



2014 ANNUAL REPORT

# Innovating, Educating and Activating to Accelerate Clean Energy



## Who We Are

*The Connecticut Green Bank is a quasi-public agency created by Gov. Dannel Malloy and the Connecticut General Assembly through Public Act 11-80. The successor to the Connecticut Clean Energy Fund and originally named the Clean Energy Finance and Investment Authority, the agency was renamed the Connecticut Green Bank through Public Act 14-94. As the nation's first statewide "green bank," the Connecticut Green Bank leverages public and private funds to drive investment and scale up clean energy deployment in Connecticut.*

## Vision

*To lead the green bank movement by accelerating private investment in clean energy deployment to help Connecticut achieve economic prosperity, create jobs, promote energy security and address climate change.*

## Mission

*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.*

## Goals

- 1. To attract and deploy capital to finance the clean energy goals for Connecticut*
  - a. Help Connecticut become the most energy efficient state in the nation*
  - b. Scale up the deployment of renewable energy in Connecticut*
  - 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 toward innovative, low-cost financing of clean energy deployment*



## *Accelerating Clean Energy Deployment: Innovation, Education and Activation*

**W**ith this 2014 annual report, we introduce our new name: the Connecticut Green Bank.

### **What's a Green Bank?**

It's an entity that accelerates the deployment of clean energy by using limited public dollars to attract private capital investment in clean energy projects. In doing so, it makes clean energy more affordable and accessible to consumers. As the Connecticut Green Bank, we innovate, educate and activate to advance clean energy. We partner with private-sector investors to create low-cost, long-term, sustainable financing to implement energy efficiency and clean energy measures in the residential, commercial, industrial, institutional and infrastructure sectors. The model works: We are deploying more clean energy more quickly and efficiently than ever, while making optimal use of public funding.

The Connecticut Green Bank was the first of its kind in the country, and it has been enormously successful. Our award-winning C-PACE Program is a good example. As you'll read in this report, this year the program deployed nearly \$28 million and approved an additional \$20 million for projects. It enabled the deployment of 3.5 megawatts of clean energy and is estimated to have created 154 direct and 246 indirect and induced jobs, while preventing the emission of more than 61,000 tons of CO<sub>2</sub>. Cities and towns participating in C-PACE represent 90 percent of the state's commercial and industrial properties.

In other examples of achievements to date, we:

- Supported about 40 megawatts of behind-the-meter distributed energy resources

- Attracted total investment of \$225 million, leading to the creation of over 700 direct jobs and nearly 1,200 indirect and induced jobs
- Enabled the reduction of an estimated 370,000 tons of CO<sub>2</sub> emissions over the life of these projects – the equivalent of adding more than 4,000 acres of trees or removing approximately 2,500 cars from the road

The success of Connecticut's pioneering green bank has delivered positive results to our state. It has laid the groundwork for continued economic prosperity, created quality jobs, enhanced our energy security and contributed to a cleaner environment. What's more, Connecticut has become a model for others nationwide. In 2014, a bill was introduced in the U.S. Congress to create a \$50 billion federal green bank modeled after the Connecticut Green Bank, and other states are now creating their own green banks. President Barack Obama himself spotlighted Connecticut's program in a May 2014 speech on American energy. Connecticut can be proud of its leadership in the green bank movement.

Energy is the force that powers our lives, businesses and communities. By innovating, educating and activating, the Connecticut Green Bank helps ensure that the energy Connecticut needs to thrive is clean, abundant and affordable, now and for years to come.



Bryan Garcia

## 2014 HIGHLIGHTS

### ***The Connecticut Green Bank's notable achievements during fiscal year 2014 included:***



#### ***Presidential recognition***

President Barack Obama acknowledged the Connecticut Green Bank's leadership in a speech on American energy given on May 9, 2014, saying, "We've got public banks like Connecticut's Green Bank and private banks like Goldman Sachs ready to invest billions of dollars in renewable energy."

#### ***The nation's first securitization of commercial energy-efficiency assets***

The Connecticut Green Bank sold a large portion of its C-PACE loan portfolio to the specialty finance company Clean Fund in what clean energy finance experts called a "watershed" deal expected to pave the way for massive private investment in energy efficiency projects.

### **Official name change**

Public Act 14-94 officially renamed the Clean Energy Finance and Investment Authority the *Connecticut Green Bank*, reflecting the organization's model of using limited public dollars to attract private capital investment in clean energy projects.

