

Solutions for Connecticut.

A Model for the Nation.



## Connecticut serves as a model for the nation

MESSAGE FROM THE PRESIDENT & CHIEF EXECUTIVE OFFICER

"The civilization of New England has been like a beacon lit upon a hill, which, after it has diffused its warmth around, tinges the distant horizon with its glow." -- From "Democracy In America" (1835) by Alexis de Tocqueville, French sociologist and political theorist

When de Tocqueville visited this young nation in the 1830s, he remarked that the principles of folks living in New England had a tendency to spread, "at first to the neighboring states" and then beyond. He recognized the importance of civic engagement and the role of states like Connecticut. Known as the Constitution State because the world's first written constitution was created here in 1639. Connecticut has a rich history when it comes to Democracy, clean energy, and climate change. (You can read more about our heroes on page 17 and about our inspiration to democratize investments at www.greenlibertybonds.com.)

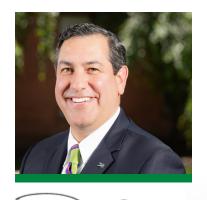
The Connecticut Green Bank is just one recent example. Created through a bipartisan act of legislation in 2011, we have mobilized nearly \$2.3 billion by investing public funds to attract private investment at seven-to-one ratio. This has helped create thousands of jobs, reduced energy costs for thousands of families, businesses, and communities, and limited greenhouse gas emissions that harm public health.

Our focus includes a goal of directing no less than 40 percent of investment and benefits from our programs into vulnerable communities that are disproportionately impacted by the effects of climate change by 2025. We do this because our vision for a planet protected by the love of humanity reflects an unwavering commitment to and incessant hope for the betterment of our communities and country.

Many exciting leadership moments have occurred since our last annual report.

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**Launch of Energy Storage** Solutions. In January, the Energy Storage Solutions (ESS) program was launched,

with us as a co-administrator. Through the guidance of

Bryan Garcia, President and CEO

the Public Utilities Regulatory Authority (PURA), this upfront and performance-based incentive program will drive the deployment of 580 MW of battery storage for residential and non-residential customers. This will reduce peak demand (lowering electric rates for everyone) while providing an opportunity to increase resiliency in the face of grid disruptions, particularly for those in low-income and distressed communities. This is one of the most ambitious battery deployment programs in the nation. (See page 9)

Clean energy goals reached. The Residential Solar Investment Program (RSIP) officially achieved its 350 MW public policy deployment target, reaching over 46,000 households, mobilizing over \$1.4 billion of public and private investment, and helping create over 16,000 jobs in our communities. RSIP made Connecticut the most successful residential solar PV deployment market in the entire Northeast on a watts per capita basis, and most likely at the lowest level of ratepayer incentives – setting the state up for success as the market transitions from RSIP and net metering to a tariffbased form of compensation.

Creating more opportunities for investment. Building upon the success of our Green Liberty Bonds, we launched our Green Liberty Notes. These one-year term verified green bonds allow anyone to invest with as little as \$100. Through four offerings, and two sell-outs, we've raised more than \$800,000 from investors across the country who are supporting Connecticut small businesses that are investing in energy efficiency improvements within their buildings. (See page 10)

Inflation Reduction Act (IRA) and inclusion of National Climate Bank (NCB). In August, the U.S. Congress passed and President Biden signed the historic IRA, which included billions of dollars in investments to advance the country's clean energy transition and fight climate change. We are proud to serve as the model for its Greenhouse Gas Reduction Fund (a.k.a., National Climate Bank). We are hard at work making plans to leverage these funds to increase and accelerate investment in our green economy to improve the lives of residents and the operations of businesses in our state, especially those in vulnerable communities.

We also continue to track our performance against our E4 metrics, and are deep in the planning efforts around our enhanced scope that now includes environmental infrastructure (See page 14).

New England's beacon continues to glow.

## our solutions

The Green Bank is helping Connecticut flourish by offering green solutions for homes and buildings, and by creating innovative ways to invest in the green economy.





Our mission is to confront climate change by increasing and accelerating investment into Connecticut's green economy to create more resilient, healthier, and equitable communities. Established in 2011 as a quasi-public agency, the Green Bank uses limited public dollars to attract private capital investment and offers green solutions that help people, businesses and all of Connecticut thrive.

Guiding this mission is our vision for "...a planet protected by the love of humanity."

## highlights & milestones

In FY 2022, our eleventh year of operation, the Green Bank continued to achieve new successes in our financing and incentive businesses while facing challenges created by global concerns (pandemic, war in Ukraine, trade disputes) and local factors such as policy changes and new programs.

Success of the Residential Solar Investment Program (RSIP) — The RSIP surpassed its public policy target of 350 megawatts of solar deployment one-year ahead of schedule, with more \$1.4 billion of investment and more than 46,000 homes adding solar. The program has ensured equitable access for low-to-moderate income families making Connecticut a "solar with justice" state. This was achieved primarily through the Solar for All partnership with PosiGen. (See page 11).

Introducing Green Liberty Notes – In January, we launched our Green Liberty Notes as a follow-on to the award-winning Green Liberty Bonds. These Notes allow anyone to invest with a minimum of \$100 to earn a competitive return and support small business energy efficiency in Connecticut. Through four offerings, we have raised more than \$800,000, and are planning four offerings in 2023. (See page 10).

