

**CONNECTICUT GREEN BANK**  
**(A COMPONENT UNIT OF THE STATE OF CONNECTICUT)**

**COMPREHENSIVE ANNUAL  
FINANCIAL REPORT**

**FISCAL YEAR ENDED JUNE 30, 2016**

(With Summarized Totals as of and for Fiscal Year Ended June 30, 2015)

Department of Finance and Administration  
845 Brook Street  
Rocky Hill, Connecticut

**CONNECTICUT GREEN BANK**  
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**JUNE 30, 2016**

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# **INTRODUCTORY SECTION**



December 26, 2016

We are pleased to present a Comprehensive Annual Financial Report (CAFR) of the Connecticut Green Bank (“Green Bank”) for the fiscal year ending June 30, 2016 accompanied by summarized totals as of and for the fiscal year ended June 30, 2015.

Management assumes full responsibility for the completeness and reliability of the information contained in this report based upon a comprehensive framework of internal controls that it has established for this purpose. To provide a reasonable basis for making these representations, the management of Green Bank has established a comprehensive internal control framework that is designed both to protect the entity’s assets from loss, theft, or misuse, and to compile sufficient reliable information for the preparation of Green Bank’s financial statements in conformity with accounting principles generally accepted in the United States of America (GAAP). Because the cost of internal controls should not outweigh the benefits, Green Bank’s comprehensive framework of internal controls has been designed to provide reasonable, rather than absolute assurance that the financial statements will be free from material misstatement. As such, management asserts that this financial report is complete and reliable in all material respects to the best of managements’ knowledge and belief.

Blum Shapiro & Company has issued an unmodified opinion on the Green Bank’s financial statements for the fiscal year ending June 30, 2016. The independent auditors’ 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. The Green Bank’s MD&A can be found immediately following the report of the independent auditors.

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Connecticut Green Bank for its comprehensive annual report for the fiscal years ending June 30, 2015 and June 30, 2014. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current comprehensive annual financial report continues to meet the Certificate of Achievement Program’s requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

## **Profile of the Connecticut Green Bank**

The Green Bank<sup>1</sup> was established in a bipartisan manner 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 Connecticut Green Bank makes green energy more accessible and affordable for all Connecticut citizens and businesses by creating a thriving marketplace to accelerate the growth of green energy. We facilitate green energy deployment by leveraging a public-private financing model that uses limited public dollars to attract private capital investments. By partnering with the private sector, we create solutions that result in long-term, affordable financing to increase the number of green energy projects statewide.

The Green Bank'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. By accelerating the growth of green energy we contribute to a better quality of life, a better environment and a better future for Connecticut. The Green Bank'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.

To achieve its vision and mission, the Green Bank 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, Public Act 15-194), planning (i.e., Comprehensive Energy Strategy, Integrated Resources Plan), or regulatory in nature. The powers of the Green Bank 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 and Staff are governed through the statute, as well as an [Ethics Statement](#) and [Ethical Conduct Policy](#), [Resolutions of Purposes](#), [Bylaws](#), and [Comprehensive Plan](#).

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<sup>1</sup> Public Act 11-80 repurposed the Connecticut Clean Energy Fund (CCEF) administered by Connecticut Innovations, into a separate quasi-public organization called the Clean Energy Finance and Investment Authority (CEFIA). Per Public Act 14-94, CEFIA was renamed to the Connecticut Green Bank.

<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.

## **Initiatives and Results**

### *Accelerate the Growth of Green Energy*

The Green Bank makes green energy more accessible and affordable for all Connecticut citizens and businesses by creating a thriving marketplace to accelerate the growth of green energy. As a result of the efforts undertaken over the past five years, we are deploying more green energy in our state than ever before (see Table 1).<sup>3</sup>

**Table 1. Project Investments between FY 2012 through FY 2016<sup>4</sup>**

	<u>FY 2016</u>	<u>FY 2015</u>	<u>FY 2014</u>	<u>FY 2013</u>	<u>FY 2012</u>	<u>Total</u>
Total Investment (\$MM)	\$ 314.1	\$ 335.5	\$ 140.2	\$ 111.1	\$ 15.0	\$ 915.9
Green Bank Investment (\$MM)	48.0	55.7	37.8	18.6	4.8	164.9
Leverage Ratio	6.6 - 1.0	6.1 - 1.0	3.7 - 1.0	6.0 - 1.0	3.1 - 1.0	5.6 - 1.0
% of Funding Approved as Grants	43%	50%	48%	67%	100%	51%
Installed Capacity (MW)	74.4	65.5	26.1	23.5	2.9	192.4

By using \$164.9 million of ratepayer funds, we have attracted \$751.0 million of private investment in clean energy for a total investment of \$915.9 million. This is supporting the deployment of 192.4 MW of renewable energy and producing and saving an estimated 1.3 million MMBtu of clean energy while creating over 11,000 job-years and reducing an estimated 2.1 million tons of CO2 emissions over the life of the projects.

### *We Grow Businesses and We Help People Thrive*

As leaders in the green bank movement – through innovation, education, and activation – we accelerate the growth of green energy. By generating a robust, flourishing green energy marketplace, we grow businesses and help people thrive. Within this marketplace the Green Bank partners with contractors and capital providers to offer a diverse portfolio of programs that benefit homeowners, businesses, and institutions. The Green Bank is demonstrating how public resources can be better invested in ways that attract more private investment in our communities, lead to the deployment of more green energy by local contractors, and most importantly providing positive value to our consumers.

The Green Bank helps make homes more energy efficient and sustainable by promoting awareness and offering flexible financing solutions to homeowners and multifamily building owners who seek assistance to make green energy upgrades. We make green energy more attractive to everyone so that residents can integrate it into their lives. The benefits are many – from reducing the burden of energy costs, to improving comfort and health in the home, to a cleaner environment. More green homes mean greener, healthier communities.

The Green Bank makes green energy investments smarter and safer for businesses, including commercial and industrial customers, and institutions, including multifamily and not-for-profit organizations, with affordable, long-term financing for energy upgrades. We demonstrate how green energy improvements are smart investments that lower operating costs. We inspire them to embrace cleaner and more reliable sources of energy to power their buildings which stimulates a healthier local economy. Healthy buildings mean healthy businesses and institutions.

The Green Bank makes green energy more accessible and affordable to grow businesses and help people thrive.

<sup>3</sup> Connecticut Green Bank – Investment and Public Benefit Performance from Clean Energy Projects from FY 2012 through FY 2016 – Board of Director Memo of October 21, 2016.

<sup>4</sup> Includes approved, closed and completed transactions approved by the Board of Directors consistent with its Comprehensive Plan and Budget.

### Leading the Green Bank Movement

The Connecticut Green Bank is a leader in the green bank movement. The Connecticut Green Bank and its programs serve as models for other states across the country.

This year, we have seen several of our programs serving as replicable and scalable models, including:

- Commercial Property Assessed Clean Energy (C-PACE) for commercial, industrial, multifamily, and non-profit buildings with Hannon Armstrong
- Solar for All residential solar PV lease and energy efficiency energy savings agreement for low-to-moderate income households with PosiGen

The Connecticut Green Bank is leading a movement to use public funds more responsibly by attracting and deploying more private investment in green energy for the state's economy and environment.

In a study done by the Center for American Progress,<sup>5</sup> it is estimated that the U.S. needs at least \$200 billion in efficient and renewable energy annually for 20 years to reduce carbon emissions and avert climate disaster. The Natural Resources Defense Council and Coalition for Green Capital estimate that based on Connecticut, its market size, growth rate, and private-public leverage ratio, that a green bank – like the Connecticut Green Bank – successfully operating in every state in America would yield \$200 billion in national annual investment within 5 years, with 90% of funds coming from private sources and all public contributions returned over 10 to 20 years.

### **Responsible Public Investment in Green Energy**

The Green Bank 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. The Green Bank'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, the Green Bank is able to invest its funds in activities that earn a return and begin to build revenue streams that can be reinvested in green energy in Connecticut.

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<sup>5</sup> Green Growth: A U.S. Program for Controlling Climate Change and Expanding Job Opportunities by the Center for American Progress (September 2014)



## **Acknowledgements**

First and foremost, we would like to thank the Staff of the Connecticut Green Bank. In our first five years, through their hard work, commitment and innovation, we have built a model that is delivering results for our state and serving as a model across the country and around the world.

We are grateful to our independent auditors, Blum Shapiro & Company, for their assistance and advice during the course of this audit, and for supporting our interests in continuing to disclose not only our financial position, but also the public benefits to society resulting from our public-private investments.

Finally, we thank the Board of Directors for their continued leadership and guidance as we continue to prove that there is a new model for how government is able to play a part in deploying more green energy at a faster pace while using public resources responsibly.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'B. T. Garcia', with a long horizontal flourish extending to the right.

Bryan T. Garcia  
President and CEO

A handwritten signature in blue ink, appearing to read 'George D. Bellas', written in a cursive style.

George D. Bellas  
Vice President - Finance and Administration

# Board of Directors

## Connecticut Green Bank

Position	Status	Voting	Name	Organization
State Treasurer (or designee)	Ex Officio	Yes	Bettina Bronisz	Treasurer's Office
Commissioner of DEEP <sup>6</sup> (or designee)	Ex Officio	Yes	Robert Klee <sup>7</sup>	DEEP
Commissioner of DECD <sup>8</sup> (or designee)	Ex Officio	Yes	Catherine Smith <sup>9</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>10</sup>	Shipman & Goodwin
Finance or Deployment	Appointed	Yes	Thomas Flynn	Environmental Data Resources
Finance of Renewable Energy	Appointed	Yes	Reed Hundt <sup>11</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>12</sup>	Ex Officio	No	(unfilled)	(unfilled)

## Discretely Presented Component Units

Position	Name
President	Bryan Garcia
Treasurer	George Bellas
Secretary	Brian Farnen
Chief Investment Officer	Roberto Hunter

<sup>6</sup> Department of Energy and Environmental Protection

<sup>7</sup> Vice Chairperson of the Board of Directors and Chairperson of the Budget and Operations Committee

<sup>8</sup> Department of Economic and Community Development

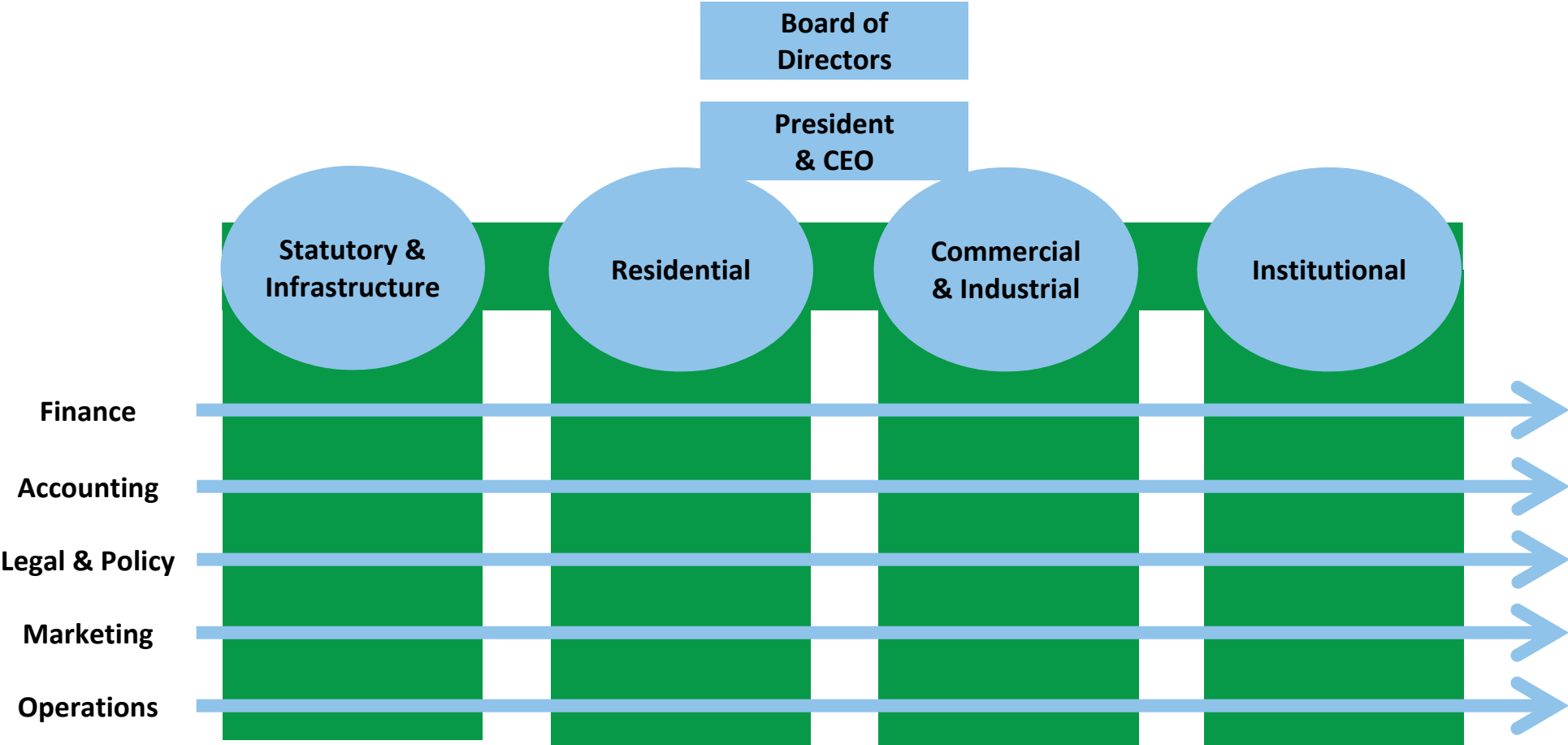
<sup>9</sup> Chairperson of the Board of Directors

<sup>10</sup> Secretary of the Board of Directors and Chairperson of the Audit, Compliance and Governance Committee

<sup>11</sup> Chairperson of the Deployment Committee

<sup>12</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.

# Organizational Chart





Government Finance Officers Association

**Certificate of  
Achievement  
for Excellence  
in Financial  
Reporting**

Presented to

**Connecticut Green Bank**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**June 30, 2015**

Executive Director/CEO

# **FINANCIAL SECTION**

# BlumShapiro

Accounting | Tax | Business Consulting

## 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 fiscal year ended June 30, 2016, and the related notes to the financial statements, which collectively comprise CGB's basic financial statements, as listed in the table of contents.

#### ***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, 2016, 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.

## ***Other Matters***

### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 4 through 10 and schedule of Green Bank's proportionate share of the net pension liability and proportionate share of contributions to the state employees' retirement system (SERS) on pages 52 and 53 be presented to supplement the basic financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board, which 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*

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise Connecticut Green Bank's basic financial statements. The introductory section, financial statistical section, and other statistical section are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The introductory section, 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*

The financial statements of Connecticut Green Bank as of and for the year ended June 30, 2015 were audited by other auditors in accordance with auditing standards generally accepted in the United States of America, who had issued their report thereon dated January 28, 2016, which contained unmodified opinions on the respective financial statements of the business-type activities and the aggregate discretely presented component units. The accompanying June 30, 2015 summarized comparative information is presented for purposes of additional analysis and is not a required part of the basic financial statements. The accompanying June 30, 2015 summarized comparative information has 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 it.

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

In accordance with *Government Auditing Standards*, we have also issued our report dated December 26, 2016, 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 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.

*Blum, Shapiro & Company, P.C.*

West Hartford, Connecticut  
December 26, 2016



# CONNECTICUT GREEN BANK

## 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 (CGB), formerly known as the Clean Energy Finance and Investment Authority, (a component unit of the State of Connecticut) for the fiscal year ended June 30, 2016. 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 "Basic Financial Statements" section of this report.

CGB as a reporting entity is comprised of the primary government and two discretely presented component units as defined under Government Auditing Standards Board Statement No. 61: *The Financial Reporting Entity: Omnibus and Amendment of GASB Statements No. 14 and No. 34*.

### FINANCIAL STATEMENTS PRESENTED IN THIS REPORT

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.

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 Connecticut Clean Energy Fund in accordance with section 4-38d of the Connecticut General Statutes and therefore the net position of such fund was transferred to the newly created CGB as of July 1, 2011.

The basic 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 period presented. The activities are classified as to operating, noncapital financing, capital and related financing, and investing activities.

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

# CONNECTICUT GREEN BANK

## MANAGEMENT'S DISCUSSION AND ANALYSIS

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### FINANCIAL HIGHLIGHTS OF FISCAL 2016

#### *NET POSITION*

Net position increased by \$18.2 million to \$127.4 million at June 30, 2016 and cash and cash equivalents increased by \$9.1 million in 2016 to \$57.8 million.

The acquisition of \$3.5 million in bonds was a part of the proceeds received by CGB as a result of the sale of CPACE program loans during fiscal years 2014 through 2016. See Note 5. Solar lease notes decreased \$811,000 due to scheduled principal repayments. See Note 6. The decrease in program loans in 2016 to \$33.3 million as compared to \$40.5 million in 2015 was primarily a result of the sale of CPACE loans held in the CGB portfolio to an outside investor. See Note 7. Capital assets increased to \$58.1 million in 2016 compared to \$27.0 million in 2015 as a result of the continued acquisition of solar equipment by CT Solar Lease 2 LLC. See Note 1 for further discussion of CT Solar Lease 2 LLC's operations.

As of June 30, 2016, the Board of Directors designated \$84.5 million in net position to fund contingent grant, loan and investment commitments as described in Note 14. These grants, loans and investments are expected to be paid or funded over the next one to six fiscal years.

# CONNECTICUT GREEN BANK

## MANAGEMENT'S DISCUSSION AND ANALYSIS

The following table summarizes the net position of the reporting entity at June 30, 2016 and 2015 (in thousands):

	Net Position (in thousands)		
	<u>2016</u>	<u>2015</u>	<u>Increase (Decrease)</u>
Cash and cash equivalents	\$ 57,822	\$ 48,693	\$ 9,129
Bonds receivable	3,492	1,600	1,892
Portfolio investments	1,000	1,000	-
Solar lease notes	9,008	9,819	(811)
Program loans	33,268	40,518	(7,250)
Capital assets, net	58,115	26,971	31,144
Other assets	14,124	8,972	5,152
<b>Total Assets</b>	<u>176,829</u>	<u>137,573</u>	<u>39,256</u>
<b>Deferred Outflows of Resources</b>			
Deferred amount for pensions	<u>2,575</u>	<u>1,670</u>	<u>905</u>
Total deferred outflows of resources	<u>2,575</u>	<u>1,670</u>	<u>905</u>
Current liabilities	6,964	6,825	139
Unearned revenue	6,258	2,519	3,740
Pension liabilities	16,096	14,900	1,196
Other long term liabilities	2,528	1,094	1,434
Fair value of interest rate swap	1,628	660	968
Long term debt, less current maturities	<u>18,567</u>	<u>3,546</u>	<u>15,021</u>
Total liabilities	<u>52,042</u>	<u>29,544</u>	<u>22,498</u>
<b>Deferred Inflows of Resources</b>			
Deferred amount for pensions	<u>-</u>	<u>532</u>	<u>(532)</u>
Total deferred outflows of resources	<u>-</u>	<u>532</u>	<u>(532)</u>
Invested in capital assets	58,115	26,971	31,144
Restricted Net Position:			
Non-expendable	1	1	-
Restricted - energy programs	9,750	8,799	951
Unrestricted	<u>59,496</u>	<u>73,396</u>	<u>(13,900)</u>
<b>Total Net Position</b>	<u>\$ 127,362</u>	<u>\$ 109,167</u>	<u>\$ 18,195</u>

### **CHANGES IN NET POSITION**

Operating revenues decreased by \$8.5 million in fiscal year 2016 primarily as a result of a decrease in RGGI auction proceeds of \$10.1 million. CGB received \$6.5 million from the State in RGGI auction proceeds during the year as compared to RGGI auction proceeds of \$16.6 million in 2015. Public Act 13-247, see Note 10, allowed the Commissioner of the Connecticut Department of Energy and

# CONNECTICUT GREEN BANK

## MANAGEMENT'S DISCUSSION AND ANALYSIS

Environmental Protection to transfer additional RGGI auction proceeds to CGB to be used to support energy efficiency financing opportunities. This increase in RGGI auction proceeds helped offset payments to the State by CGB required under Public Act 13-247 during fiscal year 2015. Helping to offset the decrease in RGGI auction proceeds was an increase in REC sales of \$1.2 million over the prior year to \$2.7 million for fiscal year 2016.

Total expenditures for grants and programs in 2016 were \$26.8 million, an increase of \$4.7 million when compared to the total expenditures of \$22.1 million in 2015. Included in these totals are payments representing financial incentives to residential and commercial property owners to install renewable energy or energy efficiency measures of \$12.8 million in 2016 and \$11.3 million in 2015. These financial incentives and the associated costs to administer these payments fluctuate from year to year as they are based on the achievement of contract milestones established by each CGB program.

General and administrative expenses increased by \$1.5 million in 2016 to \$4.6 million compared to \$3.1 million in 2015 primarily resulting from expenditures for new marketing and branding initiatives undertaken in 2016.

The following table summarizes the changes in net position between June 30, 2016 and 2015 (in thousands):

Changes in Net Position (in thousands)			
	2016	2015	Increase (Decrease)
<b>Revenues</b>	\$ 37,788	\$ 46,294	\$ (8,506)
<b>Operating Expenses</b>			
Grants and programs	26,843	22,131	4,712
General and administrative expense	4,630	3,117	1,512
Total operating expenses	31,473	25,248	6,225
<b>Operating Income</b>	6,315	21,046	(14,731)
<b>Non-Operating Revenues (Expenses)</b>			
Interest earned	2,641	2,311	330
Interest expense	(731)	(119)	(612)
Investment loss	(33)	(1,180)	1,147
Unrealized loss on interest rate swap	(968)	(660)	(308)
Provision for loan losses	(1,022)	(564)	(458)
Capital contribution	12,294	6,844	5,450
Distribution to member	(301)	(105)	(196)
Payments to State of Connecticut	(19,200)	(19,200)	19,200
<b>Net Change</b>	18,195	8,374	9,821
<b>Net Position Beginning of Year</b>	109,167	100,793	8,374
<b>Net Position at End of Year</b>	\$ 127,363	\$ 109,167	\$ 18,195

# CONNECTICUT GREEN BANK

## MANAGEMENT'S DISCUSSION AND ANALYSIS

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### FINANCIAL HIGHLIGHTS OF FISCAL 2015

#### *NET POSITION*

Net position increased by \$8.4 million to \$109.1 million at June 30, 2015 and cash and cash equivalents decreased by \$32 million in 2015 to \$48.7 million.

The acquisition of \$1.6 million in bonds was a part of the proceeds received by CGB as a result of the sale of CPACE program loans during fiscal year 2014. See Note 5. Solar lease notes decreased \$0.7 million as a result of scheduled principal repayments. See Note 6. The increase in program loans in 2015 to \$40.5 million as compared to \$13.4 million in 2014 was primarily a result of increased CGB financings of CPACE and residential solar projects. See Note 7. Capital assets increased to \$27.0 million from \$3.1 million in 2015 as a result of the continued acquisition of solar equipment by CT Solar Lease 2 LLC. See Note 1 for further discussion of CT Solar Lease 2 LLC's operations.

As of June 30, 2015, the Board of Directors designated \$89.5 million in net position to fund contingent grant, loan and investment commitments as described in Note 14. 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 \$23 million has been designated by the Board to fund future program commitments.

# CONNECTICUT GREEN BANK

## MANAGEMENT'S DISCUSSION AND ANALYSIS

The following table summarizes the net position at June 30, 2015 and 2014 (in thousands):

	Net Position (in thousands)		
	2015	(as restated) 2014	Increase (Decrease)
Cash and cash equivalents	\$ 48,693	\$ 80,925	\$ (32,232)
Bonds receivable	1,600	1,600	-
Portfolio investments	1,000	1,000	-
Solar lease notes	9,819	10,544	(725)
Program loans	40,518	13,403	27,115
Capital assets, net	26,971	3,074	23,897
Other assets	<u>8,972</u>	<u>9,943</u>	<u>(971)</u>
<b>Total Assets</b>	<u>137,573</u>	<u>120,489</u>	<u>17,084</u>
<b>Deferred Outflows of Resources</b>			
Deferred amount for pensions	<u>1,670</u>	-	<u>1,670</u>
Total deferred outflows of resources	<u>1,670</u>	-	<u>1,670</u>
Current liabilities	6,825	4,801	2,024
Unearned revenue	2,519	469	2,050
Pension liabilities	14,900	14,305	595
Other long term liabilities	1,094	-	1,094
Fair value of interest rate swap	660	-	660
Long term debt, less current maturities	<u>3,546</u>	<u>121</u>	<u>3,425</u>
Total liabilities	<u>29,544</u>	<u>19,696</u>	<u>9,848</u>
<b>Deferred Inflows of Resources</b>			
Deferred amount for pensions	<u>532</u>	-	<u>532</u>
Total deferred inflows of resources	<u>532</u>	-	<u>532</u>
Invested in capital assets	26,971	3,074	23,897
Restricted Net Position:			
Non-expendable	1	1	-
Restricted - energy programs	8,799	9,096	(297)
Unrestricted	<u>73,396</u>	<u>88,622</u>	<u>(15,226)</u>
<b>Total Net Position</b>	<u>\$ 109,167</u>	<u>\$ 100,793</u>	<u>\$ 8,374</u>

### **CHANGES IN NET POSITION**

Revenue from interest on cash deposits and promissory notes increased \$1.2 million to \$2.3 million in 2015. CGB received \$16.6 million from the State in RGGI auction proceeds during the year as compared to RGGI auction proceeds of \$20.1 million in 2014. Public Act 13-247, see Note 10, allowed the Commissioner of the Connecticut Department of Energy and Environmental Protection to transfer additional RGGI auction proceeds to CGB to be used to support energy efficiency financing opportunities. This increase in RGGI auction proceeds helped offset payments to the State by CGB required under Public Act 13-247 during fiscal year 2015.

# CONNECTICUT GREEN BANK

## MANAGEMENT'S DISCUSSION AND ANALYSIS

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Total expenditures for grants and programs in 2015 were \$22.1 million, a decrease of \$1.3 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.

General and administrative expenses increased by \$580 thousand from \$2.5 million to \$3.1 million.

The following table summarizes the changes in net position between June 30, 2015 and 2014 (in thousands):

	Changes in Net Position (in thousands)		
	2015	2014	Increase (Decrease)
<b>Revenues</b>	<u>\$ 46,294</u>	<u>\$ 48,754</u>	<u>\$ (2,460)</u>
<b>Operating Expenses</b>			
Grants and programs	22,131	23,439	(1,308)
General and administrative expense	<u>3,117</u>	<u>2,537</u>	<u>580</u>
<b>Total Operating Expenses</b>	<u>25,248</u>	<u>25,976</u>	<u>(728)</u>
<b>Operating Income</b>	21,046	22,778	(1,732)
<b>Non-Operating Revenues (Expenses)</b>			
Interest earned	2,311	1,142	1,169
Interest expense	(119)	-	(119)
Investment loss	(1,180)	-	(1,180)
Unrealized loss on interest rate swap	(660)	-	(660)
Provision for loan losses	(564)	(1,311)	747
Capital contribution	6,844	201	6,643
Distribution to member	(105)	(12)	(93)
Payments to State of Connecticut	<u>(19,200)</u>	<u>(6,200)</u>	<u>(13,000)</u>
<b>Net Change</b>	8,374	16,598	(8,225)
<b>Net Position Beginning of Year</b>	<u>100,793</u>	<u>84,195</u>	<u>(14,718)</u>
<b>Net Position End of Year</b>	<u>\$ 109,167</u>	<u>\$ 100,793</u>	<u>\$ (29,436)</u>

### 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.

**CONNECTICUT GREEN BANK**  
**CONSOLIDATING STATEMENT OF NET POSITION**  
**JUNE 30, 2016**

(with summarized totals for the year ended June 30, 2015)

	Discretely Presented Component Units				2016 Total Reporting Entity	2015 Total Reporting Entity
	Total Primary Government	CT Solar Lease 2 LLC	CEFIA Solar Services Inc.	Eliminating Entries		
<b>Assets</b>						
<b>Current Assets</b>						
Cash and cash equivalents	\$ 41,569,390	\$ 1,381,506	\$ 5,121,165	\$	\$ 48,072,061	\$ 39,893,649
Accounts receivable	1,408,922	21,700			1,430,622	35,155
Utility remittance receivable	2,670,634				2,670,634	2,518,850
Other receivables	264,197	165,805			430,002	313,228
Due from component units	44,346,437	574,723	4,407,273	(49,328,433)	-	-
Prepaid expenses and other assets	3,286,803	959,003			4,245,806	1,030,251
Contractor loans	2,272,906				2,272,906	3,112,663
Current portion of solar lease notes	845,479				845,479	803,573
Current portion of program loans	1,378,242				1,378,242	10,264,825
Total current assets	<u>98,043,010</u>	<u>3,102,737</u>	<u>9,528,438</u>	<u>(49,328,433)</u>	<u>61,345,752</u>	<u>57,972,194</u>
<b>Noncurrent Assets</b>						
Portfolio investments	1,000,000				1,000,000	1,000,000
Bonds receivable	3,492,282				3,492,282	1,600,000
Solar lease notes, less current portion	8,162,635				8,162,635	9,015,437
Program loans, less current portion	31,889,275				31,889,275	30,253,119
Renewable Energy Credits	812,770				812,770	933,054
Investment in component units	100		20,982,892	(20,982,992)	-	-
Capital assets, net of depreciation and amortization	248,752	65,678,493		(7,812,331)	58,114,914	26,971,087
Asset retirement obligation, net		2,261,472			2,261,472	1,029,196
Restricted assets:						
Cash and cash equivalents	5,249,983	4,500,000			9,749,983	8,799,005
Total noncurrent assets	<u>50,855,797</u>	<u>72,439,965</u>	<u>20,982,892</u>	<u>(28,795,323)</u>	<u>115,483,331</u>	<u>79,600,898</u>
<b>Total Assets</b>	<u>148,898,807</u>	<u>75,542,702</u>	<u>30,511,330</u>	<u>(78,123,756)</u>	<u>176,829,083</u>	<u>137,573,092</u>
<b>Deferred Outflows of Resources</b>						
Deferred amount for pensions	<u>2,575,368</u>				<u>2,575,368</u>	<u>1,669,961</u>
<b>Total Deferred Outflows of Resources</b>	<u>2,575,368</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>2,575,368</u>	<u>1,669,961</u>

The accompanying notes are an integral part of the financial statements



**CONNECTICUT GREEN BANK**  
**CONSOLIDATING STATEMENT OF NET POSITION (CONTINUED)**  
**JUNE 30, 2016**  
(with summarized totals for the year ended June 30, 2015)

	Discretely Presented Component Units				2016 Total Reporting Entity	2015 Total Reporting Entity
	Total Primary Government	CT Solar Lease 2 LLC	CEFIA Solar Services Inc.	Eliminating Entries		
<b>Liabilities, Deferred Inflows of Resources and Net Position</b>						
<b>Liabilities</b>						
Current maturities of long-term debt	\$ 233,581	\$ 1,560,600	\$	\$	\$ 1,794,181	\$ 307,203
Accounts payable and accrued expenses	2,235,140	745,106	4,500		2,984,746	5,820,170
Due to component units	574,723	18,593,259	30,160,451	(49,328,433)	-	-
Due to outside agency	30,127				30,127	49,516
Custodial liability	2,155,128				2,155,128	647,964
Unearned revenue	5,337,477	920,727			6,258,204	2,518,537
Total current liabilities	<u>10,566,176</u>	<u>21,819,692</u>	<u>30,164,951</u>	<u>(49,328,433)</u>	<u>13,222,386</u>	<u>9,343,390</u>
Asset retirement obligation		2,528,335			2,528,335	1,094,125
Long-term debt, less current maturities	2,960,344	15,607,075			18,567,419	3,546,321
Fair value of interest rate swap		1,627,864			1,627,864	660,073
Pension liability	16,096,113				16,096,113	14,899,766
Total liabilities	<u>29,622,633</u>	<u>41,582,966</u>	<u>30,164,951</u>	<u>(49,328,433)</u>	<u>52,042,117</u>	<u>29,543,675</u>
<b>Deferred Inflows of Resources</b>						
Deferred amount for pensions					-	532,135
<b>Net Position</b>						
Invested in capital assets	248,752	65,678,493		(7,812,331)	58,114,914	26,971,087
Restricted Net Position:						
Nonexpendable	1,000	17,482,892	100	(17,482,992)	1,000	1,000
Restricted for energy programs	5,249,983	4,500,000			9,749,983	8,799,005
Unrestricted (deficit)	116,351,807	(53,701,649)	346,279	(3,500,000)	59,496,437	73,396,151
<b>Total Net Position</b>	<u>\$ 121,851,542</u>	<u>\$ 33,959,736</u>	<u>\$ 346,379</u>	<u>\$ (28,795,323)</u>	<u>\$ 127,362,334</u>	<u>\$ 109,167,243</u>

The accompanying notes are an integral part of the financial statements

**CONNECTICUT GREEN BANK**  
**CONSOLIDATING STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN NET ASSETS**  
**FOR THE YEAR ENDED JUNE 30, 2016**  
(with summarized totals for the year ended June 30, 2015)

	<u>Discretely Presented Component Units</u>				<b>2016 Total Reporting Entity</b>	<b>2015 Total Reporting Entity</b>
	<b>Total Primary Government</b>	<b>CT Solar Lease 2 LLC</b>	<b>CEFIA Solar Services Inc.</b>	<b>Eliminations</b>		
<b>Operating Revenues</b>						
Utility remittances	\$ 26,605,084	\$	\$	\$	\$ 26,605,084	\$ 27,233,987
Grant revenue	589,917				589,917	192,274
RGGI auction proceeds	6,481,562				6,481,562	16,583,545
Energy system sales	32,767,009			(32,767,009)	-	16,689
REC sales	2,419,990	233,793			2,653,783	1,474,488
Other income	387,321	2,182,804	126,075	(1,238,311)	1,457,889	793,435
Total operating revenues	<u>69,250,883</u>	<u>2,416,597</u>	<u>126,075</u>	<u>(34,005,320)</u>	<u>37,788,235</u>	<u>46,294,418</u>
<b>Operating Expenses</b>						
Cost of goods sold - energy systems	28,826,974			(28,826,974)	-	-
Grants and program expenses	25,127,814	3,078,633		(1,363,363)	26,843,084	22,130,676
General and administrative expenses	4,445,648	305,217	4,750	(126,075)	4,629,540	3,117,376
Total operating expenses	<u>58,400,436</u>	<u>3,383,850</u>	<u>4,750</u>	<u>(30,316,412)</u>	<u>31,472,624</u>	<u>25,248,052</u>
<b>Operating Income (Loss)</b>	<u>10,850,447</u>	<u>(967,253)</u>	<u>121,325</u>	<u>(3,688,908)</u>	<u>6,315,611</u>	<u>21,046,366</u>
<b>Nonoperating Revenue (Expenses)</b>						
Interest income - prommisory notes	2,520,151				2,520,151	2,217,368
Interest income - short term cash deposits	92,536	27,777	300		120,613	93,949
Interest expense LT debt	(61,796)	(669,043)			(730,839)	(119,345)
Interest income - component units	60,127			(60,127)	-	-
Interest expense - component units		(60,127)		60,127	-	-
Payments to State of Connecticut					-	(19,200,000)
Distributions to member		(301,548)			(301,548)	(104,579)
Realized loss on investments	(33,723)				(33,723)	(1,180,285)
Unrealized gain (loss) on interest rate swap		(967,791)			(967,791)	(660,073)
Provision for loan losses	(1,021,826)				(1,021,826)	(563,825)
Total nonoperating revenue (expenses)	<u>1,555,469</u>	<u>(1,970,732)</u>	<u>300</u>	<u>-</u>	<u>(414,963)</u>	<u>(19,516,790)</u>
<b>Change in Net Position before Payments to State of Connecticut and Capital Contributions</b>	<u>12,405,916</u>	<u>(2,937,985)</u>	<u>121,625</u>	<u>(3,688,908)</u>	<u>5,900,648</u>	<u>1,529,576</u>
Capital contributions		21,770,182		(9,475,739)	12,294,443	6,844,430
<b>Change in Net Position</b>	<u>12,405,916</u>	<u>18,832,197</u>	<u>121,625</u>	<u>(13,164,647)</u>	<u>18,195,091</u>	<u>8,374,006</u>
<b>Net Position - Beginning of Year</b>	<u>109,445,626</u>	<u>15,127,539</u>	<u>224,754</u>	<u>(15,630,676)</u>	<u>109,167,243</u>	<u>100,793,237</u>
<b>Net Position - End of Year</b>	<u>\$ 121,851,542</u>	<u>\$ 33,959,736</u>	<u>\$ 346,379</u>	<u>\$ (28,795,323)</u>	<u>\$ 127,362,334</u>	<u>\$ 109,167,243</u>

The accompanying notes are an integral part of the financial statements

**CONNECTICUT GREEN BANK**  
**CONSOLIDATING STATEMENT OF CASH FLOWS**  
**FOR THE YEAR ENDED JUNE 30, 2016**  
(with summarized totals for the year ended June 30, 2015)

	Total Primary Government	Discretely Presented Component Units			2016 Total Reporting Entity	2015 Total Reporting Entity
		CT Solar Lease 2 LLC	CEFIA Solar Services Inc.	Eliminating Entries		
<b>Cash Flows from Operating Activities</b>						
Sales of energy systems	\$ 35,128,139	\$	\$	\$ (35,128,139)	\$ -	\$ 10,943
Sales of Renewable Energy Credits	2,443,524				2,443,524	1,705,932
Utility company remittances	26,453,300				26,453,300	28,117,538
Grants	797,101				797,101	139,487
RGGI auction proceeds	5,313,666				5,313,666	21,078,165
Other income	374,478	865,827			1,240,305	688,944
Lease payments received		976,737			976,737	519,377
Grant and program expenditures	(13,219,421)	(1,553,797)			(14,773,218)	(11,331,214)
Grants, incentives and credit enhancements	(11,170,406)				(11,170,406)	(9,800,594)
Purchases of energy equipment	(34,278,291)				(34,278,291)	(19,989,550)
General and administrative expenditures	(4,350,882)	(179,791)	(4,450)		(4,535,123)	(3,806,822)
Net cash provided by (used in) operating activities	<u>7,491,208</u>	<u>108,976</u>	<u>(4,450)</u>	<u>(35,128,139)</u>	<u>(27,532,405)</u>	<u>7,332,206</u>
<b>Cash Flows from Non-capital Financing Activities</b>						
Payments to State of Connecticut					-	(19,200,000)
Funds received (disbursed) from escrow & custodial accounts	1,035,343				1,035,343	-
Advances to CGB component units	(15,762,500)		(7,900,000)	23,662,500	-	-
Subordinated debt advance to component units			(1,463,198)	1,463,198	-	-
Advances from CGB and component units	217,500	7,900,000	15,545,000	(23,662,500)	-	-
Repayments of Advances (to) from component units		(8,350,000)	8,350,000		-	-
Net cash provided by (used in) non-capital financing activities	<u>(14,509,657)</u>	<u>(450,000)</u>	<u>14,531,802</u>	<u>1,463,198</u>	<u>1,035,343</u>	<u>(19,200,000)</u>
<b>Cash Flows from Capital and Related Financing Activities</b>						
Purchase of capital assets	(67,645)	(35,128,140)		35,128,139	(67,646)	(89,808)
Proceeds from long-term debt	2,510,837	15,000,000			17,510,837	3,932,274
Repayment of long-term debt	(170,445)	(832,325)			(1,002,770)	(232,432)
Interest expense	(61,795)	(575,472)			(637,267)	(89,585)
Proceeds from subordinated debt with component unit		1,463,198		(1,463,198)	-	-
Capital contributions from/(to) component entities		9,475,739	(9,475,739)		-	-
Capital contributions from Firststar Development, LLC		12,294,443			12,294,443	6,844,430
Return of capital to Firststar Development, LLC		(219,969)			(219,969)	(86,336)
Net cash provided by (used in) capital and related financing activities	<u>2,210,952</u>	<u>1,477,474</u>	<u>(9,475,739)</u>	<u>33,664,941</u>	<u>27,877,628</u>	<u>10,278,543</u>
<b>Cash Flows from Investing Activities</b>						
Return of principal on WC & program loans	26,765,812				26,765,812	2,332,356
Interest on short-term investments, cash, solar lease notes and loans	1,825,395	24,340	300		1,850,035	887,457
CPACE program loan disbursements	(15,474,204)				(15,474,204)	(22,181,032)
Grid Tied program loan disbursements	(911,249)				(911,249)	(1,166,205)
AD/CHP program loan disbursements					-	-
Alpha/Operational Demo program loan disbursements	(350,000)				(350,000)	(100,000)
Energy Efficiency program loan disbursements					-	(89,000)
Campus Efficiency NOW program loan disbursements					-	(396,662)
HOPBI program loan disbursements	(1,093,599)				(1,093,599)	(4,443,148)
Residential Solar Loan program disbursements	(3,037,972)				(3,037,972)	(5,486,610)
Net cash used in investing activities	<u>7,724,183</u>	<u>24,340</u>	<u>300</u>	<u>-</u>	<u>7,748,823</u>	<u>(30,642,844)</u>
<b>Net Increase (Decrease) in Cash and Cash Equivalents</b>	<u>2,916,686</u>	<u>1,160,790</u>	<u>5,051,913</u>	<u>-</u>	<u>9,129,389</u>	<u>(32,232,095)</u>
<b>Cash and Cash Equivalents - Beginning of Year</b>	<u>43,902,687</u>	<u>4,720,716</u>	<u>69,252</u>	<u>-</u>	<u>48,692,655</u>	<u>80,924,749</u>
<b>Cash and Cash Equivalents - End of Year</b>	<u>\$ 46,819,373</u>	<u>\$ 5,881,506</u>	<u>\$ 5,121,165</u>	<u>\$ -</u>	<u>\$ 57,822,044</u>	<u>\$ 48,692,654</u>
<b>Reconciliation of Operating Loss to Net Cash Provided by (Used in) Operating Activities:</b>						
Operating income (loss)	\$ 10,850,447	\$ (967,253)	\$ 121,325	\$ (3,688,908)	\$ 6,315,611	\$ 21,046,366
Adjustments to reconcile operating loss to net cash provided by (used in) operating activities:						
Depreciation	120,735	1,656,821			1,777,556	519,502
Accretion		105,843			105,843	-
Deferred lease revenue		(41,040)			(41,040)	-
Other	88,960	3,436			92,396	-
Changes in operating assets and liabilities:						
(Increase) decrease in operating assets	(5,156,143)	(994,683)	(126,075)	(31,439,231)	(37,716,132)	(16,743,102)
(Decrease) increase in operating liabilities	1,587,209	345,852	300		1,933,361	2,509,440
<b>Net Cash Provided by (Used in) Operating Activities</b>	<u>\$ 7,491,208</u>	<u>\$ 108,976</u>	<u>\$ (4,450)</u>	<u>\$ (35,128,139)</u>	<u>\$ (27,532,405)</u>	<u>\$ 7,332,206</u>

The accompanying notes are an integral part of the financial statements

**CONNECTICUT GREEN BANK  
NOTES TO FINANCIAL STATEMENTS  
FOR THE YEAR ENDED JUNE 30, 2016**

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**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 position 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.

