



**CLEAN ENERGY**  
**FINANCE AND INVESTMENT AUTHORITY**

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Rocky Hill, Connecticut 06067

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Stamford, Connecticut 06901

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October 10, 2014

Dear Connecticut Green Bank Board of Directors:

Our next regularly scheduled meeting of the Board of Directors will be on Friday, October 17, 2014 from 9:00 to 11:00 a.m. in the Colonel Albert Pope Board Room of the Connecticut Green Bank at 845 Brook Street, Rocky Hill, CT 06067.

On the agenda we have:

- **Consent Agenda** – in order to make meetings more efficient and for us to be able to cover all topics within the allotted time, we will be including a consent agenda item. Within this agenda item, we have two (2) items, including the revised bylaws for the Green Bank taken up by the Audit, Compliance and Governance Committee, and recurring PSA's for services within our FY 2015 Budget and pursued subject to the implementation of the Operating Procedures. The chair will announce these items on the consent agenda, ask if any item should be removed, then declare the consent agenda adopted unless there's objection.
- **Commercial Sector Programs** – we are bringing several C-PACE transactions for your review and approval.
- **Residential Sector Programs** – per the request from the board of directors at its last meeting, we are bringing forth an analysis by the University of Connecticut of how the projects supported to date have reached the low income market segment. We will discuss the findings of the analysis and expect to bring back to the board in December a description of the programs we are implementing along with new concepts to further advance our efforts to support clean energy deployment in this important market segment.
- **Audit, Compliance, and Governance Committee** – based on the review and final recommendations to the Board of Directors by the ACG Committee meeting next Wednesday, we will be bringing forth the Audited Financial Statements, Federal Single Audit Report, and Comprehensive Annual Financial Report (CAFR) for FY 2014. We will also be bringing forth a legislative proposal for the 2015 session called the "Solar Home and Jobs Opportunity Act". As you may recall in our discussions on the Residential Solar Investment Program at the last meeting, our policy focus is to direct funds from the Class I Renewable Portfolio Standard (RPS) through Renewable Energy Credits (RECs) to install more in-state solar PV projects to create jobs and support local economic development. We are proposing the creation of a Solar Home Renewable Energy Credit (SHREC).

- **Role of a Green Bank** – we wanted to initiate a discussion with the members of the board on the role of a green bank. At this meeting, we pose to address three (3) key questions:

1. Has the change in the model from the CCEF to the CGB resulted in tangible deployment and public benefit results?
2. Is the CGB creating an environment that uses its limited resources to attract more private investment in Connecticut? Where is it working? Where is it not working?
3. Is the CGB using its limited resources more responsibly?

Our hope is to start engaging the board to think about the role of a green bank. At our next meeting in December, we will then focus on our sector product snapshots to look at the evolution of our products and programs with an eye towards the future. We have provided you with a lot of background reading materials to prepare you for this discussion.

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

We look forward to seeing you next week.

Sincerely,

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

Bryan Garcia  
President and CEO



# CLEAN ENERGY FINANCE AND INVESTMENT AUTHORITY

## AGENDA

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

Friday, October 17, 2014  
9:00-11:00 a.m.

Staff Invited: Jessica Bailey, George Bellas, Andy Brydges, Mackey Dykes, Brian Farnen,  
Bryan Garcia, Dale Hedman, Bert Hunter, and Kerry O'Neill

1. Call to order
2. Public Comments – 5 minutes
3. Approval of meeting minutes for August 26, 2014\* – 5 minutes
4. Update from the President – 5 minutes
5. Consent Agenda\* – 5 minutes
  - a. Approval of Updated Green Bank Bylaws\*
  - b. Operations Matters – Personal Services Agreements\*
6. Commercial Sector Program Updates and Recommendations\* – 15 minutes
  - a. C-PACE Transactions\*
    - i. Enfield – C-PACE Transaction
    - ii. Avon – C-PACE Transaction
    - iii. Danbury – C-PACE Transaction
    - iv. Plainville – C- PACE Transaction
    - v. Milford – C-PACE Transaction
  - b. SRS Professional Service Agreement Request\*
7. Residential Sector Program Updates – 15 minutes
  - a. Low Income Residential Solar PV Penetration Update – Where are We Now
8. Audit, Compliance and Governance Committee\* – 25 minutes

- a. FY 2014 Comprehensive Annual Financial Report (i.e., the audit)
  - b. Legislative Update
9. Role of a Green Bank – 45 minutes

Key discussions on the first three (3) years of operations:

- 1. Has the change in the model from the CCEF to the CGB resulted in tangible deployment and public benefit results?
  - 2. Is the CGB creating an environment that uses its limited resources to attract more private investment in Connecticut? Where is it working? Where is it not working?
  - 3. Is the CGB using its limited resources more responsibly?
10. Other Business – 5 minutes
- a. Executive Session – Review of the Performance of the President and CEO
11. Adjourn

\*Denotes item requiring Board action

Join the meeting online at <https://www4.gotomeeting.com/join/775983007>

Dial +1 (805) 309-0012

Access Code: 775-983-007

***Next Regular Meeting: Friday, December 19, 2014 from 9:00-11:00 a.m.  
Colonel Albert Pope Board Room at the  
Clean Energy Finance and Investment Authority, 845 Brook Street, Rocky Hill, CT***



# CLEAN ENERGY

## FINANCE AND INVESTMENT AUTHORITY

### RESOLUTIONS

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

Friday, October 17, 2014  
9:00-11:00 a.m.

Staff Invited: Jessica Bailey, George Bellas, Andy Brydges, Mackey Dykes, Brian Farnen, Bryan Garcia, Dale Hedman, Bert Hunter, and Kerry O'Neill

1. Call to order
2. Public Comments – 5 minutes
3. Approval of meeting minutes for August 26, 2014\* – 5 minutes

#### Resolution #1

Motion to approve the minutes of the Board of Directors meeting for August 26, 2014.  
Second. Discussion. Vote.

4. Update from the President – 5 minutes
5. Consent Agenda\* – 5 minutes
  - a. Approval of Updated Green Bank Bylaws\*

#### Resolution #2

**WHEREAS**, the Connecticut Green Board of Directors (the “Board”) approved the Green Bank’s By-Laws pursuant to Section 16-245n of the Connecticut General Statutes on August 3, 2011 and made subsequent revisions;

**WHEREAS**, the Board intends to revise the By-Laws to reflect the name change to the Connecticut Green Bank and to formalize its participation in the Joint Committee of the Energy Conservation Management Board and the Green Bank;

**WHEREAS**, the Audit, Compliance, and Governance Committee recommended to the Board of Directors of the Connecticut Green Bank approval of the revisions to the Green Bank Bylaws as presented on July 17, 2014.

**NOW**, therefore be it:

**RESOLVED**, that the Board hereby approves the attached revised CEFA By-Laws dated October 17, 2014.

b. Operations Matters – Personal Services Agreements\*

**Resolution #3**

**NOW**, therefore be it:

**RESOLVED**, that the Connecticut Green Bank Board of Directors hereby authorizes Green Bank staff to extend the professional services agreements (PSAs) currently in place with:

- i. Locus Energy, LLC;
- ii. Marketing Drive, LLC; and
- iii. SmartPower, Inc.;

for the remainder of fiscal year 2015 with the amounts of each PSA not to exceed the applicable approved budget line item; and

**RESOLVED**, that the proper Connecticut Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents and instruments as they shall deem necessary and desirable to execute these extensions.

6. Commercial Sector Program Updates and Recommendations\* – 15 minutes

a. C-PACE Transactions\*

- i. 5 Old Depot Hill Road, Enfield – C-PACE Transaction

**Resolution #4**

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

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

**WHEREAS**, the Green Bank seeks to provide \$840,640 construction and (potentially) term loan under the C-PACE program to G&M Real Estate Enterprises, LLC, the property owner of 5 Old Depot Hill Road, Enfield CT (the “Loan”), to finance the construction of specified clean energy measures in line with the State’s Comprehensive Energy Strategy and the Green Bank’s Strategic Plan;

**NOW**, therefore be it:

**RESOLVED**, that the President of the Green Bank and any other duly authorized officer of the Green Bank, is authorized to execute and deliver the Loan in an amount not to be greater than one hundred ten percent of the Loan amount with terms and

conditions consistent with the memorandum submitted to the Board dated October 10, 2014, and as he or she shall deem to be in the interests of the Green Bank and the ratepayers no later than 120 days from October 17, 2014;

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

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

ii. 38 Security Drive, Avon – C-PACE Transaction

#### **Resolution #5**

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

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

**WHEREAS**, the Green Bank seeks to provide a \$629,352 construction and (potentially) term loan under the C-PACE program to Norwich Commercial Group, Inc., the property owner of 38 Security Drive, Avon, Connecticut (the "Loan"), to finance the construction of specified clean energy measures in line with the State's Comprehensive Energy Strategy and the Green Bank's Strategic Plan;

**NOW**, therefore be it:

**RESOLVED**, that the President of the Green Bank and any other duly authorized officer of the Green Bank, is authorized to execute and deliver the Loan in an amount not to be greater than one hundred ten percent of the Loan amount with terms and conditions consistent with the memorandum submitted to the Board dated October 10, 2014, and as he or she shall deem to be in the interests of the Green Bank and the ratepayers no later than 120 days from October 17, 2014;

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

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

iii. 80 Newtown Road, Danbury – C-PACE Transaction

## **Resolution #6**

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

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

**WHEREAS**, the Green Bank seeks to provide \$718,082 construction and (potentially) term loan under the C-PACE program to Danbury Hospitality, LLC, the property owner of 80 Newtown Road, Danbury, CT (the "Loan"), to finance the construction of specified clean energy measures in line with the State's Comprehensive Energy Strategy and the Green Bank's Strategic Plan;

**NOW**, therefore be it:

**RESOLVED**, that the President of the Green Bank and any other duly authorized officer of the Green Bank, is authorized to execute and deliver the Loan in an amount not to be greater than one hundred ten percent of the Loan amount with terms and conditions consistent with the memorandum submitted to the Board dated October 10, 2014, and as he or she shall deem to be in the interests of the Green Bank and the ratepayers no later than 120 days from October 17, 2014;

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

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

b. SRS Professional Service Agreement\*

## **Resolution #7**

**RESOLVED**, that the Board of Directors approves the execution of a professional service agreement ("PSA") with Sustainable Real Estate Solutions, Inc. for an amount not to exceed \$2,000,000 and consistent with the parameters of this memorandum to the Board dated October 9, 2014;

**RESOLVED**, that the President of CEFIA and any other duly authorized officer of CEFIA, is authorized to execute and deliver, any contract or other legal instrument necessary to effectuate such financing on such terms and conditions as he or she shall deem to be consistent with the Program and in the best interests of CEFIA and the ratepayers; and



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

7. Residential Sector Program Updates – 15 minutes
  - a. Low Income Residential Solar PV Penetration Update – Where are We Now
8. Audit, Compliance and Governance Committee\* – 25 minutes
  - a. FY 2014 Comprehensive Annual Financial Report (i.e., the audit)

**Resolution #8**

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

**WHEREAS**, the Committee recommended to the Board of Directors of the Green Bank for approval the 2014 Comprehensive Annual Financial Report (CAFR) which includes the Financial Statements and the Federal Single Audit Report of the Green Bank for the Fiscal Year Ending June 30, 2014. [PLEASE NOTE: ACG MEETING OCCURRING ON WEDNESDAY BEFORE BOARD MEETING SO THIS HAS NOT OCCURRED YET AND THIS IS SUBJECT TO THEIR REVIEW AND APPROVAL]

**NOW**, therefore be it:

**RESOLVED**, that the CEFIA Board of Directors approves the 2014 CAFR which includes the Financial Statements and the Federal Single Audit Report of the Connecticut Green Bank for the Fiscal Year Ending June 30, 2014 as presented on October 17, 2014.

- b. Legislative Update
9. Role of a Green Bank – 45 minutes

Key discussions on the first three (3) years of operations:

  1. Has the change in the model from the CCEF to the CGB resulted in tangible deployment and public benefit results?
  2. Is the CGB creating an environment that uses its limited resources to attract more private investment in Connecticut? Where is it working? Where is it not working?
  3. Is the CGB using its limited resources more responsibly?
10. Other Business – 5 minutes
  - a. Executive Session – Review of the Performance of the President and CEO

11. Adjourn

\*Denotes item requiring Board action

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# **Board of Directors of the Connecticut Green Bank**

**Agenda Item #1**

Call to Order

October 17, 2014



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## **Board of Directors of the Connecticut Green Bank**

**Agenda Item #2**

Public Comments

October 17, 2014



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## **Board of Directors of the Connecticut Green Bank**

### **Agenda Item #3**

Approval of Meeting Minutes of August 26, 2014

October 17, 2014



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## **Board of Directors of the Connecticut Green Bank**

### **Agenda Item #4**

Update from the President

October 17, 2014

# US Bank Partnership

## Connecticut as a Catalyst



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At an event hosted by US Bank in San Francisco, Zach Boyers noted that US Bank has completed 1.7 GW of solar PV projects – about 1 GW has been commercial or utility scale solar, while 700 MW has been in residential. He noted that their start in doing billions of dollars of investment in the renewable energy space commenced with Solar Lease ONE - its transaction with the Connecticut Clean Energy Fund!

Zach Boyers  
CEO of US Bank's CDC  
October 9, 2014

FuelCell Energy



This is wicked cool!

4.9  
Benefits of Ultra Clean, Efficient and Reliable Power  
FuelCell Energy  
CLEAN ENERGY  
EFFICIENCY AND INNOVATION



Bridgeport will  
win the race to  
**ZERO WASTE**



Mayor Bill Finch







- Losing 11 million gallons per year is equivalent to filling this pool...


































...with boiling water...

# Connecticut Valley Hospital



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Mon	Tues	Wed	Thurs	Fri	Sat	Sun
29	30	1 	2 	3 	4 	5 
6 	7 	8 	9 	10 	11 	12 
13 	14 	15 	16 	17 	18 	19 
20 	21 	22 	23 	24 	25 	26 
27 	28 	29 	30 	31 	1	2

**every day, every month, every year...**





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## **Board of Directors of the Connecticut Green Bank**

**Agenda Item #5**

Consent Agenda

October 17, 2014



- ▶ **Revisions to Bylaws** – inclusion of name change to “Connecticut Green Bank” and overview of the “Joint Committee of the ECMB and CGB”
- ▶ **PSA’s** – approval of PSA’s for services within FY 2015 budget and in accordance with Operating Procedures
  - ▶ Locus Energy – metering equipment and monitoring services for RSIP and RECs
  - ▶ MatchDrive – marketing support
  - ▶ SmartPower – marketing support with Solarize and Energize community-based campaigns



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## **Board of Directors of the Connecticut Green Bank**

### **Agenda Item #6**

Commercial Sector Program Updates and Recommendations

October 17, 2014

# Reflect: Snapshot of progress



## ▶ What have we done

- ▶ \$27M closed (37) deals;
- ▶ \$23.7M (26) approved
- ▶ \$50MM since inception
- ▶ 95 towns = 85% eligible market covered
- ▶ 25 banks have provided mortgage lender consent
- ▶ 30 contractors have approved projects
- ▶ Over 100 contractors registered



# C-PACE Update

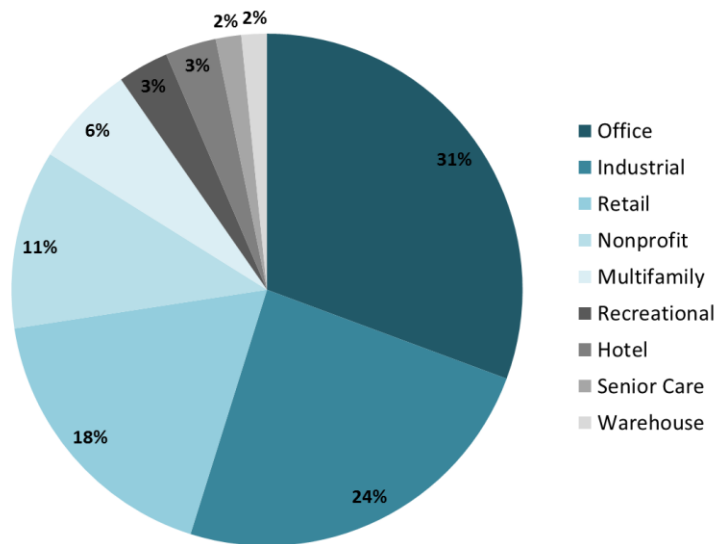


- ▶ **Closed**
  - ▶ 37 Deals
  - ▶ \$26.59M in financing
- ▶ **Approved**
  - ▶ 26 Deals\*
  - ▶ \$23.27M in financing\*

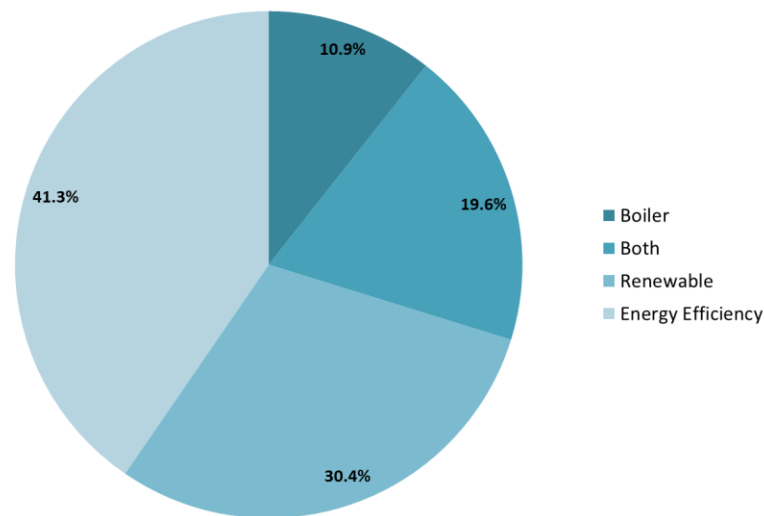
*\*Includes 10/17 BOD transactions*

- ▶ **Annual Energy Savings: 95,518 MMBtu/year**
- ▶ **Clean Energy Deployed: Over 7.5 MW**

**Approved C-PACE Projects (Building Type)**

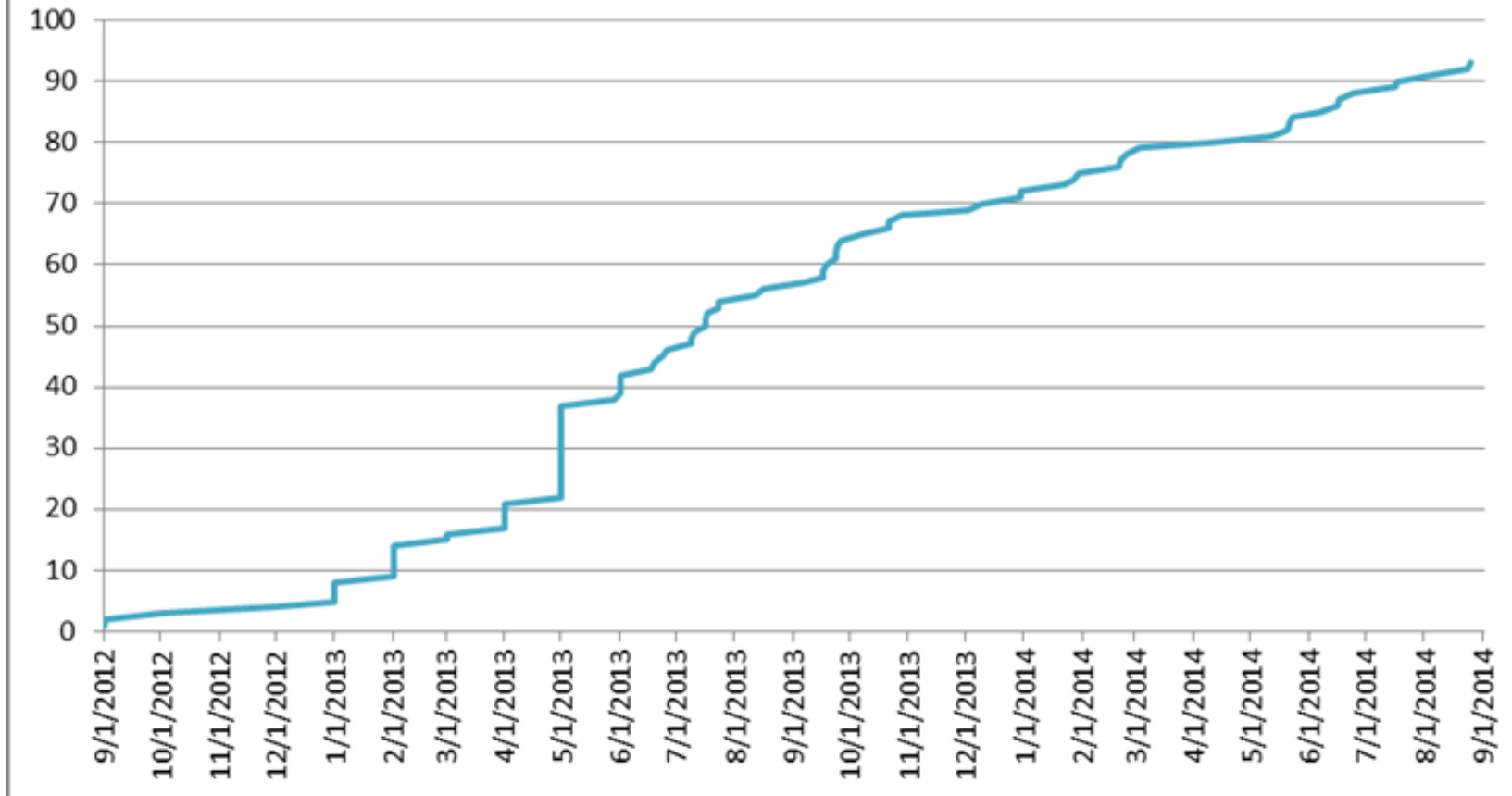


**Approved C-PACE Projects (Project Type)**  
(# of projects)



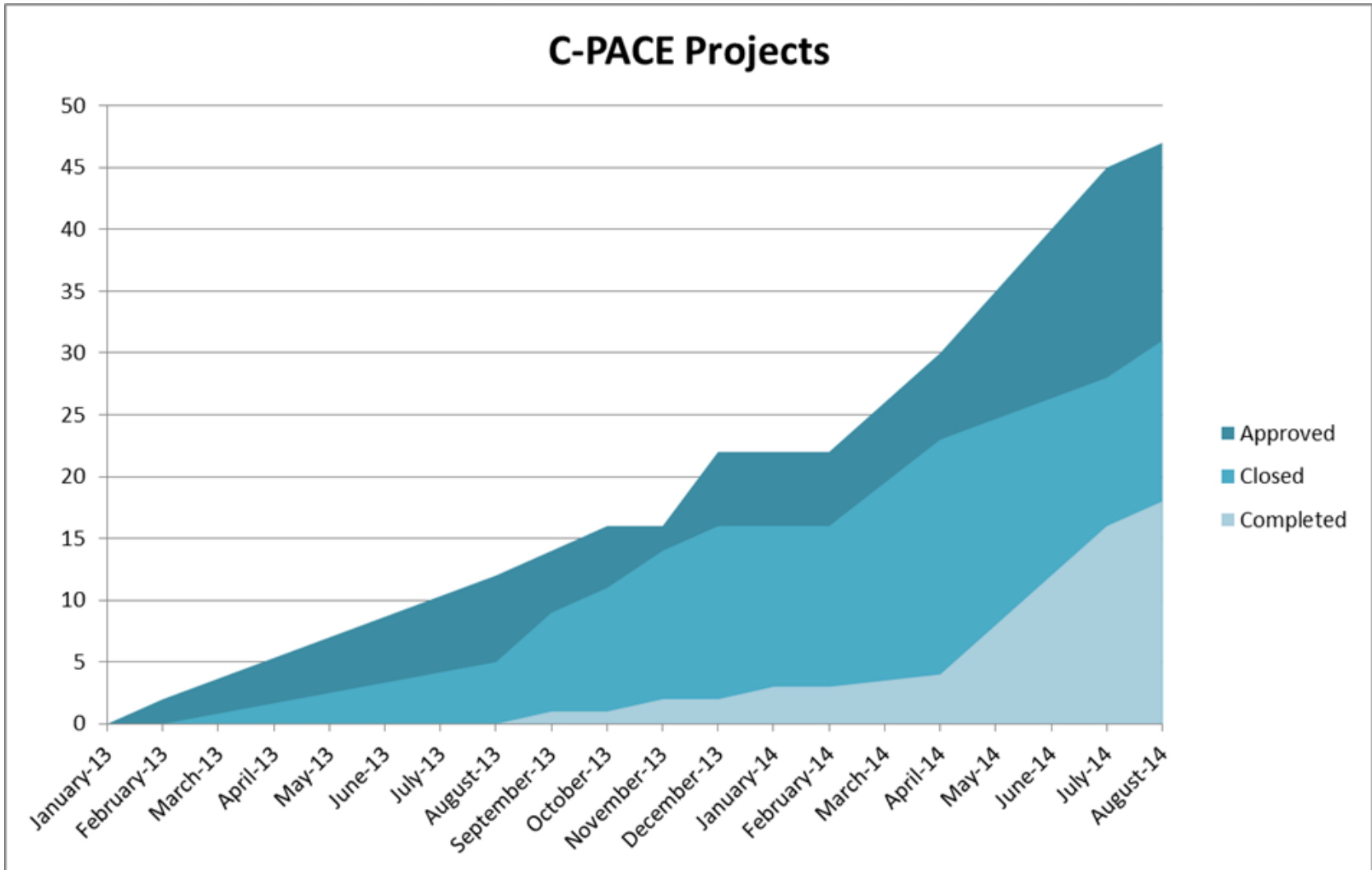


## Towns Adopting C-PACE



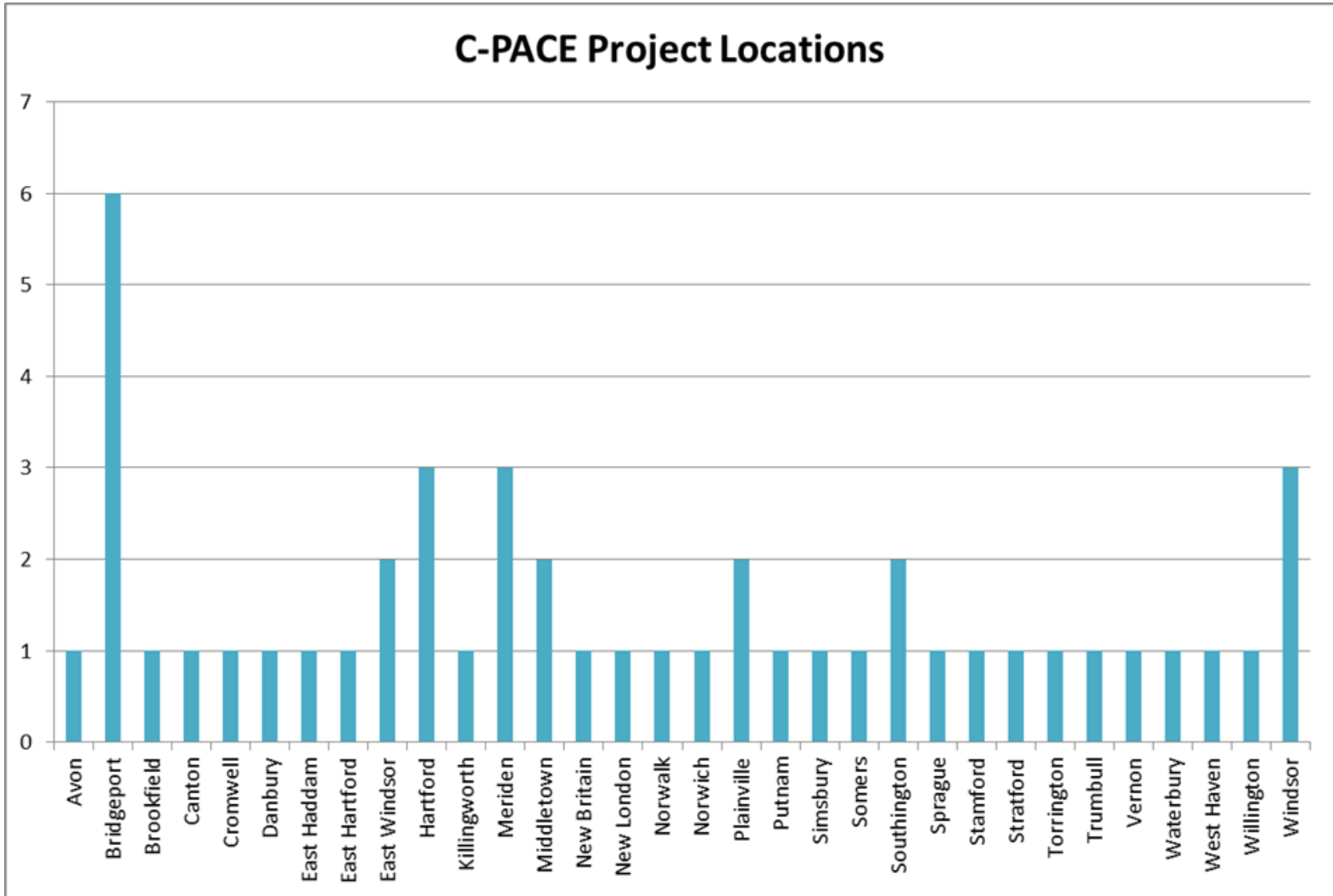


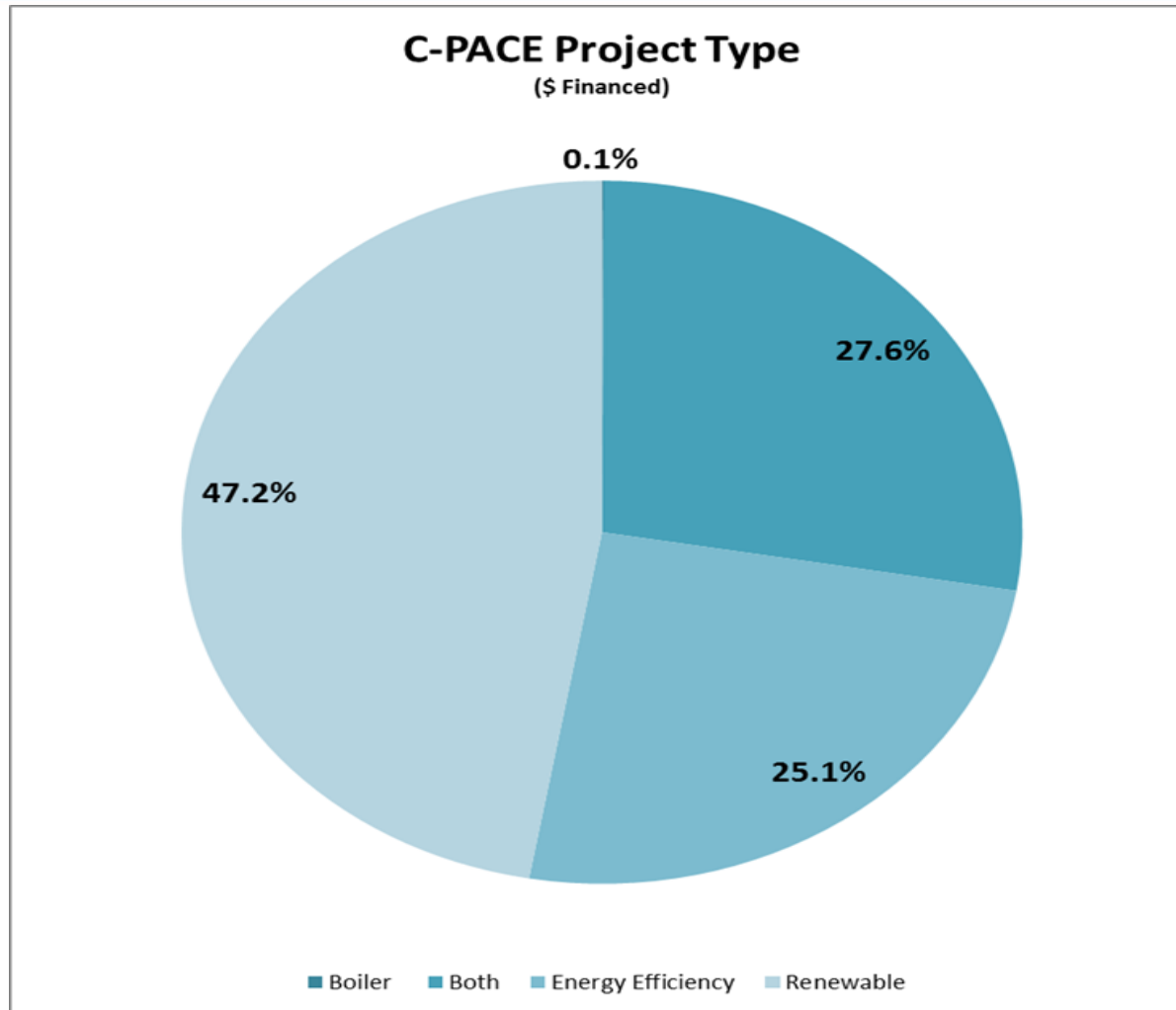
### C-PACE Projects





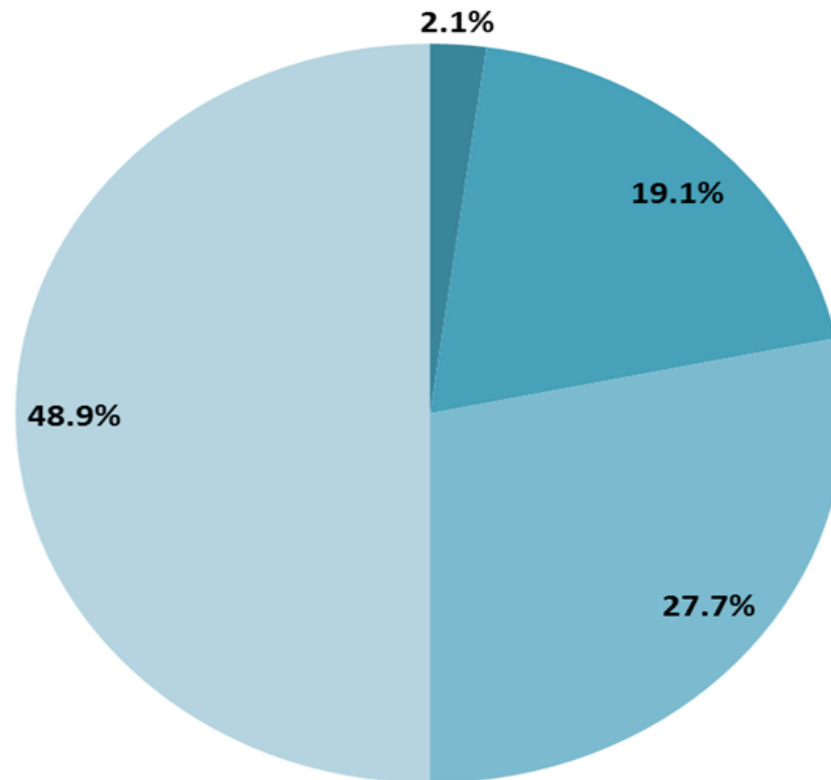
### C-PACE Project Locations







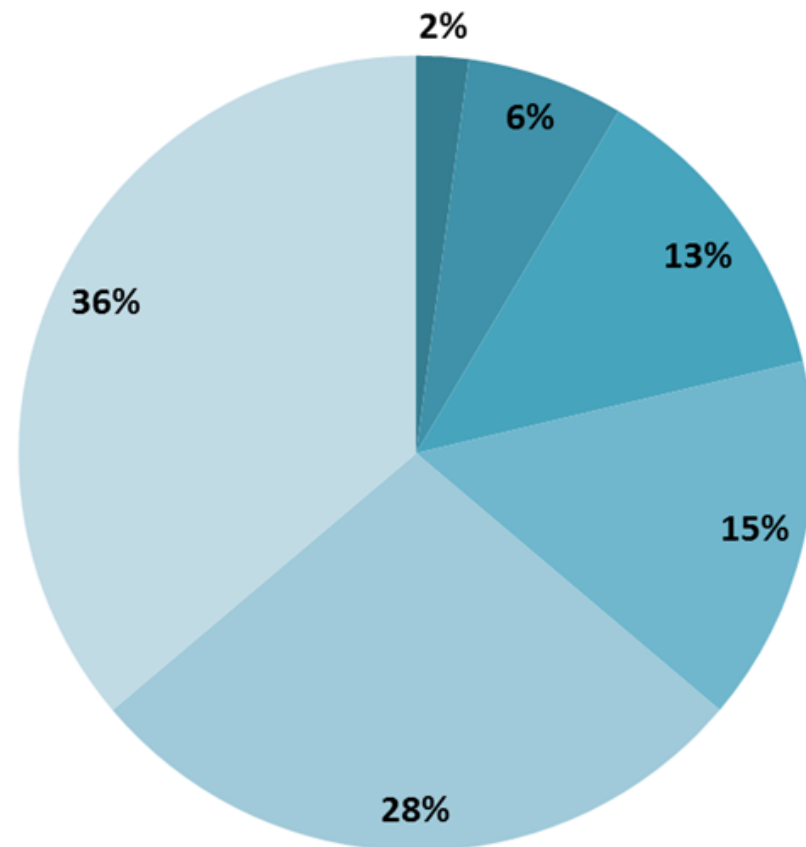
### C-PACE Project Type (# of projects)



■ Boiler ■ Both ■ Energy Efficiency ■ Renewable

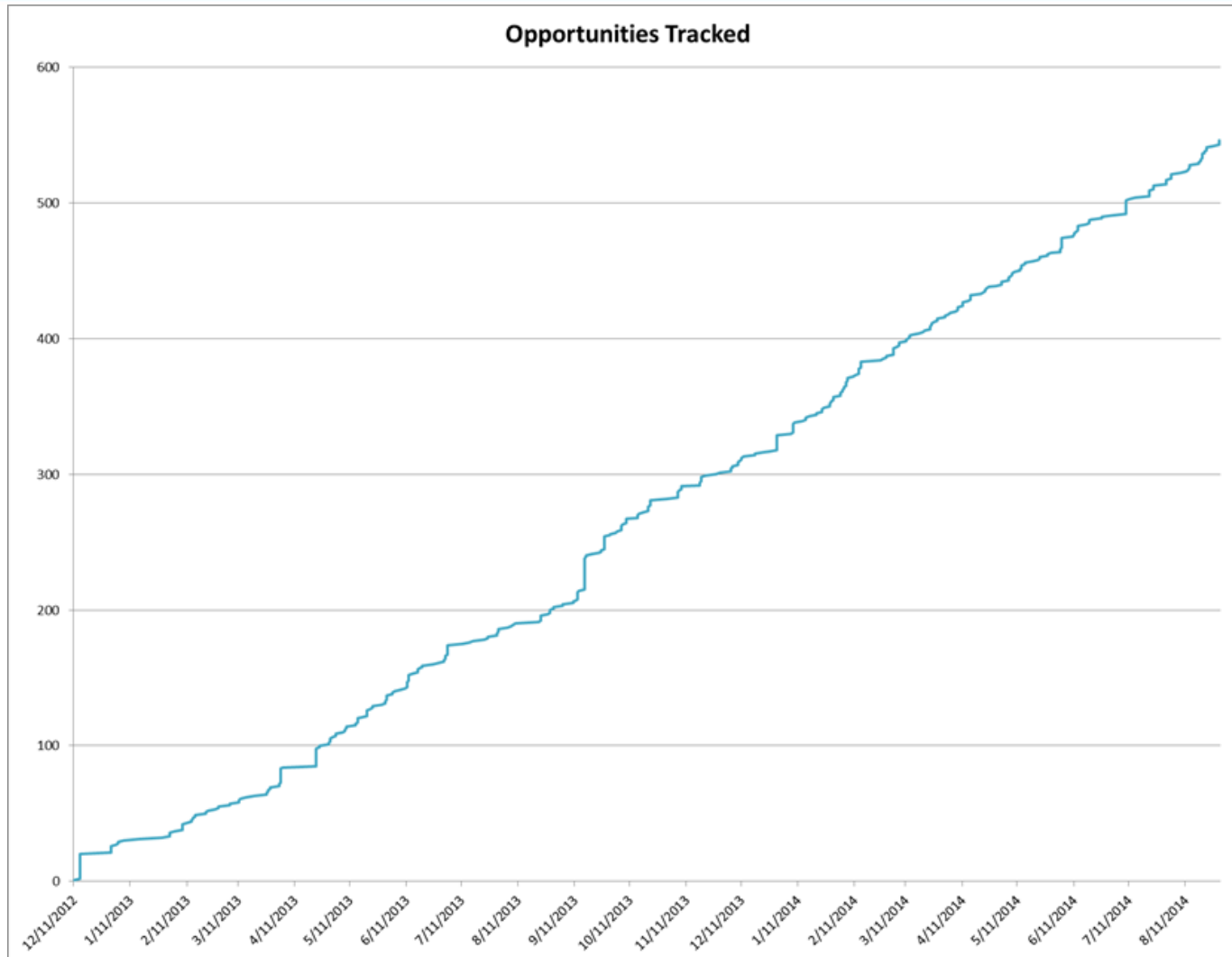


### C-PACE Property Type



■ Hotel ■ Multifamily ■ Non profit ■ Retail ■ Industrial ■ Office

# Applications







## GOAL OF C-PACE

- ▶ to maximize private capital deployed
- ▶ to maximize clean energy installed in CT
- ▶ to become self-sustainable and replicable

# Reflect: What did we do?



## Statutory

- Bring on municipalities
- Design technical standards and approve SIR
- Secure lender consent
- Establish credit enhancement
- Require muni to place lien and collect assessments



## Programmatic

- Marketing and outreach
- Solve problems (ex audit or appraisal fund)
- Support to building owners and contractors
- CDMP review process



## Warehouse

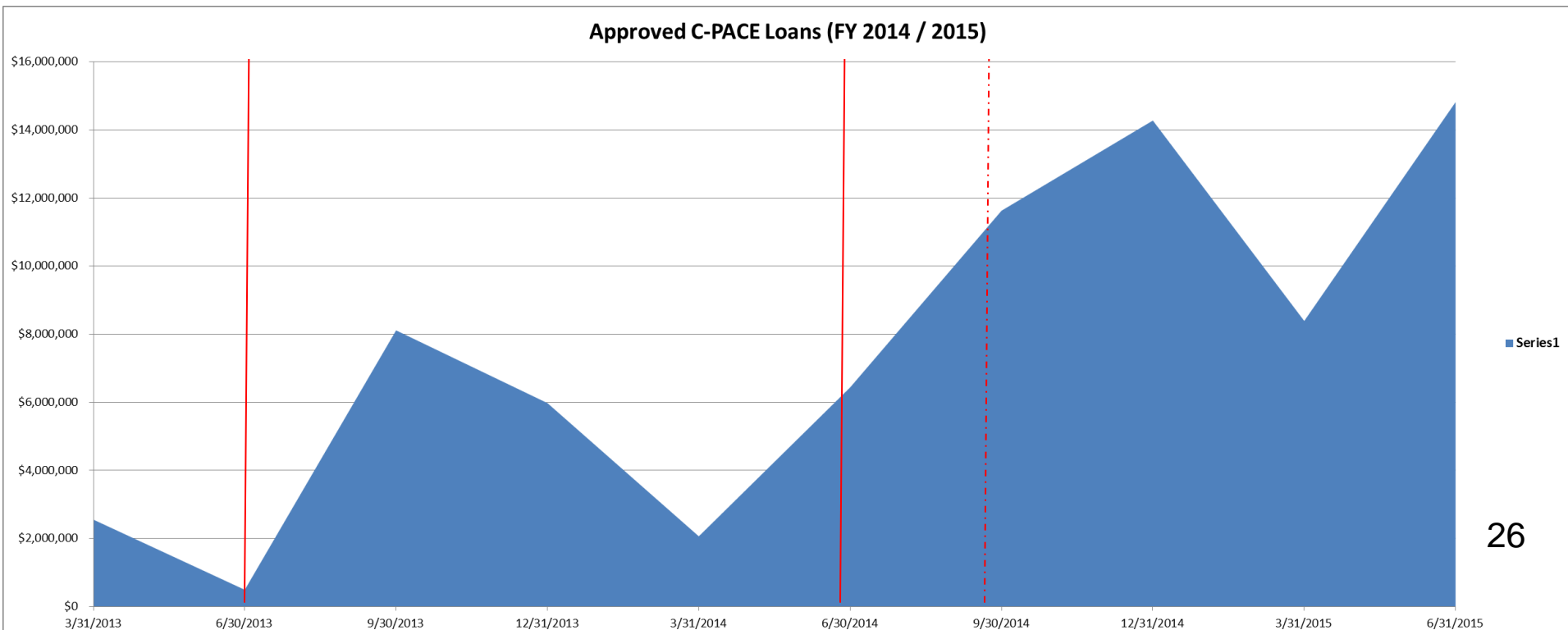
- Prescreen
- Check for all financials
- Financial underwriting and diligence memo
- Prepare for closing: title search, insurance review, service contract review
- Close: alert municipality, file lien
- Disburse: manage disbursement requests from owner/contractor, check permits, work with Cortland
- File final payment schedule with town; alert QDS
- Sell-down process



- ▶ In less than two years, we've closed over \$26M of deals and approved > \$50M
- ▶ We estimate about \$100M more projects by year-end 2015 – 5-10 additional projects per month, ramping up to 20 per month later next year
- ▶ To accommodate this growth, we are soliciting proposals under and RFP for (a) an external warehouse funded substantially by private capital, and (b) a long-term funding program to replenish the external warehouse (potentially via a rated security)
- ▶ Plan is to have new capital facilities in place by Spring 2015 (“pre-RFP” discussions underway with solid investor/lender interest)
- ▶ Universally recognized as the “best in class” commercial PACE program in the nation!

# 2015 Projections

Date	Approved Amount
3/31/2013	\$2,552,635
6/30/2013	\$491,566
9/30/2013	\$8,113,251
12/31/2013	\$5,975,450
3/31/2014	\$2,063,507
6/30/2014	\$6,437,495
9/30/2014	\$11,628,457
12/31/2014	\$14,276,517
3/31/2015	\$8,389,574
6/31/2015	\$14,818,199



# Financing C-PACE going forward



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- ▶ Raising an external fund to continue doing deals so we are not limited by our balance sheet and to deal with state contracting concerns
- ▶ Releasing a standard credit enhancement offering to the market to entice private players into the market to originate deals



## Challenge to growth

- ▶ Originating
- ▶ Reviewing
- ▶ Underwriting
- ▶ Closing
- ▶ Dispersing
- ▶ Servicing
- ▶ Selling down

## Questions for future

- ▶ Should CGB be a retail lender?
- ▶ What functions should CGB take on?
- ▶ What should be done outside CGB?
- ▶ What do we need to scale?



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## **Board of Directors of the Connecticut Green Bank**

### **Agenda Item #6ai**

Commercial and Industrial Sector Programs

Enfield – C-PACE Transaction

October 17, 2014

# 5 Old Depot Hill Rd (Enfield) Ratepayer Payback



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- ▶ **\$840,640** to install 290 kW solar PV system
- ▶ Projected savings are **22,106 MMBtu** versus **\$840,640** of ratepayer funds at risk.
- ▶ Ratepayer funds will be paid back in one of the following ways
  - ▶ (a) through a take-out by a private capital provider at the end of construction (project completion);
  - ▶ (b) subsequently, when the loan is sold down to a private capital provider; or
  - ▶ (c) through receipt of funds from the Town of Enfield as it collects the C-PACE benefit assessment from the property owner.

