
3. To pursue investment strategies that advance market transformation in green investing while supporting the organization's pursuit of financial sustainability.

¹⁶ Public Act 11-80 repurposed the Connecticut Clean Energy Fund (CCEF) administered by Connecticut Innovations, into a separate quasi-public organization called the Clean Energy Finance and Investment Authority (CEFIA). Per Public Act 14-94, CEFIA was renamed to the Connecticut Green Bank.

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

2.4 Definition – Clean Energy

The Green Bank’s investment focus is on “clean energy” as defined by:

- **Clean Energy** – clean energy means solar photovoltaic energy, solar thermal, geothermal energy, wind, ocean thermal energy, wave or tidal energy, fuel cells, landfill gas, hydropower that meets the low-impact standards of the Low-Impact Hydropower Institute, hydrogen production and hydrogen conversion technologies, low emission advanced biomass conversion technologies, alternative fuels, used for electricity generation including ethanol, biodiesel or other fuel produced in Connecticut and derived from agricultural produce, food waste or waste vegetable oil, provided the Commissioner of Energy and Environmental Protection determines that such fuels provide net reductions in greenhouse gas emissions and fossil fuel consumption, usable electricity from combined heat and power systems with waste heat recovery systems, thermal storage systems, other energy resources and emerging technologies which have significant potential for commercialization and which do not involve the combustion of coal, petroleum or petroleum products, municipal solid waste or nuclear fission, financing of energy efficiency projects, projects that seek to deploy electric, electric hybrid, natural gas or alternative fuel vehicles and associated infrastructure, any related storage, distribution, manufacturing technologies or facilities and any Class I renewable energy source, as defined in section 16-1.

3. Governance and Organizational Structure

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

3.1 Governance

Pursuant to Section 16-245n of the CGS, the powers of the Green Bank are vested in and exercised by a Board of Directors¹⁷ that is comprised of eleven voting and **one** non-voting members each with knowledge and expertise in matters related to the purpose of the organization – see Table 1.¹⁸

Table 1. Board of Directors of the Connecticut Green Bank

Position	Status	Appointer	Voting
State Treasurer (or designee)	Ex Officio	Ex Officio	Yes
Commissioner of DEEP (or designee)	Ex Officio	Ex Officio	Yes
Commissioner of DECD (or designee)	Ex Officio	Ex Officio	Yes
Residential or Low-Income Group	Appointed	Speaker of the House	Yes
Investment Fund Management	Appointed	Minority Leader of the House	Yes
Environmental Organization	Appointed	President Pro Tempore of the Senate	Yes
Finance or Deployment of Renewable Energy	Appointed	Minority Leader of the Senate	Yes

¹⁷ <https://www.ctgreenbank.com/about-us/governance/board-of-directors/>

¹⁸ <https://www.ctgreenbank.com/about-us/governance/>

Finance of Renewable Energy	Appointed	Governor	Yes
Finance of Renewable Energy	Appointed	Governor	Yes
Labor	Appointed	Governor	Yes
R&D or Manufacturing	Appointed	Governor	Yes
President of the Green Bank	Ex Officio	Ex Officio	No

There are four (4) committees of the Board of Directors of the Green Bank, including Audit, Compliance and Governance Committee, Budget and Operations Committee, Deployment Committee, and the Joint Committee of the Energy Efficiency Board (“EEB”) and the Green Bank¹⁹

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

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

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

3.2 Organizational Structure

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

- **Incentive Programs** – the Governor and the Connecticut General Assembly from time-to-time may decide that there are certain incentive (or grant) programs that they seek to have the Green Bank administer (e.g., CGS 16-245ff). The Green Bank would administer such programs with the goal of delivering on the public policy objectives, while at the same time ensuring that funds invested by the Green Bank are cost recoverable. For example, the Green Bank administers the Residential Solar Investment Program (“RSIP”) whereby through a declining incentive block structure no more than 350 MW of new residential solar PV systems are deployed, while nurturing the sustained orderly development of a local state-based solar PV industry. Through the public policy creation of a Solar Home Renewable Energy Credit (“SHREC”), the Green Bank is able to recover its costs for administering the RSIP by selling such credits to the Electric Distribution Companies (“EDCs”) through a Master Purchase Agreement (“MPA”) to support their compliance under the Class I Renewable Portfolio Standard (“RPS”). Costs recovered from such mechanisms are expected to cover the operational expenses of the Incentive Programs business unit.