Creation of the Greenhouse Gas Reduction Fund - After over a decade of advocacy and demonstrating the efficacy of the green bank model at the local and state levels across the country, Congress passed and President Biden signed the Inflation Reduction Act (IRA), which included the \$27 billion Greenhouse Gas Reduction Fund (GHGRF). Modeled after, in large part, the Connecticut Green Bank, the GHGRF will provide \$7 billion in competitive grants, loans and other forms of financial and technical assistance for zero emission technologies to low-income and disadvantaged communities, and \$20 billion for a national climate bank that includes green banks, community development financial institutions, and other non-profits focused on avoiding and reducing GHG emissions and air pollution.



# introducing Energy Storage Solutions

In January 2022, the Energy Storage solutions program was launched. Under the guidance of PURA, the Green Bank will serve as co-administrator of the program, which is designed to leverage upfront and performance-based incentives to encourage the installation of residential and non-residential battery storage systems. (See page 9)

Environmental Infrastructure – With the passage of Public Act 21-115 in 2021 that expanded our scope, we initiated efforts to better understand how the green bank model for clean energy could apply to environmental infrastructure. We amended our governance documents to incorporate the legislative scope expansion, investigated the capabilities of our Green Liberty Bonds to raise capital (including 50-year bonds), engaged with stakeholders across the environmental infrastructure spectrum, held a strategic retreat, and put forth a Comprehensive Plan to set a course for implementing this scope expansion. (See page 14).

## by the numbers

**FY12** 

Since the Connecticut Green Bank's inception through the bipartisan legislation in July 2011, we have mobilized more than \$2.26 billion of investment into the State's green economy. To do this, we used \$322.4 million in Green Bank dollars to attract \$1.95 billion in private investment, a leverage ratio of \$7.00 for every \$1. The impact of our deployment of renewable energy and energy efficiency to families, businesses, and our communities is shown in terms of economic development, environmental protection, equity, and energy (data from FY 2012 through FY 2022).

#### **ECONOMIC DEVELOPMENT**

**JOBS** The Green Bank has supported the creation of more than 26,720 direct, indirect, and induced job-years.



#### **TAX REVENUES**

The Green Bank's activities have helped generate an estimated \$113.6 million in state tax revenues.



#### \$55.3 million individual income tax

\$29.2 million

corporate taxes

\$29.1 million sales taxes

#### **ENERGY**

#### **ENERGY BURDEN**

The Green Bank has reduced the energy costs on families, businesses, and our communities.





businesses

#### **DEPLOYMENT**

**EQUITY** 

The Green Bank has accelerated the growth of renewable energy to more than 509 MW and lifetime savings of over 65.6 million **MMBTUs** through energy efficiency projects.















#### **ENVIRONMENTAL PROTECTION**

**POLLUTION** The Green Bank has helped reduce air emissions that cause climate change and worsen public health, including 9.6 million pounds of SOx and 11.1 million pounds of NOx lifetime.



**10.4 MILLION** tons of CO<sub>2</sub>: **EQUALS** 







#### **156 MILLION**

tree seedlings grown for 10 years

#### 2.1 MILLION

passenger vehicles driven for one year

PUBLIC HEALTH The Green Bank has improved the lives of families, helping them avoid sick days, hospital visits, and even death.

\$317.1 - \$717.2 million of lifetime public health value created



#### **INVESTING** in vulnerable communities, The Green Bank has set goals to reach 40% investment in communities that may be disproportionately harmed by climate change. **40**% goal \*LMI Communities 47% \*\*CRA-Eligible 36% \*\*\*Environmental 39% **Justice Communities** \*\*\*\*Combined **53**%

- \*LMI Communities census tracts where households are at or below 100% Area Median Income.
- \*\* Community Reinvestment Act (CRA) Eligible households at or below 80% of Area Median Income and all projects in programs designed to assist LMI customers.
- Environmental Justice Community means a municipality that has been designated as distressed by Connecticut Department of Economic and Community Development (DECD) or a census block group for which 30% or more of the population have an income below 200% of the federal poverty level
- \*\*\*\* Combined Vulnerable Communities include LMI, CRA and EJC.



## building solutions

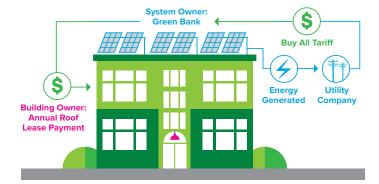
More modern, sustainable buildings means more comfortable environments for workers and customers, and better bottom lines for building owners. As utility costs continue to grow and strain operating budgets, renewables and energy efficiency will remain top of mind.

#### The impact of c-pace and solar PPAs

Commercial Property Assessed Clean Energy (C-PACE) continues to be a unique source of financing for building owners making energy efficiency improvements or adding renewable energy sources. The total number of C-PACE projects has surpassed 369, including properties ranging from industrial facilities to retail and houses of worship. These projects have a total investment of \$245,986,089, with Green Bank investment of \$59,957,895, and private investment of \$186,028,195, a leverage ratio of 4 to 1. The majority of this investment (71%) has been in vulnerable communities. Thanks to C-PACE financing, the lifetime cost savings to building owners is more than \$312,



641,00. Solar PPAs (power purchase agreements) also continue their impact for building owners. With nearly 200 total PPAs in place at the end of June, these owners are cumulatively seeing more than \$3.2 million in annual utility savings.