**PHOTO REDACTED**



# 5 Old Depot Hill Rd (Enfield)

## Terms and Conditions



- ▶ **\$840,640** construction loan at 5% and term loan set at a fixed 6% over the 20-year term
- ▶ **\$840,640** loan against the property
  - ▶ Property valued at **REDACTED** (municipal assessment)
  - ▶ Lien-to-value ratio equals **REDACTED**
- ▶ DSCR > **REDACTED**



**REDACTED**

# Anticipated Green Bank cash flow



CEFIA Pro Forma		Cash Flows	
<i>Project Basics</i>		<u>Date</u>	<u>CEFIA \$</u>
Amount Financed	\$840,640	Oct 2014	\$840,640
Construction Period (years)	0.50	Apr 2015	\$21,016
Term (years)	20	Jul 2015	\$72,736
Construction Financing Rate	5.00%	Jul 2016	\$72,736
Term Financing Rate	6.00%	Jul 2017	\$72,736
Construction Interest Payment (bullet)	\$21,016	Jul 2018	\$72,736
Yearly Debt Service Payments (made semi-annually)	\$72,736	Jul 2019	\$72,736
		Jul 2020	\$72,736
		Jul 2021	\$72,736
		Jul 2022	\$72,736
		Jul 2023	\$72,736
		Jul 2024	\$72,736
		Jul 2025	\$72,736
		Jul 2026	\$72,736
		Jul 2027	\$72,736
		Jul 2028	\$72,736
		Jul 2029	\$72,736
		Jul 2030	\$72,736
		Jul 2031	\$72,736
		Jul 2032	\$72,736
		Jul 2033	\$72,736
		Jul 2034	\$72,736



**REDACTED**

# 5 Old Depot Hill Rd (Enfield)

## The Five W's



- ▶ **What?** Receive approval for a **\$840,640** construction and (potentially) term loan under the C-PACE program to G&M Real Estate Enterprises, LLC to finance the construction of specified energy upgrade
- ▶ **When?** Project to commence 2014
- ▶ **Why?** Allow Green Bank to finance this C-PACE transaction, continue to build momentum in the market, and potentially provide term financing for this project until Green Bank sells it along with its other loan positions in C-PACE transactions.
- ▶ **Who?** G&M Real Estate Enterprises, LLC, the property owner of 5 Old Depot Hill Rd, Enfield
- ▶ **Where?** 5 Old Depot Hill Rd, Enfield CT



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## **Board of Directors of the Connecticut Green Bank**

**Agenda Item #6aii**

Commercial and Industrial Sector Programs

Avon – C-PACE Transaction

October 17, 2014

# 38 Security Drive (Avon)

## Ratepayer Payback



- ▶ **\$629,352** to install 143 kW solar PV system,
  - ▶ Projected savings are **9,988 MMBtu** versus **\$629,352** of ratepayer funds at risk.
- PHOTO REDACTED**
- ▶ Ratepayer funds will be paid back in one of the following ways
    - ▶ (a) through a take-out by a private capital provider at the end of construction (project completion);
    - ▶ (b) subsequently, when the loan is sold down to a private capital provider; or
    - ▶ (c) through receipt of funds from the Town of Avon as it collects the C-PACE benefit assessment from the property owner.

# 38 Security Drive (Avon)

## Terms and Conditions



- ▶ **\$629,352** construction loan at 5% and term loan set at a fixed 6% over the 20-year term
- ▶ **\$629,352** loan against the property
  - ▶ Property valued at **REDACTED**
  - ▶ Loan-to-value ratio equals **REDACTED** (lien-to-value equals **REDACTED** ).
- ▶ DSCR > **REDACTED**





**REDACTED**

# Anticipated Green Bank cash flow



Green Bank Pro Forma			
<i>Project Basics</i>		<i>Cash Flows</i>	
		<u>Date</u>	<u>Green Bank \$</u>
Amount Financed	\$629,352	Nov 2014	\$629,352
Construction Period (years)	0.25	Feb 2015	\$8,654
Term (years)	20	Jul 2015	\$54,455
		Jul 2016	\$54,455
Construction Financing Rate	5.50%	Jul 2017	\$54,455
Term Financing Rate	6.00%	Jul 2018	\$54,455
		Jul 2019	\$54,455
Construction Interest Payment (bullet)	\$8,654	Jul 2020	\$54,455
Yearly Debt Service Payments (made semi-annually)	\$54,455	Jul 2021	\$54,455
		Jul 2022	\$54,455
		Jul 2023	\$54,455
		Jul 2024	\$54,455
		Jul 2025	\$54,455
		Jul 2026	\$54,455
		Jul 2027	\$54,455
		Jul 2028	\$54,455
		Jul 2029	\$54,455
		Jul 2030	\$54,455
		Jul 2031	\$54,455
		Jul 2032	\$54,455
		Jul 2033	\$54,455
		Jul 2034	\$54,455



**REDACTED**

# 38 Security Drive (Avon)

## The Five W's



- ▶ **What?** Receive approval for a **\$629,352** construction and (potentially) term loan under the C-PACE program to Norwich Commercial Group, Inc. to finance the construction of specified energy upgrade
- ▶ **When?** Project to commence 2014
- ▶ **Why?** Allow Green Bank to finance this C-PACE transaction, continue to build momentum in the market, and potentially provide term financing for this project until Green Bank sells it along with its other loan positions in C-PACE transactions.
- ▶ **Who?** Norwich Commercial Group, Inc, the property owner of 38 Security Drive, Avon
- ▶ **Where?** 38 Security Drive, Avon CT



**CLEAN ENERGY**  
FINANCE AND INVESTMENT AUTHORITY

## **Board of Directors of the Connecticut Green Bank**

**Agenda Item #6aiii**

Commercial and Industrial Sector Programs

Danbury – C-PACE Transaction

October 17, 2014

# 80 Newtown Road (Danbury) Ratepayer Payback



**PHOTO REDACTED**

- ▶ **\$718,082** to install HVAC replacement, lighting upgrade, window replacement, building mgmt system upgrade
- ▶ Projected savings were **26,707 MMBTU** versus **\$718,082** of ratepayer funds at risk.
- ▶ Ratepayer funds will be paid back in one of the following ways
  - ▶ (a) through a take-out by a private capital provider at the end of construction (project completion);
  - ▶ (b) subsequently, when the loan is sold down to a private capital provider; or
  - ▶ (c) through receipt of funds from the City of Danbury as it collects the C-PACE benefit assessment from the property owner.

# 80 Newtown Road (Danbury)

## Terms and Conditions



CLEAN ENERGY  
FINANCE AND INVESTMENT AUTHORITY

- ▶ **\$718,082** construction loan at 5% and term loan set at a fixed 6% over the 18-year term
- ▶ **\$718,082** loan against the property
  - ▶ Property valued at **REDACTED** (“as-is” appraisal)
  - ▶ Loan-to-value ratio equals **REDACTED** (lien-to-value equals **REDACTED** )
    - ▶ **REDACTED**
- ▶ DSCR > **REDACTED**



**REDACTED**



# Anticipated Green Bank cash flow



CT Green Bank Pro Forma			
<i>Project Basics</i>		<i>Cash Flows</i>	
		<u>Date</u>	<u>CEFIA \$</u>
Amount Financed	\$718,082	Oct 2014	<b>\$718,082</b>
Construction Period (years)	0.33	Feb 2015	\$11,968
Term (years)	18	Jul 2015	\$64,804
Construction Financing Rate	5.00%	Jul 2016	\$64,804
Term Financing Rate	5.80%	Jul 2017	\$64,804
		Jul 2018	\$64,804
Construction Interest Payment (bullet)	\$11,968	Jul 2019	\$64,804
Yearly Debt Service Payments (made semi-annually)	\$64,804	Jul 2020	\$64,804
		Jul 2021	\$64,804
		Jul 2022	\$64,804
		Jul 2023	\$64,804
		Jul 2024	\$64,804
		Jul 2025	\$64,804
		Jul 2026	\$64,804
		Jul 2027	\$64,804
		Jul 2028	\$64,804
		Jul 2029	\$64,804
		Jul 2030	\$64,804
		Jul 2031	\$64,804
		Jul 2032	\$64,804



**REDACTED**

# 80 Newtown Road (Danbury)

## The Five W's



CLEAN ENERGY  
FINANCE AND INVESTMENT AUTHORITY

- ▶ **What?** Receive approval for a **\$718,082** construction and (potentially) term loan under the C-PACE program to Danbury Hospitality, LLC to finance the construction of specified energy upgrade
- ▶ **When?** Phase II to commence 2014
- ▶ **Why?** Allow Green Bank to finance this C-PACE transaction, continue to build momentum in the market, and potentially provide term financing for this project until Green Bank sells it along with its other loan positions in C-PACE transactions.
- ▶ **Who?** Danbury Hospitality, LLC, the property owner of 80 Newtown Road, Danbury CT
- ▶ **Where?** 80 Newtown Road, Danbury CT



**CLEAN ENERGY**  
FINANCE AND INVESTMENT AUTHORITY

## **Board of Directors of the Connecticut Green Bank**

**Agenda Item #6aiv**

Commercial and Industrial Sector Programs

Plainville – C-PACE Transaction

October 17, 2014

# 225 New Britain Avenue (Plainville)

## Ratepayer Payback



CLEAN ENERGY  
FINANCE AND INVESTMENT AUTHORITY

- ▶ **\$777,313** to install 250kW solar PV system
- ▶ Projected savings are **18,301 MMBtu** versus **\$777,313** of ratepayer funds at risk.
- ▶ Ratepayer funds will be paid back in one of the following ways
  - ▶ (a) through a take-out by a private capital provider at the end of construction (project completion);
  - ▶ (b) subsequently, when the loan is sold down to a private capital provider; or
  - ▶ (c) through receipt of funds from the Town of Plainville as it collects the C-PACE benefit assessment from the property owner.

**PHOTO REDACTED**

# 225 New Britain Avenue (Plainville)

## Terms and Conditions



CLEAN ENERGY  
FINANCE AND INVESTMENT AUTHORITY

- ▶ **\$777,313** construction loan at 5% and term loan set at a fixed 6% over the 20-year term
- ▶ **\$777,313** loan against the property
  - ▶ Property valued at **REDACTED** (town assessment)
  - ▶ Loan-to-value ratio equals **REDACTED** (lien-to-value equals **REDACTED** )
- ▶ DSCR > **REDACTED**



**REDACTED**

# Anticipated Green Bank cash flow



<b>CEFIA Pro Forma</b>			
<i>Project Basics</i>		<i>Cash Flows</i>	
Amount Financed	\$777,313	<u>Date</u>	<u>CEFIA \$</u>
Construction Period (years)	0.42	Oct 2014	\$777,313
Term (years)	20	Mar 2015	\$19,433
		Jul 2015	\$68,191
Construction Financing Rate	6.00%	Jul 2016	\$68,191
Term Financing Rate	6.00%	Jul 2017	\$68,191
		Jul 2018	\$68,191
Construction Interest Payment (bullet)	\$19,433	Jul 2019	\$68,191
Yearly Debt Service Payments (made semi-annually)	\$68,191	Jul 2020	\$68,191
		Jul 2021	\$68,191
		Jul 2022	\$68,191
		Jul 2023	\$68,191
		Jul 2024	\$68,191
		Jul 2025	\$68,191
		Jul 2026	\$68,191
		Jul 2027	\$68,191
		Jul 2028	\$68,191
		Jul 2029	\$68,191
		Jul 2030	\$68,191
		Jul 2031	\$68,191
		Jul 2032	\$68,191
		Jul 2033	\$68,191
		Jul 2034	\$68,191





**REDACTED**

# 225 New Britain Avenue (Plainville)

## The Five W's



CLEAN ENERGY  
FINANCE AND INVESTMENT AUTHORITY

- ▶ **What?** Receive approval for a **\$777,313** construction and (potentially) term loan under the C-PACE program to Beaudoin Family LLC C/O Crowley Ford LLC to finance the construction of specified energy upgrade
- ▶ **When?** Project to commence 2014
- ▶ **Why?** Allow Green Bank to finance this C-PACE transaction, continue to build momentum in the market, and potentially provide term financing for this project until Green Bank sells it along with its other loan positions in C-PACE transactions.
- ▶ **Who?** Beaudoin Family LLC C/O Crowley Ford LLC, the property owner of 225 New Britain Avenue, Plainville, CT
- ▶ **Where?** 225 New Britain Avenue, Plainville, CT



**CLEAN ENERGY**  
FINANCE AND INVESTMENT AUTHORITY

## **Board of Directors of the Connecticut Green Bank**

**Agenda Item #6av**

Commercial and Industrial Sector Programs

Milford – C-PACE Transaction

October 17, 2014

# 130 Coram Lane (Milford)

## Ratepayer Payback



CLEAN ENERGY  
FINANCE AND INVESTMENT AUTHORITY

- ▶ **\$492,323** to install HVAC upgrades (including new RTUs and control system) and lighting upgrades
- ▶ Projected savings are **28,438 MMBtu** versus **\$492,323** of ratepayer funds at risk.
- ▶ Ratepayer funds will be paid back in one of the following ways
  - ▶ (a) through a take-out by a private capital provider at the end of construction (project completion);
  - ▶ (b) subsequently, when the loan is sold down to a private capital provider; or
  - ▶ (c) through receipt of funds from the City of Milford as it collects the C-PACE benefit assessment from the property owner.

**PHOTO REDACTED**

# 130 Coram Lane (Milford)

## Terms and Conditions



CLEAN ENERGY  
FINANCE AND INVESTMENT AUTHORITY

- ▶ **\$492,323** construction loan at 5% and term loan set at a fixed 5.4% over the 14-year term
- ▶ **\$492,323** loan against the property
  - ▶ Property valued at **REDACTED** (town assessment)
  - ▶ Loan-to-value ratio equals **REDACTED** (lien-to-value equals **REDACTED** )
- ▶ DSCR < **REDACTED**



**REDACTED**

# Anticipated Green Bank cash flow



CT Green Bank Pro Forma			
<i>Project Basics</i>		<i>Cash Flows</i>	
		<u>Date</u>	<u>CEFIA \$</u>
Amount Financed	\$492,323	Oct 2014	<b>\$492,323</b>
Construction Period (years)	0.33	Feb 2015	\$8,205
Term (years)	14	Jul 2015	\$50,569
Construction Financing Rate	5.00%	Jul 2016	\$50,569
Term Financing Rate	5.40%	Jul 2017	\$50,569
		Jul 2018	\$50,569
Construction Interest Payment (bullet)	\$8,205	Jul 2019	\$50,569
Yearly Debt Service Payments (made semi-annually)	\$50,569	Jul 2020	\$50,569
		Jul 2021	\$50,569
		Jul 2022	\$50,569
		Jul 2023	\$50,569
		Jul 2024	\$50,569
		Jul 2025	\$50,569
		Jul 2026	\$50,569
		Jul 2027	\$50,569
		Jul 2028	\$50,569



**REDACTED**



# 130 Coram Lane (Milford)

## The Five W's



- ▶ **What?** Receive approval for a **\$492,323** construction and (potentially) term loan under the C-PACE program to Great River LLC to finance the construction of specified energy upgrade
- ▶ **When?** Project to commence 2014
- ▶ **Why?** Allow Green Bank to finance this C-PACE transaction, continue to build momentum in the market, and potentially provide term financing for this project until Green Bank sells it along with its other loan positions in C-PACE transactions.
- ▶ **Who?** Great River LLC, the property owner of 130 Coram Lane, Milford, CT
- ▶ **Where?** 130 Coram Lane, Milford, CT



**CLEAN ENERGY**  
FINANCE AND INVESTMENT AUTHORITY

## **Board of Directors of the Connecticut Green Bank**

### **Agenda Item #7**

Residential Sector Program Updates

October 17, 2014

# Low Income Residential Solar PV Market Penetration Update

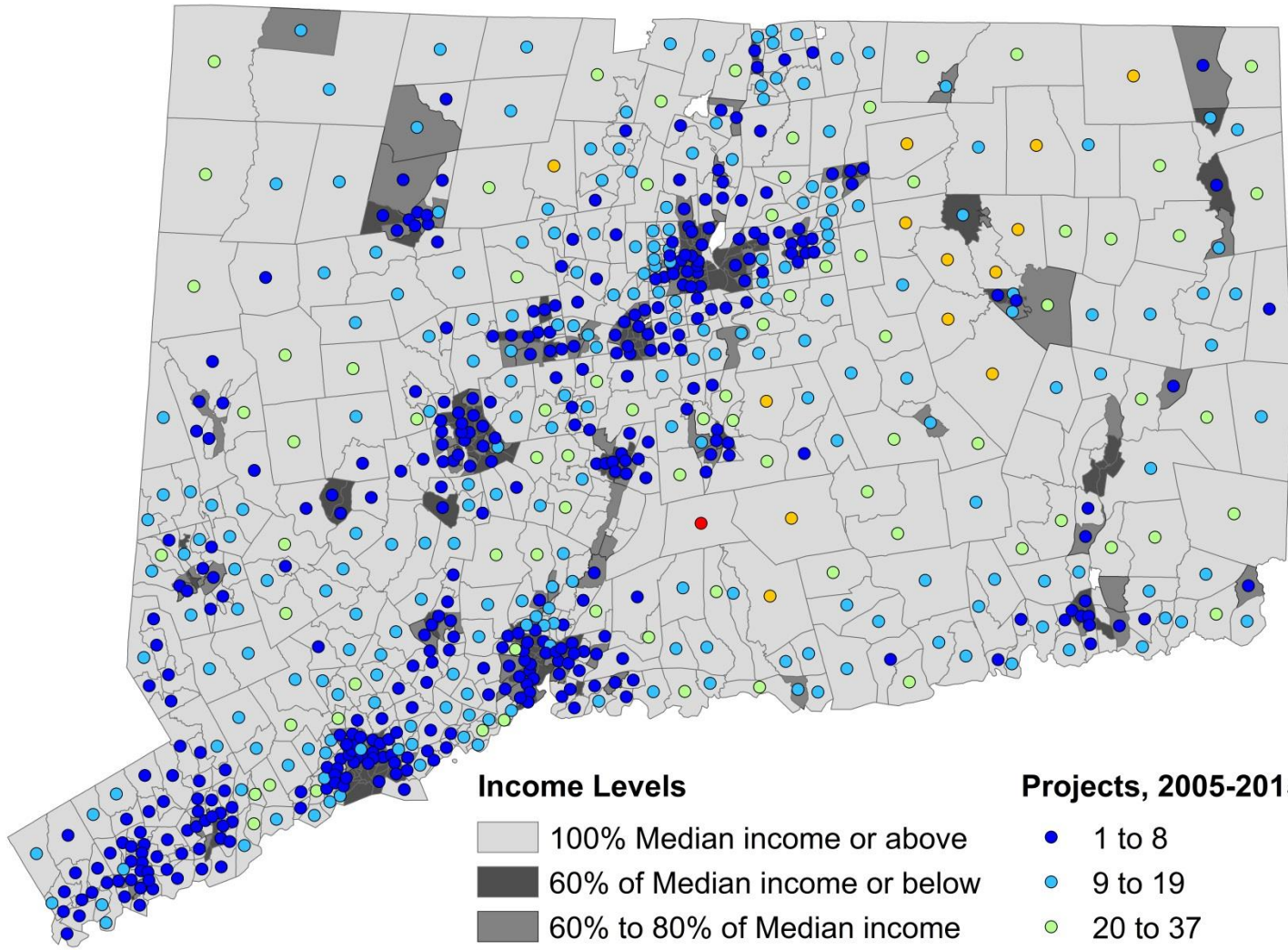
Where Are We Now



CLEAN ENERGY  
FINANCE AND INVESTMENT AUTHORITY

- ▶ Analyzed all residential solar deployment to date (e.g. includes CCEF projects)
- ▶ Worked with Connecticut Center for Economic Analysis at UCONN, <http://ccea.uconn.edu>
- ▶ Visualized the current state of deployment 2 ways:
  - ▶ # of projects
  - ▶ kW installed – along the following lines by census tract
- ▶ **Census tracts were grouped by:**
  - ▶ Area Median Income: 60% of median income or below, 60% - 80% of median income, 100% of median income or higher
  - ▶ Concentration of residents at 150% poverty level (projects only)

# Income Levels and Number of Projects, 2005-2015



## Income Levels

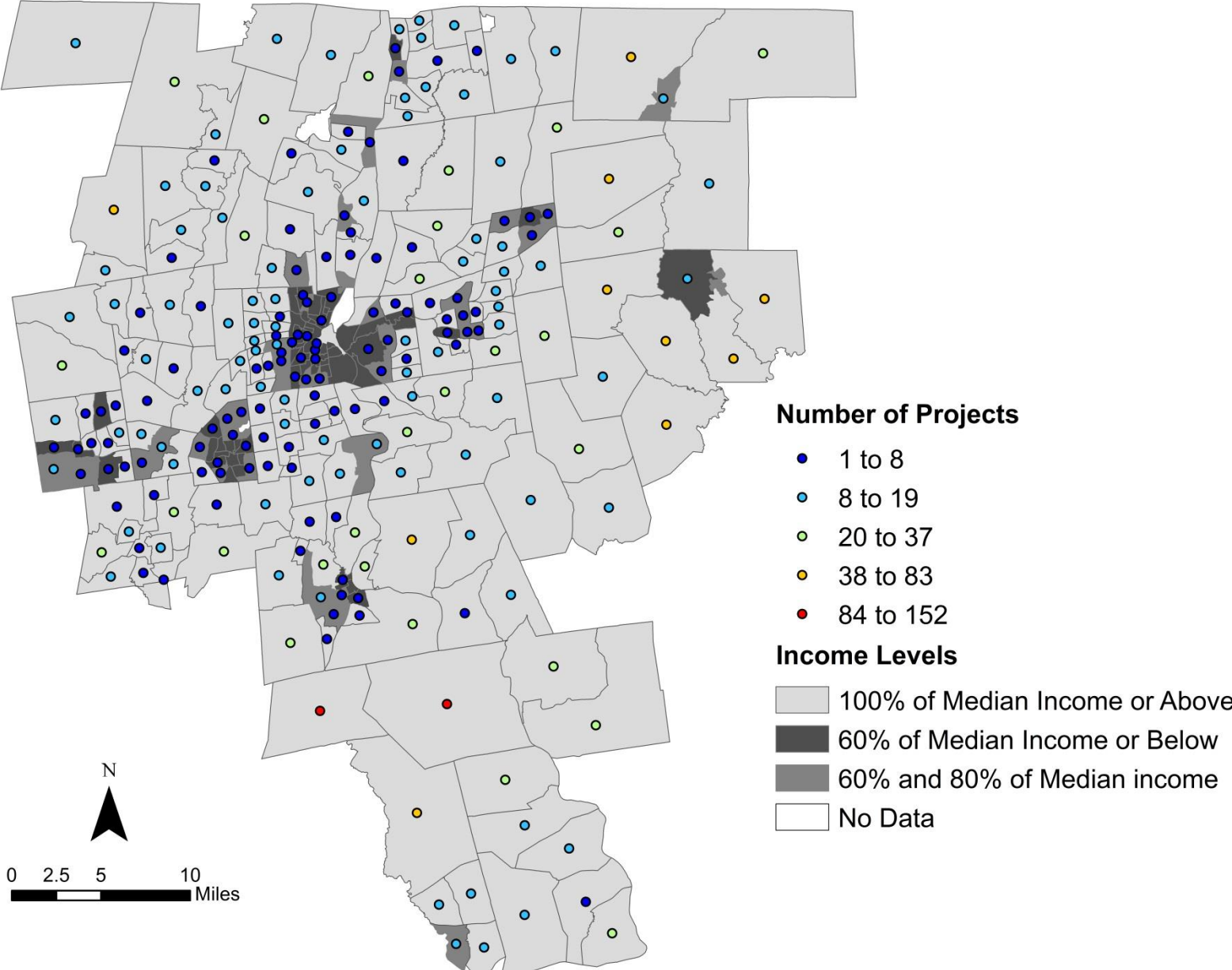
- 100% Median income or above
- 60% of Median income or below
- 60% to 80% of Median income
- No Data

## Projects, 2005-2015

- 1 to 8
- 9 to 19
- 20 to 37
- 38 to 83
- 84 to 152

0 5 10 20 Miles

# Income Levels and Number of Projects, Hartford MSA



# Income Levels and kW Approved & Installed, New Haven MSA



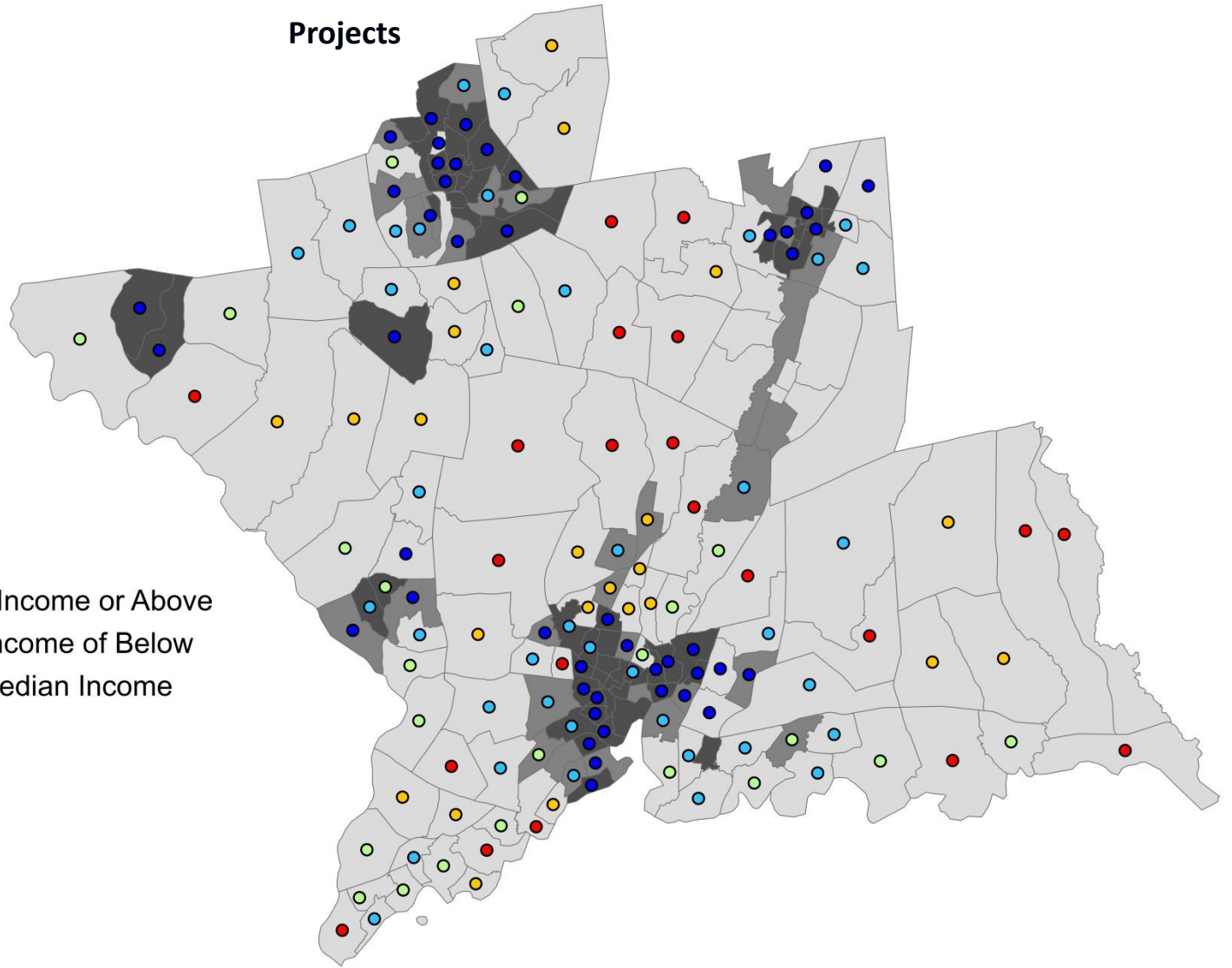
## Projects

### Income Levels

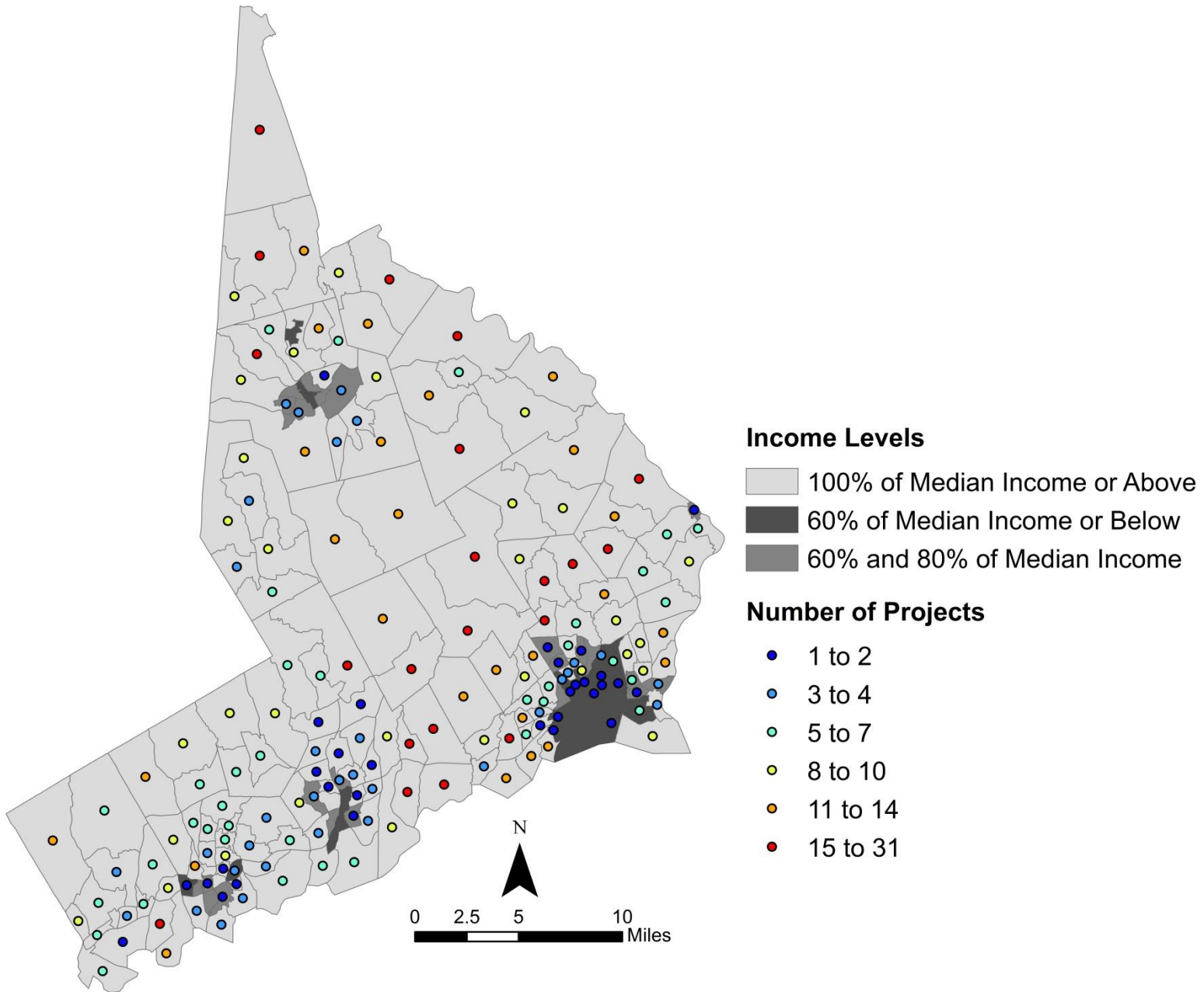
- 100% of Median Income or Above
- 60% of Median Income or Below
- 60% to 80% of Median Income

### Number of Projects

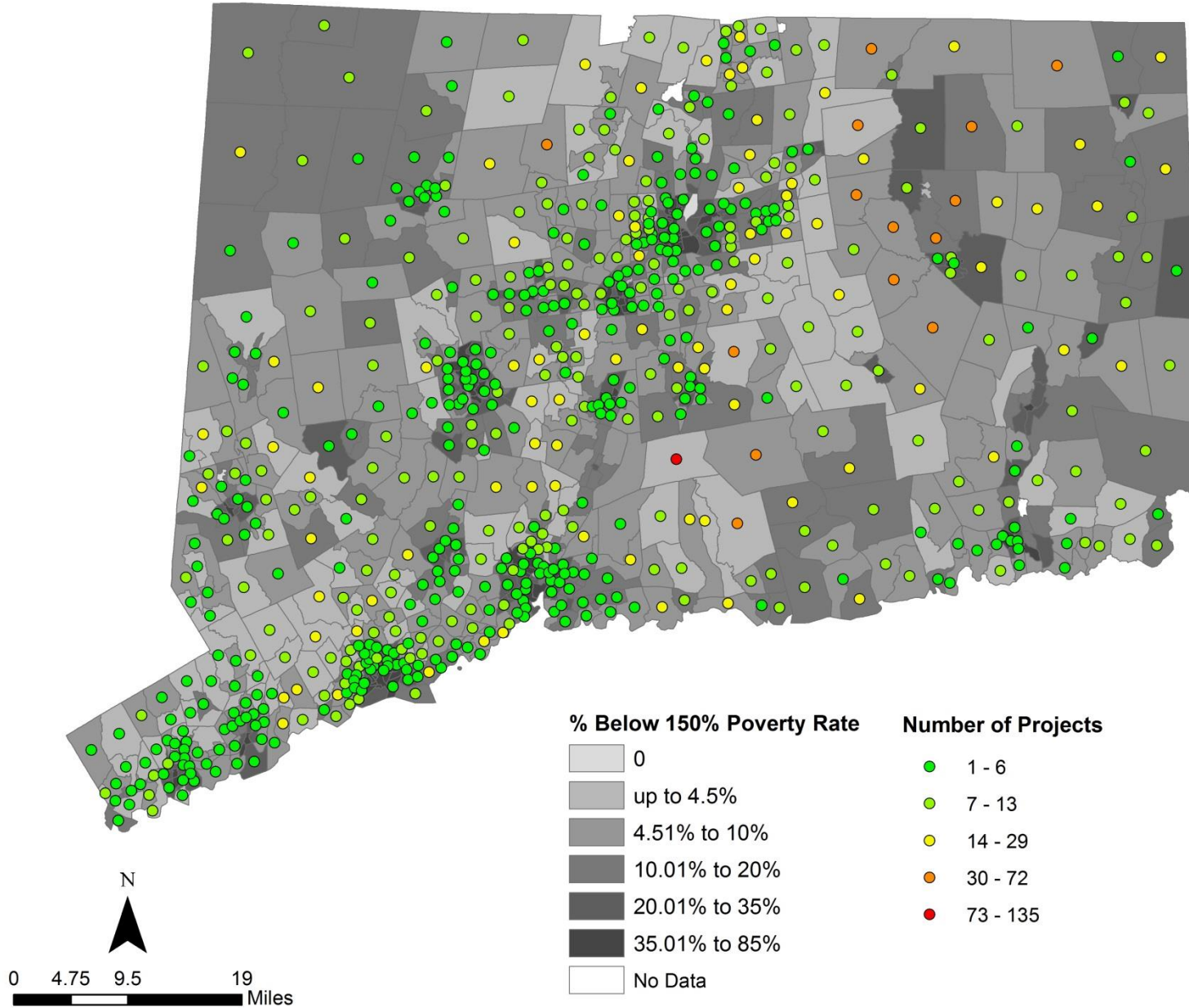
- 1 to 3
- 4 to 7
- 8 to 10
- 11 to 16
- 17 to 36



# Income Levels and Number of Projects, Bridgeport MSA



# Share of Pop. Below 150% Poverty Level and Number of Projects, RPV Programs





# Low Income Residential Solar PV Market Penetration Update

## Where Are We Now



CLEAN ENERGY  
FINANCE AND INVESTMENT AUTHORITY

- ▶ **Worked with Match Drive to do a Nielsen customer market segmentation analysis of RSIP projects**
- ▶ **Our current RSIP customer base can be broken into 2 primary segments:**
  - ▶ Solar Homes – the mainstream solar customer
  - ▶ Prudent Yankees – unique segment, very different from Solar Homes, unique to our state

Segment	% of RSIP Customers	Avg. Household Income	Avg. Age	College Education	% w/ Children in Home	% Employed Full Time	Potential CT Households
Solar Homes	70%	\$148K	44	52% college+	54%	66%	483K
Prudent Yankees	10%	\$48K	52	16% college+	48%	38%	83K

# Low Income Residential Solar PV Market Penetration Update

Where We Go Next



CLEAN ENERGY  
FINANCE AND INVESTMENT AUTHORITY

- ▶ **In summary, UCONN and Nielsen analysis of our project data shows**
  - ▶ Good geographic and income dispersion at census tract level given lack of focused outreach/strategies to date for low income
  - ▶ Solar appeal for a identifiable lower income customer segment
- ▶ **Will come back in December to discuss current and proposed strategies to increase solar adoption in lower income households**
- ▶ **Will continue to work with UCONN on analysis and visualizations, to inform strategies**
  - ▶ Will also be looking at more granular penetration data by income, as well as housing age, type of housing stock (single family, multifamily), etc.



**CLEAN ENERGY**  
FINANCE AND INVESTMENT AUTHORITY

## **Board of Directors of the Connecticut Green Bank**

**Agenda Item #8**

Audit, Compliance and Governance Committee

October 17, 2014



# **CONNECTICUT GREEN BANK**

Presentation of the Audit for  
June 30, 2014

**MARCUM**  
ACCOUNTANTS ▲ ADVISORS

# The Audit

- Unmodified Opinion on the Financial Statements
- Audit conducted under
  - Auditing Standards Generally Accepted in the United States of America
  - *Government Auditing Standards* issued by the Comptroller General of the United States

# Auditor Reporting to Governance

- **Marcum's responsibility is to report on conducting the engagement:**
  - Significant audit adjustments and proposed but unrecorded adjustments – NONE
  - Disagreements with management about auditing, accounting or disclosure matters – NONE
  - Management's consultations with other auditors – NONE

# Auditor Reporting to Governance

- Difficulties encountered relating to the performance of the audits – NONE
- Material errors or fraud or possible illegal acts – NONE
- Relationships between any of our representatives and CGB that in our professional judgment, may reasonably be thought to bear on independence – NONE
- Major issues discussed with management prior to retention – NONE
- Other items – NONE



# THE SHREC



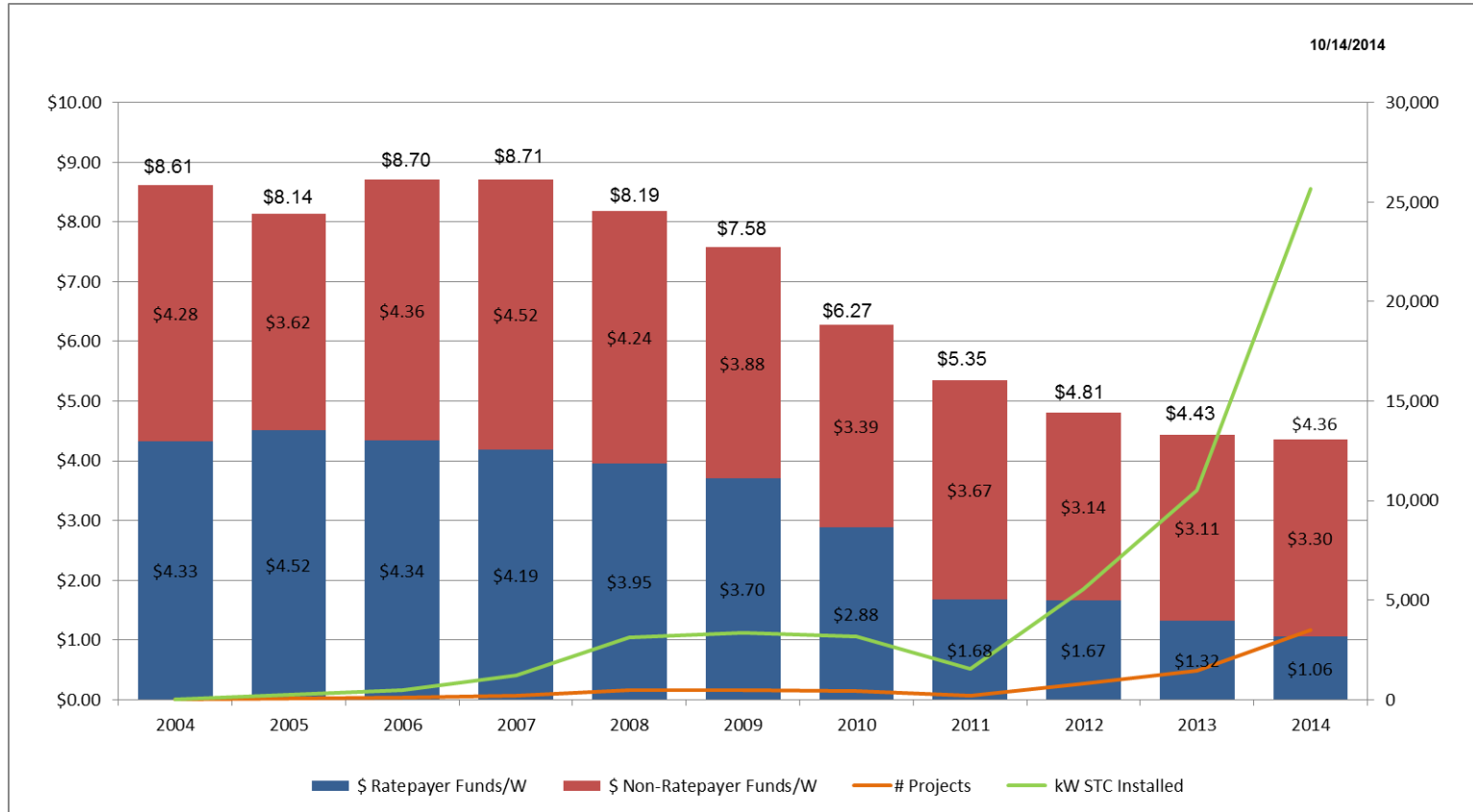


# Residential Solar Investment Program

## Background - Achieved Legislative Minimum Target



**CLEAN ENERGY**  
FINANCE AND INVESTMENT AUTHORITY



Achieved the legislative minimum target (30 MW) 8 years ahead of schedule (2022) and under budget

# Residential Solar Investment Program Benchmarking Progress In State



CLEAN ENERGY  
FINANCE AND INVESTMENT AUTHORITY

	Through Step 4 of RSIP	Rounds 1 and 2 of ZREC Actual		
	<u>RSIP</u>	<u>Small</u>	<u>Medium</u>	<u>Large</u>
Clean Energy Deployed (MW <sub>STC</sub> )	33.4	26.5	29.9	29.4
Incentive per Watt	\$1.27/W	\$2.33/W	\$2.10/W	\$1.95/W

RSIP is doing more clean energy deployment with less ratepayer resources than any class of the ZREC

**Reference**

Discount rate used is the rate of inflation or 3% for ZREC present value cost of ratepayer funds expended.  
Incentive per watt calculated by dividing the present value of ZREC or RSIP incentives and dividing it by the amount of clean energy deployed.

# Residential Solar Investment Program Rebates (Version 1.0)



CLEAN ENERGY  
FINANCE AND INVESTMENT AUTHORITY

## RPS Market (2014)

\$150,000,000



## RSIP

\$9,000,000



# Residential Solar Investment Program RPS Market Intermediary (Version 2.0)



CLEAN ENERGY  
FINANCE AND INVESTMENT AUTHORITY

RPS Market (2014)

\$150,000,000



15-Year Contracts  
for Class I RECs  
from Residential  
Solar in CT



RSIP

\$9,000,000



# THE SHREC

## Solar Home and Jobs Opportunity Act



CLEAN ENERGY  
FINANCE AND INVESTMENT AUTHORITY

- ▶ **The Green Bank proposes the development of a Solar Home Renewable Energy Credit (SHREC) Program to continue the growth of RSIP.**
- ▶ **Similar to the LREC and ZREC Programs as it creates a fifteen year revenue stream from the sale of the SHRECs to the non-municipal utilities (i.e., CL&P and UI).**

# THE SHREC

## Support Residential Ratepayers



CLEAN ENERGY  
FINANCE AND INVESTMENT AUTHORITY

- ▶ **Provides much needed access to the RPS market to residential ratepayers who consume over 40 percent of electricity**
  - ▶ and therefore pay over 40% of the RPS policy compliance.
  - ▶ To date, Connecticut residential ratepayers have received little to no direct benefits from RECs sold into the RPS in comparison to commercial and industrial customers.



- ▶ **In 2010, in-state renewable projects accounted for only 11% of Class I RPS standard.**
- ▶ **89% of the ratepayer investment in supporting renewable generation spent outside of the state.**
- ▶ **Connecticut does not receive the economic benefits (e.g., jobs) associated with in-state projects.**

# THE SHREC – In a Nutshell

## Addresses Shortages of Current Policy



CLEAN ENERGY  
FINANCE AND INVESTMENT AUTHORITY

### ▶ The SHREC:

- ▶ addresses these problems by minimizing the use of ratepayer funds with an established price ceiling (i.e., the ACP of the RPS) and a declining block schedule.
- ▶ creates a new class of RECs that directly benefits our state without increasing the overall size of the RPS.
- ▶ will foster the sustained, orderly development of a state-based solar industry and create jobs all in Connecticut.



# OTHER LEGISLATIVE TOPICS



CLEAN ENERGY  
FINANCE AND INVESTMENT AUTHORITY

- ▶ **Community Clean Energy and / or Virtual Net Metering**
- ▶ **State Contracting Exemptions**
- ▶ **RGGI FIX**
- ▶ **Currently working with DEEP on valuing the benefits of Distributed Generation**
- ▶ **Technical Fix for EPBB**



**CLEAN ENERGY**  
FINANCE AND INVESTMENT AUTHORITY

## **Board of Directors of the Connecticut Green Bank**

**Agenda Item #9**

Role of a Green Bank

October 17, 2014

# Role of a Green Bank

## Perspectives from the Board



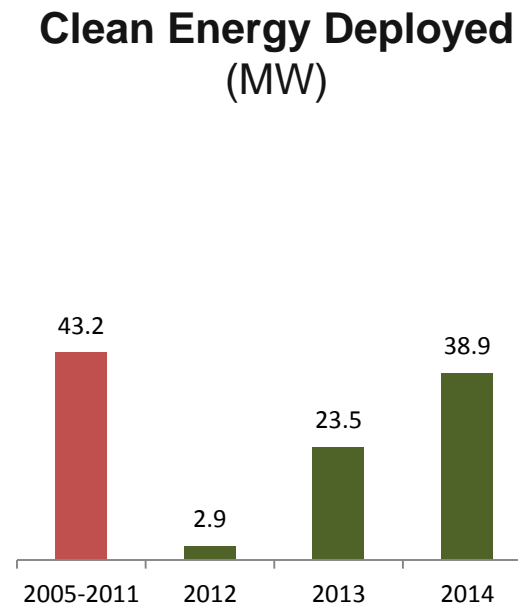
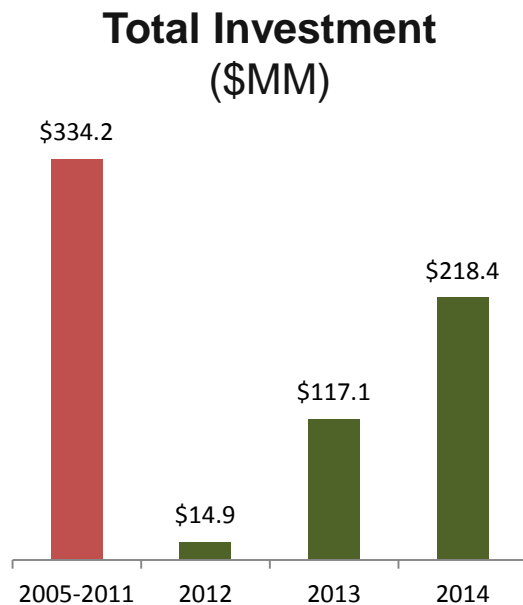
CLEAN ENERGY  
FINANCE AND INVESTMENT AUTHORITY

- ▶ **Goal** – as we transition from an early stage to a growth market for clean energy in Connecticut, initiate an ongoing conversation with the BOD to solicit feedback and guidance on the green bank model
- ▶ **Key Questions for Now**
  - ▶ Has the change in the model from the CCEF to the CGB resulted in tangible deployment and public benefit results?
  - ▶ Is the CGB creating an environment that uses its limited resources to attract more private investment in Connecticut?
  - ▶ Is the CGB using its limited resources ~~more~~ responsibly?
- ▶ **Focus on Sector Product Snapshots Next Time**

# Key Question #1

## Model Comparisons

Has the change in the model from the CCEF to the CGB resulted in tangible deployment and public benefit results?