**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 accounting principles generally accepted in the United States of America. Accordingly, such information should be read in conjunction with CGB's financial statements for the year ended June 30, 2015, from which the summarized information was derived.

**Principal Revenue Sources**

The Public Utility Regulatory Authority (PURA) assesses a charge per kilowatt-hour to each end-use customer of electric services provided by utility companies (excluding municipally owned entities) in the state, which is paid to CGB and is the principal source of CGB's revenue. CGB may deploy the funds for loans, direct or equity investments, contracts, grants 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.

**CONNECTICUT GREEN BANK  
NOTES TO FINANCIAL STATEMENTS  
FOR THE YEAR ENDED JUNE 30, 2016**

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

**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.

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 company (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. CGB's board of directors acts as the governing authority of CEFIA Holdings LLC. CGB appoints CGB employees to manage the operations of CEFIA Holdings LLC. CGB is also financially responsible (benefit/burden) for CEFIA Holdings LLC's activities.

**CONNECTICUT GREEN BANK  
NOTES TO FINANCIAL STATEMENTS  
FOR THE YEAR ENDED JUNE 30, 2016**

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**2. NATURE OF OPERATIONS AND SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**

*CT Solar Loan I LLC (blended)*

A limited-liability company, wholly-owned by CEFIA Holdings LLC, CT Solar Loan I LLC was established to make loans to residential property owners for the purpose of purchasing and installing solar photovoltaic equipment. CGB's board of directors acts as the governing authority of CT Solar Loan I LLC. CGB appoints CGB employees to manage the operations of CT Solar Loan I LLC. CGB is also financially responsible (benefit/burden) for CT Solar Loan I LLC's activities.

*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. ("Solar Services") has a one percent ownership interest in CT Solar Lease 2 LLC and is its managing member. Solar Services is responsible for performing all management and operational functions pursuant to the Operating Agreement of CT Solar Lease 2 LLC. CGB through CEFIA Holdings LLC directly appoints the board of directors of Solar Services. The primary government's intent for owning a controlling interest in Solar Services is to enhance its ability to offer financing options to commercial entities and residents of Connecticut wishing to install renewable energy equipment. CGB believes that to exclude Solar Services from these financial statements would be misleading.

*CT Solar Lease 2 LLC (discrete)*

A Connecticut limited-liability company, CT Solar Lease 2 LLC 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 payment to CT Solar Lease 2 LLC of their obligations under leases and power purchase agreements, 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. The primary government's intent to provide management services through Solar Services is to directly enhance its ability to provide financing options to commercial entities and residents of Connecticut wishing to install renewable energy equipment. Although CGB has a minority membership interest in CT Solar Lease 2 LLC, CGB believes that to exclude it from these financial statements would be misleading.

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.

**CONNECTICUT GREEN BANK  
NOTES TO FINANCIAL STATEMENTS  
FOR THE YEAR ENDED JUNE 30, 2016**

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

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

**Condensed, Combining Information - Statement of Net Position**

	<u>CGB</u>	<u>CT Solar Loan I LLC</u>	<u>CEFIA Holdings LLC</u>	<u>Eliminating Entries</u>	<u>Total Primary Government</u>
<b>Assets</b>					
<b>Current Assets</b>					
Cash and cash equivalents	\$ 34,513,690	\$ 3,042,147	\$ 4,013,553	\$	\$ 41,569,390
Accounts receivable	1,408,922				1,408,922
Utility remittance receivable	2,670,634				2,670,634
Other receivables	189,894		74,303		264,197
Due from component units	40,965,279		20,269,002	(16,887,844)	44,346,437
Prepaid expenses and other assets	503,585	21,850	2,761,368		3,286,803
Contractor loans	2,272,906				2,272,906
Current portion of solar lease notes	845,479				845,479
Current portion of program loans	1,184,060	194,182			1,378,242
Total current assets	<u>84,554,449</u>	<u>3,258,179</u>	<u>27,118,226</u>	<u>(16,887,844)</u>	<u>98,043,010</u>
<b>Noncurrent Assets</b>					
Portfolio investments	1,000,000				1,000,000
Bonds receivable	3,492,282				3,492,282
Solar lease notes, less current portion	8,162,635				8,162,635
Program loans, less current portion	28,015,661	3,873,614			31,889,275
Renewable Energy Credits	812,770				812,770
Investment in component units	99,000		100	(99,000)	100
Capital assets, net of depreciation and amortization	248,752				248,752
Asset retirement obligation, net					
Restricted assets:					
Cash and cash equivalents	4,949,139	300,844			5,249,983
Total noncurrent assets	<u>46,780,239</u>	<u>4,174,458</u>	<u>100</u>	<u>(99,000)</u>	<u>50,855,797</u>
<b>Total Assets</b>	<u>131,334,688</u>	<u>7,432,637</u>	<u>27,118,326</u>	<u>(16,986,844)</u>	<u>148,898,807</u>
<b>Deferred Outflows of Resources</b>					
Deferred amount for pensions	2,575,368				2,575,368
<b>Total Deferred Outflows of Resources</b>	<u>2,575,368</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>2,575,368</u>

**CONNECTICUT GREEN BANK  
NOTES TO FINANCIAL STATEMENTS  
FOR THE YEAR ENDED JUNE 30, 2016**

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

**Condensed, Combining Information - Statement of Net Position (Continued)**

	<u>CGB</u>	<u>CT Solar Loan I LLC</u>	<u>CEFIA Holdings LLC</u>	<u>Eliminating Entries</u>	<u>Total Primary Government</u>
<b>Liabilities, Deferred Inflows of Resources and Net Position</b>					
<b>Liabilities</b>					
Current maturities of long-term debt	\$	\$ 233,581	\$	\$	\$ 233,581
Accounts payable and accrued expenses	2,012,246	3,032	219,862		2,235,140
Due to component units	574,723	4,072,500	12,815,344	(16,887,844)	574,723
Due to outside agency	30,127				30,127
Custodial liability	1,327,343		827,785		2,155,128
Unearned revenue			5,337,477		5,337,477
Total current liabilities	<u>3,944,439</u>	<u>4,309,113</u>	<u>19,200,468</u>	<u>(16,887,844)</u>	<u>10,566,176</u>
Asset retirement obligation					
Long-term debt, less current maturities		2,960,344			2,960,344
Fair value of interest rate swap					
Pension liability	<u>16,096,113</u>				<u>16,096,113</u>
Total liabilities	<u>20,040,552</u>	<u>7,269,457</u>	<u>19,200,468</u>	<u>(16,887,844)</u>	<u>29,622,633</u>
<b>Deferred Inflows of Resources</b>					
Deferred amount for pensions					
<b>Net Position</b>					
Invested in capital assets	248,752				248,752
Restricted Net Position:					
Nonexpendable			100,000	(99,000)	1,000
Restricted for energy programs	4,949,139	300,844			5,249,983
Unrestricted (deficit)	<u>108,671,613</u>	<u>(137,664)</u>	<u>7,817,858</u>		<u>116,351,807</u>
<b>Total Net Position</b>	<u>\$ 113,869,504</u>	<u>\$ 163,180</u>	<u>\$ 7,917,858</u>	<u>\$ (99,000)</u>	<u>\$ 121,851,542</u>



**CONNECTICUT GREEN BANK  
NOTES TO FINANCIAL STATEMENTS  
FOR THE YEAR ENDED JUNE 30, 2016**

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

**Condensed, Combining Information - Statement of Revenues, Expenses and Changes in Net Position**

	<u>CGB</u>	<u>CT Solar Loan I LLC</u>	<u>CEFIA Holdings LLC</u>	<u>Eliminating Entries</u>	<u>Total Primary Government</u>
<b>Operating Revenues</b>					
Utility remittances	\$ 26,605,084	\$	\$	\$	\$ 26,605,084
Grant revenue	807,417			(217,500)	589,917
RGGI auction proceeds	6,481,562				6,481,562
Energy system sales			32,767,009		32,767,009
REC sales	2,419,990				2,419,990
Other income	380,245	389	6,687		387,321
Total operating revenues	<u>36,694,298</u>	<u>389</u>	<u>32,773,696</u>	<u>(217,500)</u>	<u>69,250,883</u>
<b>Operating Expenses</b>					
Cost of goods sold - energy systems			28,826,974		28,826,974
Grants and program expenses	24,814,547	319,816	210,951	(217,500)	25,127,814
General and administrative expenses	4,417,256	17,142	11,250		4,445,648
Total operating expenses	<u>29,231,803</u>	<u>336,958</u>	<u>29,049,175</u>	<u>(217,500)</u>	<u>58,400,436</u>
<b>Operating Income (Loss)</b>	<u>7,462,495</u>	<u>(336,569)</u>	<u>3,724,521</u>		<u>10,850,447</u>
<b>Nonoperating Revenue (Expenses)</b>					
Interest income - promissory notes	2,209,719	310,432			2,520,151
Interest income - short term cash deposits	83,372	338	8,826		92,536
Interest expense LT debt		(61,796)			(61,796)
Interest income - component units	60,127				60,127
Interest expense - component units					
Payments to State of Connecticut					
Distributions to member					
Realized loss on investments	(33,723)				(33,723)
Unrealized gain (loss) on interest rate swap					
Provision for loan losses	(1,021,826)				(1,021,826)
Total nonoperating revenue (expenses)	<u>1,297,669</u>	<u>248,974</u>	<u>8,826</u>	<u>-</u>	<u>1,555,469</u>
<b>Change in Net Position before Payments to State of Connecticut and Capital Contributions</b>	8,760,164	(87,595)	3,733,347		12,405,916
Capital contributions					
<b>Change in Net Position</b>	8,760,164	(87,595)	3,733,347	-	12,405,916
<b>Net Position - Beginning of Year</b>	<u>105,109,340</u>	<u>250,775</u>	<u>4,184,511</u>	<u>(99,000)</u>	<u>109,445,626</u>
<b>Net Position - End of Year</b>	<u>\$ 113,869,504</u>	<u>\$ 163,180</u>	<u>\$ 7,917,858</u>	<u>\$ (99,000)</u>	<u>\$ 121,851,542</u>

**CONNECTICUT GREEN BANK  
NOTES TO FINANCIAL STATEMENTS  
FOR THE YEAR ENDED JUNE 30, 2016**

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

**Condensed, Combining Information - Statement of Cash Flows**

	<u>CGB</u>	<u>CT Solar Loan I LLC</u>	<u>CEFIA Holdings LLC</u>	<u>Eliminating Entries</u>	<u>Total Primary Government</u>
<b>Cash Flows from Operating Activities</b>					
Sales of energy systems	\$	\$	\$ 35,128,139	\$	\$ 35,128,139
Sales of Renewable Energy Credits	2,443,524				2,443,524
Utility company remittances	26,453,300				26,453,300
Grants	797,101				797,101
RGGI auction proceeds	5,313,666				5,313,666
Other income	374,478				374,478
Lease payments received					
Grant and program expenditures	(12,646,408)	(364,597)	(208,416)		(13,219,421)
Grants, incentives and credit enhancements	(11,170,406)				(11,170,406)
Purchases of energy equipment			(34,278,291)		(34,278,291)
General and administrative expenditures	(4,327,471)	(17,094)	(6,317)		(4,350,882)
Net cash provided by (used in) operating activities	<u>7,237,784</u>	<u>(381,691)</u>	<u>635,115</u>	<u>-</u>	<u>7,491,208</u>
<b>Cash Flows from Non-capital Financing Activities</b>					
Payments to State of Connecticut					
Funds received (disbursed) from escrow & custodial accounts	1,035,343				1,035,343
Advances to CGB component units	(15,762,500)				(15,762,500)
Subordinated debt advance to component units					
Advances from CGB and component units		217,500			217,500
Repayments of Advances (to) from component units	10,389	(219,239)	208,850		
Net cash provided by (used in) non-capital financing activities	<u>(14,716,768)</u>	<u>(1,739)</u>	<u>208,850</u>	<u>-</u>	<u>(14,509,657)</u>
<b>Cash Flows from Capital and Related Financing Activities</b>					
Purchase of capital assets	(67,645)				(67,645)
Proceeds from long-term debt		2,510,837			2,510,837
Repayment of long-term debt		(170,445)			(170,445)
Interest expense		(61,795)			(61,795)
Proceeds from subordinated debt with component unit					
Capital contributions from/(to) component entities					
Capital contributions from Firststar Development, LLC					
Return of capital to Firststar Development, LLC					
Net cash provided by (used in) capital and related financing activities	<u>(67,645)</u>	<u>2,278,597</u>	<u>-</u>	<u>-</u>	<u>2,210,952</u>
<b>Cash Flows from Investing Activities</b>					
Return of principal on WC & program loans	25,756,384	1,009,428			26,765,812
Interest on short-term investments, cash, solar lease notes and loans	1,548,423	268,148	8,824		1,825,395
CPACE program loan disbursements	(15,474,204)				(15,474,204)
Grid Tied program loan disbursements	(911,249)				(911,249)
AD/CHP program loan disbursements					
Alpha/Operational Demo program loan disbursements	(350,000)				(350,000)
Energy Efficiency program loan disbursements					
Campus Efficiency NOW program loan disbursements					
HOPBI program loan disbursements	(1,093,599)				(1,093,599)
Residential Solar Loan program disbursements	(2,489,159)	(548,813)			(3,037,972)
Net cash used in investing activities	<u>6,986,596</u>	<u>728,763</u>	<u>8,824</u>	<u>-</u>	<u>7,724,183</u>
<b>Net Increase (Decrease) in Cash and Cash Equivalents</b>	(560,033)	2,623,930	852,789	-	2,916,686
<b>Cash and Cash Equivalents - Beginning of Year</b>	<u>40,022,862</u>	<u>719,061</u>	<u>3,160,764</u>	<u>-</u>	<u>43,902,687</u>
<b>Cash and Cash Equivalents - End of Year</b>	<u>\$ 39,462,829</u>	<u>\$ 3,342,991</u>	<u>\$ 4,013,553</u>	<u>\$ -</u>	<u>\$ 46,819,373</u>
<b>Reconciliation of Operating Loss to Net Cash Provided by (Used in) Operating Activities:</b>					
Operating income (loss)	\$ 7,462,495	\$ (336,569)	\$ 3,724,521	\$	\$ 10,850,447
Adjustments to reconcile operating loss to net cash provided by (used in) operating activities:					
Depreciation	120,735				120,735
Accretion					
Deferred lease revenue					
Other	86,664	2,296			88,960
Changes in operating assets and liabilities:					
(Increase) decrease in operating assets	(1,237,055)	(2,602)	(3,916,486)		(5,156,143)
(Decrease) increase in operating liabilities	804,945	(44,816)	827,080		1,587,209
<b>Net Cash Provided by (Used in) Operating Activities</b>	<u>\$ 7,237,784</u>	<u>\$ (381,691)</u>	<u>\$ 635,115</u>	<u>\$ -</u>	<u>\$ 7,491,208</u>

**CONNECTICUT GREEN BANK  
NOTES TO FINANCIAL STATEMENTS  
FOR THE YEAR ENDED JUNE 30, 2016**

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**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.

**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.

CT Solar Loan I LLC derives revenue from interest earned on residential solar loan products.

CEFIA Holdings LLC derives revenue from the sales of photovoltaic energy systems to CT 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.

CT Solar Lease 2 LLC derives revenue from the following sources: operating leases, energy generation, performance based incentives (PBIs) and the sale of Solar Renewable Energy Certificates (SRECs) to third parties.

Rental income from operating leases for residential and certain commercial scale solar facilities is 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 associated with certain commercial scale facilities.

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 associated with commercial scale facilities.

**Operating vs. Nonoperating Revenue (Expense)**

All entities distinguish operating revenues and expenses from nonoperating 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, and other items not considered operational by management.

**CONNECTICUT GREEN BANK  
NOTES TO FINANCIAL STATEMENTS  
FOR THE YEAR ENDED JUNE 30, 2016**

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

**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. Actual results could vary from the estimates that were used.

**Use of Restricted vs. Nonrestricted 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 thirty years. Leasehold improvements are amortized over the shorter of their useful life or the lease term.

The estimated useful lives of capital assets are as follows:

<u>Asset</u>	<u>Years</u>
Solar lease equipment	30 years
Furniture and equipment	5 years
Leasehold improvements	5 years
Computer hardware and software	2-3 years

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.

**CONNECTICUT GREEN BANK  
NOTES TO FINANCIAL STATEMENTS  
FOR THE YEAR ENDED JUNE 30, 2016**

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

All solar facilities are owned by CT Solar Lease 2 LLC and are stated at cost and include all amounts necessary to construct them. Systems are placed in service when they are ready for use and all necessary approvals have been received from local utility companies. Additions, renewals, and betterments that significantly extend the life of an asset are capitalized. Expenditures for warranty maintenance and repairs to solar facilities are charged to expense as incurred. Solar facilities in process represent facilities which are in various stages of construction or have not yet received the necessary utility company approvals.

**Impairment of Long-Lived Assets**

CT Solar Lease 2 LLC reviews its solar facilities for impairment whenever events or changes in circumstances indicate that the carrying value of an asset may not be recoverable. When recovery is reviewed, if the undiscounted cash flows estimated to be generated by an asset is less than its carrying amount, management compares the carrying amount of the asset to its fair value in order to determine whether an impairment loss has occurred. The amount of the impairment loss is equal to the excess of the asset's carrying value over its estimated fair value. No impairment loss was recognized during the fiscal year ending June 30, 2016.

**Asset Retirement Obligations**

CT Solar Lease 2 LLC (CT SL2) is required to recognize its liability related to asset retirement obligations when it has the legal obligation to retire long-lived assets. Upon the expiration of operating leases or a Power Purchase Agreement's (PPA) initial or extended terms, customers generally have the option to purchase the solar facilities at fair market value or require CT SL2 to remove the solar facilities at its expense.

Asset retirement obligations are recorded in the period in which they are incurred and reasonably estimable, including those obligations for which the timing method of settlement are conditional on a future event that may or may not be in the control of CT SL2. Retirement of assets may involve efforts to remove the solar facilities depending on the nature and location of the assets. In identifying asset retirement obligations, CT SL2 considers identification of legally enforceable obligations, changes in existing law, estimates of potential settlement dates, and the calculation of an appropriate discount rate to be used in calculating the fair value of the obligations. For those assets where a range of potential settlement dates may be reasonably estimated, obligations are recorded. CT SL2 routinely reviews and reassesses its estimates to determine if an adjustment to the value of asset retirement obligations is required.

**CONNECTICUT GREEN BANK  
NOTES TO FINANCIAL STATEMENTS  
FOR THE YEAR ENDED JUNE 30, 2016**

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

The aggregate carrying amount of asset retirement obligations recognized by CT SL2 was \$2,528,335 and \$1,094,125 at June 30, 2016 and June 30, 2015 respectively. The following table shows changes in the aggregate carrying amount of CT SL2's asset retirement obligation for the year ended June 30, 2016:

Balance - June 30, 2015	\$	1,094,125
Additional accruals		1,328,366
Accretion expense		<u>105,844</u>
Balance - June 30, 2016	\$	<u><u>2,528,335</u></u>

**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.

**Net Position**

Net position is presented in the following three categories:

- *Investment 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.

**CONNECTICUT GREEN BANK  
NOTES TO FINANCIAL STATEMENTS  
FOR THE YEAR ENDED JUNE 30, 2016**

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

**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 2015 summarized information have been reclassified to conform to the 2016 presentation.

**Subsequent Events**

CGB has performed a review of events subsequent to the statement of net position date through December 26, 2016, the date of the financial statements where available to be issued. Except as described below, no additional events requiring recording or disclosure in the financial statements were identified.

**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 measurements); followed by quoted prices in inactive markets or for similar assets or with observable inputs (Level 2 measurements); and the lowest priority to unobservable inputs (Level 3 measurements). 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.

**Level 2**

Inputs other than quoted 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:

- Quoted prices for similar assets or liabilities in active markets
- Quoted prices for identical or similar assets or liabilities in markets that are not active

**CONNECTICUT GREEN BANK  
 NOTES TO FINANCIAL STATEMENTS  
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**2. FAIR VALUE MEASUREMENTS (CONTINUED)**

- Observable inputs other than quoted prices that are used in the valuation of the asset or liability (e.g., interest rate and yield curve quotes at commonly quoted 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).

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 following table sets forth by level, within the fair value hierarchy, CGB’s fair value measurements at June 30, 2016:

	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
Portfolio investments	\$ <u>                    </u>	\$ <u>                    </u>	\$ <u>1,000,000</u>	\$ <u>1,000,000</u>

The following table sets forth by level, within the fair value hierarchy, CGB’s fair value measurements at June 30, 2015:

	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
Portfolio investments	\$ <u>                    </u>	\$ <u>                    </u>	\$ <u>1,000,000</u>	\$ <u>1,000,000</u>

There were no transfers between levels during the years ended June 30, 2016 and 2015.

Furthermore, there were no changes in level 3 assets during 2016 or 2015, respectively.



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**3. CASH AND CASH EQUIVALENTS**

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

	<u>2016</u>	<u>2015</u>
Checking	\$ 4,499,265	\$ 4,680,259
Money Market	10,103,292	2,616,390
State Treasurer's Short-Term Investment Fund	<u>33,469,504</u>	<u>32,597,000</u>
Unrestricted cash and cash equivalents	48,072,061	39,893,649
Checking - restricted	1,109,782	1,670,516
Money Market - restricted	5,001,190	3,500,000
State Treasurer's Short-Term Investment Fund - restricted	<u>3,639,011</u>	<u>3,628,489</u>
Total cash and cash equivalents	<u>\$ 57,822,044</u>	<u>\$ 48,692,654</u>

***Cash and cash equivalents as of June 30, 2016***

	<u>Primary Government</u>	<u>CT Solar Lease 2 LLC</u>	<u>CEFIA Solar Services, Inc.</u>	<u>Total</u>
Checking	\$ 4,179,676	\$ 244,856	\$ 74,733	\$ 4,499,265
Money Market	3,920,210	1,136,650	5,046,432	10,103,292
State Treasurer's Short-Term Investment Fund	<u>33,469,504</u>	<u>                    </u>	<u>                    </u>	<u>33,469,504</u>
Unrestricted Cash and Cash Equivalents	41,569,390	1,381,506	5,121,165	48,072,061
Restricted Cash				
Checking	109,782	1,000,000		1,109,782
Money market	1,501,190	3,500,000		5,001,190
State Treasurer's Short-Term Investment Fund	<u>3,639,011</u>	<u>                    </u>	<u>                    </u>	<u>3,639,011</u>
	<u>\$ 46,819,373</u>	<u>\$ 5,881,506</u>	<u>\$ 5,121,165</u>	<u>\$ 57,822,044</u>

**CONNECTICUT GREEN BANK  
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**3. CASH AND CASH EQUIVALENTS (CONTINUED)**

	<i>Cash and cash equivalents as of June 30, 2015</i>			
	<u>Primary Government</u>	<u>CT Solar Lease 2 LLC</u>	<u>CEFIA Solar Services, Inc.</u>	<u>Total</u>
Checking	\$ 4,495,298	\$ 161,841	\$ 23,120	\$ 4,680,259
Money Market	2,511,383	58,875	46,132	2,616,390
State Treasurer's Short-Term Investment Fund	<u>32,597,000</u>			<u>32,597,000</u>
Unrestricted Cash and Cash Equivalents	39,603,681	220,716	69,252	39,893,649
Restricted Cash				
Checking	670,516	1,000,000		1,670,516
Money market		3,500,000		3,500,000
State Treasurer's Short-Term Investment Fund	<u>3,628,489</u>			<u>3,628,489</u>
	<u>\$ 43,902,686</u>	<u>\$ 4,720,716</u>	<u>\$ 69,252</u>	<u>\$ 48,692,654</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, and operates in a manner similar to Money Market Mutual Funds. 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 itself 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.

**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.

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NOTES TO FINANCIAL STATEMENTS  
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**3. CASH AND CASH EQUIVALENTS (CONTINUED)**

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

	<u>Standard &amp; Poor's</u>
State Treasurer's Short-Term Investment Fund	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, 2016 and 2015, \$19,019,356 and \$12,212,054, respectively, of CGB's bank balances were exposed to custodial credit risk. Primary government consisted of \$8,727,950 and \$7,795,388 as of June 30, 2016 and 2015, respectively. CT Solar Lease 2, LLC consisted of \$5,420,241 and \$4,416,666 as of June 30, 2016 and 2015, respectively. CEFIA Solar Services, Inc. consisted of \$ 4,871,165 as of June 30, 2016. CEFIA Solar Services, Inc. had no balances exposed to credit risk as of June 30, 2015. Funds held by banks on behalf of CGB, CT Solar Lease 2 LLC and CEFIA Solar Services included contractual requirements to maintain \$6,000,346 in deposits with financial institutions participating in various lease and loan programs, representing loan loss and lease maintenance reserves and guaranty pledge accounts.

**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. CGB does not have a policy relating to the credit risk of investments. As of June 30, 2016 and 2015, CGB had no reportable credit risk.

**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.

**CONNECTICUT GREEN BANK  
NOTES TO FINANCIAL STATEMENTS  
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**5. BONDS RECEIVABLE**

**Subordinate Series 2014B-1 and 2014C-1**

This Series 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. The 2014 Series bonds carry 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. CGB received a principal repayment of \$8,858 for each bond as a result of a C-PACE loan payoff in 2016. At June 30, 2016, management believes no valuation allowance is necessary on these bonds.

Each bond required semi-annual interest-only payments to CGB starting September 10, 2014 and continuing to September 10, 2034. Starting March 10, 2030 and every six months thereafter, principal payments, along with the required interest is to be paid to CGB.

**Subordinate Series 2015B-1 and 2015C-1**

This Series represents two \$955,000 bonds received in connection with the CGB's August 2015 sale of C-PACE Loans to Clean Fund Holdings, LLC (CFH). CFH paid CGB approximately \$7.7 million in cash along with two bonds issued to CGB through Public Finance Authority. The 2015 Series bonds carry interest of 5.52% per annum with a maturity date of August 13, 2035. At June 30, 2016, management believes no valuation allowance is necessary on these bonds.

Each bond required semi-annual interest-only payments to CGB starting September 15, 2015 and continuing to August 13, 2035. Starting September 10, 2032 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:

<u>Year ended June 30,</u>	<u>2014B-1</u>	<u>2014C-1</u>	<u>2015B-1</u>	<u>2015C-1</u>	<u>Total</u>
2017	\$	\$	\$	\$	\$
2018					
2019					
2020					
2021					
2022 - 2026					
2027 - 2031	277,500	277,500			555,000
2032 - 2036	<u>513,641</u>	<u>513,641</u>	<u>955,000</u>	<u>955,000</u>	<u>2,937,282</u>
	<u>\$ 791,141</u>	<u>\$ 791,141</u>	<u>\$ 955,000</u>	<u>\$ 955,000</u>	<u>\$ 3,492,282</u>

**CONNECTICUT GREEN BANK  
NOTES TO FINANCIAL STATEMENTS  
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**6. SOLAR LEASE NOTES RECEIVABLE**

In June of 2008 the predecessor of the CGB, the Connecticut Clean Energy Fund (CCEF) entered into a Master Lease Program Agreement with CT Solar Leasing LLC, a third party leasing company, AFC First Financial Corporation, a third party servicer, and Firststar Development LLC, the tax equity investor, to develop a residential solar PV leasing program in Connecticut. CCEF purchased a total of \$13,248,685 of promissory notes issued by CT Solar Leasing LLC during the period commencing in April of 2009 and ending in February of 2012 to fund the program. Each nonrecourse promissory note is secured by the payments under a specific PV equipment lease, with a rate of interest of 5% and a term of 15 years. Future principal repayments under the program and the current loss reserve are as follows:

<u>Future principal repayments</u>	
2017	\$ 845,479
2018	888,736
2019	934,205
2020	982,001
2021	1,032,242
2022-2025	<u>4,416,442</u>
	9,099,105
Less reserve for losses	<u>(90,991)</u>
	<u>\$ 9,008,114</u>
Current portion	\$ 845,479
Noncurrent portion	<u>8,162,635</u>
	<u>\$ 9,008,114</u>

**CONNECTICUT GREEN BANK  
NOTES TO FINANCIAL STATEMENTS  
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**7. PROGRAM LOANS RECEIVABLE**

Outstanding principal balances by program for the years ending June 30, 2016 and 2015 are as follows:

	<u>2016</u>	<u>2015</u>
Loans in repayment for completed projects:		
<b>Connecticut Green Bank</b>		
CPACE Program benefit assessments- in repayment	\$ 11,221,563	\$ 21,329,246
CPACE Promissory notes	1,553,884	
Grid-Tied Program term loans	8,701,188	7,722,894
Multifamily/Affordable housing program loans	2,467,231	
Alpha/Operational Demonstration program loans	1,136,421	836,421
Other program loans	680,737	1,746,443
<b>CT Solar Loan I LLC</b>		
Residential Solar PV Program loans-in repayment	<u>4,041,563</u>	<u>3,584,829</u>
	29,802,587	35,219,833
Reserve for loan losses	<u>(4,674,813)</u>	<u>(3,644,796)</u>
Total loans in repayment for completed projects, net	<u>\$ 25,127,774</u>	<u>\$ 31,575,037</u>
Loan advances for projects under construction:		
<b>Connecticut Green Bank</b>		
CPACE Program benefit assessments- under construction	\$ 8,113,510	\$ 8,050,041
<b>CT Solar Loan I LLC</b>		
Residential Solar PV Program loans-under construction	<u>26,233</u>	<u>892,866</u>
Total loans advances for projects under construction	<u>\$ 8,139,743</u>	<u>\$ 8,942,907</u>

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NOTES TO FINANCIAL STATEMENTS  
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**7. PROGRAM LOANS RECEIVABLE (CONTINUED)**

Scheduled repayments of principal under these loans in repayment as of June 30, 2016 is as follows:

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>Thereafter</u>	<u>Total</u>
<b>Connecticut Green Bank</b>							
CPACE Program benefit assessments- in repayment	\$ 690,557	\$ 451,377	\$ 476,959	\$ 503,994	\$ 531,086	\$ 8,567,591	\$ 11,221,564
CPACE promissory notes	30,388	36,682	39,448	42,644	46,315	1,358,405	1,553,882
Grid-Tied Program term loans	163,511	170,200	177,592	185,274	194,744	7,809,867	8,701,188
Multifamily/Affordable housing term loans	188,844	315,965	208,576	219,202	230,369	1,304,275	2,467,231
Alpha/Operational Demonstration program loans			501,421			635,000	1,136,421
Other program loans	110,760	110,760	100,633	95,000	19,379	244,205	680,737
<b>CT Solar Loan I LLC</b>							
Residential Solar PV Program loans - in repayment	<u>194,182</u>	<u>207,719</u>	<u>220,713</u>	<u>233,899</u>	<u>249,183</u>	<u>2,935,868</u>	<u>4,041,564</u>
	<u>1,378,242</u>	<u>1,292,703</u>	<u>1,725,342</u>	<u>1,280,013</u>	<u>1,271,076</u>	<u>22,855,211</u>	<u>29,802,587</u>
Reserve for loan losses		<u>(23,500)</u>	<u>(503,279)</u>	<u>(20,559)</u>	<u>(19,379)</u>	<u>(4,108,096)</u>	<u>(4,674,813)</u>
	<u>\$ 1,378,242</u>	<u>\$ 1,269,203</u>	<u>\$ 1,222,063</u>	<u>\$ 1,259,454</u>	<u>\$ 1,251,697</u>	<u>\$ 18,747,115</u>	<u>\$ 25,127,774</u>

Benefits assessments under the C-PACE program finance energy efficiency upgrades and the installation of renewable energy equipment on non-residential property. These assessments carry interest rates ranging from 5.0% to 6.0% with terms ranging from 10 to 20 years. CPACE promissory notes were a component of proceeds received from the sale of 23 benefit assessments from CGB's portfolio to a third-party capital provider in 2016. These promissory notes carry interest rates ranging from 7.1% to 14.1% and mature on September 10, 2036.

The grid-tied term loan represents the financing of two projects. The first project is the 15 megawatt Dominion Bridgeport Fuel Cell Park from Project 150. Interest is paid monthly on the outstanding principal balance at a rate of 5.0% until 2022 when principal payments commence over a 48-month period. The second project is the 5 mega-watt wind turbine project in Colebrook. Interest on the revolving term loan is paid quarterly at prime plus 3%. Interest on the non-revolving term loan is paid quarterly based on the project's cash flows. The minimum rate of interest on the non-revolving term loan is 10%. Principal under both loans is repaid at maturity which is 15 years from the date the project was placed in service. The project was placed in service in November of 2015.

Affordable Housing loans represent advances to a third-party capital provider which finances solar PV installations and energy efficiency measures with a lease product developed for low to moderate income households. CGB has committed to providing up to \$5,000,000 in advances under a term financing facility carrying a 5% interest rate. Each advance matures six years from the date of the advance. The final maturity date of all advances made under the facility is March 30, 2023. Multifamily loans are advances to developers of Solar PV installations targeting multifamily residences. Loans are for two years and carry no interest. As of June 30, 2016 \$117,500 had been advanced under this program.

**CONNECTICUT GREEN BANK  
NOTES TO FINANCIAL STATEMENTS  
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**7. PROGRAM LOANS RECEIVABLE (CONTINUED)**

Operational demonstration program loans are residual transactions of the programs of the Connecticut Clean Energy Fund. The loans finance the development of emerging clean energy technologies. Repayment of each loan is based upon the commercial success of the technology and carries an interest rate of 6%. If commercial success is not achieved after ten years from the date of the loan agreement, the loan converts to a grant. Connecticut Innovations assists in overseeing these loans.

Other program loans represent the financing of feasibility studies for various renewable energy projects or energy efficiency upgrades.

The residential solar PV loan program administered by CT Solar Loan I LLC, makes loans to residential property owners for solar PV installations. Loans carry an interest rate ranging from 6.49% to 6.75% with a term of 15 years.

**8. FINANCING ACTIVITIES**

**Long-Term Debt - Primary Government**

**Line of Credit**

On February 3, 2014, CT Solar Loan I LLC (SLI) executed a \$4,000,000 line of credit with Solar Mosaic, Inc. (LOC). The LOC was amended in June 2015 to \$1,100,000. Borrowings on the LOC immediately turn into a term note with predefined repayment terms at the time of borrowing. No further borrowings were available after June 30, 2015. Borrowings on the Mosaic LOC bear interest at 6.4586% (Base Rate) and SLI exercised its 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, 2016 and 2015 there was \$691,707 and \$853,525, respectively, outstanding. All borrowings will have matured by September 20, 2028.

In connection with the LOC, SLI 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 from residential borrowers against loans securing the LOC. 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 required a one-time deposit of \$300,000 as of June 30, 2014 which was reduced to \$82,500 as of June 30, 2015.

Future maturities on borrowings on the LOC are as follows:

<u>Years Ending June 30,</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2017	\$ 49,265	\$ 40,162	\$ 89,427
2018	52,049	37,130	89,179
2019	54,356	33,939	88,295
2020	56,594	30,622	87,216
2021	59,813	27,139	86,952
2022 - 2026	329,126	77,600	406,726
Thereafter	90,504	4,770	95,274
	<u>\$ 691,707</u>	<u>\$ 251,362</u>	<u>\$ 943,069</u>



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**8. FINANCING ACTIVITIES (CONTINUED)**

**Term Note**

On April 25, 2016, CT Solar Loan I LLC(SLI) executed a \$2,510,837 Loan Agreement and Promissory Note (Note) with the Reinvestment Fund, Inc. The Note carries a fixed interest rate of 6.02%. Interest and principal repayments are amortized over a hypothetical 15 year period. The Note has a maturity date of April 1, 2023 with all unpaid principal and accrued interest due at that time. Principal repayments and interest payments are made in monthly installments beginning June 1, 2016.

In connection with the Note, SLI is required to establish and maintain a collections account, and maintain \$217,500 in a loan loss reserve account. Deposits shall be made into the collections account for all payments received from residential borrowers against loans securing the Note.

Future maturities on borrowings under the Reinvestment Fund LOC is as follows:

<u>Years Ending June 30,</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2017	\$ 184,316	\$ 143,346	\$ 327,662
2018	109,808	136,541	246,349
2019	116,603	129,745	246,348
2020	123,820	122,528	246,348
2021	131,483	114,865	246,348
2022 - 2026	1,836,188	189,089	2,025,277
Thereafter			-
	<u>\$ 2,502,218</u>	<u>\$ 836,114</u>	<u>\$ 3,338,332</u>

**Line of Credit –Discretely Presented Component Unit – CT Solar Lease 2, LLC**

CT Solar Lease 2, LLC has a \$24,000,000 line of credit agreement (Additional LOC) with First Niagara Bank, N.A. (First Niagara) as the Administrative Agent and Lender along with an additional participating lender. The additional LOC is broken down by lender as follows:

First Niagara Bank, N.A	\$ 15,000,000
Webster Bank, National Association	<u>9,000,000</u>
	<u>\$ 24,000,000</u>

Funds may be drawn down in no more than ten total advances by October 1, 2016. With the exception of the final advance, each advance must be in the principal amount of \$2,400,000 or a whole multiple of \$100,000 in excess of \$2,400,000. Each loan funding will be shared by all participating lenders in accordance with their pro-rata share of the total facility commitment. As of June 30, 2016 and 2015, \$18,000,000 and \$3,000,000, respectively, had been advanced under the additional LOC. Principal repayments of \$832,325 were made as of June 30, 2016. No principal repayments were made as of June 30, 2015.

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**8. FINANCING ACTIVITIES (CONTINUED)**

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, and (c) the LIBOR rate plus 1 percent. 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 15year 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. See Note 9.

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 CEFIA 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.

**9. INTEREST RATE SWAP AGREEMENT**

CT Solar Lease 2 LLC entered into an interest rate swap agreement with First Niagara (the Swap Agreement) in September 2014 in anticipation of making its first draw down on the credit agreement. Payments made and received are based on a notional amount of \$19,374,375 and \$11,804,925 as of June 30, 2016 and 2015, respectively. The agreement provides for CT Solar Lease 2 LLC to receive payments based on the 1 month USD-LIBOR-BBA (0.44205% and 0.18550% at June 30, 2016 and 2015, respectively) and to make payments based on an interest rate of 2.78%. The agreement matures on December 15, 2025. The fair value of the interest rate swap agreement as of June 30, 2016 and 2015 were reported as a liability of \$1,627,864 and \$660,073, respectively which is represented as the fair value of the interest rate swap on the accompanying 2016 and 2015 Statement of Net Position. CGB used the dollar-offset method for evaluating effectiveness of the interest rate swap agreement.

