INSTITUTE FOR
Sustainable
Communities
what's possible

Financing Clean Energy in Your City:

The Potential for Urban Green Banks in the U.S.

January 17, 2018

Welcome!

- Overwhelming response!
- Thank you for your time and interest
- A few tips on how to maximize this webinar experience
  - All attendees are in listen-only mode
  - Use the questions box to type in your questions throughout the presentations
  - We will hold Q&A at the end of the webinar by reading your questions
  - This webinar is being recorded and will be shared
  - Please fill out the post-webinar survey

ISC's US Program: accelerating urban climate and energy solutions

700+ Communities **~ 3,000 Practitioners**

Why *this* webinar? Why *now*?

- Urban leadership on climate, energy, and equity: more critical than ever
- Big disconnect: commitments vs. capacity
- Financing remains a major stumbling block
- Time to build a bridge between the urban climate and green bank movements

CLIMATE MAYORS

www.climatemayors.org

www.kuow.org

WE ARE STILL IN

www.wearestillin.com

Our goals today

- Introduce the concept of green banks and what they can do—"what's possible"
- Inspire cities/urban regions to explore the possibilities
- Begin to build the bridge between movements
- Gather ideas and feedback

Agenda

CT Green Bank story

Bryan Garcia, CT Green Bank

Coming soon: DC Green Bank

Kristine Babick, Washington, D.C.

The growing green bank movement —
and the potential for urban green banks

Jill Bunting, Coalition for Green Capital

Accelerating urban green bank creation: An idea

Steve Nicholas, ISC

Discussion

What is a "green bank"?

- A green bank (or green investment bank, clean energy finance authority, or clean energy finance corporation) is a financial institution, typically public or quasi-public, that uses innovative financing techniques and market development tools in partnership with the private sector to accelerate deployment of clean energy technologies.
- Green banks use public funds to leverage private investment in clean energy technologies that, despite being commercially viable, have struggled to establish a widespread presence in consumer markets.
- Green banks seek to reduce energy costs for ratepayers, stimulate private sector investment and economic activity, and expedite the transition to a low-carbon economy.

Connecticut Green Bank

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Connecticut Green Bank

Motivations for Creation

Support the policy strategy to achieve **cheaper**, **cleaner**, and **more reliable** sources of energy while **creating jobs** and supporting **local economic development**

- **Attract** and **deploy private capital investment** to finance the **clean energy policy goals** for Connecticut
- **Leverage** limited **public funds** to attract **multiples of private capital** investment while **reinvesting** public funds over time
- Develop and implement strategies that **bring down the cost** of clean energy in order to make it more **accessible** and **affordable** to customers
- Support affordable and healthy homes and businesses in distressed communities **reduce energy burden** and **address health & safety**

Connecticut Green Bank

Delivering Results for Connecticut

- **Investment**

  Mobilized nearly $1.1 billi[illegible]t into Connecticut's clean energy economy so far

- **Energy Burden**

  Reduced the energy [illegible]useholds and businesses

- **Jobs**

  Created an estimated [illegible]ting to an estimated 7.5% to 20% of total job crea[illegible]nk's first 5 years.*