### **Performance excellence**

- **Attracting investment** – The Connecticut Green Bank used \$74 million in ratepayer funds to attract more than \$225 million in private investment, for a total investment in clean energy of \$299 million.
- **Creating jobs** – Clean energy projects made possible by the Connecticut Green Bank created 1,179 jobs in Connecticut.



- **Protecting the environment** – The Connecticut Green Bank's clean energy projects reduced carbon emissions by more than 370,000 tons.

### **More lenders offer green financing**

As reported by HartfordBusiness.com in November 2013, the number of local financial institutions financing clean energy projects through partnerships with the Connecticut Green Bank is expanding. According to David Cantor of First Niagara, "This is one area where we see a lot of economic activity, and an area that will see a lot of growth in the next 24 months."

### **Crowdfunding for solar loans**

The Connecticut Green Bank collaborated with Mosaic and Sungage Financial to offer homeowners the nation's first crowdsourced loans for solar installations.

### **"Cracking the code" for residential solar power**

In September 2013, the Connecticut Green Bank and SmartPower published a report showing that the model used by the Connecticut Green Bank program Solarize Connecticut<sup>SM</sup> proved it could drive down customer-acquisition costs to make adopting solar power more attractive and affordable to a wider range of consumers.

### **First Comprehensive Annual Financial Report**

For the first time since its creation in 2011, the Connecticut Green Bank issued a detailed, audited and comprehensive annual financial report that provides enhanced clarity and transparency.

### **Collaboration with Connecticut Housing Finance Authority**

The Connecticut Green Bank signed a Memorandum of Agreement with the Connecticut Housing Finance Authority to collaborate on a statewide multifamily initiative.

### **Funds obtained for multifamily initiative**

New Ecology Inc., a nationally recognized affordable multifamily expert, committed \$1 million in technical assistance support for the state's affordable multifamily market.

### **C-PACE honored**

The Connecticut Green Bank's C-PACE Program was recognized with a State Leadership in Clean Energy Award from the Clean Energy States Alliance.



## ***Innovative Financing, National Leadership***

Since its launch only two years ago, The Connecticut Green Bank's innovative Commercial Property Assessed Clean Energy (C-PACE) program has achieved remarkable growth. Today it is a mature and widely respected program that is leading the nation in proving that commercial and industrial clean energy financing is a good investment.

C-PACE provides owners of commercial, industrial, nonprofit and multifamily properties with 100 percent, low-interest financing to make energy-efficiency and clean-energy improvements to their buildings. Owners realize energy cost savings immediately and use part of the savings to repay the loan through an annual benefit assessment charge on their property tax bills over as long as 20 years.

C-PACE is good for Connecticut businesses. It enables building owners to make extensive energy upgrades that deliver an immediate return on investment, increase their property value and improve

their bottom line long term by cutting energy costs. It also stimulates the growth of the contractor community in the state by increasing demand for services.

In fiscal year 2014, C-PACE deployed nearly \$20 million and approved an additional \$5 million for projects. It

securitized a commercial energy-efficiency loan portfolio. The Connecticut Green Bank aggregated C-PACE projects from its balance sheet and securitized them into a bond offering backed by \$30 million of C-PACE loans. The sale was to Clean Fund, a nationally known PACE investor that has

*“Our congregation sang praises on another level when we announced the planned improvements. Now that the boiler is replaced, everybody comes in with a smile because they are thrilled it's warm enough to hold church services in the winter.”*