**10. PAYMENT TO STATE OF CONNECTICUT**

The Connecticut Legislature passed Public Act 13-247 pertaining to the State's budget for the biennium ending June 30, 2015 and signed into law on June 19, 2013. This Act required the Connecticut Green Bank to transfer \$19,200,000 to the State's General Fund during fiscal year 2015. No payments to the State were made in fiscal year 2016.

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**11. RELATED PARTY TRANSACTIONS AND OPERATING LEASES**

**Due to outside agency**

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 human resources and information technology support, office space, equipment, supplies and insurance. Expenses billed to CGB by CI totaled \$58,401 and \$477,161 for the years ended June 30, 2016 and 2015, respectively. As of June 30, 2016 and 2015, amounts due to CI were \$30,127 and \$49,516, 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 \$99,486 and \$252,135 for the years ended June 30, 2016 and 2015, respectively, and is included in accounts payable and accrued expenses on the accompanying statement of net position.

**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, 2021, 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. The Investor Member was paid a priority returns of \$299,831 and \$26,159 for the years ended June 30, 2016 and 2015, respectively.

**Administrative Services Fee**

The Managing Member of CT Solar Lease 2 LLC, CEFIA Solar Services, Inc. provides administrative and management services to the Company and earns a quarterly fee initially equal to \$30,000 per quarter beginning July 1, 2013. The amount of the fee increased 2.5 percent each July 1<sup>st</sup> beginning July 1, 2014. The administrative services fee totaled \$130,075 and \$123,000 for the years ended June 30, 2016 and 2015, respectively, and is included in accounts payable and accrued expenses on the accompanying statement of net position.

**CONNECTICUT GREEN BANK  
NOTES TO FINANCIAL STATEMENTS  
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**11. RELATED PARTY TRANSACTIONS AND OPERATING LEASES (CONTINUED)**

**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 years ended June 30, 2016 and 2015, the investor member was paid \$1,717 and \$72,402, respectively, related to the prepaid priority return.

**Payroll Taxes and Fringe Benefit Charges**

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 2016 and 2015 was \$3,691,048 and \$3,061,004, respectively, comprising 74.30% and 75.80%, 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 years ended June 30, 2016 and 2015 was \$159,498 and \$154,572, respectively.

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, 2016 and 2015 amounted to \$ 105,422 and \$97,723, respectively. CGB also began sub leasing additional office space from CI in March of 2016. Initial monthly payments are \$5,665.50 with escalating payments through December 2020. Rent expense related to this sub lease was \$22,662 for the year ended June 30, 2016.

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, 2016 and 2015 was \$13,465 and \$6,439, respectively.

Future minimum lease payments for office rentals are as follows:

<u>Years Ending June 30,</u>	
2017	\$ 325,318
2018	333,379
2019	341,440
2020	349,501
2021	176,766
	<u>\$ 1,526,404</u>

**CONNECTICUT GREEN BANK  
NOTES TO FINANCIAL STATEMENTS  
FOR THE YEAR ENDED JUNE 30, 2016**

**12. CAPITAL ASSETS**

Capital asset activity for reporting entity for the years ended June 30, 2016 and 2015 are as follows:

Primary Government:

<u>2016</u>	<u>Balance, July 1, 2015</u>	<u>Additions</u>	<u>Deletions</u>	<u>Adjustments</u>	<u>Balance, June 30, 2016</u>
Capital assets being depreciated:					
Furniture and equipment	\$ 222,701	\$ 11,417	\$ (7,054)	\$ (57,641)	\$ 169,423
Computer hardware and software	128,627	35,963	(9,400)	57,641	212,831
Leasehold improvements	153,657	72,187			225,844
Capital assets not being depreciated:					
Construction in progress	7,141	23,090	(25,729)		4,502
	<u>512,126</u>	<u>142,657</u>	<u>(42,183)</u>	<u>-</u>	<u>612,600</u>
Less accumulated depreciation and amortization:					
Furniture and equipment	122,149	60,653	(4,125)	(75,598)	103,079
Computer hardware and software	50,906	26,124	(1,055)	75,598	151,573
Leasehold improvements	75,232	33,964			109,196
	<u>248,287</u>	<u>120,741</u>	<u>(5,180)</u>	<u>-</u>	<u>363,848</u>
Capital assets, net	<u>\$ 263,839</u>	<u>\$ 21,916</u>	<u>\$ (37,003)</u>	<u>\$ -</u>	<u>\$ 248,752</u>
<u>2015</u>	<u>Balance, July 1, 2014</u>	<u>Additions</u>	<u>Deletions</u>	<u>Adjustments</u>	<u>Balance, June 30, 2015</u>
Capital assets being depreciated:					
Furniture and equipment	\$ 338,938	\$ 18,353	\$ (134,590)		\$ 222,701
Computer hardware and software	88,337	57,480	(17,190)		128,627
Leasehold improvements	139,682	13,975			153,657
Capital assets not being depreciated:					
Construction in progress	7,141				7,141
	<u>574,098</u>	<u>89,808</u>	<u>(151,780)</u>	<u>-</u>	<u>512,126</u>
Less accumulated depreciation and amortization:					
Furniture and equipment	205,820	50,919	(134,590)		122,149
Computer hardware and software	33,845	34,251	(17,190)		50,906
	<u>284,166</u>	<u>115,901</u>	<u>(151,780)</u>	<u>-</u>	<u>248,287</u>
Capital assets, net	<u>\$ 289,932</u>	<u>\$ (26,093)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 263,839</u>

**CONNECTICUT GREEN BANK  
NOTES TO FINANCIAL STATEMENTS  
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**12. CAPITAL ASSETS (CONTINUED)**

Discretely presented component units:

<b>2016</b>	<b>Balance, July 1, 2015</b>	<b>Additions</b>	<b>Deletions</b>	<b>Adjustments</b>	<b>Balance, June 30, 2016</b>
Capital assets being depreciated:					
Solar lease equipment	\$ 21,011,832	\$ 29,240,167	\$ -	\$ (2,717,508)	\$ 47,534,491
Capital assets not being depreciated:					
WIP solar lease equipment	<u>6,014,560</u>	<u>18,206,741</u>	<u>(11,067,035)</u>	<u>(1,222,525)</u>	<u>11,931,741</u>
	<u>27,026,392</u>	<u>47,446,908</u>	<u>(11,067,035)</u>	<u>(3,940,033)</u>	<u>59,466,232</u>
Less accumulated depreciation and amortization:					
Solar lease equipment	<u>319,144</u>	<u>1,532,051</u>		<u>(251,125)</u>	<u>1,600,070</u>
	<u>319,144</u>	<u>1,532,051</u>	<u>-</u>	<u>(251,125)</u>	<u>1,600,070</u>
Capital assets, net	<u>\$ 26,707,248</u>	<u>\$ 45,914,857</u>	<u>\$ (11,067,035)</u>	<u>\$ (3,688,908)</u>	<u>\$ 57,866,162</u>
<b>2015</b>	<b>Balance, July 1, 2014</b>	<b>Additions</b>	<b>Deletions</b>	<b>Adjustments</b>	<b>Balance, June 30, 2015</b>
Capital assets being depreciated:					
Solar lease equipment	\$ 1,035,159	\$ 22,753,915	\$ -	\$ (2,777,242)	\$ 21,011,832
Capital assets not being depreciated:					
WIP solar lease equipment	<u>1,759,111</u>	<u>4,847,060</u>		<u>(591,611)</u>	<u>6,014,560</u>
	<u>2,794,270</u>	<u>27,600,975</u>	<u>-</u>	<u>(3,368,853)</u>	<u>27,026,392</u>
Less accumulated depreciation and amortization:					
Solar lease equipment	<u>9,865</u>	<u>309,279</u>			<u>319,144</u>
	<u>9,865</u>	<u>309,279</u>	<u>-</u>	<u>-</u>	<u>319,144</u>
Capital assets, net	<u>\$ 2,784,405</u>	<u>\$ 27,291,696</u>	<u>\$ -</u>	<u>\$ (3,368,853)</u>	<u>\$ 26,707,248</u>

**CONNECTICUT GREEN BANK  
NOTES TO FINANCIAL STATEMENTS  
FOR THE YEAR ENDED JUNE 30, 2016**

**12. CAPITAL ASSETS (CONTINUED)**

Total Reporting Entity:

2016	Balance, July 1, 2015	Additions	Deletions	Adjustments	Balance, June 30, 2016
Capital assets being depreciated:					
Solar lease equipment	\$ 21,011,832	\$ 29,240,167	\$	\$ (2,717,508)	\$ 47,534,491
Furniture and equipment	222,701	11,417	(7,054)	(57,641)	169,423
Computer hardware and software	128,627	35,963	(9,400)	57,641	212,831
Leasehold improvements	153,657	72,187			225,844
Capital assets not being depreciated:					
WIP solar lease equipment	6,014,560	18,206,741	(11,067,035)	(1,222,525)	11,931,741
Construction in progress	7,141	23,090	(25,729)		4,502
	27,538,518	47,589,565	(11,109,218)	(3,940,033)	60,078,832
Less accumulated depreciation and amortization:					
Solar lease equipment	319,144	1,532,051		(251,125)	1,600,070
Furniture and equipment	122,149	60,653	(4,125)	(75,598)	103,079
Computer hardware and software	50,906	26,124	(1,055)	75,598	151,573
Leasehold improvements	75,232	33,964			109,196
	567,431	1,652,792	(5,180)	(251,125)	1,963,918
Capital assets, net	\$ 26,971,087	\$ 45,936,773	\$ (11,104,038)	\$ (3,688,908)	\$ 58,114,914
2015	Balance, July 1, 2014	Additions	Deletions	Adjustments	Balance, June 30, 2015
Capital assets being depreciated:					
Solar lease equipment	\$ 1,035,159	\$ 22,753,915	\$	\$ (2,777,242)	\$ 21,011,832
Furniture and equipment	338,938	18,353	(134,590)		222,701
Computer hardware and software	88,337	57,480	(17,190)		128,627
Leasehold improvements	139,682	13,975			153,657
Capital assets not being depreciated:					
WIP solar lease equipment	1,759,111	4,847,060		(591,611)	6,014,560
Construction in progress	7,141				7,141
	3,368,368	27,690,783	(151,780)	(3,368,853)	27,538,518
Less accumulated depreciation and amortization:					
Solar lease equipment	9,865	309,279			319,144
Furniture and equipment	205,820	50,919	(134,590)		122,149
Computer hardware and software	33,845	34,250	(17,189)		50,906
Leasehold improvements	44,501	30,731			75,232
	294,031	425,179	(151,779)	-	567,431
Capital assets, net	\$ 3,074,337	\$ 27,265,604	\$ (1)	\$ (3,368,853)	\$ 26,971,087

**13. GRANT PROGRAMS**

CGB, the primary government, recognizes grant revenue based on expenditures or fulfillment of program requirements. For the year ended June 30, 2016 and 2015, CGB recognized related grant revenue of \$589,917 and \$143,615, respectively under Department of Energy programs.

**CONNECTICUT GREEN BANK  
NOTES TO FINANCIAL STATEMENTS  
FOR THE YEAR ENDED JUNE 30, 2016**

**14. COMMITMENTS AND LOAN GUARANTEES**

**Commitments**

As of June 30, 2016 and 2015, 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:

<b>Primary Government</b>	<u>Type</u>	<u>06/30/2016</u>	<u>Type</u>	<u>06/30/2015</u>
<b>Connecticut Green Bank</b>				
Solar PV	Incentive	\$ 56,457,195	Incentive	\$ 45,017,128
AD/CHP Programs	Loan	15,462,247	Loan	14,462,247
CPACE	Loan	7,022,004	Loan	15,178,559
Multifamily/LMI Solar PV & Energy Eff.	Loan	9,510,841	Loan	12,000,000
Energy Efficiency Programs	Grant/Loan	1,130,000	Grant/Loar	277,763
Education and Outreach	Grant	706,900	Grant	694,120
Other Technologies	Loan	271,795	Loan	271,795
Alpha and Operational Demonstration	Loan	165,000	Loan	465,000
Wind	Loan	-	Loan	1,102,888
		<u>90,725,982</u>		<u>89,469,500</u>
Solar PV commitments payable to CT Solar Lease 2 LLC:		<u>(6,223,664)</u>		<u>(6,036,671)</u>
Total Reporting Entity		<u>\$ 84,502,318</u>		<u>\$ 83,432,829</u>

These commitments are expected to be funded over the next one to six fiscal years and are contingent upon the completion of performance milestones by the recipient. All commitments are those of the primary government.



**CONNECTICUT GREEN BANK  
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**14. COMMITMENTS AND LOAN GUARANTEES (CONTINUED)**

**Loan Guarantees**

As of June 30, 2016, the following financial guarantees, approved by the Board of Directors, were outstanding. There were no outstanding financial guarantees as of June 30, 2015. As of June 30, 2016 CGB has not recognized a liability or made any payments pursuant to these guarantees. Should payments be made in the future, CGB will utilize standard collection efforts to recover payments made on behalf of issuers to those entitled to receive payments pursuant to the obligation guaranteed. All guarantees are those of the primary government.

<b>Guarantor</b>	<b>Issuer</b>	<b>Relationship of Guarantor to Issuer</b>	<b>Type of Obligation Guaranteed</b>	<b>Maximum Amount of Guaranty</b>	<b>Obligations Guaranteed as of 6/30/2016</b>
CGB	Owners of multifamily dwellings in Connecticut	Issuers participate in program administered by CGB and the Housing Development Fund to install energy upgrades in multifamily dwellings	Commercial and consumer loan products with various terms	\$ 5,000,000	\$ -
CGB	Developers of clean energy projects in Connecticut	Issuers participate in programs administered by CGB to install energy equipment at residential and commercial sites.	Commercial loans with various terms	5,000,000	-
CGB	CT Solar Loan I LLC	Blended unit of primary government	Non revolving term note	2,510,837	2,502,218
CGB	CT Energy Efficiency Finance Company	Issuer provides loans for the installation of energy efficiency measures in single family homes to credit challenged households to meet the goals outlined in CGB's Comprehensive Plan.	Guarantee limited to \$600,000 on revolving credit note of \$6,000,000	600,000	6,000,000
CGB	New England Hydropower Company	Issuer is the developer of hydropower project in Connecticut approved by the CGB Board of Directors.	Equipment purchase	<u>345,660</u>	<u>345,660</u>
				<u>\$ 13,456,497</u>	<u>\$ 8,847,878</u>

**CONNECTICUT GREEN BANK  
NOTES TO FINANCIAL STATEMENTS  
FOR THE YEAR ENDED JUNE 30, 2016**

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**15. 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. The latest actuarial study was performed on the plan as a whole, as of June 30, 2012, and does not separate information for employees of the CGB. Therefore, certain pension disclosures pertinent to CGB otherwise required pursuant to accounting principles generally accepted in the United States of America are omitted. Based upon the 2012 valuation, the Plan, as a whole, utilized the project unit credit cost method to develop employer contributions, and included the following actuarial assumptions: (1) investment return of 8% (previously 8.25%); (2) price inflation of 2.75% (previously 3%) for cost of living adjustments; (3) projected salary increases of 4% to 20%, Social Security wage base increases of 3.50% per annum; (4) payroll growth of 3.75% per annum; and (5) the RP-2000 Mortality Table. 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 available from the Office of the State Comptroller, 55 Elm Street, Hartford, CT 06106.

**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.

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

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NOTES TO FINANCIAL STATEMENTS  
FOR THE YEAR ENDED JUNE 30, 2016**

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**15. PENSION PLAN (CONTINUED)**

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, 2016 and 2015 was \$4,695,647 and \$4,013,411, 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:

	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
Contributions made:				
By employees	\$ 208,516	\$ 171,260	\$ 139,217	\$ 104,214
Percent of current year covered payroll	4.4%	4.3%	4.5%	4.1%
Percent of required contributions	100.0%	100.0%	100.0%	100.0%
By CGB	\$ 2,474,182	\$ 1,974,507	\$ 1,669,961	\$ 1,125,649
Percent of current year covered payroll	52.7%	49.2%	53.5%	44.7%
Percent of required contributions	100.0%	100.0%	100.0%	100.0%

CGB has contributed the required amount for each of the past three years.

**16. PENSION LIABILITIES, PENSION EXPENSE, DEFERRED OUTFLOWS OF RESOURCES, AND DEFERRED INFLOWS OF RESOURCES**

The implementation of GASB 68 resulted in CGB reporting an initial net pension liability for fiscal year 2015. The Statement required CGB to recognize a net pension liability for the difference between the present value of the projected benefits for the past service known as the Total Pension Liability (TPL) and the restricted resources held in trust for the payment of pension benefits, known as the Fiduciary Net Pension (FNP). For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the FNP of SERS and additions to/deductions from SERS FNP have been determined on the same basis as they are reported by SERS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit term. Investments are recorded at fair value.

At June 30, 2016 and 2015, CGB reported a liability of \$16,096,113 and \$14,899,766, respectively for its proportionate share of the net pension liability. The net pension liability as of June 30, 2016 was measured as of June 30, 2015, and the total pension liability used to calculate the net pension liability was determined by the actuarial valuation as of that date based on actuarial experience studies. CGB's allocation of the net pension liability was based on the 2015 covered payroll multiplied by the SERS 2015 contribution rate of 37.91 percent. As of June 30, 2016 and 2015, CGB's proportion was 0.09741 percent and 0.09304 percent respectively.

**CONNECTICUT GREEN BANK  
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**16. PENSION LIABILITIES, PENSION EXPENSE, DEFERRED OUTFLOWS OF RESOURCES, AND DEFERRED INFLOWS OF RESOURCES (CONTINUED)**

For the years ended June 30, 2016 and 2015, CGB recognized pension expense of \$1,399,477 and \$1,431,032, respectively. Pension expense is reported in CGB's financial statements as part of general and administration expense and grant and program expenditures. At June 30, 2016 and 2015, CGB reported deferred outflows of resources and deferred inflows of resources related to pension from the following sources:

As of June 30, 2016:

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Net Difference between projected and actual earnings on pension plan investments	\$ 2,535	\$
Change in proportion and differences between employer contributions and proportionate share of contributions	598,326	
CGB Contributions subsequent to the measurement date	<u>1,974,507</u>	
	<u>\$ 2,575,368</u>	<u>\$ -</u>

As of June 30, 2015:

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Net Difference between projected and actual earnings on pension plan investments	\$	\$ (532,135)
CGB Contributions subsequent to the measurement date	<u>1,669,961</u>	
	<u>\$ 1,669,961</u>	<u>\$ (532,135)</u>

The amount recognized as deferred inflows of resources, representing the net difference between projected and actual earnings, is amortized over a five-year closed period beginning in the year in which the difference occurs and will be recognized in expense as follows:

Year 1 (2017)	\$ 92,310
Year 2 (2018)	92,310
Year 3 (2019)	92,308
Year 4 (2020)	231,591
Year 5 (2021)	<u>92,342</u>
	<u>\$ 600,861</u>

**CONNECTICUT GREEN BANK  
NOTES TO FINANCIAL STATEMENTS  
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**16. PENSION LIABILITIES, PENSION EXPENSE, DEFERRED OUTFLOWS OF RESOURCES, AND DEFERRED INFLOWS OF RESOURCES (CONTINUED)**

**Actuarial Methods and Assumption**

The total pension liability in the June 30, 2014 actuarial valuation was determined based on the results of an actuarial experience study for the period July 1, 2007 through June 30, 2011. The key actuarial assumptions are summarized below:

Inflation	2.75%
Salary increase	4.00% -20% including inflation
Investment rate of return	8%, net of pension plan investment expense, including inflation
Cost of living adjustment	2.30%-3.60% for certain tiers

Mortality rates were based on the RP-2000 Mortality Table for Males or Females, as appropriate, with adjustments for mortality improvements based on Scale AA.

**Discount Rate**

The discount rate used to measure the total pension liability at June 30, 2015 was the long term expected rate of return, 8.00 percent. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the current contribution rates and that employer contributions will be made equal to the difference between the projected actuarially determined contribution and member contributions. Projected future benefit payments for all current plan members were projected through the year 2015.

**Expected Rate of Return on Investments**

The long term expected rate of return on pension plan investments was determined using a log-normal distribution analysis in which best estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighing the expected future real rate of return by the target asset allocation percentage and by adding expected inflation.

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**16. PENSION LIABILITIES, PENSION EXPENSE, DEFERRED OUTFLOWS OF RESOURCES, AND DEFERRED INFLOWS OF RESOURCES (CONTINUED)**

The target asset allocation and best estimate of arithmetic real rates of return for each major asset class are summarized in the following table:

<b>Asset Class</b>	<b>Target Allocation</b>	<b>Long-term Expected Real Rate of Return</b>
Large Cap U.S. Equities	21.0%	5.8%
Developed Non-U.S. Equities	18.0%	6.6%
Emerging Market (non-U.S.)	9.0%	8.3%
Real Estate	7.0%	5.1%
Private Equity	11.0%	7.6%
Alternative Investments	8.0%	4.1%
Fixed Income (Core)	8.0%	1.3%
High Yield Bonds	5.0%	3.9%
Emerging Market Bond	4.0%	3.7%
TIPS	5.0%	1.0%
Cash	4.0%	0.4%

**Sensitivity of CGB Proportionate Share of the Net Pension Liability to Changes in the Discount Rates**

The following presents CGB's proportionate share of the net pension liability calculated using the discount rate of 8.00 percent, as well as the proportionate share of the net pension liability using a 1.00 percent increase or decrease from the current discount rate.

	<b>1% Decrease</b>	<b>Discount Rate</b>	<b>1% Increase</b>
	7.0%	8.0%	9.0%
CGB's proportionate share of the net pension liability	\$ 19,146,790	\$ 16,096,113	\$ 13,525,960

**CONNECTICUT GREEN BANK  
NOTES TO FINANCIAL STATEMENTS  
FOR THE YEAR ENDED JUNE 30, 2016**

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**17. RESTRICTED NET POSITION**

Restricted net position at June 30, 2016 and 2015 consisted of the following:

	<u>2016</u>	<u>2015</u>
Primary Government		
Nonexpendable		
Connecticut Innovations, Inc. equity interest	\$ <u>1,000</u>	\$ <u>1,000</u>
Energy Programs		
CGB		
Assets restricted for maintaining loan loss and interest rate buydown reserves	\$ 3,748,793	\$ 3,999,005
Assets restricted by contractual obligations for maintaining pledge accounts for loan guarantees	1,200,346	
CT Solar Loan I LLC		
Assets restricted by contractual obligations for maintaining loan loss reserve	<u>300,844</u>	<u>300,000</u>
	<u>5,249,983</u>	<u>4,299,005</u>
Discretely Presented Component Units		
CT Solar Lease 2 LLC		
Assets restricted for maintaining loan loss reserve	3,500,000	3,500,000
Assets restricted for operating and maintenance reserve	<u>1,000,000</u>	<u>1,000,000</u>
	<u>4,500,000</u>	<u>4,500,000</u>
	<u>\$ 9,749,983</u>	<u>\$ 8,799,005</u>

**18. 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.

**CONNECTICUT GREEN BANK  
NOTES TO FINANCIAL STATEMENTS  
FOR THE YEAR ENDED JUNE 30, 2016**

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**19. RENEWABLE ENERGY CREDITS (PRIMARY GOVERNMENT)**

CGB owns Class 1 Renewable Energy Credits (RECs) that are generated by certain commercial renewable energy facilities for which CGB provided the initial funding. Through its Residential Solar Incentive Program, CGB owns the rights to future RECs generated by facilities installed on residential properties. On March 23, 2015 CGB entered into a contract to sell a total of 98,553 RECs generated during the period 2014 to 2016. For the year ended June 30, 2016 CGB sold its contractual obligation of 30,000 RECs. For the year ended June 30, 2015 CGB sold its contractual obligation of 23,553 RECs. CGB's remaining obligation is to sell 45,000 RECs generated or to be generated in 2016 for \$49.50 per REC. Based on historical performance, management believes that the RECs it will receive from funded commercial facilities and residential facilities will exceed the commitments to sell RECs 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, 2016 ranged from \$35.00 to \$37.50. CGB's inventory as of June 30, 2016 has been priced at its cost.



## **REQUIRED SUPPLEMENTARY INFORMATION**

**CONNECTICUT GREEN BANK**  
**SCHEDULE OF GREEN BANK'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY**  
**LAST TWO FISCAL YEARS\***

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As of June 30,	<u>2016</u>	<u>2015</u>
Green Bank's portion of the net pension liability	0.97410%	0.09304%
Green Bank's proportionate share of the net pension liability	\$ 16,096,113	\$ 14,899,766
Green Bank's covered employee payroll	\$ 4,695,647	\$ 4,013,411
Green Bank's proportionate share of the net pension liability as a percentage of its covered-employee payroll	342.79%	371.25%
Plan fiduciary net position as a percentage of the total pension liability	39.23%	39.54%

\*Note: This schedule is intended to show information for ten years. Additional years' information will be displayed as it becomes available.

**CONNECTICUT GREEN BANK**  
**SCHEDULE OF GREEN BANK'S PROPORTIONATE CONTRIBUTIONS TO THE STATE EMPLOYEES' RETIREMENT SYSTEM (SERS)**  
**LAST FIVE FISCAL YEARS\***

	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012*</u>
Contractually required contribution	\$ 2,474,182	\$ 1,974,507	\$ 1,669,961	\$ 1,125,649	\$ \$ 601,014
Contributions in relation to the contractually required contribution	<u>2,474,182</u>	<u>1,974,507</u>	<u>1,669,961</u>	<u>1,125,649</u>	<u>601,014</u>
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Green Bank's covered employee payroll	\$ 4,695,647	\$ 4,013,411	\$ 3,121,583	\$ 2,517,190	\$ 1,541,308
Contributions as a percentage of covered-employee payroll	52.70%	49.20%	53.50%	44.72%	38.99%

\* The Green Bank had no employees prior to 2012 and accordingly there is no activity for 2011 and 2010.

**STATISTICAL SECTION**  
(unaudited)

# **FINANCIAL STATISTICS**

**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 about the primary government and the discretely presented component units in the financial statements, note disclosures, and required supplementary information says about the benefits of CGB’s investments.

**FINANCIAL STATISTICS**

**CONTENTS** **PAGE**

**Financial Trends** ..... 55-58

These schedules contain trend information to help the reader understand how CGB’s financial performance and well-being have changed over time.

**Revenue Capacity** ..... 59-60

These schedules contain information to help the reader assess CGB’s most significant local revenue sources.

**Debt Capacity** ..... 61

These schedules present information to help the reader assess the affordability of the government’s current level of outstanding debt and the CGB’s ability to issue additional debt in the future.

**Demographic and Economic Information** ..... 62-63

These schedules offer demographic and economic indicators to help the reader understand the environment within which CGB’s financial activities take place.

**Operating Information** ..... 64-66

These schedules contain service and infrastructure data to help the reader understand how the information in CGB’s financial report relates to the services CGB provides and the activities it performs.

**CONNECTICUT GREEN BANK**  
**NET POSITION BY COMPONENT**  
**Last Five Fiscal Years**

	Year Ended June 30,				
	2016	2015	2014	2013	2012
<b>Primary Government</b>					
Invested in capital assets, net of related debt	\$ 248,752	\$ 263,839	\$ 289,932	\$ 362,505	\$ 91,329
Restricted Net Position					
Non-expendable	1,000	1,000	1,000	1,000	
Restricted - energy programs	5,249,983	4,299,005	4,595,715	5,036,656	176,974
Unrestricted	<u>116,351,807</u>	<u>104,881,783</u>	<u>97,754,765</u>	<u>93,717,230</u>	<u>80,920,002</u>
	<u>121,851,542</u>	<u>109,445,627</u>	<u>102,641,412</u>	<u>99,117,391</u>	<u>81,188,305</u>
<b>CT Solar Lease 2 LLC</b>					
Invested in capital assets, net of related debt	65,678,493	30,830,671	3,538,975		
Restricted Net Position					
Non-expendable	17,482,892	8,007,153	1,294,801	100	
Restricted - energy programs	4,500,000	4,500,000	4,500,000	4,500,000	
Unrestricted (deficit)	<u>(53,701,649)</u>	<u>(28,210,286)</u>	<u>(5,741,703)</u>	<u>(1,616,886)</u>	
	<u>33,959,736</u>	<u>15,127,538</u>	<u>3,592,073</u>	<u>2,883,214</u>	-
<b>CEFIA Solar Services, Inc.</b>					
Restricted Net Position					
Non-expendable	100	100	100	100	
Restricted - energy programs					
Unrestricted (deficit)	<u>346,279</u>	<u>224,654</u>	<u>109,123</u>		
	<u>346,379</u>	<u>224,754</u>	<u>109,223</u>	<u>100</u>	-
<b>Eliminations</b>					
	<u>(28,795,323)</u>	<u>(15,630,676)</u>	<u>(5,549,471)</u>	<u>(3,500,100)</u>	
<b>Total Net Position</b>	<u>\$ 127,362,334</u>	<u>\$ 109,167,243</u>	<u>\$ 100,793,237</u>	<u>\$ 98,500,605</u>	<u>\$ 81,188,305</u>

**CONNECTICUT GREEN BANK**  
**CHANGES IN NET POSITION**  
**Last Five Fiscal Years**

	Year Ended June 30,				
	2016	2015	2014	2013	2012
<b>Primary Government</b>					
<b>Operating Revenues</b>	\$ 69,250,883	\$ 72,038,472	\$ 52,301,283	\$ 43,343,093	\$ 39,753,684
<b>Operating Expenses</b>					
Cost of Goods Sold	28,826,974	22,526,874	2,794,270		
Grants and program expenditures	25,127,814	21,111,751	22,948,676	23,634,465	31,122,355
General and administrative expenses	4,445,648	2,984,178	2,408,715	1,811,227	1,387,854
Total Operating Expenses	<u>58,400,436</u>	<u>46,622,803</u>	<u>28,151,661</u>	<u>25,445,692</u>	<u>32,510,209</u>
<b>Operating Income (Loss)</b>	<u>10,850,447</u>	<u>25,415,669</u>	<u>24,149,622</u>	<u>17,897,401</u>	<u>7,243,475</u>
<b>Non-Operating Revenue and (Expenses)</b>					
Interest on solar lease notes	2,520,151	2,217,368	1,034,953	583,575	589,007
Interest on short-term investments	92,536	83,761	98,383	103,928	140,786
Interest income	60,127	58,511	57,407		
Interest expense	(61,796)	(26,985)			
Realized gain (loss) on investments	(33,723)	(1,180,285)	(350,000)	(1,034,605)	
Unrealized gain (loss) on investments			349,999	378,059	434,702
Provision for loan losses	<u>(1,021,826)</u>	<u>(563,825)</u>	<u>(1,310,933)</u>		
Net Non-Operating Revenues	<u>1,555,469</u>	<u>588,545</u>	<u>(120,191)</u>	<u>30,957</u>	<u>1,164,495</u>
<b>Income (Loss) Before Transfers, Capital Contributions and Member (Distributions)</b>	12,405,916	26,004,214	24,029,431	17,928,358	8,407,970
<b>Capital Contributions</b>				1,000	
<b>Transfers to State of Connecticut</b>		<u>(19,200,000)</u>	<u>(6,200,000)</u>		
<b>Increase in Net Position</b>	<u>\$ 12,405,916</u>	<u>\$ 6,804,214</u>	<u>\$ 17,829,431</u>	<u>\$ 17,929,358</u>	<u>\$ 8,407,970</u>



**CONNECTICUT GREEN BANK**  
**CHANGES IN NET POSITION (CONTINUED)**  
**Last Five Fiscal Years**

	Year Ended June 30,				
	2016	2015	2014	2013	2012
<b>CT Solar Lease 2 LLC</b>					
<b>Operating Revenues</b>	\$ 2,416,597	\$ 210,869	\$ 1,770	\$	\$
<b>Operating Expenses</b>					
Grants and program expenditures	3,078,633	1,201,123	600,186		
General and administrative expenses	305,217	124,748	127,511	853,480	
Total Operating Expenses	<u>3,383,850</u>	<u>1,325,871</u>	<u>727,697</u>	<u>853,480</u>	<u>-</u>
<b>Operating Loss</b>	<u>(967,253)</u>	<u>(1,115,002)</u>	<u>(725,927)</u>	<u>(853,480)</u>	
<b>Non-Operating Revenue and (Expenses)</b>					
Interest on short-term investments	27,777	9,207	8,642		
Interest expense	(729,170)	(150,871)	(57,407)		
Unrealized gain (loss) on investments	(967,791)	(660,073)			
Net Non-Operating Revenues	<u>(1,669,184)</u>	<u>(801,737)</u>	<u>(48,765)</u>	<u>-</u>	<u>-</u>
<b>Income (Loss) Before Transfers, Capital Contributions and Member (Distributions)</b>	(2,636,437)	(1,916,739)	(774,692)	(853,480)	
Capital Contributions	21,770,182	13,556,783	1,496,135	3,736,694	
Distributions to Members	<u>(301,548)</u>	<u>(104,579)</u>	<u>(12,584)</u>		
<b>Increase in Net Position</b>	<u>\$ 18,832,197</u>	<u>\$ 11,535,465</u>	<u>\$ 708,859</u>	<u>\$ 2,883,214</u>	<u>\$ -</u>

**CONNECTICUT GREEN BANK**  
**CHANGES IN NET POSITION (CONTINUED)**  
**Last Five Fiscal Years**

	Year Ended June 30,				
	2016	2015	2014	2013	2012
<b><u>CEFIA Solar Services, Inc.</u></b>					
<b>Operating Revenues</b>	\$ 126,075	\$ 123,000	\$ 120,000	\$	\$
<b>Operating Expenses</b>					
General and administrative expenses	4,750	8,450	10,877		
Total Operating Expenses	4,750	8,450	10,877	-	-
<b>Operating Loss</b>	121,325	114,550	109,123		
<b>Non-Operating Revenue and (Expenses)</b>					
Interest on short-term investments	300	981			
Net Non-Operating Revenues	300	981	-	-	-
<b>Income (Loss) Before Transfers, Capital Contributions and Member (Distributions)</b>	121,625	115,531	109,123		
<b>Capital Contributions</b>				100	
<b>Increase in Net Position</b>	\$ 121,625	\$ 115,531	\$ 109,123	\$ 100	\$ -

**CONNECTICUT GREEN BANK  
OPERATING REVENUE BY SOURCE  
Last Five Fiscal Years Ending June 30,**

	Total Operating Revenues	Utility Remittances		RGGI Auction Proceeds		Grant Revenue		Sales of Energy Equipment		Sales of Renewable Energy Certificates		Other Revenues	
		Revenue	% of Annual	Revenue	% of Annual	Revenue	% of Annual	Revenue	% of Annual	Revenue	% of Annual	Revenue	% of Annual
<b>Primary Government</b>													
2016	\$ 69,250,883	\$ 26,605,084	38.4 %	\$ 6,481,562	9.4 %	\$ 589,917	0.9 %	\$ 32,767,009	47.3 %	\$ 2,419,990	3.5 %	\$ 387,321	0.6 %
2015	72,038,471	27,233,987	37.8 %	16,583,545	23.0 %	192,274	0.3 %	25,912,414	36.0 %	1,474,488	2.0 %	641,763	0.9 %
2014	52,301,283	27,779,345	53.1 %	20,074,668	38.4 %	321,642	0.6 %	3,548,840	6.8 %	376,559	0.7 %	200,229	0.4 %
2013	43,343,093	27,621,409	63.7 %	4,744,657	10.9 %	10,035,250	23.2 %	-	- %	147,000	0.3 %	794,777	1.8 %
2012	39,753,684	27,025,088	68.0 %	2,052,748	5.2 %	10,435,251	26.2 %	-	- %	142,738	0.4 %	97,860	0.2 %
<b>CT Solar Lease 2 LLC</b>													
2016	\$ 2,416,597	\$ -	- %	\$ -	- %	\$ -	- %	\$ -	- %	\$ 233,793	9.7 %	\$ 2,182,804	90.3 %
2015	210,869	-	- %	-	- %	-	- %	-	- %	-	- %	210,869	100.0 %
2014	1,770	-	- %	-	- %	-	- %	-	- %	-	- %	1,770	100.0 %
2013	-	-	- %	-	- %	-	- %	-	- %	-	- %	-	- %
2012	-	-	- %	-	- %	-	- %	-	- %	-	- %	-	- %
<b>CEFIA Solar Services, Inc.</b>													
2016	\$ 126,075	\$ -	- %	\$ -	- %	\$ -	- %	\$ -	- %	\$ -	- %	\$ 126,075	100.0 %
2015	123,000	-	- %	-	- %	-	- %	-	- %	-	- %	123,000	100.0 %
2014	120,000	-	- %	-	- %	-	- %	-	- %	-	- %	120,000	100.0 %
2013	-	-	- %	-	- %	-	- %	-	- %	-	- %	-	- %
2012	-	-	- %	-	- %	-	- %	-	- %	-	- %	-	- %
<b>Eliminations</b>													
2016	\$ (34,005,320)	\$ -	- %	\$ -	- %	\$ -	- %	\$ (32,767,009)	96.4 %	\$ -	- %	\$ (1,238,311)	3.6 %
2015	(26,077,923)	-	- %	-	- %	-	- %	(25,895,727)	99.3 %	-	- %	(182,196)	0.7 %
2014	(3,668,840)	-	- %	-	- %	-	- %	(3,548,840)	96.7 %	-	- %	(120,000)	3.3 %
2013	-	-	- %	-	- %	-	- %	-	- %	-	- %	-	- %
2012	-	-	- %	-	- %	-	- %	-	- %	-	- %	-	- %
<b>Total Reporting Entity</b>													
2016	\$ 37,788,235	\$ 26,605,084	70.4 %	\$ 6,481,562	17.2 %	\$ 589,917	1.6 %	\$ 16,687	0.0 %	\$ 2,653,783	7.0 %	\$ 1,457,889	3.9 %
2015	46,294,417	27,233,987	58.8 %	16,583,545	35.8 %	192,274	0.4 %	-	0.0 %	1,474,488	3.2 %	793,436	1.7 %
2014	48,754,213	27,779,345	57.0 %	20,074,668	41.2 %	321,642	0.7 %	-	- %	376,559	0.8 %	201,999	0.4 %
2013	43,343,093	27,621,409	63.7 %	4,744,657	10.9 %	10,035,250	23.2 %	-	- %	147,000	0.3 %	794,777	1.8 %
2012	39,753,684	27,025,088	68.0 %	2,052,748	5.2 %	10,435,251	26.2 %	-	- %	142,738	0.4 %	97,860	0.2 %

**CONNECTICUT GREEN BANK**  
**SIGNIFICANT SOURCES OF OPERATING REVENUE**  
**Last Five Fiscal Years**

	Year Ended June 30,									
	2016		2015		2014		2013		2012	
	Revenue	% of Total	Revenue	% of Total	Revenue	% of Total	Revenue	% of Total	Revenue	% of Total
<b>Utility Remittances (1)</b>										
Eversource	\$ 21,223,577	79.8 %	\$ 21,899,541	80.4 %	\$ 22,322,100	80.4 %	\$ 22,144,093	80.2 %	\$ 22,037,771	81.5 %
United Illuminating	5,381,507	20.2 %	5,334,446	19.6 %	5,457,245	19.6 %	5,477,316	19.8 %	4,987,317	18.5 %
Total	<u>\$ 26,605,084</u>	<u>100.0 %</u>	<u>\$ 27,233,987</u>	<u>100.0 %</u>	<u>\$ 27,779,345</u>	<u>100.0 %</u>	<u>\$ 27,621,409</u>	<u>100.0 %</u>	<u>\$ 27,025,088</u>	<u>100.0 %</u>
<b>RGGI Auction Proceeds (2)</b>										
Renewables	\$ 6,481,562	100.0 %	\$ 5,631,156	34.0 %	\$ 7,476,158	37.2 %	\$ 4,744,657	100.0 %	\$ 2,052,748	100.0 %
Energy Efficiency		-- %	10,952,389	66.0 %	12,598,510	62.8 %		-- %		-- %
Total	<u>\$ 6,481,562</u>	<u>100.0 %</u>	<u>\$ 16,583,545</u>	<u>100.0 %</u>	<u>\$ 20,074,668</u>	<u>100.0 %</u>	<u>\$ 4,744,657</u>	<u>100.0 %</u>	<u>\$ 2,052,748</u>	<u>100.0 %</u>
<b>Grant Revenue</b>										
Federal ARRA Grants	\$	-- %	\$	-- %	\$	-- %	\$ 8,376,681	83.5 %	\$ 8,738,726	83.8 %
DOE Grants	589,917	100.0 %	143,614	74.7 %	321,642	100.0 %	1,622,569	16.2 %	1,645,525	15.8 %
Private Foundation		-- %	48,660	25.3 %		-- %	36,000	0.4 %	50,000	0.5 %
Total	<u>\$ 589,917</u>	<u>100.0 %</u>	<u>\$ 192,274</u>	<u>100.0 %</u>	<u>\$ 321,642</u>	<u>100.0 %</u>	<u>\$ 10,035,250</u>	<u>100.0 %</u>	<u>\$ 10,434,251</u>	<u>100.0 %</u>
<b>Sales of Renewable Energy Certificates (3)</b>										
Gross Proceeds	\$ 2,677,317	101.0 %	\$ 1,474,488	100.0 %	\$ 381,444	101.3 %	\$ 150,000	102.0 %	\$ 146,038	102.3 %
Commissions	(23,534)	(1.0 %)		-- %	(4,885)	(1.3 %)	(3,000)	(2.0 %)	(3,300)	(2.3 %)
Total	<u>\$ 2,653,783</u>	<u>100.0 %</u>	<u>\$ 1,474,488</u>	<u>100.0 %</u>	<u>\$ 376,559</u>	<u>100.0 %</u>	<u>\$ 147,000</u>	<u>100.0 %</u>	<u>\$ 142,738</u>	<u>100.0 %</u>

(1) Revenue based on Statutory rate of 1 mil per kWh generated by the utility.