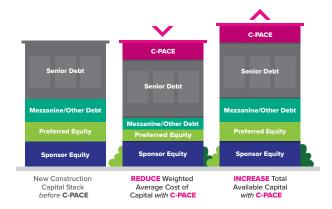


#### A new option for going solar: lease your roof

Adding a solar PV system to a commercial or nonprofit building is a great way to help control electricity costs. In 2022, we added a new option for building owners looking to go solar: the roof lease. This allows an unused roof to become a worryfree revenue-producer as the Green Bank manages the solar system, pays the building owner, and the additional solar put more renewable energy into the utility grid leading to a healthier future for all.

#### Enhanced tool for new construction financing

In April, we announced enhancements designed to create more opportunities for developers with new construction, repositioning, and gut rehabilitation projects. Developers and borrowers can access up to 35 percent of the total eligible construction costs in C-PACE financing based on the building's designed energy performance. This unlocks typically lower cost capital than other types of debt and equity, generally reducing the overall cost of capital, and producing buildings that meet higher energy efficiency standards.



### customer stories



For more than 45 years, DiMare Pastry **Shop in Stamford,** has been bringing sunshine into their customers' lives with their specialty baked goods. Started by Ugo and Bice DiMare in 1976, DiMare Pastry expanded to a second location in Stamford in 1997. Both locations are now run by three generations, including Ugo and Bice's daughters Maria and Sabrina and granddaughter Brittany. As their business has grown, energy costs have continued to rise. In 2020, they made the sweet decision to go solar using C-PACE financing, allowing the family business to reduce the burden of energy costs now and for many years to come.

Energy Upgrade: 75.8 kW roof mounted solar photovoltaic system

**C-PACE** Financing: **\$246,000** over 20 years

#### **Projected Energy Savings:**

\$400,000 over the life of the upgrades



"We are always so busy and focused on serving our customers. We don't have time to think about rising energy costs. Going green with our new solar system takes some of the pressure off our business by giving us lower energy costs. We're proud to be doing the right thing for the environment too. We want to keep baking, delighting our customers and continuing on as a long-standing partner with the towns we serve."



For over 70 years the L.C. Doane Company in Ivoryton CT, has served the United States Navy and Coast Guard supplying lighting products. Since 2008, the facility has used solar photovoltaics on their roof to supply electricity to their 150,000 square foot factory. Thanks to C-PACE financing through the Green Bank, they are expanding their solar system to generate more energy to power their machinery, while saving money on their operations.

Energy Upgrade: 200 kW roof mounted solar photovoltaic system

#### **C-PACE Financing:**

\$1.06 million over 10 years

#### **Projected Energy Savings:**

**\$1.47** million over the life of the upgrades



"As a government subcontractor in the defense industry, it is essential to keep our own lights on. While manufacturing occurs under our roof, the power source is created from above. Our solar panels provide us with clean energy right on-site... Another level of U.S.-made, environmentally conscious manufacturing. As we continue to expand, so does our roof!" Bill Psillos, Vice President



In 2019, property owner and former owner of Stencil Ease. Brian Greenho wanted to make an environmentally conscious decision to reduce reliance on fossil fuels. Located in Old Saybrook, they are now the largest specialty stencil manufacturing company in the United States using sunshine to make stencils, and can ship any of 55,000 items anywhere in the world in 24-48 hours.

Energy Upgrade: 72 kW roof mounted solar photovoltaic system

#### C-PACE Financing:

**\$215,000** over 20 years

#### **Projected Energy Savings:**

\$400,000 over the life of the upgrades



"Since energizing our solar system 2.5 years ago we have generated more than 200 megawatt hours of clean energy. This roof-top solar system not only saves our tenant money annually it also helps put solar energy back onto the state grid during peak demand periods. As energy costs continue to increase YOY the value of our system becomes more relevant." Brian Greenho, Property Owner

and former owner of Stencil Ease



## home solutions

The Green Bank empowers Connecticut families through accessible and affordable green solutions that provide comfort and security. The Smart-E Loan was designed to make it easy and affordable for homeowners to make energy efficiency and clean energy improvements to their homes with no out-of-pocket cash and at interest rates low enough and repayment terms long enough to make the improvements "cash flow positive."

#### **Smart-E Loan**

More than 900 homeowners took advantage of Smart-E financing in 2022, which is made available through a network of local lenders and contractors. Since 2014, more than 6,300 home energy improvement projects have been completed using Smart-E. These upgrades are estimated to produce lifetime cost savings of more than \$80 million for the homeowners. The Smart-E loan provides financing for more than 40 improvement measures, including heat pumps, insulation, windows, battery storage, and solar.



## customer stories



"When I purchased my coop unit in January 2020,
I knew that I would have
to create a savings plan
to replace the 100-yearold-original windows that
were in the apartment,"
said Astrid, who lives in
Bridgeport. "However,
with the pandemic and
unexpected expenses,
the plan for replacing the
windows was moved further

and further in the future while my family and I were spending all of our time at home with very deteriorated windows."

"I am very pleased to have found the Smart-E Loan through the Green Bank as it made possible that our 13 windows were fully replaced. Additionally, we learned that our dryer could be upgraded to an energy-efficient unit and the low-interest loan would cover it as well, so we did it."

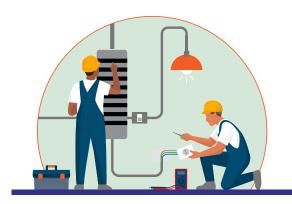
"It was simply a matter of following their process and they were able to walk us though each step and answer all of our questions. We are now happier to stay at home and enjoy a truly comfortable space. We can even open our windows!"