- **Clean Energy**

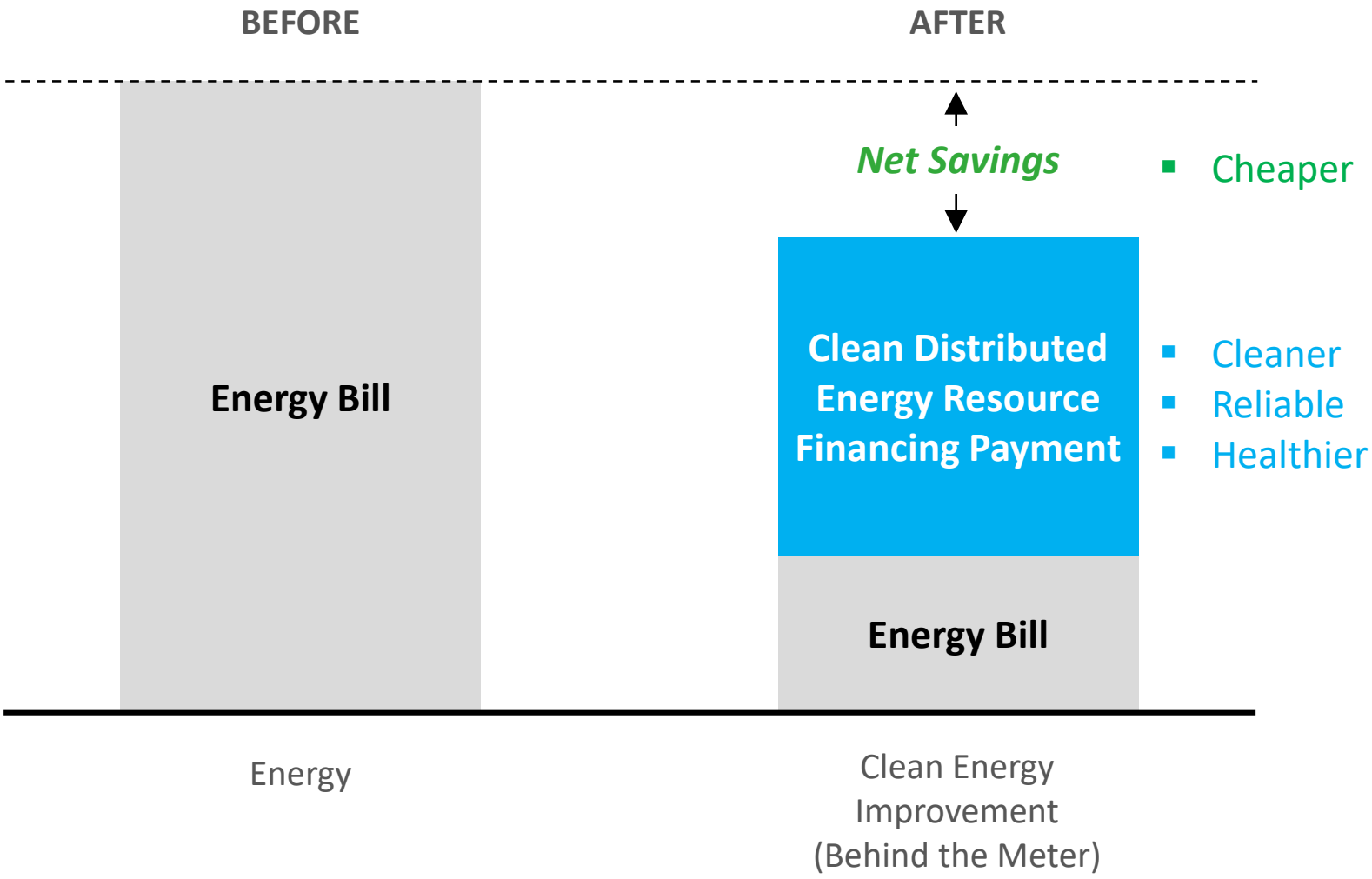
  Deployed more than 25 MW [illegible]clean renewable energy helping to reduce 3.7 million tons of greenhouse [illegible]as emissions that cause climate change

REFERENCES

*62,500 private non-farm jobs created in the state over 5 years since Green Bank creation mid-2011. Green Bank statistics are in job-years; "total jobs" include direct, indirect and induced. CT DOL statistics are aggregated from monthly point-in-time estimates. CT Department of Labor - http://www1.ctdol.state.ct.us/lmi/privatesectoremployment.asp

Reducing Energy Burden

Helping Businesses and Households Thrive



REFERENCE

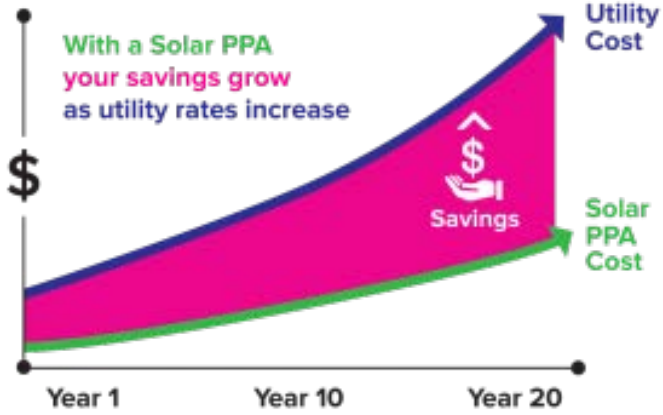
Definition provided by the Coalition for Green Capital and adapted by the Connecticut Green Bank