(2) The Regional Greenhouse Gas Initiative (RGGI) is a cooperative effort among nine Northeastern and Mid-Atlantic states to reduce greenhouse gas emissions. RGGI holds quarterly auctions of the member state's CO2 allowances. At auction, a market-based clearing price is determined from prices submitted in the winning bids and is used to value proceeds returned to the states. The Connecticut Green Bank receives a portion of Connecticut's auction proceeds which is recognized as revenue and invested in clean energy programs.

(3) CGB owns Class 1 Renewable Energy Credits (RECs) generated by certain commercial renewable energy facilities for which CGB provided the initial funding. Through its RSIP program, CGB owns the rights to future RECs generated by facilities installed on residential properties. CGB enters into contracts to sell RECs generated during specified time periods. RECs trade on the New England Power Pool (NEPOOL) market.

**CONNECTICUT GREEN BANK  
OUTSTANDING DEBT BY TYPE  
Last Five Fiscal Years**

	Year Ended June 30,				
	2016	2015	2014	2013	2012
<b>Primary Government</b>					
Line of Credit (including adjustments)	\$ 1,100,000	\$ 1,100,000	\$ 4,000,000	\$ -	\$ -
Cumulative Advances	1,085,956	1,085,956	126,088	-	-
Cumulative Repayments	(394,249)	(232,431)	-	-	-
Cumulative Outstanding Debt	<u>691,707</u>	<u>853,525</u>	<u>126,088</u>	<u>-</u>	<u>-</u>
Available LOC	-	-	3,873,912	-	-
<b>Primary Government</b>					
Original Term Note	2,510,837	-	-	-	-
Repayments	(8,619)	-	-	-	-
Cumulative Outstanding Debt	<u>2,502,218</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
<b>CT Solar Lease 2 LLC</b>					
Line of Credit (including adjustments)	24,000,000	26,700,000	26,700,000	26,700,000	-
Cumulative Advances	18,000,000	3,000,000	-	-	-
Cumulative Repayments	(832,325)	-	-	-	-
Cumulative Outstanding Debt	<u>17,167,675</u>	<u>3,000,000</u>	<u>-</u>	<u>-</u>	<u>-</u>
Available LOC	6,000,000	23,700,000	26,700,000	26,700,000	-
<b>CEFIA Solar Services, Inc.</b>					
Line of Credit (including adjustments)	-	-	-	-	-
Cumulative Advances	-	-	-	-	-
Cumulative Repayments	-	-	-	-	-
Cumulative Outstanding Debt	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Available LOC	-	-	-	-	-
<b>Total Reporting Entity</b>					
Cumulative Outstanding Debt	<u>\$ 20,361,600</u>	<u>\$ 3,853,525</u>	<u>\$ 126,088</u>	<u>\$ -</u>	<u>\$ -</u>

**CONNECTICUT GREEN BANK  
 DEMOGRAPHIC AND ECONOMIC STATISTICS - FOR THE STATE OF CONNECTICUT  
 Last Five Fiscal Years**

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<b>Fiscal Year</b>	<b>Population <sup>(1)</sup></b>	<b>Median Age <sup>(1)</sup></b>	<b>Per Capita Income <sup>(1)</sup></b>	<b>Median Household Income <sup>(1)</sup></b>	<b>Population 3 Years and Over Enrolled in Public School <sup>(1)</sup></b>	<b>Unemployment Rate <sup>(2)</sup></b>
2016	n/a	n/a	n/a	n/a	n/a	5.8%
2015	3,590,886	40.6	39,430	\$ 71,346	729,896	5.5%
2014	3,592,053	40.3	39,373	70,048	733,997	6.5%
2013	3,583,561	40.2	37,726	67,098	751,831	7.7%
2012	3,572,213	40.0	36,891	67,276	759,755	8.5%

Sources: (1) US Census Bureau  
 (2) US Department of Labor

**CONNECTICUT GREEN BANK  
 PRINCIPAL EMPLOYERS - FOR THE STATE OF CONNECTICUT  
 Last Three Calendar Years**

Employer <sup>(1)</sup>	2015			2014			2013		
	Employees	Rank	Percentage of Total State Employment <sup>(2)</sup>	Employees	Rank	Percentage of Total State Employment <sup>(2)</sup>	Employees	Rank	Percentage of Total State Employment <sup>(2)</sup>
State of Connecticut	51,646	1	2.89%	54,230	1	3.05%	53,951	1	3.10%
United Technologies	24,000	2	1.34	25,000	2	1.40	27,000	2	1.55
Yale New Haven Health System	20,071	3	1.12	18,869	3	1.06	18,639	3	1.07
Hartford Healthcare	18,107	4	1.01	18,597	4	1.05	16,951	4	0.98
Yale University	14,787	5	0.83	14,787	5	0.83	14,750	5	0.85
General Dynamics Electric Boat	9,583	6	0.54	8,896	7	0.50	8,817	6	0.51
Wal-Mart Stores Inc.	8,800	7	0.49	9,289	6	0.52	8,761	7	0.50
The Travelers Cos. Inc.	7,300	8	0.41	7,400	9	0.42	7,400	9	0.43
The Hartford Financial Services Group	7,000	9	0.39	7,000	11	0.39	7,700	11	0.44
Mohegan Sun	6,900	10	0.39	7,300	10	0.41	7,300	10	0.42
Foxwoods Resort Casino	5,301	14	0.30	7,600	8	0.43	7,667	8	0.44

Sources: (1) Hartford Business Journal, Book of Lists  
 (2) US Department of Labor

**CONNECTICUT GREEN BANK**  
**FTEs BY FUNCTION**  
**Last Five Fiscal Years**

	Year Ended June 30,				
	2016	2015	2014	2013	2012
<b>Program Services</b>					
Statutory & Infrastructure	9.00	8.00	7.00	7.00	9.00
Residential	6.00	6.00	5.00	3.00	1.00
Commercial & Industrial	4.00	2.00	4.00	2.00	
Institutional		1.00	1.00	1.00	1.00
Subtotal Program Services	<u>19.00</u>	<u>17.00</u>	<u>17.00</u>	<u>13.00</u>	<u>11.00</u>
<b>Administrative &amp; Support</b>					
Executive	4.00	4.00	4.00	4.00	4.00
Finance	6.00	5.00	4.00	3.00	1.00
Accounting	6.00	5.30	3.50	2.75	2.20
Legal & Policy	3.00	3.00	2.00	2.00	2.00
Marketing	6.00	6.00	5.00	5.00	5.00
Operations	3.90	3.50	3.80	4.00	3.85
Subtotal Administrative & Support	<u>28.90</u>	<u>26.80</u>	<u>22.30</u>	<u>20.75</u>	<u>18.05</u>
<b>Total FTEs by Function</b>	<u>47.90</u>	<u>43.80</u>	<u>39.30</u>	<u>33.75</u>	<u>29.05</u>



**CONNECTICUT GREEN BANK**  
**OPERATING INDICATORS BY FUNCTION**  
**Last Five Fiscal Years**

	Year Ended June 30,				
	2016	2015	2014	2013	2012
<b>Clean Energy Investment (\$s in Millions)</b>					
CGB Dollars Invested	\$ 48.0	\$ 55.7	\$ 37.8	\$ 18.6	\$ 4.8
Private Dollars Invested	268.3	281.9	102.8	92.7	10.2
Total Project Investment	314.1	335.5	140.2	111.1	15.0
<b>Number of Clean Energy Projects</b>	8,271	6,543	2,422	1,118	417
<b>Annual Energy Savings of Clean Energy (MMBtu)</b>	419,219	1,086,544	378,877	59,481	9,334
<b>Installed Capacity of Clean Energy (MW)</b>					
Anaerobic Digesters	1.0	3.0	3.2		
Biomass		0.6			
CHP	2.5	0.9	3.0	0.7	
Fuel Cell				14.8	
Geothermal					
Hydro		0.5			
Solar PV	70.9	55.4	19.9	8.0	2.9
Wind		5.0			
Total	74.4	65.5	26.1	23.5	2.9
<b>Lifetime Production of Clean Energy (MWh)</b>					
Anaerobic Digesters	82,283	244,404	260,698		
Biomass		14,257			
CHP	229,129	86,611	274,955	62,781	
Fuel Cell				1,166,832	
Geothermal	295	38	84		
Hydro		43,898			
Solar PV	1,683,858	1,317,343	471,912	189,733	68,388
Wind		118,260			
Total	1,995,564	1,824,810	1,007,648	1,419,346	68,388
<b>Jobs Created by Year</b>					
Direct Jobs (# of Jobs)	1,703	1,455	550	559	88
Indirect and Induced Jobs (# of Jobs)	2,740	2,340	885	1,132	142
<b>Lifetime CO2 Emission Reductions</b>					
Emission Reductions (Tons)	885,103	815,600	271,179	178,437	35,459
Home Equivalents (# of Homes)	10,491	10,116	6,499	15,293	326
Cars Off the Road Equivalents (# of Cars)	5,816	5,432	1,630	1,967	236
Acres of Trees Planted Equivalents (# of Acres)	11,643	10,875	3,263	3,937	473

**CONNECTICUT GREEN BANK**  
**CAPITAL ASSETS STATISTICS BY FUNCTION**  
**Last Five Fiscal Years**

	Year Ended June 30,				
	2016	2015	2014	2013	2012
Capital assets being depreciated:					
Solar lease equipment	\$ 47,534,491	\$ 21,011,832	\$ 1,035,159	\$	\$
Furniture and equipment	169,423	222,701	338,938	335,744	13,049
Computer hardware and software	212,832	128,628	88,337	136,659	28,460
Leasehold improvements	225,844	153,657	139,682	71,470	56,224
Capital assets not being depreciated:					
WIP solar lease equipment	11,931,740	6,014,560	1,759,111		
Construction in progress	4,502	7,141	7,141		
	<u>60,078,832</u>	<u>27,538,519</u>	<u>3,368,368</u>	<u>543,873</u>	<u>97,733</u>
Less accumulated depreciation and amortization:					
Solar lease equipment	1,600,070	319,144	9,865		
Furniture and equipment	103,079	122,149	205,820	146,560	626
Computer hardware and software	151,573	50,906	33,845	18,093	3,807
Leasehold improvements	109,196	75,232	44,501	16,715	1,971
	<u>1,963,918</u>	<u>567,431</u>	<u>294,031</u>	<u>181,368</u>	<u>6,404</u>
<b>Capital assets, net</b>	<u>\$ 58,114,914</u>	<u>\$ 26,971,088</u>	<u>\$ 3,074,337</u>	<u>\$ 362,505</u>	<u>\$ 91,329</u>

## **NON-FINANCIAL STATISTICS**

## CONNECTICUT GREEN BANK NON-FINANCIAL STATISTICS INTRODUCTION

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This part of the Connecticut Green Bank's (CGB) comprehensive annual financial report presents detailed non-financial information as a context for understanding the methods management uses to measure CGB's success and CGB's efforts to transform the clean energy market in using its financial resources.

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## CONNECTICUT GREEN BANK

### 1. STATEMENT OF THE CONNECTICUT GREEN BANK

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December 26, 2016

Re: Statement of the Connecticut Green Bank on the Non-Financial Statistics Contents of the Comprehensive Annual Financial Report for FY 2016 - Background and Market, Measures of Success, and Market Transformation

Dear Reader:

This is the “Non-Financial Statistics” section of the Comprehensive Annual Financial Report for FY 2016.

In this section, you will find the following information:

- **Background and Market** – an overview of the organization’s governance, including engagement of its members at the board and committee levels, along with ethics compliance and financial interest disclosure requirements. You will also be able to see the level of investment, deployment and public benefits that are being created within our local communities, including distressed communities and low income census tracts. And last, you will see how the organization has made steady progress in terms of voluntarily ensuring that Connecticut’s small businesses and minority-owned enterprises have opportunities to bid on a portion of the purchases of goods and services that the organization procures.
- **Measures of Success** – as outlined in the organization’s Comprehensive Plan,<sup>1</sup> we are reporting on the following measures of success:
  - **Attract & Deploy Capital** – how we are sourcing projects (as illustrated by projects in statuses from approved to completed), level of investment by both the Connecticut Green Bank and the end-use consumer or private investor, and the private to public leverage ratio being achieved by sector.
  - **Energy Saved and Generated** – how we are quantifying the energy generated and/or saved by each project. This includes the amount of clean energy deployed (i.e., kW), estimate of clean energy produced over the life of the projects (i.e., MWh), estimate of the annual amount of energy savings (i.e., MMBtu), and the variety of renewable energy technologies we have invested in by sector.
  - **Green Bank** – how we are building a balance sheet as a result of our financing focus in terms of asset management (i.e., current vs. non-current assets), ratio of public funds invested in grants and subsidies versus credit enhancements, loans, and leases, and the general credit quality of residential borrowers in our financing programs.
  - **Public Benefits** – how our investment activities are supporting economic development (i.e., jobs) and environmental protection (i.e., GHG emission reductions and equivalencies) benefits.
- **Market Transformation** – an overview of the program logic model for the organization in terms of its goals:
  - **Attract and Deploy** – to attract and deploy capital to finance the clean energy policy goals for Connecticut;
  - **Affordable and Accessible** – to develop and implement strategies that bring down the cost of clean energy to make it more accessible and affordable to consumers; and

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<sup>1</sup> <http://goo.gl/GhRL9t>

## CONNECTICUT GREEN BANK

### 1. STATEMENT OF THE CONNECTICUT GREEN BANK

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- **From Reliance to Markets** – to reduce the market’s reliance on grants, rebates, and other subsidies and move it towards innovative low-cost financing of clean energy deployment.

The program logic model serves as a foundation for evaluating clean energy deployment through subsidy and financing programs of the Connecticut Green Bank. As we begin to evaluate our programs, the reader will see that we have applied the program logic model to the subsidy (i.e., Residential Solar Investment Program) and financing (i.e., CT Solar Loan, CT Solar Lease, Smart-E Loan, and C-PACE) programs.

The assembly of the “Non-Financial Statistics” section of the Comprehensive Annual Financial Report is a process of continuous improvement. For example, the reader can compare FY 2015 with FY 2016 to see that more information is being disclosed to better communicate the level of impact the Connecticut Green Bank is making.

The Green Bank contracted with Marcum, LLP in an Agreed Upon Procedures engagement in which a team from Marcum performed the Green Bank’s procedures to calculate energy generation and savings. These procedures were selected as energy savings and generation metrics are key performance indicators for the organization and are linked to the calculation of many of the impacts of the organization (e.g., economic development and environmental protection). Marcum traced procedures for C-PACE, C-PACE Solar Lease, Solar Lease, Smart-E, Low-Income Solar Lease and Energy Efficiency ESA, Multi-family term financing, and RSIP.

The team from Marcum had no findings for most products and procedures and the Green Bank’s Operations team has refined the processes to reflect Marcum’s findings. The management of the Green Bank will continue to build on these processes to best reflect the organization’s impact and plans to seek external review of these metrics at the end of FY 2017 and will likely engage an external party to perform a Management Assertions Review of the Non-Financial Statistics section of the CAFR.

**CONNECTICUT GREEN BANK**  
**2. BACKGROUND AND MARKET - GOVERNANCE**

---

**Board of Directors**

Pursuant to Section 16-245n of the General Statutes of Connecticut, the powers of the Connecticut Green Bank are vested in and exercised by the Board of Directors that is comprised by eleven voting and one non-voting member each with knowledge and expertise in matters related to the purpose of the organization (see Table 2).

**Table 2. Composition of the Board of Directors of the Connecticut Green Bank for FY 2016**

<b>Position</b>	<b>Name</b>	<b>Status</b>	<b>Voting</b>
Commissioner of DECD (or designee)	Catherine Smith	Ex Officio	Yes
Commissioner of DEEP (or designee)	Rob Klee	Ex Officio	Yes
State Treasurer (or designee)	Bettina Bronisz	Ex Officio	Yes
Finance of Renewable Energy	Reed Hundt	Appointed	Yes
Finance of Renewable Energy	Kevin Walsh	Appointed	Yes
Labor Organization	John Harrity	Appointed	Yes
R&D or Manufacturing	Mun Choi	Appointed	Yes
Investment Fund Management	Norma Glover	Appointed	Yes
Environmental Organization	Matthew Ranelli	Appointed	Yes
Finance or Deployment	Tom Flynn	Appointed	Yes
Residential or Low Income	Pat Wrice	Appointed	Yes
President of the Green Bank	Bryan Garcia	Ex Officio	No

The Board of Directors of the Connecticut Green Bank is governed through statute, as well as an [Ethics Statement](#) and [Ethical Conduct Policy](#), [Resolutions of Purposes](#), [Bylaws](#), [Joint Committee Bylaws](#), and [Comprehensive Plan](#). The Comprehensive Plan for the Connecticut Green Bank provides a multiyear strategy to support the vision and mission of the organization and the public policy objective of delivering consumers cheaper, cleaner, and more reliable sources of energy while creating jobs and supporting local economic development. An Employee Handbook and [Operating Procedures](#) have also been approved by the Board of Directors and serve to guide the staff to ensure that it is following proper contracting, financial assistance, and other requirements.

The Board of Directors of the Connecticut Green Bank is comprised of eleven (11) ex officio and appointed voting members, and one (1) ex officio non-voting member. The leadership of the Board of Directors, includes:

- **Chair** - Catherine Smith, Commissioner of DECD (designated as the Chair of the Connecticut Green Bank by Governor Malloy)
- **Vice Chair** - Rob Klee, Commissioner of DEEP (voted in by his peers of the Connecticut Green Bank Board of Directors)
- **Secretary** - Matthew Ranelli, Partner at Shipman and Goodwin (voted in by his peers of the Connecticut Green Bank Board of Directors)

For FY 2016, the Board of Directors of the Connecticut Green Bank met nine (9) times, including six (6) regularly scheduled meetings and three (3) special meetings. There was an attendance rate of 76% by the Board of Directors and 49 approved resolutions. For a link to the materials from the Board of Directors meetings that is publicly accessible – [click here](#).

## CONNECTICUT GREEN BANK

### 2. BACKGROUND AND MARKET - GOVERNANCE

---

#### *Committees of the Board of Directors*

There are four (4) committees of the Board of Directors of the Connecticut Green Bank, including:

- Audit, Compliance, and Governance
- Budget and Operations
- Deployment
- Joint Committee of the Energy Efficiency Board and the Connecticut Green Bank

#### **Audit, Compliance and Governance Committee**

The Audit, Compliance and Governance Committee (ACG Committee) of the Connecticut Green Bank is comprised of three (3) ex officio and appointed voting members. The leadership of the ACG Committee, includes:

- **Chair** – Matthew Ranelli, Partner and Shipman and Goodwin (designated as the Chair by Catherine Smith)
- **Members**<sup>2</sup> – John Harrity and Pat Wrice (designated as a member of the Committee by Catherine Smith)

For FY 2016, the ACG Committee of the Connecticut Green Bank met two (2) times, including two (2) regularly scheduled meetings and no special meetings. There was an attendance rate of 83% by the Audit, Compliance and Governance Committee and 5 approved resolutions. For a link to the materials from the ACG Committee meetings that is publicly accessible – [click here](#).

#### **Budget and Operations Committee**

The Budget & Operations Committee (B&O Committee) of the Connecticut Green Bank is comprised of three (3) ex officio and appointed voting members. The leadership of the B&O Committee, includes:

- **Chair** - Rob Klee, Commissioner of DEEP (designated as the Chair by Catherine Smith)
- **Members**<sup>3</sup> - Mun Choi and Norma Glover (designated as a member of the Committee by Catherine Smith)

For FY 2016, the B&O Committee of the Connecticut Green Bank met three (3) times, including three (3) regularly scheduled meetings and no special meetings. There was an attendance rate of 77% by the Budget and Operations Committee and 2 approved resolutions. For a link to the materials from the B&O Committee meetings that is publicly accessible – [click here](#).

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<sup>2</sup> Note – the Chair and/or Vice Chair of the Board of Directors of the Connecticut Green Bank can attend the Audit, Compliance, and Governance Committee meeting to establish a quorum

<sup>3</sup> Note – the Chair and/or Vice Chair of the Board of Directors of the Connecticut Green Bank can attend the Audit, Compliance, and Governance Committee meeting to establish a quorum



## CONNECTICUT GREEN BANK

### 2. BACKGROUND AND MARKET - GOVERNANCE

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#### **Deployment Committee**

The Deployment Committee of the Connecticut Green Bank is comprised of four (4) ex officio and appointed voting members. The leadership of the Deployment Committee, includes:

- **Chair**<sup>4</sup> - Reed Hundt, CEO of the Coalition for Green Capital (designated as the Chair by Catherine Smith)
- **Members**<sup>5</sup> - Bettina Bronisz (ex officio per bylaws), Matthew Ranelli, and Pat Wrice (designated as a member of the Committee by Catherine Smith)

For FY 2016, the Deployment Committee of the Connecticut Green Bank met five (5) times, including two (2) regularly scheduled meetings and three (3) special meetings. There was an attendance rate of 85% by the Deployment Committee and 16 approved resolutions. For a link to the materials from the Deployment Committee meetings that is publicly accessible – [click here](#).

#### **Joint Committee**

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

- **Chair** - Eric Brown, Attorney with CBIA (voted in by his peers of the EEB and the Connecticut Green Bank)
- **Vice Chair** - Diane Duva, DEEP (voted in by her peers of the EEB and the Connecticut Green Bank)
- **Secretary** - Bryan Garcia, Connecticut Green Bank, and Craig Diamond, Connecticut Energy Efficiency Fund (voted in by their peers of the EEB and the Connecticut Green Bank)
- **Members**<sup>6</sup> - Bryan Garcia (non-voting), Norma Glover, Bert Hunter (non-voting), and John Harrity (designated as members of the Committee by Catherine Smith)

For FY 2016, the Joint Committee of the EEB and the Connecticut Green Bank met five (5) times, including four (4) regularly scheduled meetings and one (1) special meeting. There was an attendance rate of 95% by the Joint Committee and 3 approved resolutions. For a link to the materials from the Joint Committee meetings that is publicly accessible – [click here](#).

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<sup>4</sup> Matthew Ranelli, Partner and Shipman and Goodwin for 11/14/14 & 11/21/14 only\*

<sup>5</sup> Bettina Bronisz, Reed Hundt, Rob Klee, Patricia Wrice, & Catherine Smith for 11/14/14 & 11/21/14 only\*

<sup>6</sup> Note – these members are representatives from the Connecticut Green Bank.

**CONNECTICUT GREEN BANK**  
**2. BACKGROUND AND MARKET - GOVERNANCE**

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**Statement of Financial Interest**

It is required by state ethics laws and a determination of the Governor’s standard that senior-level staff (i.e., Director level and above) and members of the Board of Directors annually file a Statement of Financial Interest (SFI). The Governor’s standard is the following:

Governor Malloy has established a standard which requires “filing of Annual Statements of Financial Interests by all persons in the Executive Branch and Quasi-Public Agencies who exercise (i) significant policy-making, regulatory or contractual authority; (ii) significant decision-making and/or supervisory responsibility for the review and/or award of State contracts; or (iii) significant decision-making and/or supervisory responsibility over staff that monitor State contracts.”

These statements include information such as names of all associated business, income over \$1,000 and a list of all real property as well as any creditors. SFIs that have been filed are available to the public under the Freedom of Information Act. The SFIs serve two purposes. First, the financial disclosure provides a checklist or reminder to the official/employee to be mindful of potential conflicts of interest. Second, the statements serve as a tool to maximize public confidence in governmental decision making.

With respect to the 2016 SFI filing – required by May 2, 2016 – the Connecticut Office of State Ethics received the following from the Connecticut Green Bank (see Table 3):

**Table 3. Summary of State of Financial Interest Filings with the Office of State Ethics for FY 2016**

	<u>Number of SFIs Submitted</u>	<u>% Submitted on Time</u>
Senior Staff	10	100%
Board of Directors	7	100%

The Connecticut Green Bank received a Certificate of Excellence Ethics Compliance from the Connecticut Office of State Ethics. The organization has received this designation in each of its first five years of operation.

**CONNECTICUT GREEN BANK**  
**2. BACKGROUND AND MARKET - COMMUNITIES**

**Fiscal Year 2016 Approved/Closed/Completed Projects**

Communities across Connecticut are demonstrating leadership in their support of green energy. The Connecticut Green Bank distributes reports to communities on an annual basis to provide them with a breakdown of their performance. There are many leaders of green energy deployment across the state, and we have assembled the “Top 5” in energy, environment, and economy for both FY 2016 as well as FY 2012 through FY 2016.

**Table 4. The “Top 5” Energy, Environment, and Economy Metrics for FY 2016<sup>7</sup>**

Municipality	Watts/ Capita	Municipality	Lifetime CO2 Emissions (tons)	Municipality	Investment Capita
Canaan	171.8	Bridgeport	29,949	Canaan	\$ 777.61
Kent	165.4	Manchester	24,760	Kent	498.93
Windsor	90.3	Bloomfield	21,685	Southington	358.57
Bloomfield	85.9	Milford	20,802	Windsor	346.60
Orange	72.4	Waterbury	19,596	Chester	326.25

**Table 5. Clean Energy Performance by Municipality (FY 2016)**

Municipality	# Projects	Average Investment (Project Cost)	Median Investment (Project Cost)	Total Investment (Project Cost)	Investment / Capita	MW	Watts/ Capita	Annual MMBTU	Total Job Years	Lifetime CO2 Emissions (tons)
Andover	5	\$ 43,707	\$ 37,128	\$ 218,534	\$ 66.16	0.0	15.1	173	3	615
Ansonia	50	30,368	27,000	1,518,394	78.88	0.4	18.9	1,181	23	4,474
Ashford	21	31,493	31,618	661,347	153.20	0.1	32.9	464	10	1,749
Avon	35	32,430	35,490	1,135,042	62.72	0.3	15.4	978	18	3,432
Barkhamsted	17	35,580	34,627	604,867	159.22	0.2	41.4	510	9	1,936
Beacon Falls	7	30,049	27,300	210,345	34.77	0.1	8.5	167	3	636
Berlin	47	32,806	30,240	1,541,875	77.61	0.4	18.2	1,190	24	4,444
Bethany	15	34,207	36,855	513,106	92.24	0.1	22.6	408	8	1,552
Bethel	41	34,899	31,942	1,430,846	76.99	0.3	17.6	1,063	22	4,040
Bethlehem	15	29,877	29,016	448,148	124.24	0.1	26.5	310	7	1,177
Bloomfield	103	49,138	22,155	5,061,227	247.06	1.8	85.9	5,713	61	21,685
Bolton	28	28,336	30,776	793,412	159.32	0.2	45.3	768	12	2,777
Branford	65	33,724	31,395	2,192,068	78.22	0.5	17.6	1,618	34	6,068
Bridgeport	316	34,114	27,000	10,779,927	74.74	2.3	15.8	9,486	142	29,949
Bridgewater	7	44,624	39,028	312,369	180.87	0.1	37.8	212	5	805
Bristol	167	36,867	31,395	6,156,742	101.80	1.4	23.3	4,590	92	17,381
Brookfield	26	39,157	35,870	1,018,073	61.88	0.2	14.3	764	15	2,901
Brooklyn	42	27,446	25,636	1,152,742	140.41	0.3	36.9	982	18	3,729
Burlington	31	68,606	40,950	2,126,799	228.66	0.6	62.1	1,915	27	7,120
Canaan	15	63,971	39,312	959,570	777.61	0.2	171.8	815	13	3,045
Canterbury	21	41,368	32,604	868,726	169.28	0.2	39.2	652	13	2,478
Canton	8	42,236	38,753	337,887	32.83	0.1	8.0	286	5	1,010
Chaplin	3	37,573	40,950	112,718	48.90	0.0	9.3	70	2	265
Cheshire	59	34,510	31,000	2,036,063	69.58	0.5	17.3	1,737	33	6,237
Chester	16	81,441	36,855	1,303,059	326.25	0.1	30.4	406	9	1,498
Clinton	39	48,406	32,760	1,887,829	142.37	0.5	35.8	1,551	25	5,844
Colchester	46	38,424	36,375	1,767,515	110.00	0.4	25.1	1,338	27	4,963
Colebrook	4	41,606	40,159	166,425	112.07	0.0	26.5	128	3	485
Columbia	9	34,120	40,065	307,080	55.99	0.1	12.9	229	5	871
Cornwall	5	24,128	25,935	120,640	84.96	0.0	20.2	93	2	353
Coventry	36	32,319	29,090	1,163,477	93.56	0.3	22.1	891	18	3,384
Cromwell	50	32,915	30,043	1,645,742	117.51	0.4	29.4	1,334	25	5,068
Danbury	80	37,629	36,087	3,010,357	37.21	0.7	8.4	2,217	46	8,421
Darien	6	32,244	28,002	193,463	9.33	0.0	2.2	149	3	565
Deep River	22	34,214	27,983	752,713	162.61	0.1	32.4	504	12	1,846
Derby	34	31,194	30,823	1,060,581	82.20	0.3	20.9	874	16	3,319
Durham	20	44,394	44,145	887,879	120.18	0.2	27.2	651	14	2,473
East Granby	20	37,814	38,679	756,283	146.91	0.1	28.1	480	12	1,780
East Haddam	24	33,491	30,608	803,783	88.08	0.2	19.8	586	12	2,228
East Hampton	39	36,502	35,490	1,423,582	109.85	0.3	24.7	1,058	22	3,950
East Hartford	222	24,024	21,960	5,333,228	104.06	1.4	26.7	4,630	83	16,862
East Haven	117	28,236	27,225	3,303,651	112.92	0.8	26.5	2,615	52	9,545
East Lyme	51	33,574	30,340	1,712,290	89.37	0.4	20.0	1,241	26	4,716
East Windsor	33	47,442	35,490	1,565,578	140.26	0.3	25.8	939	25	3,517

<sup>7</sup> It should be noted that both Bridgeport and Colebrook are in the “Top 5” in several categories as a result of large investments in the Dominion Bridgeport Fuel Cell Park and Colebrook Wind Project respectively.

# CONNECTICUT GREEN BANK

## 2. BACKGROUND AND MARKET - COMMUNITIES

Municipality	# Projects	Average Investment (Project Cost)	Median Investment (Project Cost)	Total Investment (Project Cost)	Investment / Capita	MW	Watts/ Capita	Annual MMBTU	Total Job Years	Lifetime CO2 Emissions (tons)
Eastford	6	38,334	40,268	230,003	131.51	0.1	36.9	209	4	794
Easton	8	45,211	43,816	361,689	48.29	0.1	9.7	347	5	897
Ellington	53	38,488	35,490	2,039,878	130.74	0.5	30.3	1,534	31	5,829
Enfield	66	25,678	24,570	1,694,775	37.95	0.4	8.3	1,215	26	4,541
Essex	16	37,160	37,538	594,564	88.97	0.1	18.5	400	9	1,520
Fairfield	116	35,681	30,748	4,138,963	69.67	1.0	17.3	3,359	61	12,644
Farmington	39	31,400	27,030	1,224,594	48.33	0.3	11.1	928	19	3,466
Franklin	7	34,426	27,269	\$240,981	125.38	0.1	28.5	177	4	674
Glastonbury	76	31,919	32,000	2,425,863	70.46	0.6	18.0	2,091	38	7,664
Goshen	5	32,617	32,130	163,083	54.80	0.0	13.1	126	3	479
Granby	23	34,286	30,030	788,588	69.90	0.2	17.3	634	12	2,408
Greenwich	24	37,528	29,282	900,674	14.72	0.2	3.3	686	14	2,461
Griswold	79	36,193	32,760	2,859,267	239.25	0.7	54.6	2,158	44	8,040
Groton	10	141,438	37,360	1,414,385	35.26	0.1	1.3	5,313	26	680
Guilford	69	35,784	33,768	2,469,078	110.35	0.6	26.4	1,972	38	7,284
Haddam	32	42,828	37,529	1,370,506	164.21	0.3	37.1	1,082	21	3,810
Hamden	170	28,647	27,150	4,870,068	79.89	1.1	18.2	3,630	76	13,670
Hampton	6	38,553	41,362	231,318	124.16	0.1	32.1	194	4	738
Hartford	117	38,552	19,110	4,510,554	36.15	1.1	8.6	5,758	67	19,514
Hartland	6	36,504	28,665	219,023	103.61	0.0	21.8	150	3	569
Harwinton	32	35,338	32,405	1,130,811	200.43	0.3	50.4	955	17	3,506
Hebron	29	37,998	38,220	1,101,947	113.77	0.3	27.2	854	17	3,246
Kent	11	135,119	48,195	1,486,311	498.93	0.5	165.4	1,598	16	6,070
Killingly	78	34,808	26,147	2,714,986	156.30	0.7	40.3	2,285	40	8,644
Killingworth	23	33,552	30,533	771,688	118.27	0.2	30.9	666	12	2,486
Lebanon	19	32,218	24,570	612,147	83.76	0.2	20.8	494	9	1,877
Ledyard	57	31,462	28,109	1,793,320	119.15	0.4	29.7	1,565	28	5,499
Lisbon	14	34,476	34,808	482,670	111.27	0.1	23.0	323	7	1,228
Litchfield	19	28,501	28,080	541,528	63.97	0.1	17.2	472	8	1,792
Lyme	5	36,442	40,308	182,208	75.73	0.0	15.8	123	3	468
Madison	24	36,736	35,295	881,659	48.26	0.2	11.0	705	14	2,534
Manchester	108	62,626	24,063	6,763,588	116.13	2.0	34.1	6,585	82	24,760
Mansfield	30	34,481	32,630	1,034,444	38.97	0.2	9.1	785	16	2,982
Marlborough	8	39,727	40,365	317,818	49.63	0.1	11.6	242	5	918
Meriden	132	31,889	28,639	4,209,327	69.16	1.0	16.4	3,244	65	12,306
Middlebury	8	39,056	35,984	312,444	41.25	0.1	10.5	259	5	982
Middlefield	26	33,701	31,497	876,234	198.02	0.2	52.1	747	13	2,839
Middletown	127	41,125	32,760	5,222,895	109.61	1.3	26.4	4,158	76	15,527
Milford	223	32,485	28,080	7,244,229	137.31	1.7	32.0	5,642	110	20,802
Monroe	36	44,563	43,290	1,604,267	82.36	0.4	18.7	1,183	25	4,496
Montville	78	35,342	32,786	2,756,651	140.85	0.6	31.6	2,042	43	7,612
Morris	6	39,229	34,058	235,373	98.56	0.0	20.5	159	4	604
Naugatuck	119	31,982	30,056	3,805,881	119.45	0.9	29.7	3,095	59	11,640
New Britain	127	65,851	23,205	8,363,077	114.24	3.3	45.3	121,401	52	10,033
New Canaan	10	53,201	47,901	532,010	26.95	0.1	5.6	357	8	1,357
New Fairfield	23	47,524	47,775	1,093,061	78.75	0.2	16.7	753	17	2,859
New Hartford	18	36,214	34,605	651,851	93.52	0.2	23.5	532	10	2,022
New Haven	112	33,292	24,661	3,728,701	28.73	0.8	6.5	3,599	55	10,419
New London	45	26,511	20,475	1,192,999	43.19	0.3	9.6	939	20	3,263
New Milford	68	40,312	35,198	2,741,210	97.41	0.6	21.3	1,947	42	7,397
Newington	107	30,334	24,570	3,245,746	106.20	0.8	27.1	2,733	48	10,220
Newtown	37	119,927	36,173	4,437,281	161.00	0.7	25.6	5,537	47	8,823
Norfolk	5	38,996	38,919	194,979	114.09	0.0	26.4	146	3	556
North	15	39,660	40,950	594,893	41.29	0.1	8.8	411	9	1,560
Branford										
North Canaan	2	59,725	59,725	119,450	36.03	0.0	7.5	81	2	306
North Haven	126	33,454	30,202	4,215,176	174.95	1.1	46.4	3,626	65	13,775
North	20	52,305	37,253	1,046,109	197.49	0.3	55.0	1,008	14	3,804
Stonington										
Norwalk	109	26,658	24,692	2,905,716	33.94	0.8	9.4	2,645	45	9,866
Norwich	25	11,570	10,175	289,254	7.14	0.0	0.0	305	9	0
Old Lyme	35	32,793	32,760	1,147,752	150.96	0.3	34.9	872	18	3,267
Old Saybrook	42	31,617	29,060	1,327,929	129.66	0.3	28.8	958	20	3,640
Orange	53	66,574	31,824	3,528,429	252.83	1.0	72.4	3,338	42	12,450
Oxford	34	42,329	35,997	1,439,193	113.47	0.3	27.1	1,116	22	4,240
Plainfield	60	33,181	32,760	1,990,859	129.23	0.4	29.0	1,447	31	5,496
Plainville	67	40,337	29,172	2,702,555	152.55	0.7	41.0	2,494	37	9,297
Plymouth	60	41,162	35,768	2,469,727	201.73	0.5	42.2	1,675	37	6,363
Pomfret	19	36,402	33,278	691,632	162.85	0.2	40.1	560	11	2,098
Portland	12	31,728	29,249	380,731	40.04	0.1	11.6	370	6	1,360
Preston	21	36,981	34,125	776,594	164.32	0.2	38.1	604	12	2,221
Prospect	23	36,608	34,808	841,988	89.53	0.2	19.0	653	13	2,207
Putnam	46	32,719	28,822	1,505,077	157.04	0.4	41.8	1,304	23	4,933
Redding	13	52,799	42,000	686,381	74.95	0.1	13.4	399	11	1,517
Ridgefield	21	48,609	45,045	1,020,779	41.43	0.2	8.4	677	16	2,554
Rocky Hill	54	34,664	30,498	1,871,857	94.97	0.4	21.0	1,342	29	5,097
Roxbury	5	40,790	34,125	203,950	90.16	0.0	21.7	159	3	605
Salem	27	41,514	36,855	1,120,876	270.03	0.2	56.3	771	17	2,878
Salisbury	13	31,473	24,570	409,155	109.37	0.1	26.6	322	6	1,225
Scotland	4	46,269	39,741	185,075	107.23	0.0	24.9	140	3	530
Seymour	33	28,134	22,100	928,430	56.13	0.2	15.0	816	15	3,057
Sharon	3	82,392	48,600	247,176	88.85	0.1	20.6	186	4	705
Shelton	118	35,005	32,587	4,130,618	104.42	1.0	25.1	3,215	64	12,215
Sherman	9	37,408	36,855	336,669	94.02	0.1	20.4	237	5	902
Simsbury	15	39,350	38,363	590,255	25.11	0.1	5.0	378	9	1,435
Somers	18	41,849	39,418	753,288	65.82	0.2	14.8	564	12	2,087
South	96	31,294	31,142	3,004,268	116.86	0.8	30.7	2,563	45	9,737
Windsor										

**CONNECTICUT GREEN BANK**  
**2. BACKGROUND AND MARKET - COMMUNITIES**

Municipality	# Projects	Average Investment (Project Cost)	Median Investment (Project Cost)	Total Investment (Project Cost)	Investment / Capita	MW	Watts/ Capita	Annual MMBTU	Total Job Years	Lifetime CO2 Emissions (tons)
Southbury	45	37,309	33,885	1,678,907	84.35	0.5	22.8	1,472	26	5,591
Southington	147	105,057	32,760	15,443,413	358.57	2.2	51.7	48,977	77	14,970
Sprague	12	43,127	44,796	517,529	173.43	0.1	35.9	359	8	1,319
Stafford	29	33,112	30,030	960,242	79.44	0.2	18.2	714	15	2,712
Stamford	77	76,021	32,382	5,853,634	47.73	0.8	6.5	9,601	97	9,815
Sterling	14	35,614	38,558	498,602	130.18	0.1	27.6	342	8	1,300
Stonington	90	33,751	31,133	3,037,598	163.80	0.7	39.1	2,350	46	8,929
Stratford	207	30,188	27,000	6,248,991	121.61	1.4	27.7	5,118	96	19,491
Suffield	47	36,090	33,278	1,696,230	107.80	0.4	24.8	1,272	26	4,813
Thomaston	23	32,479	26,602	747,008	94.71	0.2	22.7	590	12	2,210
Thompson	41	40,481	25,500	1,659,728	175.48	0.5	50.5	1,568	22	5,880
Tolland	46	33,673	30,345	1,548,935	102.91	0.4	27.1	1,344	24	5,019
Torrington	53	31,851	28,550	1,688,116	46.40	0.4	10.9	1,284	26	4,877
Trumbull	86	37,887	34,125	3,258,323	90.46	0.7	20.6	2,447	49	9,158
Union	2	20,389	20,389	40,777	47.75	0.0	12.5	35	1	131
Vernon	95	36,068	26,887	3,426,415	117.43	0.9	30.6	2,998	49	11,009
Voluntown	17	27,379	28,080	465,444	178.81	0.1	50.5	426	7	1,620
Wallingford	2	19,925	19,925	39,850	0.88	0.0	0.0	56	1	0
Warren	8	44,237	43,567	353,894	242.23	0.1	64.7	306	5	1,164
Washington	11	42,166	31,224	463,824	129.63	0.1	29.7	345	7	1,310
Waterbury	207	34,121	28,270	7,062,995	64.00	1.6	14.4	5,241	112	19,596
Waterford	92	33,592	29,389	3,090,426	158.35	0.7	37.9	2,484	48	9,102
Watertown	64	37,147	34,125	2,377,404	105.60	0.5	23.8	1,740	37	6,610
West Hartford	145	27,928	24,383	4,049,535	64.01	1.0	15.3	3,185	62	11,905
West Haven	182	28,842	26,559	5,249,261	94.47	1.3	23.7	4,282	81	16,204
Westbrook	20	41,956	40,440	839,122	120.95	0.2	27.1	609	13	2,315
Weston	11	39,682	33,768	436,506	42.88	0.1	9.6	384	7	1,202
Westport	22	48,344	40,446	1,063,572	40.30	0.2	9.5	1,205	17	3,102
Wethersfield	81	36,224	28,330	2,934,176	110.03	0.8	28.6	2,541	42	9,387
Willington	21	36,373	35,960	763,838	126.44	0.2	30.1	589	12	2,237
Wilton	40	40,322	38,450	1,612,899	89.30	0.4	22.7	1,408	25	5,053
Winchester	16	24,279	22,170	388,457	34.55	0.1	9.5	348	6	1,322
Windham	44	28,527	25,486	1,255,200	49.68	0.3	12.5	995	19	3,780
Windsor	152	28,499	24,660	4,331,842	346.60	1.1	90.3	3,700	67	13,906
Windsor Locks	70	32,260	21,799	2,258,231	77.75	0.6	21.5	2,180	31	7,892
Wolcott	66	37,779	34,808	2,493,426	149.49	0.5	32.3	1,846	39	6,641
Woodbridge	37	52,064	32,634	1,926,384	214.28	0.6	66.0	1,935	26	7,306
Woodbury	13	37,278	38,936	484,615	48.58	0.1	11.7	378	7	1,437
Woodstock	25	31,611	35,316	790,284	99.23	0.2	24.5	664	12	2,403
Unknown	4	305,400	300,640	1,221,600	-	0.2	0	609	5	2,315
<b>Total</b>	<b>8,271</b>	<b>37,974</b>	<b>29,172</b>	<b>314,086,243</b>	<b>87.94</b>	<b>74.4</b>	<b>20.8</b>	<b>419,219</b>	<b>4,444</b>	<b>885,103</b>

**Approved/Closed/Completed Projects Fiscal Year 2012 - 2016**

**Table 6. The “Top 5” Energy, Environment, and Economy Metrics for FY 2012 - 2016<sup>8</sup>**

Municipality	Watts/ Capita	Municipality	Lifetime CO2 Emissions (tons)	Municipality	Investment/ Capita
Colebrook	3,426.9	Bridgeport	127,288	Colebrook	\$ 15,426.21
Canaan	249.5	Colebrook	62,532	Canaan	1,188.07
Woodbridge	213.7	Putnam	57,622	Southington	1,022.74
Hampton	208.9	Middletown	48,781	Bridgeport	1,010.29
Durham	187.6	Bristol	42,312	Windsor	856.09

<sup>8</sup> The status represents the current disposition of projects as of June 30, 2016. Projects are displayed by the fiscal year in which they were Approved but not Closed, Closed but not Completed or Closed and Completed. (See Project Status in Measures of Success).