¹⁹ Pursuant to Section 16-245m(d)(2) of the Connecticut General Statutes

²⁰ <http://www.ctgreenbank.com/about-us/board-member-resources/connecticut-grboard-meetings/>

²¹ <http://www.ctgreenbank.com/about-us/board-member-resources/connecticut-grittee-meetings/>

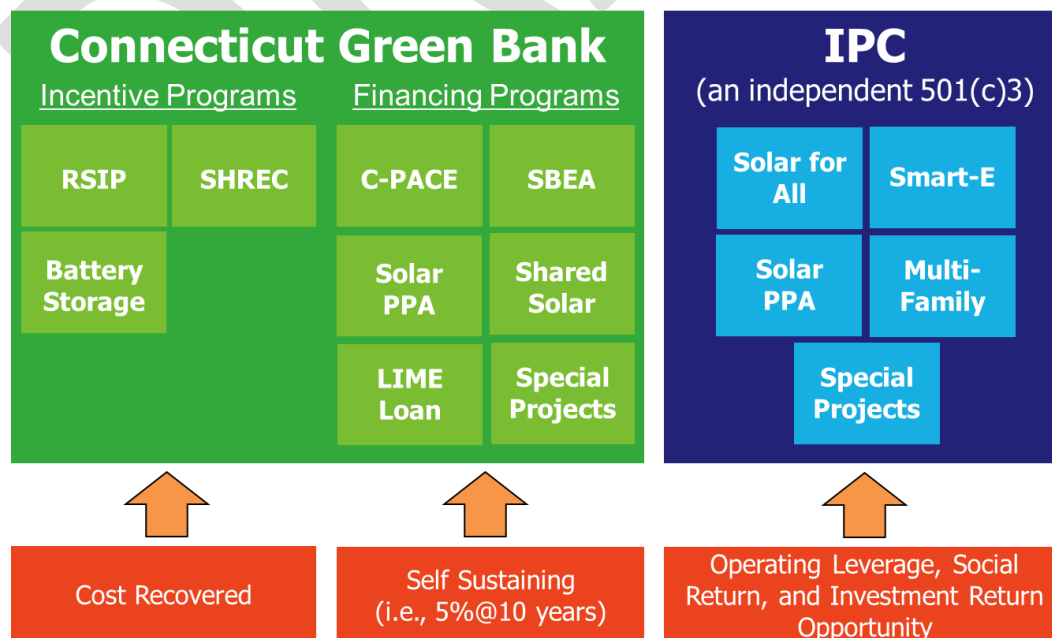
- **Financing Programs** – the Green Bank’s core business is financing projects. The Green Bank’s focus is to leverage limited public funds to attract and mobilize multiples of private capital investment to finance clean energy projects. In other words, the use of resources by the Green Bank are to be invested with the expectation of principal and interest being paid back over time. For example, the Green Bank administers the Commercial Property Assessed Clean Energy (“C-PACE”) program. Through C-PACE, the Green Bank provides capital to building owners to make clean energy improvements on their properties that is paid back over time from a benefit assessment on the building owner’s property tax bill. The interest from these types of investments, over time, is expected to cover the operational expenses of the Financing Programs business unit.

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

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

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

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



4. Incentive Programs

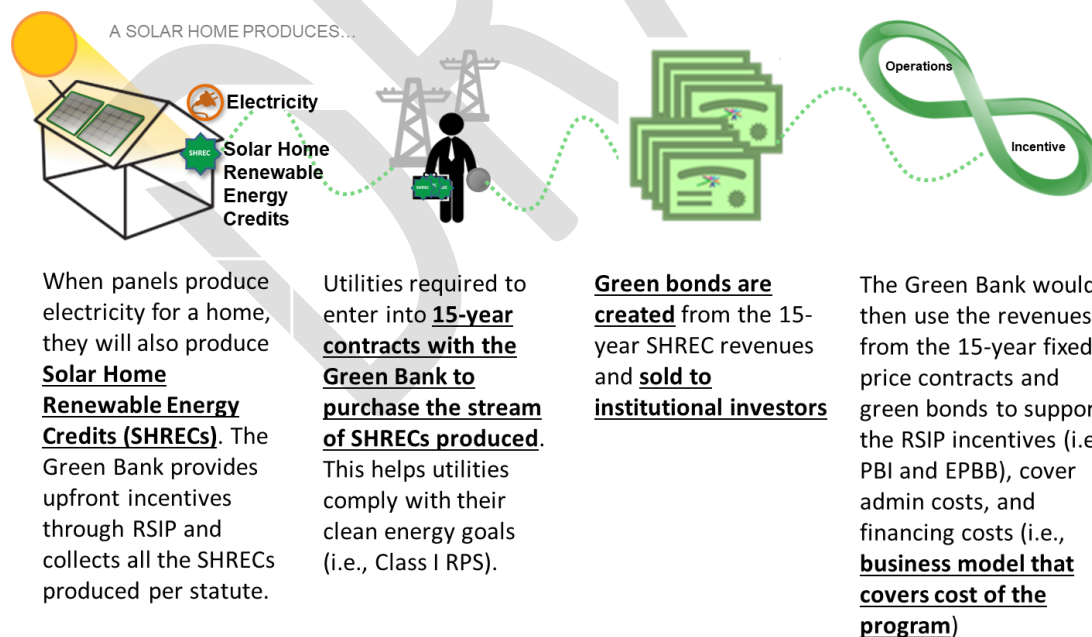
The Green Bank manages incentive programs. That is to say that it oversees grant or subsidy program(s) that deploy clean energy, while at the same time cost recover the expenses associated with those programs within the business unit – including, but not limited to, incentives, administrative costs,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

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

As of June 30, 2019, [X] megawatts of residential solar PV systems have been approved, supporting [X] projects across the state.