Jobs ↑

GHGs ↓

#### REFERENCE

Data includes the total cost and MW deployed of approved, closed, and completed projects

# Key Question #2

## Attract Private Capital

Is the CGB creating an environment that uses its limited resources to attract more private investment in Connecticut?



- ▶ **CT Solar Lease** – \$13.6 million investment (\$4.1 credit enhancement, \$2.3 sub-debt, and \$7.2 sponsor equity) – \$23.7 million tax equity and \$26.7 million in debt from private capital sources
- ▶ **CT Solar Loan** – \$5.7 million investment (\$5.0 warehouse w/ \$1.0 retainage and \$0.7 credit enhancement) – \$4 million crowd-fund debt
- ▶ **Smart-E Loan** – \$2.8 million credit enhancement – \$28.0 million debt from private capital sources
- ▶ **C-PACE** – \$40.0 million warehouse in C-PACE – \$30.0 million securitization to Clean Fund

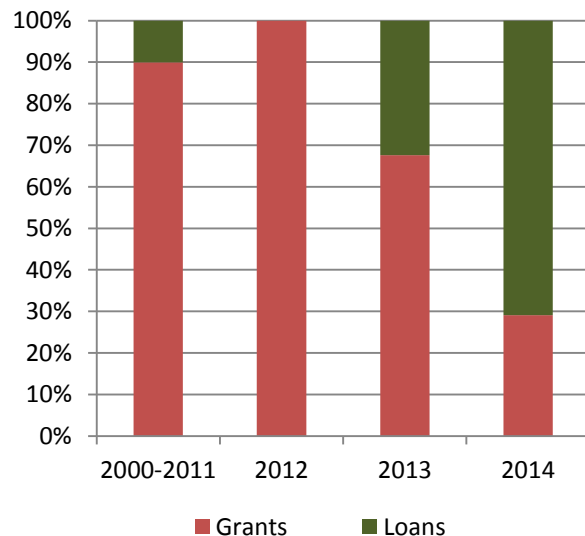
# Key Question #3

## Responsible Use



Is the CGB using its limited resources ~~more~~ responsibly?

**Grants vs. Loans**  
(%)



### Balance Sheet

	2014	2013	2012	2011
<b>Assets</b>				
Total current assets	\$ 79,825,108	\$ 72,844,731	\$ 68,328,513	\$ 60,968,740
Total noncurrent assets	\$ 40,663,630	\$ 27,144,914	\$ 23,847,676	\$ 16,027,124
<b>Total Assets</b>	<b>\$120,488,738</b>	<b>\$ 99,989,645</b>	<b>\$ 92,176,189</b>	<b>\$ 76,995,864</b>
<b>Liabilities &amp; Net Position</b>				
Total liabilities	\$ 5,350,091	\$ 1,815,898	\$ 10,987,980	\$ 4,215,626
<b>Total Net Position</b>	<b>\$115,138,647</b>	<b>\$ 98,173,747</b>	<b>\$ 81,188,209</b>	<b>\$ 72,780,239</b>
<b>Total Liabilities &amp; Net Position</b>	<b>\$120,488,738</b>	<b>\$ 99,989,645</b>	<b>\$ 92,176,189</b>	<b>\$ 76,995,865</b>
Current assets:	66.3%	72.9%	74.1%	79.2%
Noncurrent assets:	33.7%	27.1%	25.9%	20.8%
Total assets:	100.0%	100.0%	100.0%	100.0%

### Profits and Losses

	2014	2013	2012	2011
Revenues	\$ 50,196,195	\$ 44,030,596	\$ 40,483,477	\$ 36,391,764
Expenses	\$ 26,235,965	\$ 25,445,868	\$ 32,510,209	\$ 29,461,957
Provision for loan losses	\$ 1,310,934	\$ -	\$ -	\$ -
Portfolio investment gain(losses)	\$ -	\$ (656,546)	\$ 434,702	\$ 119,199
Income before transfers, contributions and distributions	\$ 22,649,296	\$ 17,928,182	\$ 8,407,970	\$ 7,049,006
Transfers to State of Connecticut	\$ (6,200,000)	\$ -	\$ -	\$ -
Contributions/adjustments to member capital	\$ 188,750	\$ (615,790)	\$ -	\$ -
Change in Net Position	\$ 16,638,046	\$ 17,312,392	\$ 8,407,970	\$ 7,049,006
Net Position Beginning of Year	\$ 98,500,601	\$ 81,188,209	\$ 72,780,239	\$ 65,731,233
Net Position End of Year	\$115,138,647	\$ 98,500,601	\$ 81,188,209	\$ 72,780,239



**CLEAN ENERGY**  
FINANCE AND INVESTMENT AUTHORITY

## **Board of Directors of the Connecticut Green Bank**

**Agenda Item #10**

Other Business – Executive Session

October 17, 2014



**CLEAN ENERGY**  
FINANCE AND INVESTMENT AUTHORITY

## **Board of Directors of the Connecticut Green Bank**

**Agenda Item #11**

Adjourn

October 17, 2014



Subject to changes and deletions

## **CONNECTICUT GREEN BANK**

### **Board of Directors**

Draft Minutes – Special Meeting

Tuesday, August 26, 2014

A special meeting of the Board of Directors of the **Connecticut Green Bank (the “Green Bank”)** was held on August 26, 2014 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**: Catherine Smith, Chairperson of the Connecticut Green Bank, called the meeting to order at 9:01 a.m. Board members participating: Bettina Ferguson, State Treasurer’s Office; Norma Glover, Patricia Rice, Tom Flynn (by phone), Reed Hundt (by phone), John Harrity (by phone), Rob Klee, Vice Chairperson of the Green Bank and Commissioner of the Department of Energy and Environmental Protection (“DEEP”); Matthew Ranelli; Catherine Smith, Chairperson of the Green Bank and Commissioner of the Department of Economic and Community Development (“DECD”).

Members absent: Mun Choi and John Harrity.

Staff Attending: Bryan Garcia, Bert Hunter, Brian Farnen, Dale Hedman, George Bellas, Jessica Bailey, Kerry O’Neill, Suzanne Kaswan, Alexandra Lieberman, Benjamin Healey (participated by phone) Andy Brydges, John D’Agostino, Madeline Priest, Andrea Janecko and Cheryl Samuels.

Others Attending: Mike Trahan, Executive Director of Solar Connecticut; Kevin Walsh (GE Energy Financial Services– by phone)

### 2. **Public Comments**

Mike Trahan (Executive Director of Solar Connecticut) expressed on behalf of the Connecticut solar industry, his appreciation for the Connecticut Green Bank’s efforts in creating the SunShot Solar Permitting Guide. Mr. Trahan stated that such permitting green guides and blanket policies have been well received by building owners, municipalities, and the solar industry. Mr. Garcia recognized Mr. Trahan for his contribution in helping the SunShot team address soft cost within municipalities. Mr. Garcia described the success of the first permitting guide training for building owners and expressed his excitement for next scheduled training designed for building owners and municipalities.

**3. Approval of Meeting Minutes:**

The board was asked to consider the June 25, July 3, and July 18, 2014 meeting minutes.

**Upon a motion made by Mrs. Glover, seconded by Mr. Ranelli, the board voted unanimously in favor of adopting the minutes from the June 25, July 3, and July 18, 2014 meetings as presented.**

**4. Statutory and Infrastructure Updates and Recommendations**

Mr. Garcia provided an overview of the Connecticut solar industry and the progress of the Residential Solar Investment Program (RSIP) over the last 10 years. Mr. Garcia highlighted that through the RSIP program the CT Green Bank has achieved its legislative mandate of a minimum of 30 megawatts eight years ahead of schedule, using less public dollars, and resultantly has reached 4,200 households across the state. Since 2011, installed costs have declined twenty percent and incentives have been reduced thirty-five percent while industry demand has doubled one-hundred percent since 2012 and on pace to double again in 2014. Compared with its benchmarks, Connecticut is among the lowest in installed costs, using less state incentives and delivering the same watts per capita at a third of the price.

Mr. Garcia stated that in addition to an increase in demand, there has been a dramatic increase in PBI applications, driven by the Green Bank's solar leasing product and Solar City. As a result of this increase the market is accelerating at a rate that is exceeding the CT Green Bank's operational capacity, thus leading to potential market barriers in the future. Mr. Garcia stated that the RSIP step 5 proposal is designed to move the RSIP to a more sustainable model, one that is driven by the market.

**a) Residential Solar Investment Program – Step 5**

Mr. Hedman walked the board through a proposal for an incentive of \$0.65/W – the equivalent of a \$50 ZREC price. The new incentive would be about a 25% reduction from Step 4 – taking the Green Bank to about a 65% reduction from Step 1. It was noted that is also well below what the utility incentives are for commercial and industrial projects through the ZREC, and below the RPS compliance payment of \$55 – an issue important to the Governor. There was discussion of advancing a legislative proposal that would establish a program by which the utilities would purchase from the Green Bank, the RECs we own through long-term contracts as a result of the RSIP.

Mr. Garcia noted that with the new incentive would now be incentivizing over 10 kw systems to help the Green Bank maximize clean energy deployed in Connecticut and impact future demand, this incentivizes customers to go deeper and install energy saving measures such as ductless mini-splits or electric vehicle charging stations.

Mr. Ranelli than posed a question about the new program allowing the Green Bank to reach residents in the greatest need with a focus on distressed municipalities by census tract blocks.

Chairperson Smith asked if the Green Bank has a goal to reach distressed municipalities and Mr. Garcia proposed that the staff run an analysis of programs to cite where distressed municipalities are supported and to come up with a plan that could provide additional support to the lower to mid-level income range.

**Upon a motion made by Ms. Wrice seconded by Ms. Ferguson the board voted unanimously in favor of the Schedule of Incentives as proposed.**

**WHEREAS**, as of August 1, 2014, the Program has thus far resulted in approximately thirty-two megawatts of new residential PV installation application approvals in Connecticut, and when complete and commissioned will achieve the minimum target of thirty megawatts established by Section 106 of Public Act 11-80;

**WHEREAS**, pursuant to Conn. Gen Stat. 16-245a, a renewable portfolio standard was established that requires that Connecticut Electric Suppliers and Electric Distribution Company Wholesale Suppliers obtain a minimum percentage of their retail load by using renewable energy.

**WHEREAS**, the Green Bank has been assigned by New England Power Pool Generation Information System an Identification Number NON36589 for the residential solar PV projects it supports through the Program, and subsequently the Public Utility Regulatory Authority assigned a Registration No. CT 00534-13 to the behind-the-meter facilities supported by the Program;

**WHEREAS**, real-time revenue quality meters are included as part of solar PV systems being installed through the Program that determine the amount of clean energy production from such systems as well as the associated renewable energy credits ("RECs") which, in accordance with Program guidelines, become the property of the Green Bank to hold, manage and sell in the Green Bank's sole discretion;

**WHEREAS**, the Green Bank Board of Directors (the "Board") approved Guidelines and Procedures for the Green Bank Management of Class I REC Asset Portfolio on December 11, 2013; and

**WHEREAS**, pursuant to Section 106 of the Act, the Green Bank has prepared a Program plan with a declining incentive block schedule ("Schedule") that offer direct financial incentives, in the form of homeowner performance-based incentives ("HOPBI") or performance-based incentives ("PBI"), for the purchase or lease of qualifying residential solar photovoltaic systems, respectively.

**NOW**, therefore be it:

**RESOLVED**, that the Board approves of the Schedule of Incentives as set forth in Table 3(B) of the Due Diligence Package dated August 20, 2014 to achieve 10.0 MW of solar PV deployment;

**RESOLVED**, that the Board directs staff that at the point where 6.0 MWs of committed capacity is reached during Step 5 of the Schedule, or earlier if staff deems it appropriate, to release a report that makes a recommendation to the Deployment Committee on the Step 6 and beyond for capacity allocation and incentive levels;

**RESOLVED**, that by (a) the point of the Step 5 incentive where 8.0 MW of committed capacity is reached for either the PBI or the HOPBI models or (b) June 30, 2015 whichever comes first, the Board will approve a Step 6 capacity allocation and incentive level to ensure the sustained and orderly deployment of the residential solar market in Connecticut; and

**RESOLVED**, that the Board hereby directs Green Bank staff to develop a proposal to address the sustainability of the Program in light of the growing market demand while increasing deployment of clean energy sources in Connecticut and minimizing the cost to the ratepayers by giving consideration to the aggregation and sale of RECs acquired through the Program.

## **5. Residential Sector Program Updates and Recommendations**

### **a. CT Solar Loan**

Mr. Hunter provided an update on the progress of the CT Solar Loan. The product has achieved statewide availability. Assets have been pooled and crowd funded utilizing transactions placed through Mosaic. The first tranche was fully funded and the Green Bank is looking to move an additional \$500,000 to the Mosaic platform within the coming weeks.

Mr. Hunter noted that Sungage Financial has closed on a capital line with a new federal credit union and will begin to access that capital in last quarter of this year. Mr. Hunter noted that this is the first Green Bank product to “graduate” from Green Bank support. The Green Bank staff is working on a transition plan since the nature of the relationship has changed between the two parties. Mr. Hunter highlighted that an important change will occur due to the new capital provider and that is lending to customers with a 640 FICO which is now available across all Green Bank residential financing products. The market is also moving to 20 year products and CT Solar Loan is asking to move this product from a maximum of 15 year to 20 years. Mr. Hunter also mentioned that the CT Solar Loan is looking to add flexibility of battery backup/storage.

**Upon a motion made by Ms. Glover seconded by Ms. Ferguson the board voted unanimously in favor of the changes to the CT Solar Loan product.**

**WHEREAS**, under Section 99 of Public Act 11-80 “An Act Concerning the Establishment of the Department of Energy and Environmental Protection and Planning for Connecticut’s Energy Future,” the Connecticut Green Bank (the “Green Bank”) is directed to, amongst other things, develop separate programs to finance and otherwise support clean energy investment in residential, municipal, small business and larger commercial projects and such others as the Green Bank may determine;

**WHEREAS**, the CT Solar Loan Program (the “Program”) supports homeowners who desire to purchase solar PV systems for their homes with low-cost, long-term financing, in line with Public Act 11-80, the State’s Comprehensive Energy Strategy, and the Green Bank’s Comprehensive Plan;

**WHEREAS**, having nearly exhausted the Green Bank’s initial authorization of \$5,000,000 in revolving loan advances for the Program, as approved by the Board of Directors on July 19, 2013, Green Bank staff now seeks authorization to lend to a new CT Solar Loan subsidiary for the purposes of funding loans to be granted to Connecticut homeowners under the Program;

**NOW**, therefore be it:

**RESOLVED**, that the Board of Directors grants approval for the Green Bank to create a new CT Solar Loan subsidiary for the sole purpose of funding further loans to be granted to Connecticut homeowners under the Program;

**RESOLVED**, that the Board of Directors grants approval for the Green Bank to make advances to this new CT Solar Loan subsidiary, for Program lending inclusive of originating loans to homeowners with tenors of up to 20 years and inclusive of battery storage systems, subject to the following limits:

A. A maximum limit for all long-term loans, subordinated to senior investors, of \$1,000,000; and

B. A maximum limit for revolving loan advances, to aggregate a portfolio of Program loans, in the amount of \$5,000,000, for a period not to exceed three (3) years;

**RESOLVED**, that the President of the Green Bank, and any other duly authorized officer of the Green Bank, is authorized to execute and deliver any contract or other legal instrument necessary to effect the acquisition of a portion

of the portfolio of Program loans by one or more senior investors on such terms and conditions as are materially consistent with the term sheet dated November 21, 2012 and approved by the Deployment Committee and the memorandum submitted to the Board of Directors on July 12, 2013, except as modified herein, and as he or she shall deem to be in the interests of the Green Bank and the ratepayers, no later than twelve (12) months from the date of this resolution; and

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

**b. CT Solar Lease Update**

Ms. Lieberman updated the board on the first year of the CT Solar Lease product. She noted that Green Bank staff now has more visibility of pipeline time frames and indicated that the leasing company, CT Solar Lease 2 LLC, is preparing to draw funding under its credit facility through the syndicate of lenders led by First Niagara Financial Group and at the same time, as required under the credit facility, to enter into interest rate swaps for not less than 75% of the amounts borrowed. Ms. Lieberman explained the mechanics of the interest rate swap, whereby the floating rate interest associated with the borrowings are exchanged for fixed rate interest, thereby minimizing exposure to increases in floating rate interest costs. General Counsel Farnen reminded the Board of Directors that this is an opportunity to keep them apprised of the amount of money leveraged and the amount at risk. Mr. Hunter then mentioned that the leasing company is planning on swapping interest rates in advance of actual draws under the credit facility since the rates are low now and that little capital is at risk.

**6. Commercial Sector Program Updates and Recommendations**

**a. Trumbull – C-PACE Transaction**

Ms. Bailey highlighted that C-PACE has closed tremendous amounts of transactions over the last two months. She then mentioned an issue that occurred in the early days of the program where, due to construction delays, the Trumbull project took longer than planned and the project went to the town's tax assessor and was placed on the tax rolls before the building owner saw the benefits of a completed project. Since the sale of the loan had already occurred, an adjustment with the town's tax assessors could no longer transpire. Mr. Healy noted that since it was an error in process, which has since been corrected for future projects, an offer to cover the costs by way of a short term loan to the property owner is being requested. This request is at a low interest rate (at the "Prime Rate") to right a wrong and not generate revenue off of the building owner.

**Upon a motion made by Ms. Wrice seconded by Ms. Glover the board voted unanimously in favor of the loan to the building owner to cover the costs of the first payment.**

**WHEREAS**, on October 18, 2013 the Connecticut Green Bank (the “Green Bank”) Board of Directors approved a construction and term loan under the C-PACE program in the amount of \$1,001,298 to ISCT Real Estate, LLC, the property owner of 29 Trefoil Drive, Trumbull, CT;

**WHEREAS**, the Green Bank and ISCT Real Estate, LLC entered into a C-PACE Financing Agreement on November 14, 2013 (the “Financing Agreement”) for the installation of a 252 kW solar system and a variety of efficient lighting upgrades (the “Project”);

**WHEREAS**, the Project faced construction delays and was not fully completed until mid-June, while the first payment was due under the Financing Agreement on July 1, 2014;

**WHEREAS**, requiring a property owner to begin repayment under a C-PACE Financing Agreement prior to having accrued almost any energy savings is not in the spirit of the C-PACE program, with its goal of delivering cash flow benefits to borrowers; and

**WHEREAS**, Green Bank seeks to provide a \$21,110.08 term loan under the C-PACE program to ISCT Real Estate, LLC, the property owner of 29 Trefoil Drive, Trumbull, CT (the "Loan"), to finance the payment of ISCT Real Estate, LLC's first payment under the Financing Agreement.

**NOW**, therefore be it:

**RESOLVED**, that the President of the Green Bank, and any other duly authorized officer of the Green Bank, is authorized to execute and deliver the Loan with terms and conditions consistent with the memorandum submitted to the Board of Directors dated August 19, 2014, and as he or she shall deem to be in the interests of the Green Bank and the ratepayers no later than 90 days from August 26, 2014; and

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

**b. Newington – C-PACE Transaction**

**Upon a motion made by Chairperson Smith seconded by Ms. Wrice the board voted unanimously in favor of the Newington C-PACE Transaction**

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

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

**WHEREAS**, the Green Bank seeks to provide \$750,000 construction and term loan under the C-PACE program to VKR Venture Associates LLC, the property owner of 819-835 North Mountain Road, Newington CT (the "Loan"), to finance the construction of specified clean energy measures in line with the State's Comprehensive Energy Strategy and the Green Bank's Strategic Plan;

**NOW**, therefore be it:

**RESOLVED**, that the President of the Green Bank and any other duly authorized officer of the Green Bank, is authorized to execute and deliver the Loan in an amount not to be greater than one hundred ten percent of the Loan amount with terms and conditions consistent with the memorandum submitted to the Board dated August 19, 2014, and as he or she shall deem to be in the interests of the Green Bank and the ratepayers no later than 120 days from August 26, 2014;

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

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

- 10. Adjournment:** Due to the Chairperson needing to leave the meeting, there was no longer a quorum and the meeting was adjourned at 11:05AM.



Clean Energy Finance and Investment Authority, Draft Minutes, 8/26/2014  
Subject to changes and deletions

Respectfully Submitted,

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Catherine Smith, Chairperson



**CLEAN ENERGY**  
**FINANCE AND INVESTMENT AUTHORITY**

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# Memo

**To:** Audit, Compliance and Governance Committee

**From:** Brian Farnen, General Counsel and CLO

**Date:** July 17, 2014

**Re:** Joint Committee Governance Proposed Structure

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The Joint Committee of the ECMB and the Green Bank (the “Joint Committee”) was statutorily created pursuant to Public Act 11-80 and is codified at Section 16-245m(d)(2) of the Connecticut General Statutes. The Joint Committee examines opportunities to coordinate the activities funded by the Clean Energy Fund<sup>1</sup> with the activities contained in the Conservation and Load Management Plan<sup>2</sup> (“C&LM Plan”) and to provide financing to increase the benefits of programs funded by the C&LM Plan so as to reduce the long-term cost, environmental impacts and security risks of energy in the state. We have created the **attached** draft bylaws for the Joint Committee to better effectuate this purpose.

In order to establish the Joint Committee, the Green Bank must amend its Bylaws to establish a Standing Committee of the Green Bank Board of Directors. This new Standing Committee will (1) represent the Green Bank in the Joint Committee and (2) authorize the members of the Joint Committee to vote and allocate funding in an amount not to exceed three hundred thousand dollars (\$300,000.00) per program or project so long as such program or project is:

- (i) within the Bank’s approved Operations and Program Budget;
- (ii) consistent with the Bank’s Comprehensive Plan;
- (iii) within an approved program of the Board or Deployment Committee; and
- (iv) consistent with the credit and investment guidelines, criteria, policies, and practices approved by the Board.

The revised draft bylaws for the Green Bank are **attached**.

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<sup>1</sup> Formed pursuant to Conn. Gen. Stat. 16-245n (2014).

<sup>2</sup> Developed pursuant to Conn. Gen. Stat. 16-245m (2014).

**Resolution #3**

**WHEREAS**, pursuant to Section 12-245m(d)(2) of the Connecticut General Statutes, there has been created the Joint Committee of the Energy Conservation Management Board and the Green Bank (“Joint Committee”); and

**WHEREAS**, the Green Bank desires to amend its Bylaws to formalize its participation in the Joint Committee.

**NOW**, therefore be it:

**RESOLVED**, that the Audit, Compliance, and Governance Committee hereby recommends to the Board of Directors of the Connecticut Green Bank approval of the revisions to the Green Bank Bylaws as presented to the Audit, Compliance and Governance Committee on July 17, 2014.

~~CLEAN ENERGY FINANCE AND INVESTMENT AUTHORITY~~  
CONNECTICUT GREEN BANK

BYLAWS

PURSUANT TO

Section 16-245n of the  
Connecticut General Statutes

Adopted: ~~May 18, 2012~~

~~Revised:~~ June 21, 2013

Revised: October 17, 2014

**ARTICLE I**  
**NAME, PLACE OF BUSINESS**

- 1.1. **Name of the AuthorityGreen Bank**. The name of the AuthorityGreen Bank shall be, in accordance with the Statute, the "~~Clean Energy Finance and Investment Authority~~Connecticut Green Bank".
- 1.2. **Office of the AuthorityGreen Bank**. The office of the AuthorityGreen Bank shall be maintained at such place or places within the State of Connecticut as the Board may designate.

**ARTICLE II**  
**BOARD OF DIRECTORS**

- 2.1. **Powers**. The powers of the AuthorityGreen Bank are vested in and exercised by a Board of Directors which may exercise all such authority and powers of the AuthorityGreen Bank and do all such lawful acts and things as are necessary to carry out the Comprehensive Plan and the purposes of the AuthorityGreen Bank as provided in the Resolution of Purposes, or as are otherwise authorized or permitted by the Statute or other provisions of the General Statutes, including the authorization of expenditures and use of funds from the Clean Energy Fund created by Section 16-245n(c) of the General Statutes, formerly known as the Renewable Energy Investment Fund, and the Green Connecticut Loan Guaranty Fund created by Section 16a-40f(b) of the General Statutes.
- 2.2. **Chairperson**. The Chairperson of the Board shall be appointed by the Governor. The Chairperson shall perform the duties imposed by the Statute, these Bylaws, and by resolution of the Board, and shall preside at all meetings of the Board which he or she attends. At each meeting the Chairperson shall submit such recommendations and information as the Chairperson may consider appropriate concerning the business, affairs,

and policies of the [AuthorityGreen Bank](#). The Chairperson shall serve at the pleasure of the Governor but no longer than the term of office of the Governor or until the Chairperson's successor is appointed and qualified, whichever is longer.

2.3. **Vice Chairperson.** The Board shall elect from its members a Vice Chairperson. The Vice Chairperson shall perform the duties imposed by the Statute, these Bylaws, and by resolution of the Board. In the absence or incapacity of the Chairperson, the Vice Chairperson shall perform all the duties and responsibilities of the Chairperson. In the absence or incapacity of the Vice Chairperson, or in case of his or her resignation or death, the Board shall elect its members an acting Vice Chairperson during the time of such absence or incapacity or until such time as the Board shall elect a new Vice Chairperson. The Vice Chairperson shall serve until a successor is elected by the Board.

2.4. **Secretary.** A Secretary may be elected by the Board. The Secretary shall perform the duties imposed by the Statute, these Bylaws, and by resolution of the Board. In the absence or incapacity of the Secretary, or in case of a resignation or death, the Board shall elect from their number an acting Secretary who shall perform the duties of the Secretary during the time of such absence or incapacity or until such time as the Board shall elect a new Secretary. The Secretary shall serve until a successor is elected by the Board.

2.5. **Delegation of Powers.** The Board may, by resolution, delegate to the President or other officers of the [AuthorityGreen Bank](#) such powers of the [AuthorityGreen Bank](#) as they believe are necessary, advisable, or desirable to permit the timely performance of the functions of the [AuthorityGreen Bank](#) and to carry out the plans, policies, procedures, and decisions of the Board, except that such delegation shall not include any duties or

responsibilities required by the Statute or these Bylaws to be performed by the Chairperson or the Board or otherwise in conflict with law.

- 2.6. **Directors.** The Directors shall be appointed and serve as provided in the Statute.

### **ARTICLE III OFFICERS AND EMPLOYEES**

- 3.1. **Officers.** The Board shall have the power to create positions for such officers as it may deem to be in the interests of the AuthorityGreen Bank, and shall define the powers and duties of all such officers. All such officers shall be subject to the orders of the Board and serve at its pleasure. Such officers shall include a President and may include a Director of Finance and Chief Investment Officer, a General Counsel and such other officers as the Board may determine to be appropriate. The Board shall be responsible for determining or approving compensation for each officer.

- 3.2. **President.** The Board shall hire a President. The President shall be the chief executive officer of the AuthorityGreen Bank and shall have such duties and responsibilities as may be determined by the Board, except that the duties and responsibilities of the office of President shall not include those required by the Statute or these Bylaws to be performed by the Chairperson or the Board or otherwise in conflict with law. The President shall be a non-voting, *ex officio* member of the Board pursuant to the Statute. The Board may delegate to such other person or persons all or part of the duties of the President. The President may, with the approval of the Board, assign or delegate to the officers and employees of the AuthorityGreen Bank any of the powers that, in the opinion of the President, may be necessary, desirable, or appropriate for the prompt and orderly transaction of the business of the AuthorityGreen Bank.

- 3.3. **Acting President.** The Board may, by resolution adopted by a majority vote, appoint some other person to serve as Acting President and perform the duties of the President in the event of the death, inability, absence, or refusal to act of the President. The Acting President shall be subject to all of the same restrictions placed upon the President.
- 3.4. **Chief Investment Officer.** The Board may appoint a Chief Investment Officer (CIO). The CIO shall have such duties and responsibilities as may be determined by the Board, except that the duties and responsibilities of the office of CIO shall not include those required by the Statute or these Bylaws to be performed by the Chairperson or the Board or otherwise in conflict with law. The CIO shall not be a Director.
- 3.5. **General Counsel.** The Board may appoint a General Counsel. The General Counsel shall be the chief legal officer of the [AuthorityGreen Bank](#) and shall have such duties and responsibilities as may be determined by the Board, except that the duties and responsibilities of the office of General Counsel shall not include those required by the Statute or these Bylaws to be performed by the Chairperson or the Board or otherwise in conflict with law. The General Counsel shall not be a Director.
- 3.6. **Additional Officers and Other Personnel.** The [AuthorityGreen Bank](#) may from time to time employ such other personnel as it deems necessary to exercise its powers, duties, and functions pursuant to the Statute and any and all other laws of the State of Connecticut applicable thereto. The President shall develop a staffing plan which shall include without limitation a chart of positions and position descriptions for the [AuthorityGreen Bank](#), personnel policies and procedures, and related compensation levels. Such staffing plan may provide for officers of the [AuthorityGreen Bank](#) in addition to those specifically provided for in these Bylaws, and the appointment of such



officers shall be in the discretion of the President, except as the Board may otherwise determine. The President shall deliver the staffing plan to the Budget and Operations Committee for its review and approval pursuant to Article V, Section 5.3.2 hereof.

- 3.7. **Signature Authority; Additional Duties.** The President and officers of the AuthorityGreen Bank shall have such signature authority as is provided in the Authority'sGreen Bank's Operating Procedures, and as may from time to time be provided by resolution of the Board. The officers of the AuthorityGreen Bank shall perform such other duties and functions as may from time to time be required.

## ARTICLE IV BOARD MEETINGS

- 4.1. **Regular Meetings.** Regular meetings of the Board or any Committee for the transaction of any lawful business of the AuthorityGreen Bank shall be held in accordance with a schedule of meetings established by the Board or such Committee, provided that the Board shall meet at least six (6) times per calendar year.
- 4.2. **Special Meetings.** The Chairperson may, when the Chairperson deems it expedient, call a special meeting of the Board for the purpose of transacting any business designated in the notice of such meeting. The Committee Chair of any Committee may, when the Committee Chair deems it expedient, call a special meeting of such Committee for the purpose of transacting any business designated in the notice of such meeting.
- 4.3. **Legal Requirements.** All meetings of the Board or any Committee shall be noticed and conducted in accordance with the applicable requirements of the Statute and the Connecticut Freedom of Information Act, including without limitation applicable requirements relating to the filing with the Secretary of the State of any schedule of

regular meetings and notices of special meetings, meeting notices to Directors and Committee members, public meeting requirements, the filing and public availability of meeting agenda, the recording of votes and the posting or filing of minutes, the addition of agenda items at any regular meeting, and the holding of any executive session.

4.4. **Order of Business.** The order of business of any meeting of the Board or any Committee shall be as set forth in the agenda for such meeting, provided that the Board or Committee may vary the order of business in its discretion.

4.5. **Organization.**

4.5.1. At each meeting of the Board, the Chairperson, or in the absence of the Chairperson, the Vice Chairperson, or in the absence of both, a Director chosen by a majority of the Directors then present, shall act as Presiding Officer. The Secretary, or a staff member designated by the President, shall prepare or direct the preparation of a record of all business transacted at such meeting. Such record when adopted by the Directors at the next meeting and signed by the Chairperson or the Secretary shall be the official minutes of the meeting.

4.5.2. At each meeting of a Committee, the Committee Chair, or in the absence of the Committee Chair any other Committee member designated by the majority of the Committee members then present, shall act as Presiding Officer. The President, a staff member designated by the President, or any Committee member chosen by the Presiding Officer, shall prepare or direct the preparation of a record of the business transacted at such meeting. Such record when adopted by a majority of the Committee members in attendance at the next

meeting and signed by the Committee Chair shall be the official minutes of the Committee meeting.

4.6. **Attendance.** A Director or a member of a Committee may participate in a meeting of the Board or of such Committee by means of teleconference, videoconference, or similar communications equipment enabling all Directors and Committee members participating in the meeting to hear one another, and participation in a meeting pursuant to this Section shall constitute presence in person at such a meeting. Directors or their designees who miss more than three (3) consecutive meetings shall be asked to become more active on the Board. In the event of further absence, the Board may decide by majority vote to recommend to the appointing authority that the appointment be reconsidered.

4.7. **Quorum.**

4.7.1. A majority of the Directors then in office shall constitute a quorum for the transaction of any business or the exercise of any power of the AuthorityGreen Bank.

4.7.2. A majority of the Director-members of a Committee shall constitute a quorum, provided that, except in the case of an advisory committee, such quorum shall consist of a minimum of three (3) Directors, at least one (1) of which shall not be a State employee.

4.8. **Enactment.** When a quorum is present, an affirmative vote of a majority of Directors in attendance at Board or Committee meetings shall be sufficient for action, including the passage of any resolution, except as may otherwise be required by these Bylaws or applicable law. Non-Director members of any Committee may participate in the Committee's discussions and deliberations and may join in the Committee's

recommendations to the Board, but shall not have a vote on any matters as to which the Committee is exercising the powers of the Board, including without limitation, any funding decisions.

- 4.9. **Designation of Substitutes for Directors.** If authorized by the Statute, then a Director may appoint a designee to serve as the Director's representative on the Board with full power to act and to vote on that Director's behalf. For the purposes of maintaining consistency and efficiency in Board matters, alternating attendance between the Director and his or her designee is strongly discouraged. If not authorized by statute, then a Director may not name or act through a designee. An authorized appointment of a designee shall be made by filing with the Board a short bio of the designee, the designee's CV, and a certificate substantially similar to the following:

"Certificate of Designation

I, \_\_\_\_\_, a member of the Board of Directors of the ~~Clean Energy Finance and Investment Authority~~Connecticut Green Bank, do hereby designate \_\_\_\_\_ [Name & Title] to represent me at the meetings of the Board or committees thereof with full powers to act and vote on my behalf. This designation shall be effective until expressly revoked in writing.

\_\_\_\_\_  
[Name]"

## ARTICLE V COMMITTEES

- 5.1. **Delegation Generally.** The Board may delegate any and all things necessary or convenient to carry out the purposes of the ~~Authority~~Green Bank to three (3) or more

Directors, provided that at least one (1) of which shall not be a State employee, and, to the extent of powers, duties, or functions not by law reserved to the Board, to any officer or employee of the AuthorityGreen Bank as the Board in its discretion shall deem appropriate.

5.2. **Appointments; Quorum; Transaction of Business; Recordkeeping.**

5.2.1. **Appointments.** The Chairperson shall appoint all Committee Chairs. The Committee Chair need not be a Director on the Deployment Committee any *ad hoc* committee, or an advisory committee.

5.2.2. **Quorum.** If necessary to achieve a quorum at any meeting of a Committee other than an advisory committee, then the Chairperson or the Vice Chairperson may sit, participate, and vote as an alternate member of such committee at such meeting.

5.2.3. **Report of Committee Actions.** Each Committee shall report to the Board on such Committee's actions and activities at the regular Board meeting next following each Committee meeting.

5.2.4. **Recordkeeping.** Committee recordkeeping shall be in accordance with Article IV, Section 4.5.2 hereof.

5.3. **Standing Committees.** The AuthorityGreen Bank shall have ~~three (3)~~four (4) Standing Committees of the Board consisting of an Audit, Compliance, and Governance Committee, a Budget and Operations Committee, ~~and~~ a Deployment Committee, and a Joint Committee of the Energy Conservation Management Board and the Connecticut Green Bank. Each Standing Committee may form subcommittees in its discretion, but no

such subcommittee shall exercise powers of the Board unless authorized by the Board to do so.

**~~5.3.1.~~—Audit, Compliance, and Governance Committee.** The Audit, Compliance, and Governance Committee shall consist of no less than three (3) Directors appointed by the Chairperson on a biennial basis, at least one (1) of which shall not be a State employee. The principal functions, responsibilities, and areas of cognizance of the Audit, Compliance, and Governance Committee shall be as follows:

- (i) recommendation to the Board as to the selection of auditors; (ii) meetings with the auditors to review the annual audit and formulation of an appropriate report and recommendations to the Board with respect to the approval of the audit report; (iii) review of the audit and compliance findings of the Auditors of Public Accounts, and meetings with the staff auditors there as appropriate; (iv) review with the auditors, President, and senior finance staff of the adequacy of internal accounting policies, procedures and controls; (v) review of the sufficiency of financial and compliance reports required by statute; (vi) recommendation to the Board as to the selection of the ~~Authority's~~Green Bank's ethics liaison and ethics compliance officer(s); (vii) review of the adequacy of employee education and training on ethics and related legal requirements; (viii) review and approval of, and in its discretion recommendations to the Board regarding, all governance and administrative matters affecting the ~~Authority~~Green Bank, including but not limited to matters of corporate governance, corporate governance policies, committee structure and membership, management qualifications and evaluation, and Board and Standing Committee self-evaluation; (ix) oversight of the ~~Authority's~~Green Bank's legal compliance

programs, including but not limited to compliance with state contracting and ethics requirements; (x) management succession planning; (xi) oversight of any Director conflict of interest matters; (xii) as-needed review of any staff recommendations to the Board regarding the Authority's Green Bank's regulatory or policy initiatives including but not limited to the Comprehensive Plan and other clean energy regulatory or policy evidentiary matters

~~5.3.2.~~5.3.1. before the Public Utilities Regulatory Authority and other state and federal commissions and tribunals that may affect clean energy development and/or the Authority's Green Bank's statutory mandate; (xiii) acting as a resource to the appointing authorities with respect to the identification and recruitment of qualified and interested private sector Director candidates; and (~~vix~~vi) the exercise of such authority as may from time to time be delegated by the Board to the Audit, Compliance, and Governance Committee within its areas of cognizance.

~~5.3.3.~~5.3.2. **Budget and Operations Committee.** The Budget and Operations Committee shall consist of no less than three (3) Directors appointed by the Chairperson on a biennial basis, at least one (1) of which shall not be a State employee. Additionally, the Chairperson or the Vice Chairperson shall be a non-voting *ex officio* member of the committee, subject to the provisions of Article V, Section 5.2.2 hereof. The principal functions, responsibilities, and areas of cognizance of the Budget and Operations Committee shall be as follows: (i) to recommend and monitor compliance with prudent fiscal policies, procedures, and practices to assure that the Authority Green Bank has the financial resources

and financial strategy necessary to carry out its statutory responsibilities and mission, including oversight of the Authority's Green Bank's budget process, asset and liability management, asset risk management, insurance and loss prevention, and performance measurement; (ii) recommendation to the Board as to approval of the annual operating budget and plan of operation; (iii) oversight of space planning and office leases, systems, and equipment, and procedures and practices with respect to purchasing; (iv) to recommend and monitor compliance with policies, programs, procedures, and practices to assure optimal organizational development, establishment of policies, programs, procedures and practices to assure optimal organizational development, the recruitment and retention of qualified personnel and the just and fair treatment of all employees of the Authority Green Bank, including employment policies and practices, employee training, development, evaluation and advancement, employee compensation and benefits, and matters of employee separation and severance; (v) review and approval of the Authority Green Bank staffing plan as developed by the President; (vi) with respect to reallocation of amounts between approved budget line items in excess of ten thousand dollars (\$10,000) but not exceeding seventy-five thousand dollars (\$75,000) in total, approval of such reallocation; (vii) with respect to increases to the operating budget or unbudgeted disbursements in amounts in excess of ten thousand (\$10,000) but not exceeding seventy-five thousand (\$75,000), approval of such increases; and (viii) the exercise of such authority as may from time to time be delegated by the Board to the Budget and Operations Committee within its areas of cognizance.



5.3.4.5.3.3. **Deployment Committee.** The Deployment Committee shall consist of no more than six (6) members total, consisting of no less than three (3) Directors and up to three (3) non-Directors, all appointed by the Chairperson on a biennial basis, and at least one (1) of the Director-members shall not be a State employee. Additionally, the State Treasurer, or her or his designee, shall be a voting *ex officio* member of the committee. Additionally, the Chairperson or the Vice Chairperson shall be a non-voting *ex officio* member of the committee, subject to the provisions of Article V, Section 5.2.2 hereof. The non-Director members of the Deployment Committee shall each have expertise in such areas as: project finance, levelized cost of clean energy, investment banking, commercial lending, tax-exempt or tax-advantaged financing or municipal banking, or clean energy policy. The principal functions, responsibilities, and areas of cognizance of the Deployment Committee shall be as follows: (i) to recommend and monitor compliance with program, project, and investment guidelines, criteria, policies, and practices supporting the Authority's Green Bank's statutory mission and management of such by the Authority's Green Bank's professional staff; (ii) with respect to loans, loan guarantees, loan loss reserves, credit enhancements, debt support programs, debt, debt-like, grants, equity, near-equity, and related measurement and verification studies and evaluation audit funding requests, including but not limited to the On-Site Renewable Distributed Generation Program, the Residential Solar program, the Combined Heat and Power pilot program, the Anaerobic Digestion pilot program, and the Condominium Renewable Energy grant program, between

three hundred thousand dollars (\$300,000) and two million five hundred thousand dollars (\$2,500,000), evaluation and approval of such requests on behalf of the Board so long as such approval is within the Authority's Green Bank's approved Operations and Program Budget; (iii) with respect to loans, loan guarantees, loan loss reserves, credit enhancements, debt support programs, debt, debt-like, grants, equity and near-equity funding requests which exceed two million five hundred thousand dollars (\$2,500,000), evaluation of such requests and recommendation to the Board regarding such requests; (iv) oversight of policies and practices relating to the evaluation and recommendation of initial investments, follow-on investments, investment modifications and restructurings, and the sale or other disposition of investments by the Authority's Green Bank's professional investment staff; (v) oversight of policies and practices relating to investment management by the Authority's Green Bank's professional investment staff, including implementation of investment exit strategies; (vi) except to the extent of any investment powers expressly reserved to the Board itself in any resolution of the Board, to approve on behalf of the Board investments, follow-on investments, investment modifications and restructurings, and the sale or other disposition of investments; (vii) to review and recommend to the Board the issuance of bonds, notes or other obligations of the Authority Green Bank, and upon such approval, to sell, issue and deliver such bonds, notes or obligations on behalf of the Authority Green Bank; and (viii) the exercise of such other authority as may

from time to time be delegated by the Board to the Deployment Committee within its areas of cognizance.

**5.3.4. Joint Committee of the Energy Conservation Management Board and the**

**Connecticut Green Bank. The Standing Committee Related to the Joint**

**Committee of the Energy Conservation Management Board and the Board of**

**Directors of the Green Bank shall consist of ~~three~~ no more than (23) voting Directors**

**and (2) nonvoting members who shall be appointed by the Chairperson on a biennial**

**basis to serve on both this Standing Committee and the Joint Committee. Said**

**Directors of this Standing Committee shall be charged with joining with ~~three~~four**

**(43) members, no more than (2) voting Directors and (2) nonvoting members, from**

**the Energy Conservation Management Board to form the Joint Committee as**

**required pursuant to 16-245m(d)(2) of the General Statutes.**

**5.3.4.1. The principal functions, responsibilities and areas of cognizance of this**

**Standing Committee shall be as follows: (i) to work with the Joint**

**Committee to examine opportunities to coordinate the programs and**

**activities contained in the plan developed under section 16-245n (c) of**

**the General Statutes with the programs and activities contained in the**

**plan developed under section 16-245m(d)(1) of the General Statutes;**

**and (ii) to work with the Joint Committee to provide financing to**

**increase the benefits of programs funded by the plan developed under**

**section 16-245m(d)(1) of the General Statutes so as to reduce the long-**

**term cost, environmental impacts and security risks of energy in the**

**state.**

5.3.4.2. This Standing Committee, in consultation with and upon approval of the Joint Committee, is authorized to vote and allocate funding in an amount not to exceed three hundred thousand dollars (\$300,000.00) per program or project so long as such program or project is within the Green Bank's approved Operations and Program Budget, consistent with the Green Bank's Comprehensive Plan, within an approved program of the Board or Deployment Committee and consistent with the credit and investment guidelines, criteria, policies, and practices approved by the Board. No resolution of the Joint Committee to approve an expenditure of funds may be approved without an affirmative vote of at least two (2) ~~members~~voting Directors of the Connecticut Green Bank.

5.3.4.3. Notwithstanding anything contained in these Bylaws to the contrary, the Joint Committee may adopt its own bylaws which shall govern the conduct and operations of the Joint Committee. If there are conflicting provisions between these Bylaws and any bylaws adopted by the Joint Committee, these ~~Bylaws~~ shall be controlling.

5.3.5. Additional Standing Committees or *ad hoc* committees of the Board may be formed by the Board at its discretion by resolution setting forth the purposes and responsibilities of such additional Standing Committee or *ad hoc* committee. Each additional Standing Committee or *ad hoc* committee shall have at least three (3) members who are Directors, at least one (1) of which shall not be a State employee.

5.4. **Advisory Committees.**

- 5.4.1. The Board may form such advisory committees as the Board in its discretion may determine to be appropriate to advise and assist the Board, any Standing Committee of the Board, or management of the AuthorityGreen Bank in the performance of its statutory responsibilities. Such advisory committees may include as members such individuals as may be knowledgeable in the subject matter whether or not Directors or employees of the AuthorityGreen Bank.
- 5.4.2. Members of an advisory committee who are not Directors or employees of the AuthorityGreen Bank shall be considered "members of an advisory board" for purposes of the Connecticut Code of Ethics for Public Officials.
- 5.4.3. Public confidence in the recommendations and other actions of an advisory committee requires that advisory committee members avoid both actual conflicts of interest and situations that might give the appearance of a conflict of interest. It is to be expected, however, that many advisory committee members will have outside business or professional interests relating to the Authority'sGreen Bank's statutory mission. It is not intended that such outside business or professional interests be considered a conflict of interest, provided that an advisory committee member shall not participate in any deliberation or vote, and shall not take any other affirmative action as an advisory committee member, with respect to a matter in which such member has an interest which is in substantial conflict with the proper discharge of the duties and responsibilities of membership on the advisory committee. For this purpose, the determination of whether an advisory committee member has an interest which is in

substantial conflict with the duties and responsibilities of membership on the advisory committee shall be made in the same manner as provided in Section 1-85 of the Connecticut General Statutes for conflicting interests of public officials. In addition to disclosures required by law, the existence and nature of any such substantial conflict shall be promptly disclosed to the Committee Chair.

## **ARTICLE VI FISCAL YEAR**

- 6.1. **Fiscal Year.** The fiscal year of the ~~Authority~~Green Bank shall extend from July 1 through the following June 30 except as the same may be otherwise determined by resolution of the Board.