Commercial Solar PPA

Unconventional Credits and LMI

Market Segment	**Small/medium commercial, MUSH, affordable housing, nonprofits, community assets**
Product Summary	3rd party solar power purchase agreement, backed by C-PACE lien where possible
Support Needed	• Good solar economics for C&I • Local solar installer & project developer introductions • Municipal, community and nonprofit introductions • Subordinated debt capital – if available, but not required
CT Results	78 PPAs for $61MM

green bank solar ppa



Low-to-Moderate Income Homes

Solar for All with PosiGen

Market Segment	**Low-to-moderate income homeowners**
Product Summary	Solar lease + energy efficiency package (fixed 20-25 years) to reduce energy burden with alternative underwrite/no credit score using community based marketing approach
Support Needed	• Good solar economics including tiered LMI incentive • Municipal, community and nonprofit introductions • Subordinated debt capital – if available, but not required
CT Results	1,125 leases for $31MM 99.9% get EE, 66% LMI

Mobilizing Investment for All
Residential Markets

MSA AMI Band	Projects		Investment ($)		Deployment (MW)	
	2012	2017	2012	2017	2012	2017
<60%	10	1,268	$279,743	$29,930,106	0.1	4.8
60-80%	10	1,132	$242,605	$23,069,670	0.1	5.6
80-100%	48	1,154	$1,644,387	$27,521,142	0.3	7.5
100-120%	118	1,258	$4,194,070	$29,568,212	0.8	8.0
120%+	231	1,743	$8,629,764	$49,516,185	1.6	13.5
Total	**417**	**6,555**	**$14,989,569**	**$159,605,315**	**2.9**	**39.5**

"Today, however, we have to realize that a true ecological approach always becomes a social approach; it must integrate questions of justice in debates on the environment, so as to hear both the cry of the earth and the cry of the poor."

Pope Francis

REFERENCE
FY 2017 Comprehensive Annual Financial Report of the Connecticut Green Bank (100-101)
Residential owner occupied properties with 1-4 units and multifamily greater than 4 units

Inspired by Leadership

Inclusive Prosperity

Inclusive

PROSPERITY

Thank You

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DC GREEN BANK

A CLEAN ENERGY FINANCE SOLUTION

DEPARTMENT OF ENERGY & ENVIRONMENT

GOVERNMENT OF THE DISTRICT OF COLUMBIA

KRISTINE BABICK

DEPARTMENT OF ENERGY & ENVIRONMENT

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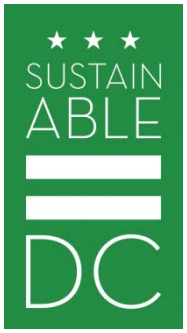

SUSTAINABLE DC GOALS

Cut carbon emissions by 50% by 2032 and become carbon neutral and climate resilient by 2050.

RENEWABLE PORTFOLIO STANDARD

50% of the energy consumed in the district must be from renewable sources by 2032

Public funding alone will **not** cover the anticipated costs of meeting these goals.

DC GREEN BANK
A CLEAN ENERGY FINANCE SOLUTION

MISSION

The DC Green Finance Authority's mission is to contribute to the District's Sustainable DC goals by **catalyzing private sector investment in sustainable projects and programs**. The Green Bank will do this by filling financial gaps that currently exist in the market while accelerating private investment and growth of a sustainable finance capital market that reduces the need for long term government intervention.

VISION STATEMENT

The DC Green Finance Authority's envisions a District where residents and commercial property owners can easily access the capital and resources to complete projects that mitigate climate change; reduce air, water, and other pollution; and lower energy costs.

"As the nation's capital, we need to lead the way when it comes to **protecting and preserving the environment**. By creating a Green Bank, we will create more jobs for DC residents, which will allow us to continue our push for **inclusive prosperity**, and we will take an important step toward reaching the sustainability goals set forth in Climate Ready DC."