To support the Green Bank’s implementation of the RSIP, the EDCs are required to purchase the SHRECs to assist them in their compliance with the RPS. The SHREC price is established by the Green Bank to recover its costs for administering the RSIP through a 15-year MPA with the EDCs. The cash flow from the sale of current and future SHRECs produced by these systems can be sold as a “green bond”²³ to generate cash flow upfront to support the cost recovery of the program – see Figure 2.

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

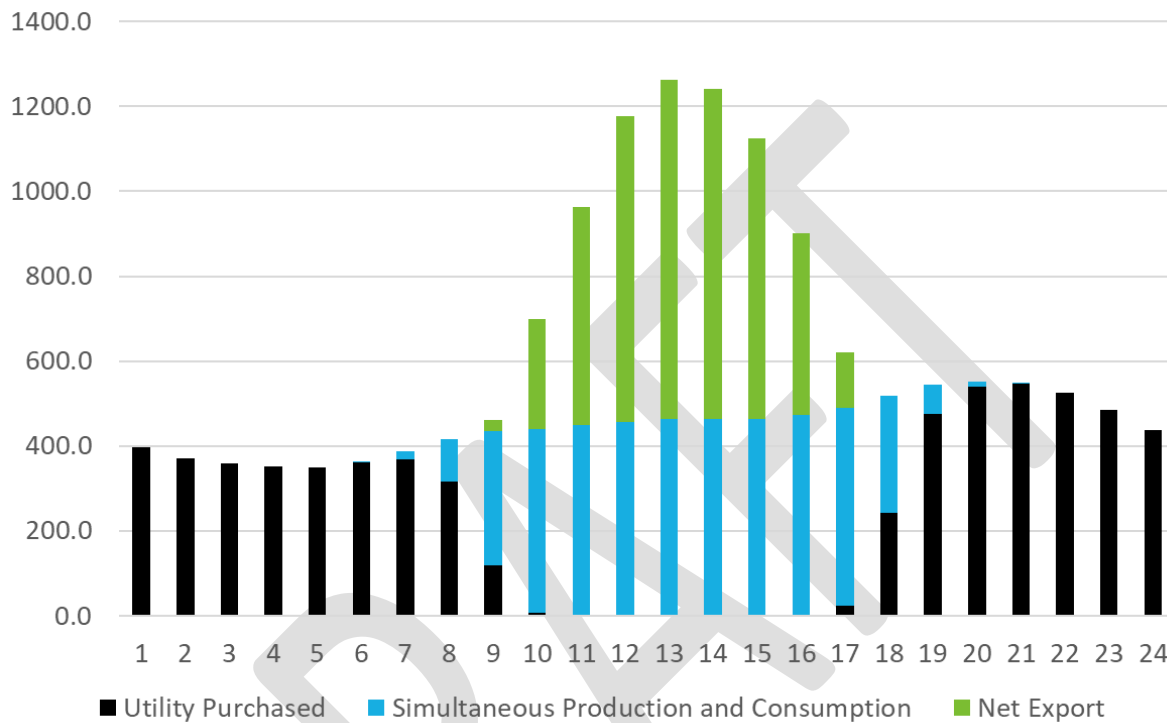


²² Sharing Solar Benefits – Reaching Households in Underserved Communities of Color in Connecticut by the Connecticut Green Bank (May 2019) – [click here](#).

²³ <https://www.ctgreenbank.com/cgb-enters-green-bond-market/>

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

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



In order to store the system’s production that would have been exported to the grid for the purposes of later using it for (1) back-up power that would benefit the household, and/or (2) reducing demand, specifically peak demand, that would benefit all ratepayers, the Green Bank submitted an application into the Electric Efficiency Partners Program (EEPP).²⁴ If approved, the Green Bank could offer a battery storage incentive to existing RSIP projects, thereby improving the overall value of the solar PV system to the household (e.g., emergency dispatch generation) as well as ratepayers (e.g., reducing peak demand).

Between the RSIP and the EEPP, the Green Bank working in partnership with local contractors, capital providers, EDCs, DEEP (and PURA), and residential homeowners, the Green Bank will be able to support the implementation of PA 15-194 and PA 07-242, respectively. The Green Bank has set targets for its Incentive Programs business unit for FY 2020 in terms of the number of projects, total investment (i.e., public and private), and installed capacity – see Table 2.

²⁴ Section 94 of Public Act 07-242

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

Program / Product	Projects	Total Investment	Installed Capacity (kW)
Residential Solar Investment Program	7,059	\$214,200,000	60,000
Electric Efficiency Partner Program ²⁵	500	\$5,500,000	3,000
Total	7,559	\$219,700,000	63,000

As a result of successfully achieving these targets, the Green Bank will reduce the energy burden on Connecticut families (especially underserved low-to-moderate income households and communities of color), create jobs in our communities, raise tax revenues for the State of Connecticut, and reduce air pollution causing local public health problems and contributing to global climate change.