## **ARTICLE VII CONFLICTS OF INTEREST**

- 7.1. Public confidence in the recommendations and other actions of the Board and Committees requires that Directors avoid both actual conflicts of interest and situations that might give the appearance of a conflict of interest. Given the statutory qualifications for membership on the Board, it is to be expected, however, that some Directors will have outside business or professional interests relating to the ~~Authority's~~Green Bank's statutory mission. It is not intended that such outside business or professional interests be considered a conflict of interest, provided that a Director shall not participate in any deliberation or vote, and shall not take any other affirmative action as a Director or Committee member, with respect to a matter in which such Director has an interest which is in substantial conflict with the proper discharge of the duties and responsibilities of

membership on the Board or such Committee. For this purpose, the determination of whether a Director has an interest which is in substantial conflict with the duties and responsibilities of membership on the Board or a Committee shall be made in the manner provided in Section 1-85 of the Connecticut General Statutes for conflicting interests of public officials. The existence and nature of any potential conflict of interest shall be promptly disclosed to the Chairperson (or, in the case of the Chairperson, to the Vice Chairperson) and otherwise as may be required by Section 1-86 of the Connecticut General Statutes.

- 7.2. With respect to potential conflicts of interest, as defined in Section 1-86(a) of the Connecticut General Statutes and pursuant thereto and pursuant to Section 1-81-30(c) of the Regulations of Connecticut State Agencies, the Member shall either (1) excuse himself or herself from participating in any deliberation or vote on the matter and may not otherwise take any affirmative action on the matter or (2) shall prepare a written statement prepared under penalty of false statement describing the matter requiring action and the nature of the potential conflict and explaining why, despite the potential conflict, such Member is able to vote and otherwise participate fairly, objectively, and in the public interest, and shall deliver a copy of such statement to the Office of State Ethics and shall enter a copy of the statement in the minutes of the Board or committee, as applicable.
- 7.3. In addition to the steps described in Section 7.1 and 7.2, above, a conflicted or potentially conflicted Director:
  - 7.3.1. is strongly encouraged to leave the room during discussion and vote on the matter at hand; and

- 7.3.2. shall not participate in such discussion and vote; and
- 7.3.3. shall not have access to non-public confidential information regarding the matter at hand.

## **ARTICLE VIII COMPENSATION**

- 8.1. No Director or Committee member shall at any time receive or be entitled to receive any compensation for the performance of his or her duties as a Director, but may be reimbursed by the AuthorityGreen Bank for reasonable and necessary expenses incurred in the performance of such duties.

## **ARTICLE IX PARLIAMENTARY AUTHORITY**

- 9.1. Robert's Rules of Order, current revised edition, shall govern the proceedings of the Board when not in conflict with these Bylaws.

## **ARTICLE X ROLE OF CONNECTICUT INNOVATIONS, INC.**

- 10.1. **For Administrative Purposes Only.** Pursuant to the Statute, the AuthorityGreen Bank is within Connecticut, Innovations, Incorporated, for administrative purposes only. The relationship between the AuthorityGreen Bank and Connecticut Innovations, Inc., will be governed by the Statute, Conn. Gen. Stat. § 4-38f as if applicable to the relationship between the AuthorityGreen Bank and Connecticut Innovations, Incorporated, and other applicable law, and shall be memorialized in a contract for services.



## ARTICLE XI AMENDMENT

- 11.1. **Amendment or Repeal.** These Bylaws may be amended or repealed or new Bylaws may be adopted by the affirmative vote of a Super Majority of the Directors then in office.
- The AuthorityGreen Bank may adopt rules for the conduct of its business, and the adoption of such rules shall not constitute an amendment of these Bylaws.

## ARTICLE XII DEFINITIONS

- 12.1. **Definitions.** Unless the context shall otherwise require, the following words and terms shall have the following meanings:
- 12.1.1. "AuthorityGreen Bank" means the ~~Clean Energy Finance and Investment Authority~~ Connecticut Green Bank, as created and existing pursuant to the Statute.
- 12.1.2. "Board" means the board of directors of the AuthorityGreen Bank appointed and serving pursuant to the Statute.
- 12.1.3. "Chairperson" means the Chairperson of the Board appointed pursuant to the Statute.
- 12.1.4. "Committee" means any committee of or formed by the Board, including any Standing Committee, *ad hoc* committee, or advisory committee.
- 12.1.5. "Committee Chair" means the Chairperson of a Committee.
- 12.1.6. "Comprehensive Plan" means the plan developed by the AuthorityGreen Bank pursuant to section 16-245n(c) of the General Statutes.
- 12.1.7. "Connecticut Freedom of Information Act" means the Connecticut Freedom of Information Act, Connecticut General Statutes § 1-200 *et seq.*, as amended.

- 12.1.8. "Director" means a voting member of the Board appointed pursuant to the Statute.
- 12.1.9. "General Statutes" means the Connecticut General Statutes, as amended.
- 12.1.10. "Majority", whether capitalized or lowercase, means one more than half.
- 12.1.11. "President" means the President of the AuthorityGreen Bank hired by and serving at the pleasure of the Board of Directors of the AuthorityGreen Bank.
- 12.1.12. "Presiding Officer" has the meaning attributed to that term in Article IV, Section 4.5 of these Bylaws.
- 12.1.13. "Resolution of Purposes" means a resolution of the Board adopted pursuant to the penultimate sentence of Section 16-245n(d) of the General Statutes.
- 12.1.14. "Secretary" means the Secretary of the Board elected pursuant to the Statute and these Bylaws.
- 12.1.15. "Standing Committee" means a Standing Committee established by these Bylaws or another standing committee appointed by the Board for a specified period of time for the purpose of carrying out one or more functions of the AuthorityGreen Bank.
- 12.1.16. "Statute" means Connecticut General Statutes § 16-245n, as amended.
- 12.1.17. "Super Majority" means two thirds rounded up to the next whole integer.
- 12.1.18. "Vice Chairperson" means the Vice Chairperson of the Board elected pursuant to these Bylaws.

### **ARTICLE XIII**

### **AUTHORITY**

- 13.1. These Bylaws are adopted pursuant to the Statute and effective as of May 18, 2012.





**CLEAN ENERGY**  
**FINANCE AND INVESTMENT AUTHORITY**

## Memo

**To:** Board of Directors of the Connecticut Green Bank

**From:** Bryan Garcia (President and CEO), Mackey Dykes (Chief-of-Staff), Kerry O'Neill (Director of Residential Programs), Jessica Bailey (Director of Commercial and Industrial Programs), and Dale Hedman (Director of Statutory and Infrastructure Programs),

**Cc:** Brian Farnen (General Counsel and Chief Legal Officer)

**Date:** August 19, 2014

**Re:** Recurring Professional Services Agreement

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As the Connecticut Green Bank ("Green Bank") has developed its programs over the last three years, it has formed partnerships with outside vendors to provide key services to those programs. The fiscal year 2015 budget included funds for these key vendors to continue those services. Staff is requesting authority to extend the professional services agreements (PSAs) currently in place with vendors for the remainder of fiscal year 2015 with an amount not to exceed the approved budget line item.

### **Locus Energy**

*FY15 Budget: \$120,000*

*Amount of PSA: \$160,000*

Locus is the residential and commercial solar PV system monitoring platform, system analysis tool and database. The monitoring platform provides real-time production data which Green Bank uses to calculate generation and incentive payments as well as REC production. The scope of the PSA is to continue these monitoring services for FY15. Locus was selected through a competitive RFP in 2012. The Residential Solar Investment Program was designed around to advantage of their monitoring and performance analysis and it is now an integral part of the everyday operations. There is no plan to rebid as switching systems would represent a severe disruption and require a large time and money investment.

The PSA is higher than the original budget because we are projecting more volume now based on first quarter actuals than anticipated during the budget process. We will switch dollars within the Residential Solar Investment Program to cover the increase.

### **MatchDrive**

*FY15 Budget: \$1,299,600*

*Amount of PSA: \$649,435*

MatchDrive is a marketing services company based out of Norwalk. They were selected for fiscal year 2013 as Green Bank's marketing partner after an RFP run the previous year. They assisted with the launch of three products in the residential sector, Smart-E, the CT Solar Lease and the CT Solar Loan,

providing collateral, web development and customer acquisition campaigns including online advertising/paid search and print media. For the commercial and industrial sector, MatchDrive has provided web development support, online advertising/paid search, and launched the PACESetters campaign, including case studies and paid media, to raise awareness of C-PACE and the benefits it has brought to selected building owners.

This amendment would extend the work for another 9 months, as we review the demands incumbent to rebranding CEFIA to the CT Green Bank and whether Match has the ability, interest and resources available to accommodate those needs. Plans are to issue an RFP to award a new contract once this extension expires.

## **Smartpower**

*FY15 Budget: \$650,000 (\$500,000 for Solarize CT and \$150,000 for Energize Norwich and similar campaigns)*

*Amount of PSA: Between \$300,000 and \$350,000*

SmartPower, the nation's leading non-profit marketing firm dedicated to promoting renewable energy and energy efficiency, was chosen to provide marketing, education and outreach services for the Solarize Connecticut campaign in May 2012. The partnership was a strategic selection based on various factors including their expertise in marketing solar, prior success with clean energy programs administered by Green Bank or its predecessor and ability to leverage private funding from philanthropic foundations. SmartPower also was selected through a competitive RFQ to provide miscellaneous marketing services. The PSA was renewed for year two of Solarize and, simultaneously, SmartPower, along with Yale University, New York University and Green Bank, were awarded a grant from the U.S. Department of Energy (DOE) under its Solar Energy Evolution and Diffusion Studies (SEEDS) program. This DOE grant enabled Green Bank to test variations of the Solarize program in numerous municipalities. Similarly, SmartPower was selected in June 2013 to adapt the Solarize model to encourage fuel conversions and energy efficiency upgrades using the Smart-E Loan for the Energize Norwich Campaign. Green Bank wishes to continue this work for another year and evolve and expand these programs in additional communities as well as affinity partners such as Universities for Solarize U. CEFIA will rebid the contract in fiscal year 2016.

## **RESOLUTION**

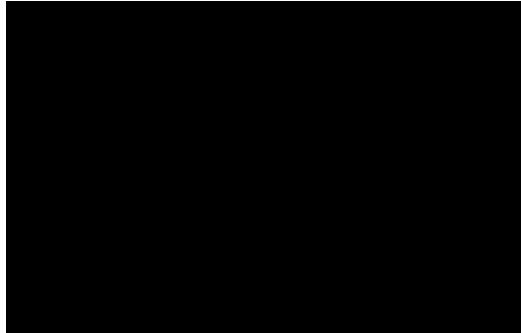
**NOW**, therefore be it:

**RESOLVED**, that the Connecticut Green Bank Board of Directors hereby authorizes Green Bank staff to extend the professional services agreements (PSAs) currently in place with:

- i. Locus Energy, LLC;
- ii. Marketing Drive, LLC; and
- iii. SmartPower, Inc.;

for the remainder of fiscal year 2015 with the amounts of each PSA not to exceed the amount reference in this memorandum; and

**RESOLVED**, that the proper Connecticut Green Bank officers are authorized and empowered to do all other acts and execute and deliver all other documents and instruments as they shall deem necessary and desirable to execute these extensions.

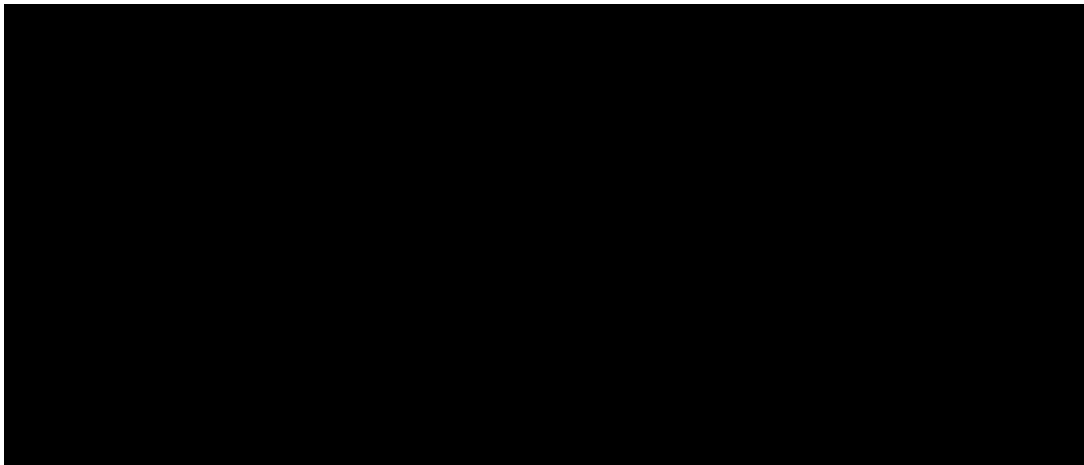


## Polymeric Converting: A C-PACE Project in Enfield, CT

<b>Address</b>	5 Old Depot Hill Rd		
<b>Owner</b>	G&M Real Estate Enterprises, LLC		
<b>Proposed Assessment</b>	\$840,640		
<b>Term (years)</b>	20		
<b>Term Remaining (months)</b>	Pending Construction Completion		
<b>Annual Interest Rate</b>	6%		
<b>Annual C-PACE Assessment</b>	\$72,736		
<b>Savings-to-Investment Ratio</b>	1.42		
<b>Average Debt-Service Coverage Ratio</b>	[REDACTED]		
<b>Lien-to-Value Ratio</b>	[REDACTED]		
<b>Proposed Energy Savings and/or Produced</b>		<b>RE</b>	<b>Total</b>
	Per year	1,208 (MMBtu)	1,208 (MMBtu)
	Over loan	22,106 (MMBtu)	22,106 (MMBtu)
<b>Estimated Cost Savings</b>	Per year	\$75,418*	\$75,418*
	Over loan	\$1,564,322*	\$1,564,322*
<b>Objective Function</b>	0.026 MMBtu per ratepayer dollar at risk		
<b>Location</b>	Town of Enfield		
<b>Type of Building</b>	Manufacturing/Industrial Plant		
<b>Year of Build</b>	1950		
<b>Building Size (total sf)</b>	57,000		
<b>Year Acquired by Current Owner</b>	1995		
<b>Appraised Value</b>	[REDACTED]		
<b>Status of Mortgage Lender Consent</b>	No Mortgage		
<b>Proposed Project Description</b>	290 kW rooftop solar PV		
<b>Est. Date of Construction Completion</b>	Pending closing		
<b>Current Status</b>	Pending Board of Directors approval		
<b>Energy Contractors</b>	[REDACTED]		
<b>Additional Comments</b>	* Excluding tax benefits [REDACTED]		

**38 Security Drive – Norwich Commercial Group:  
A C-PACE Project in Avon, CT**

<b>Address</b>	38 Security Drive, Avon, CT			
<b>Owner</b>	Norwich Commercial Group, Inc.			
<b>Proposed Assessment</b>	\$629,352			
<b>Term (years)</b>	20			
<b>Term Remaining (months)</b>	Pending Construction Completion			
<b>Annual Interest Rate</b>	6%			
<b>Annual C-PACE Assessment</b>	\$54,455			
<b>Savings-to-Investment Ratio</b>	1.01			
<b>Average Debt Service Coverage Ratio</b>	██████████			
<b>LTV / Lien-to-Value Ratio</b>	██████████			
<b>Projected Energy Savings</b>		EE	RE	Total
	Per year	N/A	536MMBTu	536MMBTu
	Over loan	N/A	9,988MMBTu	9,988MMBTu
<b>Estimated Cost Savings</b>	Per year	N/A	\$54,754	\$54,754
	Over loan	N/A	\$1,095,080	\$1,095,080
<b>Objective Function</b>	0.02MMBTu Energy Saved per Ratepayer Dollar at Risk			
<b>Location</b>	Town of Avon			
<b>Type of Building</b>	Office – Medium (10,000-50,000SF)			
<b>Year of Build</b>	1979			
<b>Building Size (total sf)</b>	36,000			
<b>Served Available Market – within Municipality</b>	1%			
<b>Year Acquired by Current Owner</b>	2013			
<b>Property Value</b>	██████████			
<b>Status of Mortgage Lender Consent</b>	In discussion – Liberty Financial			
<b>Proposed Project Description</b>	Installation of 143kW PV System			
<b>Est. Date of Construction Completion</b>	Pending Closing			
<b>Current Status</b>	Pending Board of Directors Approval			
<b>Energy Contractor</b>	██████████			
<b>Additional Comments</b>				

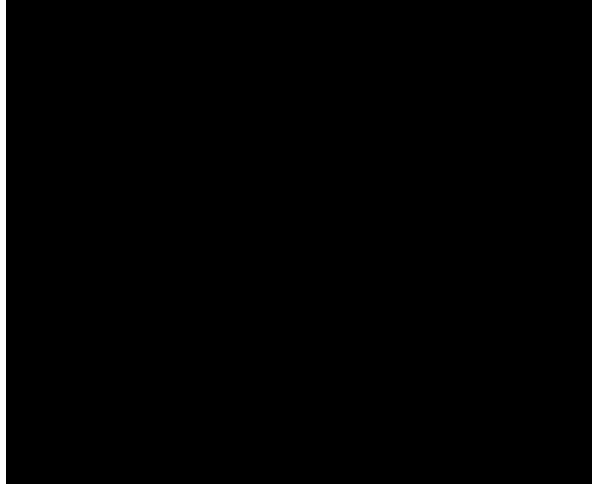


### 80 Newtown Road: A C-PACE Project in Danbury, CT

<b>Address</b>	80 Newtown Road, Danbury			
<b>Owner</b>	Danbury Hospitality, LLC			
<b>Proposed Assessment</b>	\$718,082			
<b>Term (years)</b>	18			
<b>Term Remaining (months)</b>	Pending Construction Completion			
<b>Annual Interest Rate</b>	5.8%			
<b>Annual C-PACE Assessment</b>	\$64,804			
<b>Savings-to-Investment Ratio</b>	1.01			
<b>Average Debt Service Coverage Ratio</b>	[REDACTED]			
<b>LTV / Lien-to-Value Ratio</b>	[REDACTED]			
<b>Projected Energy Savings</b>		EE	RE	Total
	Per year	1,759 MMBtu	0	1,759 MMBtu
	Over loan	26,707 MMBtu	0	26,707 MMBtu
<b>Estimated Cost Savings</b>	Per year	\$63,992	0	\$63,992
	Over loan	\$1,173,927	0	\$1,173,927
<b>Objective Function</b>	22.75 kBtu per ratepayer dollar at risk			
<b>Location</b>	City of Danbury			
<b>Type of Building</b>	Hospitality			
<b>Year of Build</b>	1974 (renovated 2013 / 2014)			
<b>Building Size (total sf)</b>	67,000			
<b>Year Acquired by Current Owner</b>	2014			
<b>Property Value</b>	[REDACTED]			
<b>Status of Mortgage Lender Consent</b>	Pending (Greater Hudson Bank and SBA)			
<b>Proposed Project Description</b>	HVAC; lighting; windows; building management system			
<b>Est. Date of Construction Completion</b>	Pending closing			
<b>Current Status</b>	Pending Board of Directors approval			
<b>Energy Contractor</b>	[REDACTED]			
<b>Additional Comments</b>	[REDACTED]			







### 130 Coram Lane: A C-PACE Project in Milford, CT

<b>Address</b>	130 Coram Lane, Milford			
<b>Owner</b>	Great River LLC			
<b>Proposed Assessment</b>	\$492,323			
<b>Term (years)</b>	14			
<b>Term Remaining (months)</b>	Pending Construction Completion			
<b>Annual Interest Rate</b>	5.4%			
<b>Annual C-PACE Assessment</b>	\$50,569			
<b>Savings-to-Investment Ratio</b>	1.16			
<b>Average Debt Service Coverage Ratio</b>	[REDACTED]			
<b>LTV / Lien-to-Value Ratio</b>	[REDACTED]			
<b>Projected Energy Savings</b>		EE	RE	Total
	Per year	2,438 MMBtu	0	2,438 MMBtu
	Over loan	28,438 MMBtu	0	28,438 MMBtu
<b>Estimated Cost Savings</b>	Per year	\$58,556	0	\$58,556
	Over loan	\$816,099	0	\$816,099
<b>Objective Function</b>	57.75 kBtu per ratepayer dollar at risk			
<b>Location</b>	City of Milford			
<b>Type of Building</b>	Golf Course			
<b>Year of Build</b>	2000			
<b>Building Size (total sf)</b>	22,000 (on ~ 95 acres of land)			
<b>Year Acquired by Current Owner</b>	1999			
<b>Property Value</b>	[REDACTED]			
<b>Status of Mortgage Lender Consent</b>	Pending (First Niagara)			
<b>Proposed Project Description</b>	HVAC upgrades (including new RTUs and control system); lighting			
<b>Est. Date of Construction Completion</b>	Pending closing			
<b>Current Status</b>	Pending Board of Directors approval			
<b>Energy Contractor</b>	[REDACTED]			
<b>Additional Comments</b>	[REDACTED]			



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**FINANCE AND INVESTMENT AUTHORITY**

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TO: Connecticut Green Bank Board of Directors

FROM: Jessica Bailey, Director C&I Programs

CC: Senior Staff

DATE: October 9, 2014

RE: Request for Revised PSA with Sustainable Real Estate Solutions, Inc.

---

Among the requirements assigned to the Connecticut Green Bank in the enabling C-PACE statute is to confirm that the savings to investment ratio is greater than one for approved projects. It is a responsibility the staff has taken seriously since the inception of the program. The first RFP circulated by the Connecticut Green Bank when the program was being designed was to secure a partner to draft the Technical Standards that would guide our review of C-PACE applications. The winner of that RFP was a Connecticut based firm, Buonicore Partners (now Sustainable Real Estate Solutions, Inc.) After having drafted the technical guidelines that would govern the program, they were well positioned to win another competitively bid RFP to serve as the C-PACE program's technical administrator, which they have done for the past 2 years. They have proven an excellent contactor for the Connecticut Green Bank and undoubtedly without their partnership the C-PACE program would not be growing nearly as quickly.

What the SRS team does goes beyond a simple technical review of the application. They are key to the training of contractors to understand how C-PACE works and supporting contractors as they develop projects that will meet an SIR test. In addition, they have created a CEFIA Data Management Platform (CDMP) that calculates energy savings in a format that is now well-known both to the Connecticut Green Bank board of directors. These reports have been an important tool for securing mortgage lender consent (another statutory obligation of the CT Green Bank) as well as supporting the financial underwriting of the transactions brought to the Board for approval.

As the volume of applications has steadily increased over time, we have come back to the board or to the Board Chair on several occasions for increases in their PSA. At the same time, we have been in ongoing conversation with SRS on ways to reduce technical review cost while growing the pipeline of applications. The contract with SRS has gone through two phases and we are now seeking board approval to enter into a third. In the first phase, SRS was paid hourly to review projects. In the second, SRS was paid a flat fee per project as well as a percentage of the financed amount upon the deal closing. We have steadily been driving down the cost to the Connecticut Green Bank of review of each project – an important effort as the volume has grown so dramatically.

In Phase Three, the Connecticut Green Bank is seeking Board approval to enter into a revised PSA that will be structured to drive down costs by taking advantage of lessons learned and data

captured in phases one and two. This revised PSA anticipates the potential for \$100 million in C-PACE transactions over the next 12 months. Based on analyzing our application pipeline, we estimate around 150 transactions with an average size of \$650,000. To support this volume, we are requesting board approval for a revised contract with SRS not to exceed \$2,000,000.

The structure of the revised PSA brings down the cost of per deal, as well as supports SRS in pipeline development through contractor outreach. In this revised PSA, SRS will be paid in three ways:

- A monthly retainer of \$15,000 to support contractor training and marketing with the goal of driving demand for C-PACE financing = \$180,000 annually.
- They will be paid between 1.25% and 1.5% of the total C-PACE financed amount per transaction for review. They will receive the higher rate for bringing new contractors into the program. Our rough estimate is that this total will be \$1.4 million annually. NOTE: this percentage amount is fully covered through the C-PACE closing fees that CGB collects when projects close and will not come out of program budget.
- For deals that require a third party engineering review, this PSA will set aside \$420,000 that will be paid to a third party engineer for review. With the body of data gathered over the past two years, it is anticipated that SRS will be able to provide CGB with a high degree of confidence that the SIR will be met by using the data sets within the CDMP. However, for those deals that CGB deems moderate to high risk, we will send them to a third party for review.

While we feel confident that the partnership with SRS is critical to the success of the C-PACE program, we are considering running a new competitive bid process next year to ensure cost effectiveness. In addition, we are going to run a competitive RFP for Commissioning reports in 2014 to determine if there are more cost effective ways to perform the review of projects one they are fully constructed. CGB staff is requesting board approval to approve a PSA with SRS within these parameters. Note that the C-PACE budget, with revenue secured through closing fees, can support this PSA.

## **RESOLUTION**

**RESOLVED**, that the Board of Directors approves the execution of a professional service agreement (“PSA”) with Sustainable Real Estate Solutions, Inc. for an amount not to exceed \$2,000,000 and consistent with the parameters of this memorandum to the Board dated October 9, 2014;

**RESOLVED**, that the President of CEFIA and any other duly authorized officer of CEFIA, is authorized to execute and deliver, any contract or other legal instrument necessary to effectuate such financing on such terms and conditions as he or she shall deem to be consistent with the Program and in the best interests of CEFIA and the ratepayers; and

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

DRAFT

**CONNECTICUT GREEN BANK**

(A Component Unit of the State of Connecticut)

**REPORTING UNDER *GOVERNMENT AUDITING STANDARDS***

**AND**

**REPORTING REQUIRED UNDER FEDERAL CIRCULAR OMB A-133**

**FOR THE YEAR ENDED JUNE 30, 2014**

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**REPORT ON INTERNAL CONTROL OVER FINANCIAL  
REPORTING AND ON COMPLIANCE AND OTHER  
MATTERS BASED ON AN AUDIT OF FINANCIAL  
STATEMENTS PERFORMED IN ACCORDANCE WITH  
GOVERNMENT AUDITING STANDARDS**

To the Board of Directors  
**Clean Energy Finance and Investment Authority**

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the business-type activities and discretely presented component units of the Connecticut Green Bank (a component unit of the State of Connecticut), as of and for the year ended June 30, 2014 and the related notes to the financial statements, which collectively comprise the Connecticut Green Bank's financial statements, and have issued our report thereon dated \_\_\_\_\_, 2014.

***INTERNAL CONTROL OVER FINANCIAL REPORTING***

In planning and performing our audit of the financial statements, we considered the Connecticut Green Bank's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Connecticut Green Bank's internal control. Accordingly, we do not express an opinion on the effectiveness of the Connecticut Green Bank's internal control.

*A deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over financial reporting that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

## ***COMPLIANCE AND OTHER MATTERS***

As part of obtaining reasonable assurance about whether the Connecticut Green Bank's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

## ***PURPOSE OF THIS REPORT***

The purpose of this report is solely to describe the scope and testing of internal control and compliance and results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with Government auditing Standards in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Hartford, CT  
\_\_\_\_\_, 2014



**REPORT ON COMPLIANCE FOR EACH MAJOR FEDERAL PROGRAM;  
REPORT ON INTERNAL CONTROL OVER COMPLIANCE;  
AND REPORT ON SCHEDULE OF EXPENDITURES OF  
FEDERAL AWARDS REQUIRED BY OMB CIRCULAR A-133**

To the Board of Directors  
**Clean Energy Finance and Investment Authority**

***Report on Compliance for Each Major Federal Program***

We have audited the Connecticut Green Bank's ("CGB") compliance with the types of compliance requirements described in the *OMB Circular A-133 Compliance Supplement* that could have a direct and material effect on each of CGB's major federal programs for the year ended June 30, 2014. CGB's major federal programs are identified in the summary of auditors' results section of the accompanying schedule of findings and questioned costs.

***Management's Responsibility***

Management is responsible for compliance with the requirements of laws, regulations, contracts, and grants applicable to its federal programs.

***Auditor's Responsibility***

Our responsibility is to express an opinion on compliance for each of CGB's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and OMB Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations*. Those standards and OMB Circular A-133 require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about CGB's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of CGB's compliance.

## *Opinion on Each Major Federal Program*

In our opinion, CGB complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2014.

## *Report on Internal Control Over Compliance*

Management of CGB is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered CGB's internal control over compliance with the types of requirements that could have a direct and material effect on each major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major federal program and to test and report on internal control over compliance in accordance with OMB Circular A-133, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of CGB's internal control over compliance.

*A deficiency in internal control over compliance* exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. *A material weakness in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. *A significant deficiency in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that were not identified. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, we identified one deficiency in internal control over compliance, as described in the accompanying schedule of findings and questioned costs as finding #2014-1 that we consider to be a significant deficiency.

CGB's response to the internal control over compliance finding identified in our audit is contained in the accompanying management's response in this reporting package. CGB's response was not subjected to the auditing procedures applied in the audit of compliance and, accordingly, we express no opinion on the response.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of OMB Circular A-133. Accordingly, this report is not suitable for any other purpose.

***Report on Schedule of Expenditures of Federal Awards Required by OMB Circular A-133***

We have audited the financial statements of CGB as of and for the year ended June 30, 2014, and have issued our reported thereon dated \_\_\_\_\_, 2014, which contained an unmodified opinion on those financial statements. Our audit was conducted for the purpose for forming an opinion on the financial statements as a whole. The accompanying schedule of expenditures of federal awards is presented for purposes of additional analysis as required by OMB Circular A-133 and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditure of federal awards is fairly stated in all material respects in relation to the financial statements as a whole.

Hartford, CT  
\_\_\_\_\_, 2014

CONNECTICUT GREEN BANK

DRAFT

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

FOR THE YEAR ENDED JUNE 30, 2014

Federal Grantor/ Program Title	CFDA Number	Expenditures
Department of Energy		
Passed Through by the State of Connecticut Department of Energy and Environmental Protection:		
State Energy Program (Recovery Act)	81.041	\$ 537,683
Energy Efficiency and Conservation		
Block Grant Program (EECBG) (Recovery Act)	81.128	323,520
Energy Efficiency and Renewable Energy		
Cooperative Agreement (Energy Policy Act)	81.117	<u>77,436</u>
<b>Total Expenditures of Federal Awards</b>		<u><u>\$ 938,639</u></u>

*See Notes to Schedule of Expenditures of Federal Awards.*

## NOTES TO SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

FOR THE YEAR ENDED JUNE 30, 2014

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**NOTE 1 – SIGNIFICANT ACCOUNTING POLICIES*****BASIS OF PRESENTATION***

The accompanying schedule of expenditures of federal awards includes the federal grant activity of the Connecticut Green Bank (CGB) and is presented on the accrual basis of accounting. The information in this schedule is presented in accordance with the requirements of OMB Circular A-133, *Audits of States, Local Governments and Non-Profit Organizations*.

**NOTE 2 – CHANGE OF NAME**

In June 2014, the Clean Energy Finance and Investment Authority (CEFIA) changed its name to the Connecticut Green Bank.

**NOTE 3 – STATE ENERGY PROGRAM (RECOVERY ACT) #81.041**

Included within the program's total federal expenditures is \$X,XXX,XXX of funds set aside during 2014 under written agreements for loan-loss reserves and interest rate buy-down programs with banks which participate with CGB in financing of solar energy programs. The funds are committed to these loan-loss reserves and interest rate buy-downs for a period of fifteen years and are unavailable for any other use or purpose by CGB.

SCHEDULE OF FINDINGS AND QUESTIONED COSTS

FOR THE YEAR ENDED JUNE 30, 2014

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**SECTION I – SUMMARY OF AUDITORS’ RESULTS**

*Financial Statements*

Type of auditors’ report issued: unmodified

Internal control over financial reporting:

- Material weakness(es) identified?  yes  no
- Significant deficiency(ies) identified?  yes  none reported

Noncompliance material to financial statements noted?  yes  no

*Federal Awards*

Internal control over major programs:

- Material weakness(es) identified?  yes  no
- Significant deficiency(ies) identified?  yes  none reported

Type of auditors’ report issued on compliance for major programs: unmodified.

Any audit finding disclosed that are required to be reported in accordance with Section 510(a) of OMB Circular A-133?  yes  no

**Major Programs:**

Funding Source	Program	CDFA No.
U.S. Department of Energy	State Energy Program (Recovery Act)	81.041
	Energy Efficiency and Conservation	
	Block Grant (Recovery Act)	81.128

**Dollar Threshold Used to Distinguish Type A and Type B Programs:** \$300,000

**Qualification of Auditee as a Low-Risk Auditee:** Yes

## SCHEDULE OF FINDINGS AND QUESTIONED COSTS

FOR THE YEAR ENDED JUNE 30, 2014

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**SECTION II – SUMMARY OF FINDINGS RELATED TO FINANCIAL STATEMENTS REQUIRED UNDER GENERAL ACCEPTED *GOVERNMENT AUDITING STANDARDS***

- We issued reports, dated \_\_\_\_\_, 2014, on internal control over financial reporting and on compliance and other matters based on an audit of financial statements performed in accordance with *Government Auditing Standards*.
- Our report on compliance and other matters indicated no reportable instances of noncompliance.
- Our report on internal control over financial reporting indicated no material weaknesses.

**SECTION III – FEDERAL AWARD FINDINGS AND QUESTIONED COSTS*****Finding #2014-1:*** Reporting - #84.041/#84.128***Criteria:*** Reports should be reviewed prior to submission by someone other than the preparer of those reports in order to insure completeness and accuracy over reporting.***Condition:*** CGB financial reporting is not subject to a documented review process prior to submissions. Internal control over a reporting process dictates that one individual should not be the preparer, reviewer, and submitter of required reports. Reviews by someone other than the preparer should be documented through either direct signoff or by electronic means, prior to submission.***Questioned Costs:*** None***Context and Cause:*** One individual prepares and then submits reports. At the time reports are filed with the Connecticut Department of Energy and Environmental Protection (DEEP) they are simultaneously submitted to various members of CGB management. Our test work disclosed no errors in reporting.***Effect:*** Without a review prior to the submission, errors in reporting could occur that otherwise might be identified and corrected timely.

SCHEDULE OF FINDINGS AND QUESTIONED COSTS

FOR THE YEAR ENDED JUNE 30, 2014

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**SECTION III – FEDERAL AWARD FINDINGS AND QUESTIONED COSTS (CONTINUED)**

***Recommendation:*** All future reports should be reviewed prior to their submission by a designated member of management other than the preparer. Such review should be documented manually or through electronic means.

***Views of Responsible Officials and Planned Corrective Action:***

See management's response contained in this reporting package.



SUMMARY OF PRIOR YEAR AUDIT FINDINGS

FOR THE YEAR ENDED JUNE 30, 2014

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*Finding #2013-1*

**Condition:** The reporting for June 30, 2013 for federal program #81.041 contained an incorrect amount for contractual outlay expenditures. Such report was not reviewed prior to its submission by someone other than the preparer.

**Status:** Repeated as to the review process in finding #2014-1.

DRAFT

DRAFT

**CONNECTICUT GREEN BANK**  
(A Component Unit of the State of Connecticut)

**COMPREHENSIVE ANNUAL  
FINANCIAL REPORT**

**JUNE 30, 2014**  
(With Summarized Totals for June 30, 2013)

Draft

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DRAFT

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DATE

We are pleased to present a Comprehensive Annual Financial Report (CAFR) of the Connecticut Green Bank CGB for the fiscal years ending June 30, 2014 and 2013.

Management assumes full responsibility for the completeness and reliability of the information contained in this report based upon a comprehensive framework of internal control that it has established for this purpose.

Marcum LLP has issued an X opinion on CGB's financial statements for the fiscal years ending June 30, 2014 and 2013. The independent auditor's report is presented in the financial section of this report. This letter of transmittal is designed to complement the Management's Discussion and Analysis (MD&A) and should be read in conjunction with it. CGB's MD&A can be found immediately following the report of the independent auditors.

**Profile of the Connecticut Green Bank**

The CGB<sup>1</sup> was established by the Governor 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. As the nation's first state "Green Bank", the CGB leverages public and private funds to drive investment and scale-up clean energy deployment in Connecticut.

Pursuant to Section 16-245n of the General Statutes of Connecticut, the powers of the CGB are vested in and exercised by a Board of Directors that is comprised of eleven voting and two non-voting members each with knowledge and expertise in matters related to the purpose of the organization.

The Board of Directors is governed through the statute, as well as an Ethics Statement and Ethical Conduct Policy, Resolutions of Purposes, Bylaws, and Comprehensive Plan.

CGB's vision is to lead the green bank movement by accelerating private investment in clean energy deployment for Connecticut to achieve economic prosperity, create jobs, promote energy security and address climate change.

CGB's mission is to support the Governor's and Legislature's energy strategy to achieve cleaner, cheaper and more reliable sources of energy while creating jobs and supporting local economic development.

---

<sup>1</sup> Public Act 11-80 repurposed the Connecticut Clean Energy Fund (CCF) 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.

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

1. To attract and deploy capital to finance the clean energy<sup>2</sup> goals for Connecticut, including:
  - a. Help Connecticut in becoming the most energy efficient state in the nation;
  - b. Scale-up the deployment of renewable energy in Connecticut; and
  - c. Provide support for the infrastructure needed to lead the clean energy economy.
2. To develop and implement strategies that bring down the cost of clean energy in order to make it more accessible and affordable to consumers.
3. To reduce reliance on grants, rebates, and other subsidies and move towards innovative low-cost financing of clean energy deployment.

These goals support the implementation of Connecticut's clean energy policies be they statutory (i.e., Public Act 11-80, Public Act 13-298), planning (i.e., Comprehensive Energy Strategy, Integrated Resources Plan), or regulatory in nature.

CGB's strategies for achieving these goals over the next two fiscal year is outlined in the FY15 and FY16 Comprehensive Plan<sup>3</sup>

### **Initiatives and Results**

#### *Deploying More Clean Energy, Creating Jobs, and Reducing Greenhouse Gas Emissions*

Since the inception of the CGB, our efforts have focused on supporting the Governor's and Legislature's energy policy by using limited public resources to attract more private investment in clean energy in Connecticut. To that end, as a result of the efforts undertaken over the past three years, we are deploying more clean energy in our state than ever before – 66.3 MW in anaerobic digester, combined heat and power, fuel cell, solar PV, and wind resources. Connecticut's residence, businesses and institutions now have easier access to affordable capital to finance clean energy projects than ever before.

By using \$100 million of ratepayer funds, we have attracted over \$250 million of private investment in clean energy for a total investment of \$350 million to support clean energy projects creating 2,478 jobs and reducing carbon emissions by nearly 583,000 tons . More importantly, rather than giving away ratepayer resources to support the sustainable growth and development of a thriving clean energy market in Connecticut, the CGB has transitioned from providing 100 percent of its resources as grants and subsidies to 40 percent by more responsibly managing public funds through loans. The CGB and its partners are working together to deploy more clean energy at a faster pace while using public resources more responsibly.

---

<sup>2</sup> Public Act 11-80 defines "clean energy" broadly and includes familiar renewable energy sources such as solar photovoltaic, solar thermal, geothermal, wind and low-impact hydroelectric energy, but also includes fuel cells, energy derived from anaerobic digestion (AD), combined heat and power (CHP) systems, infrastructure for alternative fuels for transportation and financing energy efficiency projects.

<sup>3</sup> <http://www.ctcleanenergy.com/Portals/0/CEFIA%20FY15%20and%20FY16%20Comprehensive%20Plan.pdf>

### *Delivering on the Promise – Connecticut Green Bank is Working for You*

In only a couple of years, the CGB has demonstrated how public resources can be better invested in ways that attract private investment, lead to the deployment of more clean energy, and most importantly providing positive value to consumers. Consumers are benefiting through our financing programs that offer lower cost and longer terms enabling them to immediately receive positive economic benefits from clean energy – the energy savings exceed the debt service payments. Businesses and non-profit organizations are using C-PACE to lower their energy expenses by installing more efficient boilers and renewable energy systems, replacing windows, integrating energy management systems, and more. Households are taking advantage of the CT Solar Lease, CT Solar Loan, and EnergizeCT Smart-E Loan to reduce their energy budget by converting to natural gas, installing solar photovoltaic systems, insulating their walls and attic, and more.

As we continue to learn more event day about your challenges, we are confident that we can deliver you solutions – and in so doing, we not only stimulate the growth of clean energy, but we also strengthen our economy and protect our environment.

### *Setting an Example for the Country – The Green Bank Model at Work*

This year, we have seen the results of the CGB model and its programs take hold in states across the country. Not only are we delivering results for Connecticut, but the actions that we are taking are causing other states to take note and follow our lead.

- Connecticut co-hosted with the Brookings Institution and the Coalition for Green Capital, the first Green Bank Academy in Washington, DC that brought together ten states to discuss the CGB model. Our neighbors to the south – New Jersey and New York – have since created green banks within their states,<sup>4</sup> and our friends out west in California and Hawaii are pursuing similar models. Federal legislation called the “Green Bank Act of 2014” was even introduced in the House<sup>5</sup> by Congressman Van Hollen and Senate<sup>6</sup> by Senators Murphy and Blumenthal to create a \$50 billion U.S. Green Bank modelled after Connecticut. President Obama even called out the leadership of the Connecticut Green Bank.<sup>7</sup>
- Connecticut is the first state to use its cap-and-trade revenues from the Regional Greenhouse Gas Initiative (RGGI) to successfully securitize a pool of commercial and industrial energy efficiency and renewable energy transactions through the Commercial Property Assessed Clean Energy (C-PACE) program. By using greenhouse gas allowance revenues through RGGI to support C-PACE, we are able to attract more private capital investment in Connecticut’s communities in order to deliver 40 to 50 percent energy savings in buildings – making our businesses more competitive by lowering energy costs.

These are but a few examples where the CGB model has become a catalyst to releasing more private investment in clean energy across the country.

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<sup>4</sup> New Jersey Resilience Bank and the New York Green Bank

<sup>5</sup> H.R. 4522

<sup>6</sup> S. 2271

<sup>7</sup> The Wall Street Journal in “Goldman’s Cleantech Activities Receive a Presidential Shout Out” (May 9, 2014)



## **Economic Conditions and Developments**

CGB receives funding through a number of sources, including a Systems Benefit Charge, the Regional Greenhouse Gas Initiative (RGGI), renewable energy certificate (REC) sales and the federal government. CGB's predecessor organization's programs were all structured as grants, which meant the funds were spent with no expectation of return. This model put the organization at the mercy of these funding streams which, while reliable, are largely determined by activities outside of our control such as levels of state electricity use and RGGI allowance prices. With the transition to a new financing model, CGB is able to invest its funds in activities that earn a return and begin to build revenue streams that can be reinvested in clean energy.

## **Acknowledgements**

First and foremost, we would like to thank the entire CGB staff. In just three short years, through their hard work, dedication and innovation, they have built a model that is delivering results and making Connecticut a focus of attention at the national and international levels.

The preparation of this report would not have been possible without the dedicated work of the Finance and Accounting team. We thank them for their hard work.

We are grateful to our independent auditors, Marcum LLP, for their assistance and advice during the course of this audit.

Finally, we thank the Board of Directors for their continued leadership and guidance as the GCB continues to prove the Green Bank model and deliver cleaner, cheaper, and more reliable energy to Connecticut.

Respectfully submitted,

Bryan Garcia  
President and CEO

# Organizational Chart

Board of Directors

President & CEO

Statutory & Infrastructure

Residential

Commercial & Industrial

Institutional

Finance

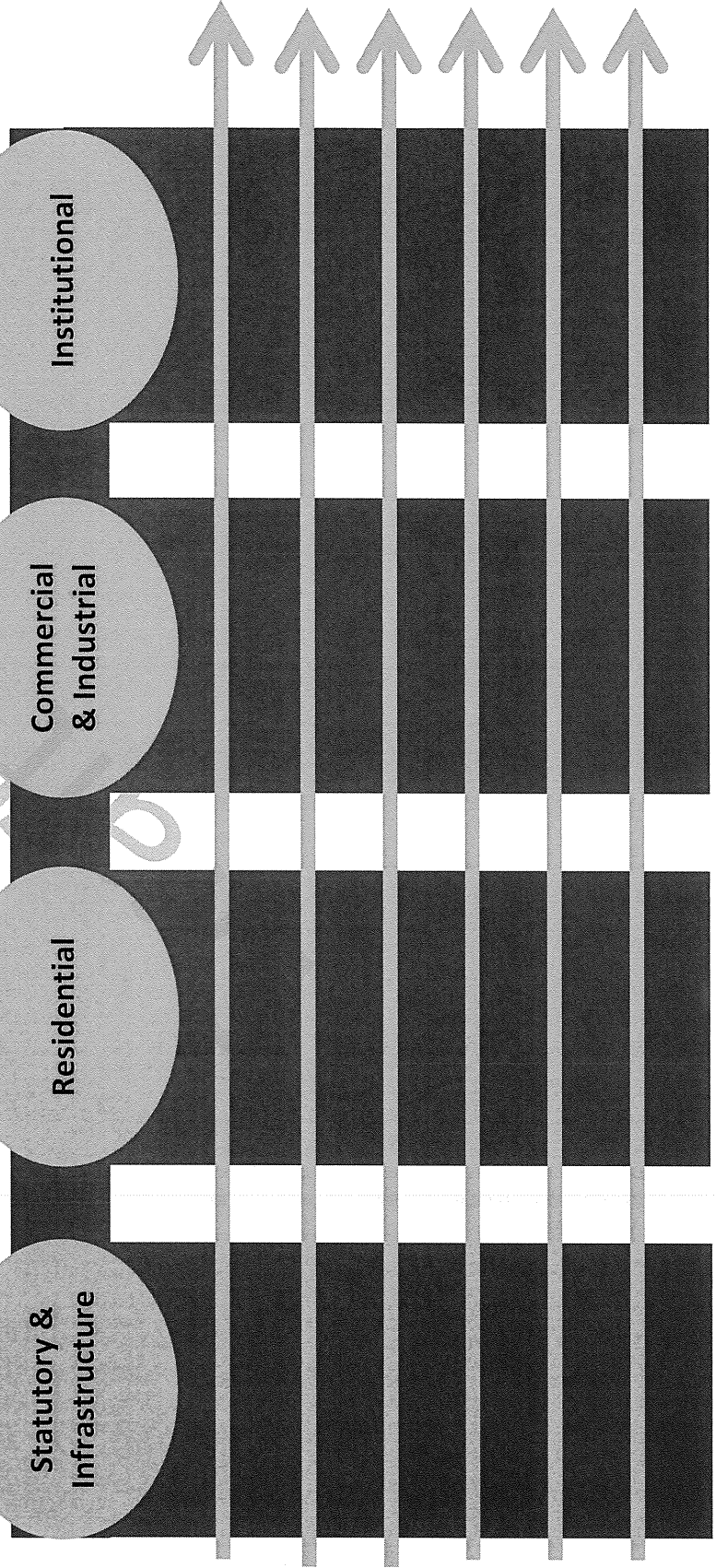
Accounting

Legal & Policy

Marketing

HR

IT



## Board of Directors

Position	Status	Voting	Name	Organization
State Treasurer (or designee)	Ex Officio	Yes	Betina Ferguson	Treasurer's Office
Commissioner of DEEP <sup>8</sup> (or designee)	Ex Officio	Yes	Robert Klee <sup>9</sup>	DEEP
Commissioner of DECD <sup>10</sup> (or designee)	Ex Officio	Yes	Catherine Smith <sup>11</sup>	DECD
Residential or Low Income Group	Appointed	Yes	Pat Wrice	Operation Fuel
Investment Fund Management	Appointed	Yes	Norma Glover	NJG Associates
Environmental Organization	Appointed	Yes	Matthew Ranelli <sup>12</sup>	Shipman & Goodwin
Finance or Deployment	Appointed	Yes	Thomas Flynn	Environmental Data Resources
Finance of Renewable Energy	Appointed	Yes	Reed Hundt <sup>13</sup>	Coalition for Green Capital
Finance of Renewable Energy	Appointed	Yes	Kevin Walsh	GE Energy Financial Services
Labor	Appointed	Yes	John Harrity	IAM Connecticut
R&D or Manufacturing	Appointed	Yes	Mun Choi	University of Connecticut
President of the Green Bank	Ex Officio	No	Bryan Garcia	Connecticut Green Bank
Board of Connecticut Innovations <sup>14</sup>	Ex Officio	No	(unfilled)	(unfilled)

<sup>8</sup> Department of Energy and Environmental Protection

<sup>9</sup> Vice Chairperson of the Board of Directors and Chairperson of the Budget and Operations Committee

<sup>10</sup> Department of Economic and Community Development

<sup>11</sup> Chairperson of the Board of Directors

<sup>12</sup> Secretary of the Board of Directors and Chairperson of the Audit, Compliance and Governance Committee

<sup>13</sup> Chairperson of the Deployment Committee

<sup>14</sup> It should be noted that several members of the Board of Directors of the Green Bank currently serve on the Board of Directors of Connecticut Innovations, including Mun Choi and Catherine Smith.