**CONNECTICUT GREEN BANK**  
**2. BACKGROUND AND MARKET - COMMUNITIES**

**Table 7. Clean Energy Performance by Municipality (FY 2012-2016)**

Municipality	# Projects	Average Investment (Project Cost)	Median Investment (Project Cost)	Total Investment (Project Cost)	Investment/ Capita	MW	Watts/ Capita	Annual MMBTU	Total Job Years	Lifetime CO2 Emissions (tons)
Andover	19	\$ 36,684	\$ 36,507	\$ 697,003	\$ 211.02	0.2	45.6	516	11	1,855
Ansonia	84	34,616	26,816	2,907,745	151.06	0.7	34.2	2,245	43	8,352
Ashford	86	39,947	32,664	3,435,428	795.79	0.8	185.0	2,613	50	9,838
Avon	96	49,328	37,063	4,735,447	261.66	1.0	53.0	5,393	74	11,898
Barkhamsted	33	34,278	32,898	1,131,158	297.75	0.3	72.7	896	17	3,404
Beacon Falls	28	31,730	30,585	888,435	146.87	0.2	33.4	655	14	2,489
Berlin	127	33,794	33,600	4,291,814	216.04	0.9	46.8	3,117	66	11,454
Bethany	53	35,965	35,000	1,906,147	342.65	0.4	76.7	1,408	30	5,258
Bethel	85	33,132	31,590	2,816,242	151.54	0.6	33.7	2,031	43	7,716
Bethlehem	35	32,795	29,453	1,147,825	318.22	0.2	66.4	776	18	2,950
Bloomfield	179	41,037	25,074	7,345,671	358.57	2.3	110.8	7,385	96	27,957
Bolton	56	32,753	30,776	1,834,150	368.30	0.5	92.2	1,526	28	5,660
Branford	111	33,660	31,395	3,736,217	133.31	0.8	30.0	2,769	58	10,364
Bridgeport	448	325,252	27,000	145,713,095	1,010.29	20.9	145.2	838,304	1,398	127,288
Bridgewater	9	41,193	38,680	370,737	214.67	0.1	44.0	246	6	935
Bristol	356	40,287	30,488	14,342,157	237.15	3.4	56.5	11,196	204	42,312
Brookfield	101	54,867	37,118	5,541,613	336.84	1.0	61.6	6,287	80	15,593
Brooklyn	96	32,024	30,000	3,074,328	374.46	0.7	89.2	2,394	47	9,018
Burlington	123	46,271	37,750	5,691,360	611.91	1.4	153.6	4,674	82	17,604
Canaan	28	52,360	37,729	1,466,084	1,188.07	0.3	249.5	1,125	21	4,226
Canterbury	52	38,945	32,719	2,025,128	394.61	0.4	87.7	1,459	31	5,543
Canton	73	33,845	29,400	2,470,718	240.06	0.6	58.0	2,033	38	7,356
Chaplin	29	31,753	29,168	920,823	399.49	0.2	91.0	680	14	2,584
Cheshire	194	34,578	33,445	6,708,084	229.25	1.6	55.4	5,384	105	19,983
Chester	37	51,915	31,200	1,920,864	480.94	0.3	65.8	863	18	3,236
Clinton	86	39,630	32,845	3,408,152	257.03	0.8	62.4	2,698	49	10,199
Colchester	114	36,764	33,480	4,191,041	260.83	0.9	53.9	2,875	65	10,666
Colebrook	11	2,082,538	36,464	22,907,918	15,426.21	5.1	3,426.9	288	6	62,532
Columbia	71	32,536	32,130	2,310,077	421.16	0.5	95.1	1,713	35	6,430
Cornwall	17	28,676	28,286	487,498	343.31	0.1	76.7	353	8	1,341
Coventry	129	46,107	31,395	5,947,788	478.31	1.5	120.7	4,882	79	18,517
Cromwell	117	49,555	30,240	5,797,968	413.99	0.9	62.0	6,904	97	10,709
Danbury	196	37,072	35,464	7,266,156	89.82	1.5	19.0	5,870	113	18,971
Darien	25	41,263	39,592	1,031,567	49.76	0.2	9.8	659	16	2,503
Deep River	39	52,780	31,244	2,058,418	444.68	0.5	107.9	1,760	27	6,152
Derby	57	30,574	29,451	1,742,694	135.07	0.4	32.5	1,375	27	5,172
Durham	165	34,032	31,500	5,615,243	760.05	1.4	187.6	4,495	86	17,077
East Granby	68	36,923	36,334	2,510,747	487.71	0.5	103.2	1,779	39	6,543
East Haddam	60	45,131	31,735	2,707,849	296.72	0.6	70.7	2,110	37	7,859
East Hampton	91	37,080	35,490	3,374,322	260.38	0.7	55.7	2,358	52	8,887
East Hartford	317	25,469	24,098	8,073,769	157.53	1.9	37.8	6,493	125	23,863
East Haven	175	27,775	26,774	4,860,704	166.14	1.1	38.8	3,871	76	13,970
East Lyme	135	35,052	33,885	4,731,982	246.98	1.0	53.8	3,406	72	12,961
East Windsor	82	58,965	34,902	4,835,110	433.18	1.1	103.0	4,015	65	14,848
Eastford	19	34,441	30,791	654,375	374.14	0.2	97.3	552	10	2,096
Easton	54	50,773	33,885	2,741,742	366.05	0.7	97.5	2,516	36	8,997
Ellington	118	40,822	35,121	4,817,046	308.75	1.1	70.3	3,903	72	14,312
Enfield	240	31,891	27,338	7,653,765	171.40	1.7	38.5	5,860	113	21,752
Essex	45	31,372	28,560	1,411,726	211.24	0.3	47.0	1,018	22	3,867
Fairfield	288	35,778	30,015	10,304,046	173.46	2.5	41.3	8,149	163	30,205
Farmington	162	31,868	30,725	5,162,681	203.74	1.2	49.1	4,093	80	15,357
Franklin	19	35,970	31,044	683,428	355.58	0.2	81.2	506	11	1,924
Glastonbury	212	33,721	29,761	7,148,914	207.65	1.7	49.2	5,874	107	21,969
Goshen	17	37,354	41,000	635,023	213.38	0.1	47.9	462	10	1,756
Granby	72	33,202	31,257	2,390,576	211.89	0.5	47.5	1,740	37	6,609
Greenwich	103	30,672	27,895	3,159,165	51.64	0.7	11.3	2,273	49	8,490
Griswold	166	36,630	33,953	6,080,617	508.80	1.3	111.4	4,369	94	16,398
Groton	25	76,212	32,785	1,905,304	47.50	0.1	3.6	5,600	34	1,770
Guilford	150	35,799	34,199	5,369,828	239.99	1.2	54.5	4,011	82	15,032
Haddam	159	33,762	31,590	5,368,236	643.21	1.3	161.3	4,538	82	16,585
Hamden	360	27,937	26,316	10,057,186	164.98	2.3	37.1	7,566	157	27,893
Hampton	34	43,352	29,458	1,473,974	791.18	0.4	208.9	1,285	20	4,795
Hartford	175	42,638	19,854	7,461,708	59.80	1.5	12.3	8,295	113	25,605
Hartland	21	31,654	30,030	664,728	314.44	0.2	72.1	513	10	1,878
Harwinton	60	33,973	33,274	2,038,384	361.29	0.5	87.4	1,640	32	6,079
Hebron	77	34,891	34,091	2,686,591	277.37	0.6	63.2	1,985	41	7,543
Kent	18	95,354	33,808	1,716,376	576.16	0.5	183.5	1,772	20	6,734
Killingly	142	33,235	29,226	4,719,429	271.70	1.2	67.4	3,833	71	14,446
Killingworth	95	41,608	37,050	3,952,751	605.79	1.0	157.7	3,434	59	12,674
Lebanon	83	31,188	30,038	2,588,627	354.22	0.6	84.6	2,027	40	7,613
Ledyard	112	32,813	30,236	3,675,039	244.17	0.8	55.7	2,888	57	10,338
Lisbon	40	36,133	35,295	1,445,317	333.18	0.3	70.4	1,002	22	3,762
Litchfield	41	32,001	33,885	1,312,030	154.98	0.3	37.9	1,040	20	3,949
Lyme	17	34,663	32,881	589,270	244.92	0.1	59.0	460	9	1,748
Madison	83	33,583	31,962	2,787,401	152.58	0.6	34.5	2,100	43	7,831
Manchester	260	44,037	25,707	11,449,653	196.59	3.2	54.1	10,485	149	39,426
Mansfield	152	30,896	28,835	4,696,166	176.93	1.1	39.6	3,407	72	12,943
Marlborough	26	37,722	32,641	980,774	153.15	0.2	33.8	701	15	2,663
Meriden	241	40,151	28,665	9,676,504	158.98	1.8	29.7	12,497	158	35,448
Middlebury	26	37,240	36,172	968,235	127.82	0.2	28.6	731	15	2,672
Middlefield	54	35,625	33,323	1,923,742	434.74	0.5	102.2	1,467	30	5,573
Middletown	282	63,089	32,060	17,791,132	373.39	3.8	80.3	44,930	211	48,781
Milford	394	89,866	28,793	35,407,071	671.11	5.8	109.4	142,849	191	34,155
Monroe	83	39,782	39,015	3,301,899	169.51	0.7	37.8	2,390	51	9,078
Montville	180	34,127	32,786	6,142,821	313.87	1.4	69.9	4,631	96	16,846

# CONNECTICUT GREEN BANK

## 2. BACKGROUND AND MARKET - COMMUNITIES

Municipality	# Projects	Average Investment (Project Cost)	Median Investment (Project Cost)	Total Investment (Project Cost)	Investment/ Capita	MW	Watts/ Capita	Annual MMBTU	Total Job Years	Lifetime CO2 Emissions (tons)
Morris	17	38,777	36,720	659,208	276.05	0.1	53.8	416	10	1,582
Naugatuck	190	34,312	30,066	6,519,282	204.61	1.4	43.9	4,674	103	17,239
New Britain	233	57,925	23,205	13,496,533	184.36	4.9	66.9	127,472	115	32,357
New Canaan	51	41,567	39,102	2,119,899	107.40	0.4	22.1	1,418	33	5,375
New Fairfield	76	42,073	38,738	3,197,582	230.36	0.7	48.6	2,187	49	8,308
New Hartford	70	35,625	33,908	2,493,753	357.78	0.6	84.6	1,944	39	7,268
New Haven	200	30,201	24,661	6,040,290	46.54	1.3	10.2	5,193	91	16,299
New London	80	54,013	23,352	4,321,046	156.45	1.1	40.9	3,980	55	15,192
New Milford	136	41,282	37,743	5,614,403	199.50	1.2	42.4	3,867	86	14,692
Newington	219	33,848	27,300	7,412,730	242.55	1.8	57.4	5,837	110	21,885
Newtown	123	62,027	34,400	7,629,349	276.83	1.5	53.5	8,113	96	18,304
Norfolk	19	38,214	34,475	726,069	424.85	0.2	91.6	508	11	1,929
North Branford	49	36,540	34,503	1,790,467	124.28	0.4	27.9	1,303	28	4,951
North Canaan	7	40,761	34,644	285,324	86.07	0.1	18.0	193	4	734
North Haven	227	33,527	31,434	7,610,695	315.89	1.9	77.9	6,122	118	23,116
North Stonington	44	44,657	38,360	1,964,925	370.95	0.5	91.6	1,637	28	6,192
Norwalk	173	69,347	26,950	11,996,993	140.15	4.3	50.7	147,247	86	17,839
Norwich	126	13,055	9,350	1,644,978	40.62	0.2	4.1	2,260	44	2,090
Old Lyme	83	35,623	33,885	2,956,737	388.89	0.7	90.0	2,250	46	8,433
Old Saybrook	104	32,066	30,853	3,334,875	325.61	0.7	70.0	2,333	51	8,834
Orange	105	51,254	33,614	5,381,697	385.62	1.4	100.6	4,636	71	17,291
Oxford	70	41,431	37,850	2,900,149	228.66	0.7	52.7	2,168	45	8,237
Plainfield	139	33,002	32,016	4,587,230	297.78	1.0	66.9	3,343	71	12,701
Plainville	163	48,302	29,936	7,873,293	444.42	2.0	114.8	7,818	106	26,443
Plymouth	126	38,762	34,172	4,883,979	398.92	1.0	83.9	3,333	75	12,662
Pomfret	57	32,299	30,561	1,841,022	433.49	0.4	104.4	1,446	28	5,465
Portland	87	31,128	28,800	2,708,097	284.82	0.7	69.7	2,161	41	8,166
Preston	45	37,278	32,868	1,677,502	354.95	0.4	80.4	1,251	26	4,679
Prospect	54	34,214	32,125	1,847,553	196.44	0.4	43.1	1,387	28	4,995
Putnam	86	55,469	27,720	4,770,301	497.74	1.2	125.7	11,410	87	57,622
Redding	38	45,706	43,493	1,736,827	189.65	0.3	37.6	1,117	28	4,242
Ridgefield	64	43,696	40,832	2,796,553	113.51	0.6	23.9	1,916	43	7,261
Rocky Hill	118	32,951	30,874	3,888,169	197.28	0.9	43.4	2,781	60	10,547
Roxbury	28	35,799	33,580	1,002,359	443.13	0.3	114.8	842	15	3,199
Salem	50	38,948	35,741	1,947,394	469.14	0.4	97.9	1,350	30	5,007
Salisbury	38	32,963	30,327	1,252,601	334.83	0.3	69.7	882	19	3,212
Scotland	9	37,714	33,987	339,426	196.65	0.1	45.8	259	5	974
Seymour	67	27,589	26,458	1,848,477	111.76	0.4	26.9	1,457	29	5,490
Sharon	25	45,492	38,250	1,137,312	408.81	0.2	86.1	777	18	2,953
Shelton	230	35,878	31,826	8,252,015	208.60	1.8	46.4	6,609	129	22,624
Sherman	23	36,210	36,855	832,835	232.57	0.2	48.1	572	13	2,121
Simsbury	130	39,035	31,797	5,074,608	215.84	1.0	41.7	4,032	79	12,089
Somers	51	56,387	35,414	2,875,740	251.29	0.7	59.7	2,109	38	7,919
South Windsor	222	32,380	32,065	7,188,374	279.61	1.7	65.9	5,605	110	20,862
Southbury	91	38,468	36,926	3,500,622	175.88	0.8	42.2	2,725	54	10,353
Southington	325	135,534	33,885	44,048,596	1,022.74	5.3	123.6	125,133	176	33,914
Sprague	28	36,905	35,807	1,033,330	346.29	0.2	75.7	745	16	2,785
Stafford	110	31,736	31,020	3,490,922	288.82	0.8	66.0	2,636	54	9,827
Stamford	175	56,381	29,438	9,866,644	80.45	1.5	12.5	15,919	159	18,761
Sterling	40	34,838	33,013	1,393,533	363.85	0.3	80.1	994	21	3,778
Stonington	193	33,009	31,752	6,370,823	343.53	1.5	80.8	4,876	96	18,453
Stratford	348	29,852	27,000	10,388,474	202.17	2.3	45.4	8,149	159	30,703
Suffield	153	37,945	38,085	5,805,627	368.96	1.3	82.5	4,304	89	15,987
Thomaston	47	33,615	32,130	1,579,889	200.32	0.4	44.8	1,153	25	4,352
Thompson	85	36,654	26,263	3,115,549	329.41	0.8	85.2	2,634	44	9,928
Tolland	141	36,613	33,885	5,162,466	342.98	1.2	79.4	3,900	80	14,728
Torrington	157	34,049	31,044	5,345,747	146.93	1.2	31.7	3,855	83	14,203
Trumbull	200	39,869	31,872	7,973,804	221.38	1.8	51.1	6,304	116	23,551
Union	14	29,287	29,793	410,024	480.12	0.1	113.1	325	6	1,190
Vernon	183	33,480	27,541	6,126,848	209.97	1.5	51.3	4,972	90	18,445
Voluntown	33	49,589	30,188	1,636,452	628.68	0.5	175.4	1,481	21	5,626
Wallingford	3	25,274	25,275	75,822	1.68	0.0	0.2	86	2	115
Warren	16	38,302	31,603	612,836	419.46	0.1	101.2	479	9	1,821
Washington	26	36,330	30,627	944,585	264.00	0.2	57.9	671	15	2,551
Waterbury	369	36,804	27,885	13,580,579	123.05	3.1	28.0	10,364	209	38,670
Waterford	168	34,294	31,398	5,761,323	295.20	1.3	67.2	4,400	88	16,158
Watertown	141	41,100	35,029	5,795,125	257.40	1.4	60.1	4,592	84	17,191
West Hartford	380	27,737	23,799	10,540,100	166.59	2.4	37.3	7,864	166	29,084
West Haven	298	29,152	25,983	8,687,337	156.35	2.1	37.8	6,852	134	26,312
Westbrook	45	34,686	32,175	1,560,872	224.97	0.4	50.6	1,177	24	4,321
Weston	57	44,929	42,984	2,560,967	251.59	0.6	57.5	1,986	40	7,211
Westport	116	39,924	29,316	4,631,230	175.49	0.9	34.9	3,382	72	11,373
Wethersfield	159	33,553	28,675	5,334,988	200.05	1.3	48.3	4,314	80	15,882
Willington	40	39,423	38,906	1,576,902	261.03	0.4	58.7	1,154	24	4,382
Wilton	62	38,863	38,105	2,409,505	133.40	0.6	32.6	1,987	37	7,251
Winchester	39	30,828	27,200	1,202,292	106.95	0.3	23.5	857	18	3,257
Windham	115	33,132	25,740	3,810,211	150.79	0.8	33.6	3,228	55	10,349
Windsor	272	39,336	27,352	10,699,403	856.09	2.0	163.4	10,241	169	24,602
Windsor Locks	143	32,668	28,080	4,671,505	160.84	1.1	39.4	3,941	69	14,303
Wolcott	133	39,053	34,808	5,194,009	311.39	1.1	66.7	3,706	81	13,705
Woodbridge	78	78,392	33,885	6,114,606	680.16	1.9	213.7	6,279	72	23,668
Woodbury	36	38,223	35,629	1,376,032	137.95	0.3	30.6	1,058	21	3,765
Woodstock	98	38,655	34,561	3,788,219	475.67	0.8	100.6	2,629	58	9,869
Unknown	4	305,400	300,640	1,221,600	-	0.2	0	609	5	2,315
Total	18,771	48,790	30,188	915,828,602	256.43	192.3	53.9	1,953,454	11,594	2,185,779

**CONNECTICUT GREEN BANK**  
**2. BACKGROUND AND MARKET - COMMUNITIES**

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**DISTRESSED COMMUNITIES<sup>9</sup>**

Connecticut’s “distressed communities” are particularly affected by the state’s high energy prices. On average, Connecticut’s neediest households owe \$2,560 more in annual energy bills than they can afford<sup>10</sup>. CGB financing products and marketing efforts seek to bring lower and more predictable energy costs to homes and businesses in distressed communities.

**Table 8. Overview of Distressed and Not Distressed Municipalities, Population, and Households in Connecticut**

	<b>Distressed %</b>	<b>Not Distressed</b>	<b>Distressed</b>	<b>Total</b>
# Towns	15%	144	25	\$ 169
Population	33%	2,406,785	1,167,312	3,574,097
Households	33%	899,083	438,675	1,337,758

CGB has steadily increased its percentage of projects deployed each year in distressed municipalities. This has led to nearly \$300 million in clean energy projects in these communities, creating over 3,600 jobs.

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<sup>9</sup> Distressed Communities as defined by the Department of Economic and Community Development (DECD). DECD Methodology: Weighted components are summed to measure the rank of the 169 towns. For each component, every town is ranked from 1 to 169, with the best town scoring 1 and worst 169. The top 25 towns with highest total scores are designated distressed municipalities.

DECD’s components and weights:

1. Per capita income for 2014, weight 1;
2. % of poverty in population for 2014, weight 1;
3. Unemployment rate for 2015, weight 2;
4. % change in population from 2000 to 2010, weight 1;
5. % change in employment from 2005 to 2015, weight 1;
6. % change in per capita income from 2000 to 2014, weight 1;
7. % of house stock built before 1939 in 2014, weight 1/3;
8. % population with high school degree and higher in 2014, weight 1; and
9. Per Capita Adjusted Equalized Net Grand List in 2016-2017, weight 1.

According to C.G.S. Section 32-9p, a distressed municipality should be based on “high unemployment and poverty, aging housing stock and low or declining rates of growth in job creation, population, and per capita income.”

DECD additionally included 1) Level of Per Capita Income, 2) % of population with high school degree and higher and 3) Per Capita Adjusted Equalized Net Grand List (AENGL) to arrive at its ranking.

Data sources: Census 2000, Census 2010, 2010-2014 Census American Community Survey (ACS) 5-year Estimates, DOL, DOE  
 Prepared by DECD Research  
 August 18, 2016

<http://www.ct.gov/ecd/cwp/view.asp?a=1105&q=251248>

<sup>10</sup> Home Energy Affordability in Connecticut, <http://www.operationfuel.org/wp-content/uploads/Connecticut-2014-HEAG-Final.pdf>.



**CONNECTICUT GREEN BANK**  
**2. BACKGROUND AND MARKET - COMMUNITIES**

**Table 9. Project Performance – Clean Energy Approved, Closed, and Completed Projects in Connecticut (FY 2016)<sup>11</sup>**

	# Projects	Investment (Project Cost)	Investment /Capita*	MW	Watts /Capita*	Annual MMBTU	Total Job Years	Lifetime CO2 Emissions (tons)
<b>Not Distressed</b>	5,719	\$226,847,885	\$194.33	52.9	45.3	232,607	3,212	642,677
<b>Distressed</b>	2,548	\$86,016,759	\$35.74	21.3	8.9	186,002	1,227	240,111
<b>Unknown</b>	4	\$1,221,600	-	0.2	-	609	5	2,315
<b>Total</b>	8,271	\$314,086,243	\$87.54	74.4	20.8	419,219	4,444	885,103
<b>% Distressed</b>	31%	27%		29%				

**Table 10. Project Performance – Clean Energy Approved, Closed, and Completed Projects in Connecticut (FY 2012-2016)**

	# Projects	Investment (Project Cost)	Investment /Capita*	MW	Watts /Capita*	Annual MMBTU	Total Job Years	Lifetime CO2 Emissions (tons)
<b>Not Distressed</b>	14,039	\$616,511,153	\$528.15	135.1	115.8	863,166	7,933	1,573,531
<b>Distressed</b>	4,728	\$298,095,849	\$123.86	57.0	23.7	1,089,678	3,655	609,933
<b>Unknown</b>	4	\$1,221,600	-	0.2	-	609	5	2,315
<b>Total</b>	18,771	\$915,828,602	\$255.90	192.3	53.8	1,953,454	11,594	2,185,779
<b>% Distressed</b>	25%	33%		30%				

\* Calculated using the 2016 distressed community designations

<sup>11</sup> The Connecticut Green Bank 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 the Connecticut Green Bank, whether President & CEO, Deployment Committee, or Board of Directors, has approved the Connecticut Green Bank’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.

**CONNECTICUT GREEN BANK**  
**2. BACKGROUND AND MARKET - INCOME**

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In addition to looking at funding and clean energy deployment in distressed municipalities, CGB works to ensure that low to moderate income (LMI) census tracts across the entire state are benefiting from its programs. CGB defines low to moderate income as 100% or less of area median income. Tables 11 through 12 group CGB’s projects based upon the average income of their census tract.

**Table 11. Projects by Area Median Income – Clean Energy Deployment in the Residential Sector (FY 2016)**

Income Bands	FY 2016			
	# Projects	Projects /1,000 Households	Installed Capacity (MW)	Watts /Household
<60% AMI	633	2.8	6.4	28.4
60%-80% AMI	1,057	4.9	7.3	33.9
80%-100% AMI	1,477	6.4	11.7	50.5
100%-120% AMI	2,223	8.0	17.4	62.7
>120% AMI	2,672	6.6	22.4	55.2
Unknown	122	-	1.0	-
<b>Total</b>	<b>8,184</b>	<b>6.0</b>	<b>66.2</b>	<b>48.8</b>

**Table 12. Projects by Area Median Income – Clean Energy Deployment in the Residential Sector (FY 2012-2016)**

Income Bands	FY 2012 -2016			
	# Projects	Projects /1,000 Households	Installed Capacity (MW)	Watts /Household
<60% AMI	1,011	5.4	25.6	114.1
60%-80% AMI	1,906	8.8	13.2	61.1
80%-100% AMI	3,110	13.5	24.5	106.1
100%-120% AMI	5,004	18.0	45.6	164.1
>120% AMI	7,430	18.3	61.8	152.1
Unknown	125	-	1.0	-
<b>Total</b>	<b>18,586</b>	<b>13.6</b>	<b>171.7</b>	<b>125.9</b>

Through such products and initiatives as the LMI solar incentive, its partnership with PosiGen, and its affordable multifamily housing energy financing products, CGB has focused on increasing its penetration in the LMI market. Tables 13 through 15 illustrate that CGB has made progress on this goal but still has work to do.

**CONNECTICUT GREEN BANK**  
**2. BACKGROUND AND MARKET - INCOME**

**Table 13. Projects by Area Median Income – Number of Clean Energy Projects Above or Below 100% (FY 2012-2016)**

# Projects	100% or Below AMI	Over 100% AMI	Total	100% or Below AMI
FY 2012	62	355	417	15%
FY 2013	184	934	1,118	16%
FY 2014	649	1,773	2,422	27%
FY 2015	1,995	4,545	6,540	31%
FY 2016	3,209	4,925	8,134	39%
Unknown AMI	-	-	140	-
Total	6,099	12,532	18,771	32%

**Table 14. Deployment – Clean Energy Installed Capacity (MW) Above or Below 100% (FY 2012-2016)**

MW	100% or Below AMI	Over 100% AMI	Total	100% or Below AMI
FY 2012	0.4	2.5	2.9	14%
FY 2013	16.6	6.9	23.5	71%
FY 2014	9.5	16.6	26.1	36%
FY 2015	17.1	48.3	65.5	26%
FY 2016	28.1	43.3	72.1	40%
Unknown AMI	-	-	2.4	-
Total	72.4	117.5	192.3	38%

**Table 15. Investment – Clean Energy Investment Above or Below 100% Area Median Income (FY 2012-2016)**

Investment (Project Cost)	100% or Below AMI	Over 100% AMI	Total	100% or Below AMI
FY 2012	\$1,901,884	\$13,087,685	\$14,989,569	13.0%
FY 2013	\$79,017,723	\$32,046,769	\$111,064,486	71%
FY 2014	\$69,598,876	\$70,553,491	\$140,152,366	50%
FY 2015	\$113,254,360	\$222,190,050	\$335,444,411	34%
FY 2016	\$125,461,942	\$179,261,682	\$304,723,625	41%
Unknown AMI	-	-	\$9,454,145	-
Total	\$389,234,786	\$517,139,671	\$915,828,602	38%

**CONNECTICUT GREEN BANK**  
**2. BACKGROUND AND MARKET**  
**SMALL TO MINORITY OWNED BUSINESS PROCUREMENT**

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The State of Connecticut's Supplier Diversity Program was established to ensure Connecticut small businesses have an opportunity to bid on a portion of the State's purchases. Through Fiscal Year 2015, the program required agencies and political subdivisions to set aside 25% of their annual budgets for construction, housing rehabilitation, and purchasing goods and services (after approved exemptions by the Department of Administrative Services) to be awarded to certified small businesses, with 25% of this amount to be awarded to certified minority business enterprises. Although reporting is no longer required, the Connecticut Green Bank is performing the analysis to ensure we are still committed to voluntarily meeting our set aside goals.

**Table 16. Small Business Procurement (FY 2012-2016)**

Year	Small Business		
	Goal	Actual	Percentage
FY 2012	\$ 59,775	\$ 39,520	66%
FY 2013	\$ 62,598	\$ 59,340	95%
FY 2014	\$ 135,320	\$ 120,560	89%
FY 2015	\$ 221,750	\$ 251,980	113%
FY 2016	\$ 238,550	\$ 510,797	214%

**Table 17. Minority Business Enterprise Procurement (FY 2012-2016)**

Year	Minority Business Enterprises		
	Goal	Actual	Percentage
FY 2012	\$ 14,944	\$ 31,474	211%
FY 2013	\$ 15,649	\$ 52,308	334%
FY 2014	\$ 33,830	\$ 88,427	261%
FY 2015	\$ 55,438	\$ 153,319	277%
FY 2016	\$ 59,638	\$ 96,020	161%

**CONNECTICUT GREEN BANK**

**3. MEASURES OF SUCCESS - ATTRACT AND DEPLOY CAPITAL**

**Project Status**

The Connecticut Green Bank 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 the Connecticut Green Bank, whether President & CEO, Deployment Committee, or Board of Directors, has approved the Connecticut Green Bank’s investment in the project per the Comprehensive Plan and Budget. Closed indicates all financial and legal documents have been executed and any additional funding has been secured. Completion indicates the project has closed and 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 (see Table 18). The full energy, economic, and environmental benefits from these projects begin to be fully realized after they are completed.

**Table 18. Clean Energy Project Status (FY 2012-2016)<sup>12</sup>**

# PROJECTS	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Total
Approved	0	0	12	43	63	118
Closed	2	2	60	587	4,186	4,837
Completed	415	1,116	2,350	5,913	4,022	13,816
Total	417	1,118	2,422	6,543	8,271	18,771

**Clean Energy Investment**

The Connecticut Green Bank’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. The Green Bank tracks its progress towards this vision as “E3” metrics – Energy, Economic, and Environmental. Investment represents the total amount of private and public funding for clean energy projects, shown in Tables 19 and 20 below.

**Table 19. Clean Energy Investment by Source - Public and Private (FY 2012-2016)**

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Total
Total CGB Investment	\$4,809,813	\$18,595,710	\$37,834,791	\$55,698,896	\$48,042,380	\$164,981,590
Total Private Investment	\$10,179,757	\$92,655,897	\$102,829,679	\$281,861,775	\$268,299,049	\$755,826,156
Total Project Investment	\$14,989,569	\$111,064,486	\$140,152,366	\$335,535,937	\$314,086,243	\$915,828,602

<sup>12</sup> The status represents the current disposition of projects as of June 30, 2016. Projects are displayed by the fiscal year in which they were Approved but not Closed, Closed but not Completed or Closed and Completed. (See Project Status in Measures of Success).

**CONNECTICUT GREEN BANK**

**3. MEASURES OF SUCCESS - ATTRACT AND DEPLOY CAPITAL**

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**Leverage Ratio**

One of the main goals of the Connecticut Green Bank is to attract and deploy private capital to finance the green energy goals for Connecticut. To that end, the greater the leverage ratio of private to public funds, the better. The leverage ratios for the Connecticut Green Bank are increasing over time. Not only that, but a greater percentage of public funds being used are in the form of loans and leases rather than subsidies and grants.

**Table 20. Leverage Ratio of Private to Public Funds by Sector**

<b>Leverage Ratio of Public to Private Funds by Sector</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Total</b>
Commercial, Industrial & Institutional <sup>13</sup>	0.0	3.7	1.8	4.5	2.0	2.9
Statutory and Infrastructure	3.1	6.1	4.3	6.4	10.9	6.6
Residential	0.0	0.8	10.5	6.3	5.6	6.2
<b>Total</b>	<b>3.1</b>	<b>6.0</b>	<b>3.7</b>	<b>6.1</b>	<b>6.6</b>	<b>5.6</b>

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<sup>13</sup> Leverage ratio does not reflect private funding warehouse created in fiscal year 2016. Green Bank C-PACE assets will be transferred to this warehouse, shifting the leverage ratio towards private funding.

**CONNECTICUT GREEN BANK**

**3. MEASURES OF SUCCESS - ATTRACT AND DEPLOY CAPITAL**

**Clean Energy Produced and Energy Saved**

Similar to clean energy investment, the data below show the energy benefits in terms of capacity (megawatts [MW]), clean energy production (lifetime megawatt hours [MWh]), and annual energy savings (MMBTU) – see Tables 21 through 23.

**Table 21. Installed Capacity (MW) of Clean Energy (FY 2012-2016)<sup>14</sup>**

<b>MW</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Total</b>
Approved	0.0	0.0	3.2	3.8	3.5	10.5
Closed	0.0	0.0	0.3	10.6	38.8	49.7
Completed	2.9	23.5	22.6	51.1	32.1	132.1
<b>Total</b>	<b>2.9</b>	<b>23.5</b>	<b>26.1</b>	<b>65.5</b>	<b>74.4</b>	<b>192.3</b>

**Table 22. Lifetime Production (MWh) of Clean Energy (FY 2012-2016)<sup>15</sup>**

<b>MWh (lifetime)</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Total</b>
Approved	0	0	260,864	318,157	252,554	831,575
Closed	408	143	6,258	282,920	979,350	1,269,078
Completed	67,980	1,419,204	740,526	1,223,733	763,659	4,215,103
<b>Total</b>	<b>68,388</b>	<b>1,419,346</b>	<b>1,007,648</b>	<b>1,824,810</b>	<b>1,995,564</b>	<b>6,315,757</b>

**Table 23. Annual Energy Savings (MMBTU) of Clean Energy (FY 2012-2016)<sup>16</sup>**

<b>MMBTU (annual)</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Total</b>
Approved	0	0	143,872	438,296	134,684	716,851
Closed	56	19	1,905	464,980	176,220	643,181
Completed	9,278	59,462	233,100	183,267	108,315	593,421
<b>Total</b>	<b>9,334</b>	<b>59,481</b>	<b>378,877</b>	<b>1,086,544</b>	<b>419,219</b>	<b>1,953,454</b>

<sup>14</sup> The status represents the current disposition of projects as of June 30, 2016. Projects are displayed by the fiscal year in which they were Approved but not Closed, Closed but not Completed or Closed and Completed. (See Project Status in Measures of Success).

<sup>15</sup> The status represents the current disposition of projects as of June 30, 2016. Projects are displayed by the fiscal year in which they were Approved but not Closed, Closed but not Completed or Closed and Completed. (See Project Status in Measures of Success).

<sup>16</sup> The status represents the current disposition of projects as of June 30, 2016. Projects are displayed by the fiscal year in which they were Approved but not Closed, Closed but not Completed or Closed and Completed. (See Project Status in Measures of Success).

**CONNECTICUT GREEN BANK**

**3. MEASURES OF SUCCESS - ATTRACT AND DEPLOY CAPITAL**

**Renewable Energy Technology Deployment**

The Connecticut Green Bank takes a technology agnostic approach to its financing products, with any commercially available technology that meets eligibility guidelines (see Table 24).

**Table 24. Renewable Energy Technology Deployment (FY 2012-2016)**

RENEWABLE ENERGY TECHNOLOGY*	Commercial & Industrial Sector		Statutory and Infrastructure Sector		Residential Sector		Total	
	MW	MWh (lifetime)	MW	MWh (lifetime)	MW	MWh (lifetime)	MW	MWh (lifetime)
Anaerobic Digesters			7.2	587,384			7.2	587,384
Biomass	0.6	14,257					0.6	14,257
CHP	0.1	6,874	7.1	646,601			7.1	653,475
Fuel Cell			14.8	1,166,832			14.8	1,166,832
Hydro	0.5	43,898					0.5	43,898
Solar PV	17.9	426,062	119	2,836,940	16.0	380,030	153.3	3,643,032
Wind			5.0	118,260			5.0	118,260
<b>Total</b>	<b>19.1</b>	<b>491,090</b>	<b>157.2</b>	<b>5,444,220</b>	<b>16.0</b>	<b>380,030</b>	<b>192.3</b>	<b>6,315,340</b>

\*Residential solar projects that receive financing also receive an incentive under the Residential Solar Incentive Program so they are counted in each sector's results. They have been removed from the total to avoid double counting.