5. Financing Programs

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

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

- **Commercial Property Assessed Clean Energy (“C-PACE”)**²⁶ – enables building owners to pay for clean energy improvements over time through a voluntary benefit assessment on their property tax bills. This process makes it easier for building owners to secure low-interest capital to fund energy improvements and is structured so that energy savings more than offset the benefit assessment.
- **Green Bank Solar PPA** – third-party ownership structure to deploy solar PV systems for commercial end-user customers (e.g., businesses, nonprofits, municipal and state governments, etc.) that uses a multi-year Power Purchase Agreement (“PPA”) to finance projects while reducing energy costs for the host customer.
- **Small Business Energy Advantage (“SBEA”)** – Eversource Energy administered on-bill commercial energy efficiency loan program for small businesses, in partnership with low-cost capital provided by Amalgamated Bank and the Green Bank.
- **Smart-E Loan** – residential loan program in partnership with local community banks and credit unions that provides easy access to affordable capital for homeowners to finance energy

²⁵ The Connecticut Green Bank has submitted a Technology Application (i.e., Docket No. 18-12-35) into PURA through the Electric Efficiency Partner Program in support of a residential battery storage incentive program in combination with the RSIP. Should PURA approve the application, then the Connecticut Green Bank will implement a battery storage incentive program for existing residential solar PV systems for the purposes of reducing demand, specifically peak demand.

²⁶ CGS 16a-40g

improvements on their properties through a partnership between local contractors and financial institutions, IPC, and the Green Bank.

- **Solar for All** – third-party ownership structure in partnership with PosiGen and IPC to deploy solar PV and energy efficiency for residential low-to-moderate income customers that uses a multi-year solar PV lease and energy efficiency Energy Savings Agreement (“ESA”) to finance projects while reducing energy costs for the host customer.
- **Multifamily Products** – defined as buildings with 5 or more units, the Green Bank provides a suite of financing options through IPC that support property owners to assess, design, fund, and monitor high impact green energy and health & safety improvements for their properties.
- **Strategic Investments** – as opportunities present themselves, the Green Bank from time-to-time invests as part of a capital structure in various projects. These projects are selected based on the opportunity to expand the organization’s experience with specific technologies, advance economic development in a specific locale, or to drive adoption of clean energy that would otherwise not occur.

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

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

Program / Product	Projects	Total Investment	Installed Capacity (kW)
Commercial PACE	56	\$22,000,000	5,600
Green Bank Solar PPA	34	\$28,125,000	12,700
Small Business Energy Advantage ²⁷	1,000	\$20,000,000	-
Smart-E Loan	540	\$7,182,000	500
Solar for All	615	\$17,202,165	4,200
Multifamily Predevelopment Loan	2	\$140,000	-
Multifamily Term Loan	9	\$1,493,000	300
Multifamily Catalyst Loan	2	\$110,000	-
Strategic Investments	3	\$10,000,000	-
Total	2,241	\$100,927,165	21,000

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

As a result of successfully achieving these targets, the Green Bank will contribute to its financial sustainability, while also reducing the energy burden on Connecticut families and businesses, create

²⁷ In partnership with Eversource Energy and Amalgamated Bank, the Connecticut Green Bank provides capital in support of the utility-administered Small Business Energy Advantage program to provide 0% on-bill financing up to 4-years for energy efficiency projects.

jobs in our communities, raise tax revenues for the State of Connecticut, and reduce air pollution that cause local public health problems and global climate change.

6. Impact Investment

The Green Bank pursues investment strategies that advance market transformation in green investing while supporting the organization's pursuit of financial sustainability. With the mission to increase and accelerate the flow of capital into markets that energize the green economy and extend the reach of its benefits to all of society, the Green Bank leverages limited public resources to scale-up and mobilize private capital investment in the green economy of Connecticut.

6.1 State Funds

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

System Benefit Charge – Clean Energy Fund

As its primary source of public capital, the Green Bank through CGS 16-245n(b) receives a 1 mill surcharge called the Clean Energy Fund ("CEF") from ratepayers of Eversource Energy and Avangrid. The CEF has been in existence since Connecticut deregulated its electric industry in the late 1990's.²⁸ On average, households contribute between \$7-\$10 a year for the CEF, which the Green Bank leverages to attract multiples of private capital investment in the green economy of Connecticut.²⁹

Regional Greenhouse Gas Emission Allowance Proceeds

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

6.2 Federal Funds

The Green Bank receives public capital through a number of past, current, and future sources³⁰ of federal funds as well that it leverages to scale-up and mobilize private capital investment in the green economy of Connecticut.

American Recovery and Reinvestment Act

Through the American Recovery and Reinvestment Act ("ARRA") the CCEF received \$20 million for its programs and initiatives. After nearly \$12 million of those funds were invested as grants, the Green Bank invested the remaining \$8.25 million in financing programs. With nearly \$2 million of ARRA funds left,³¹ the Green Bank invested over \$6.25 million of ARRA funds to attract and mobilize more than \$110 million of public and private investment in residential clean energy financing programs.

²⁸ Public Act 98-28 "An Act Concerning Electric Restructuring"

²⁹ The Clean Energy Fund should not be mistaken with the Conservation Adjustment Mechanism (or the Conservation and Loan Management Fund), which is administered by the EDCs

³⁰ There have been ongoing public policy proposals at the national level that the Connecticut Green Bank has been a part of to create a US Green Bank. If such a public policy were passed, then the Connecticut Green Bank would have access to significant federal funds to leverage to scale-up and mobilize private capital investment in the green economy of Connecticut.

