The National Association of Regulatory Utility Commissioners (NARUC) is a non-profit organization founded in 1889. Our Members are the state utility regulatory Commissioners in all 50 states & the territories. FERC & FCC Commissioners are also members. NARUC has Associate Members in over 20 other countries.

NARUC member agencies regulate electricity, natural gas, telecommunications, and water utilities.
ABOUT NARUC’S CENTER FOR PARTNERSHIPS & INNOVATION

- Grant-funded team dedicated to providing technical assistance to members.

- CPI identifies emerging challenges and connects state commissions with expertise and strategies to inform their decision making.

- CPI builds relationships, develops resources, and delivers trainings.

Regularly updated CPI fact sheet with recent publications & upcoming events under Quick Links at:

https://www.naruc.org/cpi-1/
MODERATOR
CHAIR RORY CHRISTIAN, NEW YORK STATE PUBLIC SERVICE COMMISSION

Speakers:
MATT MACUNAS, BLUE HORIZON CONSULTING
JORDAN TAYLOR, MONTGOMERY COUNTY GREENBANK
Green Banks: Financing a Reliable Future
Another major component of SBI is the restructuring of the Connecticut Clean Energy Fund. As currently proposed, a new quasi-public Clean Energy Finance and Investment Authority will be created to administer the Fund. The Authority would come under the existing quasi-public agency, Connecticut Innovations.

There also is a new funding model, which some refer to as a "green bank," that allows for leveraging the ratepayer fees the Fund already gets, private capital and other funds. The legislation also dramatically expands the Fund's purview beyond the solar rebate and other limited clean energy projects to include things like electric and natural gas infrastructure projects.
A mission to confront climate change and provide all of society a healthier and more prosperous future by increasing and accelerating the flow of private capital into markets that energize the green economy.

Connecticut Green Bank is the nation’s first green bank.

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.

Source: Connecticut Green Bank
it’s not a retail depository institution
It’s more like development finance (in some cases)

Image sources:
https://commons.wikimedia.org/wiki/File:Administrative_and_financial_building_for_KPMG.jpg
Key Characteristics

- Combating climate change
- Innovation
- Disruptive significance

Next: a few examples…
Example State Program Administration:
Commercial Property Assessed Clean Energy (C-PACE)

Image source: Connecticut Green Bank
Example Resident / Community Campaign

Liberty Bonds

Liberty Notes

Image source: https://collections.ushmm.org/search/catalog/irn520970
Example Residential Lending:
Smart-E Loan

Bill & Lisa, Newtown, CT

Project: Added solar panels and a ductless heat pump

Expected Annual Savings: $3,000

Join us and start saving with a Smart-E loan today.

Image source: Connecticut Green Bank
Federal Money for a National Climate Bank

**Inflation Reduction Act**
Greenhouse Gas Reduction Fund

- $20 Billion
  - National Green Bank
    - (Clean Energy and Sustainability Accelerator)
  - $7 Billion
    - State and Local Clean Energy Funds

- $8 Billion
  - State and Local Green Banks
  - $12 Billion

- $8 Billion
  - Allocations for Low-Income and Disadvantaged Communities
  - Technical Assistance and Clean Energy Investments

Examples of Clean Energy Projects:
- Solar projects
- Energy efficiency measures
- Heat pumps
- Weatherization upgrades

Source: Environmental and Energy Study Institute
What’s in it for Regulators?
Examples of Utility Partnership
Energy Efficiency Loans
(small business, non-profit, and municipal and state properties)

- Thousands of on-bill financings totaling tens of millions of dollars
- Energy Efficiency Fund buys down interest rate and absorbs loan losses
- Green Bank sources private capital (Amalgamated Bank) for utility’s lending and warehouses loans

Image Source: https://commons.wikimedia.org/wiki/File:Chicago_food_grade_warehouse.jpg
State Program Co-Administration: Energy Storage Solutions

Image source: https://freesvg.org/laptop-battery-icon
REC trading for RPS
Green Bank Cost Recovery for Administering State Solar PV Incentive

- Residential solar PV designated as Class I resource
- Green Bank receives RECs on systems receiving its (legacy) incentive
- Utilities enter 15-year master purchase agreements to buy tranches of Class I RECs at declining prices
- Utilities may retire for RPS compliance or re-sell to spot market

SHREC Structure Options

[Diagram showing flow of solar energy through different stakeholders including Solar Homeowners/Solar Developers, CT Green Bank, Utilities, NEPOOL GIS (REC Administrator), and Third Party Buyers (Brokered Transaction or Bilateral Agreement).]

Source: https://cbey.yale.edu/sites/default/files/2019-08/Connecticut%20RSP_August%202017.pdf
Solar PV Campaign on Distribution Circuit Feeder
INNOVATE
We are making green energy investment safer, more affordable and accessible with our innovative model.