The Connecticut Green Bank's efforts have led to a significant amount of solar PV deployment in the state (about 80% of all green energy projects deployed is from solar PV). When comparing deployment to green energy production, solar PV produces the most energy (58% of all green energy production), fuel cells also contribute a large proportion given the efficiency of the technology (over 18% of all green energy production).



**CONNECTICUT GREEN BANK**  
**3. MEASURES OF SUCCESS - GREEN BANK**

**Assets – Current and Non-Current**

The Connecticut Green Bank’s success in shifting to a financing model from a subsidy model is evident in the change in assets since its inception. The growth of the Green Bank’s financing programs has led to a steady increase in non-current assets over time as more and more loans and leases are closed.

**Table 25: Current and Non-Current Assets (FY 2012-2016)**

	Year Ended June 30,				
	2016	2015	2014	2013	2012
<b>Current Assets</b>					
Cash and Cash Equivalents	\$ 48,072,061	\$ 39,893,649	\$ 71,411,034	\$ 68,105,014	\$ 64,672,910
Receivables	4,531,258	2,867,233	8,253,318	4,545,661	3,305,301
Prepaid Expenses	4,245,806	1,030,251	619,639	520,814	350,302
Contractor Loans	2,272,906	3,112,663	-	-	-
Current portion of solar lease notes	845,479	803,573	766,086	704,032	670,645
Current portion of program loans	1,378,242	10,264,825	652,447	-	-
<b>Total Current Assets</b>	<b>61,345,752</b>	<b>57,972,194</b>	<b>81,702,524</b>	<b>73,875,521</b>	<b>68,999,158</b>
<b>Non-Current Assets</b>					
Portfolio Investments	1,000,000	1,000,000	1,000,000	1,000,000	2,155,525
Bonds Receivable	3,492,282	1,600,000	1,600,000	-	-
Solar Lease Notes - Less current portion	8,162,635	9,015,437	9,778,315	10,536,136	11,064,879
Program Loans - Less current portion	31,889,275	30,253,119	12,750,457	3,788,094	-
Renewable Energy Certificates	812,770	933,054	1,069,390	1,217,491	1,324,614
Capital Assets, Net of Depreciation and Amortization	58,114,914	26,971,087	3,074,337	362,505	91,329
Asset retirement obligation, net	2,261,472	1,029,196	-	-	-
Restricted Assets:					
Cash and Cash Equivalents	9,749,983	8,799,005	9,513,715	9,536,656	8,540,684
<b>Total Non-Current Assets</b>	<b>115,483,331</b>	<b>79,600,898</b>	<b>38,786,214</b>	<b>26,440,882</b>	<b>23,177,031</b>
<b>Total Assets</b>	<b>\$176,829,083</b>	<b>\$137,573,092</b>	<b>\$120,488,738</b>	<b>\$100,316,403</b>	<b>\$ 92,176,189</b>

**Ratio of Public Funds Invested**

As the first Green Bank in the country, the Connecticut Green Bank seeks to use limited public resources to attract private capital investment in clean energy. The Connecticut Green Bank does this by moving away from the subsidy-based model of supporting clean energy and towards a financing model. As highlighted below (see Table 26), the Connecticut Green Bank has quickly moved towards this model, with fewer and fewer funds devoted to subsidies. This trend has developed even as total investment in clean energy has increased to over \$915 million in total from 2012 through 2016, enabling the Connecticut Green Bank to do more at a faster pace while managing ratepayer resources more efficiently.

**CONNECTICUT GREEN BANK**  
**3. MEASURES OF SUCCESS - GREEN BANK**

**Table 26. Ratio of Capital Invested as Subsidies, Credit Enhancements, and Loans and Leases (FY 2012-2016)**

<b>GREEN BANK FUNDS INVESTED*</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Total</b>
<b>Subsidies (Grants)</b>	\$4,809,813	\$12,419,798	\$17,992,300	\$27,816,544	\$20,552,219	\$83,590,674
<b>% Green Bank Funds Invested in Subsidies</b>	100%	67%	48%	50%	43%	51%
<b>Credit Enhancements (LLR &amp; IRBS)</b>	\$0	\$187,122	\$512,104	\$2,024,733	\$2,255,186	\$4,979,145
<b>% Green Bank Funds Invested in Credit Enhancements</b>	0%	1%	1%	4%	5%	3%
<b>Loans and Leases (includes sell downs)</b>	\$0	\$5,988,790	\$19,330,387	\$25,857,619	\$25,234,975	\$76,411,772
<b>% Green Bank Funds Invested in Loans and Leases</b>	0%	32%	51%	46%	53%	46%
<b>Total</b>	\$4,809,813	\$18,595,710	\$37,834,791	\$55,698,896	\$48,042,380	\$164,981,590

\* Approved/Closed/Completed

**Credit Quality of Residential Borrowers**

The credit quality of Green Bank’s residential borrowers reflects the relatively high FICO scores in the state; 78% of single family house households have a FICO of 680 or higher. The Green Bank has recently begun to focus on ensuring that credit challenged customers have access to energy financing products through such initiatives as its partnership with PosiGen and bringing Capital 4 Change, which has experience serving this market, into the Smart-E program.

**Table 27. Credit Quality of Residential Borrowers by product (FY 2012-2016)**

	<b>Credit Score Ranges</b>						<b>Total</b>
	<b>Below 640</b>	<b>640-679</b>	<b>680-699</b>	<b>700-719</b>	<b>720+</b>	<b>Unknown</b>	
Smart-E Loan	26	75	45	65	501	25	737
CT Solar Lease	1	45	39	78	1,029		1,192
CT Solar Loan	-	-	11	15	253		279
<b>Total</b>	<b>27</b>	<b>120</b>	<b>95</b>	<b>158</b>	<b>1,783</b>	<b>25</b>	<b>2,208</b>
	1%	5%	4%	7%	82%	1%	

**CONNECTICUT GREEN BANK**  
**3. MEASURES OF SUCCESS – PUBLIC BENEFITS**

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**Jobs Created**

The organization tracks economic benefits similar to its tracking of investment and environmental impact. The data below highlights the economic benefits supported by the Connecticut Green Bank’s projects (see Tables 28 through 29). 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<sup>17</sup>.

**Table 28. Estimated Direct Job-Years Supported (FY 2012-2016)<sup>18</sup>**

<b>Direct Jobs</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Total</b>
Approved	0	0	0	6	37	43
Closed	1	0	10	148	871	1,030
Completed	88	559	540	1,301	795	3,283
<b>Total</b>	<b>88</b>	<b>559</b>	<b>550</b>	<b>1,455</b>	<b>1,703</b>	<b>4,355</b>

**Table 29. Estimated Indirect and Induced Job-Years Supported (FY 2012-2016)<sup>19</sup>**

<b>Indirect &amp; Induced Jobs</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Total</b>
Approved	0	0	0	9	61	70
Closed	1	0	16	237	1,400	1,655
Completed	142	1,131	868	2,093	1,279	5,514
<b>Total</b>	<b>142</b>	<b>1,132</b>	<b>885</b>	<b>2,340</b>	<b>2,740</b>	<b>7,239</b>

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<sup>17</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 were 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.

[http://ctcleanenergy.com/Portals/0/board-materials/4\\_DECD%20Findings\\_Economic%20Development%20Estimates\\_FY%202013%20Results\\_CEFIA\\_121613.pdf](http://ctcleanenergy.com/Portals/0/board-materials/4_DECD%20Findings_Economic%20Development%20Estimates_FY%202013%20Results_CEFIA_121613.pdf)

<sup>18</sup> The status represents the current disposition of projects as of June 30, 2016. Projects are displayed by the fiscal year in which they were Approved but not Closed, Closed but not Completed or Closed and Completed. (See Project Status in Measures of Success).

<sup>19</sup> The status represents the current disposition of projects as of June 30, 2016. Projects are displayed by the fiscal year in which they were Approved but not Closed, Closed but not Completed or Closed and Completed. (See Project Status in Measures of Success).

**CONNECTICUT GREEN BANK**  
**3. MEASURES OF SUCCESS – PUBLIC BENEFITS**

**CO2 Emission Reductions Supported and Equivalencies**

The data below highlight the environmental benefits supported by these projects as a reduction in carbon (CO2) emissions and standard equivalencies<sup>20</sup> (see Tables 30 through 33).

**Table 30. Estimated Lifetime CO2 Emissions Reductions (FY 2012-2016)<sup>21</sup>**

<b>Lifetime CO2 Emission Reductions (Tons)</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Total</b>
Approved	0	0	86	462	14,769	15,317
Closed	211	74	3,240	173,149	473,491	650,166
Completed	35,248	178,363	267,853	641,990	396,843	1,520,297
<b>Total</b>	<b>35,459</b>	<b>178,437</b>	<b>271,179</b>	<b>815,600</b>	<b>885,103</b>	<b>2,185,779</b>

<sup>20</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.

Emissions estimates for anaerobic digester, wind, and energy efficiency projects were not estimated.

To determine the exact avoided CO2 for CHP projects one needs to know what the CHP system is displacing (i.e. boiler, grid, etc.), as well as the efficiencies, in order to determine the existing CO2 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 CO2 annually and 195,000 tons over its 15-year life. Typically avoiding 35-50% CO2 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 from the investment in clean energy projects (i.e., GHG emissions reduced) has not yet been proposed to or approved by DEEP. The Connecticut Green Bank is currently looking into the EPA’s AVERT (Avoided Emissions and Generation Tool) for future estimations of emissions reductions - <http://www3.epa.gov/avert/>

<sup>21</sup> The status represents the current disposition of projects as of June 30, 2016. Projects are displayed by the fiscal year in which they were Approved but not Closed, Closed but not Completed or Closed and Completed. (See Project Status in Measures of Success).

**CONNECTICUT GREEN BANK**  
**3. MEASURES OF SUCCESS – PUBLIC BENEFITS**

**Table 31. Estimated Lifetime CO2 Emissions Reduction Energy for Home Equivalents (FY 2012-2016)<sup>22</sup>**

<b>Energy for # of Homes</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Total</b>
Approved	0	0	2,070	2,522	1,930	6,522
Closed	2	1	30	1,723	4,925	6,680
Completed	324	15,292	4,399	5,871	3,636	29,522
<b>Total</b>	<b>326</b>	<b>15,293</b>	<b>6,499</b>	<b>10,116</b>	<b>10,491</b>	<b>42,724</b>

**Table 32. Estimated Lifetime CO2 Emissions Reduction Cars Off the Road Equivalents (FY 2012-2016)<sup>23</sup>**

<b>Cars off the Road</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Total</b>
Approved	0	0	1	3	81	85
Closed	1	0	22	1,251	3,098	4,372
Completed	235	1,966	1,608	4,178	2,637	10,624
<b>Total</b>	<b>236</b>	<b>1,967</b>	<b>1,630</b>	<b>5,432</b>	<b>5,816</b>	<b>15,080</b>

**Table 33. Estimated Lifetime CO2 Emissions Reduction Acres of Trees Planted Equivalents (FY 2012-2016)<sup>24</sup>**

<b>Planting # Acres of Trees</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Total</b>
Approved	0	0	1	6	162	169
Closed	3	1	43	2,504	6,202	8,753
Completed	470	3,936	3,219	8,365	5,279	21,269
<b>Total</b>	<b>473</b>	<b>3,937</b>	<b>3,263</b>	<b>10,875</b>	<b>11,643</b>	<b>30,191</b>

<sup>22</sup> The status represents the current disposition of projects as of June 30, 2016. Projects are displayed by the fiscal year in which they were Approved but not Closed, Closed but not Completed or Closed and Completed. (See Project Status in Measures of Success).

<sup>23</sup> The status represents the current disposition of projects as of June 30, 2016. Projects are displayed by the fiscal year in which they were Approved but not Closed, Closed but not Completed or Closed and Completed. (See Project Status in Measures of Success).

<sup>24</sup> The status represents the current disposition of projects as of June 30, 2016. Projects are displayed by the fiscal year in which they were Approved but not Closed, Closed but not Completed or Closed and Completed. (See Project Status in Measures of Success).

**CONNECTICUT GREEN BANK**  
**4. MARKET TRANSFORMATION – PROGRAM LOGIC MODEL**

The Connecticut Green Bank has published an Evaluation Framework<sup>25</sup> and developed a Program Logic Model (PLM) that presents the green bank model of attracting and deploying private capital through financing (see Figure 1). This PLM serves as a foundation for evaluating clean energy deployment through subsidy and financing programs of the Connecticut Green Bank.

**Figure 1. Connecticut Green Bank Program Logic Model – Including Subsidies and Financing**



This figure is a generalized market transformation and impact logic model that can be adapted to apply to a specific program of a green bank, as its market transformation strategies and associated evaluation frameworks are developed. An example of the green bank model and the financing market transformation process is the CT Solar Loan.<sup>26</sup>

As the Green Bank’s capital availability expands to support further clean energy deployment, one can anticipate that there will be increased coordination between the Green Bank’s programs and those administered by the utilities. It is thus important to include the various other key participants in this overall logic model, in order to be able to identify the variety of interactions that can occur between them, that over the short, medium, and long term can lead to the transformation of the funding of clean energy projects. In addition, it is important to identify known interventions in the clean energy environment which can influence the ways in which the Green Bank’s financing efforts might play out over time.

The PLM includes three (3) components – Energize CT Market Environment (including Other Ongoing Market Activities), Green Bank Financing Market Transformation Process, and Societal Impacts.

<sup>25</sup> Evaluation Framework – Assessing, Monitoring, and Reporting of Program Impacts and Processes by Opinion Dynamics and Dunskey Energy Consulting for the Connecticut Green Bank (July 2016)

<sup>26</sup> [Comprehensive Annual Financial Report for FY 2015](#) – Market Transformation: Financial Warehouse and Credit Enhancement Structures Case of the CT Solar Loan (pp. 133-136)

## CONNECTICUT GREEN BANK

### 4. MARKET TRANSFORMATION – PROGRAM LOGIC MODEL

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#### Energize CT Market Environment

Energize CT is an initiative of the Green Bank, the Connecticut Energy Efficiency Fund, the State, and the local electric and gas utilities. It provides Connecticut consumers, businesses and communities the resources and information they need to make it easy to save energy and build a clean energy future for everyone in the state. Under this umbrella, the electric and gas investor owned utilities (IOUs) provide information, marketing, and deliver the energy efficiency programs that have been approved by the State and supported by the Connecticut Energy Efficiency Fund. Operating under a statutory mandate that all cost-effective energy efficiency be acquired, with guidance from the Connecticut Energy Efficiency Board and its consultants, the utilities offer a variety of programs and encouragements for residential, commercial, and industrial customers to make decisions to participate in these cost-reducing opportunities. A range of methods are used to incent customers to participate in the programs, among them targeted information, low cost/no cost measures, financial incentives, discounted retail products, and product and project financing. The Connecticut Green Bank, with a statutorily established residential solar PV target of 300MW by 2022, also markets and delivers its clean energy programs to residential customers. It too relies on information, marketing, direct incentives, and financing opportunities.<sup>27</sup>

Of the Green Bank programs, currently only participants in the Residential Solar Investment Program (RSIP) are required to receive a home energy assessment (i.e., supported by the utility efficiency programs), BPI audit, or equivalent. The program participants in the RSIP, with their individual energy saving projects, may thus receive rebates or incentives from the utilities (which are intended to overcome barriers to customer participation and to encourage increased selection of energy efficient measures), the Green Bank, or other levels of government (e.g., state incentives and Federal tax credits for solar PV and other technologies) as well as opportunities to finance some or all of the remaining portion of their clean energy project. In the context of a PLM, one can anticipate similar links between the Green Bank programs and those of the investor owned utilities (IOU's).

An impetus for coordination between the utility administered energy efficiency programs and the Green Bank programs is threefold: 1) more energy savings, and resulting emissions reductions, could potentially be acquired more economically both to the programs and to the project participants, 2) delivery efficiencies and greater savings could be found in coordinating financing that each entity offers to common customer segments within the sphere of program activities that they offer, and 3) coordination through a Joint Committee of the Energy Efficiency Board and the Connecticut Green Bank is required by statute.<sup>28</sup> It is important to note that there are a number of other ongoing market activities that are occurring through Energize CT or outside of the Green Bank's market transformation process. From introducing new products, reducing purchasing barriers, education and awareness programs to workforce development, and improving building practices – there are a variety of activities that help move the market towards more clean energy deployment.

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<sup>27</sup> Per Public Act 15-194 "An Act Concerning the Encouragement of Local Economic Development and Access to Residential Renewable Energy," the Connecticut Green Bank administers a rebate and performance-based incentive program to support solar PV.

<sup>28</sup> Pursuant to Section 15-245m(d)(2) of Connecticut General Statutes, the Joint Committee shall examine opportunities to coordinate the programs and activities contained in the plan developed under Section 16-245n(c) of the General Statutes [Comprehensive Plan of the Connecticut Green Bank] with the programs and activities contained in the plan developed under section 16-245m(d)(1) of the General Statutes [Energy Conservation and Load Management Plan] and 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.

## CONNECTICUT GREEN BANK

### 4. MARKET TRANSFORMATION – PROGRAM LOGIC MODEL

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#### Finance Market Transformation Process

The efforts of the Green Bank are exemplified through the financing market transformation process, which focuses on accelerating the deployment of clean energy – more customers and “deeper” more comprehensive measures being undertaken – by securing increasingly affordable and attractive private capital. The Green Bank can enter the process at a number of points (i.e., from numbers 2 through 4 in the above PLM figure), such as supplying capital through financing offers, marketing clean energy financing, or offsetting clean energy financing risk by backstopping loans, or sharing loan performance data.

Here is a breakdown of each component of the financing market transformation process of the Green Bank:

- **Supply of Capital** – financing programs aim to increase the supply of affordable and attractive capital available to support energy savings and clean energy production in the market place. This is done at the Green Bank by:
  - a. Providing financing (loans or leases) to customers using Green Bank capital; and/or
  - b. Establishing structures, programs, and public-private partnerships that connect third-party capital to support energy savings projects.

Beyond ensuring that financing is available for clean energy projects, the benefits of the Green Bank’s Supply of Capital interventions can lead to, but are not limited to:

- a. Reduced interest rates, which lower the cost of capital for clean energy projects;
- b. More loan term options to better match savings cash flows (e.g., longer terms for longer payback projects, early repayment, or deferred first year payments);
- c. Less restrictive underwriting criteria to increase eligibility for and expand access to financing; and
- d. Increased marketing by lenders to leverage clean energy investment opportunities.

Each of these features is intended to increase uptake of clean energy projects, leading to increased energy savings, clean energy production, and other positive societal impacts. The long-term goal of the Green Bank’s efforts is to achieve these attractive features in the market with a reduced need for Green Bank intervention, through the provision of performance data that convinces private capital providers to offer such features on their own.

- **Consumer Demand** – in combination with a comprehensive set of clean energy programs under the Energize CT initiative, the Green Bank drives demand for clean energy by marketing financing programs and increasing awareness of the potential benefits stemming from clean energy projects. Green Bank programs that deliver rebates and incentives – or connect with customers to support energy savings projects that are eligible for rebates and incentives – can further help to drive demand for natural gas conversions (e.g., Energize Norwich in partnership with Norwich Public Utilities)<sup>29</sup> as well as reduce the installed costs of and drive demand for solar PV projects (e.g., Solarize Connecticut). It should also be noted that through channel marketing strategies (e.g., contractor channels to the customer) success will be determined by an increase in demand for financing. The results of the increased demand are expected to, but are not limited to:
  - a. Increase the number of clean energy projects; and
  - b. Increase the average savings and/or clean energy production per project.

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<sup>29</sup> Section 52 of Public Act 13-298



Increasing affordable and attractive financing offerings in the marketplace is an important component of unlocking consumer demand and driving greater energy savings and clean energy production, and is central to the Green Bank’s market transformation efforts.

- **Financing Performance Data** – Green Bank gathers and communicates the performance of clean energy financing either through its own programs or for other financing options in the market place. This increases access to valuable information that can help lenders and customers identify promising clean energy investments. Enabling access to this information (i.e., data transparency) is important to encouraging market competition.

Ultimately, data on financing performance is expected to play a central part in attracting more private capital investment to offer affordable and attractive financing offerings on their own. As the Green Bank increases the access to affordable and attractive capital, and more customers use financing for their clean energy projects, data demonstrating strong and reliable performance of these projects may indicate lower and more predictable risk.

- **Financing Risk Profile** – Green Bank can help reduce clean energy financing risk profiles in a number of ways. For example, it can absorb a portion or all of the credit risk by providing loan loss reserve (LLR) funds and guarantees or taking the first-loss position on investments (i.e., subordinated debt). It can also channel or attract rebates and incentives to finance energy saving projects thus improving their economic performance and lowering the associated performance risk. In the long run, by making clean energy financing performance data available to the market, Green Bank programs increase lenders’ and borrowers’ understanding of clean energy investment risk profiles, which may allow them to (1) design more affordable and attractive financing products and (2) select projects for financing to reduce risks.

This element of the PLM plays the key linking role in the Market Transformation feedback loop, leading to longer term impacts, as the market (1) recognizes the potentially advantageous risk/return profile associated with clean energy investments and (2) takes further steps to increase the supply of affordable and attractive capital with less Green Bank credit enhancement needed to support demand for clean energy investments.

Ensuring that financing performance and risk profile data are available to the market is important from various perspectives. For a deeper examination and presentation, please see the report by the State Energy Efficiency Action Network.<sup>30</sup>

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<sup>30</sup> State and Local Energy Efficiency Action Network. (2014). *Energy Efficiency Finance Programs: Use Case Analysis to Define Data Needs and Guidelines*. Prepared by: Peter Thompson, Peter Larsen, Chris Kramer, and Charles Goldman of Lawrence Berkeley National Laboratory. [click here](#)

## CONNECTICUT GREEN BANK

### 4. MARKET TRANSFORMATION – PROGRAM LOGIC MODEL

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#### Societal Impact

The efforts to accelerate and scale-up investment in clean energy deployment by the Green Bank, lead to a myriad of societal impacts and benefits.

All of the PLM elements ultimately aim to contribute to Green Bank program impacts and benefits. These include the direct impacts resulting from more clean energy investments supported by Green Bank financing that result in an increase in energy savings and improvement of public health (e.g., asbestos remediation, lead abatement, etc.) to the customer,<sup>31</sup> increase in the creation of local in-state jobs,<sup>32</sup> and the reduction of greenhouse gas emissions<sup>33</sup> for society. The impacts may also include consideration of secondary or indirect benefits such as GDP growth and energy savings supported by lenders who have leveraged Green Bank data or marketing efforts. Figure 2 below represents the transition over time of the Green Bank's clean energy impacts and associated creation of societal benefits.

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<sup>31</sup> Green Bank will be working with the Connecticut Department of Energy and Environmental Protection and the U.S. Environmental Protection Agency to develop and approve a methodology for estimating public health benefits from the reduction of criteria pollutants as a result of the production of clean energy and reduction of energy consumption through the use of the Co-Benefits Risk Assessment (COBRA) model – <https://www.epa.gov/statelocalclimate/co-benefits-risk-assessment-cobra-screening-model>

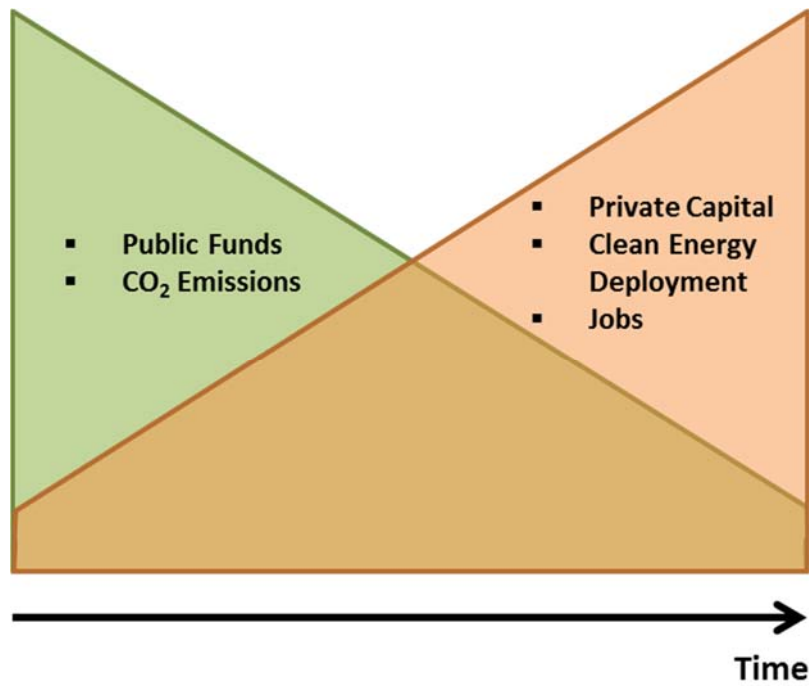
<sup>32</sup> Green Bank is working with the Connecticut Department of Economic and Community Development and Navigant Consulting to update and approve a methodology for estimating economic development benefits from the investment in clean energy projects.

<sup>33</sup> Green Bank is working with the Connecticut Department of Energy and Environmental Protection to develop and approve a methodology for estimating greenhouse gas emission reduction benefits from the production of clean energy and reduction of energy consumption through the use of the AVOIDED Emissions and geneRation Tool (AVERT) - <https://www.epa.gov/statelocalclimate/avoided-emissions-and-generation-tool-avert>

**CONNECTICUT GREEN BANK**  
**4. MARKET TRANSFORMATION – PROGRAM LOGIC MODEL**

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**Figure 2. Societal Benefits – Environmental Protection and Economic Development – from Greater Private Capital Investment**



As the Green Bank continues to attract more private investment in Connecticut’s clean energy economy through the issuance of green bonds, the deployment of clean energy will be accelerated. The more clean energy that is being deployed, the greater the societal benefits will be.

**CONNECTICUT GREEN BANK**

**4. MARKET TRANSFORMATION – COST EFFECTIVENESS OF SUBSIDIES  
CASE OF THE RESIDENTIAL SOLAR INVESTMENT PROGRAM**

The Connecticut Green Bank contracted with Cadmus Group, Inc., to conduct a cost-effectiveness analysis of its Residential Solar Investment Program (RSIP).<sup>34</sup> As the Connecticut Green Bank’s only subsidy program, we are applying the Program Logic Model that focuses on rebates and incentives as the financial driver for customer action rather than financing (see Figure 3).

**Figure 3. Program Logic Model for the Residential Solar Investment Program**



**RSIP Growth and Cost Trends**

To provide perspective on program growth, cost and incentive trends, Table 34 illustrates the increase in RSIP project volume while installed costs and incentives have decreased from fiscal years 2012 through 2016, grouped by non-Solarize projects, Solarize<sup>35</sup> projects and RSIP in total.

**Table 34. RSIP Volume, Capacity and Cost Data by Fiscal Year<sup>36, 37</sup>**

Fiscal Year	Non-Solarize				Solarize				RSIP Total			
	# Projects	Installed Capacity (kW)	Installed Cost (\$/W)	Incentive (\$/W)	# Projects	Installed Capacity (kW)	Installed Cost (\$/W)	Incentive (\$/W)	# Projects	Installed Capacity (kW)	Installed Cost (\$/W)	Incentive (\$/W)
2012	290	1,956	\$5.11	\$1.75					290	1,956	\$5.11	\$1.75
2013	788	5,481	\$4.65	\$1.54	327	2,444	\$3.84	\$1.45	1,115	7,924	\$4.32	\$1.51
2014	1,677	12,116	\$4.27	\$1.18	715	5,070	\$3.80	\$1.15	2,392	17,186	\$4.07	\$1.17
2015	5,631	42,275	\$3.91	\$0.67	940	7,864	\$3.88	\$0.74	6,571	50,139	\$3.90	\$0.68
2016	7,598	59,088	\$3.42	\$0.35	103	916	\$3.84	\$0.43	7,701	60,004	\$3.43	\$0.35
<b>Total</b>	<b>15,984</b>	<b>120,917</b>	<b>\$3.76</b>	<b>\$0.62</b>	<b>2,085</b>	<b>16,294</b>	<b>\$3.85</b>	<b>\$0.96</b>	<b>18,069</b>	<b>137,211</b>	<b>\$3.78</b>	<b>\$0.66</b>

Tables 35 and 36 provide program growth and cost trend data by installer for fiscal years 2016 and for 2012-2016 combined, grouped by non-Solarize and Solarize projects, and RSIP in total. Data points provided include # Projects, Installed Capacity (kW), Installed Cost (\$/W), and Incentive (\$/W). Installed costs vary widely and depend on many factors including equipment/panel quality and efficiency, type of

<sup>34</sup> Per Section 106 of Public Act 11-80 (and revised through Public Act 15-194), the Connecticut Green Bank administers the Residential Solar Investment Program.

<sup>35</sup> Solarize is a community-based marketing program (visit [www.solarizect.com](http://www.solarizect.com) for more information)

<sup>36</sup> Based on RSIP Market Watch data as of June 30, 2016, end of FY 2015. Cost data includes all reported installed costs without including those projects where financing costs for some third party ownership installers are included as part of the total system cost. Installed capacity data is provided in kW-STC.

<sup>37</sup> The status represents the current disposition of projects as of June 30, 2016. Projects are displayed by the fiscal year in which they were Approved but not Closed, Closed but not Completed or Closed and Completed. (See Project Status in Measures of Success).

**CONNECTICUT GREEN BANK**

**4. MARKET TRANSFORMATION – COST EFFECTIVENESS OF SUBSIDIES  
CASE OF THE RESIDENTIAL SOLAR INVESTMENT PROGRAM**

installation (e.g., roof-mount, ground-mount, pole-mount), project location, site and installation characteristics and other factors.

**Table 35. RSIP FY 2016 Volume, Capacity and Cost Data by Installer<sup>38</sup>**

Installer	Non-Solarize				Solarize				RSIP Total			
	# Projects	Installed Capacity (kW)	Installed Cost (\$/W)	Incentive (\$/W)	# Projects	Installed Capacity (kW)	Installed Cost (\$/W)	Incentive (\$/W)	# Projects	Installed Capacity (kW)	Installed Cost (\$/W)	Incentive (\$/W)
31Solar	1	11	\$3.44	\$0.49	-	-	\$0.00	\$0.00	1	11	\$3.44	\$0.49
Aegis Electrical Systems, LLC	90	803	\$3.92	\$0.43	-	-	\$0.00	\$0.00	90	803	\$3.92	\$0.43
All Electric Const. & Comm. LLC	1	15	\$3.51	\$0.45	-	-	\$0.00	\$0.00	1	15	\$3.51	\$0.45
AllGreenIT, Inc.	19	182	\$3.46	\$0.46	2	14	\$3.54	\$0.49	21	197	\$3.47	\$0.46
Apex Solar Energy	2	24	\$2.76	\$0.45	-	-	\$0.00	\$0.00	2	24	\$2.76	\$0.45
BeFree Green Energy, LLC	51	471	\$3.78	\$0.43	15	130	\$3.84	\$0.48	66	601	\$3.79	\$0.44
Bonner Electric	2	18	\$3.85	\$0.42	-	-	\$0.00	\$0.00	2	18	\$3.85	\$0.42
Boston Solar	13	120	\$3.51	\$0.43	-	-	\$0.00	\$0.00	13	120	\$3.51	\$0.43
Consulting Engineering Services, Inc.	1	13	\$3.55	\$0.46	1	9	\$4.12	\$0.12	2	22	\$3.78	\$0.32
CT Solar Power, LLC	2	17	\$3.71	\$0.48	-	-	\$0.00	\$0.00	2	17	\$3.71	\$0.48
C-TEC Solar LLC	164	1,468	\$3.76	\$0.43	5	44	\$3.78	\$0.45	169	1,512	\$3.76	\$0.43
Direct Energy Solar	175	1,552	\$3.56	\$0.39	-	-	\$0.00	\$0.00	175	1,552	\$3.56	\$0.39
Dow Solar	3	16	\$7.84	\$0.34	-	-	\$0.00	\$0.00	3	16	\$7.84	\$0.34
Duck Feet Solar	-	-	\$0.00	\$0.00	1	11	\$3.71	\$0.47	1	11	\$3.71	\$0.47
Earthlight Technologies	111	997	\$4.03	\$0.46	1	13	\$4.25	\$0.58	112	1,010	\$4.03	\$0.46
Eastern CT Solar	5	45	\$3.37	\$0.46	-	-	\$0.00	\$0.00	5	45	\$3.37	\$0.46
EcoSolar Installations, LLC	2	8	\$4.07	\$0.47	-	-	\$0.00	\$0.00	2	8	\$4.07	\$0.47
Emmett O'Brien Technical High School	1	5	\$2.14	\$0.47	-	-	\$0.00	\$0.00	1	5	\$2.14	\$0.47
Encon, Inc.	15	144	\$4.68	\$0.43	23	156	\$3.91	\$0.42	38	300	\$4.28	\$0.43
Evergreen Energy, LLC	3	25	\$3.47	\$0.48	-	-	\$0.00	\$0.00	3	25	\$3.47	\$0.48
Florenton River LLC	1	13	\$4.25	\$0.47	-	-	\$0.00	\$0.00	1	13	\$4.25	\$0.47
Green Earth Energy	14	132	\$3.75	\$0.38	-	-	\$0.00	\$0.00	14	132	\$3.75	\$0.38
JD Solar Solutions, LLC	36	291	\$3.46	\$0.47	-	-	\$0.00	\$0.00	36	291	\$3.46	\$0.47
Litchfield Hills Solar, LLC	11	114	\$4.26	\$0.45	-	-	\$0.00	\$0.00	11	114	\$4.26	\$0.45
Modern Solar Company	1	14	\$5.33	\$0.46	-	-	\$0.00	\$0.00	1	14	\$5.33	\$0.46
New England Clean Energy	1	7	\$5.87	\$0.50	-	-	\$0.00	\$0.00	1	7	\$5.87	\$0.50
Northeast Energy Design Solutions	1	9	\$3.25	\$0.49	1	8	\$4.37	\$0.49	2	17	\$3.77	\$0.49
Northeast Smart Energy LLC	-	-	\$0.00	\$0.00	1	13	\$3.75	\$0.47	1	13	\$3.75	\$0.47
One Roof Energy / Direct Energy Solar	41	276	\$3.77	\$0.29	-	-	\$0.00	\$0.00	41	276	\$3.77	\$0.29
One Source Solar, LLC	2	15	\$4.00	\$0.48	-	-	\$0.00	\$0.00	2	15	\$4.00	\$0.48
OneRoof Energy, Inc.	97	734	\$4.36	\$0.30	-	-	\$0.00	\$0.00	97	734	\$4.36	\$0.30
PosiGen	334	2,205	\$4.48	\$0.42	-	-	\$0.00	\$0.00	334	2,205	\$4.48	\$0.42
PurePoint Energy, LLC	30	247	\$4.74	\$0.47	1	21	\$5.99	\$0.44	31	268	\$4.84	\$0.47
R. Pelton Builders	8	94	\$3.41	\$0.45	-	-	\$0.00	\$0.00	8	94	\$3.41	\$0.45
Real Goods Solar, Inc	20	159	\$4.14	\$0.36	-	-	\$0.00	\$0.00	20	159	\$4.14	\$0.36
Roof Diagnostics Solar and Electric of CT	457	3,019	\$3.20	\$0.37	-	-	\$0.00	\$0.00	457	3,019	\$3.20	\$0.37
Ross Solar Group	124	1,300	\$3.92	\$0.44	30	306	\$3.67	\$0.42	154	1,606	\$3.87	\$0.44

<sup>38</sup> Based on RSIP Market Watch data as of June 30, 2016. Cost data includes all reported installed costs without including those projects where financing costs for some third party ownership installers are included as part of the total system cost. Installed capacity data is provided in kW-STC.

**CONNECTICUT GREEN BANK**

**4. MARKET TRANSFORMATION – COST EFFECTIVENESS OF SUBSIDIES**

**CASE OF THE RESIDENTIAL SOLAR INVESTMENT PROGRAM**

Installer	Non-Solarize				Solarize				RSIP Total			
	# Projects	Installed Capacity (kW)	Installed Cost (\$/W)	Incentive (\$/W)	# Projects	Installed Capacity (kW)	Installed Cost (\$/W)	Incentive (\$/W)	# Projects	Installed Capacity (kW)	Installed Cost (\$/W)	Incentive (\$/W)
Shippee Solar and Construction LLC	5	45	\$3.98	\$0.44	-	-	\$0.00	\$0.00	5	45	\$3.98	\$0.44
Sicuranza Electric	1	10	\$4.53	\$0.38	-	-	\$0.00	\$0.00	1	10	\$4.53	\$0.38
Skyline Solar	8	56	\$4.09	\$0.40	-	-	\$0.00	\$0.00	8	56	\$4.09	\$0.40
SolarCity	3,023	22,462	\$5.21	\$0.33	-	-	\$0.00	\$0.00	3,023	22,462	\$5.21	\$0.33
SON Energy Systems, LLC	1	9	\$3.00	\$0.49	-	-	\$0.00	\$0.00	1	9	\$3.00	\$0.49
Sound Solar Systems, LLC	1	6	\$5.52	\$0.49	-	-	\$0.00	\$0.00	1	6	\$5.52	\$0.49
Summer Hill Solar	8	74	\$2.92	\$0.44	-	-	\$0.00	\$0.00	8	74	\$2.92	\$0.44
SunEdison	96	603	\$2.74	\$0.33	-	-	\$0.00	\$0.00	96	603	\$2.74	\$0.33
Sungevity, Inc.	365	2,871	\$3.67	\$0.36	-	-	\$0.00	\$0.00	365	2,871	\$3.67	\$0.36
Sunlight Solar Energy, Inc.	43	386	\$3.61	\$0.43	11	83	\$3.77	\$0.43	54	469	\$3.64	\$0.43
Sunrun Inc	777	6,039	\$2.31	\$0.30	-	-	\$0.00	\$0.00	777	6,039	\$2.31	\$0.30
Sun-Wind Solutions, LLC	2	16	\$3.59	\$0.48	-	-	\$0.00	\$0.00	2	16	\$3.59	\$0.48
The Roofing Store, LLC	1	7	\$5.50	\$0.47	-	-	\$0.00	\$0.00	1	7	\$5.50	\$0.47
Trinity Solar	1,410	11,817	\$3.44	\$0.34	10	97	\$3.83	\$0.36	1,420	11,914	\$3.45	\$0.34
Tuscany Design Build, Inc.	1	20	\$3.84	\$0.44	1	11	\$4.22	\$0.31	2	30	\$3.98	\$0.39
Vivint Solar Developer, LLC	13	85	\$4.97	\$0.29	-	-	\$0.00	\$0.00	13	85	\$4.97	\$0.29
Waldo Renewable Electric, LLC	3	17	\$3.98	\$0.52	-	-	\$0.00	\$0.00	3	17	\$3.98	\$0.52
White Oak Development, LLC	1	5	\$4.30	\$0.46	-	-	\$0.00	\$0.00	1	5	\$4.30	\$0.46
<b>Total</b>	<b>7,598</b>	<b>59,088</b>	<b>\$4.10</b>	<b>\$0.35</b>	<b>103</b>	<b>916</b>	<b>\$3.84</b>	<b>\$0.43</b>	<b>7,701</b>	<b>60,004</b>	<b>\$4.10</b>	<b>\$0.35</b>

**CONNECTICUT GREEN BANK**  
**4. MARKET TRANSFORMATION – COST EFFECTIVENESS OF SUBSIDIES**  
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**Table 36. RSIP FY 2012-2016 Volume, Capacity and Cost Data by Installer<sup>39</sup>**

Installer	Non-Solarize				Solarize				RSIP Total			
	# Projects	Installed Capacity (kW)	Installed Cost (\$/W)	Incentive (\$/W)	# Projects	Installed Capacity (kW)	Installed Cost (\$/W)	Incentive (\$/W)	# Projects	Installed Capacity (kW)	Installed Cost (\$/W)	Incentive (\$/W)
31Solar	19	154	\$3.88	\$1.02	-	-	\$0.00	\$0.00	19	154	\$3.88	\$1.02
A Better Way Solar	1	10	\$3.37	\$0.59	-	-	\$0.00	\$0.00	1	10	\$3.37	\$0.59
Aegis Electrical Systems, LLC	381	3,066	\$4.18	\$0.77	-	-	\$0.00	\$0.00	381	3,066	\$4.18	\$0.77
All Electric Const. & Comm. LLC	3	33	\$3.61	\$0.65	-	-	\$0.00	\$0.00	3	33	\$3.61	\$0.65
AllGreenIT, Inc.	75	629	\$3.68	\$0.83	116	939	\$3.53	\$0.91	191	1,568	\$3.59	\$0.88
Alteris, Inc.	1	5	\$3.00	\$1.05	-	-	\$0.00	\$0.00	1	5	\$3.00	\$1.05
American Solar Partners	3	16	\$3.55	\$1.73	-	-	\$0.00	\$0.00	3	16	\$3.55	\$1.73
Apex Solar Energy	5	39	\$3.04	\$0.61	-	-	\$0.00	\$0.00	5	39	\$3.04	\$0.61
Astrum Solar	27	238	\$4.32	\$1.84	2	21	\$4.21	\$1.85	29	258	\$4.31	\$1.84
Atlantic Solar	1	6	\$4.41	\$1.11	-	-	\$0.00	\$0.00	1	6	\$4.41	\$1.11
BeFree Green Energy, LLC	129	1,156	\$4.02	\$0.75	363	3,181	\$3.74	\$0.98	492	4,337	\$3.82	\$0.92
Bella Casa Verde	2	15	\$4.35	\$1.13	-	-	\$0.00	\$0.00	2	15	\$4.35	\$1.13
Bonner Electric	14	123	\$3.95	\$0.88	-	-	\$0.00	\$0.00	14	123	\$3.95	\$0.88
Boston Solar	25	225	\$3.59	\$0.45	-	-	\$0.00	\$0.00	25	225	\$3.59	\$0.45
Bright Side Solar, LLC	1	4	\$5.07	\$1.93	-	-	\$0.00	\$0.00	1	4	\$5.07	\$1.93
Burrington Solar Edge	1	6	\$3.88	\$0.72	-	-	\$0.00	\$0.00	1	6	\$3.88	\$0.72
CatchinRays 2 LLC	30	235	\$4.04	\$0.76	-	-	\$0.00	\$0.00	30	235	\$4.04	\$0.76
Centurion Solar	16	110	\$4.05	\$0.83	31	193	\$3.98	\$1.18	47	303	\$4.01	\$1.05
Chabot Electric	2	16	\$3.14	\$0.90	-	-	\$0.00	\$0.00	2	16	\$3.14	\$0.90
Connecticut Solar Electric, LLC	2	14	\$3.71	\$1.24	-	-	\$0.00	\$0.00	2	14	\$3.71	\$1.24
Consulting Engineering Services, Inc.	4	33	\$3.43	\$0.72	1	9	\$4.12	\$0.12	5	42	\$3.58	\$0.59
CS Energy Systems, Inc.	2	26	\$3.75	\$0.73	-	-	\$0.00	\$0.00	2	26	\$3.75	\$0.73
CT Electrical, LLC	14	94	\$5.39	\$1.24	-	-	\$0.00	\$0.00	14	94	\$5.39	\$1.24
CT Solar Power, LLC	19	165	\$4.18	\$0.90	-	-	\$0.00	\$0.00	19	165	\$4.18	\$0.90
C-TEC Solar LLC	371	3,032	\$3.99	\$0.70	421	2,952	\$3.99	\$0.90	792	5,984	\$3.99	\$0.80
DCS	34	185	\$4.09	\$1.54	1	7	\$3.50	\$0.61	35	192	\$4.07	\$1.50
Deak Electric, Inc.	2	16	\$5.20	\$1.02	-	-	\$0.00	\$0.00	2	16	\$5.20	\$1.02
Direct Energy Solar	434	3,733	\$3.73	\$0.61	199	1,608	\$3.54	\$1.08	633	5,341	\$3.68	\$0.75
Dow Solar	6	29	\$7.99	\$0.62	-	-	\$0.00	\$0.00	6	29	\$7.99	\$0.62
Duck Feet Solar	-	-	\$0.00	\$0.00	1	11	\$3.71	\$0.47	1	11	\$3.71	\$0.47
Earthlight Technologies	178	1,594	\$4.08	\$0.56	55	450	\$4.00	\$0.85	233	2,044	\$4.06	\$0.63
Eastern CT Solar	7	66	\$3.39	\$0.52	-	-	\$0.00	\$0.00	7	66	\$3.39	\$0.52
EcoSolar Installations, LLC	15	84	\$4.51	\$1.18	-	-	\$0.00	\$0.00	15	84	\$4.51	\$1.18
Elektron Solar, LLC	8	64	\$4.75	\$1.39	-	-	\$0.00	\$0.00	8	64	\$4.75	\$1.39
Emmett O'Brien Technical High School	1	5	\$2.14	\$0.47	-	-	\$0.00	\$0.00	1	5	\$2.14	\$0.47
Encon, Inc.	95	743	\$5.41	\$0.98	280	1,945	\$3.95	\$0.96	375	2,688	\$4.35	\$0.96
Endless Mountains Solar Services	10	74	\$4.86	\$1.38	-	-	\$0.00	\$0.00	10	74	\$4.86	\$1.38

<sup>39</sup> Based on RSIP Market Watch data as of June 30, 2016. Cost data includes all reported installed costs without including those projects where financing costs for some third party ownership installers are included as part of the total system cost. Installed capacity data is provided in kW-STC.