³¹ As of July 1, 2019

United States Department of Agriculture

The Green Bank is seeking to apply to the United States Department of Agriculture (“USDA”) to seek access to low-cost and long-term federal loan funds for the deployment of clean energy in rural communities.³² The USDA has vast lending authority under the Rural Electrification Act of 1936, which enables direct loans, project financing and loan guarantees to a variety of borrowers.

6.3 Green Bonds

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

Connecticut’s climate change plan³³ focuses on three mitigation wedges (see Figure 4), including:

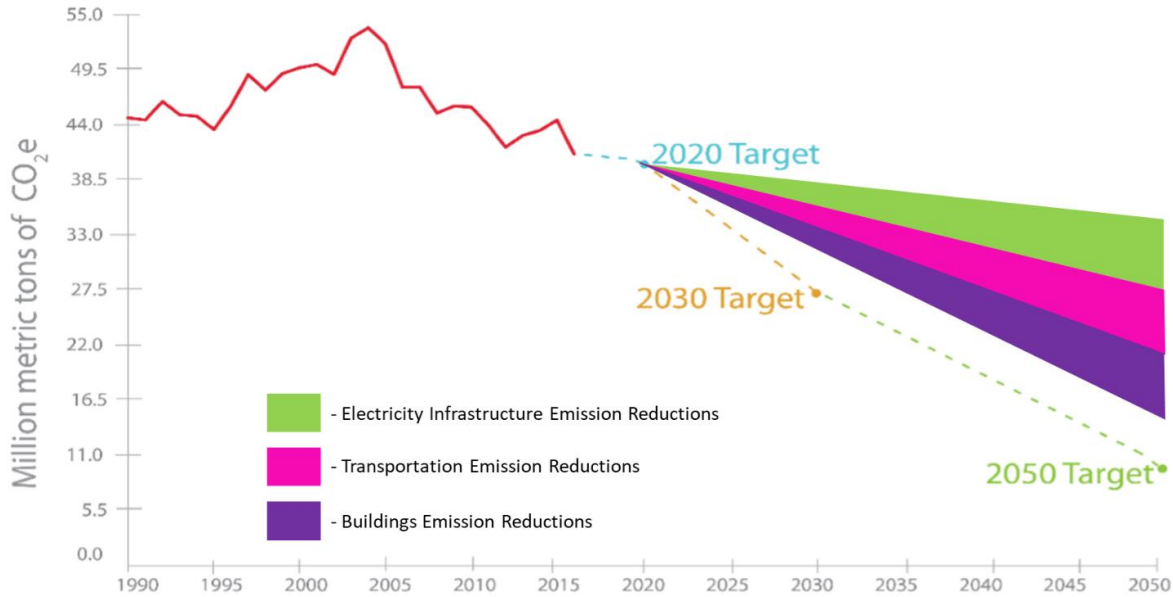
- **Decarbonizing Electricity Infrastructure** – representing nearly 23% of GHG emissions, electricity generation in Connecticut must be transitioned to zero-carbon renewable energy sources. Strategies include financing for in-state or regional utility-scale renewable energy resources (e.g., community solar, wind, run-of-the-river hydro, food-waste-to-energy, etc.) and financing and incentives for in-state distributed energy resources (e.g., behind the meter solar PV, battery storage, fuel cells, combined heat and power, etc.) that assist with the implementation of the Class I and III Renewable Portfolio Standard, Regional Greenhouse Gas Initiative, and other public policies;
- **Decarbonizing Transportation** – representing over 35% of GHG emissions, transportation in Connecticut is the largest emitting sector that must be transitioned to zero-carbon. Strategies for zero-carbon transportation include financing for ZEV’s (i.e., EVs and FCEVs) and ZEV infrastructure for passenger vehicles and public transit to reduce GHG emissions per vehicle miles travelled, as well as supporting voluntary (e.g., carbon offset) and regulatory (e.g., Transportation Climate Initiative) markets for cleaner transportation that transition from fossil fuel to renewable energy; and
- **Decarbonizing Buildings** – representing over 30% of GHG emissions, residential, commercial, and industrial buildings are the second largest emitting sector that must be transitioned to zero-carbon. Strategies for zero-carbon buildings include financing and incentives for energy efficiency (e.g., thermal insulation, appliances, etc.) and renewable heating and cooling (e.g.,

³² “Rural” communities are defined by a population bound and the various limits depend on the program; at the broadest, “rural” may be considered a town that has a population not greater than 50,000 people. Despite its positioning in a mostly-developed corridor, we estimate Connecticut would have 69% of towns eligible at the 20,000-person limit and 89% of towns at the 50,000-person limit.

³³ “Building a Low Carbon Future for Connecticut – Achieving a 45% GHG Reduction by 2030” recommendations from the Governor’s Council on Climate Change (December 18, 2018)

air source heat pumps, ground source heat pumps, heat pump water heaters, etc.) that transition from fossil fuel to renewable energy.