EDUCATE
We are helping to make the benefits of green energy clear to drive interest.

ACTIVATE
We are inspiring people to take action and make green energy a part of their lives.

ACCELERATE
We are accelerating the growth of green energy.
Thank you

Blue Horizon Consulting

Matt.Macunas@gmail.com
Introduction

Jordan Taylor

December 12, 2022
About MC Green Bank

• **Structure**: Chartered by Montgomery County. Independent, 501(c)3 non-profit corporation. 11-member board

• **Equity**: $18 million in capital from settlement funds from the Pepco-Exelon merger

• **Purpose**: Accelerate investment in energy efficiency and renewable energy in the county by partnering with the private sector

• **Focus**: Build a more diverse, equitable, and inclusively prosperous, resilient, sustainable, and healthy community

• **Alignment**: Support Montgomery County’s goal to reduce its greenhouse gas emissions to 0% by 2035

• **Target**: Leverage investment to attract private capital at target 4:1
Who we are

- **Non-profit** Mission-Driven Organization
  - **Chartered by Montgomery County.**
  - **Independent, 501(c)3 non-profit corporation.**
  - **Capital from settlement funds from the Pepco-Exelon merger.**

- **Purpose:** Accelerate investment in energy efficiency and renewable energy in the County by partnering with the private sector.
- **Focus:** Build a more diverse, equitable, and inclusively prosperous, resilient, sustainable, and healthy community.
- **Alignment:** Support Montgomery County’s goal to reduce its greenhouse gas emissions.
What we do

• **Goal**: Increase amount of private funding available to property owners and businesses to undertake energy-saving clean energy improvements
  - Heating and Ventilation Systems
  - Renewable Energy
  - Building Envelope

• **How**: Use our limited resources to de-risk investments for financial institutions to bring in their capital = leverage

• **Result**: Help property owners reduce operating costs and fund improvements with savings

• **Public Benefit**: Help the County to meet its goal to reduce greenhouse gas emissions to 0% by 2035.
Sectors that we work in

Our **residential financing programs** provide Montgomery County homeowners with easy ways to finance projects to improve the energy efficiency of your home or install renewable energy systems – all to reduce your energy usage and save money on electricity bills.

Our financing solutions for **commercial property owners and businesses** help you find the right tool so you can make those energy savings upgrades that help improve your return on your investments, while also helping the planet.
Our Impact

- 6,396 Metric Tons in Annual Greenhouse Gas Reductions
- 16.9 Million in Closed Clean Energy Project Value
- 11 Unique Programs to Offer Montgomery County Business & Residents
- 842 Households Supported
- 581 Low & Moderate Income Households Benefitting
- 442 Multifamily Homes Supported
What are the options for commercial solar installations?

Solar System Design:
Build a system to produce what you will need in a year (Net Metered)

Financing Options:
1. Third Party “Rental”
   - Net Metered Power Purchase Agreement (PPA)
   - Solar contract signed between Property and Developer.
   - Payments projected in proposal.
   - Maintenance and Operations costs covered by Developer

2. Ownership
   - Cash Purchase
     - < $150,000 - Small Business Loan 5-7 year loan with a 20 year amortization
     - > $150,000 - CLEER Loan – 7-10 year loan with a 20 year amortization
   - > $500,000 – CPACE Loan – up to 20 year loan with 20 year amortization
Third Party “Rental” Solar Example

- Solar contract signed between Property and Developer.
- Payments projected in proposal.
- Maintenance and Operations costs covered by Developer.
Third Party Financing “Rental” options

Why are solar developers proposing to put up solar panels on local organizations \textit{at no up-front cost} to the organizations? How do they make money on these projects?

Federal tax credit 26%*
*if you start now!

Sales of SRECs to utilities*  
*while MD law requires
How does the process work?

1. Contact the Montgomery County Green Bank
2. Provide 12 months of energy bills for the property
3. Contact 2-3 contractors referred to you
4. Invite installers to your facility to survey the site (roofs, electrical rooms, attic/rafter space)
5. Receive and review solar proposals and quotes
6. Contact and obtain approvals from any governing bodies
7. Sign a contract with installer, developer, and lender(s)
1. Installer submits permitting and interconnection requests
2. Permits approved and interconnection conditional approval
3. Installation is scheduled and completed
4. County inspection (first through final)
5. Utility interconnection and Final authorization to operate (ATO)
6. Turn system on and start saving (money and the planet)!
NARUC Innovation Webinar Series

One Thursday most months
All NARUC members and stakeholders are invited

Grid Architecture: Why it Matters
January 19, 2023 | 3:00 – 4:00 PM EST

Advances in Resource Adequacy
March 16, 2023 | 3:00 – 4:00 PM EST

More webinar information will be added soon!

https://www.naruc.org/cpi-1/innovation-webinars/

NARUC thanks the U.S. Department of Energy for its support of this series.