**CONNECTICUT GREEN BANK**

**4. MARKET TRANSFORMATION – COST EFFECTIVENESS OF SUBSIDIES**

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Installer	Non-Solarize				Solarize				RSIP Total			
	# Projects	Installed Capacity (kW)	Installed Cost (\$/W)	Incentive (\$/W)	# Projects	Installed Capacity (kW)	Installed Cost (\$/W)	Incentive (\$/W)	# Projects	Installed Capacity (kW)	Installed Cost (\$/W)	Incentive (\$/W)
Evergreen Energy, LLC	17	137	\$3.89	\$0.95	1	9	\$3.48	\$0.61	18	146	\$3.87	\$0.93
Executive Electric	1	7	\$3.91	\$1.37	-	-	\$0.00	\$0.00	1	7	\$3.91	\$1.37
Florenton River LLC	1	13	\$4.25	\$0.47	-	-	\$0.00	\$0.00	1	13	\$4.25	\$0.47
Giuffrida Electric Company, Inc.	4	26	\$4.59	\$1.43	-	-	\$0.00	\$0.00	4	26	\$4.59	\$1.43
GM Industries, Inc.	26	256	\$8.00	\$1.37	-	-	\$0.00	\$0.00	26	256	\$8.00	\$1.37
Green Earth Energy	23	199	\$3.93	\$0.58	-	-	\$0.00	\$0.00	23	199	\$3.93	\$0.58
Harness the Sun	16	97	\$4.15	\$1.37	22	193	\$3.71	\$1.08	38	289	\$3.86	\$1.18
Infinite Energy Systems	1	11	\$5.38	\$1.52	-	-	\$0.00	\$0.00	1	11	\$5.38	\$1.52
Intina Energy	3	22	\$3.86	\$1.13	-	-	\$0.00	\$0.00	3	22	\$3.86	\$1.13
JD Solar Solutions, LLC	147	1,174	\$3.71	\$0.85	-	-	\$0.00	\$0.00	147	1,174	\$3.71	\$0.85
Leach Services	2	12	\$3.70	\$1.53	-	-	\$0.00	\$0.00	2	12	\$3.70	\$1.53
Lenz Electric	1	4	\$5.71	\$1.96	-	-	\$0.00	\$0.00	1	4	\$5.71	\$1.96
Litchfield Hills Solar, LLC	71	557	\$4.54	\$0.96	-	-	\$0.00	\$0.00	71	557	\$4.54	\$0.96
Macri Roofing, Inc.	2	13	\$5.79	\$1.58	-	-	\$0.00	\$0.00	2	13	\$5.79	\$1.58
Made in USA Solar LLC	11	79	\$4.69	\$1.26	-	-	\$0.00	\$0.00	11	79	\$4.69	\$1.26
Mercury Solar Systems, Inc.	2	16	\$4.93	\$1.63	-	-	\$0.00	\$0.00	2	16	\$4.93	\$1.63
Mister Sparky	6	20	\$6.83	\$1.90	-	-	\$0.00	\$0.00	6	20	\$6.83	\$1.90
Modern Solar Company	5	41	\$5.08	\$1.15	-	-	\$0.00	\$0.00	5	41	\$5.08	\$1.15
Moore Energy	4	27	\$4.98	\$1.59	-	-	\$0.00	\$0.00	4	27	\$4.98	\$1.59
Mystic Solar (Natural Energy Alternatives, LLC)	4	36	\$5.09	\$1.61	-	-	\$0.00	\$0.00	4	36	\$5.09	\$1.61
New England Clean Energy	1	7	\$5.87	\$0.50	-	-	\$0.00	\$0.00	1	7	\$5.87	\$0.50
Next Step Living	129	795	\$6.29	\$0.88	-	-	\$0.00	\$0.00	129	795	\$6.29	\$0.88
Northeast Energy Design Solutions	1	9	\$3.25	\$0.49	1	8	\$4.37	\$0.49	2	17	\$3.77	\$0.49
Northeast Smart Energy LLC	12	92	\$3.24	\$1.18	1	13	\$3.75	\$0.47	13	106	\$3.30	\$1.09
One Roof Energy / Direct Energy Solar	41	276	\$3.77	\$0.29	-	-	\$0.00	\$0.00	41	276	\$3.77	\$0.29
One Source Solar, LLC	2	15	\$4.00	\$0.48	-	-	\$0.00	\$0.00	2	15	\$4.00	\$0.48
OneRoof Energy, Inc.	97	734	\$4.36	\$0.30	-	-	\$0.00	\$0.00	97	734	\$4.36	\$0.30
Paradise Energy Solutions	1	10	\$4.08	\$0.60	-	-	\$0.00	\$0.00	1	10	\$4.08	\$0.60
PosiGen	383	2,517	\$4.49	\$0.47	-	-	\$0.00	\$0.00	383	2,517	\$4.49	\$0.47
PurePoint Energy, LLC	90	719	\$4.73	\$0.77	19	162	\$4.49	\$0.55	109	881	\$4.69	\$0.73
R. Pelton Builders	60	457	\$4.07	\$1.00	-	-	\$0.00	\$0.00	60	457	\$4.07	\$1.00
Real Goods Solar, Inc	190	1,449	\$4.14	\$0.99	146	1,058	\$3.79	\$1.24	336	2,507	\$3.99	\$1.10
Renewable Resources, Inc.	21	130	\$4.16	\$1.47	11	66	\$3.87	\$1.29	32	195	\$4.06	\$1.40
Roof Diagnostics Solar and Electric of CT	1,027	7,030	\$3.40	\$0.55	-	-	\$0.00	\$0.00	1,027	7,030	\$3.40	\$0.55
Ross Solar Group	392	3,721	\$4.15	\$0.82	290	2,524	\$3.98	\$0.87	682	6,245	\$4.08	\$0.84
Shippee Solar and Construction LLC	105	815	\$3.72	\$1.05	14	113	\$3.91	\$0.60	119	928	\$3.75	\$0.99
Sicuranza Electric	2	20	\$5.45	\$0.95	-	-	\$0.00	\$0.00	2	20	\$5.45	\$0.95
Sky View Solar	1	5	\$6.03	\$1.37	-	-	\$0.00	\$0.00	1	5	\$6.03	\$1.37
Skyline Solar	38	299	\$4.21	\$0.82	-	-	\$0.00	\$0.00	38	299	\$4.21	\$0.82
SolarCity	6,820	49,515	\$5.16	\$0.61	4	21	\$5.15	\$0.59	6,824	49,536	\$5.16	\$0.61
SON Energy Systems, LLC	2	16	\$3.55	\$0.87	-	-	\$0.00	\$0.00	2	16	\$3.55	\$0.87
Sound Solar Systems, LLC	6	52	\$4.80	\$1.20	-	-	\$0.00	\$0.00	6	52	\$4.80	\$1.20



**CONNECTICUT GREEN BANK**

**4. MARKET TRANSFORMATION – COST EFFECTIVENESS OF SUBSIDIES**

**CASE OF THE RESIDENTIAL SOLAR INVESTMENT PROGRAM**

Installer	Non-Solarize				Solarize				RSIP Total			
	# Projects	Installed Capacity (kW)	Installed Cost (\$/W)	Incentive (\$/W)	# Projects	Installed Capacity (kW)	Installed Cost (\$/W)	Incentive (\$/W)	# Projects	Installed Capacity (kW)	Installed Cost (\$/W)	Incentive (\$/W)
Summer Hill Solar	24	177	\$3.19	\$0.89	-	-	\$0.00	\$0.00	24	177	\$3.19	\$0.89
Sun Harvest Renewable Resources, LLC	10	76	\$6.07	\$1.62	-	-	\$0.00	\$0.00	10	76	\$6.07	\$1.62
Sundoor Solar	2	14	\$4.00	\$0.86	-	-	\$0.00	\$0.00	2	14	\$4.00	\$0.86
SunEdison	96	603	\$2.74	\$0.33	-	-	\$0.00	\$0.00	96	603	\$2.74	\$0.33
Sungevity, Inc.	811	6,156	\$3.96	\$0.65	-	-	\$0.00	\$0.00	811	6,156	\$3.96	\$0.65
Sunlight Solar Energy, Inc.	197	1,517	\$4.15	\$0.91	94	700	\$3.89	\$1.00	291	2,217	\$4.07	\$0.94
Sunrun Inc	777	6,039	\$2.31	\$0.30	-	-	\$0.00	\$0.00	777	6,039	\$2.31	\$0.30
Sun-Wind Solutions, LLC	17	138	\$3.88	\$0.96	-	-	\$0.00	\$0.00	17	138	\$3.88	\$0.96
Super Green Solutions	8	70	\$3.58	\$0.63	-	-	\$0.00	\$0.00	8	70	\$3.58	\$0.63
The Roofing Store, LLC	1	7	\$5.50	\$0.47	-	-	\$0.00	\$0.00	1	7	\$5.50	\$0.47
Today Electronics USA	1	9	\$3.82	\$0.71	-	-	\$0.00	\$0.00	1	9	\$3.82	\$0.71
Trinity Solar	2,213	17,766	\$3.50	\$0.47	10	97	\$3.83	\$0.36	2,223	17,863	\$3.50	\$0.47
Tuscany Design Build, Inc.	8	82	\$5.38	\$0.93	1	11	\$4.22	\$0.31	9	93	\$5.24	\$0.86
US Energy Concierge	13	72	\$4.38	\$0.89	-	-	\$0.00	\$0.00	13	72	\$4.38	\$0.89
Verengo Solar	35	272	\$3.61	\$1.00	-	-	\$0.00	\$0.00	35	272	\$3.61	\$1.00
Vivint Solar Developer, LLC	13	85	\$4.97	\$0.29	-	-	\$0.00	\$0.00	13	85	\$4.97	\$0.29
Waldo Renewable Electric, LLC	42	302	\$4.82	\$1.13	1	6	\$3.82	\$0.49	43	308	\$4.81	\$1.11
White Oak Development, LLC	10	61	\$5.84	\$1.46	-	-	\$0.00	\$0.00	10	61	\$5.84	\$1.46
<b>Total</b>	<b>15,984</b>	<b>120,917</b>	<b>\$4.33</b>	<b>\$0.62</b>	<b>2,085</b>	<b>16,294</b>	<b>\$3.85</b>	<b>\$0.96</b>	<b>18,069</b>	<b>137,211</b>	<b>\$4.28</b>	<b>\$0.66</b>

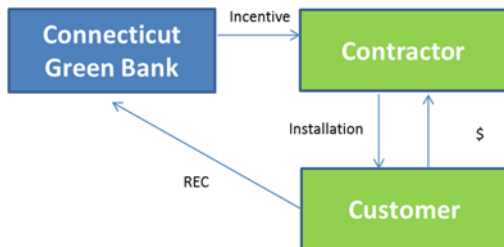
**CONNECTICUT GREEN BANK**

**4. MARKET TRANSFORMATION – COST EFFECTIVENESS OF SUBSIDIES  
CASE OF THE RESIDENTIAL SOLAR INVESTMENT PROGRAM**

**Rebates and Incentives**

The RSIP is a subsidy program that provides incentives to offset the cost for homeowners to install solar photovoltaic (PV) systems. Incentives are provided either upfront (i.e., through an expected performance based buy-down or EPBB) for homeowners that want to own a system or over time based on system production (i.e., through a performance based incentive or PBI) for homeowners who want to lease a system from a third-party owner. With either incentive type, the Renewable Energy Credits (RECs) are owned by the Connecticut Green Bank (see Figure 4).

**Figure 4. Legal Structure and Flows of Capital for the RSIP<sup>40</sup>**



The subsidy under the RSIP has decreased over time (see Table 37) with the intention of increasing the number of projects and increasing the amount of clean energy produced (see Table 38) while at the same time supporting the goal of reducing the market reliance on rebates and incentives and moving it towards innovative low-cost financing (see Market Transformation: Financial Warehouse and Credit Enhancement Structures for CT Solar Loan and CT Solar Lease).

**Table 37. RSIP Subsidy by Step and Incentive Type**

RSIP Subsidy by Step	Start Date	EPBB (\$/W)			PBI (\$/kWh)		LMI (\$/kWh)	
		≤5 kW	5 to 10 kW	>10 kW, ≤ 20 kW	≤10 kW	>10 kW, ≤ 20 kW	≤10 kW	>10 kW, ≤ 20 kW
Step 1	3/2/2012	\$2.450	\$1.250	\$0.000	\$0.300	\$0.000	N/A	N/A
Step 2	5/8/2012	\$2.275	\$1.075	\$0.000	\$0.300	\$0.000	N/A	N/A
Step 3	1/4/2013 EPBB	\$1.750	\$0.550	\$0.000	\$0.225	\$0.000	N/A	N/A
	4/1/2013 PBI							
Step 4	1/6/2014	\$1.250	\$0.750	\$0.000	\$0.180	\$0.000	N/A	N/A
Step 5	9/1/2014	\$0.800		\$0.400	\$0.125	\$0.060	N/A	N/A
Step 6	1/1/2015	\$0.675		\$0.400	\$0.080	\$0.060	N/A	N/A
Step 7	4/11/2015	\$0.540		\$0.400	\$0.064	\$0.060	N/A	N/A
Step 8	8/8/2015	\$0.513		\$0.400	\$0.054	\$0.054	\$0.110	\$0.055
Step 9	2/1/2016	\$0.487		\$0.400	\$0.046	\$0.046	\$0.110	\$0.055

<sup>40</sup> The Green Bank incentive is issued to the Contractor on behalf of the Customer. In the case of Third-Party Owned systems, RECs flow from the Contractor to the Connecticut Green Bank.

**CONNECTICUT GREEN BANK****4. MARKET TRANSFORMATION – COST EFFECTIVENESS OF SUBSIDIES****CASE OF THE RESIDENTIAL SOLAR INVESTMENT PROGRAM**

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**Table 38. Residential Solar PV Systems Approved, In Progress or Completed through the RSIP Subsidy by Step**

<b>RSIP Subsidy by Step</b>	<b>Approved (kW)</b>	<b>Completed (kW)</b>	<b>Total (kW)</b>	<b>Average Incentive (\$/W-STC)</b>
Step 1	0.0	1,380.7	1,380.7	\$1.79
Step 2	0.0	5,991.5	5,991.5	\$1.63
Step 3	88.2	13,097.5	13,185.7	\$1.23
Step 4	644.2	19,002.9	19,647.1	\$1.03
Step 5	930.2	12,748.7	13,678.9	\$0.75
Step 6	1,767.6	11,001.1	12,768.6	\$0.51
Step 7	2,614.8	17,122.3	19,737.1	\$0.40
Step 8	626.2	2,476.7	3,102.9	\$0.38
Step 8.1	2,850.0	6,658.8	9,508.8	\$0.39
Step 8.2	8,671.1	8,775.8	17,446.9	\$0.33
Step 9	18,662.2	2,100.4	20,762.5	\$0.32
Total	36,854.5	100,356.3	137,210.8	\$0.66

**CONNECTICUT GREEN BANK**  
**4. MARKET TRANSFORMATION**  
**FINANCIAL WAREHOUSE AND CREDIT ENHANCEMENT STRUCTURES**  
**CASE OF THE CT SOLAR LOAN**

As the Connecticut Green Bank’s residential solar PV loan program, we are applying the Program Logic Model that focuses on financing and credit enhancements (see Figure 5).

**Figure 5. Program Logic Model for the CT Solar Loan**



**Financing Program**

The CT Solar Loan was a financing product developed in partnership with Sungage Financial<sup>41</sup> that used credit enhancements (i.e., \$300,000 loan loss reserve and \$168,000 interest rate buy-downs)<sup>42</sup> in combination with a \$5 million warehouse of funds and \$1 million of subordinated debt from the Connecticut Green Bank. Through this product, the Connecticut Green Bank lowered the barriers to Connecticut homeowners seeking to install solar PV installations thus increasing demand while at the same time reducing the market’s reliance on subsidies being offered through the RSIP. The CT Solar Loan was the first dedicated residential solar loan product not secured by a lien on the home or tied to a particular PV equipment OEM supplier. As a loan, capital provided to consumers for the CT Solar Loan is returned to the Connecticut Green Bank – it is not a subsidy. In fact, approximately 80% of the loan value was sold to retail investors through a “crowd funding” platform or to institutional investors without recourse to the Connecticut Green Bank. The financial structure of the CT Solar Loan product includes origination,<sup>43</sup> servicing,<sup>44</sup> and financing features in combination with the support of the Connecticut Green Bank (see Figure 6).

Launched in March of 2013, the CT Solar Loan provided up to \$55,000 per loan, with 15-year maturity terms and affordable 6.49% interest rates (including 0.25% ACH payment benefit) to provide homeowners with the upfront capital they needed to finance residential solar PV projects.

<sup>41</sup> Sungage Financial (<http://www.sungagefinancial.com/>) won a competitive RFP through the Connecticut Green Bank’s Financial Innovation RFP to support a residential solar PV loan program

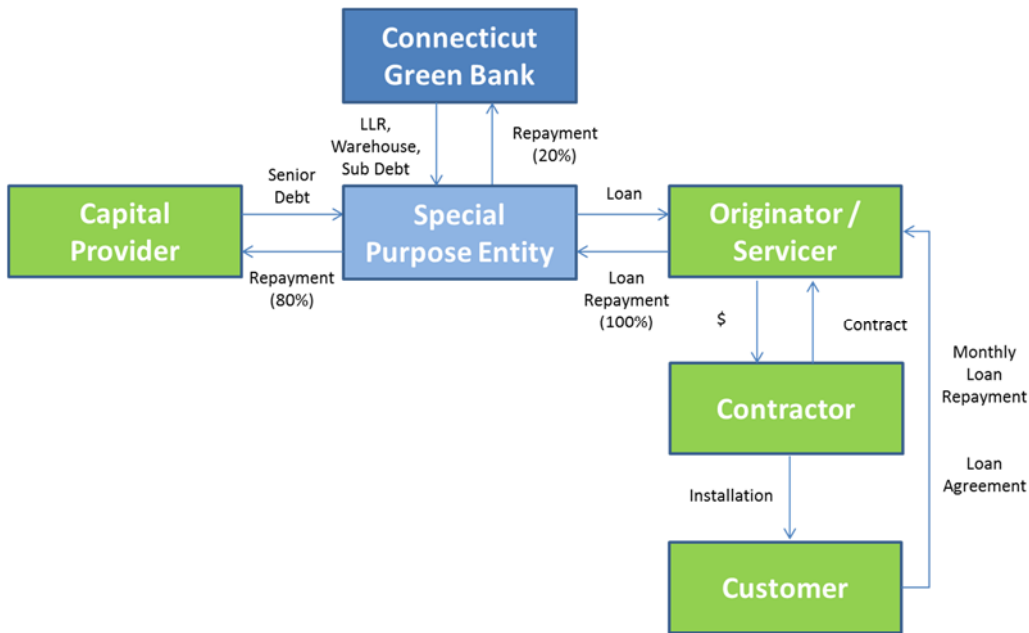
<sup>42</sup> From repurposed American Recovery and Reinvestment Act funds

<sup>43</sup> Sungage Financial in partnership with local contractors

<sup>44</sup> Concord Servicing Corporation

**CONNECTICUT GREEN BANK  
 4. MARKET TRANSFORMATION  
 FINANCIAL WAREHOUSE AND CREDIT ENHANCEMENT STRUCTURES  
 CASE OF THE CT SOLAR LOAN**

**Figure 6. Legal Structure and Flows of Capital for the CT Solar Loan**



The CT Solar Loan provided financing for 279 projects totaling nearly \$6.0 million of investment and 2,193.1 kW of residential solar PV deployment (see Table 39). To date there are no defaults and as of June 30, 2016 there are 5 delinquencies or 1.8% of loans.

**Table 39. CT Solar Loan Metrics**

Year	# of Projects	Investment	Installed Capacity (kW)
2013	3	\$58,974	17.7
2014	140	\$2,774,655	1,107.9
2015	136	\$3,120,143	1,068.2
Total <sup>45</sup>	279	\$5,953,772	2,193.1

<sup>45</sup> Includes approved, closed and completed projects.

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The CT Solar Loan yields an appropriate rate of return to the capital providers commensurate with the risks they are taking, provided 19 contractors with an important sales tool, and gave nearly 300 customers the ability to own solar PV through low-interest and long-term financing along with access to the federal ITC and state incentives (i.e., the RSIP Expected Performance Based Buydown). Of the \$6.0 million invested by the Connecticut Green Bank into the CT Solar Loan, \$1.0 million has been sold to the crowd-funding platform Mosaic, \$2.6 million to a Community Development Financial Institution in The Reinvestment Fund, and the remaining is on the balance sheet of the Connecticut Green Bank.

In structuring the solar loan product, the Green Bank's objective was to enable homeowners of varying financial means to own their own solar PV systems. Prior to the CT Solar Loan's creation, a homeowner would need to use their own savings or their own home equity (most often though a home equity line of credit) to pay for the system, which, at that time, often required an investment exceeding \$25,000. The requirement for such a level of personal financial resources dramatically constrained the "ownership" market for solar PV. So the Green Bank with its partner Sungage Financial, developed the CT Solar Loan which made 15-year financing available at affordable interest rates without the need to have a lien on the home or limit the purchase to certain manufacturers who offered financing solely for their panels. In developing the CT Solar Loan, the Green Bank had to overcome the risk of being unable to sell the loans to private investors which would have tied up capital resources of the Green Bank and limited its ability to deploy investment of additional clean energy. Ultimately, the Green Bank became confident that a sufficient rate of return could be offered to enable the investments to "clear" the market without a discount (or loss) to the Green Bank. The combination of crowdsourced funding and a structured private placement enabled the Green Bank to sell the investments with recourse limited to the underlying consumer loans as well as a limited loan loss reserve using American Recovery and Reinvestment Act funds from the US Department of Energy.

The CT Solar Loan was the Connecticut Green Bank's first residential product graduation. It started off being the first crowd-funded residential solar PV transaction with Sungage Financial through Mosaic.<sup>46</sup> And then it graduated to a partnership between Sungage Financial and Digital Federal Credit Union – with no resources from the Connecticut Green Bank.<sup>47</sup> The loan offering from Sungage Financial now includes 5, 10, and 20 year maturity terms at affordable interest rates and is being offered in California, Florida, Massachusetts, New Jersey, New York, and Texas – along with solar PV contractors in Connecticut.

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<sup>46</sup> <http://www.businesswire.com/news/home/20140206005031/en/Sungage-Financial-CEFIA-Mosaic-Announce-5-Million#.VgRTgVIXL4Y>

<sup>47</sup> <http://www.ctgreenbank.com/ct-solar-loan-partner-graduates-connecticut-green-bank/>

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**Marketing Programs**

To accelerate the deployment of residential solar PV through the RSIP and the uptake of the CT Solar Loan financing product, the Connecticut Green Bank implemented Solarize Connecticut. Solarize programs are designed to use a combination of group purchasing, time-limited offers, and grassroots outreach, while local clean energy advocates volunteer and coordinate with their towns to help speed the process (see Table 40).

**Table 40. Number of Projects, Investment, and Installed Capacity through Solarize Connecticut for the CT Solar Loan Financing Product<sup>48</sup>**

	<b># of Projects</b>	<b>Investment</b>	<b>Installed Capacity (kW)</b>
Solarize	168	\$3,273,609	1,285.7
Non-Solarize	111	\$2,680,163	907.4
<b>Total</b>	<b>279</b>	<b>\$5,953,772</b>	<b>2,193.1</b>
% Solarize	60	55	59

The Solarize Connecticut program provided a significant marketing channel to catalyze origination for the CT Solar Loan comprising nearly 60 percent of the total projects, investment, and installed capacity.

**Data Accessibility**

There were 462 applications into the CT Solar Loan – 279 closed, 96 withdrew, and 87 declined in underwriting. The household customers that accessed the CT Solar Loan since its launch in 2013 had varying credit scores – see Table 41.

**Table 41. Credit Scores of Household Customers Using the CT Solar Loan**

	<b>Credit Score Ranges</b>					<b>Total</b>
	<b>Below 640</b>	<b>640-679</b>	<b>680-699</b>	<b>700-719</b>	<b>720+</b>	
CT Solar Loan			11	15	253	279
			3.9%	5.4%	90.7	

Of the CT Solar Loans approved and closed with household customers, the following table is a breakdown of the contractors offering the financing product – see Table 42.

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<sup>48</sup> The status represents the current disposition of projects as of June 30, 2016. Projects are displayed by the fiscal year in which they were Approved but not Closed, Closed but not Completed or Closed and Completed. (See Project Status in Measures of Success).

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**Table 42. Residential Solar PV Contractors and the CT Solar Loan**

<b>Contractor</b>	<b># of Loans</b>	<b>\$ of Loans</b>	<b>% of Loans</b>
31Solar	1	\$20,298	0.34%
Aegis Electrical Systems, LLC	24	\$539,766	9.07%
AllGreenIT, Inc.	7	\$112,604	1.89%
BeFree Green Energy, LLC	2	\$46,606	0.78%
Catchin Rays	7	\$175,248	2.94%
Centurion Solar	4	\$107,025	1.80%
C-TEC Solar LLC	45	\$926,307	15.56%
DCS	1	\$16,440	0.28%
Direct Energy	28	\$572,721	9.62%
Earthlight Technologies	8	\$191,189	3.21%
EcoSmart Home Services	2	\$55,366	0.93%
Encon, Inc.	13	\$217,599	3.65%
Northeast Smart Energy LLC	1	\$19,960	0.34%
PurePoint Energy, LLC	6	\$174,016	2.92%
RGS Energy	18	\$360,238	6.05%
Ross Solar Group	72	\$1,571,531	26.40%
Shippee Solar and Construction LLC	3	\$61,543	1.03%
Sunlight Solar Energy, Inc.	36	\$764,760	12.84%
US Energy Concierge	1	\$20,556	0.35%
<b>Total</b>	<b>279</b>	<b>\$5,953,772</b>	<b>100.00%</b>



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As the Connecticut Green Bank’s residential and commercial solar PV lease program, we are applying the Program Logic Model that focuses on financing and credit enhancements (see Figure 7).

**Figure 7. Program Logic Model for the CT Solar Lease**



**Financing Programs**

The CT Solar Lease was a financing product developed in partnership with a tax equity investor (i.e., US Bank) and a syndicate of local lenders (i.e. First Niagara Bank and Webster Bank) that uses a credit enhancement (i.e., \$3,500,000 loan loss reserve),<sup>49</sup> in combination with \$2.3 million in subordinated debt and sponsor equity from the Connecticut Green Bank as the “member manager” to provide up to \$75 million in lease financing for residential and commercial solar PV projects. Through the product, the Connecticut Green Bank lowers the barriers to Connecticut residential and commercial customers seeking to install solar PV with no up-front investment thus increasing demand, while at the same time reducing the market’s reliance on subsidies through the RSIP or being more competitive in a reverse auction through the Zero Emission Renewable Energy Credit (ZREC) program. As a lease, capital provided to consumers through the CT Solar Lease is returned to the Connecticut Green Bank, the tax equity investor and the lenders – it is not a subsidy. The financial structure of the CT Solar Lease product includes origination by contractors, servicing of lease payments,<sup>50</sup> insurance and “one call” system performance and insurance resolution,<sup>51</sup> and financing features in combination with the support of the Connecticut Green Bank (see Figure 8).

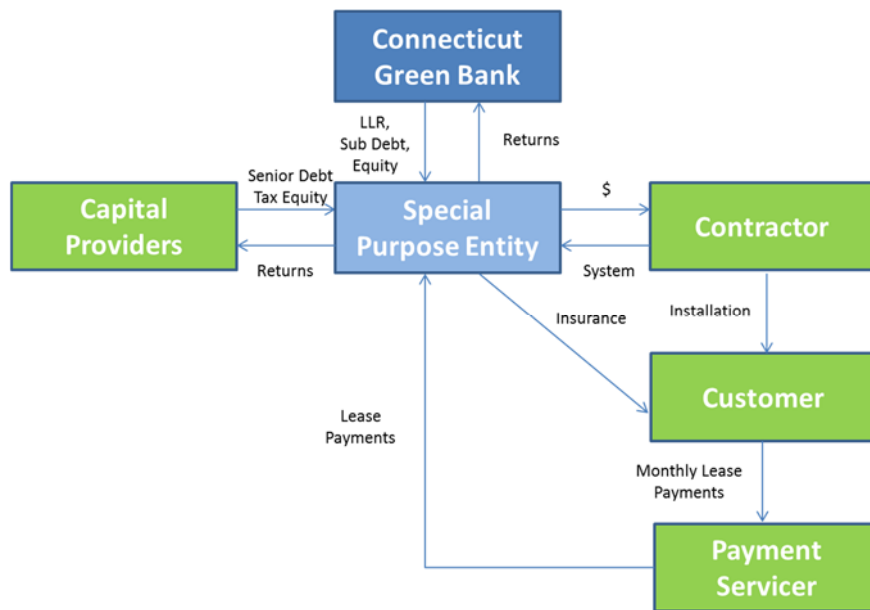
<sup>49</sup> From repurposed American Recovery and Reinvestment Act funds

<sup>50</sup> AFC First Financial

<sup>51</sup> Assurant

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**Figure 8. Legal Structure and Flows of Capital for the CT Solar Lease<sup>52</sup>**



Through 6/30/2016, the CT Solar Lease provided financing for 1,192 residential solar PV projects and 36 commercial solar PV projects totaling \$67.3 million of investment and 17,095 kW of clean energy deployment (see Tables 43 and 44). To date there are no defaults and as of 6/30/2016 there are 2 delinquencies or 0.2% of the portfolio.

**Table 43. CT Solar Lease Metrics – Residential**

Year	# of Projects	Investment	Installed Capacity (kW)
2014	60	\$2,306,025	461.2
2015	486	\$18,370,999	3,966.6
2016	646	\$23,187,919	5,145.0
Total <sup>53</sup>	1,192	\$43,864,942	9,572.7

**Table 44. CT Solar Lease Metrics – Commercial**

Year	# of Projects	Investment	Installed Capacity (kW)
2015	22	\$9,836,739	3,154.3
2016	14	\$13,663,830	4,367.8
Total	36	\$23,500,568	7,522.2

<sup>52</sup> It should be noted that the Special Purpose Entity structure includes several entities – CT Solar Lease II, LLC and CEFIA Holdings, LLC that provide different functions.

<sup>53</sup> Includes approved, closed and completed projects.

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The CT Solar Lease yields an appropriate rate of return to the capital providers commensurate with the risks they are taking, provided 27 contractors with an important sales tool, and gave 1,228 customers the ability to lease solar PV and lower their energy costs. The CT Solar Lease is the second “solar PV fund” established using a combination of ratepayer funds and private capital. In developing this fund, the Green Bank sought to innovate both in the types of credits that would be underwritten and broaden the sources of capital in the fund. Before these innovations by the Green Bank, a fund had not been established that would underwrite residential solar PV installations as well as installations on a “commercial scale” such as for municipal and school buildings, community oriented not-for-profit structures (all of which can’t take advantage of Federal tax incentives due to their tax exempt status) as well as a vast array of for profit enterprises. These commercial-scale projects were historically the most difficult to finance: too small to attract investment funds and similarly if aggregated to a size worthy of investment, the pool of offtakers that for the most part are non-investment grade or “unrated” credits are difficult to underwrite in a manner that would permit deploying solar PV at scale. By prudently assessing these risks and operational issues – the Green Bank was able to obtain the support of the tax equity investor and lenders from Main Street – not Wall Street – in the fund. The CT Solar Lease is the first fund to secure solar leases and power purchase agreements using a PACE lien – an innovation that has prompted California to introduce legislation to enable the same security arrangement for its businesses and not for profit organizations. The Green Bank’s leadership and innovation was recognized by the Cleave Energy States Alliance “State Leadership in Clean Energy” award in 2016.

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**CT Solar Lease and QECBs**

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The Connecticut Housing Finance Authority (CHFA) is partnering with the Green Bank to identify buildings among the State Sponsored Housing Portfolio (SSHP), as well as other affordable multifamily properties, that are well positioned to “go solar”. The Green Bank will own, operate, and maintain these systems while providing owners with discounted electricity for 20 years through Power Purchase Agreements. Originally, the Green Bank intended to secure the power purchase agreements and solar leases for these SSHP systems using C-PACE. When a conflict with CHFA’s bond indenture for the financing for these SSHPs with C-PACE as the security mechanism was identified, the Green Bank needed to secure an alternative financing arrangement in order to complete the financing for the SSHP systems. Working with CHFA, the Green Bank structured incremental debt funding using proceeds from Qualified Energy Conservation Bonds (QECBs) that CHFA could make available for this purpose. The Green Bank was able to carve out the SSHP repayment streams from the lenders’ collateral package under the Connecticut Solar Lease fund, thereby providing repayment assurance that permitted CHFA to issue the QECBs to Bank of America. With the funding structure in place, the Green Bank was able to move forward with local contractors to provide financing for more than a dozen solar PV systems for the SSHP properties, resulting in more than 750 kW of clean renewable energy for these multifamily dwellings.

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With respect to the CT Solar Lease and the commercial market, over \$23 million is being used to deploy solar PV systems in the commercial sector (see Table 45).

**Table 45. CT Solar Lease Commercial Contractors**

<b>Contractor</b>	<b># of Leases</b>	<b>\$ of Leases</b>	<b>% of Leases</b>
64 Solar	3	\$949,536	4.04%
American Solar	9	\$4,383,607	18.65%
C-TEC Solar LLC	3	\$7,690,234	32.72%
Davis Hill	1	\$652,860	2.78%
Deutsche Eco USA Corp.	2	\$3,300,960	14.05%
Encon, Inc.	10	\$2,667,653	11.35%
Entersolar	1	\$1,047,153	4.46%
Northeast Energy Design Solutions	1	\$802,125	3.41%
Northeast Smart Energy LLC	3	\$589,453	2.51%
Renewable Resources, Inc.	1	\$239,883	1.02%
Ross Solar Group	2	\$1,177,105	5.01%
<b>Total</b>	<b>36</b>	<b>\$23,500,568</b>	<b>100.00%</b>

Given the growth in the market from consumers and the level of interest in providing financing from local capital providers, the CT Solar Lease is under consideration for expansion as it applies to commercial customers.

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**Marketing Programs**

To accelerate the deployment of residential solar PV through the RSIP and the uptake of the CT Solar Lease financing product, the Connecticut Green Bank implemented Solarize Connecticut. Solarize programs are designed to use a combination of group purchasing, time-limited offers, and grassroots outreach, while local clean energy advocates volunteer and coordinate with their towns to help speed the process (see Table 46).

**Table 46. Number of Projects, Investment, and Installed Capacity through Solarize Connecticut for the CT Solar Lease Financing Product**

	<b># of Projects</b>	<b>Investment</b>	<b>Installed Capacity (kW)</b>
Solarize	326	\$11,766,734	2,553.8
Non-Solarize	866	\$32,098,208	7,018.9
<b>Total</b>	<b>1,192</b>	<b>\$43,864,942</b>	<b>9,572.7</b>
% Solarize	27	27%	27%

The Solarize Connecticut program provided a marketing channel and origination catalyst for the CT Solar Lease comprising 27 percent of the total projects, investment, and installed capacity.

**Data Accessibility**

1,192 household customers accessed the CT Solar Lease since its launch in 2013 – see Table 47.

**Table 47. Credit Scores of Household Customers Using the CT Solar Lease**

	<b>Credit Score Ranges</b>					<b>Total</b>
	<b>Below 640</b>	<b>640-679</b>	<b>680-699</b>	<b>700-719</b>	<b>720+</b>	
Solar Lease	1	45	39	78	1,029	1,192
	0.1%	3.8%	3.3%	6.5%	86.3%	

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There were 2,833 applications received through the CT Solar Lease – 1,192 were approved, closed, or completed, 1,026 withdrawn, and 615 declined. To date, there have been no defaults and there is presently one delinquency. Of the CT Solar Leases approved and closed with household customers, the following table is a breakdown of the contractors offering the financing product – see Table 48.