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



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

7. Citizen Engagement

The Connecticut Green Bank, and its predecessor the Connecticut Clean Energy Fund (CCEF), have a long-standing history of citizen engagement within the communities of Connecticut. In 2002, the CCEF partnered with six private foundations³⁴ to co-found SmartPower – which launched the 20 percent by 2010 campaign and led the administration of the CCEF’s EPA award-winning Connecticut Clean Energy Communities Program.³⁵ Then in 2013, the Green Bank launched a series of Solarize campaigns in communities across the state in partnership with SmartPower and the Yale Center for Business and the Environment,³⁶ while also advancing the SunShot Initiative of the U.S. Department of Energy (DOE) in partnership with the Clean Energy States Alliance through projects that reduce soft-costs for solar PV

³⁴ Emily Hall Tremain Foundation, The John Merck Fund, Pew Charitable Trust, The Oak Foundation, Rockefeller Brothers Fund, and Surdna Foundation

³⁵ “Climate Policy and Voluntary Initiatives: An Evaluation of the Connecticut Clean Energy Communities Program,” by Matthew Kotchen for the National Bureau of Economic Research (Working Paper 16117).

³⁶ “Solarize Your Community: An Evidence-Based Guide for Accelerating the Adoption of Residential Solar” by the Yale Center for Business and the Environment.

(i.e., customer acquisition, permitting, and financing) and provide better access to solar PV for low-to-moderate income households.

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

7.1 Green Bonds US Campaign

From markets to communities, the Green Bank has been bringing people together to energize the green economy and improve lives since its founding. Despite the benefits of “green” being well documented, our behaviors have yet to change at a rate and scale that could reverse the impact of climate change. To adequately address the situation at hand, we all need to recognize how we share a mutual interest in the protection of each other’s personal health, safety and happiness.

“Green Bonds US” is a multimedia awareness campaign that is centered on the power of community. And as the name suggests, it carries a simple but critically important message; green brings us together, green bonds us. Through emotionally compelling copy and media, the campaign’s aim is to personalize the global challenge of climate change and inspire action through community.

The “Green Bonds US” campaign is also being leveraged to promote the Green Bank’s inaugural offering of mini green bonds. In keeping with the organization’s drive to make “green” more accessible and affordable, the low denomination, or “mini” bonds present a greater opportunity for people to benefit from the growing green economy.

7.2 Sustainable CT

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

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

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

8. Evaluation Framework and Impact Methodologies

The Green Bank’s evaluation efforts seek to understand how the increase in investment and deployment of clean energy supported through the Green Bank, result in benefits to society. To that

end, the Green Bank has devised an Evaluation Framework and impact methodologies for various societal benefits.

8.1 Evaluation Framework

The Green Bank has established an Evaluation Framework to guide the assessment, monitoring and reporting of the program impacts and processes, including, but not limited to energy savings and clean energy production and the resulting societal impacts or benefits arising from clean energy investment.³⁷ This framework focuses primarily on assessing the market transformation the Green Bank is enabling, including:

- **Supply of Capital** – including affordable interest rates, longer term maturity options, improved underwriting standards, etc.
- **Consumer Demand** – increasing the number of projects, increasing the comprehensiveness of projects, etc.
- **Financing Performance Data and Risk Profile** – making data publicly available to reduce perceived technology risks by current or potential private investors.
- **Societal Impact** – the benefits society receives from more investment and deployment of clean energy.

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

8.2 Impact Methodologies

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

- **Jobs** – working in consultation with the Connecticut Department of Economic and Community Development ("DECD"), through the work of Navigant Consulting, the Green Bank devised a methodology that takes investment in clean energy to reasonably estimate the direct, indirect, and induced job-years resulting from clean energy deployment.³⁸
- **Tax Revenues** – working in consultation with the Connecticut Department of Revenue Services ("DRS"), through the work of Navigant Consulting, the Green Bank devised a methodology that takes investment in clean energy to reasonably estimate the individual income, corporate, and sales tax revenues from clean energy deployment.³⁹

³⁷ <https://ctgreenbank.com/wp-content/uploads/2017/02/CTGreenBank-Evaluation-Framework-July-2016.pdf>

³⁸ https://www.ctgreenbank.com/wp-content/uploads/2018/03/CGB_DECD_Jobs-Study_Fact-Sheet.pdf

³⁹ <https://www.ctgreenbank.com/wp-content/uploads/2018/09/CGB-Eval-Tax-Methodology-7-24-18.pdf>

- **Environmental Protection** – working in consultation with the United States Environmental Protection Agency (“EPA”) and DEEP, the Green Bank devised a methodology that takes the reduction in consumption energy and increase in the production of clean energy to reasonably estimate the air emission reductions (i.e., CO₂, NO_x, SO₂, and PM_{2.5}) resulting from clean energy deployment.⁴⁰
- **Public Health Improvement** – working in consultation with the EPA, DEEP, and the Connecticut Department of Public Health (“DPH”), the Green Bank devised a methodology that takes air emission reductions to reasonably estimate the public health benefits (e.g., reduced hospitalizations, reduced sick days, etc.) and associated savings to society resulting from clean energy deployment.⁴¹