"I can't imagine an easier process to obtain a Smart-E Loan to install a new heat pump and replace my old AC units at my house," said Mike, a resident of Madison. "On top of that, the communication and professionalism from the amazing folks that run this program was stellar. No wonder this program came so highly recommended by the Heating & AC company that installed my units! I'm so grateful that this program is available to the residents of Connecticut as now my family is enjoying a cool/dry house in the hot summer months that is extremely energy efficient for an affordable and low interest monthly payment."

## introducing energy storage solutions









In the face of our changing climate, solutions are needed that help our homes and businesses become resilient. To this end, in January 2022, the Public Utilities Regulatory Authority (PURA) launched Energy Storage Solutions. This new program was designed to incentivize Eversource and UI customers to install energy storage at their home or business.

This nine-year program has a goal of deploying 580 megawatts of electric storage by 2030. This will create a more reliable energy grid for everyone, especially vulnerable communities and those hit hardest by storm-related outages. Though they work great on their own, pairing batteries with solar photovoltaic (PV) systems can ensure that you can not only use power during an outage, but also recharge them when the sun comes out.

The key program elements include a declining-block upfront incentive, which is administered by the Green Bank, and a performance-based incentive (PBI), managed by Eversource and UI. The upfront incentive helps reduce the cost of installing a battery. Initially, the average residential customer will be eligible for an upfront incentive of around \$200 per kilowatt-hour (kWh) of battery capacity, with a maximum incentive per project of \$7,500. The PBI is paid out to customers seasonally depending on the average power the battery contributes to the grid during critical periods of peak demand.

During the first half of fiscal year 2022, the Green Bank worked with its administrative partners to design the program, including the enrollment process for customers, contractors and manufacturers; technology eligibility requirements; and the application and approval process.

Interest in the program is strong, especially among homeowners with solar on their roofs. By June 30, 2022, 23 projects had been approved (21 residential projects and two commercial and industrial (C&I) projects) totaling over 5,636 kWh of energy capacity. An additional 109 projects have applied to the program (76 residential, 33 C&I), totaling 172,011 kWh of energy capacity.

To learn more, please visit www.energystoragect.com.



## investment solutions

The Green Bank helps Connecticut thrive by creating opportunities for in-state residents and beyond to participate in our green investment solutions, earning a return on investment that support climate goals or unlocking financing for projects.

#### Investment opportunities open to all

We are dedicated to encouraging more people to invest in the green economy. Starting in 2020 with the launch of our Green Liberty Bonds that sold out, we knew there was demand for more investment opportunities, and have aimed to lower the minimum investment amount from \$1,000.

In January, our subsidiary launched Green Liberty Notes as a follow-on to the award-winning Green Liberty Bonds. With a minimum investment of \$100, nearly anyone can earn a competitive return on a one-year maturity note and support small business energy efficiency in Connecticut.

With four offerings in the books, we have raised more than \$800,000, with the majority of investments being \$1,000 or less. While most investors live in Connecticut, more than 30 other states are represented including Alaska and Hawaii.

These offerings are made possible through a partnership with Raise Green, a climate tech marketplace for local impact investing based in Massachusetts.



We are pleased to see repeat investors and familiar names across our state, as well as a growing number of new investors with each offering. Quarterly offerings are planned for 2023.

Learn more and sign up for notifications at <a href="https://www.greenlibertynotes.com">www.greenlibertynotes.com</a>.

#### **Green Liberty Bond program wins CESA Award**

In June, the Green Bank's Green Liberty Bond program was recognized as a recipient of the 2022 State Leadership in Clean Energy (SLICE) Awards from Clean Energy States Alliance (CESA) for "interesting, innovative, and highly creative way to generate revenue for clean energy projects." CESA is a national nonprofit coalition of public agencies working together to advance clean energy. The six winners, chosen by an independent panel of judges, were evaluated on leadership, innovation, cost-effectiveness, and replicability.

The first issuance of the Green Liberty Bonds in July 2020 sold nearly \$17 million, and the second issuance in May 2021 sold nearly \$25 million with over \$98 million of orders placed from a broad array of investors, including retail investors across the U.S. Both bonds are Climate Bond Certified and rated "A+" by S&P.



Pictured are, from left to right, Connecticut Green Bank staff Sergio Carrillo, Director of Incentive Programs; Sara Harari, Associate Director of Innovation and Strategic Advisor to the President & CEO; Emily Basham, Senior Manager of Partnership Development; and Warren Leon, Executive Director of the Clean Energy States Alliance.

The bonds are backed by a unique revenue stream created by the sale of Solar Home Renewable Energy Credits (SHRECs), which are generated by solar panels on homes.

The Green Bank was also a SLICE Award winner in 2018 for the Solar for All program, in 2016 for the CT Solar Lease Commercial PPA program, and in 2014 for C-PACE.

## Budderfly receives \$5 million in financing to expand through Capital Solutions Open RFP

In June, the Green Bank announced the closing of \$5 million in secured loan facilities to support the market expansion of Connecticut-based Budderfly, which helps franchises and other businesses improve their energy efficiency, lowering their operating costs. Budderfly has provided its energy and cost saving services to roughly 100 Connecticut businesses, primarily quick service restaurants, convenience stores, and healthcare facilities, and will use the loan to continue to expand its Connecticut customer base. Budderfly built its business around the goals of saving money and lowering carbon emissions for small and medium-sized businesses by providing energy-saving equipment for its customers, assuming responsibility for logistics, up-front capital, and other associated risks for the business owners it serves.