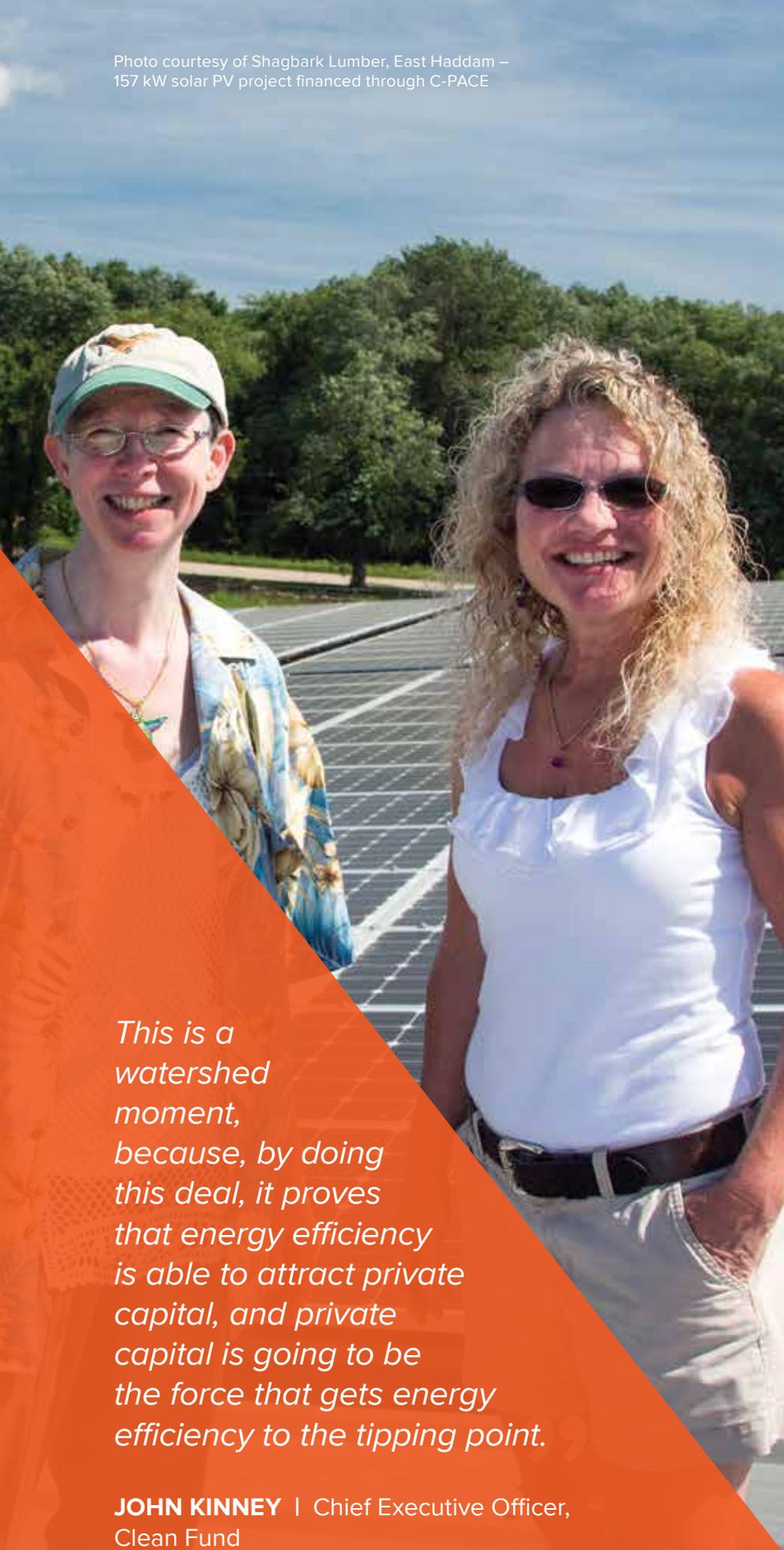
**JENICE THOMPSON** | Co-Pastor, Calvary Temple Christian Center

enabled the deployment of 3.5 megawatts of clean energy and is estimated to have created 154 direct and 246 indirect and induced jobs, while preventing the emission of more than 61,000 tons of CO<sub>2</sub>. Cities and towns participating in C-PACE represent 90 percent of the state's commercial and industrial properties.

C-PACE made history in 2014 by completing the country's first

closed deals in multiple states. The groundbreaking transaction demonstrates the security of the PACE financial structure and shows investors the wisdom of investing in Connecticut.

Other highlights of C-PACE's achievements include closing on its first multifamily project, located in Bridgeport, and receiving a State Leadership in Clean Energy Award from the Clean Energy States Alliance.