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**FINANCIAL SECTION**

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## INDEPENDENT AUDITORS' REPORT

To the Board of Directors  
**Connecticut Green Bank**

### *Report on the Financial Statements*

We have audited the accompanying financial statements of the business-type activities and discretely presented component units of the Connecticut Green Bank (CGB) (a component unit of the State of Connecticut) as of and for the year ended June 30, 2014, and the related notes to the financial statements, which collectively comprise CGB's financial statements.

### *Management's Responsibility for the Financial Statements*

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### *Auditors' Responsibility*

Our responsibility is to express opinions on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

## *Opinions*

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities and the discretely presented component units of the Connecticut Green Bank as of June 30, 2014, and the respective changes in financial position and cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

## *Restatement of Net Position*

As described in Note 1, net position of the total reporting entity and a discretely presented component unit has been restated at July 1, 2013 to reflect the capitalization of certain costs related to financing activities as well as a reclassification of a liability to net position. Our opinion is not modified with respect to these matters.

## *Other Matters*

### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis as listed in the accompanying table of contents be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide assurance.

### *Other Information*

The financial statistical section and other statistical section have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

## ***Other Matter – 2013 Financial Information***

As described in Note 1, the financial statements include prior-year summarized information in total but not at the level of detail required for a presentation in conformity with generally accepted accounting principles. This information has been derived from CGB's 2013 complete financial statements on which our audit report dated December 23, 2013 expressed unmodified opinions on the primary government and its discretely presented component units. Accordingly, such information should be read in conjunction with CGB's financial statements for the year ended June 30, 2013, from which the summarized information was derived.

## ***Other Reporting Required by Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated \_\_\_\_\_, 2014, on our consideration of the Connecticut Green Bank's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Connecticut Green Bank's internal control over financial reporting and compliance.

Hartford, CT  
\_\_\_\_\_, 2014

**MANAGEMENT'S DISCUSSION AND ANALYSIS**

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The following Management's Discussion and Analysis (MD&A) provides an overview of the financial performance of the Connecticut Green Bank, formerly known as the Clean Energy Finance and Investment Authority, (CGB) (a component unit of the State of Connecticut) for the fiscal years ended June 30, 2014, 2013, and 2012. The information contained in this MD&A should be considered in conjunction with the information contained in the financial statements and notes to the financial statements included in the "Financial Statements" section of this report.

CBG as a reporting entity is comprised of the primary government and two discretely presented component units as defined under Government Auditing Standards Board Statement 61.

**FINANCIAL STATEMENTS PRESENTED IN THIS REPORT**

One June 6, 2014 Public Act 14-94 of the State of Connecticut changed the name of the Clean Energy Finance and Investment Authority to the Connecticut Green Bank.

CGB is a quasi-public agency of the State of Connecticut established on July 1, 2011 by Section 16-245n of the Connecticut General Statutes, created for the purposes of, but not limited to: (1) implementing the Comprehensive Plan developed by CGB pursuant to Section 16-245n(c) of the Connecticut General Statutes, as amended; (2) developing programs to finance and otherwise support clean energy investment in residential, municipal, small business and larger commercial projects, and such others as CGB may determine; (3) supporting financing or other expenditures that promote investment in clean energy sources to foster the growth, development and commercialization of clean energy resources and related enterprises; and (4) stimulating demand for clean energy and the deployment of clean energy sources within the state that serve end-use customers in the state. CGB constitutes the successor agency to Connecticut Innovations for the purposes of administering the clean energy fund in accordance with section 4-38d of the Connecticut General Statutes and therefore the net assets of such fund were transferred to the newly created CGB as of July 1, 2011.

The financial statements include: Statement of Net Position, Statement of Revenues, Expenses and Changes in Net Position, and the Statement of Cash Flows. The Statement of Net Position provides a measure of CGB's economic resources. The Statement of Revenues, Expenses and Changes in Net Position measures the transactions for the periods presented and the impact of those transactions on the resources of CGB. The Statement of Cash Flows reconciles the changes in cash and cash equivalents with the activities of CGB for the periods presented. The activities are classified as to operating, noncapital financing, capital and related financing, and investing activities.

Notes to the financial statements provide additional detailed information to supplement the basis for reporting and nature of key assets and liabilities.



## MANAGEMENT'S DISCUSSION AND ANALYSIS

## FINANCIAL HIGHLIGHTS OF FISCAL 2014

*NET POSITION*

Net position increased by \$17.0 million to \$115.1 million at June 30, 2014 and cash and cash equivalents increased by \$3.2 million in 2014 to \$80.9 million.

Other assets are composed primarily of utility customer assessment receivables and RGGI auction receivables. The promissory note portfolio of \$11.2 million as of June 30, 2013 and \$11.7 million as of July 1, 2012 funded a residential photovoltaic equipment lease program which ended during 2012.

As of June 30, 2014, the Board of Directors designated \$63.5 million in net position to fund contingent grant, loan and investment commitments as described in Note 13. These grants, loans and investments are expected to be paid or funded over the next one to six fiscal years. In addition to these commitments, an additional \$34 million has been designated by the Board to fund future program commitments.

The following table summarizes the net position at June 30, 2014 and 2013 (in thousands):

	2014	2013	Increase (Decrease)
Cash and cash equivalents	\$ 80,872	\$ 77,642	\$ 3,230
Bonds receivable	1,600	--	1,600
Portfolio investments	1,000	4,788	(3,788)
Promissory notes	23,947	11,240	12,707
Other assets	13,070	6,320	6,750
<b>Total Assets</b>	<b>120,489</b>	<b>99,990</b>	<b>20,499</b>
Current liabilities	4,761	1,816	2,945
Deferred revenue	469	--	469
Long term debt, less current maturities	120	--	120
<b>Total Liabilities</b>	<b>5,350</b>	<b>1,816</b>	<b>3,534</b>
Invested in capital assets	3,074	362	2,712
Restricted Net Position:			
Non-expendable	--	--	--
Restricted - energy programs	8,144	8,144	--
Unrestricted	103,921	89,668	14,253
<b>Total Net Position</b>	<b>\$ 115,139</b>	<b>\$ 98,174</b>	<b>\$ 16,965</b>

## MANAGEMENT'S DISCUSSION AND ANALYSIS

*CHANGES IN NET POSITION*

Revenue from interest on cash deposits and promissory notes increased \$455 thousand to \$1.14 million in 2014. CGB received \$20.1 million from the State in RGGI auction proceeds during the year.

Total expenditures for grants and programs in 2014 were \$23.7 million, an increase of \$94 thousand from the prior year. Grant and program expenditures fluctuate from year to year as they are based on the achievement of contract milestones by the grantee.

General and administrative expenses increased by \$696 thousand from \$1.8 million to \$2.5 million.

The following table summarizes the changes in net position between June 30, 2014 and 2013 (in thousands):

	2014	2013	Increase (Decrease)
<b>Revenues</b>	\$ 49,054	\$ 43,343	\$ 5,711
<b>Operating Expenses</b>			
Provision for loan losses	1,311	--	1,311
Grants and programs	23,729	23,635	94
General and administrative expense	2,507	1,811	696
<b>Total Operating Expenses</b>	27,547	25,446	2,101
<b>Operating Income</b>	21,507	17,897	3,610
<b>Non-Operating Revenues (Expenses)</b>			
Interest earned	1,142	688	454
Net change in unrealized appreciation in fair value of investments	350	378	(28)
Net realized (loss) gain on investments	(350)	(1,035)	685
Capital contribution	201	238	(37)
Distribution to member	(12)	--	(12)
Payments to State of Connecticut	(6,200)	--	(6,200)
<b>Net Change</b>	\$ 16,638	\$ 18,166	\$ (1,528)

## MANAGEMENT'S DISCUSSION AND ANALYSIS

## FINANCIAL HIGHLIGHTS OF FISCAL 2013

*NET POSITION*

Net position increased by \$18.2 million to \$98.2 million at June 30, 2013 and cash and cash equivalents increased by \$4.4 million in 2013 to \$77.6 million. Cash increased primarily as a result of greater than expected proceeds received from Regional Greenhouse Gas Initiative (RGGI) auctions and a reduction in grant activity and CEFIA's transition to a financing model as opposed to grant model to fund renewable energy and energy efficiency projects.

Other assets are composed primarily of utility customer assessment receivables and RGGI auction receivables. The promissory note portfolio of \$11.2 million as of June 30, 2013 and \$11.7 million as of July 1, 2012 funded a residential photovoltaic equipment lease program which ended during 2012.

As of June 30, 2013, the Board of Directors designated \$24.5 million in net position to fund contingent grant, loan and investment commitments as described in Note 8. These grants, loans and investments are expected to be paid or funded over the next one to six fiscal years. In addition to these commitments, an additional \$33.8 million has been designated by the Board to fund future program commitments.

The following table summarizes the net position at June 30, 2013 and 2012 (in thousands):

	2013	2012	Increase (Decrease)
Cash, certificates of deposit	\$ 77,642	\$ 73,214	\$ 4,428
Portfolio investments	4,788	2,155	2,633
Promissory notes	11,240	11,736	(496)
Other assets	6,320	5,071	1,249
<b>Total Assets</b>	<u>99,990</u>	<u>92,176</u>	<u>7,814</u>
Current liabilities	1,816	2,625	(809)
Deferred revenue	--	8,363	(8,363)
<b>Total Liabilities</b>	<u>1,816</u>	<u>10,988</u>	<u>(9,172)</u>
Invested in capital assets	362	91	271
Restricted Net Position:			
Non-expendable	--	--	--
Restricted - energy programs	8,144	177	7,967
Unrestricted	<u>89,668</u>	<u>80,921</u>	<u>8,747</u>
<b>Total Net Position</b>	<u>\$ 98,174</u>	<u>\$ 81,189</u>	<u>\$ 16,985</u>

## MANAGEMENT'S DISCUSSION AND ANALYSIS

*CHANGES IN NET POSITION*

Revenue from interest on cash deposits and solar lease notes decreased \$42 thousand to \$687 thousand in 2013. Interest on short-term investments and cash deposits decreased due to the changes in interest rates. CEFIA received \$4.7 million from the State in RGGI auction proceeds during the year.

Total expenditures for grants and programs in 2013 were \$23.6 million, a decrease of \$7.5 million from the prior year. Grant and program expenditures fluctuate from year to year as they are based on the achievement of contract milestones by the grantee. In addition, CEFIA is transitioning to primarily a financing model as opposed to primarily issuing grants to fund renewable energy and energy efficiency projects.

General and administrative expenses increased by \$0.4 million from \$1.4 million to \$1.8 million.

The net loss of \$657,000 in investments represents write offs of investments previously reserved for and adjustments to the valuation of equity and debt investments currently held.

The following table summarizes the changes in net position between June 30, 2013 and 2012 (in thousands):

	2013	2012	Increase (Decrease)
<b>Revenues</b>	\$ 43,343	\$ 39,754	\$ 3,589
<b>Operating Expenses</b>			
Grants and programs	23,635	31,122	(7,487)
General and administrative expense	1,811	1,388	423
<b>Total Operating Expenses</b>	<u>25,446</u>	<u>32,510</u>	<u>(7,064)</u>
<b>Operating Income</b>	17,897	7,244	10,653
Interest earned	687	729	(42)
Net change in unrealized appreciation in fair value of investments	378	435	(57)
Net realized (loss) gain on investments	(1,035)	--	(1,035)
Capital Contribution	<u>238</u>	<u>--</u>	<u>238</u>
<b>Net Change in Net Position</b>	<u>\$ 18,165</u>	<u>\$ 8,408</u>	<u>\$ 9,757</u>

MANAGEMENT'S DISCUSSION AND ANALYSIS

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**REQUESTS FOR INFORMATION**

This financial report is designed to provide a general overview of CGB's finances. Questions concerning any of the information provided in this report or request for additional financial information should be addressed to the Office of Finance and Administration, 845 Brook Street, Rocky Hill, Connecticut 06067.

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## CONNECTICUT GREEN BANK STATEMENTS OF NET POSITION

**JUNE 30, 2014**  
(With Summarized Totals for June 30, 2013)

	Primary Government	Discretely Presented Component Units			Eliminations	2014 Total Reporting Entity	2013 Total Reporting Entity
		CT Solar Lease 2 LLC	CEFIA Solar Services, Inc.				
<b>Assets</b>							
<b>Current Assets</b>							
Cash and cash equivalents	\$ 70,113,857	\$ 1,244,796	\$ 123	\$ --	\$ 71,358,776	\$ 68,105,014	
Accounts receivable	4,547,770	--	--	--	4,547,770	1,940,835	
Utility customer assessments receivable	3,402,401	--	--	--	3,402,401	2,604,826	
Other receivables	355,405	--	120,000	(120,000)	355,405	--	
Due from component units	10,265,044	--	--	(10,265,044)	--	--	
Prepaid expenses and other assets	126,307	34,449	--	--	160,756	194,056	
Current portion of Solar lease notes	766,086	--	--	--	766,086	704,032	
<b>Total Current Assets</b>	<u>89,576,870</u>	<u>1,279,245</u>	<u>120,123</u>	<u>(10,385,044)</u>	<u>80,591,194</u>	<u>73,548,763</u>	
<b>Noncurrent Assets</b>							
Portfolio investments	1,000,000	--	--	--	1,000,000	4,788,094	
Bonds receivable	1,600,000	--	--	--	1,600,000	--	
Solar lease notes, less current portion	9,778,315	--	--	--	9,778,315	10,536,136	
Program loans, less current portion	6,500,222	--	--	--	6,500,222	--	
C-PACE loans, less current portion	6,902,682	--	--	--	6,902,682	--	
Renewable energy credits	1,069,390	--	--	--	1,069,390	1,217,491	
Investment in component units	100	--	4,794,801	(4,794,901)	--	--	
Deferred financing fees, net	--	458,883	--	--	458,883	--	
Capital assets, net of depreciation and amortization	289,932	3,538,975	--	(754,570)	3,074,337	362,505	
Restricted assets:							
Cash and cash equivalents	5,013,715	4,500,000	--	--	9,513,715	9,536,656	
<b>Total Noncurrent Assets</b>	<u>32,154,356</u>	<u>8,497,858</u>	<u>4,794,801</u>	<u>(5,549,471)</u>	<u>39,897,544</u>	<u>26,440,882</u>	
<b>Total Assets</b>	<u>\$ 121,731,226</u>	<u>\$ 9,777,103</u>	<u>\$ 4,914,924</u>	<u>\$ (15,934,515)</u>	<u>\$ 120,488,738</u>	<u>\$ 99,989,645</u>	

*The accompanying notes are an integral part of these financial statements.*

## CONNECTICUT GREEN BANK

## STATEMENTS OF NET POSITION (CONTINUED)

JUNE 30, 2014

(With Summarized Totals for June 30, 2013)

	Primary Government	Discretely Presented Component Units		Eliminations	2014 Total Reporting Entity	2013 Total Reporting Entity
		CT Solar Lease 2 LLC	CEFIA Solar Services, Inc.			
<b>Liabilities and Net Position</b>						
<b>Liabilities</b>						
Current maturities of long-term debt	\$ 6,280	\$ --	\$ --	\$ --	\$ 6,280	\$ --
Accounts payable and accrued expenses	3,711,694	314,678	--	(120,000)	3,906,372	1,422,898
Due to primary government	--	5,459,343	4,805,701	(10,265,044)	--	--
Due to outside agency	439,643	--	--	--	439,643	--
Custodial liability	408,979	--	--	--	408,979	393,000
Deferred revenue	58,000	411,009	--	--	469,009	--
<b>Total Current Liabilities</b>	4,624,596	6,185,030	4,805,701	(10,385,044)	5,230,283	1,815,898
<b>Long-term debt, less current maturities</b>	119,808	--	--	--	119,808	--
<b>Total Liabilities</b>	4,744,404	6,185,030	4,805,701	(10,385,044)	5,350,091	1,815,898
<b>Net Position</b>	289,932	3,538,975	--	(754,570)	3,074,337	362,505
Invested in capital assets	1,000	4,793,801	100	(4,794,901)	--	1,000
Restricted net position	8,143,655	--	--	--	8,143,655	8,143,655
Non-expendable	108,552,235	(4,740,703)	109,123	--	103,920,655	89,666,587
Restricted - energy programs	116,986,822	3,592,073	109,223	(5,549,471)	115,138,647	98,173,747
Unrestricted (deficit)	\$ 121,731,226	\$ 9,777,103	\$ 4,914,924	\$ (15,934,515)	\$ 120,488,738	\$ 99,989,645
<b>Total Net Position</b>						
<b>Total Liabilities and Net Position</b>						

The accompanying notes are an integral part of these financial statements.

CONNECTICUT GREEN BANK

DRAFT

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

FOR THE YEAR ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

	Primary Government	Discretely Presented Component Units		Eliminations	2014 Total Reporting Entity	2013 Total Reporting Entity
		CT Solar Lease 2 LLC	CEFIA Solar Services, Inc.			
<b>Operating Revenue</b>	\$ 27,779,345	\$ --	\$ --	\$ --	\$ 27,779,345	\$ 27,621,409
Utility customer assessments	621,642	--	--	--	621,642	10,035,250
Grant revenue	20,074,668	--	--	--	20,074,668	4,744,657
RGGI Auction income	3,548,840	--	--	(3,548,840)	--	--
Energy system sales	576,788	1,770	120,000	(120,000)	578,558	941,777
Other income	52,601,283	1,770	120,000	(3,668,840)	49,054,213	43,343,093
<b>Total Operating Revenue</b>						
<b>Operating Expenses</b>	2,794,270	--	--	(2,794,270)	--	--
Cost of goods sold	1,310,933	--	--	--	1,310,933	--
Provision for loan losses	23,248,679	600,186	--	(120,000)	23,728,865	23,634,465
Grants and program expenditures	2,368,712	127,511	10,877	--	2,507,100	1,811,227
General and administrative expenses	29,722,594	727,697	10,877	(2,914,270)	27,546,898	25,445,692
<b>Total Operating Expenses</b>	22,878,689	(725,927)	109,123	(754,570)	21,507,315	17,897,401
<b>Operating Income (Loss)</b>						
<b>Nonoperating Income (Expenses)</b>	571,396	8,642	--	--	580,038	583,575
Interest income - promissory notes	551,393	--	--	--	551,393	103,928
Interest income - short term cash deposits	67,958	--	--	(57,407)	10,551	--
Interest income - component units	--	(57,407)	--	57,407	--	--
Interest expense - component units	(350,000)	--	--	--	(350,000)	(1,034,605)
Realized loss on investments	349,999	--	--	--	349,999	378,059
Unrealized gain on investments	1,190,746	(48,765)	--	--	1,141,981	30,957
<b>Total Nonoperating Income (Expenses)</b>	24,069,435	(774,692)	109,123	(754,570)	22,649,296	17,928,358
<b>Income (Loss) Before Payments to State of Connecticut and Capital Contributions (Distributions)</b>	(6,200,000)	--	--	--	(6,200,000)	--
Payments to State of Connecticut	--	1,496,135	--	(1,294,801)	201,334	237,594
Capital contributions	--	(12,584)	--	--	(12,584)	--
Distributions to member	17,869,435	708,859	109,123	(2,049,371)	16,638,046	18,165,952
<b>Change in Net Position</b>	99,117,387	2,883,214	100	(3,500,100)	98,500,601	80,007,795
<b>Net Position - Beginning of Year</b>	\$ 116,986,822	\$ 3,592,073	\$ 109,223	\$ (5,549,471)	\$ 115,138,647	\$ 98,173,747
<b>Net Position - End of Year</b>						

The accompanying notes are an integral part of these financial statements.



**CONNECTICUT GREEN BANK**  
**STATEMENTS OF CASH FLOWS**

**FOR THE YEARS ENDED JUNE 30, 2014**

(With Summarized Totals for the Year Ended June 30, 2013)

	Primary Government	Discretely Presented Component Units		2014 Total Reporting Entity	2013 Total Reporting Entity
		CT Solar Lease 2 LLC	CEFIA Solar Services Inc.		
<b>Cash Flows from Operating Activities</b>					
Utility ratepayer assessments	\$ 26,992,610	\$ --	\$ --	\$ 26,992,610	\$ 27,597,453
Grants	700,766	--	--	700,766	2,015,677
RGGI auctions	17,520,889	--	--	17,520,889	3,529,080
Other income	581,435	1,331	--	582,766	440,533
Lease prepayment	6,092	445,247	--	451,339	--
Organizational expenses	--	--	--	--	(1,130,223)
Grant and program expenditures	(7,829,672)	(378,302)	--	(8,207,974)	(24,632,056)
Grants, incentives and credit enhancements	(13,313,611)	--	--	(13,313,611)	--
General and administrative expenditures	(2,337,237)	(6,361)	(10,877)	(2,354,475)	(1,880,994)
<b>Net Cash Provided by (Used in) Operating Activities</b>	<u>22,321,272</u>	<u>61,915</u>	<u>(10,877)</u>	<u>22,372,310</u>	<u>5,939,470</u>
<b>Cash Flows from Non-Capital Financing Activities</b>					
Transfer from State of Connecticut	(6,200,000)	--	--	(6,200,000)	--
Advances to CEFIA component units	(2,089,552)	--	--	(2,089,552)	--
Advances from CEFIA and component units	783,850	--	1,305,701	2,089,551	--
<b>Net Cash Provided from Non-Capital Financing Activities</b>	<u>(7,505,702)</u>	<u>--</u>	<u>1,305,701</u>	<u>(6,200,001)</u>	<u>--</u>
<b>Cash Flows from Capital and Related Financing Activities</b>					
Purchase of capital assets	(79,713)	--	--	(79,713)	(281,654)
Proceeds from long-term debt	122,463	--	--	122,463	--
Capital contributions from component units	--	1,294,701	(1,294,701)	--	--
Capital contributions from Firststar Development, LLC	--	201,434	--	201,434	237,594
Return of capital to Firststar Development, LLC	--	(12,584)	--	(12,584)	--
<b>Net Cash (Used in) Provided by Capital and Related Financing Activities</b>	<u>42,750</u>	<u>1,483,551</u>	<u>(1,294,701)</u>	<u>231,600</u>	<u>(44,060)</u>

*The accompanying notes are an integral part of these financial statements.*

## CONNECTICUT GREEN BANK

### STATEMENT OF CASH FLOWS (CONTINUED)

#### FOR THE YEARS ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

	Primary Government	Discretely Presented Component Units		2014 Total Reporting Entity	2013 Total Reporting Entity
		CT Solar Lease 2 LLC	CEFIA Solar Services Inc.		
<b>Cash Flows from Investing Activities</b>					
Return of principal on investments	\$ 7,022,954	\$ --	\$ --	\$ 7,022,954	\$ 663,488
CPACE program loan disbursements	(14,752,595)	--	--	(14,752,595)	--
Grid Tied program loan disbursements	(2,375,000)	--	--	(2,375,000)	--
Operational Demo program loan disbursements	442,257	8,642	--	450,899	--
Interest on short-term investments and cash deposits	--	--	--	--	116,831
Interest on solar lease notes	--	--	--	--	583,942
Program loan disbursements	--	--	--	--	(2,831,596)
Sales of energy systems	715,768	(715,768)	--	--	--
AD/CHP program loan disbursements	(150,000)	--	--	(150,000)	--
Alpha/Operational Demo program loan disbursements	(516,200)	--	--	(516,200)	--
Energy Efficiency program loan disbursements	(75,000)	--	--	(75,000)	--
Campus Efficiency NOW program loan disbursements	(315,668)	--	--	(315,668)	--
Residential Solar Lease program disbursements	(1,656,995)	--	--	(1,656,995)	--
Residential Solar Loan program disbursements	(805,484)	--	--	(805,484)	--
<b>Net Cash (Used in) Investing Activities</b>	<u>(12,465,963)</u>	<u>(707,126)</u>	<u>--</u>	<u>(13,173,089)</u>	<u>(1,467,335)</u>
<b>Net Increase in Cash and Cash Equivalents</b>	2,392,357	838,340	123	3,230,820	4,428,075
<b>Cash and Cash Equivalents - Beginning</b>	<u>72,735,215</u>	<u>4,906,456</u>	<u>--</u>	<u>77,641,671</u>	<u>73,213,595</u>
<b>Cash and Cash Equivalents - Ending</b>	<u>\$ 75,127,572</u>	<u>\$ 5,744,796</u>	<u>\$ 123</u>	<u>\$ 80,872,491</u>	<u>\$ 77,641,670</u>

*The accompanying notes are an integral part of these financial statements.*

CONNECTICUT GREEN BANK

STATEMENT OF CASH FLOWS (CONTINUED)

FOR THE YEARS ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

	Discretely Presented Component Units		2014	2013
	Primary	CT Solar Lease 2 LLC	CEFIA Solar Services Inc.	Total Reporting Entity
<b>Reconciliation of Operating Income to Net Cash Provided by Operating Activities</b>				
Operating income (loss)	\$ 22,878,689	\$ (725,927)	\$ 109,123	\$ 16,716,987
Adjustments to reconcile operating income to net cash provided by operating activities:				
Depreciation	112,663	--	--	79,364
Changes in operating assets and liabilities:				
Receivables, notes, renewable credits	(4,874,773)	(4,032,307)	(1,294,701)	(1,117,501)
Accounts payable, accrued expenses, deferred revenue and due to related parties	4,204,869	4,820,149	1,174,701	(9,739,380)
	\$ 22,321,448	\$ 61,915	\$ (10,877)	\$ 22,372,486
<b>Net Cash Provided by (Used in) Operating Activities</b>				\$ 5,939,470

*The accompanying notes are an integral part of these financial statements.*

# CONNECTICUT GREEN BANK

# DRAFT

## NOTES TO FINANCIAL STATEMENTS

**FOR THE YEAR ENDED JUNE 30, 2014**

(With Summarized Totals for the Year Ended June 30, 2013)

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### NOTE 1 – NATURE OF OPERATIONS AND SIGNIFICANT ACCOUNTING POLICIES

#### *NATURE OF OPERATIONS*

The Connecticut Green Bank (CGB) was established in July 2011 under Title 16, Sec. 16-245n of the General Statutes of the State of Connecticut as the successor entity of the Connecticut Clean Energy Fund. CGB, a component unit of the State of Connecticut, was created to promote energy efficiency and investment in renewable energy sources in accordance with a comprehensive plan developed by it to foster the growth, development and commercialization of renewable energy sources and related enterprises and stimulate demand for renewable energy and deployment of renewable energy sources which serve end-use customers in the State. CGB constitutes the successor agency to Connecticut Innovations Incorporated (CI), a quasi-public agency of the State of Connecticut, for the purposes of administering the Clean Energy Fund in accordance with section 4-38d of the Connecticut General Statutes and therefore the net assets of such fund were transferred to the newly created CGB as of July 1, 2011. Pursuant to Connecticut General Statute 4-38f, CGB is within CI for administrative purposes only.

On June 6, 2014 Public Act 14-94 of the State of Connecticut changed the name of the Clean Energy Finance and Investment Authority to the Connecticut Green Bank.

#### *RESTATEMENT OF NET POSITION*

A discretely component unit and total reporting entity net position have been restated as of June 30, 2013 to reflect the capitalization of certain previously expensed financing costs associated with securing a line of credit and a reclassification of previously reported liability to equity. The effects of the above restatements as of June 30, 2013 are as follows:

	CT Solar Lease 2, LLC	Total Reporting Entity
Net position -		
June 30, 2013 (originally reported)	\$ (943,544)	\$ 98,173,747
Capitalization of financing costs	326,758	326,854
Reclassification of liability	3,500,000	--
Net position -		
July 1, 2013 (as restated)	<u>\$ 2,883,214</u>	<u>\$ 98,500,601</u>

## NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

**NOTE 1 – NATURE OF OPERATIONS AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)*****PRIOR-PERIOD SUMMARIZED FINANCIAL INFORMATION***

The basic financial statements include certain prior-year summarized comparative information in total but not at the level of detail required for a presentation in conformity with generally accepted accounting principles. Accordingly, such information should be read in conjunction with CGB's financial statements for the year ended June 30, 2013, from which the summarized information was derived.

***PRINCIPLE REVENUE SOURCES***

The Public Utility Regulatory Authority (PURA) assesses a charge per kilowatt-hour to each end-use customer of electric services in the state, which is paid to CGB and is the principal source of CGB's revenue. CGB may deploy the funds for grants, direct or equity investments, contracts or other actions that support energy efficiency projects and research, development, manufacture, commercialization, deployment and installation of renewable energy technologies.

CGB also received payments from the Regional Greenhouse Gas Initiative (RGGI) for the financing of energy efficiency and renewable energy projects through CGB's CPACE program.

***REPORTING ENTITY***

CGB, as the primary government, follows the reporting requirements of Governmental Accounting Standards Board (GASB) Statement No. 61 (*The Financial Reporting Entity Omnibus – an Amendment of GASB Statements No. 14 and No. 34*) (the Statement) regarding presentation of component units. The Statement modifies certain requirements for including component units in the reporting entity, either by blending (recording their amounts as part of the primary government), or discretely presenting them (showing their amounts separately in the reporting entity's financial statements). To qualify as a blended component unit, the unit must meet one of the following criteria: (1) have substantively the same governing body as that of the primary government, and either (A) a financial benefit or burden relationship exists between the unit and the primary government, or (B) management of the primary government (below the level of the governing body) has operational responsibility of the unit; (2) the unit provides services or benefits exclusively or almost exclusively to the primary government; or (3) the unit's total debt outstanding, including leases, is expected to be repaid by resources of the primary government. A unit which fails to meet the substantively the same governing requirement may still be included as a discretely presented component unit, if the primary government has appointed the voting majority of the component unit's governance or met other criteria specified in the Statement such as whether or not it would be misleading were the entity to be excluded.

## NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

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**NOTE 1 – NATURE OF OPERATIONS AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**

CGB established four legally separate for-profit entities whose collective purpose, at the present time, is to administer the CGB's solar energy programs. CGB believes to exclude any of the entities from these financial statements would be misleading. Each entity is listed below, along with whether it is included as a blended component unit (blended) or qualifies as a discretely presented component unit (discrete) within these financial statements based on the criteria previously described.

*CEFIA Holdings LLC (blended)*

A Connecticut limited liability corporation (LLC), 99% owned by CGB (1% owned by CI), established to fund a portfolio of residential solar loans and, through its CT Solar Lease 2 program, to enable investment in solar photovoltaic and solar thermal equipment for the benefit of Connecticut homeowners, businesses, not-for-profits and municipalities (the "End Users"). CEFIA Holdings LLC acquires the initial title to the solar assets and contracts with independent solar installers to complete the installation of the solar assets and arrange for the leasing of the solar assets (or sale of energy under power purchase agreements) to the End Users. CEFIA Holdings LLC is also responsible for procuring insurance for the solar assets, operation and maintenance services as well as warranty management services for the ultimate owner of the solar assets, CT Solar Lease 2 LLC, to which CEFIA Holdings LLC sells the residential and commercial projects before the projects are placed in service. After acquiring the residential and commercial projects, CT Solar Lease 2 LLC administers the portfolio of projects with the assistance of AFC First Financial Corporation.

*CEFIA Solar Loan I LLC (blended)*

A limited-liability corporation, wholly-owned by CEFIA Holdings LLC, established to make loans to residential property owners for the purposes of installing solar photovoltaic equipment.

## NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

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## NOTE 1 – NATURE OF OPERATIONS AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

*CEFIA Solar Services, Inc. (discrete)*

A Connecticut corporation, 100% owned by CEFIA Holdings LLC, established to share in the ownership risks and benefits derived from the leasing of solar photovoltaic and solar thermal equipment and the sale of energy under power purchase agreements as managing member of CT Solar Lease 2 LLC. CEFIA Solar Services, Inc. has a one percent ownership interest in CT Solar Lease 2 LLC and is the managing member of the entity responsible for performing all management and operational functions pursuant to the Operating Agreement of CT Solar Lease 2 LLC.

*CT Solar Lease 2 LLC (discrete)*

A Connecticut limited-liability corporation that acquires title to the residential and commercial solar projects from the developer, CEFIA Holdings LLC, using capital from its members along with non-recourse funding from participating banks. Repayment to participating banks is predicated upon the property owners repayment to CT Solar Lease 2 LLC of the installation funds advance, as well as revenue earned from production-based incentives. CT Solar Lease 2 LLC is owned ninety-nine percent (99%) by Firststar Development, LLC, a Delaware limited liability company, as the Investor Member and one percent (1%) by CEFIA Solar Services Inc., as the Managing Member.

Advances between the primary government (CGB) and its component units, or between the component units themselves, involved establishment of funds to provide for loan loss reserves as well as pay certain organizational costs. Advances were eliminated in preparing the combining and reporting entity financial statements.

Condensed combining information for the primary government (CGB) and its two blended component units (CEFIA Holdings LLC and CEFIA Solar Loan I LLC) is presented as follows:

## CONNECTICUT GREEN BANK NOTES TO FINANCIAL STATEMENTS

### FOR THE YEAR ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

#### NOTE 1 – NATURE OF OPERATIONS AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

#### CONDENSED, COMBINING INFORMATION – STATEMENT OF NET POSITION

Assets	CGB	CEFIA Solar Loan I LLC	CEFIA Holdings LLC	Eliminating Entries	Total Primary Government
<b>Current Assets</b>					
Cash and cash equivalents	\$ 69,659,563	\$ 200,740	\$ 253,554	\$ --	\$ 70,113,857
Accounts receivable	4,547,770	--	--	--	4,547,770
Utility customer assessments receivable	3,402,401	--	--	--	3,402,401
Other receivables	355,405	--	--	--	355,405
Due from component units	6,742,472	--	10,181,422	(6,658,850)	10,265,044
Prepaid expenses and other assets	124,580	1,727	--	--	126,307
Current portion of Solar Lease notes	766,086	--	--	--	766,086
<b>Total Current Assets</b>	<u>85,598,277</u>	<u>202,467</u>	<u>10,434,976</u>	<u>(6,658,850)</u>	<u>89,576,870</u>
<b>Noncurrent Assets</b>					
Portfolio investments	1,600,000	--	--	--	1,600,000
Bonds receivable	1,000,000	--	--	--	1,000,000
Solar Lease Notes, less current portion	9,778,315	--	--	--	9,778,315
Program loans, less current portion	5,719,886	780,336	--	--	6,500,222
CPACE loans, less current portion	6,902,682	--	--	--	6,902,682
Renewable Energy Credits	1,069,390	--	--	--	1,069,390
Investment in component units	2,712,420	--	100	(2,712,420)	100
Deferred financing fees, net	--	--	--	--	--
Capital assets, net of depreciation and amortization	289,932	--	--	--	289,932
Restricted assets:					
Cash and cash equivalents	4,713,715	300,000	--	--	5,013,715
<b>Total Noncurrent Assets</b>	<u>33,786,340</u>	<u>1,080,336</u>	<u>100</u>	<u>(2,712,420)</u>	<u>32,154,356</u>
<b>Total Assets</b>	<u>\$ 119,384,617</u>	<u>\$ 1,282,803</u>	<u>\$ 10,435,076</u>	<u>\$ (9,371,270)</u>	<u>\$ 121,731,226</u>



## CONNECTICUT GREEN BANK NOTES TO FINANCIAL STATEMENTS

### FOR THE YEAR ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

#### NOTE 1 – NATURE OF OPERATIONS AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

#### CONDENSED, COMBINING INFORMATION – STATEMENT OF NET POSITION (CONTINUED)

	CGB	CEFIA Solar Loan I LLC	CEFIA Holdings LLC	Eliminating Entries	Total Primary Government
<b>Liabilities and Net Position</b>					
<b>Liabilities</b>					
Current maturities of long-term debt	\$ --	\$ 6,280	\$ --	\$ --	\$ 6,280
Accounts payable and accrued expenses	2,566,620	10,323	1,134,751	--	3,711,694
Due to component units	--	858,850	5,800,000	(6,658,850)	--
Due to outside agency	439,643	--	--	--	439,643
Custodial liability	360,000	--	48,979	--	408,979
Deferred revenue	58,000	--	--	--	58,000
<b>Total Current Liabilities</b>	<b>3,424,263</b>	<b>875,453</b>	<b>6,983,730</b>	<b>(6,658,850)</b>	<b>4,624,596</b>
<b>Long-term debt, less current maturities</b>	<b>--</b>	<b>119,808</b>	<b>--</b>	<b>--</b>	<b>119,808</b>
<b>Total Liabilities</b>	<b>3,424,263</b>	<b>995,261</b>	<b>6,983,730</b>	<b>(6,658,850)</b>	<b>4,744,404</b>
<b>Net Position</b>					
Invested in capital assets	289,932	--	--	--	289,932
Restricted Net Position					
Non-expendable	--	--	2,713,420	(2,712,420)	1,000
Restricted for energy programs	8,143,655	--	--	--	8,143,655
Unrestricted (deficit)	107,526,767	287,542	737,926	--	108,552,235
<b>Total Net Position</b>	<b>115,960,354</b>	<b>287,542</b>	<b>3,451,346</b>	<b>(2,712,420)</b>	<b>116,986,822</b>
<b>Total Liabilities and Net Position</b>	<b>\$ 119,384,617</b>	<b>\$ 1,282,803</b>	<b>\$ 10,435,076</b>	<b>\$ (9,371,270)</b>	<b>\$ 121,731,226</b>

**CONNECTICUT GREEN BANK**  
**NOTES TO FINANCIAL STATEMENTS**

**FOR THE YEAR ENDED JUNE 30, 2014**  
 (With Summarized Totals for the Year Ended June 30, 2013)

**NOTE 1 – NATURE OF OPERATIONS AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**  
**CONDENSED, COMBINING INFORMATION – STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION**

	CGB	CEFIA Solar Loan I LLC	CEFIA Holdings LLC	Eliminating Entries	Total Primary Government
<b>Operating Revenues</b>					
Utility customer assessments	\$ 27,779,345	--	\$ --	--	\$ 27,779,345
Grant revenue	321,642	300,000	--	--	621,642
RGGI Auction income	20,074,668	--	--	--	20,074,668
Energy system sales	--	--	3,548,840	--	3,548,840
Other income	576,788	--	--	--	576,788
<b>Total Operating Revenues</b>	<b>48,752,443</b>	<b>300,000</b>	<b>3,548,840</b>	<b>--</b>	<b>52,601,283</b>
<b>Operating Expenses</b>					
Cost of goods sold - energy systems	--	--	2,794,270	--	2,794,270
Provision for loan losses	1,310,933	--	--	--	1,310,933
Grants and program expenditures	23,214,499	23,620	10,560	--	23,248,679
General and administrative expenses	2,360,202	2,540	5,970	--	2,368,712
<b>Total Operating Expenses</b>	<b>26,885,634</b>	<b>26,160</b>	<b>2,810,800</b>	<b>--</b>	<b>29,722,594</b>
<b>Operating Income</b>	<b>21,866,809</b>	<b>273,840</b>	<b>738,040</b>	<b>--</b>	<b>22,878,689</b>
<b>Nonoperating Income (Expenses)</b>					
Interest income - promissory notes	557,632	13,764	--	--	571,396
Interest income - short term cash deposits	551,393	--	--	--	551,393
Interest income - component units	67,958	--	--	--	67,958
Interest expense - component units	--	--	--	--	--
Realized loss on investments	(350,000)	--	--	--	(350,000)
Unrealized gain on disposition of investments	349,999	--	--	--	349,999
<b>Total Nonoperating Income (Expenses)</b>	<b>1,176,982</b>	<b>13,764</b>	<b>--</b>	<b>--</b>	<b>1,190,746</b>
<b>Change in Net Position before Payments to State of Connecticut and Capital Contributions</b>	<b>23,043,791</b>	<b>287,604</b>	<b>738,040</b>	<b>--</b>	<b>24,069,435</b>
Payments to State of Connecticut	(6,200,000)	--	--	--	(6,200,000)
Capital contributions	--	--	2,613,420	(2,613,420)	--
Distributions to member	--	--	--	--	--
<b>Change in Net Position</b>	<b>16,843,791</b>	<b>287,604</b>	<b>3,351,460</b>	<b>(2,613,420)</b>	<b>17,869,435</b>
<b>Net Position - Beginning of Year</b>	<b>99,116,563</b>	<b>(62)</b>	<b>99,886</b>	<b>(99,000)</b>	<b>99,117,387</b>
<b>Net Position - End of Year</b>	<b>\$ 115,960,354</b>	<b>\$ 287,542</b>	<b>\$ 3,451,346</b>	<b>\$ (2,712,420)</b>	<b>\$ 116,986,822</b>

**CONNECTICUT GREEN BANK**  
**NOTES TO FINANCIAL STATEMENTS**

**FOR THE YEAR ENDED JUNE 30, 2014**

(With Summarized Totals for the Year Ended June 30, 2013)

**NOTE 1 – NATURE OF OPERATIONS AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**

**CONDENSED, COMBINING INFORMATION – STATEMENT OF CASH FLOWS**

	CGB	CEFIA Solar Loan I LLC	CEFIA Holdings LLC	Eliminating Entries	Total Primary Government
<b>Cash Flows from Operating Activities</b>					
Utility ratepayer assessments	\$ 26,992,610	\$ --	\$ --	\$ --	\$ 26,992,610
Grants	400,766	300,000	--	--	700,766
RGGI auction proceeds	17,520,889	--	--	--	17,520,889
Other income	581,435	--	--	--	581,435
Lease prepayment	--	--	6,092	--	6,092
Grant and program expenditures	(7,802,814)	(12,014)	(14,844)	--	(7,829,672)
Grants, incentives and credit enhancements	(13,313,611)	--	--	--	(13,313,611)
General and administrative expenditures	(2,331,070)	(197)	(5,970)	--	(2,337,237)
<b>Net Cash Provided by (Used in) Operating Activities</b>	<u>22,048,205</u>	<u>287,789</u>	<u>(14,722)</u>	<u>--</u>	<u>22,321,272</u>
<b>Cash Flows from Non-capital Financing Activities</b>					
Transfer from State of Connecticut	(6,200,000)	--	--	--	(6,200,000)
Advances to CEFIA component units	(650,000)	--	(1,439,552)	--	(2,089,552)
Advances from CEFIA and component units	--	783,850	--	--	783,850
<b>Net Cash Provided by (Used in) Non-capital Financing Activities</b>	<u>(6,850,000)</u>	<u>783,850</u>	<u>(1,439,552)</u>	<u>--</u>	<u>(7,505,702)</u>
<b>Cash Flows from Capital and Related Financing Activities</b>					
Purchase of capital assets	(79,713)	--	--	--	(79,713)
Proceeds from long-term debt	--	122,463	--	--	122,463
Capital contributions from component entities	(2,613,420)	--	2,613,420	--	--
Capital contributions from Firststar Development, LLC	--	--	--	--	--
Return of capital to Firststar Development, LLC	--	--	--	--	--
<b>Net Cash Provided by (Used in) Capital and Related Financing Activities</b>	<u>(2,693,133)</u>	<u>122,463</u>	<u>2,613,420</u>	<u>--</u>	<u>42,750</u>
<b>Cash Flows from Investing Activities</b>					
Return of principal on investments	6,965,232	57,722	--	--	7,022,954
CPACE program loan disbursements	(14,752,595)	--	--	--	(14,752,595)
Grid Tied program loan disbursements	(2,375,000)	--	--	--	(2,375,000)

## CONNECTICUT GREEN BANK NOTES TO FINANCIAL STATEMENTS

**FOR THE YEAR ENDED JUNE 30, 2014**  
(With Summarized Totals for the Year Ended June 30, 2013)

**NOTE 1 – NATURE OF OPERATIONS AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**  
**CONDENSED, COMBINING INFORMATION – STATEMENT OF CASH FLOWS (CONTINUED)**

	CGB	CEFIA Solar Loan I LLC	CEFIA Holdings LLC	Eliminating Entries	Total Primary Government
<b>Cash Flows from Investing Activities (Continued)</b>					
Operational Demo program loan disbursements	\$ 442,200	\$ 57	\$ --	\$ --	\$ 442,257
Sales of energy systems	--	--	715,768	--	715,768
AD/CHP program loan disbursements	(150,000)	--	--	--	(150,000)
Alpha/Operational Demo program loan disbursements	(516,200)	--	--	--	(516,200)
Energy Efficiency program loan disbursements	(75,000)	--	--	--	(75,000)
Campus Efficiency NOW program loan disbursements	(315,668)	--	(1,656,995)	--	(315,668)
Residential Solar Lease program disbursements	--	--	--	--	(1,656,995)
Residential Solar Loan program disbursements	--	(805,484)	--	--	(805,484)
<b>Net Cash Used in Investing Activities</b>	<b>(10,777,031)</b>	<b>(747,705)</b>	<b>(941,227)</b>	<b>--</b>	<b>(12,465,963)</b>
<b>Net Increase (Decrease) in Cash and Cash Equivalents</b>	<b>1,728,041</b>	<b>446,397</b>	<b>217,919</b>	<b>--</b>	<b>2,392,357</b>
<b>Cash and Cash Equivalents – Beginning of Year</b>	<b>72,656,086</b>	<b>54,343</b>	<b>24,786</b>	<b>--</b>	<b>72,735,215</b>
<b>Cash and Cash Equivalents – End of Year</b>	<b>\$ 74,384,127</b>	<b>\$ 500,740</b>	<b>\$ 242,705</b>	<b>\$ --</b>	<b>\$ 75,127,572</b>
<b>Reconciliation of Operating Loss to Net Cash Provided by (Used in) Operating Activities:</b>					
Operating income (loss)	\$ --	\$ --	\$ --	\$ --	\$ --
Adjustments to reconcile operating loss to net cash provided by (used in) operating activities:					
Depreciation	--	--	--	--	--
Changes in operating assets and liabilities:					
Other assets	--	--	--	--	--
Receivables, notes, renewable credits	--	--	--	--	--
Increase in liabilities:					
Accounts payable, accrued expenses, deferred revenue and due to related parties	--	--	--	--	--
<b>Net Cash Provided by (Used in) Operating Activities</b>	<b>\$ --</b>	<b>\$ --</b>	<b>\$ --</b>	<b>\$ --</b>	<b>\$ --</b>

## NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

**NOTE 1 – NATURE OF OPERATIONS AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)***MEASUREMENT FOCUS, BASIS OF ACCOUNTING AND FINANCIAL STATEMENT PRESENTATION*

All entities are enterprise funds. Enterprise funds are used to account for governmental activities that are similar to those found in the private sector in which the determination of net income is necessary or useful to sound financial administration.