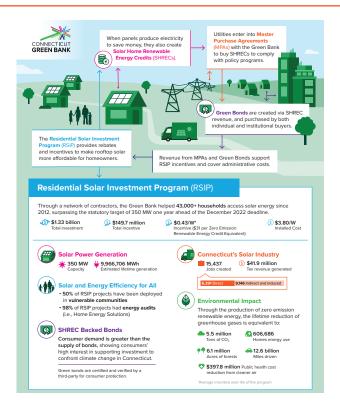
The company was awarded the funding through the Green Bank's Capital Solutions Open RFP, which is open to companies and technologies that have proven commercially viable or have strong business models, with the ability to rapidly achieve sustainable impact at scale.

## Connecticut becomes a "solar with justice" state thanks to RSIP and Solar For All

The Residential Solar Investment Program (RSIP) surpassed its public policy target of 350 megawatts of solar deployment one-year ahead of schedule. In reaching this level of deployment, we reached over 46,000 households (including the most vulnerable communities), mobilized over \$1.4 billion of public and private investment (including about \$160 million of ratepayer incentives – at an average equivalent ZREC price of \$30), and helped create over 16,000 jobs in our communities.

The RSIP made Connecticut the most successful residential solar PV deployment market in the entire Northeast (i.e., New England, New Jersey, and New York) on a watts per capita basis, and most likely at the lowest level of ratepayer incentives – both effective and efficient.

The Solar For All program helped to ensure equitable access for low-to-moderate income families making Connecticut a "solar with justice" state. (Visit our website's Strategy & Impact section to see this full graphic and more on the program.)





### contractor solutions

#### seventh annual awards presented

In recognition of their contributions to the deployment of clean energy and demonstrated leadership in their industries in 2021, the Green Bank recognized key partners among the dedicated network of contractors, developers, lending partners, community leaders and home- and building-owners. The 2021 awards recognized 27 contractors who are offering Green Bank's Home or Building Solutions and are performing at a high level and developing outstanding projects.

#### C-PACE Outstanding Project Recipient: Redevelopment project on Park Road in West Hartford.



This project is an outstanding example of the ability of Commercial Property Assessed Clean Energy (C-PACE) financing to support the redevelopment of historic properties. This \$70 million project received \$13.7 million in C-PACE financing from CastleGreen Finance, LLC (a C-PACE capital provider and an affiliate of X-Caliber Capital), supporting the conversion of a 135-year-old convent to a 292-unit multi-family housing complex, allowing the Sisters of St. Joseph of Chambéry to remain in their home. The project, developed by Lex-Laz West Hartford, LLC, an affiliate of Lexington Partners LLC, was also made possible by Martin Kenny and Alan Lazowski, the Town of West Hartford and Liberty Bank. The project is the largest C-PACE project closed in the State of Connecticut to date.

#### **Solar PPA Outstanding Project**

#### Recipient: Solar installation at Ridgefield High School.

The Green Bank honors Con Edison Solutions and the Ridgefield Board of Education for their 319.95 kW solar installation at Ridgefield High School. The solar system was installed through a Power Purchase Agreement (PPA) which is producing electricity and is estimated to help Ridgefield achieve more than \$450,000 in savings over the 20 year-term. This is the fourth project the Town of Ridgefield has developed in partnership with the Green Bank.



2021

#### **RSIP** Top Local Performer

#### Recipient: Earthlight

Connecticut-based installer Earthlight had more than a MW of solar Pv approved in 2021 through the RSIP. With 2.4 MW, Ellington-based Earthlight has demonstrated that local installers are continuing to grow their business with residential solar. Earthlight has participated in the RSIP since 2013 and has grown into one of Connecticut's largest local installers of residential solar PV. Since 2013, Earthlight has installed a total of 1,380 projects for 13.6 MW of capacity.

#### **RSIP Top Newcomer**

#### Recipient: Green Power Energy

In only their second year in the Residential Solar Investment Program (RSIP), Green Power Energy installed more than 1 megawatt (MW) of solar PV systems in 2021 through the program. Since entering the state's residential market in 2020, they have quickly grown into one of the highest volume residential solar PV contractors in Connecticut. Green Power Energy recently opened a Connecticut location in Durham with a staff of 15. Since 2020, Green Power Energy has installed a total of 212 projects for 2.5 MW of capacity.

#### **Smart-E Loan Top Performer**

Recipients:

20/20 Air Mechanical (New Milford)

Absolute Air Services LLC (Portland)\*

Advanced Heating and Air Conditioning (South Windsor)

2021

Aiello Home Services LLC (Windsor Locks)

Benvenuti Oil (Waterford)\*

Busy Bee Services (Burlington)

Campbell Cooling LLC (Newington)

Celco Heating and Air Conditioning (Bridgeport)

Deitch Energy LLC (Hartford)

Ductworks HVAC Services (Southington)

Energy Unlimited, LLC (Bolton)\*

Glasco Heating & Air Conditioning Inc. (South Windsor)\*

Highland Window Co. (West Hartford)\*

Home Comfort Heating and Cooling Solutions, LLC (East Haven)\*

Homestead Fuel, Inc. (Ellington)\*

Link Mechanical Services Inc. (New Britain)\*

Nutmeg Mechanical Services, Inc. (Manchester)\*

Omni Mechanical Services (South Windsor)

R&W Heating Energy Solutions LLC (Salem)\*

Ralph Mann & Sons Inc. (Ansonia)\*

Ryan F. Murphy Heating & Cooling LLC (New Milford)\*

Service Stars (Danbury)

SolvIt, Inc. (Plainville)\*

Viglione Heating & Cooling Inc. (East Haven)\*

The 2021 Top Performers listed in alphabetical order;

<sup>\*</sup> denotes 2020 Top Performer recognition



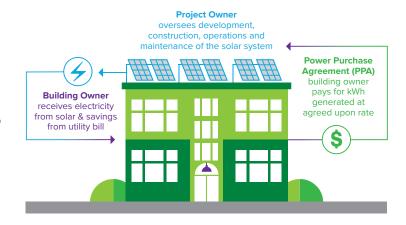
## community solutions

Municipal and state buildings have options for going solar with no money down. The Green Bank Solar PPA (power purchase agreement) delivers immediate savings on electricity through a third-party owned and operated solar system, while the Solar Roof Lease allows property owners to generate income by leasing their roof space for the Green Bank and its partners to install solar.