Each year, the Green Bank develops additional methodologies that value the impact the Green Bank is helping create in Connecticut and all of society. For more information on the Green Bank’s impact methodologies, visit the Impact page of the website.⁴²

The Green Bank’s efforts to increase investment in and deployment of clean energy projects – which result in increased benefits to Connecticut and all of society – can also be looked at through the lens of the United Nation’s Sustainable Development Goals (“UNSDG’s”).⁴³ The UNSDG’s include, but are not limited to – reducing poverty, improving health and well-being, cleaner water, making clean energy affordable, increasing economic development, reducing inequalities, supporting sustainable communities, increasing recycling, and confronting climate change – areas where the Green Bank is measuring (or will measure) the impacts of its investments.

9. Reporting and Transparency

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

9.1 Comprehensive Annual Financial Report (CAFR)

A Comprehensive Annual Financial Report (CAFR) is a set of government financing statements that includes the financial report of a state, municipal or other government entity that complies with the accounting requirements promulgated by the Governmental Accounting Standards Board (GASB). GASB provides standards for the content of a CAFR in its annually updated publication *Codification of Governmental Accounting and Financial Reporting Standards*. A CAFR is compiled by a public agency’s accounting staff and audited by an external American Institute of Certified Public Accountants (AICPA) certified accounting firm utilizing GASB requirements. It is composed of three sections – Introductory, Financial, and Statistical. The independent audit of the CAFR is not intended to include an assessment

⁴⁰ <https://www.ctgreenbank.com/wp-content/uploads/2018/01/CGB-Eval-IMPACT-091917-Bv2.pdf>

⁴¹ <https://www.ctgreenbank.com/wp-content/uploads/2018/03/CGB-Eval-PUBLICHEALTH-1-25-18-new.pdf>

⁴² <http://www.ctgreenbank.com/strategy-impact/impact/>

⁴³ <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

of the financial health of participating governments, but rather to ensure that users of their financial statements have the information they need to make those assessments themselves.⁴⁴

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

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

As the "gold standard" in government reporting, the CAFR is the mechanism the Green Bank uses to report its fiscal year financial and investment performance – including societal benefits and impacts – to its stakeholders.

9.2 Annual Report

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

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

- [Fiscal Year 2012 Annual Report](#)
- [Fiscal Year 2013 Annual Report](#)
- [Fiscal Year 2014 Annual Report](#)
- [Fiscal Year 2015 Annual Report](#)
- [Fiscal Year 2016 Annual Report](#)
- [Fiscal Year 2017 Annual Report](#)
- [Fiscal Year 2018 Annual Report](#)

9.3 Auditors of Public Account

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

⁴⁴ The Government Finance Officers Association (GFOA), founded in 1906, represents public finance officials throughout the United States and Canada. GFOA's mission is to enhance and promote the professional management of governmental financial resources by identifying, developing, and advancing fiscal strategies, policies, and practices for the public benefit. GFOA established the Certificate of Achievement for Excellent in Financial Reporting Program (CAFR Program) in 1945 to encourage and assist state and local governments to go beyond the minimum requirements of generally accepted accounting principles to prepare comprehensive annual financial reports that evidence the spirit of transparency and full disclosure and then to recognize individual governments that succeed in achieving that goal.

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

- [Fiscal Years 2012 and 2013](#)
- [Fiscal Years 2014 and 2015](#)

9.4 Open Connecticut

Open Connecticut centralizes state financial information to make it easier to follow state dollars. In Connecticut quasi-public agencies are required to submit annual reports to the legislature, including a summary of their activities and financial information. In addition to that, the Comptroller's office requested that quasi-public agencies voluntarily provide checkbook-level vendor payment data for display on Open Connecticut. The Connecticut Green Bank, which was among the first quasi-public organizations to participate, has voluntarily submitted this information since the inception of Open Connecticut.⁴⁵

9.5 Stakeholder Communications

The Green Bank holds quarterly stakeholder webinars to update the general public on the progress it is making with respect to its Comprehensive Plan and annual targets.⁴⁶ Through these webinars, the Green Bank staff invite questions from the audience. These webinars are announced through the Green Bank's list serve consisting of thousands of stakeholders as well as the events page of its website.⁴⁷

The Green Bank also issues a monthly e-newsletter through its list serve that provides key topics in the news and important information on products, programs and services.⁴⁸

10. Research and Product Development

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

- **Shared Clean Energy Facilities** – to support the decarbonizing the electricity infrastructure climate change wedge, while reducing the burden of energy costs on Connecticut's families and businesses, the Green Bank will seek to apply its experience administering the RSIP to supporting and investing in shared clean energy facilities (or community solar projects) with a focus on low-to-moderate income families;
- **Energy Burden from Transportation** – as Operation Fuel has done an exceptional job quantifying the energy burden for electricity use and heating of homes, understanding the

⁴⁵ <https://www.osc.ct.gov/openCT/quasi.html>

⁴⁶ <https://www.ctgreenbank.com/news-events/webinars/>

⁴⁷ <https://www.ctgreenbank.com/news-events/events-calendar/>

⁴⁸ <https://www.ctgreenbank.com/newsletters/>

energy burden from transportation (i.e., gasoline to fuel vehicles) will help the Green Bank and others (e.g., Department of Housing, Connecticut Housing and Finance Authority, Partnership for Strong Communities, etc.) understand its role in addressing the decarbonization of transportation emissions climate change wedge.