In its accounting and financial reporting, the reporting entity follows Governmental Accounting Standards Board (GASB) Statement No. 62, *GASB Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements* which incorporates into GASB guidance pre-November 30, 1989 FASB Statements and Interpretations and Accounting Principles Board (APB) Opinions and Research Bulletins which do not conflict or contradict GASB statements.

*BASIS OF PRESENTATION*

These financial statements are reported using the economic resources measurement focus and accrual basis of accounting. Revenues are recognized when earned, and expenses are recognized when the liability is incurred, regardless of the timing of the related cash flows.

*REVENUE RECOGNITION*

CGB, in addition to utility assessments and RGGI auction income, recognizes revenue from grants as expenses are incurred.

CEFIA Solar Loan I LLC revenues represents grant funds paid to it by CGB. This amount was eliminated to arrive at the total reporting entity revenue.

CEFIA Holdings LLC revenues from the sales of photovoltaic energy systems to CEFIA Solar Lease 2, LLC. This amount was eliminated to arrive at the total reporting entity revenue.

CEFIA Solar Services, Inc. revenue consists of an administrative fee from CGB. This amount was eliminated to arrive at the total reporting entity revenue.

In addition, CT Solar Lease 2 LLC is expected to derive revenue from the following sources: operating leases, energy generation, Production Based Incentives (PBIs) and the sale of Solar Renewable Energy Certificates (SRECs) to third parties. Rental income from residential and commercial operating leases will be recognized on a straight-line basis over the term of each underlying lease. Energy generation revenue will be recognized as electricity is generated, based on actual output and contractual prices set forth in long-term PPAs. PBI payments on

## NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

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**NOTE 1 – NATURE OF BUSINESS AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**

residential solar photovoltaic systems will be received through a rebate program funded by the CGB. Payments are based on actual production. Revenue from the sale of SRECs to third parties is recognized upon the transfer of title and delivery of the SRECs to third parties and is derived from contractual prices set forth in SREC sale agreements.

***OPERATING VS. NON-OPERATING REVENUE (EXPENSE)***

All entities distinguish operating revenues and expenses from non-operating items. Operating revenues consist of utility customer assessments, grants for operating activities, and other revenue generated in connection with investments in clean energy programs. Operating expenses consist of operating costs, including depreciation on capital assets and grants and programs. Non-operating revenue (expense) consists of investment earnings, gains, and losses.

***USE OF ESTIMATES***

Management uses estimates and assumptions in preparing these financial statements in accordance with accounting principles generally accepted in the United States of America. Those estimates and assumptions affect certain reported amounts and disclosures in the financial statements. The most significant estimates are the determination of the fair value of its investments. Actual results could vary from the estimates that were used.

***USE OF RESTRICTED VS. NON-RESTRICTED RESOURCES***

When both restricted and unrestricted amounts are available for use, the policy is to use restricted resources for their intended purposes first and then unrestricted resources.

***CASH AND CASH EQUIVALENTS***

Cash equivalents consist of cash and highly liquid short-term investments with an original term of 90 days when purchased and are recorded at cost, which approximates fair value.

***CAPITAL ASSETS***

Capital asset acquisitions exceeding \$500 are capitalized at cost. Maintenance and repair expenses are charged to operations when incurred. Depreciation is computed using straight-line methods over the estimated useful lives of the assets, which range from two to twenty-five years. Leasehold improvements are amortized over the shorter of their useful life or the lease term.

## NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

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## NOTE 1 – NATURE OF BUSINESS AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

*CAPITAL ASSETS (CONTINUED)*

For capital assets sold or otherwise disposed of, the cost and related accumulated depreciation and amortization are removed from the accounts, and any related gain or loss is reflected in income for the period.

*PORTFOLIO INVESTMENTS*

CGB carries all investments at fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer liability by in an orderly transaction between market participants at the measurement date. As discussed in Note 4, CGB's portfolio investments are managed by CI. Fair value is determined by CI's independent valuation committee ("Committee") using United States Private Equity Valuation Guidelines promulgated by the Private Equity Investment Guidelines Group. In the absence of readily determinable market values, the Committee gives consideration to pertinent information about the companies comprising these investments, including, but not limited to, recent sales prices of the issuer's securities, sales growth, progress toward business goals and other operating data. CI has applied procedures in arriving at the estimate of the value of such securities that it believes are reasonable and appropriate. CGB management reserves the right to establish a reserve in addition to the reserve recommended by the Committee to further account for current market conditions and volatility. Due to the inherent uncertainty of valuation, those estimated values may differ significantly from the amounts ultimately realized from the investments, and the differences could be material. CGB reports gains as realized and unrealized consistent with the practice of venture capital firms. The calculation of realized gains and losses is independent of the calculation of the net change in investment value.

All of CGB's portfolio investments are uninsured against loss and unregistered, and are held in the administrator's name.

*DEFERRED FINANCING FEES*

Deferred financing fees of \$487,563 consist of costs incurred in connection with securing the long-term debt. These costs are amortized using the straight-line method over the maximum term of the credit facility, which is through July 1, 2030. Accumulated amortization at June 30, 2014 was \$28,680. Amortization expense for the year ended June 30, 2014 was \$28,680.

## NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

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## NOTE 1 – NATURE OF BUSINESS AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

*NET POSITION*

Net position is presented in the following three categories:

- *Net Position Invested in Capital Assets* represent capital assets, net of accumulated depreciation and amortization that are attributable to those particular assets.
- *Restricted Net Position* represent assets whose use is restricted through external restrictions imposed by creditors, grantors, contributors and the like, or through restrictions imposed by laws or through constitutional provisions or enabling legislature, and includes equity interest within CGB's component units by outside entities.
- *Unrestricted Net Position* represents assets which do not meet the definition of the two preceding categories.

*GRANTS AND PROGRAMS*

Expenditures for grants and programs are recorded upon the submission of invoices and other supporting documentation and approval by management. Salaries, benefits and overhead expenses are allocated to program expenses based on job functions.

*RECLASSIFICATIONS*

Certain amounts in the 2013 summarized information have been reclassified to conform to the 2014 presentation.

*SUBSEQUENT EVENTS*

In September 2014, CT Solar Lease 2 LLC was required by agreement with First Niagara Bank, N.A. (the Bank) to enter into an interest rate protection agreement with the Bank.

CGB has performed a review of events subsequent to the statement of net position date through \_\_\_\_\_, 2014, the date of the financial statements where available to be issued. Except as described above, no events requiring recording or disclosure in the financial statements were identified.



## NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

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## NOTE 2 – FAIR VALUE MEASUREMENTS

The framework for measuring fair value provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). In determining fair value, CGB utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs. CGB also considers nonperformance risk in the overall assessment of fair value.

Investments are measured at fair value utilizing valuation techniques based on observable and/or unobservable inputs. Observable inputs reflect readily obtainable data from independent sources, while unobservable inputs reflect market assumptions. These inputs are classified into the following hierarchy:

*Level 1* – Unadjusted quoted prices in active markets that are accessible at the measurement date for identical assets or liabilities. CGB's Level 1 securities were valued at the closing price reported on the active markets on which the individual securities are traded.

*Level 2* – Inputs other than quotes prices in active markets for identical assets and liabilities that are observable either directly or indirectly for substantially the full term of the asset or liability. Level 2 inputs include the following:

- Quotes prices for similar assets and liabilities in active markets
- Quotes prices for identical or similar assets or liabilities in markets that are not active
- Observable inputs other than quotes prices that are used in the valuation of the asset or liability (e.g., interest rate and yield curve quotes at commonly quotes intervals)
- Inputs that are derived principally from or corroborated by observed market data by correlation or other means

*Level 3* – Unobservable inputs for the asset or liability (supported by little or no market activity). Level 3 inputs include management's own assumptions about the assumptions that market participants would use in pricing the asset or liability (including assumptions about risk).

## NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

## NOTE 2 – FAIR VALUE MEASUREMENTS (CONTINUED)

The asset or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs.

The preceding methods described may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, although CGB believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

The following table sets forth by level, within the fair value hierarchy, CGB's fair value measurements at June 30, 2014:

<i>Investment assets at Fair Value as of June 30, 2014</i>				
	Level 1	Level 2	Level 3	Total
Cash and cash equivalents	\$ 80,872,491	\$ --	\$ --	\$ 80,872,491
Portfolio investments	--	--	1,000,000	1,000,000
	<u>\$ 80,872,491</u>	<u>\$ --</u>	<u>\$ 1,000,000</u>	<u>\$ 81,872,491</u>
	Level 1	Level 2	Level 3	Total
Primary Government:				
Cash and cash equivalents	\$ 75,127,572	\$ --	\$ --	\$ 75,127,572
Portfolio investments	--	--	1,000,000	1,000,000
Discretely Presented				
Component Units:				
CGB Solar Services, Inc.	123	--	--	123
CT Solar Lease 2 LLC				
Cash and cash equivalents	<u>5,744,796</u>	<u>--</u>	<u>--</u>	<u>5,744,796</u>
	<u>\$ 80,872,491</u>	<u>\$ --</u>	<u>\$ 1,000,000</u>	<u>\$ 81,872,491</u>

## NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

## NOTE 2 – FAIR VALUE MEASUREMENTS (CONTINUED)

The following table sets forth by level, within the fair value hierarchy, CGB's fair value measurements at June 30, 2013:

	<i>Investment assets at Fair Value as of June 30, 2013</i>			
	Level 1	Level 2	Level 3	Total
Cash and cash equivalents	\$ 77,641,670	\$ --	\$ --	\$ 77,641,670
Portfolio investments	--	--	1,000,000	1,000,000
	<u>\$ 77,641,670</u>	<u>\$ --</u>	<u>\$ 1,000,000</u>	<u>\$ 78,641,670</u>
	Level 1	Level 2	Level 3	Total
Primary Government:				
Cash and cash equivalents	\$ 72,735,214	\$ --	\$ --	\$ 72,735,214
Portfolio investments	--	--	1,000,000	1,000,000
Discretely Presented				
Component Units:				
CGB Solar Services, Inc.	--	--	--	--
CT Solar Lease 2 LLC				
Cash and cash equivalents	<u>4,906,456</u>	<u>--</u>	<u>--</u>	<u>4,906,456</u>
	<u>\$ 77,641,670</u>	<u>\$ --</u>	<u>\$ 1,000,000</u>	<u>\$ 78,641,670</u>

There were no transfers between levels during the years ended June 30, 2014 and 2013.

Furthermore, there were no changes in level 3 assets during 2014 or 2013, respectively.

CONNECTICUT GREEN BANK

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NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

NOTE 3 – CASH AND CASH EQUIVALENTS

The following is a summary of cash and cash equivalents for the reporting entity at June 30:

	2014	2013
Checking	\$ 2,205,106	\$ 1,846,114
State Treasurer's Short-Term Investment Fund	<u>69,688,946</u>	<u>66,258,900</u>
Unrestricted cash and cash equivalents	71,894,052	68,105,014
Checking - restricted	1,405,787	1,569,975
Money Market - restricted	3,500,000	3,500,000
State Treasurer's Short-Term Investment Fund - restricted	<u>4,072,652</u>	<u>4,466,681</u>
Total cash and cash equivalents	<u>\$ 80,872,491</u>	<u>\$ 77,641,670</u>

*Cash and cash equivalents as of June 30, 2014*

	Primary Government	CT Solar Lease 2 LLC	CGB Solar Services, Inc.	Total
Checking	\$ 960,188	\$ 1,244,796	\$ 123	\$ 2,205,107
State Treasurer's Short-Term Investment Fund	<u>69,688,946</u>	<u>--</u>	<u>--</u>	<u>69,688,946</u>
Unrestricted Cash and Cash Equivalents	70,649,134	1,244,796	123	71,894,053
Restricted Cash				
Checking	405,787	1,000,000	--	1,405,787
Money market	--	3,500,000	--	3,500,000
State Treasurer's Short-Term Investment Fund	<u>4,072,652</u>	<u>--</u>	<u>--</u>	<u>4,072,652</u>
	<u>\$ 75,127,573</u>	<u>\$ 5,744,796</u>	<u>\$ 123</u>	<u>\$ 80,872,492</u>

## NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

## NOTE 3 – CASH AND CASH EQUIVALENTS (CONTINUED)

	<i>Cash and cash equivalents as of June 30, 2013</i>			
	Primary Government	CT Solar Lease 2 LLC	CEFIA Solar Services, Inc.	Total
Checking	\$ 1,439,658	\$ 406,456	\$ --	\$ 1,846,114
State Treasurer's Short-Term Investment Fund	<u>66,258,900</u>	<u>--</u>	<u>--</u>	<u>66,258,900</u>
Unrestricted Cash and Cash Equivalents	67,698,558	406,456	--	68,105,014
Restricted Cash				
Checking	569,975	1,000,000	--	1,569,975
Money market	--	3,500,000	--	3,500,000
State Treasurer's Short-Term Investment Fund	<u>4,466,681</u>	<u>--</u>	<u>--</u>	<u>4,466,681</u>
	<u>\$ 72,735,214</u>	<u>\$ 4,906,456</u>	<u>\$ --</u>	<u>\$ 77,641,670</u>

***STATE TREASURER'S SHORT-TERM INVESTMENT FUND***

The State Treasurer's Short-Term Investment Fund is a Standard & Poors AAAM investment pool of high-quality, short-term money market instruments managed by the Cash Management Division of the State Treasurer's Office. It is the investment vehicle for the operating cash of the State of Connecticut Treasury, state agencies and authorities, municipalities, and other political subdivisions of the State. The value of CGB's position in the pool is the same as the value of pool shares. Regulatory oversight is provided by an investment advisory council and the State Treasurer's Cash Management Board.

***INVESTMENT MATURITIES***

The State Treasurer's Short-Term Investment Fund has no maturity date and is available for withdrawal on demand.

***INTEREST RATE RISK***

CGB manages its exposure to declines in fair value by limiting the average maturity of its cash and cash equivalents to no more than one year.

## NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

## NOTE 3 – CASH AND CASH EQUIVALENTS (CONTINUED)

*CREDIT RISK*

Connecticut General Statutes authorize CGB to invest in obligations of the U.S. Treasury including its agencies and instrumentalities, commercial paper, banker's acceptance, repurchase agreements and the State Treasurer's Short-Term Investment Fund.

Investment ratings for the Fund's investment are as follows:

	Moody's Investors Service	Standard & Poor's
State Treasurer's Short-Term Investment Fund	Aaa	AAAm

*CONCENTRATION OF CREDIT RISK*

CGB's investment policy does not limit the investment in any one investment vehicle. The State Treasurer's Short-term Investment Fund is not subject to this disclosure.

*CUSTODIAL CREDIT RISK - DEPOSITS*

In the case of deposits, this represents the risk that, in the event of a bank failure, CGB's deposits may not be returned to it. CGB does not have a deposit policy for custodial credit risk. As of June 30, 2014 and 2013, \$6,554,413 and \$6,940,198, respectively, of CGB's bank balances were exposed to custodial credit risk. Primary government consisted of \$1,296,948 and \$2,283,742 as of June 30, 2014 and 2013. CT Solar Lease 2, LLC consisted of \$5,257,465 and \$4,656,456 as of June 30, 2014 and 2013, respectively. Funds held by banks on behalf of CT Solar Lease 2 LLC include a contractual requirement to maintain \$4,500,000 in deposits with financial institutions participating in the CGB Solar Lease Program which represent loan loss and lease maintenance reserves.

*CUSTODIAL CREDIT RISK - INVESTMENTS*

For an investment, this represents the risk that, in the event of the failure of the counterparty, CGB will not be able to recover the value of the investment. As of June 30, 2014 and 2013, the Fund has no reportable custodial risk.

**CONNECTICUT GREEN BANK**

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**NOTES TO FINANCIAL STATEMENTS**

**FOR THE YEAR ENDED JUNE 30, 2014**

(With Summarized Totals for the Year Ended June 30, 2013)

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**NOTE 4 – PORTFOLIO INVESTMENTS**

The former Connecticut Clean Energy Fund (CCEF) invested in emerging technology companies as equity and debt investments in Operational Demonstration projects. Based on a memorandum of understanding between CGB and CI, CI manages these investments on behalf of CGB.

**NOTE 5 – BONDS RECEIVABLE**

This amount represents two \$800,000 bonds received in connection with the CGB’s May 2014 sale of C-Pace Loans to Clean Fund Holdings, LLC (CFH). CFH paid CGB approximately \$6.4 million in cash along with two bonds issued to CGB through Public Finance Authority (Subordinate Series 2014B-1 and 2014C-1). Each bond carries interest of 5.30% per annum with a maturity date of September 10, 2034. The bonds are secured by the C-Pace Loans sold to CFH. At June 30, 2014, management believes no valuation allowance is necessary on these bonds.

Each bond requires semi-annual interest-only payments to CGB starting September 10, 2014 and continuing to September 10, 2029. Starting March 10, 2030 and every six months thereafter, principal payments, along with the required interest is to be paid to CGB.

Principal maturities of these bonds are as follows:

Year ended June 30,	2014B-1	2014C-1	Total
2015	\$ --	\$ --	\$ --
2016	--	--	--
2017	--	--	--
2018	--	--	--
2019	--	--	--
2020 - 2024	--	--	--
2025 - 2029	--	--	--
2030 - 2034	792,500	792,500	1,585,000
2035	7,500	7,500	15,000
	<u>\$ 800,000</u>	<u>\$ 800,000</u>	<u>\$ 1,600,000</u>

**CONNECTICUT GREEN BANK**

**NOTES TO FINANCIAL STATEMENTS**

**FOR THE YEAR ENDED JUNE 30, 2014**

(With Summarized Totals for the Year Ended June 30, 2013)

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**NOTE 6 – SOLAR LEASE NOTES RECEIVABLE**

**NOTE 7 – C-PACE LOANS RECEIVABLE**

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## NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

## NOTE 8 – FINANCING ACTIVITIES

*LONG-TERM DEBT - LINE OF CREDIT – PRIMARY GOVERNMENT*

During 2014, CT Solar Loan 1 LLC entered into a \$4,000,000 line of credit (LOC) with Solar Mosaic, Inc. (Mosaic). Borrowings on the LOC immediately turn into a term note with predefined repayment terms at the time of borrowing. The LOC has \$3,873,912 available at June 30, 2014. The LOC borrowing period is through June 30, 2015. Borrowings on the LOC bear interest at 6.4586% (Base Rate) and have the option to buy-down the interest rate to 6.00% (Reduced Rate) by making a payment on the borrowing date of 2.875% of the principal amount of the loan (Rate Buy-down Amount). As of June 30, 2014 there was \$126,088 outstanding which matures in March 2029.

In connection with the LOC, CT Solar Loan 1 LLC is required to establish and maintain a collections account, debt service reserve account and a loan loss reserve account. Deposits shall be made into the collections account for all payments received by residential borrowers. The debt service reserve account is required to have no less than six months forward-looking principal and interest payments for the loans outstanding. The loan loss reserve account is required to have a one-time deposit of \$300,000.

Future maturities on borrowings on the Additional LOC are as follows:

<u>Years ending June 30,</u>	
2015	\$ 6,280
2016	6,516
2017	6,831
2018	7,163
2019	7,512
Thereafter	<u>91,786</u>
	<u>\$ 126,088</u>

# CONNECTICUT GREEN BANK

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## NOTES TO FINANCIAL STATEMENTS

**FOR THE YEAR ENDED JUNE 30, 2014**

(With Summarized Totals for the Year Ended June 30, 2013)

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### NOTE 8 – FINANCING ACTIVITIES (CONTINUED)

#### *LINE OF CREDIT – DISCRETELY PRESENTED COMPONENT UNIT – CT SOLAR LEASE 2, LLC*

CT Solar Lease 2, LLC has a \$26,700,000 line of credit agreement (Additional LOC) with First Niagara Bank, N.A. (First Niagara) as the Administrative Agent and Lender along with three other participating lenders. The additional LOC is broken down by lender as follows:

First Niagara Bank, N.A.	\$ 10,700,000
Liberty Bank	7,000,000
Webster Bank, National Association	7,000,000
People's United Bank	<u>2,000,000</u>
	<u>\$ 26,700,000</u>

Funds may be drawn down in no more than ten total advances by July 1, 2015. With the exception of the final advance, each advance must be in the principal amount of \$2,670,000 or a whole multiple of \$100,000 in excess of \$2,670,000. Each loan funding will be shared by all participating lenders in accordance with their pro-rata share of the total facility commitment.

Each advance will be amortized separately. CT Solar Lease 2 LLC has the option with each advance of selecting between the LIBOR rate or the base rate which is defined as the highest of (a) the Federal Funds Effective Rate plus one-half of 1 percent, (b) First Niagara's prime rate (3.25 at June 30, 2014), and (c) the LIBOR rate plus 1 percent (\_\_\_\_\_ at June 30, 2014). CT Solar Lease 2 LLC may also elect to convert an advance from one rate to the other by following the process outlined in the credit agreement.

Payments of interest with respect to any LIBOR rate advances are due on the 15<sup>th</sup> day of the month following each calendar quarter end. Payments of interest with respect to any base rate advances are due monthly. Payments of principal with respect to all advances are due on the 15<sup>th</sup> day of the month following each calendar quarter end. Principal payments on each advance will be based on a modified 15 year amortization schedule as outlined in the credit agreement.

Within one month of each advance, CT Solar Lease 2 LLC is required to enter into an interest rate swap contract with respect to a minimum amount of 75% of such advance. If one of the participating lenders is the counterparty to the swap contract, such contract will be secured by the collateral of the credit agreement; otherwise, the swap contract will be unsecured.

## NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

**NOTE 8 – FINANCING ACTIVITIES (CONTINUED)**

Certain obligations of CT Solar Lease 2 LLC under the credit agreement are guaranteed by CGB. This credit agreement is secured by all assets of CT Solar Lease 2 LLC as well as CT Solar Services (the “Managing Member”) interest in CT Solar Lease 2 LLC. There are no prepayment penalties. There are certain debt service coverage ratios CT Solar Lease 2 LLC must maintain related to each separate advance and which require the separate measurement of the net operating income with respect to the projects purchased with each advance.

As of June 30, 2014, there were no borrowings on the Additional LOC.

**NOTE 9 – PAYMENT TO STATE OF CONNECTICUT**

This amount represents a required annual payment of \$6,200,000 to the State of Connecticut.

**NOTE 10 – RELATED PARTY TRANSACTIONS AND OPERATING LEASES*****DUE TO AFFILIATE***

CGB utilizes the services of CI, as provided in the General Statutes of the State of Connecticut. CI provides services to CGB, at cost, for its operations. Such services include, but are not limited to, staff for accounting and information technology support, office space, equipment, supplies and insurance. Expenses billed to CGB by CI totaled \$916,493 and \$880,741 for the years ended June 30, 2014 and 2013, respectively. As of June 30, 2014 and 2013, amounts due to CI were \$227,046 and \$21,396, respectively.

***UNUSED COMMITMENT FEE***

The Investor Member of CT Solar Lease 2 LLC is entitled to an annual fee due within 30 days of the end of each calendar year, calculated on a monthly basis, based on the amount of the Investor Member’s unfunded capital contributions. The fee for each month is equal to 1.25 percent times the amount by which the Investor Member’s contribution cap exceeds the total capital contributions funded as of the last day of the month in question divided by twelve. Amounts not paid timely accrue interest at the US Bank Prime Rate in effect on the due date plus 2 percent. The unused commitment fee totaled \$146,183 for the year ended June 30, 2014 and is included in accounts payable and accrued expenses on the accompanying statement of net assets. There was no unused commitment fee as of June 30, 2013.

## NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

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**NOTE 10 – RELATED PARTY TRANSACTIONS AND OPERATING LEASES (CONTINUED)***ADMINISTRATIVE SERVICES FEE*

The Managing Member of CT Solar Lease 2 LLC provides administrative and management services to the Company and earned a quarterly fee initially equal to \$30,000 per quarter beginning July 1, 2013. The amount of the fee will increase 2.5 percent each July 1<sup>st</sup> beginning July 1, 2014. The administrative services fee totaled \$120,000 for the year ended June 30, 2014 and is included in accounts payable and accrued expenses on the accompanying statement of net assets. There was no administrative services fee for the year ended June 30, 2013.

*PRIORITY RETURN*

The Investor Member is the Tax-Equity Investor and is entitled to substantially all of the tax benefits of CT Solar Lease 2 LLC until January 1 of the year which is five years after the date the last project is installed, which is anticipated to be January 1, 2012, the Flip Date.

The investor Member of CT Solar Lease 2 LLC shall be due a cumulative, quarterly distribution equal to 0.5% of its paid-in capital contributions in respect of projects beginning at the end of the first quarter after the first project acquisition capital contribution is made and continuing until the “Flip Date.” To the extent the priority return is not paid in a quarter until the Flip Date, unpaid amounts will accrue interest at the lower of 24% per annum or the highest rate permitted by law.

In accordance with the Operating Agreement all amounts and accrued interest due on the Priority Return are to be paid from net cash flow prior to certain required payments due under the Credit Agreement. During the year ended June 30, 2014, the Investor Member was paid \$1,399 related to the Priority Return. The investor was not paid a priority return for the year ended June 30, 2013.

*PREPAID PRIORITY RETURN*

The investor member of CT Solar Lease 2 LLC will be paid a prepaid priority return with respect to each residential energy system project where the customer has made a prepayment to CT Solar Lease 2 LLC. The prepaid priority return is a one-time distribution to the investor member equal to 4.2055% of each prepaid project’s purchase price. The prepaid priority return will be paid to the investor member on the date it makes its initial acquisition capital contribution with respect to the purchase of the prepaid project. During the year ended June 30, 2014, the investor member was paid \$12,584 related to the prepaid priority return. The investor member was not paid a priority return for the year ended June 30, 2013.

## NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

## NOTE 10 – RELATED PARTY TRANSACTIONS AND OPERATING LEASES (CONTINUED)

*PAYROLL TAXES*

Pursuant to state statute, CGB is subject to fringe benefit charges for pension plan and medical plan contributions which are paid at the state level. CGB's employer payroll taxes are also paid at the state level. CGB reimburses the state for these payments. The reimbursement for 2014 and 2013 was \$2,721,651 and \$1,882,370, respectively, comprising 76.40% and 66.25%, respectively, of gross salaries.

*OPERATING LEASES*

During 2014, CGB entered into a non-cancellable operating lease with an unrelated entity for its main office space. The lease calls for monthly escalating payments beginning at \$12,567 through December 31, 2020. Rent expense related to this lease for the year ended June 30, 2014 was \$148,680.

In addition, CGB had a sub-lease for its main office space from CI under a non-cancellable Memorandum of Understanding (MOU) which expired during 2013. Rent expense related to this lease for the year ended June 30, 2013 amounted to \$84,305.

In addition, CGB has a non-cancelable operating lease for an additional office space from an unaffiliated entity which calls for initial monthly payments of \$7,333, with escalating payments through December 2020. Rent expense related to this lease for the years ended June 30, 2014 and 2013 amounted to \$88,998 and \$61,642, respectively.

In addition, CGB leases office equipment on a month-to-month basis. Rent expense related to the office equipment for the years ended June 30, 2014 and 2013 was \$24,415 and \$7,344, respectively.

Future minimum lease payments for office rentals are as follows:

<u>Years ending June 30,</u>	
2015	\$ 243,929
2016	250,172
2017	256,424
2018	262,672
2019	268,920
Thereafter	<u>414,341</u>
	<u>\$ 1,696,458</u>

CONNECTICUT GREEN BANK

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NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

NOTE 11 – CAPITAL ASSETS

Capital asset activity for reporting entity for the year ended June 30, 2014 is as follows:

	Balance, July 1, 2013	Additions	Deletions	Adjustments	Balance, June 30, 2014
Capital assets being depreciated:					
Solar lease equipment	\$ --	\$ 1,314,350	\$ --	\$ (279,191)	\$ 1,035,159
WIP solar lease equipment	--	2,234,490	--	(475,379)	1,759,111
Furniture and equipment	335,744	3,194	--	--	338,938
Leasehold improvements	136,659	3,023	--	--	139,682
Computer hardware and software	71,470	16,867	--	--	88,337
Construction in progress	--	7,141	--	--	7,141
	<u>543,873</u>	<u>3,579,065</u>	<u>--</u>	<u>(754,570)</u>	<u>3,368,368</u>
Less accumulated depreciation and amortization:					
Solar lease equipment	--	9,865	--	--	9,865
Furniture and equipment	146,560	59,260	--	--	205,820
Computer hardware and software	18,093	15,752	--	--	33,845
Leasehold improvements	16,715	27,786	--	--	44,501
	<u>181,368</u>	<u>112,663</u>	<u>--</u>	<u>--</u>	<u>294,031</u>
Capital assets, net	<u>\$ 362,505</u>	<u>\$ 3,466,402</u>	<u>\$ --</u>	<u>\$ (754,570)</u>	<u>\$ 3,074,337</u>
	Balance, July 1, 2012	Additions	Deletions	Adjustments	Balance, June 30, 2013
Capital assets being depreciated:					
Furniture and equipment	\$ 13,049	\$ 188,068	\$ --	\$ 134,627	\$ 335,744
Computer hardware and software	28,460	43,010	--	--	71,470
Leasehold improvements	56,224	80,395	--	40	136,659
	<u>97,733</u>	<u>311,473</u>	<u>--</u>	<u>134,667</u>	<u>543,873</u>
Less accumulated depreciation and amortization:					
Furniture and equipment	626	11,267	--	134,667	146,560
Computer hardware and software	3,807	14,286	--	--	18,093
Leasehold improvements	1,971	14,744	--	--	16,715
	<u>6,404</u>	<u>40,297</u>	<u>--</u>	<u>134,667</u>	<u>181,368</u>
Capital assets, net	<u>\$ 91,329</u>	<u>\$ 271,176</u>	<u>\$ --</u>	<u>\$ --</u>	<u>\$ 362,505</u>

## NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

## NOTE 12 – GRANT PROGRAMS

CGB, the primary government, recognizes grant revenue based on expenditures or fulfillment of program requirements. For the year ended June 30, 2014, CGB recognized related grant revenue of \$321,642 under Department of Energy programs.

## NOTE 13 – COMMITMENTS

As of June 30, 2014 and 2013, the Board of Directors designated a portion of CGB's unrestricted net position to fund financial incentives for specific commercial and residential projects in the following areas:

	2014	2013
Solar	\$ 24,442,941	\$ 10,795,323
AD/CHP Programs	14,558,887	--
CPACE	14,294,826	1,458,455
Campus Efficiency NOW Program	3,726,946	1,000,000
Wind	2,800,000	--
Fuel cells	1,363,388	4,944,157
Education and outreach	988,701	1,305,165
Operation Demonstration Programs	987,333	1,381,974
Project 150 and Pre-Development Programs	262,755	1,500,000
Other technologies	103,274	1,064,500
Geothermal and Solar Thermal	--	1,036,986
	<u>\$ 63,529,051</u>	<u>\$ 24,486,560</u>

These incentives are expected to be paid over the next one to six fiscal years and are contingent upon the completion of performance milestones by the recipient of the incentive.

In addition, at June 30, 2014, the Board of Directors through various resolutions has made available an additional \$33,981,288 of unrestricted net position to fund the following programs for which specific commercial and residential projects have not yet been identified:

CPACE	\$ 18,856,424
Solar loan programs	9,219,664
Solar lease program	5,905,200
	<u>\$ 33,981,288</u>

All commitments are those of the primary government.

## NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

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**NOTE 14 – PENSION PLAN**

All employees of the CGB participate in the State Employees' Retirement System (SERS), which is administered by the State Employees' Retirement Commission. The CGB has no liability for pension costs other than the annual contribution. In addition, an actuarial study was performed on the plan as a whole and does not separate information for employees of the CGB. Therefore, certain pension disclosures otherwise required pursuant to accounting principles generally accepted in the United States of America are omitted. Information on the total plan funding status and progress, contribution required and trend information can be found in the State of Connecticut's Comprehensive Annual Financial Report.

***PLAN DESCRIPTION***

SERS is a single-employer defined benefit public employee retirement system (PERS) established in 1939 and governed by Sections 5-152 and 5-192 of the Connecticut General Statutes. Employees are covered under one of three tiers. Tier I and Tier IIA are contributory plans, and Tier II is a noncontributory plan.

Members who joined the retirement system prior to July 1, 1984 are enrolled in Tier I. Tier I employees who retire at or after age 65 with 10 years of credited service, at or after age 55 with 25 years of service, or at age 55 with 10 years of credited service with reduced benefits are entitled to an annual retirement benefit payable monthly for life, in an amount of 2 percent of the annual average earnings (which are based on the three highest earning years of service) over \$4,800 plus 1 percent of \$4,800 for each year of credited service. Tier II employees who retire at or after age 60 with 25 years of service, or at age 62 with 10 years of service, or at age 65 with 5 years of service, are entitled to one and one-third percent of the average annual earnings plus one-half of one percent of the average annual earnings in excess of the salary breakpoint in the year of retirement for each year of credited service. Tier II employees between the ages of 55 and 62 with 10 years but less than 25 years of service may retire with reduced benefits. In addition, Tier II and Tier IIA members with at least five but less than ten years of actual state service who terminate their state employment July 2, 1997 or later and prior to attaining age 62 will be in deferred vested status and may commence receipt of normal retirement benefits on the first of the month on or following their sixty-fifth (65) birthday.



## NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

## NOTE 14 – PENSION PLAN (CONTINUED)

Employees hired on and after July 1, 1997, will become members of Tier IIA. Tier IIA plan is essentially the existing Tier II plan with the exception that employee contributions of 2 percent of salary are required. Tier I members are vested after ten years of service, while Tier II and Tier IIA members may be vested after five years of service under certain conditions, and all three plans provide for death and disability benefits.

Employees hired on or after July 1, 2011 are covered under the Tier III plan. Tier III requires employee contributions of two percent of salary up to a \$250,000 limit after which no additional contributions will be taken on earnings above this limit. The normal retirement date will be the first of any month on or after age 63 if the employee has at least 25 years of vested service or age 65 if the employee has at least 10 but less than 25 years of vested service. Tier III members who have at least 10 years of vested service can receive early reduced retirement benefits if they retire on the first of any month on or following their 58th birthday. Tier III normal retirement benefits include annual retirement benefits for life, in the amount of one and one-third percent of the five year average annual earnings plus one-half of one percent of the five year average annual earnings in excess of the salary breakpoint in the year of retirement for each year of credited service plus one and five-eighths of the five year annual average salary times years of credited service over 35 years.

The total payroll for employees of the CGB covered by SERS for the years ended June 30, 2014 and 2013 was \$3,121,583 and \$2,517,190, respectively.

*CONTRIBUTIONS MADE*

CGB's contribution is determined by applying a State mandated percentage to eligible salaries and wages as follows for the years ended June 30:

	2014	2013
Contributions made:		
By employees	\$ 139,217	\$ 104,214
Percent of current year covered payroll	4.5%	4.1%
By CGB	\$ 1,669,961	\$ 1,125,649
Percent of current year covered payroll	53.5%	44.7%

## NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED JUNE 30, 2014

(With Summarized Totals for the Year Ended June 30, 2013)

**NOTE 15 – RESTRICTED NET POSITION (PRIMARY GOVERNMENT)**

Restricted net position at June 30, 2014 consisted of the following:

Non-Expendable	
CGB component units equity interest	\$ <u>1,000</u>
Energy Programs	
Assets restricted to fund maintenance of a fuel cell for a Connecticut municipality	\$ 176,974
Assets restricted for maintaining loan loss and interest rate reserves (Note 1)	<u>7,966,081</u>
	<u>\$ 8,143,055</u>

**NOTE 16 – RISK MANAGEMENT**

CGB is subject to normal risks associated with its operations including property damage, personal injury and employee dishonesty. All risks are managed through the purchase of commercial insurance. There have been no losses exceeding insurance coverage, and there have been no decreases in insurance coverage over the last three years.

**NOTE 17 – RENEWABLE ENERGY CREDITS (PRIMARY GOVERNMENT)**

CGB owns Class 1 Renewable Energy Certificates (RECs) that are generated by certain commercial renewable energy facilities for which CGB provided the initial funding. On October 22, 2010, CGB entered into an agreement to sell a total of 10,000 RECs generated, or to be generated, during the period January 1 to December 31, 2014 at a price of \$15.00 per REC, totaling \$150,000. As of June 30, 2014, CGB has satisfied its obligations under this agreement.

RECs trade on the New England Power Pool (NEPOOL) market. The market price of Connecticut Class 1 RECs as of June 30, 2014 ranged from \$53.00 to \$54.00. CGB's inventory as of June 30, 2014 has been priced at its cost.

**CONNECTICUT GREEN BANK**  
**COMPREHENSIVE ANNUAL FINANCIAL REPORT**  
**STATISTICAL SECTION**  
**JUNE 30, 2012, 2013 AND 2014**

Draft

# CONNECTICUT GREEN BANK

## STATISTICAL SECTION INTRODUCTION

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This part of the Connecticut Green Bank's (CGB) comprehensive annual financial report presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information says about the benefits of CGB's investments.

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## **FINANCIAL STATISTICS**

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## CONNECTICUT GREEN BANK

### NET ASSETS

	2012	2013	2014	Total
<b>Primary Government</b>				
Invested in capital assets, net of related debt	\$ 91,329	\$ 362,505	\$ 289,932	\$ 1,033,698
Restricted Net Position				
Non-expendable	--	1,000	1,000	2,000
Restricted - energy programs	176,974	8,143,655	8,143,655	16,464,284
Unrestricted (deficit)	80,919,906	90,610,231	108,552,235	280,082,372
	<u>81,188,209</u>	<u>99,117,391</u>	<u>116,986,822</u>	<u>297,582,354</u>
<b>CT Solar Lease 2 LLC</b>				
Invested in capital assets, net of related debt	--	--	3,538,975	3,538,975
Restricted Net Position				
Non-expendable	--	100	4,794,901	4,795,001
Restricted - energy programs	--	--	--	--
Unrestricted (deficit)	--	(943,644)	(4,741,803)	(5,685,447)
	<u>--</u>	<u>(943,544)</u>	<u>3,592,073</u>	<u>2,648,529</u>
<b>CEFIA Solar Services, Inc.</b>				
Restricted Net Position				
Non-expendable	--	100	100	200
Restricted - energy programs	--	--	--	--
Unrestricted (deficit)	--	--	109,123	109,123
	<u>--</u>	<u>100</u>	<u>109,223</u>	<u>109,323</u>
<b>Total Net Assets</b>	<u>\$ 81,188,209</u>	<u>\$ 98,173,947</u>	<u>\$ 120,688,118</u>	<u>\$ 300,340,206</u>

## CONNECTICUT GREEN BANK

### CHANGES IN NET ASSETS

	2012	2013	2014	Total
<b><u>Primary Government</u></b>				
<b>Operating Revenues</b>	\$ 39,753,684	\$ 43,343,093	\$ 52,601,283	\$ 135,698,060
<b>Operating Expenses</b>				
Grants and program expenditures	31,122,355	23,634,465	23,214,499	77,971,319
General and administrative expenses	1,387,854	1,811,227	2,403,068	5,602,149
Cost of Goods Sold	--	--	2,794,270	2,794,270
Provision for loan losses	--	--	1,310,933	1,310,933
<b>Total Operating Expenses</b>	<u>32,510,209</u>	<u>25,445,692</u>	<u>29,722,770</u>	<u>87,678,671</u>
<b>Operating Income (Loss)</b>	<u>7,243,475</u>	<u>17,897,401</u>	<u>22,878,513</u>	<u>48,019,389</u>
<b>Non-Operating Revenue and (Expenses)</b>				
Interest on solar lease notes	589,007	583,575	571,396	1,743,978
Interest on short-term investments	140,786	103,928	551,393	796,107
Interest income	--	--	67,958	67,958
Realized gain (loss) on investments	--	(1,034,605)	(350,000)	(1,384,605)
Unrealized gain (loss) on investments	434,702	378,059	349,999	1,162,760
<b>Net Non-Operating Revenues</b>	<u>1,164,495</u>	<u>30,957</u>	<u>1,190,746</u>	<u>2,386,198</u>
<b>Income (Loss) Before Transfers, Capital Contributions and Member (Distributions)</b>	8,407,970	17,928,358	24,069,259	50,405,587
<b>Capital Contributions</b>	--	1,000	--	1,000
<b>Transfers to State of Connecticut</b>	--	--	(6,200,000)	(6,200,000)
<b>(Decrease) Increase in Net Assets</b>	<u>\$ 8,407,970</u>	<u>\$ 17,929,358</u>	<u>\$ 17,869,259</u>	<u>\$ 44,206,587</u>

**CONNECTICUT GREEN BANK**

**CHANGES IN NET ASSETS**

	2012	2013	2014	Total
<b><u>CT Solar Lease 2 LLC</u></b>				
<b>Operating Revenues</b>	\$ --	\$ --	\$ 1,770	\$ 1,770
<b>Operating Expenses</b>				
General and administrative expenses	--	--	727,697	727,697
<b>Total Operating Expenses</b>	--	--	727,697	727,697
<b>Operating Loss</b>	--	--	(725,927)	(725,927)
<b>Non-Operating Revenue and (Expenses)</b>				
Interest on solar lease notes	--	--	8,642	8,642
Interest expense	--	--	(57,407)	(57,407)
<b>Net Non-Operating Revenues</b>	--	--	(48,765)	(48,765)
<b>Income (Loss) Before Transfers, Capital Contributions and Member (Distributions)</b>	--	--	(774,692)	(774,692)
<b>Capital Contributions</b>	--	236,694	1,496,135	1,732,829
<b>Distributions to Members</b>	--	--	(12,584)	(12,584)
<b>(Decrease) Increase in Net Assets</b>	\$ --	\$ 236,694	\$ 708,859	\$ 945,553



**CONNECTICUT GREEN BANK**

**CHANGES IN NET ASSETS**

	2012	2013	2014	Total
<b><u>CEFIA Solar Services, Inc.</u></b>				
<b>Operating Revenues</b>	\$ --	\$ --	\$ 120,000	\$ 120,000
<b>Operating Expenses</b>				
General and administrative expenses	--	--	10,877	10,877
<b>Total Operating Expenses</b>	--	--	10,877	10,877
<b>Operating Loss</b>	--	--	109,123	109,123
<b>Net Non-Operating Revenues</b>	--	--	--	--
<b>Income (Loss) Before Transfers, Capital Contributions and Member (Distributions)</b>	--	--	109,123	109,123
<b>Capital Contributions</b>	--	100	--	100
<b>(Decrease) Increase in Net Assets</b>	\$ --	\$ 100	\$ 109,123	\$ 109,223

# CONNECTICUT GREEN BANK

## REVENUE BY SOURCE

	Utility Customer Assessments		RGGI Auction Proceeds		Grant Revenue		Sales of Energy Equipment		Other Revenues		Investment Income	
	Revenue	% of Annual	Revenue	% of Annual	Revenue	% of Annual	Revenue	% of Annual	Revenue	% of Annual	Revenue	% of Annual
<b>Primary Government</b>												
2012	\$ 40,918,179	66.05 %	\$ 2,052,748	5.02 %	\$ 10,435,251	25.50 %	\$ --	-- %	\$ 240,597	0.59 %	\$ 1,164,495	2.85 %
2013	43,374,050	63.68 %	4,744,657	10.94 %	10,035,250	23.14 %	--	-- %	941,777	2.17 %	30,957	0.07 %
2014	53,792,029	51.64 %	20,074,668	37.32 %	621,642	1.16 %	3,548,840	6.60 %	576,788	1.07 %	1,190,746	2.21 %
<b>CT Solar Lease 2 LLC</b>												
2012	\$ --	-- %	\$ --	-- %	\$ --	-- %	\$ --	-- %	\$ --	-- %	\$ --	-- %
2013	--	-- %	--	-- %	--	-- %	--	-- %	--	-- %	--	-- %
2014	10,412	-- %	--	-- %	--	-- %	--	-- %	1,770	17.00 %	8,642	83.00 %
<b>CEFIA Solar Services, Inc.</b>												
2012	\$ --	-- %	\$ --	-- %	\$ --	-- %	\$ --	-- %	\$ --	-- %	\$ --	-- %
2013	--	-- %	--	-- %	--	-- %	--	-- %	--	-- %	--	-- %
2014	120,000	-- %	--	-- %	--	-- %	--	-- %	120,000	100.00 %	--	-- %

## **NON-FINANCIAL STATISTICS**

Draft

# CONNECTICUT GREEN BANK

## NON-FINANCIAL STATISTICS CONTENTS

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Draft

# CONNECTICUT GREEN BANK

## 1. PROJECT STATUS

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CGB tracks projects through three phases as they move through the pipeline to construction completion and operation – Approved, Closed, and Completed. Approved signifies that the appropriate authority within CGB, whether President and CEO, Deployment Committee, or Board of Directors, has approved CGB’s investment in the project. Closed indicates all financial and legal documents have been executed and any additional funding has been secured. Completion indicates all construction and installation is complete and the project is operational. The table highlights the fact that projects can take some time to move through this pipeline. The full energy, economic, and environmental benefits from these projects are not fully realized until they are completed.

	2012	2013	2014	Total
Approved	20	64	2,139	2,223
Closed	--	3	276	279
Completed	<u>396</u>	<u>1,055</u>	<u>596</u>	<u>2,047</u>
<b>Total</b>	<u><u>416</u></u>	<u><u>1,122</u></u>	<u><u>3,011</u></u>	<u><u>4,549</u></u>

# CONNECTICUT GREEN BANK

## 2. ENERGY BENEFITS CLEAN ENERGY PRODUCED AND ENERGY SAVED

CGB’s vision is to lead the green bank movement by accelerating private investment in clean energy deployment for Connecticut to achieve economic prosperity, create jobs, promote energy security, and address climate change. CGB tracks its progress towards this vision as “E3” metrics – Energy, Economic, and Environmental. This chart shows the energy benefits from CGB projects, in terms of capacity (megawatts [MW]), clean energy production (lifetime megawatt hours [MWh]), and annual energy savings (MMBTU).

	2012	2013	2014	Total
<b>MW</b>				
Approved	0.1	0.5	30.3	30.9
Closed	--	--	4.3	4.3
Completed	<u>2.7</u>	<u>23.0</u>	<u>4.2</u>	<u>29.9</u>
<b>Total</b>	<u><u>2.9</u></u>	<u><u>23.5</u></u>	<u><u>38.8</u></u>	<u><u>65.2</u></u>
<b>MWh (Lifetime)</b>				
Approved	3,235.30	10,979.00	1,479,289.00	1,493,503.30
Closed	--	140.00	103,318.00	103,458.00
Completed	<u>64,849.10</u>	<u>1,427,252.00</u>	<u>100,050.00</u>	<u>1,592,151.10</u>
<b>Total</b>	<u><u>68,084.40</u></u>	<u><u>1,438,371.00</u></u>	<u><u>1,682,657.00</u></u>	<u><u>3,189,112.40</u></u>
<b>MMBTU (Annual)</b>				
Approved	--	--	200,479	200,479
Closed	--	777	38,365	39,142
Completed	<u>--</u>	<u>15,228</u>	<u>18,001</u>	<u>33,229</u>
<b>Total</b>	<u><u>--</u></u>	<u><u>16,005</u></u>	<u><u>256,845</u></u>	<u><u>272,850</u></u>

## CONNECTICUT GREEN BANK

### 3. TOTAL CLEAN ENERGY INVESTMENT AND ESTIMATED JOBS CREATED

CGB's vision is to lead the green bank movement by accelerating private investment in clean energy deployment for Connecticut to achieve economic prosperity, create jobs, promote energy security, and address climate change. CGB tracks its progress towards this vision as "E3" metrics – Energy, Economic, and Environmental. The chart below highlights the economic benefits of CGB's projects. Investment represents the total amount of private and public funding for clean energy projects and direct and indirect and induced jobs quantifies the resulting job creation.