#### providing a (Solar) MAP for municipalities

In 2020, the Green Bank introduced the Solar Municipal Assistance Program (MAP), to make it easier for municipalities to access renewable energy and achieve energy savings at their buildings. Solar MAP provides technical assistance through every step of the process so towns and cities can realize all the cost-saving benefits of going solar with fewer challenges and roadblocks. Through the PPA, the municipality purchases the electricity generated by the solar array, and locks in low electricity cost so the cash flow is positive in year one.

The first round of Solar MAP municipalities included Manchester, Mansfield, Portland, and Woodbridge, and their solar projects are going online in early 2023.



## dedication of unique microgrid on the Daughters of Mary campus

In September, a one-of-a-kind microgrid was switched on to power four critical community facilities at the Daughters of Mary of the Immaculate Conception campus in New Britain. The project was named in honor of the late Mother Mary Jennifer Carroll, who first led the Order down the path of sustainable energy development five years ago with a C-PACE financed solar system that is integrated into the microgrid.

The innovative design of this \$7 million project combines 1.4 megawatt hours of battery storage capacity with a total of 1.2 megawatts of solar generation. This ensures that the Daughters can provide social services and senior care during emergencies that threaten the local electric grid. This project utilized funding provided by a grant from the State administered by the Connecticut Department of Energy and Environmental Protection (DEEP) in the amount of \$3.9 million, the largest-of-its-kind for microgrid development to be completed.



Pictured at the dedication ceremony, from left to right, are former U.S. Rep. Joseph Kennedy III, Managing Director at Citizens Energy Corporation, New Britain Mayor Erin Stewart, Mother Superior Mary Janice Zdunczyk, Don Wingate, Vice President, Utility and Microgrid Solutions at Schneider Electric, and Bryan Garcia, President and CEO of the Green Bank. (Photo courtesy of Citizens Energy / Hannah Goetz)

## environmental infrastructure plans

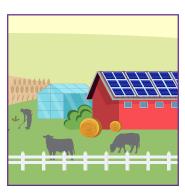
#### scope expansion

In July 2021, the signing of Governor Lamont's House Bill 6441, with bipartisan support, advanced the green bank model to include environmental infrastructure, which encompasses structures, facilities, systems, services, and improvement projects related to water, waste and recycling, climate adaptation and resiliency, agriculture, land conservation, parks and recreation, and environmental markets such as carbon offsets and ecosystem services.









**Environmental Markets** 

**Land Conservation** 

**Parks and Recreation** 

**Agriculture** 

Since the scope expansion, our team has been meeting with key stakeholders to discuss environmental infrastructure, gathering information about their existing policies, programs, resources, and goals, as we create a comprehensive plan for addressing these subsectors.

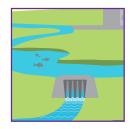
The outcomes of this research is twofold. A series of environmental infrastructure primers have been created to reflect the observations, findings, and initial recommendations from the conversations with stakeholders and research conducted on these topics. Primers on agriculture, land conservation, and parks and recreation are currently available in the "planning" section of our website, with primers on the other sectors to follow.

The second outcome of these stakeholder conversations is a more clear definition of the qualifications, experience, skills, and personality of the candidates to be considered for the new director of environmental infrastructure programs. The search, which began in the summer of 2022, will find the person who will be tasked with designing, implementing, and overseeing new programs to raise revenues to deploy environmental infrastructure in the state with a focus on decarbonization and climate resilience.

With the recent passage of the Inflation Reduction Act, and its inclusion of the Greenhouse Gas Reduction Fund, alongside the Green Bank's ability to issue 50-year Green Liberty Bonds for environmental infrastructure, the incoming Director will have resources to mobilize private investment in Connecticut's growing green economy, especially in Community Reinvestment Act eligible and environmental justice communities.

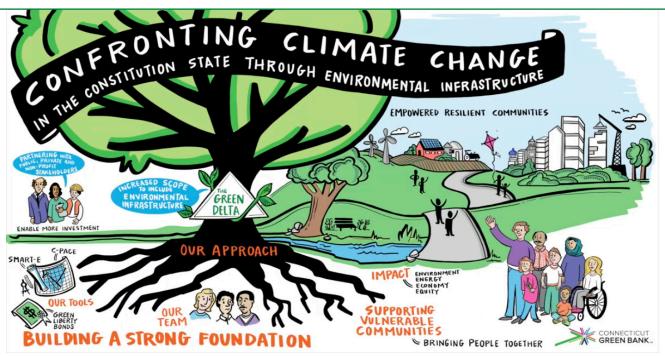


Waste and Recycling



Water

## letter from our Chair



To watch the animated version of this graphic please visit, https://www.youtube.com/watch?v=6V3wwMcaUvU

As Connecticut's efforts to confront climate change grow, the Connecticut Green Bank is assigned more tasks and must cultivate new ways to help achieve the Future we all seek - that zero carbon world where the environment is cleaner, the people healthier, the opportunities more abundant and the

economy more robust. That world - that goal is our Green Delta.