**Table 48. Residential Solar PV Contractors and the CT Solar Lease**

<b>Contractor</b>	<b># of Leases</b>	<b>\$ of Leases</b>	<b>% of Leases</b>
Aegis Electrical Systems, LLC	60	\$2,158,610	4.92%
AllGreenIT, Inc.	9	\$387,576	0.88%
Astrum Solar	54	\$2,137,763	4.87%
BeFree Green Energy, LLC	84	\$3,535,688	8.06%
Boston Solar	6	\$230,580	0.53%
Connecticut Solar Power, LLC	2	\$76,523	0.17%
C-TEC Solar LLC	85	\$3,061,148	6.98%
Direct Energy	114	\$4,373,528	9.97%
Earthlight Technologies	19	\$721,551	1.64%
EcoSmart Home Services	3	\$118,035	0.27%
Encon, Inc.	139	\$4,641,335	10.58%
Litchfield Hills Solar, LLC	17	\$682,940	1.56%
PurePoint Energy, LLC	7	\$270,117	0.62%
Real Goods Solar, Inc	7	\$229,775	0.52%
Renewable Resources, Inc.	4	\$136,773	0.31%
RGS Energy	100	\$3,547,073	8.09%
Ross Solar Group	88	\$3,516,632	8.02%
Sunlight Solar Energy, Inc.	35	\$1,251,128	2.85%
Trinity Solar	356	\$12,672,388	28.89%
Tuscany Solar	3	\$115,785	0.26%
<b>Total</b>	<b>1,192</b>	<b>\$43,864,942</b>	<b>100.00%</b>

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For the Energize CT Smart-E residential loan program, underwritten and administered by Connecticut Green Bank, we are applying the Program Logic Model that focuses on financing and credit enhancements (see Figure 9).

**Figure 9. Program Logic Model for the Smart-E Loan**



**Financing Program**

The Smart-E residential loan program is a financing program developed in partnership with Energize CT and local lenders that uses a credit enhancement (i.e., \$1,800,000 loan loss reserve)<sup>54</sup> and interest rate buy-downs (\$4,300,000 program)<sup>55</sup> to stimulate the market for residential energy efficiency and solar loans in Connecticut. Through the product, the Connecticut Green Bank lowers the cost of capital for Connecticut residential customers seeking to install solar PV, high efficiency heating and cooling equipment, insulation or other home energy upgrades and reduces the loan performance risks to lenders. The \$1.8 million Loan Loss Reserve is used to encourage lenders to offer below market interest rates and longer terms for unsecured loans, mitigates their losses, and encourages customers to undertake measures that would prove uneconomical at higher interest rates. The Interest Rate Buy-downs further encourage additional energy savings as they are reserved primarily for customers coupling multiple retrofits (e.g. solar and efficiency).

The Smart-E Loan was designed to make it easy and affordable for homeowners to make energy efficiency and renewable energy improvements to their homes with no cash out of pocket and at interest rates low enough and repayment terms long enough to make the improvements “cash flow positive”. At the same time, the Green Bank was intentional in opening conversations with local lenders to demonstrate the value of loans that would help their existing customers with burdensome energy costs – and serve as an effective marketing tool to attract new relationships. In return for a “second loss” reserve which would be available beyond an agreed “normal” level of loan losses, lenders agreed to

<sup>54</sup> \$1,000,000 from repurposed American Recovery and Reinvestment Act funds, \$800,000 from Green Bank funds

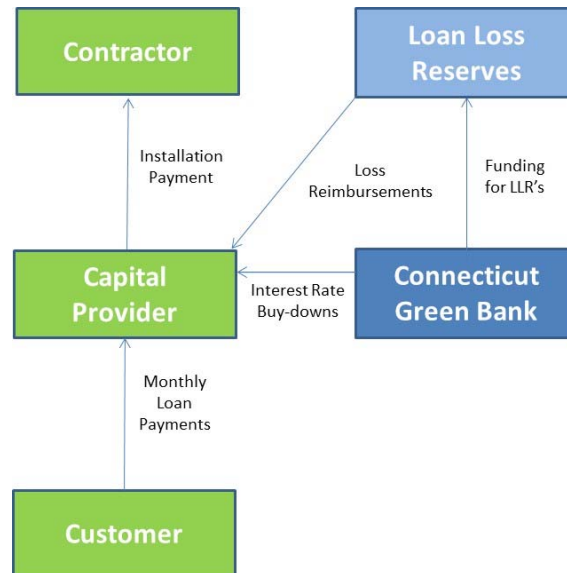
<sup>55</sup> From repurposed American Recovery and Reinvestment Act funds

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lengthen their terms and lower their rates. The end result is a successful loan product that has enabled hundreds of homeowners throughout the state to lower energy costs and make their homes more comfortable in the summer heat or the depths of winter.

The financial structure of the Smart-E Loan product includes origination,<sup>56</sup> servicing,<sup>57</sup> and financing features in combination with the support of the Connecticut Green Bank (see Figure 10).

**Figure 10. Legal Structure and Flows of Capital for the Smart-E Loan**



The Smart-E Loan provided financing for 737 projects totaling \$13 million of investment and 2,780.9 kW of residential solar PV deployment (see Table 49). To date there have been 2 defaults totaling \$51,127 or 0.4% of the portfolio and as of 6/30/2016 there are 0 delinquencies. To date the secondary loan loss reserve has not had to reimburse any of the participating lenders.

**Table 49. Smart-E Loan Metrics**

Year	# EE	# RE	# RE/EE	Unknown	Total # of Projects	Investment	Installed Capacity (kW)	Annual Saved/Produced (MMBtu)
2013	1	1	-	1	3	\$52,400	6.0	38
2014	90	40	6	15	151	\$1,910,087	355.9	2,906
2015	123	84	69	44	320	\$6,000,452	1,366.9	7,872
2016	113	52	75	23	263	\$5,291,436	1,052.0	7,056
Total <sup>58</sup>	327	177	150	83	737	\$13,254,375	2,780.9	17,871

<sup>56</sup> Network of participating community banks and credit unions with local contractors

<sup>57</sup> Network of participating community banks and credit unions

<sup>58</sup> Includes approved, closed and completed projects.



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**Marketing Programs**

To accelerate the deployment of residential solar PV through the RSIP and the uptake of the Smart-E Loan financing product, the Connecticut Green Bank implemented Solarize Connecticut. Solarize programs are designed to use a combination of group purchasing, time-limited offers, and grassroots outreach, while local clean energy advocates volunteer and coordinate with their towns to help speed the process (see Table 50).

**Table 50. Number of Projects, Investment, and Installed Capacity through Solarize Connecticut for the Smart-E Loan Financing Product**

	<b># of Projects</b>	<b>Investment</b>	<b>Installed Capacity (kW)</b>
Solarize	106	\$2,509,259	964.1
Non-Solarize	631	\$10,745,116	1,816.8
<b>Total</b>	<b>737</b>	<b>\$13,254,375</b>	<b>2,780.9</b>
% Solarize	14%	19%	35%

The Solarize Connecticut program provided a significant marketing channel and origination catalyst for the Smart-E Loan comprising nearly 15 to 20 percent of the total projects and investment and 35% of the installed capacity.<sup>59</sup>

**Data Accessibility**

There were 1,260 applications into the Smart-E Loan – 737 closed, 168 withdrew, and 355 declined in underwriting. The household customers that accessed the Smart-E Loan since its launch in 2013 had varying credit scores – see Table 51.

**Table 51. Credit Scores of Household Customers Using the Smart-E Loan**

	<b>Credit Score Ranges</b>						<b>Total</b>
	<b>Below 640</b>	<b>640-679</b>	<b>680-699</b>	<b>700-719</b>	<b>720+</b>	<b>Unknown</b>	
Smart- E Loan	26	75	45	65	501	25	737
	3.4%	10.2%	6.1%	8.8%	68.0	3.4%	

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<sup>59</sup> It should also be noted that Solarize was adapted to support a transition from propane and heating oil to natural gas through a pilot community-based marketing partnership with Norwich Public Utilities and SmartPower through Energize Norwich. Over 100 Smart-E Loans were originated through this pilot demonstrating that community-based marketing approaches could be adapted to support loan origination strategies.

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**CASE OF THE SMART-E LOAN**

Of the Smart-E Loans approved and closed with household customers, the following tables are a breakdown of the contractors and lenders offering the financing product – see Tables 52 and 53.

**Table 52. Residential Contractors and the Smart-E Loan**

<b>Contractor</b>	<b># of Loans</b>	<b>\$ of Loans</b>	<b>% of Loans</b>
20/20 Save Green Now	3	\$22,550	0.17%
31Solar	8	\$141,953	1.07%
72 Degrees Air Conditioning & Heating	1	\$11,000	0.08%
A&B Cooling & Heating	1	\$14,350	0.11%
A.R. Fonda Mechanical Services	1	\$8,275	0.06%
Absolute Air Services	3	\$48,907	0.37%
Aegis Electrical Systems, LLC	4	\$119,487	0.90%
Aiello Home Services LLC	1	\$11,800	0.09%
Air Inc	2	\$26,795	0.20%
All Phase Heating & Cooling Contractors	3	\$46,332	0.35%
All Time Manufacturing Co Inc	2	\$9,000	0.07%
AllGreenIT, Inc.	4	\$75,536	0.57%
American Heating and Cooling LLC	1	\$10,000	0.08%
American Windows & Siding LLC	4	\$81,085	0.61%
Apex Solar	2	\$13,500	0.10%
Aspen Heating and Cooling	1	\$10,000	0.08%
Bartol Heating & A/C	1	\$6,359	0.05%
Bay State Fuel Oil	1	\$7,792	0.06%
BeFree Green Energy, LLC	40	\$1,096,136	8.27%
Benvenuti Oil	3	\$34,289	0.26%
Better Building Performance	1	\$4,000	0.03%
Better Way Solar	1	\$25,000	0.19%
Billy Carlson Heating & AC, LLC	1	\$10,500	0.08%
Bonner Electric	6	\$152,593	1.15%
Boston Solar	7	\$190,900	1.44%
Brayman Heating & Cooling, Inc.	3	\$38,690	0.29%
Brooks Oil	1	\$14,531	0.11%
Caprio Homes	1	\$13,000	0.10%
Caso HVAC	1	\$11,045	0.08%
Cawley's Plumbing & Heating	1	\$30,000	0.23%
Chabot Electric	1	\$6,626	0.05%
Charter Oak Mechanical Service LLC	3	\$35,125	0.27%
Chickos Energy Services	5	\$77,443	0.58%
Climate Partners, LLC	12	\$188,152	1.42%
Conditioned Air Systems Inc	2	\$13,550	0.10%
CT Electrical, LLC	1	\$22,000	0.17%
CT Exteriors	1	\$4,615	0.03%
C-TEC Solar LLC	67	\$1,459,883	11.01%
Currie's Plumbing and Heating	2	\$20,656	0.16%
D&D Heating and A/C	2	\$65,000	0.49%
Daniels Energy	1	\$10,803	0.08%
DeLia Mechanical	7	\$61,200	0.46%

**CONNECTICUT GREEN BANK**  
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<b>Contractor</b>	<b># of Loans</b>	<b>\$ of Loans</b>	<b>% of Loans</b>
Depco Mechanical LLC	1	\$6,450	0.05%
Dependable Energy	1	\$11,540	0.09%
Diamond Plumbing & Heating	1	\$7,000	0.05%
Direct Energy	23	\$497,659	3.75%
Douglas Mechanical	1	\$6,200	0.05%
Dr. Energy Saver	7	\$145,426	1.10%
Duct Works	2	\$36,250	0.27%
Dunklee	3	\$34,175	0.26%
Dutch	1	\$11,700	0.09%
Dziengiel Plumbing Unlimited	3	\$35,133	0.27%
Earthlight Technologies	4	\$110,000	0.83%
East Coast Mechanical	3	\$46,686	0.35%
East Hartford Heating and Cooling	2	\$15,876	0.12%
Eastern Mechanical	1	\$21,100	0.16%
EcoSmart Home Services	9	\$243,484	1.84%
Edward M Sikorski	1	\$6,350	0.05%
Elm City Energy Solutions	1	\$40,000	0.30%
Encon, Inc.	8	\$195,381	1.47%
Evergreen Energy, LLC	3	\$64,200	0.48%
F.F. Hitchcock Oil Company	1	\$9,819	0.07%
Fahan Brothers	1	\$40,000	0.30%
For U Builders	3	\$67,795	0.51%
Gelo	1	\$13,300	0.10%
Giordano Heating and Cooling	1	\$10,500	0.08%
Glasco Heating & Air Conditioning, Inc.	24	\$203,630	1.54%
GMI Solar	1	\$25,000	0.19%
Good Life Energy Savers	3	\$35,785	0.27%
Green Earth Energy	2	\$32,032	0.24%
Greystone Home Services LLC	1	\$14,096	0.11%
Gulick Building & Development, LLC	1	\$7,200	0.05%
Harness the Sun	8	\$173,784	1.31%
HARP Mechanical	4	\$32,928	0.25%
Home Depot	3	\$89,334	0.67%
Home Doctor of America	1	\$14,250	0.11%
HomePro Rx	1	\$24,000	0.18%
Hurlburt's Plumbing and Heating	1	\$7,500	0.06%
Independent Mechanical Inc.	1	\$1,800	0.01%
Insulation Solutions of CT	1	\$39,227	0.30%
Ireland Oil Co., Inc.	1	\$8,095	0.06%
Izbicki Plumbing and Heating	8	\$74,100	0.56%
Jack Cipriano Plumbing & Heating	1	\$8,400	0.06%
James Carboni Plumbing and Heating, Inc.	6	\$61,956	0.47%
James Onze	1	\$12,280	0.09%
JD Solar Solutions, LLC	27	\$733,546	5.53%
John C. Fiderio & Sons, Inc.	1	\$3,325	0.03%
Kevin Caswell & Sons Contracting	1	\$5,000	0.04%

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<b>Contractor</b>	<b># of Loans</b>	<b>\$ of Loans</b>	<b>% of Loans</b>
King Energy Associates	2	\$50,500	0.38%
Lantern Energy	3	\$31,417	0.24%
Link Mechanical Services, Inc.	3	\$29,157	0.22%
M&G Plumbing and Heating	1	\$6,550	0.05%
M. Wallenta	2	\$23,200	0.18%
Made in USA Solar LLC	3	\$71,000	0.54%
Mainline Heating and Supply	1	\$15,648	0.12%
Master Mechanical LLC	1	\$7,227	0.05%
MDK	7	\$60,706	0.46%
Michael White	1	\$13,000	0.10%
Miller Plumbing and Heating	1	\$11,000	0.08%
Modern Heating & AC	1	\$6,257	0.05%
MTL Heating and Cooling LLC	2	\$16,400	0.12%
Nero A/C, Heating & Refrigeration, Inc.	3	\$34,199	0.26%
New England Conservation Services, LLC	1	\$40,000	0.30%
NP Brulotte & Sons	1	\$20,045	0.15%
Nutmeg Mechanical Services, Inc.	5	\$110,805	0.84%
One Hour	2	\$10,500	0.08%
One Source Solar	1	\$40,000	0.30%
Peoples Products	1	\$19,267	0.15%
Peter Tavino, PE, PC	1	\$30,000	0.23%
Precision Mechanical	2	\$12,444	0.09%
PurePoint Energy, LLC	2	\$61,821	0.47%
R&W Heating Energy Solutions LLC	65	\$732,715	5.53%
Real Goods Solar, Inc	4	\$115,940	0.87%
Renewal by Andersen of Southern New England	1	\$25,000	0.19%
Riley's Heating Service Inc.	15	\$141,020	1.06%
Ross Solar Group	51	\$1,257,530	9.49%
Ryan Oil Company Inc.	1	\$12,600	0.10%
Santa Energy	5	\$59,575	0.45%
Schede Plumbing & Heating	1	\$14,850	0.11%
Scotland Heating & A/C	1	\$8,000	0.06%
Secondino Mechanical Services	2	\$37,500	0.28%
Shippee Solar and Construction LLC	10	\$316,824	2.39%
Silver City Furnace	1	\$22,275	0.17%
SLS Heating	1	\$8,600	0.06%
Solv It Now	1	\$27,710	0.21%
Sonic Development Inc.	1	\$30,000	0.23%
Stafford Mechanical Services, Inc.	1	\$9,450	0.07%
Stan Pollack Building & Remodeling	1	\$25,000	0.19%
Steve Basso Plumbing Heating & A/C LLC	1	\$7,345	0.06%
Strohmaier Builders	1	\$40,000	0.30%
Summer Hill Solar	7	\$83,602	0.63%
Sunlight Solar Energy, Inc.	5	\$96,350	0.73%
Super Green Solutions	1	\$30,000	0.23%
Superior Fuel	2	\$24,208	0.18%

**CONNECTICUT GREEN BANK**  
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<b>Contractor</b>	<b># of Loans</b>	<b>\$ of Loans</b>	<b>% of Loans</b>
The Heat People	3	\$30,989	0.23%
The Roofing Store, LLC	1	\$40,000	0.30%
Tom Buehler Plumbing & Heating	2	\$14,920	0.11%
Tomax Heating and Cooling	2	\$16,615	0.13%
Total Energy Solutions	3	\$59,718	0.45%
Total Mechanical Systems LLC	2	\$16,129	0.12%
Tri-City	2	\$23,753	0.18%
Tyler Air	1	\$6,054	0.05%
Uplands Construction Group LLC	1	\$25,000	0.19%
Viglione Heating & Cooling Inc.	8	\$75,437	0.57%
Waldo Renewable Electric, LLC	3	\$76,859	0.58%
Wesson Energy, Inc.	6	\$90,559	0.68%
West Hartford Windows LLC	1	\$5,500	0.04%
Westville Crest Plumbing and Heating, Inc.	1	\$9,100	0.07%
Wilcox Fuel, Inc.	1	\$5,005	0.04%
William Perotti & Sons, Inc.	1	\$16,007	0.12%
Yankee Gas	1	\$8,000	0.06%
Unknown	79	\$1,353,742	10.21%
<b>Total</b>	<b>737</b>	<b>\$13,254,375</b>	<b>100.00%</b>

**Table 53. Lenders and the Smart-E Loan**

<b>Lender</b>	<b># of Loans</b>	<b>\$ of Loans</b>	<b>% of Loans</b>
CorePlus Federal Credit Union	183	\$ 2,511,003	18.94%
Eastern Savings Bank	182	\$ 4,527,516	34.16%
First National Bank of Suffield	38	\$ 812,860	6.13%
Ion Bank	40	\$ 488,138	3.68%
Liberty Bank	29	\$ 380,814	2.87%
Mutual Security Credit Union	10	\$ 224,769	1.70%
Nutmeg State Financial Credit Union	157	\$ 2,832,971	21.37%
Patriot Bank	41	\$ 533,664	4.03%
Quinnipiac Bank & Trust	7	\$ 84,056	0.63%
Thomaston Savings Bank	16	\$ 238,644	1.80%
Union Savings Bank	23	\$ 413,460	3.12%
Workers Federal Credit Union	11	\$ 206,481	1.56%
<b>Total</b>	<b>737</b>	<b>\$ 13,254,375</b>	<b>100.00%</b>

**CONNECTICUT GREEN BANK**  
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**CASE OF THE LOW INCOME SOLAR LEASE AND ENERGY EFFICIENCY ENERGY SAVINGS**  
**AGREEMENT (ESA)**

For the Connecticut Green Bank’s residential solar PV low-income lease program, we are applying the Program Logic Model that focuses on financing and credit enhancements (see Figure 11).

**Figure 11. Program Logic Model for the Low Income Solar Lease**



**Financing Program**

The Connecticut Green Bank offers a solar PV lease product targeted to the low-to-moderate income (LMI) population of the state through the solar developer PosiGen, a respondent to the solar financing RFP soliciting proposals addressing underserved markets. The product is a partnership with PosiGen, a senior lender (Enhanced Capital) and a tax equity investor (U.S. Bank). Connecticut Green Bank supplied the initial senior debt of \$5,000,000 which has been subordinated to an additional \$5,000,000 lent to the lease fund by Enhanced Capital to provide \$20 million in lease financing for solar projects targeting LMI homeowners. The Connecticut Green Bank is committed to lend an additional \$5 million as needed for future growth once an additional \$5 million in private capital is secured. The RSIP program’s tiered LMI performance based incentive (PBI) provides PosiGen a significantly higher incentive for customers demonstrating these income requirements.

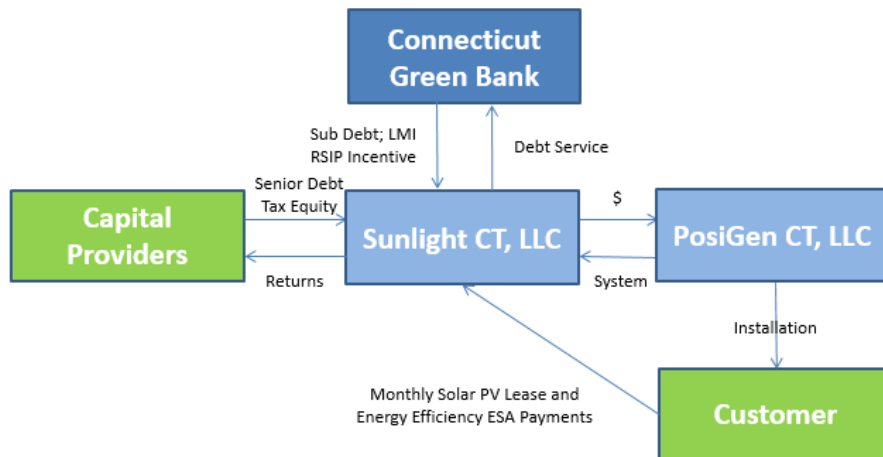
Through the partnership with PosiGen, the Connecticut Green Bank lowers the barriers to Connecticut low-to-moderate income residential customers seeking to install solar PV with no up-front investment. PosiGen’s model also includes an alternative underwriting approach that does not rely on credit scores and a community-based marketing model – two key ingredients for targeting this hard to reach market segment. Capital provided to PosiGen to be able to offer consumers a solar PV lease and energy efficiency ESA is returned to the Connecticut Green Bank, the tax equity investor and the lenders through consumer lease repayments. This is in contrast to traditional energy program subsidies targeted to LMI homeowners, which are typically in the form of grants only.

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The financial structure of the Low Income Solar Lease product includes origination, servicing, and financing features<sup>60</sup> in combination with the support of the Connecticut Green Bank (see Figure 12).

**Figure 12. Legal Structure and Flows of Capital for the Low Income Solar Lease**



Connecticut represented the first expansion for PosiGen outside of its initial market in Louisiana, where starting in 2011, it paired solar leasing and energy efficiency services to maximize savings for low and moderate income customers. Given the strategic emphasis the Green Bank has placed on driving investment for lower income homeowners, the organization developed a flexible funding structure to rapidly bring PosiGen to market. The concept started with the Green Bank being “anchor capital” for PosiGen together with PosiGen’s own resources along with tax equity from U.S. Bank (U.S. Bank was already an investor in the Connecticut market through the Green Bank’s CT Solar Lease). Documentation was structured to ultimately facilitate funding by a senior lender, providing for the subordination of the Green Bank’s loans once this senior lender could be secured. The Green Bank also integrated a working capital module within the financing arrangements to enable PosiGen to focus its capital resources on expanding to Connecticut. With initial capital requirements underwritten by the Green Bank, PosiGen had the financial backing and capital flexibility it needed to confidently secure its base of operation in Bridgeport, hire management and local staff, pursue local partnerships with existing energy efficiency and solar PV contractors, and to resolve supply chain issues. By using its balance sheet as anchor capital, the Green Bank made it possible for a developer that had proven its business model in another market to bring its innovative approach to Connecticut to build investment in solar and energy efficiency for homeowners of more modest means. The investment had the intended impact: PosiGen was able to establish operations, get a market started and its rapid success in Connecticut enabled the Green Bank and PosiGen to secure a senior lender and a new source of tax equity to enable operations to expand to several cities throughout Connecticut.

The Low Income Solar Lease provided financing for 333 projects totaling \$9.8 million<sup>61</sup> of investment and 2,199 kW of residential solar PV deployment (see Table 54).

<sup>60</sup> Origination, servicing and financing managed by PosiGen

<sup>61</sup> Fair Market Value of systems installed

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**Table 54. Low Income Solar Lease<sup>62</sup>**

<b>Year</b>	<b>Total # of Projects</b>	<b>Investment<sup>63</sup></b>	<b>Installed Capacity (kW)</b>
2016	333	\$9,843,865	2,199.1
<b>Total<sup>64</sup></b>	<b>333</b>	<b>\$9,843,865</b>	<b>2,199.1</b>

Of the low income households that installed solar PV, over 65% of them also participated in the energy efficiency ESA, resulting in more comprehensive energy efficiency measures being included in the project.

**Marketing Programs**

To build the pipeline of projects for the lease, Connecticut Green Bank supports PosiGen’s marketing campaigns, leveraging the institution’s local experience. This includes assisting with PosiGen’s outreach efforts through its Solar for All campaigns which are modeled after Solarize campaigns.

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<sup>62</sup> The status represents the current disposition of projects as of June 30, 2016. Projects are displayed by the fiscal year in which they were Approved but not Closed, Closed but not Completed or Closed and Completed. (See Project Status in Measures of Success).

<sup>63</sup> Fair Market Value of systems installed

<sup>64</sup> Includes approved, closed and completed projects.



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**CASE OF THE COMMERCIAL PROPERTY ASSESSED CLEAN ENERGY (C-PACE)**

As the Connecticut Green Bank’s commercial and industrial financing program, we are applying the Program Logic Model that focuses on financing and credit enhancements (see Figure 13).

**Figure 13. Program Logic Model for the C-PACE Program**



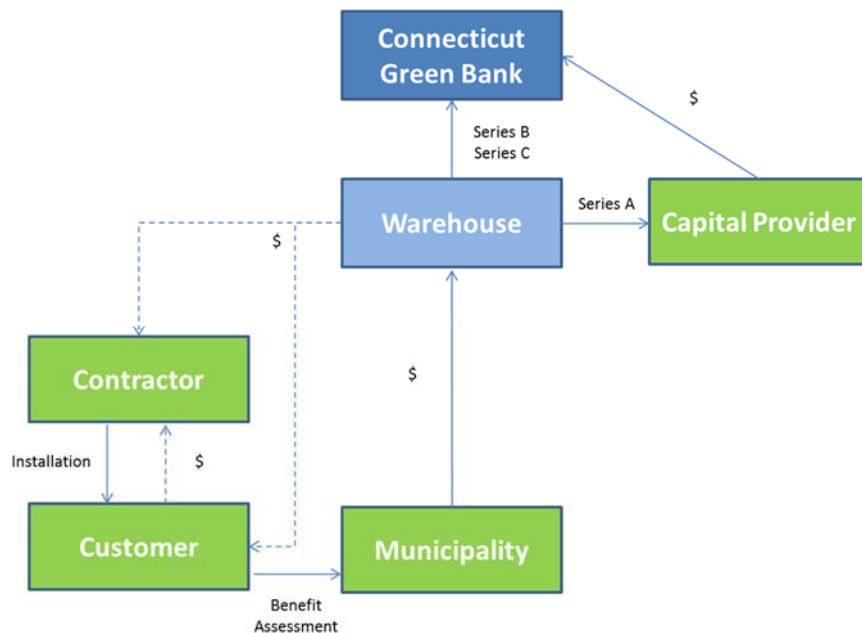
**Financing Program**

Commercial Property Assessed Clean Energy (C-PACE) is a structure through which commercial property owners can finance energy efficiency and renewable energy improvements through financing secured by a voluntary benefit assessment on their property and repaid via the property tax bill. A tax lien, or benefit assessment, is placed on the improved property as security for the loan, and the Connecticut Green Bank requires lender consent from existing mortgage holders prior to approving a C-PACE project. It should be noted, that to date 32 unique banks and 5 specialized lending institutions have provided lender consent to over 70 projects – demonstrating that existing mortgage holders see C-PACE as adding value to the property and net income to the business occupying the building as a result of lower energy prices.

The Connecticut Green Bank maintains warehouse of capital from which it finances C-PACE transactions and sells to capital markets upon completion (see Figure 14). Through the warehouse, funds are advanced to either the customer or contractor during construction based on the project meeting certain deliverables. Once the project is completed, the construction advances convert to long term financing whereby the property owner pays a benefit assessment over time to the municipality at the same time other property taxes are paid on the property. As the benefit assessment payments are made by the property owners, they are then remitted from the various municipalities to the Connecticut Green Bank or its designated servicer to repay the capital providers for the energy improvements financed through C-PACE.

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**Figure 14. Legal Structure and Flows of Capital for C-PACE**



Prior to the establishment of C-PACE in a given municipality, its legislative body must pass a resolution enabling the municipality to enter into agreement with the Connecticut Green Bank to assess, collect, remit, and assign benefit assessments against C-PACE borrowers' liabilities. As of June 30, 2016, there are 123 cities and towns signed up for C-PACE representing more than 90% of commercial and industrial building space in Connecticut. Over 200 contractors have been trained to participate in the C-PACE program. Additionally, as of June 30, 2016, over \$72 million in C-PACE assessment advances have been approved of which \$68 million has closed.

A portfolio of \$17.5 million in benefit assessment liens comprised of 30 energy efficiency and renewable energy projects across 22 municipalities was sold in two tranches to the Public Finance Authority (WI) ("PFA") under a bond conduit structure financed by Clean Fund. Using an auction process, bids for the portfolio were competitively solicited across all of the Connecticut Green Bank's capital providers. Bidders were encouraged to offer various structures and pricing, with or without credit enhancement, and to bid for one or more projects. The selected structure has the PFA use proceeds from Clean Fund (in return for a single class of Senior "A" bonds) to fund 80 percent of the portfolio purchase price. To credit enhance the transaction, the Connecticut Green Bank has taken back, in equal measure, Subordinated "B" and "C" bonds. The structure is, in effect, a "private securitization" of the underlying portfolio.

Building on this experience and the growth of the Connecticut C-PACE market, the Green Bank again solicited proposals from several financial institutions. In the end, the Green Bank established a strategic financing partnership with Hannon Armstrong Sustainable Infrastructure (Hannon), publicly listed on the NYSE. The Green Bank and Hannon structure uses a special purpose entity (SPE) established by Hannon specifically for the Green Bank C-PACE portfolio. The SPE purchases the benefit assessment liens in tranches that are financed from between 80% and 90% by Hannon up to a maximum of \$100 million with the residual capital provided by the Green Bank.

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**Data Accessibility**

114 customers accessed the C-PACE since its launch in 2013 – see Tables 55 and 56.

**Table 55. CPACE Metrics<sup>65</sup>**

Year	# EE	# RE	# RE/EE	Total # of Projects	Investment	Installed Capacity (kW)	Annual Saved/Produced (MMBtu)
2013	1	-	1	2	\$943,952	101.0	1,362
2014	7	14	3	24	\$20,429,943	3,416.0	36,923
2015	11	30	10	51	\$29,452,897	6,925.3	41,363
2016	7	21	9	37	\$21,628,858	5,272.7	32,476
Total <sup>66</sup>	26	65	23	114	\$72,455,651	15,715.0	112,123

**Table 56. Types of End-Use Customers Participating in C-PACE<sup>67</sup>**

End-Use	# of Properties (#)	Annual Savings/Production (MMBtu)	Square Footage (ft <sup>2</sup> )	C-PACE Investment (\$)
Industrial	33	37,667	1,464,131	\$22,803,305
Multi-family/apartment (> 5 units)	5	4,680	218,044	\$3,184,523
Non-profit	11	4,559	319,269	\$3,127,755
Office	20	39,771	1,577,251	\$21,067,720
Public assembly	2	748	40,000	\$642,194
Retail	36	22,300	975,603	\$19,200,221
Warehouse & storage	6	2,275	136,420	\$2,393,904
Other	1	123	5,804	\$36,029
Total	114	112,123	4,736,522	\$72,455,651

To date, there have been 3 delinquencies totaling \$4,986,119 or 6.9% of the portfolio and no defaults.

<sup>65</sup> The status represents the current disposition of projects as of June 30, 2016. Projects are displayed by the fiscal year in which they were Approved but not Closed, Closed but not Completed or Closed and Completed. (See Project Status in Measures of Success).

<sup>66</sup> Includes approved, closed and completed projects.

<sup>67</sup> The status represents the current disposition of projects as of June 30, 2016. Projects are displayed by the fiscal year in which they were Approved but not Closed, Closed but not Completed or Closed and Completed. (See Project Status in Measures of Success).

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**CASE OF THE COMMERCIAL PROPERTY ASSESSED CLEAN ENERGY (C-PACE)**

Of the 114 C-PACE projects, the following is a breakdown of projects by municipality – see Table 57.

**Table 57. Cities and Towns Supporting C-PACE Projects<sup>68</sup>**

<b>Municipality</b>	<b># of Properties (#)</b>	<b>Annual Savings/Production (MMBtu)</b>	<b>Square Footage (ft<sup>2</sup>)</b>	<b>C-PACE Investment (\$)</b>
Ansonia	1	411	38,896	\$205,652
Avon	2	2,649	89,764	\$1,059,417
Bloomfield	1	3,227	0	\$3,234,075
Bridgeport	14	13,912	693,713	\$6,684,513
Bristol	4	2,311	90,951	\$2,579,989
Brookfield	1	-93	36,772	\$1,164,790
Canaan	1	406	16,200	\$425,527
Canton	1	176	15,000	\$154,507
Clinton	1	623	0	\$624,260
Cromwell	1	4,084	109,032	\$2,114,163
Danbury	1	847	19,640	\$87,938
Deep River	1	123	5,804	\$36,029
East Haddam	2	694	41,450	\$732,597
East Lyme	2	192	16,225	\$147,185
East Windsor	3	1,904	94,000	\$1,693,944
Ellington	1	764	25,760	\$502,504
Enfield	1	1,105	57,000	\$881,993
Fairfield	2	658	11,700	\$673,360
Glastonbury	2	760	49,000	\$676,037
Groton	2	5,133	48,500	\$921,682
Hartford	9	5,159	363,604	\$2,832,671
Killingly	1	171	0	\$153,258
Killingworth	1	257	20,000	\$261,649
Manchester	4	5,260	97,104	\$5,055,353
Meriden	2	6,800	470,000	\$3,306,233
Middletown	2	5,256	146,368	\$4,100,595
Naugatuck	1	48	53,158	\$541,582
New Britain	1	4,113	150,000	\$2,842,049
New Haven	1	1,343	28,000	\$836,128
New London	6	2,519	258,369	\$2,296,519
Newington	1	562	53,200	\$794,873
Newtown	2	4,465	202,814	\$2,973,807
North Stonington	1	439	30,000	\$344,252
Norwalk	1	661	10,000	\$559,952
Norwich	1	545	50,000	\$366,586
Plainville	4	3,989	236,000	\$2,695,236
Putnam	1	9,218	125,000	\$2,350,000
Shelton	1	637	37,600	\$271,147
Simsbury	1	824	42,456	\$685,316

<sup>68</sup> The status represents the current disposition of projects as of June 30, 2016. Projects are displayed by the fiscal year in which they were Approved but not Closed, Closed but not Completed or Closed and Completed. (See Project Status in Measures of Success).

**CONNECTICUT GREEN BANK****4. MARKET TRANSFORMATION****FINANCIAL WAREHOUSE AND CREDIT ENHANCEMENT STRUCTURES****CASE OF THE COMMERCIAL PROPERTY ASSESSED CLEAN ENERGY (C-PACE)**

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<b>Municipality</b>	<b># of Properties (#)</b>	<b>Annual Savings/Production (MMBtu)</b>	<b>Square Footage (ft<sup>2</sup>)</b>	<b>C-PACE Investment (\$)</b>
Somers	1	691	48,360	\$997,269
South Windsor	1	135	0	\$135,200
Southington	2	534	24,325	\$457,792
Stamford	5	4,489	258,900	\$1,602,497
Stonington	1	230	16,400	\$230,636
Stratford	2	897	48,000	\$549,244
Torrington	1	116	19,000	\$132,325
Trumbull	1	1,066	100,000	\$1,012,004
Vernon	1	787	30,044	\$519,890
Waterbury	3	1,569	45,953	\$1,969,966
Watertown	2	1,010	34,756	\$604,107
West Haven	1	267	13,000	\$243,296
Westport	2	590	22,700	\$265,353
Willington	1	50	10,432	\$55,421
Windsor	2	3,855	197,572	\$2,175,617
Windsor Locks	1	392	34,000	\$336,703
Woodbridge	2	3,294	0	\$3,300,960
<b>Total</b>	<b>114</b>	<b>112,123</b>	<b>4,736,522</b>	<b>\$72,455,651</b>

**CONNECTICUT GREEN BANK**  
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**FINANCIAL WAREHOUSE AND CREDIT ENHANCEMENT STRUCTURES**  
**CASE OF THE COMMERCIAL PROPERTY ASSESSED CLEAN ENERGY (C-PACE)**

Of the C-PACE approved and closed projects, the following table is a breakdown of the contractors offering the financing product – see Table 58.

**Table 58. C-PACE Contractors<sup>69</sup>**

<b>Contractor</b>	<b># of C-PACE Transactions</b>	<b>\$ of C-PACE Transactions</b>	<b>% of C-PACE Transactions</b>
3x Solution Inc	1	\$1,164,790	1.61%
64 Solar	3	\$949,536	1.31%
Action Air Systems Inc.	1	\$179,980	0.25%
American Solar	4	\$1,554,554	2.15%
Antonio LLC	1	\$20,500	0.03%
BeFree Green Energy, LLC	1	\$232,714	0.32%
C&N Mechanical	1	\$30,434	0.04%
Chabot Electric	1	\$234,202	0.32%
Conserv-Inc	1	\$559,952	0.77%
Controlled Air	1	\$137,368	0.19%
C-TEC Solar LLC	2	\$7,306,975	10.08%
Davis Hill	1	\$652,860	0.90%
Deutsche Eco USA Corp.	2	\$3,300,960	4.56%
Direct Energy	2	\$633,103	0.87%
Earthlight Technologies	6	\$1,749,571	2.41%
ECNY	1	\$243,296	0.34%
Efficient Lighting and Maintenance, Inc.	1	\$30,620	0.04%
Efficient Lighting Consultants	1	\$541,582	0.75%
Emcor Services	3	\$2,973,427	4.10%
Encon, Inc.	6	\$2,091,775	2.89%
Energy Solutions Inc.	1	\$52,654	0.07%
Entersolar	1	\$1,116,629	1.54%
Environmental Systems Corp	1	\$107,556	0.15%
ESI Power Corp	3	\$905,109	1.25%
Fortunato Construction Group, Inc.	1	\$741,702	1.02%
GM Industries, Inc.	2	\$506,321	0.70%
Green Earth Energy	29	\$19,016,112	26.25%
H. Hulse, Inc.	1	\$166,236	0.23%
Harness the Sun	1	\$201,072	0.28%
High Performance Energy Solutions	1	\$87,938	0.12%
Inovateus	1	\$2,842,049	3.92%
JD Solar Solutions, LLC	2	\$370,396	0.51%
JK Energy Solutions	3	\$3,405,337	4.70%
Johnson Control	1	\$558,716	0.77%
Kurt Kuegler	1	\$120,109	0.17%
Lockheed Martin	1	\$2,974,349	4.11%
M.J. Fahy & Sons	1	\$36,350	0.05%
MSL Group	4	\$2,805,767	3.87%
NORESCO	2	\$2,274,881	3.14%

<sup>69</sup> The status represents the current disposition of projects as of June 30, 2016. Projects are displayed by the fiscal year in which they were Approved but not Closed, Closed but not Completed or Closed and Completed. (See Project Status in Measures of Success).

**CONNECTICUT GREEN BANK**  
**4. MARKET TRANSFORMATION**  
**FINANCIAL WAREHOUSE AND CREDIT ENHANCEMENT STRUCTURES**  
**CASE OF THE COMMERCIAL PROPERTY ASSESSED CLEAN ENERGY (C-PACE)**

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<b>Contractor</b>	<b># of C-PACE Transactions</b>	<b>\$ of C-PACE Transactions</b>	<b>% of C-PACE Transactions</b>
Northeast Smart Energy LLC	3	\$589,453	0.81%
Nxegen	1	\$331,884	0.46%
Oatley Mechanical Services, Inc.	1	\$271,147	0.37%
Reliable Combustion Services LLC	1	\$384,000	0.53%
Renewable Resources, Inc.	1	\$239,883	0.33%
Ross Solar Group	2	\$840,889	1.16%
Sarracco Mechanical	1	\$218,814	0.30%
Seldera LLC	1	\$836,128	1.15%
Smart Energy Services	1	\$418,540	0.58%
Sound Solar Systems, LLC	1	\$261,649	0.36%
Trane	4	\$5,185,781	7.16%
<b>Total</b>	<b>114</b>	<b>\$72,455,651</b>	<b>100.00%</b>