	2012	2013	2014	Total
<b>Investment</b>				
Approved	\$ 667,959	\$ 2,227,475	\$ 179,097,044	\$ 181,992,478
Closed	--	404,596	19,429,244	19,833,840
Completed	<u>14,234,954</u>	<u>107,987,517</u>	<u>26,196,310</u>	<u>148,418,781</u>
<b>Total</b>	<u><u>\$ 14,902,913</u></u>	<u><u>\$ 110,619,588</u></u>	<u><u>\$ 224,722,598</u></u>	<u><u>\$ 350,245,099</u></u>
<b>Direct Jobs</b>				
Approved	4	13	469	486
Closed	--	3	108	111
Completed	<u>84</u>	<u>559</u>	<u>157</u>	<u>800</u>
<b>Total</b>	<u><u>88</u></u>	<u><u>575</u></u>	<u><u>734</u></u>	<u><u>1,397</u></u>
<b>Indirect and Induced Jobs</b>				
Approved	6	21	754	781
Closed	--	5	172	177
Completed	<u>135</u>	<u>1,132</u>	<u>252</u>	<u>1,519</u>
<b>Total</b>	<u><u>142</u></u>	<u><u>1,158</u></u>	<u><u>1,179</u></u>	<u><u>2,478</u></u>

Jobs estimates are based on multipliers determined as a result of work performed by Navigant Consulting for the *Connecticut Renewable Energy and Energy Efficiency Economy Baseline Study* completed in March 2009 and subsequently updated in 2010. This Navigant Study was an independent, third party analysis of Connecticut's clean energy economy. Data was acquired as a result of primary research. Navigant performed a census of over 300 companies, institutions, and organizations identified as active players in Connecticut's renewable energy and energy efficiency economy. Seventy four (74) key renewable energy and energy efficiency companies were interviewed; 95 additional key companies were researched in detail. All renewable companies in Connecticut were identified and analyzed. Key energy efficiency companies were identified and analyzed, with the overall market size estimated by extrapolation. Company interviews included questions about customers, supply chain, number of jobs, corresponding salaries, and revenue. Detailed interview questionnaires are available in the Methodology section of the Baseline Study, pages 58-81 – <http://www.ctcleanenergy.com/Portals/0/Phase%201%20Deliverable%20Final%20Full.pdf>.

DECD has approved of the methodology for estimating the economic development benefits (i.e., job-years created) from the investment in clean energy projects.

# CONNECTICUT GREEN BANK

## 4. ENVIRONMENTAL BENEFITS CARBON EMISSION REDUCTIONS AND EQUIVALENCIES

CGB’s vision is to lead the green bank movement by accelerating private investment in clean energy deployment for Connecticut to achieve economic prosperity, create jobs, promote energy security, and address climate change. CGB tracks its progress towards this vision as “E3” metrics – Energy, Economic, and Environmental. The chart below highlights the environmental benefits of these projects as a reduction in carbon (CO2) emissions and standard equivalencies.

	2012	2013	2014	Total
<b>Lifetime CO2 Emission Reductions (Tons)</b>				
Approved	1,678	5,693	264,630	272,000
Closed	--	73	53,570	53,643
Completed	<u>33,624</u>	<u>171,786</u>	<u>51,876</u>	<u>257,286</u>
<b>Total</b>	<b><u>35,302</u></b>	<b><u>177,551</u></b>	<b><u>370,076</u></b>	<b><u>582,929</u></b>
<b>Energy for Number of Homes</b>				
Approved	15	52	1,866	1,934
Closed	--	1	492	493
Completed	<u>309</u>	<u>2,166</u>	<u>476</u>	<u>2,951</u>
<b>Total</b>	<b><u>324</u></b>	<b><u>2,219</u></b>	<b><u>2,835</u></b>	<b><u>5,377</u></b>
<b>Cars off the Road</b>				
Approved	11	38	1,544	1,593
Closed	--	0	472	473
Completed	<u>224</u>	<u>3,245</u>	<u>439</u>	<u>3,908</u>
<b>Total</b>	<b><u>235</u></b>	<b><u>3,283</u></b>	<b><u>2,455</u></b>	<b><u>5,973</u></b>
<b>Planting Number Acres of Trees</b>				
Approved	22	76	2,704	2,802
Closed	--	1	684	685
Completed	<u>448</u>	<u>1,580</u>	<u>746</u>	<u>2,775</u>
<b>Total</b>	<b><u>471</u></b>	<b><u>1,657</u></b>	<b><u>4,134</u></b>	<b><u>6,262</u></b>



# CONNECTICUT GREEN BANK

## 4. ENVIRONMENTAL BENEFITS CARBON EMISSION REDUCTIONS AND EQUIVALENCIES

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All emissions reductions from renewable energy projects are determined using ISO-New England information, because that is where the energy will be displaced. This produces results that may be significantly different from emissions savings based on a comparison to national averages. In addition, the generation characteristics of each technology have an impact on the emissions reduction that can be expected. Solar-powered systems will produce only during the daylight hours, which normally coincide with the peak demand period for the utilities. The generating fleet during this time may include peaking plants and reserve plants, which will have lower efficiencies than the “baseload” plants which run 24 hours per day. Consequently, emissions are higher, and the renewable energy systems look better by comparison. The calculations are based on the results of the 2007 New England Marginal Emission Rate Analysis ([http://www.iso-ne.com/genrtion\\_resrcs/reports/emission/2007\\_mea\\_report.pdf](http://www.iso-ne.com/genrtion_resrcs/reports/emission/2007_mea_report.pdf)). The appropriate marginal emissions rates for Connecticut are used to determine the net avoided emissions for each of the technologies evaluated.

- a. PV systems are analyzed using the average of the Marginal Emission Rates (in Lbs/MWh) for “On-Peak Ozone Season” and “On-Peak Non-Ozone Season”. The underlying assumptions are that PV systems will be operating primarily during the on-peak periods, and that their output in the five months of the “Ozone Season” (May – September) is about the same as in the seven months of the “Non-Ozone Season.”
- b. Fuel cells are also evaluated using the “Annual Average (all hours) Marginal Emission Rates”, because they are expected to produce power continually as “base load” generators. Fuel Cell emissions assume that 50% of the thermal output (“waste heat”) is used to displace natural gas used for heating. This is conservative, since 50% thermal utilization is the minimum standard for CCEF’s acceptance of a fuel cell project.

It should be noted that emissions estimates for anaerobic digester, wind, and energy efficiency projects were not estimated.

To determine the exact avoided CO<sub>2</sub> for CHP projects we need to know what the CHP system is displacing (i.e. boiler, grid, etc.), as well as the efficiencies, in order to determine the existing CO<sub>2</sub> emissions and then do the calculation to get the avoided emissions. For general purposes a typical 3.7 MW system operating on natural gas would generate about 13,000 tons of CO<sub>2</sub> annually and 195,000 Tons over its 15-year life. Typically avoiding 35-50% CO<sub>2</sub> overall from the existing infrastructure. Not factoring in the utility transmission and distribution losses.

It should be noted that a methodology for estimating the environmental protection benefits (i.e., GHG emissions reduced) has not yet been proposed to or approved by DEEP from the investment in clean energy projects.

# CONNECTICUT GREEN BANK

## 5. GREEN BANK MODEL

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As the first Green Bank in the country, CGB seeks to use limited public resources to attract private capital investment in clean energy. CGB does this by moving away from the grant-based model of supporting clean energy and towards a financing model. As highlighted in the below chart, CGB has quickly moved towards this model, with less and less funds devoted to subsidies. This trend has corresponded to an increase in total investment in clean energy, \$350 million in total, as CGB is able to do more while managing ratepayer resources more responsibly.

Fund Used*	2012	2013	2014	Total
Subsidies	\$ 4,567,434	\$ 14,681,558	\$ 22,242,024	\$ 41,491,016
Credit Enhancements	--	9,004	1,217,694	1,226,698
Loans and Leases	--	6,910,492	50,457,895	57,368,387
<b>Total</b>	<u>\$ 4,567,434</u>	<u>\$ 21,601,054</u>	<u>\$ 73,917,613</u>	<u>\$ 100,086,101</u>
<b>Percent Green Bank Funds Invested in Subsidies</b>	<u>100.0 %</u>	<u>68.0 %</u>	<u>30.0 %</u>	<u>41.5 %</u>

\* approved/closed/completed in FY 2012 - FY 2014

## CONNECTICUT GREEN BANK

### 6. RENEWABLE ENERGY TECHNOLOGY DEPLOYMENT

CGB's takes a technology agnostic approach to its financing products, with any commercially available technology that meets legal guidelines eligible.

	Residential Sector		Commercial and Industrial Sector		Institutional Sector		Infrastructure Sector		Total	
	MW	MWh (Lifetime)	MW	MWh (Lifetime)	MW	MWh (Lifetime)	MW	MWh (Lifetime)	MW	MWh (Lifetime)
Solar PV	4.7	110,632	5.1	120,780	--	--	29.2	694,920	39.0	926,332
Anaerobic Digesters	--	--	--	--	--	--	3.8	605,491	3.8	605,491
Fuel Cell	--	--	--	--	--	--	14.8	1,166,832	14.8	1,166,832
Combined Heat and Power	--	--	--	--	--	--	3.8	44,658	3.8	44,658
Wind	--	--	--	--	--	--	5.0	226,096	5.0	226,096
<b>Total</b>	<b>4.7</b>	<b>110,632</b>	<b>5.1</b>	<b>120,780</b>	<b>--</b>	<b>--</b>	<b>56.6</b>	<b>2,737,997</b>	<b>66.3</b>	<b>2,969,409</b>

*Includes approved, closed, and completed projects*

## Agency Legislative Proposal - 2015 Session

**Document Name** (e.g. OPM1015Budget.doc; OTG1015Policy.doc):

**093014\_Connecticut Green Bank\_Solar Home and Jobs Opportunity Act**

(If submitting an electronically, please label with date, agency, and title of proposal – 092611\_SDE\_TechRevisions)

State Agency: Connecticut Green Bank

Liaison: Brian R. Farnen

Phone: (860) 257-2892

E-mail: [brian.farnen@ctcleanenergy.com](mailto:brian.farnen@ctcleanenergy.com)

Lead agency division requesting this proposal:

Connecticut Green Bank

Agency Analyst/Drafter of Proposal:

Brian Farnen

### Title of Proposal

**Solar Home and Jobs Opportunity Act**

#### Statutory Reference

16-245ff

#### Proposal Summary

The Connecticut Green Bank proposes the development of a Solar Home Renewable Energy Credit (SHREC) Program to continue the growth of the Residential Solar Investment Program (RSIP). The SHREC will be similar to the Low Emission Renewable Energy Credit (LREC) and Zero Emission Renewable Energy Credit (ZREC) Programs as it creates a fifteen year revenue stream from the sale of the SHRECs to the non-municipal utilities (i.e., CL&P and UI). The SHREC provides much needed access to the renewable portfolio standard (RPS) market to residential ratepayers who consume over 40 percent of electricity – and therefore pay over 40% of the RPS policy compliance. To date, Connecticut residential ratepayers have received little to no direct benefits from RECs sold into the RPS in comparison to commercial and industrial customers.

In 2010, in-state renewable projects accounted for only 11% of Connecticut's Class I RPS standard. This means that 89% of the ratepayer investment in supporting renewable generation through the RPS policy was spent outside of the state. Therefore, Connecticut does not receive the economic benefits (e.g., jobs) associated with in-state projects.

The SHREC addresses these problems in a cost effective manner with an established price ceiling (i.e., the Alternative Compliance Payment of the RPS) and a declining block schedule. The SHREC creates a new class of renewable energy credits that directly benefits our state without increasing the overall size of the RPS in Connecticut. The SHREC will support renewable projects, foster the sustained, orderly development of a state-based solar industry and create jobs all in Connecticut.

*Please attach a copy of fully drafted bill (required for review)*

## PROPOSAL BACKGROUND

### • Reason for Proposal

*Please consider the following, if applicable:*

- (1) Have there been changes in federal/state/local laws and regulations that make this legislation necessary?*
- (2) Has this proposal or something similar been implemented in other states? If yes, what is the outcome(s)?*
- (3) Have certain constituencies called for this action?*
- (4) What would happen if this was not enacted in law this session?*

The Residential Solar Investment Program (RSIP) established under Public Act 11-80 requires that a minimum of 30 megawatts of new residential solar PV be installed in Connecticut on or before December 31, 2022, at a reasonable payback to the customer all the while developing a sustainable market for contractors. The RSIP provides to residential customers, via solar PV contractors, direct financial incentives in the form of expected performance-based buy-down incentives (EPBB) and

performance-based incentives (PBI) for the purchase and/or lease of qualifying residential PV systems. The Green Bank achieved the minimum goal of 30 MW of new residential solar PV eight years ahead of schedule for a fraction of the cost.

As the residential PV market in Connecticut has been doubling each of the last few years, the Green Bank cannot continue to support the growth of the industry under the current RSIP framework. If this law is not enacted, the growth of the residential PV market could stop growing in Connecticut and large national leasing companies that have recently moved in to the Connecticut market could withdraw.

The law is supported by the solar industry, environmental groups and [hoping for OCC and others?].

- **Origin of Proposal**       **New Proposal**       **Resubmission**

If this is a resubmission, please share:

- (1) What was the reason this proposal did not pass, or if applicable, was not included in the Administration's package?
- (2) Have there been negotiations/discussions during or after the previous legislative session to improve this proposal?
- (3) Who were the major stakeholders/advocates/legislators involved in the previous work on this legislation?
- (4) What was the last action taken during the past legislative session?

## PROPOSAL IMPACT

- **Agencies Affected** (please list for each affected agency)

Agency Name: Department of Energy and Environmental Protection (DEEP)

Approve of Proposal     YES     NO     Talks Ongoing

### Summary of Affected Agency's Comments

As the agency responsible for implementing the RPS policy, DEEP is in support of the SHREC policy proposal in concept. If the policy can deliver in-state renewable energy, then it will serve to provide "cleaner, cheaper, and more reliable" sources of energy.

- Cleaner – solar PV is a zero emission energy technology
- Cheaper – SHREC is less expensive than the ZREC, LREC, and operates within the ACP of the RPS
- Reliable – distributed solar reduces peak demand on the electric grid in Connecticut

The policy will also create jobs and support economic development in Connecticut.

Will there need to be further negotiation?  YES     NO     This is uncertain at this time.

- **Fiscal Impact** (please include the proposal section that causes the fiscal impact and the anticipated impact)

**Municipal** (please include any municipal mandate that can be found within legislation)

None

**State [TO BE DETERMINED – FISCAL IMPACT REVIEW ONGOING ]**

**Federal**

Additional notes on fiscal impact

None expected.

- **Policy and Programmatic Impacts** (Please specify the proposal section associated with the impact)

Below is the new Section 16-245ff replacing the original RSIP Program.

**Raised Bill No.** \_\_\_\_\_

**January Session, 2015 Solar Home and Jobs Opportunity Act**

**AN ACT CONCERNING SOLAR HOMES AND JOBS**

Section 1. Section 16-245ff of the general statutes is repealed and the following is substituted in lieu thereof (*Effective July 1, 2015*):

(a) The Connecticut Green Bank established pursuant to section 16-245n shall structure and implement a residential solar investment program established pursuant to this section, which shall result in a minimum of [X] megawatts of new residential solar photovoltaic installations located in this state on or before December 31, 2022, the annual procurement and cost of which shall be determined by the bank in accordance with this section.

(b) The Connecticut Green Bank shall offer direct financial incentives, in the form of performance-based incentives or expected performance-based buydowns, for the purchase or lease of qualifying residential solar photovoltaic systems. For the purposes of this section, “performance-based incentives” means incentives paid out on a per kilowatt-hour basis, and “expected performance-based buydowns” means incentives paid out as a one-time upfront incentive based on expected system performance. The bank shall consider willingness to pay studies and verified solar photovoltaic system characteristics, such as operational efficiency, size, location, shading and orientation, when determining the type and amount of incentive.

(c) The Connecticut Green Bank shall develop and publish on its web site a proposed schedule for the offering of performance-based incentives or expected performance-based buydowns over the duration of any such solar incentive program. Such schedule shall: (1) Provide for a series of solar capacity blocks the combined total of which shall be a minimum of [X] megawatts and projected incentive levels for each such block; (2) provide incentives that are sufficient to provide the residential consumer with a competitive electricity price, taking into consideration the estimated cost of residential solar installations, the value of the energy offset by the system, the cost of financing the system, and the availability and estimated value of other incentives, including, but not limited to, federal and state tax incentives and revenues from the sale of solar home renewable energy credits; (3) provide incentives that decline over

time and will foster the sustained, orderly development of a state-based solar industry; (4) automatically adjust to the next block once the board has issued reservations for financial incentives provided pursuant to this section from the board fully committing the target solar capacity and available incentives in that block; and (5) provide comparable economic incentives for the purchase or lease of qualifying residential solar photovoltaic systems. The Connecticut Green Bank may retain the services of a third-party entity with expertise in the area of solar energy program design to assist in the development of the incentive schedule or schedules. Nothing in this subsection shall restrict the Connecticut Green Bank from modifying the approved incentive schedule to account for changes in federal or state law or regulation or developments in the solar market when such changes would affect the expected return on investment for a typical residential solar photovoltaic system by twenty per cent or more.

(d) The Connecticut Green Bank shall establish and periodically update program guidelines, including, but not limited to, requirements for systems and program participants related to: (1) Eligibility criteria; (2) standards for deployment of energy efficient equipment or building practices as a condition for receiving incentive funding; (3) procedures to provide reasonable assurance that such reservations are made and incentives are paid out only to qualifying residential solar photovoltaic systems demonstrating a high likelihood of being installed and operated as indicated in application materials; and (4) reasonable protocols for the measurement and verification of energy production.

(e) The Connecticut Green Bank shall maintain on its web site the schedule of incentives, solar capacity remaining in the current block and available funding and incentive estimators.

(f) Funding for the residential performance-based incentive program and expected performance-based buydowns (i) may include up to one-third of the moneys collected annually under the surcharge specified in section 16-245n; (ii) may include revenue from the solar home renewable energy credit program; and (iii) may be supplemented by federal funding as may become available.

(g) The Connecticut Green Bank shall identify barriers to the development of a permanent Connecticut-based solar workforce and shall make provision for comprehensive training, accreditation and certification programs through institutions and individuals accredited and certified to national standards.

(h) On or before January 1, 2017, and every two years thereafter for the duration of the program, the Connecticut Green Bank shall report to the joint standing committee of the General Assembly having cognizance of matters relating to energy on progress toward the goals identified in subsection (a) of this section.

(i) Commencing on January 1, 2016, and within the period established in section 2 of this act, the Connecticut Green Bank and the electric distribution companies shall file with the Public Utilities Regulatory Authority for its approval a master purchase agreement for the purchase by the electric distribution companies of solar home renewable energy credits

produced by eligible residential customer-sited generating projects over the duration of the purchase agreement. The master purchase agreement shall have a term of fifteen years.

(j) For purposes of this section, solar home renewable energy credits means renewable energy credits owned by the Connecticut Green Bank which are produced by eligible residential customer-sited generating projects. For purposes of this section, eligible residential customer-sited generating projects means solar photovoltaic projects which receive funding from the Connecticut Green Bank, are certified by the authority as Class I renewable energy sources, as that term is defined in subsection (20) of section 16-1 of the general statutes, that emit no pollutants, are less than twenty kilowatts in size, are located on the customer side of the revenue meter of one-to-four-family homes and serve the distribution system of the electric distribution company.

(k) The production of a megawatt hour of electricity from an eligible residential customer-sited generating project first placed in service on or after January 1, 2015, shall create one solar home renewable energy credit. A solar home renewable energy credit shall have an effective life covering the year in which the credit was created and the following calendar year. The obligation of the electric distribution companies to purchase solar home renewable energy credits pursuant to the Master Purchase Agreement shall be apportioned to electric distribution companies based on their respective distribution system loads at the commencement of the master purchase agreement period, as determined by the authority.

(l) Notwithstanding subdivision (1) of subsection (h) of section 16-244c, an electric distribution company may retire the solar home renewable energy credits it procures through the master purchase agreement to satisfy its obligation pursuant to section 16-245a.

Sec. 2. (NEW) (*Effective from passage*):

(a) To develop the master purchase agreement described in section 1 of this act, the Connecticut Green Bank and each electric distribution company shall negotiate in good faith the final terms of the draft master purchase agreement. After thirty days, any party may request the assistance of the Public Utilities Regulatory Authority to resolve any outstanding issues. No such master agreement may become effective without approval of the authority.

(b) To carry out the purposes of section 1 of this act, the Connecticut Green Bank and the electric distribution companies shall, not later than one hundred eighty days after July 1, 2015, negotiate and develop the master purchase agreement and submit such agreement to the authority for its approval. The authority shall hold a hearing that shall be conducted as an uncontested case, in accordance with the provisions of chapter 54, to approve, reject or modify an application for approval of the master purchase agreement.

(c) The purchase price of solar home renewable energy credits shall be determined by the Connecticut Green Bank annually and shall not exceed the lesser of the price of small zero-



emission renewable energy credit projects for the preceding year or the alternative compliance payment pursuant to section 16-245(k) of the general statutes.

(d) The electric distribution companies shall be entitled to recover their reasonable costs and fees prudently incurred of complying with the master purchase agreement through a reconciling component of electric rates as determined by the authority. Nothing in this section shall preclude the resale or other disposition of energy or associated renewable energy credits purchased by the electric distribution companies, provided the distribution company shall net the cost of payments made to projects under the master purchase agreement against the proceeds of the sale of energy or renewable energy credits and the difference shall be credited or charged to distribution customers through a reconciling component of electric rates as determined by the authority that is nonbypassable when switching electric suppliers.



# Memo

**To:** Board of Directors

**From:** Bryan Garcia, President and CEO, and Mackey Dykes, VP and COO

**Date:** October 10, 2014

**Re:** Connecticut Green Bank – Investment and Public Benefit Performance from Clean Energy Projects from FY 2012 through FY 2014

Per Section 99 of Public Act 11-80, the Connecticut Green Bank began operations on July 1, 2011 – the start of FY 2012. This memo outlines the progress that has been made on the reconfiguration of the Connecticut Clean Energy Fund (i.e., pre-PA 11-80) to the Connecticut Green Bank (i.e., post-PA 11-80) with respect to investment in projects by sector (i.e., approved and closed transactions) and an estimate of the public benefits (i.e., economic development and environmental protection).

## Investments in Projects

From the period of FY 2012 through FY 2014, there has been a significant shift in the use of the organizations resources for programs and projects (see Table 1).

**Table 1. Project Investments between FY 2012 through FY 2014 by Sector and Type<sup>1</sup>**

Sectors	FY 2012		FY 2013		FY 2014	
	Approved	Closed or Completed	Approved	Closed or Completed	Approved <sup>2</sup>	Closed or Completed
Statutory & Infrastructure	\$14.9	\$14.2	\$115.8	\$107.2	\$169.4	\$14.1
Residential	-	-	\$0.2	\$0.2	\$18.3	\$9.8
Commercial & Industrial	-	-	\$1.1	\$1.1	\$29.9	\$20.9
Institutional	-	-	-	-	\$0.8	\$0.8
<b>Total Project Investment</b>	<b>\$14.9</b>	<b>\$14.2</b>	<b>\$117.1</b>	<b>\$108.5</b>	<b>\$218.4</b>	<b>\$45.6</b>
<b>Total CGB Investment</b>	<b>\$4.8</b>	<b>\$4.6</b>	<b>\$21.6</b>	<b>\$20.4</b>	<b>\$76.4</b>	<b>\$27.0</b>
Grants from CGB	\$4.8	\$4.6	\$14.6	\$13.4	\$22.2	\$6.9
Loans from CGB	-	-	\$7.0	\$7.0	\$54.2	\$20.1
<b>% of Funding Approved as Grants</b>	<b>100%</b>		<b>68%</b>		<b>29%</b>	
<b>Installed Capacity of</b>	<b>2,865</b>		<b>26,503</b>		<b>35,886</b>	

<sup>1</sup> Approved transactions are either projects or programs approved by the Board of Directors consistent with its Comprehensive Plan and Budget. Closed or completed projects are a percentage of those projects approved to date. For example, in FY 2012 there was \$14.9 million of approved projects, of which 95% were completed for \$14.2 million.

<sup>2</sup> Based on nearly 10-years of historical experience, and more recent experience with the RSIP, about 90% of projects approved in the RSIP result in project completions.

<b>Approved Projects (kW)<sup>3</sup></b>			
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Between FY 2012 through FY 2014 there has been over \$350 million of approved projects, of which nearly \$170 million has been closed or completed.

A brief review of the data indicates the following:

- **Scaling Up Investment Activity** – the organization’s programs and products have attracted an increasing amount of investment in clean energy in Connecticut from \$14.9 million in FY 2012 to \$230.2 million in FY 2014 (an increase of 15 times the investment);
- **Growing Pipeline** – it takes time for approved projects to move through the pipeline to closed or completed projects, which are evidenced by approved and closed in FY 2012 and FY 2013 versus those in FY 2014;
- **Stewardship of Funds** – a change in the way the organization’s resources are being managed from 100% grants in FY 2012 to two-thirds grants in FY 2013 and one-third grants in FY 2014 – with two-thirds in loans;
- **Mature Market** – the Statutory and Infrastructure projects (i.e., grid-tied systems, AD and CHP, and residential solar PV, etc.) are contributing a majority of the investment in clean energy deployment to date.
- **New Market Growth** – the Commercial & Industrial (i.e., C-PACE) and Residential (i.e., Smart-E Loan, CT Solar Lease, and CT Solar Loan) sector financing programs – launched in January and July of 2013 respectively, are growing at impressive rates.

**Public Benefits from Projects – Economic Development and Environmental Protection**

As more and more investment in clean energy deployment in Connecticut is achieved, the economic development and environmental protection benefits increase (see Table 2). Note, these estimates are based on approved projects – not closed and completed.

**Table 2. Estimates of Economic Development and Environmental Protection Benefits between FY 2012 through FY 2014<sup>i,ii</sup>**

Sectors	FY 2012		FY 2013		FY 2014 <sup>4</sup>	
	Direct / Indirect and Induced (Job-Years)	Lifetime CO2 Emission Reductions (Tons)	Direct / Indirect and Induced (Job-Years)	Lifetime CO2 Emission Reductions (Tons)	Direct / Indirect and Induced (Job-Years)	Lifetime CO2 Emission Reductions (Tons)
Statutory & Infrastructure	88 / 142	35,302	608 / 1,209	175,954	419 / 675	262,378
Residential	-	-	1 / 2	366	118 / 190	46,306
Commercial & Industrial	-	-	6 / 9	1,232	152 / 242	61,392
Institutional	-	-	-	-	5 / 8	-
<b>Total Public Benefits</b>	<b>88 / 142</b>	<b>35,302</b>	<b>615 / 1,220</b>	<b>177,552</b>	<b>694 / 1,115</b>	<b>370,076</b>

<sup>3</sup> kW<sub>STC</sub> was used for solar PV, CHP, AD and wind projects while kW<sub>AC</sub> was used for fuel cell projects.

<sup>4</sup> Estimates for job creation were not included for the \$98.0 million in project development for the four (4) anaerobic digester and one (1) wind project approved by the Board of Directors. There is currently no approved methodology for estimating jobs as a result of the successful completion of these projects.

As a result of the clean energy projects supported by the Connecticut Green Bank, it is estimated that nearly 1,400 direct and 2,500 indirect and induced job-years were and are to be created and the reduction of 583,000 tons of CO<sub>2</sub> emissions as a result of investments in clean energy.

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## END NOTES

<sup>i</sup> Jobs estimates are based on multipliers determined as a result of work performed by Navigant Consulting for the *Connecticut Renewable Energy and Energy Efficiency Economy Baseline Study* completed in March 2009 and subsequently updated in 2010. This Navigant Study was an independent, third party analysis of Connecticut's clean energy economy. Data was acquired as a result of primary research. Navigant performed a census of over 300 companies, institutions, and organizations identified as active players in Connecticut's renewable energy and energy efficiency economy. Seventy four (74) key renewable energy and energy efficiency companies were interviewed; 95 additional key companies were researched in detail. All renewable companies in Connecticut were identified and analyzed. Key energy efficiency companies were identified and analyzed, with the overall market size estimated by extrapolation. Company interviews included questions about customers, supply chain, number of jobs, corresponding salaries, and revenue. Detailed interview questionnaires are available in the Methodology section of the Baseline Study, pages 58-81 –

<http://www.ctcleanenergy.com/Portals/0/Phase%201%20Deliverable%20Final%20Full.pdf>.

DECD has approved of the methodology for estimating the economic development benefits (i.e., job-years created) from the investment in clean energy projects.

<sup>ii</sup> All emissions reductions from renewable energy projects are determined using ISO-New England information, because that is where the energy will be displaced. This produces results that may be significantly different from emissions savings based on a comparison to national averages. In addition, the generation characteristics of each technology have an impact on the emissions reduction that can be expected. Solar-powered systems will produce only during the daylight hours, which normally coincide with the peak demand period for the utilities. The generating fleet during this time may include peaking plants and reserve plants, which will have lower efficiencies than the “baseload” plants which run 24 hours per day. Consequently, emissions are higher, and the renewable energy systems look better by comparison. The calculations are based on the results of the 2007 New England Marginal Emission Rate Analysis ( [http://www.iso-ne.com/genrtion\\_resrcs/reports/emission/2007\\_mea\\_report.pdf](http://www.iso-ne.com/genrtion_resrcs/reports/emission/2007_mea_report.pdf)). The appropriate marginal emissions rates for Connecticut are used to determine the net avoided emissions for each of the technologies evaluated.

- a. PV systems are analyzed using the average of the Marginal Emission Rates (in Lbs/MWh) for “On-Peak Ozone Season” and “On-Peak Non-Ozone Season”. The underlying assumptions are that PV systems will be operating primarily during the on-peak periods, and that their output in the five months of the “Ozone Season” (May – September) is about the same as in the seven months of the “Non-Ozone Season.”
- b. Fuel cells are also evaluated using the “Annual Average (all hours) Marginal Emission Rates”, because they are expected to produce power continually as “base load” generators. Fuel Cell emissions assume that 50% of the thermal output (“waste heat”) is used to displace natural gas used for heating. This is conservative, since 50% thermal utilization is the minimum standard for CCEF’s acceptance of a fuel cell project.

It should be noted that emissions estimates for anaerobic digester, wind, and energy efficiency projects were not estimated.

To determine the exact avoided CO<sub>2</sub> for CHP projects we need to know what the CHP system is displacing (i.e. boiler, grid, etc.), as well as the efficiencies, in order to determine the existing CO<sub>2</sub> emissions and then do the calculation to get the avoided emissions. For general purposes a typical 3.7 MW system operating on natural gas would generate about 13,000 tons of CO<sub>2</sub> annually and 195,000 Tons over its 15-year life. Typically avoiding 35-50% CO<sub>2</sub> overall from the existing infrastructure. Not factoring in the utility transmission and distribution losses.

It should be noted that a methodology for estimating the environmental protection benefits (i.e., GHG emissions reduced) has not yet been proposed to or approved by DEEP from the investment in clean energy projects.



**CLEAN ENERGY**  
**FINANCE AND INVESTMENT AUTHORITY**

# Memo

**To:** Board of Directors of the Clean Energy Finance and Investment Authority

**From:** Lucy Charpentier (Manager of Evaluation, Measurement and Verification), Dale Hedman (Director of Statutory and Infrastructure Programs), Mackey Dykes (Chief of Staff), Bryan Garcia (President and CEO),

**Cc:** Jessica Bailey (Director of C-PACE), Andy Brydges (Director of Institutional Sector Programs), Bert Hunter (EVP and CIO), and Kerry O'Neill (Director of Residential Programs)

**Date:** October 10, 2014

**Re:** Statutory and Infrastructure Sector Programs – Program Performance towards Targets (FY 2013 and FY 2014 Program Performance towards End of 2014 Targets)

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## Overview

Public Act 11-80, *An Act Concerning the Establishment of the Department of Energy and Environmental Protection and Planning for Connecticut's Energy Future*, requires that the Clean Energy Finance and Investment Authority (CEFIA) develop and implement several programs to support the deployment of solar photovoltaic (PV), combined heat and power (CHP), and anaerobic digester (AD) technologies. Other statutory policies require CEFIA's support for grid-tied projects in Connecticut, including, but not limited to Public Act 05-01, *An Act Concerning Energy Independence*, which resulted in Project 100 and eventually Project 150.

Alongside these acts, through the Comprehensive Energy Strategy (CES) released by the Department of Energy and Environmental Protection (DEEP), there is the goal of delivering cleaner, cheaper and more reliable sources of energy through the deployment of in-state renewable energy sources, including the need for more microgrids.

For a program description and information on the Total Addressable Market and Serviceable Addressable Market (SAM), please see the FY 2015 and FY 2016 Comprehensive Plan.

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## Performance Targets and Progress

With respect to the Comprehensive Plan approved by the Board of Directors of CEFIA on September 28, 2012, the following are the performance targets through 2014 and the progress made thus far in FY 2013 and FY 2014 for the Statutory and Infrastructure Sector Programs (see Table 1). Also, for comparative purposes, included are the total overall targets for all programs through 2014.

**Table 1. Program Performance Targets and Progress Made to the Comprehensive Plan for FY 2013 and FY 2014 (as of June 30, 2014)<sup>1</sup>**

<b>Key Metrics</b>	<b>Program Performance Targets</b>	<b>Program Progress</b>	<b>Overall Targets</b>
CEFIA Investment at Risk <sup>2</sup>	\$37,550,000	\$41,939,831	\$45,300,000
Private Capital	\$140,350,000	\$149,284,447	\$186,600,000
Deployed (MW)	55.1	46.5	51.1
# of Loans/Projects	2,575	3,694	5,283
Annual Saved (MMBtu)	-	14,101	180,000

### **Statutory and Infrastructure Sector Programs**

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

- Residential Solar Investment Program** – \$33,655,331 in subsidies<sup>3</sup> from CEFIA has attracted \$81,399,947 of funds from other sources. Of the 3,690 residential solar PV projects supported through the program two-thirds of the projects are either completed or under construction and one-third of the projects are approved.<sup>4</sup> This is resulting in the deployment of 26.0 MW of installed capacity – 16.9 MW from completed or under construction projects, and 9.5 MW of approved projects. This results in the creation of 679 direct job years (and 1,966 indirect and induced job years) and the reduction of 325,014 tons of CO<sub>2</sub> emissions over the life of the projects.

As of July 7, there are 258 applications pending approval for a total of 1.9 MW (EPBB – 152, 1.2 MW and PBI – 106, 0.7 MW) which is not reported above.

The residential solar PV market in Connecticut has seen a dramatic improvement over the past several years (see Figure 1). Installed costs have decreased by over 50% from a high of \$8.80/W in 2007 to \$4.31/W today. Incentives have decreased by over 70% from a high of \$4.51/W in 2006 to \$1.18/W today. And demand has doubled the past two years resulting in CEFIA nearly achieving the legislative target of 30 MW, over eight (8) years ahead of schedule and well under budget.

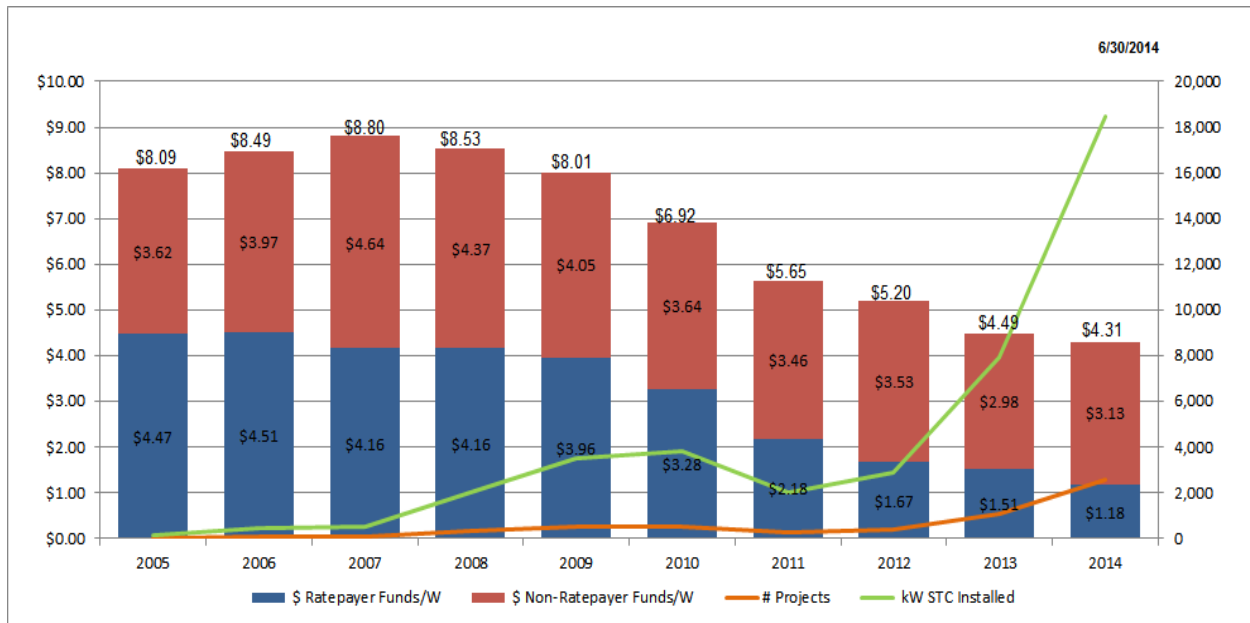
<sup>1</sup> In FY 2014 only, the program provided \$21.7 million in investments through the RSIP attracting private capital of \$57.8 million deploying 18.5 MW of residential solar PV through 2,578 projects.

<sup>2</sup> Includes funds from the Clean Energy Fund, RGGI allowance revenue, repurposed ARRA-SEP funds, and other resources that are managed by CEFIA that are committed and invested in subsidies, credit enhancements, and loans and leases.

<sup>3</sup> Note the distribution of EPBB and PBI and the 6-year payout of the PBI.

<sup>4</sup> Based on nearly 10-years of historical experience, 89% of projects approved result in project completions. (512 cancellations / 4599 applications that are currently In Progress or Completed)

**Figure 1. Installed Cost (\$/W – Y1 Axis) and Installed Capacity (kW – Y2 Axis) by Fiscal Year (as of June 30, 2014)**



- CHP and AD Pilot Programs** – \$934,500 in subsidies, \$33,750 in credit enhancements, and \$13,792,512 in loans for a total CEFIA investment of \$14,760,762. Of the \$14,760,762 of CEFIA investment in these projects (see Tables 2 and 3), \$70,555,063 of private capital has been attracted to support them. This has resulted in 4 CHP projects totaling 3.8 MW of installed capacity – 3.1 MW approved and 0.7 MW closed and completed – and 4 AD projects totaling 5.8 MW of installed capacity – 5.8 MW approved only.

**Table 2. CHP Pilot Program Overview for FY 2013 and FY 2014 (as of June 30, 2014)**

Program Data	Approved	Closed not yet Complete	Closed and Completed	Total
Projects	1	1	2	4
Installed Capacity (MW)	0.01	3.1	0.7	3.8
Clean Energy Produced (MWh) <sup>5</sup>	8,870	354,780	81,008	444,658
Energy Saved (MMBtu) <sup>6</sup>	0	61,758	14,101	75,859
Subsidies (\$'s)	\$0	\$630,000	\$304,500	\$934,500
Credit Enhancement (\$'s)	\$33,750	-	-	\$33,750
Loans or Leases (\$'s)	-	-	-	-
Total CEFIA Investment (\$'s)	\$33,750	\$630,000	\$304,500	\$968,250
Private Capital (\$'s)	\$293,075	\$5,670,000	\$2,884,500	\$8,847,575

<sup>5</sup> Over the life of the measure(s)

<sup>6</sup> First year of the measure(s)

**Table 3. AD Pilot Program Overview for FY 2013 and FY 2014 (as of June 30, 2014)**

<b>Program Data</b>	<b>Approved</b>	<b>Closed not yet Complete</b>	<b>Closed and Completed</b>	<b>Total</b>
Projects	4	-	-	4
Installed Capacity (MW)	5.8	-	-	5.8
Clean Energy Produced (MWh) <sup>7</sup>	605,491	-	-	605,491
Energy Saved (MMBtu) <sup>8</sup>	118,575	-	-	118,575
Subsidies (\$'s)	-	-	-	-
Credit Enhancement (\$'s)	-	-	-	-
Loans or Leases (\$'s)	<u>\$13,792,512</u>	-	-	<u>\$13,792,512</u>
Total CEFIA Investment (\$'s)	\$13,792,512	-	-	\$13,792,512
Private Capital (\$'s)	\$61,707,488	-	-	\$61,707,488

The CHP pilot program is estimated to have created 59 direct and 94 indirect and induced jobs years. There are no job estimate data for AD projects.

- **Grid and Infrastructure Program** – \$8.6 million in loans and \$1.55 million in grants from CEFIA to support two (2) grid-tied projects – a 14.8 MW fuel cell park in Bridgeport (closed and completed) and a 5.0 MW two-turbine wind project in Colebrook (approved and not yet closed). When complete, these projects will have attracted \$84,700,000 of funds from other sources – \$65,000,000 for the fuel cell project and \$19,700,000 for the wind project – to support 19.8 MW of projects as a result of PA 05-01 (i.e., Project 150) and PA 11-80 (i.e., Section 127). The fuel cell project created 135 direct and 311 indirect and induced jobs years while reducing 85,739 tons of CO2 emissions over the life of the project. The wind project is expected to reduce 61,436 tons of CO2 emissions over the life of the project.

For a breakdown of the use of CEFIA resources for Statutory and Infrastructure Sector Programs (see Table 4).

**Table 4. Distribution of CEFIA Funds Invested in Projects and Programs through Subsidies, Credit Enhancements, and Loans and Leases from FY 2013 and FY 2014 (as of June 30, 2014)**

<b>Program</b>	<b>Subsidies</b>	<b>Credit Enhancements</b>	<b>Loans and Leases</b>	<b>Total</b>
RSIP	\$33,655,331 <sup>9</sup>	-	-	\$33,655,331
CHP	\$934,500	-	-	\$934,500
AD	-	-	-	-
Grid-Tied	\$1,550,000	-	\$5,800,000	\$7,350,000
<b>Total</b>	<b>\$35,509,831</b>	<b>-</b>	<b>\$8,600,000</b>	<b>\$41,939,831</b>

Of the \$41 million of CEFIA resources invested, 81% was in subsidies, 0% was in Credit Enhancements, and 18% was in Loans and Leases.

Overall, the implementation of these three programs has been steady and progress has been substantial given the Comprehensive Plan targets through 2014. We expect to continue to

<sup>7</sup> Over the life of the measure(s)

<sup>8</sup> First year of the measure(s)

<sup>9</sup> It should be noted that \$16,160,894 is in PBI, therefore it is paid out over a six year period based on the performance of the system.



deliver results beyond the Comprehensive Plan targets – with residential solar PV being a major focus of local renewable energy deployment and job creation.

Of these programs, the following is a breakdown of their contributions made thus far towards the performance target and the human resources required to implement them (see Table 5):

**Table 5. Program Progress Made from FY 2013 and FY 2014**

Key Metrics	RSIP	CHP and AD Program	Grid and Infrastructure Program	Total Program Progress
Date of Program Approval	Feb 2012	Feb 2012	Nov 2012	-
Date of Program Launch	Mar 2012	Jun/Dec 2012	Dec 2013	-
Ratepayer Capital at Risk	\$33,655,331	\$304,500	\$7,350,000	\$41,309,831
Private Capital	\$81,399,947	\$2,884,500	\$65,000,000	\$149,284,447
Deployed (MW)	26.0	0.7	19.8	46.5
# of Loans/Installations	3,690	2	2	3,694
Lifetime Production (MWh)	626,836	81,008	1,923,465	2,631,309
Annual Saved (kMMBtu)	-	14,101	-	14,101
Full Time Equivalent Staff	4.45	1.00	0.30	5.75

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### Earned Media

It is important for the Statutory and Infrastructure programs to be generating positive earned media in Connecticut, the New England region, and across the country and internationally. Of the earned media resulting from Statutory and Infrastructure programs, the following are the “Top 5” impressions over FY 2014:

1. [Building Smarter and More Reliable Infrastructure](#)
2. [Dominion Begins Commercial Operations of Two ... - Yahoo Finance](#)
3. [Renewable and clean energy surges in Connecticut](#)
4. [Fuel Cell Project Testament To Cooperation](#)
5. [An Error in Bill Put Solar Industry On Its Heels](#)

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### Lessons Learned

Based on the implementation of the Statutory and Infrastructure Sector Programs thus far, the following are the lessons learned:

1. **Residential Solar PV Financing Options and Community- Based Marketing Drive Deployment** – The 30 Megawatt capacity target for the RSIP will be achieved early in FY2015 (if not sooner), more than eight (8) ahead of schedule. With the RSIP’s offering incentives, homeowners are finding the economics of deploying a solar PV system more attractive than ever before. From projects approved in FY2014, 15.1 Megawatts of capacity will be installed. FY2015 approved projects are expected to generate 23 Megawatts of capacity, nearly a 66% increase. Access to financing is driving demand –

over 20% of projects approved last quarter, were with CEFIA's financing products (i.e., CT Solar Lease, CT Solar Loan, and the Smart-E Loan). Solarize is also driving demand – over 30% of projects approved since the start of the RSIP are as a result of the Solarize Connecticut program.

2. **Loans in Lieu of Grants** – Anaerobic Digestion (AD), Combined Heat and Power (CHP) and Micro-grid (MG) Projects Can Be Constructed Using Loans and Credit Enhancements in Place of Grants. Long-term low-interest subordinated loans and credit enhancements for AD, CHP and MG projects are making projects more attractive to third-party debt and equity investors. The experience of the AD and CHP Pilots is proving that long-term subordinated debt and credit enhancement can be more economical to a project than a grant because they lower the risk of financing the project's capital cost to investors. However, it does require more public capital into projects to support debt transactions instead of grants.