The Green Bank's 10 years of remarkable growth are rooted in a deep commitment to equity, accessibility, and positive real world change. The Green Bank meets challenges by sowing seeds of innovation - creating assets such as Green Liberty Bonds and Community Matching Funds, then harvesting their successful yields to support more



**Lonnie Reed** Green Bank Chair

renewable growth.

The Governor, the
Legislature and
key energy and
environmental allies
have extended Green
Bank responsibilities.
They now include
putting Environmental
Infrastructure to work
combating climate change.
This involves systems

and services related to water, waste and recycling, climate adaptation and resiliency. Also agriculture, parks and recreation and environmental markets such as carbon offsets and ecosystem services.

Bringing the Green Bank into infrastructure development should help the state achieve multiple goals - from federal Justice40 investments to workforce development in underserved communities. Success will require us to turn community

engagement into community empowerment by inviting new voices into our decision making process.

In April 2022, the Green Bank invited expert stake holders to join Green Bank Board members and senior staff for a strategic conference to analyze where we all are, where we are going and how we can get there faster and more affordably by working together.

The Green Bank is uniquely positioned to know who the effective stake holders are and how to encourage their partnering. Participants say they feel confident and comfortable working with the Green Bank team.

The key conference take away — with hard work, dedication, cooperation and focus our ambitious objectives are achievable. Green Delta — Here we come!

## officers & board

## letter from the Governor

#### **Officers**

Bryan Garcia, President & CEO

**Mackey Dykes,** Vice President of Financing Programs

**Brian Farnen,** General Counsel and Chief Legal Counsel

**Bert Hunter,** Executive Vice President & Chief Investment Officer

#### **Board of Directors\***

**Lonnie Reed, Board Chair,**Documentary Filmmaker & Former
State Representative

**Binu Chandy,** Deputy Director at DECD, as Ex Officio

**Vicki Hackett, Board Vice Chair,** Deputy Commissioner at CT DEEP, as Ex Officio

**Matthew Ranelli, Board Secretary,** Partner, Shipman & Goodwin, LLP

**Sarah Sanders,** Office of the Treasurer, as Ex Officio

**Matthew Dayton,** Office of Policy Management, as Ex Officio

**Adrienne Farrar Houël,** Founder, President & CEO of Greater Bridgeport Community Enterprises, Inc.

**Dominic Grant,** Director of Investment, Dirt Capital Partners

**John Harrity,** Former President, Connecticut State Council of Machinists

Laura Hoydick, Mayor of Stratford

**Thomas M. Flynn,** Senior Director, Private Equity Services Operation Group, Alvarez & Marsal

**Brenda Watson,** Executive Director, Operation Fuel

\*As of 06-30-2022

Throughout my administration, it has been a priority to protect Connecticut's progress in addressing climate change by supporting the deployment of more renewable energy and ensuring greater investment in vulnerable communities. In 2022, a number of Public Acts have helped solidify these goals and enhanced

our ability to further reduce energy cost burdens and create jobs.

In May, I proudly signed into law three bills that further demonstrate our commitment to decarbonizing our electric sector, expanding existing renewable energy

programs, and enabling more zero-emission

transportation. We are continuing to set an example for what a state can do to become more environmentally sustainable and make meaningful progress to reduce greenhouse gas emissions. The first, Public Act 22-5 An Act Concerning Climate Change Mitigation, codified our 2040 zero-carbon electric grid goal and took effect July 1.

The second, Public Act 22-14 An Act Concerning Clean Energy Tariff Programs, allowed for the expansion of existing programs supporting on-site renewable energy generation. This will open greater and more equitable participation in the green economy, and will help to reduce the energy burden for participating customers, particularly those in vulnerable communities.

And the third, in July, Public Act 22-25 An Act Concerning the Connecticut Clean Air Act was enacted. This enables the reduction of greenhouse gas (GHG) emissions from the transportation section, which is a large source of harmful pollutants. The benefits to the residents of Connecticut are clear: improved air quality and health outcomes. It also provided greater access to the state's

CHEAPR program, giving priority to low-income individuals and residents of environmental justice communities, and set a target of 100% zero-emission school buses in environmental justice communities by 2030 and for all school districts by 2040.

With the help of the Green Bank, and some funds from the Regional Greenhouse

Gas Initiative, we expect to see more zero-emission school buses on the road, especially in environmental justice communities.

Finally, in August, I applauded President Biden's leadership and that of our Congressional delegation for their passage of the Inflation Reduction Act. Connecticut is again serving as a national leader, as our Green Bank's success offered a template for this historic legislation's inclusion of the Greenhouse Gas Reduction Fund, and now serves as an example for the rest of the country.

With so much positive legislation at home and nationally, and leaders like the Connecticut Green Bank, we are positioned to continue to grow our green economy and make more progress towards our goals in 2023 and beyond.



Connecticut Governor Ned Lamont

## new Hartford headquarters features heroic meeting rooms

In the summer of 2021, the Green Bank moved into its new Hartford headquarters in the Non-Profit Center at 75 Charter Oak Avenue, out of a desire to be closer to the community we serve. The building itself is a former brownfield that once held the Atlantic Screw Works, where screw-making machines were built in the late 1800s. As we branded the space to match our story, we honored Connecticut's rich history of innovation and climate activism along with our heroes in our meeting spaces.