-Mayor Muriel Bowser

A FRAMEWORK FOR LAUNCH

1. • Analyze the need for a green bank and define a public purpose
2. • Build political and public support
3. • Enact formative legislation
4. • Appoint leadership
5. • Define and prioritize goals
6. • Develop products with stakeholders and channel partners

DC GREEN BANK
A CLEAN ENERGY FINANCE SOLUTION

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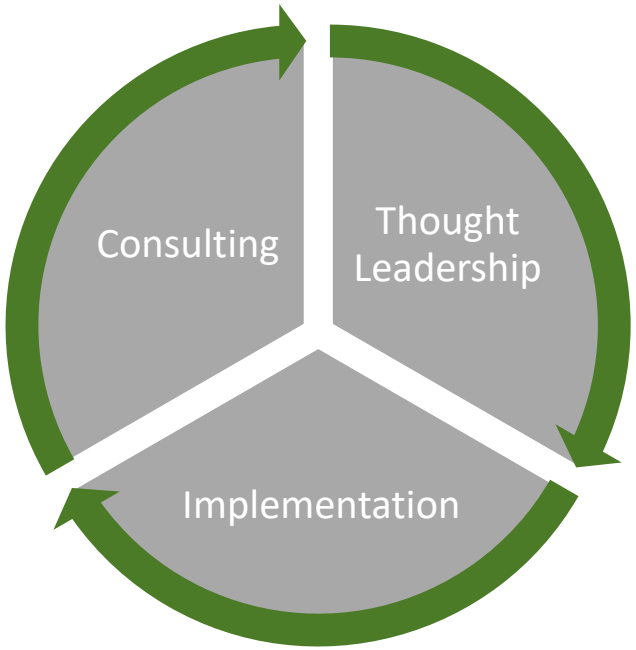
Financing Clean Energy In Your City: An Introduction to Urban Green Banks

Coalition for Green Capital
Jill Bunting, Program Director

January 17, 2018

Coalition for Green Capital partners with stakeholders to design & create Green Bank institutions

- The Coalition for Green Capital (CGC) is a DC-based 501(c)(3) non-profit that partners with stakeholders to establish dedicated clean energy finance entities
- CGC designs and forms lending institutions that partner with private investors to deploy clean and efficient energy technology that increase energy resilience
- CGC is leading expert in "Green Bank" model and worked with White House, DOE, USDA, EPA, OECD and other leaders on implementation
- CGC has helped establish 6 entities which have financed over $2 billion of clean energy projects
- CGC has driven the "Green Bank" movement since firm was founded in 2009 by CEO Reed Hundt, former chairman of the FCC
- CGC is supported by leading global foundations



Why urban-scale Green Banks?

Impact Opportunity

Urban clean energy finance is a large and addressable opportunity to make progress on climate-related goals

Meeting Local Needs

Cities have unique regulatory, economic, and energy characteristics that can benefit from tailored financing solutions

Flexibility for Capital

Local institutions can unlock new sources of capital by collaborating with local actors

Example: The Climate Access Fund Baltimore, MD

- New independent nonprofit incubated by CGC
- Created in response to the Maryland Community Solar Pilot
- First product: credit enhancement to support **low- and moderate-income community solar projects**
- Capitalized with **philanthropic capital**, in the form of program-related investments and other forms of private investment

Next step: helping local institutions achieve greater scale

- Local institutions are critical for identifying market gaps and testing solutions
- Next step is helping local institutions achieve greater scale with existing efforts and to more easily enter new markets
- CGC is launching the Green Bank Consortium to provide Green Banks with a centralized way to access capital, product expertise, and back office services

coalition for green capital

Thank You

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An idea: Urban Energy Investment Challenge

- Partnership between ISC, Coalition for Green Capital, and CT Green Bank
- Goal: Help interested U.S. cities/regions establish a green bank (or similar mechanism) to increase and accelerate investment in clean energy
- Approach: Select “coalition of the willing” and work intensively with them to create a green bank by the end of 2020
- Actively fund-raising; hoping to launch this year
- Your feedback needed!

Q&A

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