### Statutory and Infrastructure Sector Programs FY 2015 Quarterly Targets

Of the three programs being implemented in the Statutory and Infrastructure Sector Programs, the following is a breakdown of the key quarterly targets for each program (see Tables 6-9):

**Table 6. Number of Projects**

Program	FY 2015 Q1 (Jul-Sep)	FY 2015 Q2 (Oct-Dec)	FY 2015 Q3 (Jan-Mar)	FY 2015 Q4 (Apr-Jun)
RSIP	640	800	800	960
CHP and AD	-	5	6	6
Grid and Infrastructure	-	-	-	-
<b>Total</b>	<b>640</b>	<b>805</b>	<b>806</b>	<b>966</b>

**Table 7. Capital Deployed**

Program (\$ in Millions)	FY 2015 Q1 (Jul-Sep)	FY 2015 Q2 (Oct-Dec)	FY 2015 Q3 (Jan-Mar)	FY 2015 Q4 (Apr-Jun)
RSIP	\$18,100,000	\$23,000,000	\$23,000,000	\$28,000,000
CHP and AD	-	\$50,700,000	\$27,100,000	\$37,200,000
Grid and Infrastructure	-	-	-	-
<b>Total</b>	<b>\$18,100,000</b>	<b>\$73,700,000</b>	<b>\$50,100,000</b>	<b>\$65,200,000</b>

**Table 8. Clean Energy Deployed (MW)**

Program	FY 2015 Q1 (Jul-Sep)	FY 2015 Q2 (Oct-Dec)	FY 2015 Q3 (Jan-Mar)	FY 2015 Q4 (Apr-Jun)
RSIP	4.6	5.8	5.8	6.9
CHP and AD	-	7.7	2.5	4.6
Grid and Infrastructure	-	-	-	-
<b>Total</b>	<b>4.6</b>	<b>13.5</b>	<b>8.3</b>	<b>11.5</b>

**Table 9. Annual Clean Energy Generated and Saved (MMBtu)**

Program	FY 2015 Q1 (Jul-Sep)	FY 2015 Q2 (Oct-Dec)	FY 2015 Q3 (Jan-Mar)	FY 2015 Q4 (Apr-Jun)
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<b>Program</b>	<b>FY 2015 Q1 (Jul-Sep)</b>	<b>FY 2015 Q2 (Oct-Dec)</b>	<b>FY 2015 Q3 (Jan-Mar)</b>	<b>FY 2015 Q4 (Apr-Jun)</b>
RSIP	18,311	22,889	22,889	27,467
CHP and AD	-	356,054	115,602	212,708
Grid and Infrastructure	-	-	-	-
<b>Total</b>	<b>18,311</b>	<b>378,943</b>	<b>138,491</b>	<b>240,175</b>

To achieve these quarterly targets, the Statutory and Infrastructure Sector Programs will focus its programmatic expenses in the following areas:

- **Continue Successful Transition to Financing** – support the Residential Sector in driving demand with all financing options and products available to homeowners by maintaining efficiency in processing RSIP applications and transitioning to a new model that allows for scalability
- **Focus on Closing Transactions** – increase our activities to bring projects in our AD and CHP pipeline to financial close and commissioning
- **Assist in the Development of Program** – help support efforts to finance the generation portion of micro-grid projects

The Statutory and Infrastructure Sector Programs are making good progress towards meeting the end of 2014 targets underneath the Comprehensive Plan.



**CLEAN ENERGY**  
**FINANCE AND INVESTMENT AUTHORITY**

# Memo

**To:** Board of Directors of the Clean Energy Finance and Investment Authority

**From:** Lucy Charpentier (Manager of Evaluation, Measurement and Verification), Mackey Dykes (Chief of Staff), Bryan Garcia (President and CEO), and Kerry O'Neill (Director of Residential Programs)

**Cc:** Jessica Bailey (Director of Commercial and Industrial Programs), Andy Brydges (Director of Institutional Programs), Dale Hedman (Director of Statutory and Infrastructure Programs), Bert Hunter (EVP and CIO)

**Date:** October 10, 2014

**Re:** Residential Sector Programs – Program Performance towards Targets (FY 2013 and FY 2014 Program Performance towards End of 2014 Targets)

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## Overview

Public Act 11-80 (PA 11-80), *An Act Concerning the Establishment of the Department of Energy and Environmental Protection and Planning for Connecticut's Energy Future*, requires that the Clean Energy Finance and Investment Authority (CEFIA) develop and implement several programs to finance and otherwise support clean energy investment in residential projects to promote deep energy efficiency retrofits, renewable energy deployment, and fuel and equipment conversions in single and multi-family homes across the state. It should be noted that these programs, and its staffing, are still in start-up having had only a year's worth of implementation.

For a program description and information on the Total Addressable Market and Serviceable Addressable Market (SAM), please see the FY 2015 and FY 2016 Comprehensive Plan.

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## Performance Targets and Progress

With respect to the Comprehensive Plan approved by the Board of Directors of CEFIA on September 28, 2012, the following are the performance targets through 2014 and the progress made thus far in FY 2013 and FY 2014 for the Residential Sector Programs (see Table 1). Also, for comparative purposes, included are the total performance targets for all programs through 2014.

It should be noted that the performance targets established were based on the amount of private capital investment attracted into clean energy financing in Connecticut – not the actual deployment of those funds by driving demand. Since these performance targets we approved in the fall of 2012, CEFIA staff has reoriented expectations and focused on more modest targets based on capital deployed versus capital attracted. This has resulted in a renewed emphasis to improve CEFIA's marketing expertise and the hiring of a Director of Marketing in FY 2015.

**Table 1. Program Performance Targets and Progress Made to the Comprehensive Plan as of June 30, 2014<sup>1</sup>**

Key Metrics	Program Performance Targets	Program Progress	Overall Targets
CEFIA Investment at Risk <sup>2</sup>	\$12,000,000	\$3,921,618	\$45,300,000
Private Capital	\$60,000,000	\$5,226,009	\$186,600,000
Deployed (MW)	15.0	2.3	51.1
# of Loans/Projects	4,250	400	5,283
Annual Saved (MMBtu)	75,000	1,402	180,000

### Residential Sector Programs

The following are brief descriptions of the progress made under the last comprehensive plan in the Residential Sector Programs

- **Energize CT Smart-E Loan** – a credit enhancement program that uses \$2.8 million of repurposed ARRA-SEP funds as a loan loss reserve and interest rate buy down to attract nearly \$30 million of private capital from local credit unions and community banks. The product provides low interest (i.e. 4.49-6.99%) unsecured loans at long terms (i.e. between 5 to 12 years) for technologies that are consistent with the goals of the Comprehensive Energy Strategy.

**Table 2. Energize CT Smart-E Loan Overview for FY 2013 and FY2014 (lender data and project data as of June 30, 2014)**

Program Data	Approved	Closed not yet Complete	Closed and Completed	Total
Projects	71	54	96	221
Installed Capacity (MW)	0.0	0.2	0.2	0.4
Clean Energy Produced (MWh) <sup>3</sup>	1,195	4,516	4,203	9,915
Energy Saved (MMBtu) <sup>4</sup>	298	372	1,029	1,699
Subsidies (\$'s)	-	-	-	-
Credit Enhancement (\$'s)	\$84,174	\$60,351	\$86,032	\$230,553
Loans or Leases (\$'s)	-	-	-	-
Total CEFIA Investment (\$'s) <sup>5</sup>	\$84,174	\$60,351	\$86,032	\$230,553
Private Capital (\$'s)	\$1,122,275	\$804,674	\$1,147,094	\$3,074,044

As the Smart-E Loan has not even been in implementation statewide for more than a year, its implementation is in start-up and we are now beginning to see steady progress

<sup>1</sup> In FY 2014 only, the program provided \$8.3 million in investments through the Cozy Home Loan, Smart-E Loan, CT Solar Loan, and CT Solar Lease attracting private capital of \$4.9 million deploying 2.2 MW of residential solar PV and 1,287 MMBtu of annual savings through 388 projects.

<sup>2</sup> Includes funds from the Clean Energy Fund, RGGI allowance revenue, repurposed ARRA-SEP funds, and other resources that are managed by CEFIA that are committed and invested in subsidies, credit enhancements, and loans and leases.

<sup>3</sup> Over the life of the measure(s)

<sup>4</sup> First year of the measure(s)

<sup>5</sup> Based on the Objective Functions for the Smart-E Loan, the credit enhancement for the second loss reserve represents 7.5% of the value of the loan from the local lenders.

and growth speed up. 170 contractors have been trained to use the product and 56 of them have completed a financing application with the Smart-E Loan. The Smart-E Loan program is estimated to have created 33 direct and 53 indirect and induced jobs years and 5,141 tons of CO2 emissions reduced over the life of the projects.

It should be noted that Smart-E On Bill Repayment (OBR) will be designed and begin implementation in late FY 2015. This will allow for the repayment of a loan with a qualifying upgrade on a utility bill.

Also, CEFIA's Energize CT Smart-E Loan currently competes against the Connecticut Housing Investment Fund's Residential Energy Efficiency Loan and the gas companies' Energize CT Heating Loan financing programs, both ratepayer-subsidized financing products. DEEP's stated policy is that ratepayer-subsidized products should be positioned such that they do not undermine products backed by private capital. This is resulting in lower uptake in privately financed energy efficiency projects – versus solar PV and HVAC upgrades. This is an ongoing area of focus for DEEP, CEFIA, the utilities and EEB.

- **CT Solar Loan** – in partnership with a crowd-sourced fund (i.e. Mosaic) and a servicer (i.e. Sungage Financial), a 15-year solar loan product is offered to a range of credit quality consumers (no less than 680 FICO) interested in solar PV. A specialty product designed for solar PV, interest rates are affordable at 6.49% and the CT Solar Loan may re-amortize after the ITC is received by the borrower to ensure the positive cash flow of energy savings from solar PV exceeding the debt service of the loan.

**Table 3. CT Solar Loan Overview for FY 2013 and FY2014 (as of June 30, 2014)**

<b>Program Data</b>	<b>Approved</b>	<b>Closed not yet Complete</b>	<b>Closed and Completed</b>	<b>Total</b>
Projects	62	120	23	205
Installed Capacity (MW)	0.5	0.9	0.1	1.5
Clean Energy Produced (MWh) <sup>6</sup>	10,476	22,095	4,316	36,887
Energy Saved (MMBtu) <sup>7</sup>	-	-	-	-
Subsidies (\$'s)	-	-	-	-
Credit Enhancement (\$'s) <sup>8</sup>	\$96,284	\$183,551	\$37,640	\$317,475
Loans or Leases (\$'s)	\$1,234,408	\$2,353,217	\$482,568	\$4,070,193
Total CEFIA Investment (\$'s)	\$1,330,692	\$2,536,767	\$520,208	\$4,387,669
Private Capital (\$'s)	-	-	-	-

CEFIA provides the upfront capital for the CT Solar Loan through a warehouse that will be replenished through sell-offs to Mosaic. 26 contractors have been trained to use the product and 20 of them have completed a financing application with the CT Solar Loan. The CT Solar Loan program is estimated to have created 34 direct and 54 indirect and induced jobs years and 19,125 tons of CO2 emissions reduced over the life of the projects.

<sup>6</sup> Over the life of the measure(s)

<sup>7</sup> First year of the measure(s)

<sup>8</sup> Based on the Objective Functions for the CT Solar Loan, the loan loss reserve credit enhancement represents about 7.8% of the value of the loan.

- **CT Solar Lease** – a lease program that uses \$3.5 million in repurposed ARRA-SEP funds as a loan loss reserve and \$7.6 million in debt and equity from CEFIA approved by the Board of Directors to attract \$40 million of private capital from a syndicate of local lenders to provide homeowners with FICO scores of 640 and above with a no upfront financing option for residential solar PV and solar hot water system deployment.

**Table 4. CT Solar Lease Overview for FY 2013 and FY2014 (as of June 30, 2014)**

Program Data	Approved	Closed not yet Complete	Closed and Completed	Total
Projects	250	88	18	356
Installed Capacity (MW)	1.8	0.7	0.1	2.6
Clean Energy Produced (MWh) <sup>9</sup>	44,904	15,708	3,218	63,830
Energy Saved (MMBtu) <sup>10</sup>	-	-	-	-
Subsidies (\$'s)	-	-	-	-
Credit Enhancement (\$'s) <sup>11</sup>	\$472,447	\$165,267	\$33,859	\$671,573
Loans or Leases (\$'s) <sup>12</sup>	\$1,228,363	\$429,695	\$88,033	\$1,746,090
Total CEFIA Investment (\$'s)	\$1,700,810	\$594,962	\$121,892	\$2,417,664
Private Capital (\$'s)	\$7,748,135	\$2,710,383	\$555,284	\$11,013,801

As the CT Solar Lease has not even been in implementation for a year, its implementation is in start-up and we are now beginning to see steady progress and growth speed up. 21 contractors have been trained to use the product and 15 of them have completed a financing application with the CT Solar Lease. The CT Solar Lease program is estimated to have created 73 direct and 117 indirect and induced jobs years and 33,096 tons of CO2 emissions reduced over the life of the projects.

- **Cozy Home Loan** – a credit enhancement program that uses \$410,000 of repurposed ARRA-SEP funds as a loan loss reserve and interest rate buy down to attract \$2.5 million of private capital from Community Development Financial Institutions (i.e. Opportunity Finance Network). The product, administered by the Housing Development Fund, provides 10-year loans for technologies that are consistent with the goals of the Comprehensive Energy Strategy to households below 80% of area median income in the Fairfield, Litchfield, and New Haven counties.

**Table 5. Cozy Home Loan Overview for FY 2013 and FY2014 (as of June 30, 2014)**

Program Data	Approved	Closed not yet Completed	Closed and Completed	Total
Projects	4	-	1	5
Installed Capacity (MW)	-	-	-	-
Clean Energy Produced (MWh) <sup>13</sup>	-	-	-	-
Energy Saved (MMBtu) <sup>14</sup>	-	-	-	-

<sup>9</sup> Over the life of the measure(s)

<sup>10</sup> First year of the measure(s)

<sup>11</sup> Based on the Objective Functions for the CT Solar Lease, the loan loss reserve credit enhancement represents about 5% of the value of the lease.

<sup>12</sup> Based on the Objective Functions for the CT Solar Lease, the loan financing represents about 13% of the value of the lease.

<sup>13</sup> Over the life of the measure(s)

<sup>14</sup> First year of the measure(s)

Subsidies (\$'s)	-	-	-	-
Credit Enhancement (\$'s) <sup>15</sup>	\$5,198	-	\$1,406	\$6,605
Loans or Leases (\$'s)	=	=	=	=
Total CEFIA Investment (\$'s)	\$5,198	-	\$1,406	\$6,605
Private Capital (\$'s)	\$31,698	-	\$8,575	\$40,273

Since the Cozy Home Loan has had a very difficult time getting off the ground as the target market is limited income, the Housing Development Fund is in the process of revamping the offering to appeal to this challenging market segment.

For a breakdown of the use of CEFIA resources for Residential Programs, see table 6 below.

**Table 6. Distribution of CEFIA Funds Invested in Projects and Programs through Subsidies, Credit Enhancements, and Loans and Leases from FY 2013 and FY 2014 (as of June 30 2014)**

Program	Subsidies	Credit Enhancements	Loans and Leases	Total
Smart-E	-	\$146,383	-	\$146,383
CT Solar Loan	-	\$221,191	\$2,835,785	\$3,056,976
CT Solar Lease	-	\$199,126	\$517,728	\$716,854
Cozy Home	-	\$1,406	-	\$1,406
<b>Total</b>	-	<b>\$568,106</b>	<b>\$3,353,512</b>	<b>\$3,921,618</b>

Of the \$3.9 million of CEFIA resources invested, 0% was in subsidies, 14% was in Credit Enhancements, and 86% was in Loans and Leases. Of these programs, the following is a breakdown of their contributions made thus far towards the performance target and the human resources required to implement them (see Table 5):

**Table 7. Program Progress Made from FY 2013 and FY 2014 (as of June 30, 2014)**

Key Metrics	Smart-E	CT Solar Loan	CT Solar Lease	Cozy Home Loan	Total Program Progress
Date of Program Approval	Nov 2012	Nov 2012	June 2013		-
Date of Program Launch	Nov 2013	July 2013	Sept 2013		-
Ratepayer Capital at Risk	\$146,383	\$3,056,976	\$716,854	\$1,406	\$3,921,618
Private Capital	\$1,951,768	-	\$3,265,666	\$8,575	\$5,226,009
Deployed (MW)	0.4	1.1	0.8	-	2.3
# of Loans/Installations	150	143	106	1	400
Lifetime Production (MWh)	8,720	26,411	18,926	-	54,056
Annual Saved (MMBtu)	1,402	-	-	-	1,402
Full Time Equivalent Staff	2.30	0.75	1.60	Included in Smart-E	4.65

In addition to the financing programs for single family households, CEFIA is currently developing programs for multifamily properties as well. See the Comprehensive Plan for details.

<sup>15</sup> Based on the Objective Functions for the Cozy Home Loan, the loan loss reserve and interest rate buydown for the credit enhancement represents about 16.4% of the value of the loan



## Earned Media

It is important for the Residential programs to be generating positive earned media in Connecticut, the New England region, and across the country and internationally. Of the earned media resulting from Residential programs, the following are the “Top 5” impressions over FY 2014:

1. [Connecticut's New Solar Lease Program Will Kindle Economic Opportunity](#)
  2. [Innovative Program "Cracks The Code" For Residential Solar Power](#)
  3. [Solar Installations Soar in First Two Years of Connecticut's Unique Financing Program](#)
  4. [A Program For Crowdfunding Home Solar Launches in Connecticut](#)
  5. [Smart-E home energy loan offers green, clean bundle rate](#)
- 

## Lessons Learned

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

1. **Financing pipeline is longer than projected for solar projects and highly seasonal for Smart-E**
    - a. Solar projects have longer timeline from application to close
    - b. Smart-E lenders saw very slow Jan/Feb (consistent with other lines of lending)
  2. **Operations starting to stabilize** – moving beyond “start-up” mode:
    - a. Highly manual internal processes/data tracking not sustainable for scale – starting to address
    - b. Tranching process in place for lease, intensive contractor meetings resulting in smoother process
  3. **Still competing with subsidized capital** – CHIF and Gas company heating loan, which is resulting in less energy efficiency and natural gas conversion opportunities.
  4. **Smart-E Lenders and contractors seeing value in program participation**
    - a. Variety of ways program is viewed by lenders: customer engagement and/or new customer acquisition resulting in increased deposits, tie into small business lending with Smart-E contractors, PR/good community partner
    - b. Contractors like the working capital solutions, which removes a traditional barrier to offering financing to customers; financing options supporting business growth
  5. **Solar and HVAC are the focus** – not much traditional energy efficiency
    - a. Solarize campaigns showed strong application trends for CT Solar Lease and CT Solar Loan
    - b. Handful of contractors are driving our volume to date – potential opportunity to work with engaged contractors to sell solar +, HVAC+
-

## Residential Sector Programs FY 2015 Quarterly Targets

Of the 4 programs being implemented in the Residential Sector Programs, the following is a breakdown of the key quarterly targets for each program (see Tables 9-12):

**Table 9. Number of Projects**

Program	FY 2015 Q1 (Jul-Sep)	FY 2015 Q2 (Oct-Dec)	FY 2015 Q3 (Jan-Mar)	FY 2015 Q4 (Apr-Jun)
Smart-E	50	80	75	95
CT Solar Loan	115	90	120	130
CT Solar Lease	70	115	85	120
Cozy Home	5	10	15	20
Total	240	295	295	365

**Table 10. Capital Deployed**

Program	FY 2015 Q1 (Jul-Sep)	FY 2015 Q2 (Oct-Dec)	FY 2015 Q3 (Jan-Mar)	FY 2015 Q4 (Apr-Jun)
Smart-E	\$675,000	\$1,080,000	\$1,012,500	\$1,282,500
CT Solar Loan	\$2,357,500	\$1,845,000	\$2,460,000	\$2,665,000
CT Solar Lease	\$2,625,000	\$4,312,500	\$3,187,500	\$4,500,000
Cozy Home	\$50,000	\$100,000	\$150,000	\$200,000
Total	\$5,707,500	\$7,337,500	\$6,810,000	\$8,647,500

**Table 11. Clean Energy Deployed (MW)**

Program	FY 2015 Q1 (Jul-Sep)	FY 2015 Q2 (Oct-Dec)	FY 2015 Q3 (Jan-Mar)	FY 2015 Q4 (Apr-Jun)
Smart-E	0.22	0.14	0.18	0.18
CT Solar Loan	0.83	0.65	0.86	0.94
CT Solar Lease	0.5	0.83	0.61	0.86
Cozy Home	n/a	n/a	n/a	n/a
Total	1.55	1.62	1.66	1.98

**Table 12. Annual Clean Energy Generated and Saved (MMBtu)**

Program	FY 2015 Q1 (Jul-Sep)	FY 2015 Q2 (Oct-Dec)	FY 2015 Q3 (Jan-Mar)	FY 2015 Q4 (Apr-Jun)
Smart-E	920	1,471	1,380	1,747
CT Solar Loan	3,221	2,521	3,361	3,641
CT Solar Lease	1,960	3,220	2,380	3,360
Cozy Home	68	136	204	272
Total	6,169	7,348	7,325	9,020

To achieve these quarterly targets, the Residential Sector Programs will focus its programmatic expenses in the following areas:

- **Driving Demand/Marketing Innovation**

- Contractor engagement
- Integrated marketing campaigns through a channel strategy including marketing support for:
  - ▶ contractors, lenders, online (web, email, social media, paid search), community pilots, earned media, promotions; and supporting strategies including website development, consumer tools, and market segmentation data
- Performance-based customer acquisition strategies
- Incentives/promotions – ongoing testing (interest rate buy-downs, xx months free, upgrade bundles, sweeps/giveaways etc.)
- Market segmentation analysis of the CT solar customer
  
- **Solar financing options, then HVAC – build on success**
  - Grow market share for CEFIA’s solar finance products from about 30% to 50% of the non-national RSIP projects
  - Deepen relationship with HVAC and hot water heating contractor base
  
- **On-Bill Repayment**
  - Smart-E OBR – Phase I
  - Other loan products, transferability, etc. – Phase II
  
- **Going Deeper**
  - Strategies to support multi-measure upgrades – solar plus, HVAC/gas conversion plus (Smart-E Bundles), contractor vertical integration and partnerships, etc.
  
- **Multifamily Housing**
  - Affordable – CHIF “LIME” loan, C-PACE for Multifamily, credit enhancement RFP, Winn-HUD Open Market ESCO, CHFA pilot
  - Market rate – C-PACE for MF, credit enhancement RFP, condominium financing
  
- **Process Support** – including outsourced infrastructure for technical underwriting/approvals and quality assurance/quality control; data analytics
  
- **Staff** – to support iterative product development, refinement and implementation, with a particular focus on training and ongoing support for contractors and lenders



**CLEAN ENERGY**  
**FINANCE AND INVESTMENT AUTHORITY**

# Memo

**To:** Board of Directors of the Clean Energy Finance and Investment Authority

**From:** Jessica Bailey (Director of Commercial and Industrial Programs), Lucy Charpentier (Manager of Evaluation, Measurement and Verification), Bryan Garcia (President and CEO), Mackey Dykes (Chief of Staff)

**Cc:** Andy Brydges (Director of Institutional Programs), Dale Hedman (Director of Statutory and Infrastructure Programs), Bert Hunter (EVP and CIO), and Kerry O'Neill (Director of Residential Programs)

**Date:** October 10, 2014

**Re:** Commercial and Industrial Sector Programs – Program Performance towards Targets (FY 2013 and FY 2014 Program Performance towards End of 2014 Targets)

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## Overview

Pursuant to Public Act 12-2, the Clean Energy Finance and Investment Authority (CEFIA) launched the Commercial and Industrial Property Assessed Clean Energy (C-PACE) program in January 2013. C-PACE is a statutorily mandated program that was the primary commercial and industrial (C&I) financing product in the comprehensive plan and budget for fiscal years 2013 and 2014.

For a program description and information on the Total Addressable Market and Serviceable Addressable Market (SAM), please see the FY 2015 and FY 2016 Comprehensive Plan.

The CEFIA investment in C-PACE projects comes from the use of carbon emission allowance proceeds from the Regional Greenhouse Gas Initiative (RGGI). Rather than use RGGI proceeds as rebates, Connecticut invests these funds in C-PACE projects with the expectation that they will (1) attract multiples of private investment in projects, and (2) that these funds will be returned for later reinvestment in other projects that lower energy costs for participating businesses.

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## Performance Targets and Progress

With respect to the Comprehensive Plan approved by the Board of Directors of CEFIA on September 28, 2012, the following are the performance targets through 2014 and the progress made thus far in FY 2013 and FY 2014 for the Commercial and Industrial Sector Programs (see Table 1). Also, for comparative purposes, included are the total performance targets for all programs through 2014.

**Table 1. Program Performance Targets and Progress Made to the Comprehensive Plan for FY 2013 and FY 2014 (as of June 30, 2014)<sup>1</sup>**

Key Metrics	Program Performance Targets	Program Progress	Overall Targets
CEFIA Investment at Risk <sup>2</sup>	\$10,000,000	\$20,179,220	\$45,300,000
Private Capital	\$30,000,000	\$6,149,708	\$186,600,000
Deployed (MW)	5.0	3.5	51.1
# of Loans/Projects	150	28	5,283
Annual Saved (MMBtu)	107,000	43,548	180,000

In January 2013, the Green Bank introduced the C-PACE program. C-PACE is one of the country’s first statewide programs to provide 100 percent upfront financing for energy upgrades to commercial, industrial and nonprofit buildings. Under this program, property owners obtain financing needed to make key energy improvements, and then repay it as a benefit assessment charge on their property tax bill. Because the payments can be spread over a period of up to 20 years, owners save on energy costs immediately and for years to come. The financed improvements increase the building’s value, while preserving the building owner’s capital and credit lines for core investments.

C-PACE financing is available for a wide range of clean energy and energy efficiency improvements, including new boilers and chillers, upgraded insulation, new windows or solar installations. Energy audits and construction costs can also be financed through C-PACE. C-PACE has been a notable success in deploying clean energy throughout the state. Eighty Connecticut municipalities, together accounting for 83 percent of the state’s commercial and industrial building stock, have signed onto the program. Since launching C-PACE, the Green Bank has established a \$40 million warehouse facility using the Green Bank’s balance sheet. Working with its group of qualified capital providers, the Green Bank auctioned its first group of transactions and secured private capital to purchase the initial \$30 million portfolio of transactions that the Green Bank has and will originate.

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### **Commercial and Industrial Sector Programs**

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

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

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<sup>1</sup> In FY 2014 only, the program provided \$18.9 million in investments through the C-PACE and CEBS programs attracting private capital of \$6.1 million deploying 2.6 MW of solar PV and saving 41,667 MMBtu a year through 24 projects.

<sup>2</sup> Includes funds from the Clean Energy Fund, RGGI allowance revenue, repurposed ARRA-SEP funds, and other resources that are managed by CEFIA that are committed and invested in subsidies, credit enhancements, and loans and leases.

Table 2. C-PACE Overview for FY 2013 and FY2014 (as of June 30, 2014)

Program Data	Approved	Closed Not Yet Complete	Closed and Completed	Total
Projects	10	14	12	36
Installed Capacity (MW)	1.62	2.51	0.88	5.01
Clean Energy Produced (MWh) <sup>3</sup>	38,660	59,641	20,981	119,282
Energy Saved (MMBtu) <sup>4</sup>	19,848	26,708	16,132	62,688
Subsidies (\$'s)	-	-	-	-
Credit Enhancement (\$'s)	-	-	-	-
Loans or Leases (\$'s)	\$8,979,144	\$11,368,653	\$8,060,567	\$28,408,364
Total CEFIA Investment (\$'s)	\$8,979,144	\$11,368,653	\$8,060,567	\$28,408,364
Private Capital (\$'s)	-	-	\$6,149,708	\$6,149,708

Overall, the implementation of C-PACE has been steady and progress continues to speed up. CEFIA expects to double the amount of capital deployed in fiscal year 2015 over the previous targets. The C-PACE program is estimated to have created 154 direct and 246 indirect and induced jobs years and reduced 61,848 tons of CO2 emissions over the life of the projects.-

- **Clean Energy Business Solutions** – partnership with the Department of Economic and Community Development (DECD) to provide up to \$5 million to support companies that are strategically important for job creation and economic development reasons by providing targeted investment to help these companies achieve cleaner, cheaper, and more reliable energy. DECD identifies companies and funding levels and CEFIA works with the company to maximize energy savings or clean energy production.

Table 3. CEBS Overview for FY 2013 and FY 2014 (as of June 30, 2014)

Program Data	Approved	Closed Not Yet Complete	Closed and Completed	Total
Projects	-	2	-	2
Installed Capacity (MW)	-	0.06	-	0.06
Clean Energy Produced (MWh) <sup>5</sup>	-	1,497	-	1,497
Energy Saved (MMBtu) <sup>6</sup>	-	708	-	708
Subsidies (\$'s)	-	\$750,000	-	\$750,000
Credit Enhancement (\$'s)	-	-	-	-
Loans or Leases (\$'s)	-	-	-	-
Total CEFIA Investment (\$'s)	-	-	-	-
Private Capital (\$'s)	-	-	-	-

CEFIA has worked with DECD to identify projects to utilize nearly all of the remaining CEBS funding. DECD is in the process of negotiating with the companies and bringing final proposals to CEFIA, which is expected to happen for most of the remaining projects in fiscal year 2015. The CEBS program is estimated to have created 3 direct and 5

<sup>3</sup> Over the life of the measure(s)

<sup>4</sup> First year of the measure(s)

<sup>5</sup> Over the life of the measure(s)

<sup>6</sup> First year of the measure(s)

indirect and induced jobs years and 776 tons of CO2 emissions reduced over the life of the projects.

For a breakdown of the use of CEFIA resources for Commercial and Industrial Programs, see table 4 below.

**Table 4. Distribution of CEFIA Funds Invested in Projects and Programs through Subsidies, Credit Enhancements, and Loans and Leases from FY 2013 and FY 2014 (as of June 30 2014)**

Program	Subsidies	Credit Enhancements	Loans and Leases	Total
C-PACE	-	-	\$19,429,220	\$19,429,220
CEBS	\$750,000	-	-	\$750,000
<b>Total</b>	<b>\$750,000</b>	<b>-</b>	<b>\$19,429,220</b>	<b>\$20,179,220</b>

Of the \$20 million of CEFIA resources invested, 5% was in subsidies, 0% was in Credit Enhancements, and 95% was in Loans and Leases.

Of these programs, the following is a breakdown of their contributions made thus far towards the performance target and the human resources required to implement them (see Table 5):

**Table 5. Program Progress Made from FY 2013 and FY 2014 (as of June 30, 2014)**

Key Metrics	C-PACE	Clean Energy Business Solutions	Total Program Progress
Date of Program Approval	Sep 2012	Sep 2012	-
Date of Program Launch	Jan 2013	Feb 2013	-
Ratepayer Capital at Risk	\$19,429,220	\$750,000	\$20,179,220
Private Capital	\$6,149,708	-	\$6,149,708
Deployed (MW)	3.39	0.06	3.45
# of Loans/Installations	26	2	28
Lifetime Production (MWh)	80,622	1,497	82,119
Annual Saved (MMBtu)	42,840	708	43,548
Full Time Equivalent Staff	5.35	0.3	5.65

## Earned Media

It is important for the Commercial and Industrial programs to be generating positive earned media in Connecticut, the New England region, and across the country and internationally. Of the earned media resulting from Commercial and Industrial programs, the following are the “Top 5” impressions over FY 2014:

1. [CT Banks Move into Green Financing](#)
2. [Norwalk woman cited for clean energy financing](#)
3. [C-PACE clean energy program celebrates first anniversary](#)

4. [CEFIA Announces Sale of Commercial Property Assessed Clean Energy Benefit Assessment Liens](#)
5. [How CT Became So Influential in Energy Efficiency Finance](#)

## Lessons Learned

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

- **Deeper Energy Savings** – C-PACE projects are achieving 40-50% energy savings on comprehensive retrofits. The legislative requirement that the savings-to-investment ratio (SIR) is encouraging developers and property owners go deeper as they investigate the economics of multiple measures and different combinations of measures. The program has closed fewer projects in 2014 than it anticipated, but they were larger in scale.
- **Sell-down** – CEFIA’s investment in C-PACE, both with capital through the Warehouse and with human resources, yielded a successful year. Through its involvement from deal origination to ultimately selling down the portfolio, CEFIA proved the model of C-PACE financing.
- **Application Review** – Early screening of C-PACE applications is important. As the program becomes self-sufficient the CT Green Bank must become more discerning early on to ensure properties meet program requirements.
- **Underwriting** – Robust technical and financial underwriting are critical for accessing capital. The sell-down was important for CEFIA to discern what capital providers in this space deem important.
- **Building Demand** – Contractor training and support is key for building volume. This is a very time intensive component of the program.

## Commercial and Industrial Sector Programs FY 2015 Quarterly Targets

Of programs being implemented in the Commercial and Industrial Sector Programs, the following is a breakdown of the key quarterly targets (see Tables 7-10):

**Table 6. Number of Projects**

Program	FY 2015 Q1 (Jul-Sep)	FY 2015 Q2 (Oct-Dec)	FY 2015 Q3 (Jan-Mar)	FY 2015 Q4 (Apr-Jun)
C-PACE	19	19	6	19
Total	19	19	6	19

**Table 8. Capital Deployed**

Program	FY 2015 Q1 (Jul-Sep)	FY 2015 Q2 (Oct-Dec)	FY 2015 Q3 (Jan-Mar)	FY 2015 Q4 (Apr-Jun)
C-PACE	\$15,000,000	\$15,000,000	\$5,000,000	\$15,000,000
Total	\$15,000,000	\$15,000,000	\$5,000,000	\$15,000,000



**Table 9. Clean Energy Deployed (MW)**

<b>Program</b>	<b>FY 2015 Q1 (Jul-Sep)</b>	<b>FY 2015 Q2 (Oct-Dec)</b>	<b>FY 2015 Q3 (Jan-Mar)</b>	<b>FY 2015 Q4 (Apr-Jun)</b>
C-PACE	2.653	2.653	0.884	2.653
Total	2.653	2.653	0.884	2.653

**Table 10. Annual Clean Energy Generated and Saved (MMBtu)**

<b>Program</b>	<b>FY 2015 Q1 (Jul-Sep)</b>	<b>FY 2015 Q2 (Oct-Dec)</b>	<b>FY 2015 Q3 (Jan-Mar)</b>	<b>FY 2015 Q4 (Apr-Jun)</b>
C-PACE	34,355	34,355	11,452	34,355
Total	34,355	34,355	11,452	34,355

To achieve these quarterly targets, the Commercial and Industrial Sector Programs will focus its programmatic expenses in the following areas:

- **Private Capital** – Create more opportunities for the private sector to invest in CT. The CEFIA team was successful in FY 2014 in originating and financing transactions directly. However, in order for the program to scale, we need to create pathways for private capital to enter the market. We will explore new partnerships with private capital, energy service companies, and consultants to directly bring transactions into the program.
- **Application Process** – We need to continue to streamlining the application process and cut down on administrative costs to review applications. While C-PACE has made enormous strides in streamlining the processes for loan intake, loan underwriting/approval, and disbursement of funds - we need to continue to streamline these processes in order to move at the speed of business and remain an attractive option for the wide variety of buildings that are eligible for C-PACE.
- **New Markets** – We need to focus on unmet market segments – such as multi-family and non-profits. Additionally, we need to target areas of gas expansion. Gas expansion in the state is opening up an enormous opportunity for energy efficiency since C-PACE loans are underwritten largely on energy cost savings, which are significant with this measure. Embarking on partnership with all the gas utilities - they are very excited for this as a sales tool. Also an enormous opportunity for CHP and fuel cells.
- **Microgrids** – The legislation is in place. Now we need to find commercial microgrid/district energy projects and prove the model.
- **Cross-Agency Collaboration** – There are enormous opportunities and too little collaboration among state agencies, particularly CI and DECD. Their partnerships with manufacturers in particular could benefit from C-PACE financing and their outreach efforts could be a great pipeline opportunity for the program.



**CLEAN ENERGY**  
**FINANCE AND INVESTMENT AUTHORITY**

# Memo

**To:** Board of Directors of the Clean Energy Finance and Investment Authority

**From:** Andy Brydges (Director of Institutional Programs), Lucy Charpentier (Manager of Evaluation, Measurement and Verification), Bryan Garcia (President and CEO), Mackey Dykes (Chief of Staff)

**Cc:** Jessica Bailey (Director of Commercial and Industrial Programs), Dale Hedman (Director of Statutory and Infrastructure Programs), Bert Hunter (EVP and CIO), and Kerry O'Neill (Director of Residential Programs)

**Date:** October 10, 2014

**Re:** Institutional Sector Programs – Program Performance towards Targets (FY 2013 and FY 2014 Program Performance towards End of 2014 Targets)

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## Overview

As part of CEFIA's goal of attracting and deploying capital to finance the clean energy goals of Connecticut, we have initiated institutional sector programs to support the State and its efforts to work with municipalities through the "Lead by Example" program and to go further into communities with assistance to its universities, schools, hospitals, and other important non-profit organizations. It should be noted that these programs, and their staffing, are still in start-up having had only a year's worth of implementation.

For a program description and information on the Total Addressable Market and Serviceable Addressable Market (SAM), please see the FY 2015 and FY 2016 Comprehensive Plan.

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## Performance Targets and Progress

With respect to the Comprehensive Plan approved by the Board of Directors of CEFIA on September 28, 2012, the following are the performance targets through 2014 and the progress made thus far in FY 2013 and FY 2014 for the Institutional Sector Programs (see Table 1). Also, for comparative purposes, included are the total performance targets for all programs through 2014.

Table 1. Program Performance Targets and Progress Made to the Comprehensive Plan as of June 30, 2014<sup>1</sup>

Key Metrics	Program Performance Targets	Program Progress	Overall Targets
CEFIA Investment at Risk <sup>2</sup>	\$2,000,000	\$751,228	\$45,300,000
Private Capital	\$8,000,000	\$120,788	\$186,600,000
Deployed (MW)	5.0	0	51.1
# of Loans/Projects	30	2	5,283
Annual Saved (MMBtu)	5,000	13,320	180,000

### Institutional Sector Programs

The following are brief descriptions of the progress made under the last comprehensive plan in the Institutional Sector Programs

- **Campus Efficiency Now** – a loan program in partnership with the Connecticut Conference of Independent Colleges (CCIC) and GreenerU that provided up to \$1 million in CEFIA funds (into a special purpose vehicle) approved by the Board of Directors to engage in Energy Savings Agreements (ESAs) with several private colleges and universities. These ESAs will allow colleges and universities to undertake energy efficiency measures without the need for upfront capital and pay for them through the savings that are delivered over time.

Table 2. Campus Efficiency Now Overview for FY 2013 and FY2014 (as June 30, 2014)

Program Data	Approved	Closed not yet Completed	Closed and Completed	Total
Projects	-	1	1	2
Installed Capacity (MW)	-	-	-	-
Clean Energy Produced (MWh) <sup>3</sup>	-	-	-	-
Energy Saved (MMBtu) <sup>4</sup>	-	11,354	1,966	13,320
Subsidies (\$'s)	-	-	-	-
Credit Enhancement (\$'s)	-	-	-	-
Loans or Leases (\$'s)	-	\$500,093	\$251,136	\$751,228
Total CEFIA Investment (\$'s)	-	\$353,845	\$130,340	\$484,185
Private Capital (\$'s)	-	\$88,461	\$32,327	\$120,788

The Campus Efficiency Now program is estimated to have created 5 direct and 8 indirect and induced jobs years.

<sup>1</sup> In FY 2014 only, the program provided \$0.5 million in investments through the Campus Efficiency Now program attracting private capital of \$0.0 million deploying 0.0 MW of solar PV and 13,320 MMBtu of annual savings through 2 projects.

<sup>2</sup> Includes funds from the Clean Energy Fund, RGGI allowance revenue, repurposed ARRA-SEP funds, and other resources that are managed by CEFIA that are committed and invested in subsidies, credit enhancements, and loans and leases.

<sup>3</sup> Over the life of the measure(s)

<sup>4</sup> First year of the measure(s)

- **CT Solar Lease** – a loan-lease program that provides approximately \$12 million in public and private funding through the Connecticut Solar Lease Program to provide Power Purchase Agreements (PPAs) for solar PV to creditworthy commercial and institutional end-users of electricity. This program will support solar PV projects between 50-200 kW in size – with an average size of 75 kW.
- **Lead by Example** – The State of Connecticut created a standardized ESPC Program for use by state agencies and municipalities, as required by Connecticut General Statutes 16a-37x. CEFIA assists the Department of Energy and Environmental Protection (DEEP) in the implementation of the ESPC program. The program is intended to help state and municipal governments implement a portfolio of comprehensive energy savings measures with no upfront capital. The costs of the energy retrofits are paid for by guaranteed future savings from utility and maintenance budgets. ESPC projects will be implemented by Qualified Energy Service Companies (QESPs) that are on contract with the State of Connecticut to implement ESPC projects for municipalities and state agencies and have committed to follow the rules and guidelines of the ESPC program. In addition, project hosts will receive technical support from a pool of pre-qualified professional energy engineers that are available to review and interpret the QESPs work during the project development and contracting process. Program and technical support for both state and municipal project sponsors includes assistance in evaluating projects, defining eligible conservation and renewable energy measures, monitoring and verifying the energy savings, qualifying additional technical service providers, and managing data.

For a breakdown of the use of CEFIA resources for Institutional Programs, see table 3 below.

**Table 3. Distribution of CEFIA Funds Invested in Projects and Programs through Subsidies, Credit Enhancements, and Loans and Leases from FY 2013 and FY 2014 (as of June 30, 2014)**

Program	Subsidies	Credit Enhancements	Loans and Leases	Total
CEN	-	-	\$751,228	\$751,228
CT Solar Lease	-	-	-	-
LBE	-	-	-	-
<b>Total</b>	-	-	<b>\$751,228</b>	<b>\$751,228</b>

Of the \$751,228 of CEFIA resources invested, 100% was in the form of Loans through the Campus Efficiency Now program.

Of these programs, the following is a breakdown of their contributions made thus far towards the performance target and the human resources required to implement them (see Table 4):

**Table 4. Program Progress Made from FY 2013 and FY 2014 (as of June 30, 2014)**

Key Metrics	Campus Efficiency Now	CT Solar Lease	Lead By Example	Total Program Progress
Date of Program Approval	Jul 2012	June 2013	July 2011	-
Date of Program Launch	Sept 2012	Sept 2013	Sept 2011	-
Ratepayer Capital at Risk	-	-	-	\$751,228
Private Capital	-	-	-	\$120,788

Key Metrics	Campus Efficiency Now	CT Solar Lease	Lead By Example	Total Program Progress
Deployed (MW)	-	-	-	-
# of Loans/Installations	2	-	-	2
Lifetime Production (MWh)	-	-	-	-
Annual Saved (MMBtu)	13,320	-	-	13,320
Full Time Equivalent Staff	0.60	0.35	0.30	1.25

In addition to the financing programs for state and municipal customers, CEFIA is currently developing programs for multifamily properties as well. See the Comprehensive Plan for details.

### Earned Media

It is important for the Institutional programs to be generating positive earned media in Connecticut, the New England region, and across the country and internationally. Of the earned media resulting from Institutional programs, the following are the “Top 3” impressions over FY 2014:

1. [UNH expects to save \\$1M through energy program](#)
2. [Connecticut Valley Hospital to get \\$30M Energy Upgrade](#)
3. [UHart joins CT sustainable campus initiative](#)

### Lessons Learned

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

1. **Institutional Sector Projects will be large** – Institutional facilities commonly entail multiple buildings and aging infrastructure across a variety of building systems; therefore, programs that can finance comprehensive retrofits are important. Available funding for the Campus Efficiency Now program was insufficient to be attractive to several potential customers who had identified larger, more comprehensive projects to be done on their campuses. At the same time, developing comprehensive projects requires long gestation periods, both due to the complexity of the analyses required to identify suites of efficiency measures, and the bureaucracy common in Institutional Sector facilities that extends approval times.
2. **A streamlined Performance Contracting process can rapidly scale** – The State’s standardized ESPC program, with guaranteed savings, significant technical support and program oversight, pre-approved contracting documents, and pre-qualified vendors, gives state agencies and municipalities confidence that significant energy savings will materialize with no upfront cost.
3. **Off-credit Energy Savings Agreements will be an important alternative financing mechanism for the Institutional Sector** – Energy Savings Agreements can be structured as an off-credit financing mechanism that does not represent a long-term debt

obligation for the Institution. This is an important factor for credit-constrained non-profit Institutional Sector customers such as private colleges and universities and hospitals that would take advantage of performance contracting, but cannot take advantage of the more common forms of financing ESPC projects such as bonds or tax exempt lease purchasing. CEFIA will seek to expand the ESA structure piloted by the Campus Efficiency Now program by leveraging private capital in FY2015 to create more and larger opportunities for Institutional Sector projects to participate.

### Institutional Sector Programs FY 2015 Quarterly Targets

Of the programs being implemented in the Institutional Sector Programs, the following is a breakdown of the key quarterly targets for each program (see Tables 6-9):

**Table 6. Number of Projects**

<b>Program</b>	<b>FY 2015 Q1 (Jul-Sep)</b>	<b>FY 2015 Q2 (Oct-Dec)</b>	<b>FY 2015 Q3 (Jan-Mar)</b>	<b>FY 2015 Q4 (Apr-Jun)</b>
LBE – State	2	1	2	2
LBE - Municipal	0	0	2	4
CT Solar Lease	2	4	2	2
Institutional Off-Credit ESA	0	1	0	1
<b>Total</b>	<b>4</b>	<b>6</b>	<b>6</b>	<b>9</b>

**Table 7. Capital Deployed**

<b>Program</b>	<b>FY 2015 Q1 (Jul-Sep)</b>	<b>FY 2015 Q2 (Oct-Dec)</b>	<b>FY 2015 Q3 (Jan-Mar)</b>	<b>FY 2015 Q4 (Apr-Jun)</b>
LBE – State	\$40,000,000	\$25,000,000	\$30,000,000	\$30,000,000
LBE - Municipal	\$0	\$0	\$10,000,000	\$15,000,000
CT Solar Lease	\$1,200,000	\$2,400,000	\$1,200,000	\$1,200,000
Institutional Off-Credit ESA	\$0	\$5,000,000	\$0	\$5,000,000
<b>Total</b>	<b>\$41,200,000</b>	<b>\$32,400,000</b>	<b>\$41,200,000</b>	<b>\$51,200,000</b>

**Table 8. Clean Energy Deployed (MW)**

<b>Program</b>	<b>FY 2015 Q1 (Jul-Sep)</b>	<b>FY 2015 Q2 (Oct-Dec)</b>	<b>FY 2015 Q3 (Jan-Mar)</b>	<b>FY 2015 Q4 (Apr-Jun)</b>
LBE – State	0.0	0.0	0.0	0.0
LBE - Municipal	0.0	0.0	0.0	0.0
CT Solar Lease	0.4	0.8	0.4	0.4
Institutional Off-Credit ESA	0.0	0.0	0.0	0.0
<b>Total</b>	<b>0.4</b>	<b>0.8</b>	<b>0.4</b>	<b>0.4</b>

**Table 9. Annual Clean Energy Generated and Saved (MMBtu)**

<b>Program</b>	<b>FY 2015 Q1 (Jul-Sep)</b>	<b>FY 2015 Q2 (Oct-Dec)</b>	<b>FY 2015 Q3 (Jan-Mar)</b>	<b>FY 2015 Q4 (Apr-Jun)</b>
LBE – State	76,191	38,095	76,191	76,191
LBE - Municipal	0	0	55,556	111,111

CT Solar Lease	1,674	3,348	1,674	1,674
Institutional Off-Credit ESA	0	33,334	0	33,334
Total	77,864	74,776	133,420	222,309

To achieve these quarterly targets, the Institutional Sector Programs will focus its programmatic efforts in the following areas:

- **Performance Contracting** – Fully operationalizing the state’s ESPC program is the highest priority for the Institutional sector, as it is applicable to the largest portion of the Institutional market (state and municipal facilities) and represents a tremendous savings and job creation opportunity. Finalizing a mechanism for financing state agency projects is the most important task. Beyond that, developing a process for other state stakeholders to engage in the development of the projects (including the Department of Construction Services and the State Historical Preservation Office) without unduly delaying their implementation is important, as is commissioning an online data platform to facilitate tracking of each project’s performance. Further outreach to the municipal market to grow the model in that market segment will also be a key initiative.
- **Development of an Off-Credit ESA model** – Together with the C&I sector, the Institutional sector will work to develop an off-credit model to finance comprehensive projects (likely including guaranteed Performance Contracts) for customers that are prohibited from or constrained by their ability to enter into long term debt obligations that commonly fund such projects.
- **Negotiating and closing Solar Lease deals** – The Solar Lease program has garnered interest from a variety of potential municipal and state agency project hosts. Working with those that have secured ZRECs to close Solar Lease financings, and conducting outreach to other potential customers so that they can begin the process of securing ZRECs will be the focus of our efforts.