The Pope Conference Room



The Baker Conference Room



The Freeman Conference Room



The Gina McCarthy Meeting Space

One meeting room is named after Albert Pope, a Civil War hero, manufacturer, distributor, and entrepreneur, who lived in Hartford (1843-1909). Pope was initially focused on making America's first bicycles (Columbia Bicycle Company), but then turned his attention to making the first electric vehicles. Using assembly line mass production techniques, Pope employed thousands of people in what was the center of the automobile industry in the late 1800s. In 1902, President Theodore Roosevelt, a Republican and environmental conservationist, rode in a Columbia Electric Victoria Phaeton, made by Pope, in the first Presidential motorcade in an electric vehicle.

Another hero is Dr. Bernard S. Baker, a pioneer in the fuel cell industry. He was a Connecticut resident and was a founder and served as president, chief executive officer and chairman of Energy Research Corporation (now called FuelCell Energy, Inc., in Danbury, developer and manufacturer of direct fuel cells used to generate electric power. Connecticut continues to be a leader in fuel cells, thanks in part to Baker's work.

The third meeting room is named after Mary & Eliza Freeman, whose historic Bridgeport homes are the last ones surviving from the "Little Liberia" settlement of free African Americans started in 1831. Now part of the Freeman Center, the preserved homes sit in the shadow of a coal-fired power plant and serve as a reminder of the need for environmental justice. The room has two striking walls: one features Maya Angelou's poem *On the Pulse of Morning*, and the other has an image of solar homes based on Prince Street in Bridgeport, where Melvin, who went solar in 2015, convinced three neighbors to follow suit after seeing his savings.

Other smaller meeting spaces are named for Gina McCarthy, former Green Bank Board member, administrator of the Environmental Protection Agency, and the first White House National Climate Advisor, and Greta Thunberg, the environmental activist from Sweden.

## financials

### **STATEMENTS OF NET POSITION**

	2022	2021	Increase (Decrease)
Cash and cash equivalents - unrestricted	\$ 52,277	\$ 42,861	\$ 9,416
Other current assets	37,164	36,063	1,101
Program loans & other long term assets	97,244	97,773	(529)
Capital assets, net	76,165	79,694	(3,529)
Cash and cash equivalents - restricted	21,645	21,900	(255)
Total assets	\$ 284,495	\$ 278,291	\$ 6,204
Deferred amount for pensions	\$ 6,439	\$ 4,551	\$ 1,888
Deferred amount for OPEB	5,173	5,238	(65)
Deferred amount for asset retirement obligations	2,317	2,488	(171)
Total deferred outflows of resources	\$ 13,929	\$ 12,277	\$ 1,652
Current liabilities	\$ 29,906	\$ 19,176	\$ 10,730
Long term liabilities	83,415	106,569	(23,154)
Fair value of interest rate swap		699	(699)
Pension liability	21,273	20,269	1,004
OPEB liability	20,517	23,689	(3,172)
Total liabilities	\$ 155,111	\$ 170,402	\$ (15,291)
Deferred amount for pensions	\$ 5,425	\$ 5,072	\$ 353
Deferred amount for OPEB	9,694	7,227	\$ 2,467
Deferred amount for leases	17,056	18,372	\$ (1,316)
Total deferred inflows of resources	\$ 32,175	\$ 30,671	\$ 1,504
Net position, unadjusted			
Invested in capital assets Restricted Net Position:	\$ 5,516	\$ 5,327	\$ 189
Non-expendable	57,730	62,674	(4,944)
Restricted - energy programs	16,865	16,881	(16)
Unrestricted Net Position	31,027	4,613	26,414
Total net position, unadjusted	\$ 111,138	\$ 89,495	\$ 21,643
Net position, adjusted			
Unrestricted Net Position	\$ 31,027	\$ 4,613	\$ 26,414
Contingent liabilities - programs and projects <sup>1</sup> <b>Total net position, adjusted</b>	(81,531) <b>\$ (50,504)</b>	(66,575) <b>\$ (61,962)</b>	(14,956) <b>\$ 11,458</b>

<sup>&</sup>lt;sup>1</sup> See Note III (B.) to Connecticut Green Bank's 2022 audited financial statements for further detail.

For the years ended June 30, 2022 and 2021: *(in thousands)* 

# STATEMENTS OF REVENUE, EXPENSE AND CHANGE IN NET POSITION

	2022	2021	Increase (Decrease)
Revenues	\$ 60,715	\$ 55,921	\$ 4,794
Operating Expenses:			
Grants and incentive programs	\$ 15,997	\$ 15,880	\$ 117
Program administration expenses	19,718	17,569	2,149
Cost of goods sold - energy systems	451	747	(296)
General and administrative expense	3,214	3,953	(739)
Provision for loan losses	(3,561)	239	(3,800)
Total Operating Expenses	\$ 35,819	\$ 38,388	\$ (2,569)
Operating Income	\$ 24,896	\$ 17,533	\$ 7,363
Non-operating revenue (expense)	(2,652)	(4,253)	1,601
Distributions	(601)	(527)	(74)
Total Non-Operating Revenue (Expenses)	\$ (3,253)	\$ (4,780)	\$ 1,527
Net Change	\$ 21,643	\$ 12,753	\$ 8,890

For more details on the financial statements, please access the Annual Comprehensive Financial Report (June 30, 2022) at www.ctgreenbank.com