*This is a watershed moment, because, by doing this deal, it proves that energy efficiency is able to attract private capital, and private capital is going to be the force that gets energy efficiency to the tipping point.*

**JOHN KINNEY** | Chief Executive Officer,  
Clean Fund

## Examples of C-PACE at Work in Connecticut



**BRIDGEPORT**  
**Calvary Temple 10,600**  
**square-foot structure,**  
**built in 1870**

Energy upgrade: New, high-efficiency gas boiler and fuel conversion

C-PACE financing: \$51,116  
Projected savings: \$267,000 over the life of the upgrades



**TRUMBULL**  
**InSports Center 108,000**  
**square-foot building,**  
**built in 2001**

Energy upgrade: 252 kilowatt solar photovoltaic system; energy-efficient lighting

C-PACE financing: \$1,001,298  
Projected savings: \$1.8 million over the life of the upgrades

# ***Affordable Capital for Home Energy Improvements***

The Smart-E Loan Program, launched statewide in fall 2013, makes it easy and affordable for Connecticut homeowners to finance clean energy improvements that will reduce their energy costs. The program offers no-money-down, fixed-rate financing for up to 12 years through participating local lenders, and the application process is quick and easy. Loans can be used to finance dozens of types of improvements, including solar installations, high-efficiency boilers and furnaces, natural-gas conversions, insulation, windows and more.

With Smart-E, homeowners enjoy affordable loans and reduced energy costs that continue long after the loan is repaid. Lenders attract new customers and strengthen relationships with existing ones. The program is also an economic driver in Connecticut, creating demand for services and helping contractors, installers and others grow their businesses and create jobs. Just as important, Smart-E makes Connecticut communities cleaner and healthier. It's estimated that projects the program made possible this year will prevent the release of more than 5,000 tons of CO<sub>2</sub> emissions over their lifetimes.

The Smart-E Loan Program expanded dramatically during fiscal year 2014, providing more than \$8 million in investments and attracting nearly \$5 million in private capital investment.

*“We were able to help another family to save money, save energy, and live more comfortably. That’s what we do!”*

**SUE DOMBROWSKI** | Director of Marketing and Public Relations, CorePlus Federal Credit Union

The year also saw a rapid increase in the number of contractors and lenders taking part in the program, and that growth is expected to continue as the program gains popularity.

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**BERLIN**

**Building Type:** Dutch Colonial  
**Building Size:** 3,698 square feet  
**Year Built:** 1800

Project: Conversion to natural gas, upgrade to a high-efficiency boiler, asbestos abatement

Total Project Cost: \$9,754

Connecticut Green Bank Financing:  
Smart-E Loan

Estimated Annual Energy Cost  
Savings: \$1,800

*“We are getting the most out of our money, and it feels good to know that we are not over-spending on energy. We are excited about what the improvements hold for our future.”*

**- STEVEN KENNEDY**



## RESIDENTIAL SOLAR INVESTMENT

### *Surpassing Milestones*

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The Connecticut Green Bank's Residential Solar Investment Program (RSIP) provides rebates and performance-based incentives that make it attractive and affordable for Connecticut homeowners to install solar PV systems. The program helps reduce carbon emissions and make energy costs more predictable for homeowners. It also fulfills the statutory requirement of stimulating the growth of a vibrant solar industry in the state. Incentives are provided through eligible installers.

In fiscal year 2014, the RSIP program provided nearly \$34 million in investments while attracting private

capital of nearly \$81 million. These funds enabled the deployment of 26 megawatts of residential solar PV through more than 3,690 projects.

The residential solar PV market in Connecticut has seen dramatic improvement in recent years, and demand doubled in each of the past two years. This growth in demand, accompanied by a 10 percent reduction in system costs, has helped the Connecticut Green Bank achieve the legislative target of a total of 30 megawatts of solar energy a full eight years ahead of schedule and well under budget.

*Connecticut Solar Lease is estimated to have created 73 direct and 117 indirect and induced jobs years in Connecticut and, over the lives of the projects, prevented the release of more than 33,000 tons of CO<sub>2</sub> emissions.*

## CONNECTICUT SOLAR LEASE

### ***An Economical Way to Go Solar***

One of the Connecticut Green Bank's newest initiatives, the Connecticut Solar Lease Program helps Connecticut property owners reduce their energy costs – and their carbon emissions – by installing solar PV or solar hot water systems. The program is flexible, offering a no-money-down option and low escalating or fixed monthly payment options, as well as other choices at the end of the lease term or when the home is sold. Applying is easy, and even homeowners with lower credit scores may qualify.

In keeping with the Connecticut Green Bank model, the Connecticut Solar Lease Program is offered in partnership with a number of area financial

institutions, including First Niagara and Webster. The program uses specially trained and qualified contractors to perform the work.