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

DRAFT

11. Budgets and Investments

11.1 FY 2020 Budget and Investments

For the details on the FY 2020 budget and investments – [click here](#). For an overview of the FY 2020 budget and investments, see Figures 5 through 7.

Figure 5. Sources of Revenues for FY 2020 (\$MM's)

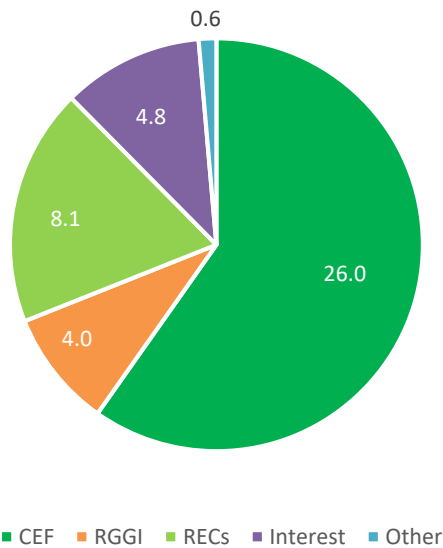


Figure 6. Sources of Expenses for FY 2020 (\$MM's)

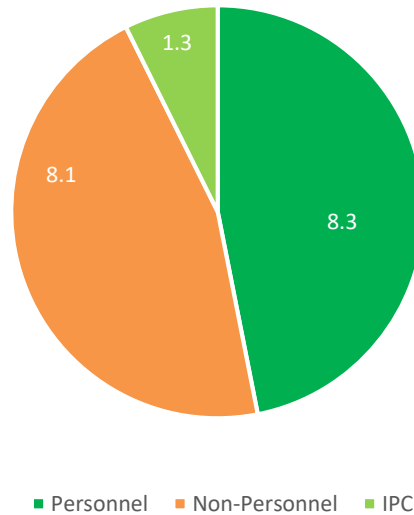
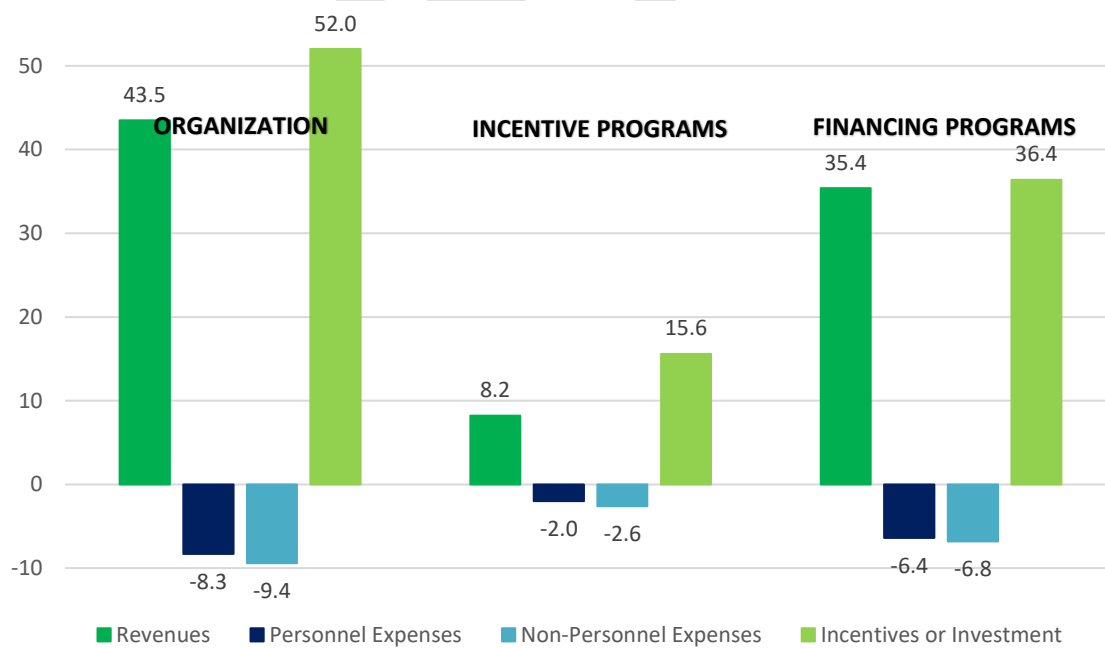


Figure 7. Revenues, Expenses, and Incentives or Investments for FY 2020 (\$MM's) – Organization, Incentive Programs, and Financing Programs





HARVARD Kennedy School

ASH CENTER

for Democratic Governance
and Innovation





845 Brook Street
Rocky Hill, CT 06067

300 Main Street, 4th Floor
Stamford, CT 06901