In fiscal year 2014, its first full year of operation, the Connecticut Solar Lease Program began to hit its stride, and the rate of growth is accelerating. By year's end, 356 projects had been approved, closed or completed. Twenty-one contractors had been trained to use the product, and 15 of them had completed financing applications. Connecticut Solar Lease is estimated to have created 73 direct and 117 indirect and induced jobs in Connecticut and, over the lives of the projects, prevented the release of more than 33,000 tons of CO<sub>2</sub> emissions.

## ***Advancing Solar Through Community Partnerships***

The Connecticut Green Bank's innovative, grassroots marketing initiative, Solarize Connecticut, engages municipalities, local volunteers and installers in campaigns that encourage residents to install solar systems.

Solarize Connecticut has used several types of campaigns. In the standard or "Classic" campaign, selected installers offer tiered pricing based on the total kilowatts sold through the campaign to make installing solar both simple and affordable. The Classic campaign is conducted over 20 weeks. Along with partners SmartPower, Yale University and Duke University, Solarize Connecticut has tested program variations under a U.S. Department of Energy grant. The "Choice" variation featured a choice of three installers per campaign. The "Express" variation compressed the length of the campaign.

Cities and towns large and small, affluent and economically distressed, have taken part in the program.

The two Solarize Connecticut phases held in fiscal year 2014, involving 34 communities, resulted in:

- More than 1,100 contracts
- Deployment of more than 8.5 megawatts of new solar
- Customer savings of more than \$6.15 million (approximately \$5,500 per customer)

Since it was launched as a pilot in 2012, Solarize Connecticut has saved Connecticut homeowners an estimated \$9.2 million.

## Board of Directors

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CEO, Coalition for Green Capital

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FROM THE GOVERNOR

## **Financial Innovation Advances Clean Energy**

Stimulating the growth of clean energy is a major component of Connecticut's Comprehensive Energy Strategy. The Connecticut Green Bank is advancing that strategy by developing new and better ways to meet the energy challenges facing our state, our country and our planet.

By using ratepayer funds to attract private-sector investment and developing innovative financing methods, the Connecticut Green Bank is creating and implementing programs that make clean energy more attractive and affordable for Connecticut's residents, businesses and institutions. This is creating high-quality jobs, encouraging economic growth, saving money for homeowners and organizations and fostering a cleaner, healthier environment.

The Connecticut Green Bank is recognized as the standard bearer for the green bank movement now spreading across the country. Our success in attracting private investment is showing the federal government and the leaders of 49 other states that it is possible to accelerate the growth of clean energy while sparing taxpayers additional costs.

I congratulate the Connecticut Green Bank and its many partners on a successful 2014.

Dannel P. Malloy

## FINANCIAL HIGHLIGHTS

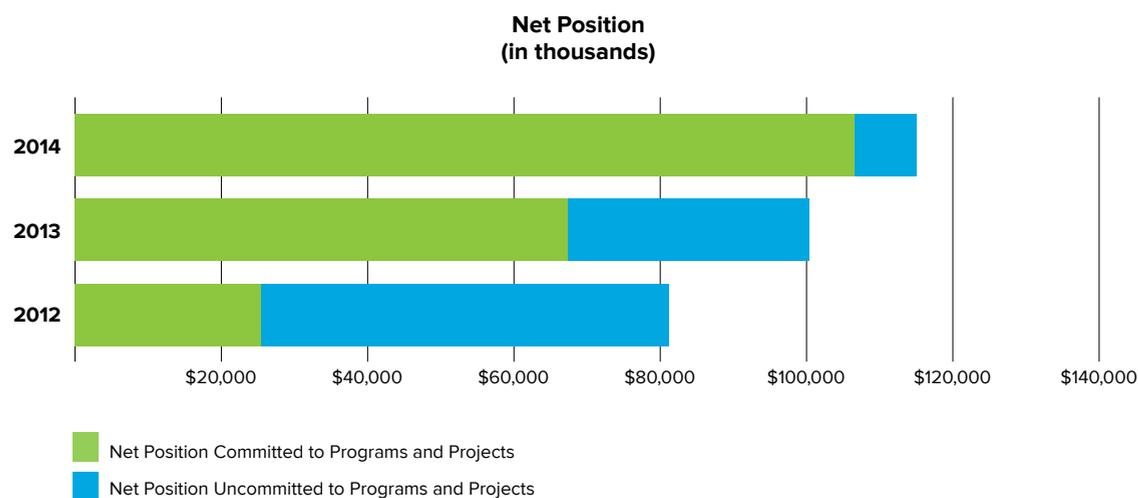
# Connecticut Green Bank – For the years ended June 30, 2014 and 2013:

(in thousands)

### Statements of Net Position

	2014	2013	Increase (Decrease)
Cash and cash equivalents - unrestricted	\$71,359	\$68,105	\$3,254
Other current assets	\$8,466	\$4,546	\$3,920
Program loans & other long term assets	\$28,076	\$17,766	\$10,310
Capital assets, net	\$3,074	\$362	\$2,712
Cash and cash equivalents – restricted	\$9,514	\$9,537	\$(23)
<b>Total assets</b>	<b>\$120,489</b>	<b>\$100,316</b>	<b>\$20,173</b>
Current liabilities	\$5,270	\$1,816	\$3,454
Long term liabilities	\$120		\$120
<b>Total liabilities</b>	<b>\$5,390</b>	<b>\$1,816</b>	<b>\$3,574</b>
<b>Net position</b>			
Invested in capital assets	\$3,074	\$362	\$2,712
Restricted Net Position:			
Non-expendable	\$1	\$1	
Restricted – energy programs	\$9,096	\$9,144	\$(48)
Contingent liabilities – programs and projects <sup>1</sup>	\$63,529	\$24,487	\$39,042
Commitments to future programs and projects <sup>1</sup>	\$33,981	\$33,842	\$139
Net position committed to programs and projects	\$106,607	\$67,474	\$39,133
Unrestricted Net Position	\$5,418	\$32,480	\$(27,062)
<b>Total net position</b>	<b>\$115,099</b>	<b>\$100,316</b>	<b>\$14,783</b>
<b>Total liabilities and net position</b>	<b>\$120,489</b>	<b>\$100,316</b>	<b>\$14,783</b>

<sup>1</sup> See Note 8 to CGB's 2014 Comprehensive Annual Report for further detail.

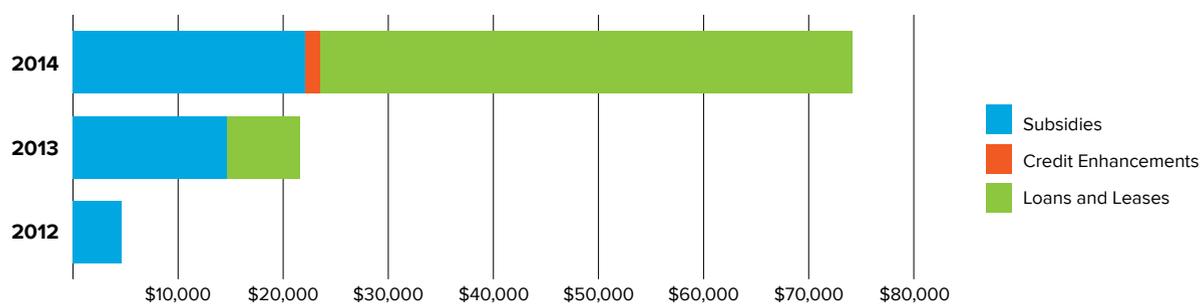


## Statements of Revenue, Expense, and Change in Net Position

	2014	2013	Increase (Decrease)
<b>Revenues</b>	\$48,754	\$43,343	\$5,411
<b>Operating Expenses:</b>			
Provision for loan losses	\$1,311		\$1,311
Grants and programs	\$23,439	\$23,635	\$(196)
General and administrative expense	\$2,537	\$2,665	\$(128)
<b>Total Operating Expenses</b>	\$27,287	\$26,300	\$987
<b>Operating Income</b>	\$21,467	\$17,043	\$4,424
Nonoperating revenue (expense)	\$1,142	\$31	\$1,111
Payments to State of Connecticut	\$(6,200)		\$(6,200)
Capital contributions	\$201	\$238	\$(37)
Distributions	\$(13)		\$(13)
	\$(4,870)	\$269	\$(5,139)
<b>Net Change</b>	\$11,727	\$17,581	\$(5,854)

For more details on the financial statements, please access the Comprehensive Annual Financial Review (June 30, 2014) at [www.ctgreenbank.com](http://www.ctgreenbank.com)

**Use of Resources  
(in thousands)**





INNOVATE • EDUCATE • ACTIVATE

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