



AUGUST 21-23, 2018 • CLEVELAND, OHIO

# Emerging Trends in Green Banks

Thursday, August 23<sup>rd</sup>, 2018 from 10:30am – 12:00pm

# Panelists

## Moderator

- **Alex Kragie**, Coalition for Green Capital

## Speakers

- **Tom Deyo**, Montgomery County Green Bank
- **Kerry O'Neill**, Connecticut Green Bank

# Kerry O'Neill

Connecticut Green Bank



# Connecticut Green Bank

Attracting Private Investment, Growing Our Economy,  
Creating Jobs, and Helping Our Communities Thrive

**Better Buildings Summit**

Updates from the Field

August 23, 2018

# Connecticut Green Bank

## Delivering Results for Connecticut



- **Investment** – mobilized over \$1.3 billion of investment into Connecticut’s clean energy economy
- **Economic Development** – created nearly 16,000 total job-years – 6,200 direct and 9,700 indirect and induced, while raising nearly \$50 million in state and local tax revenues
- **Energy Burden** – reducing the energy burden on over 30,000 households and businesses, including “beyond parity” for LMI solar
- **Environmental Protection** – deployed more than 285 MW of clean renewable energy helping to reduce over 4.6 million tons of greenhouse gas emissions that cause climate change

### **Private investment drives economic growth**

Creates jobs, lowers energy costs, and reduces GHGs



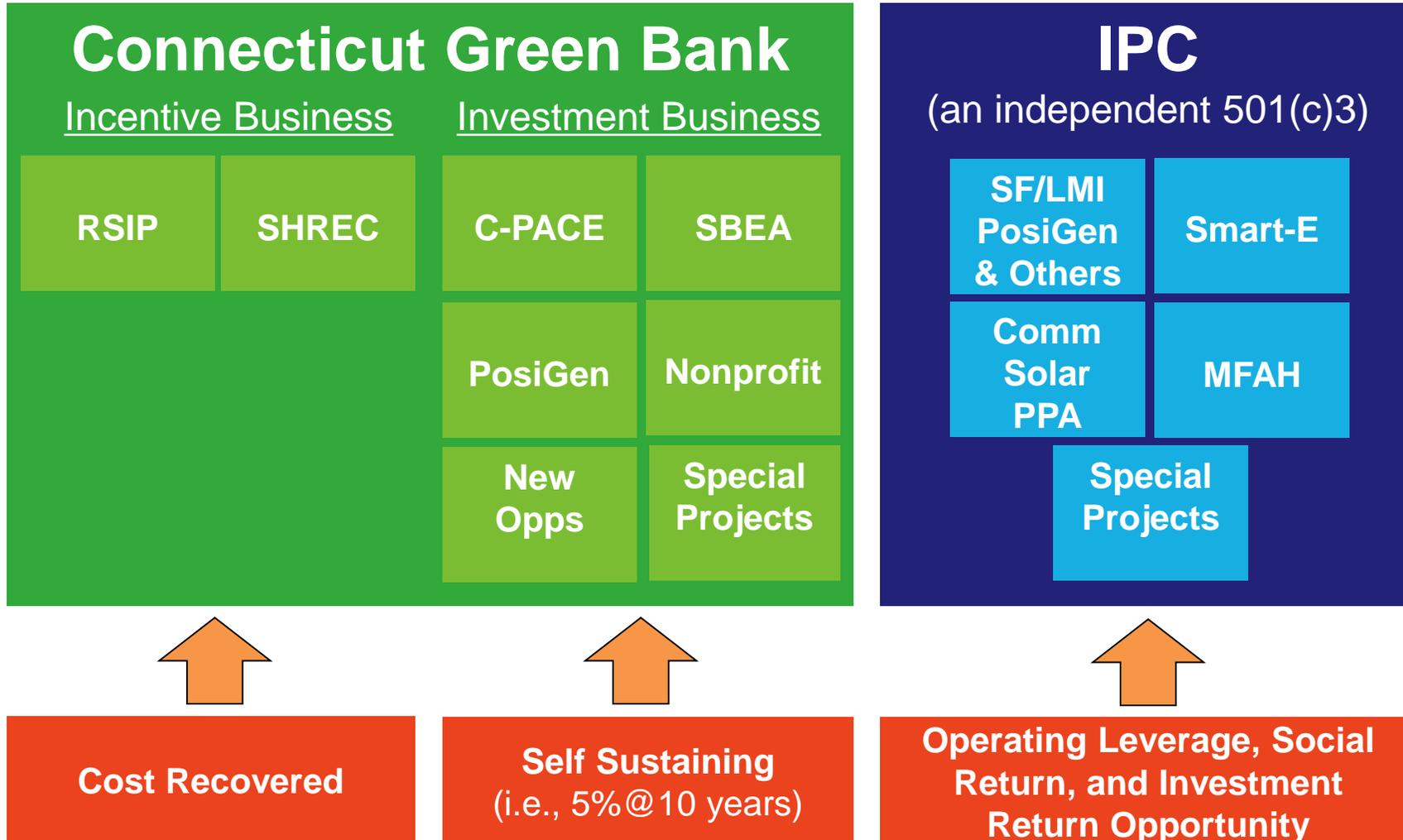
#### **REFERENCES**

CT Green Bank data warehouse report from July 1, 2011 through June 30, 2018

# Connecticut Green Bank

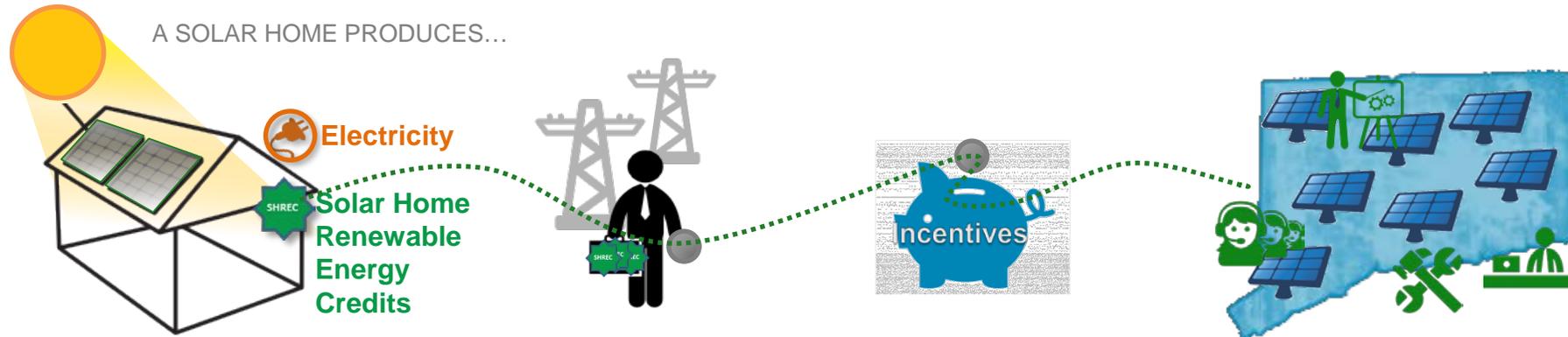


## Business Units and Nonprofit "Spinoff"



# Incentive Business

## RSIP Incentive and SHREC Securitization



When panels produce electricity for a home, they will also produce Solar Home Renewable Energy Credits (SHRECs). The Green Bank provides upfront incentives through RSIP and collects all the SHRECs produced per statute.

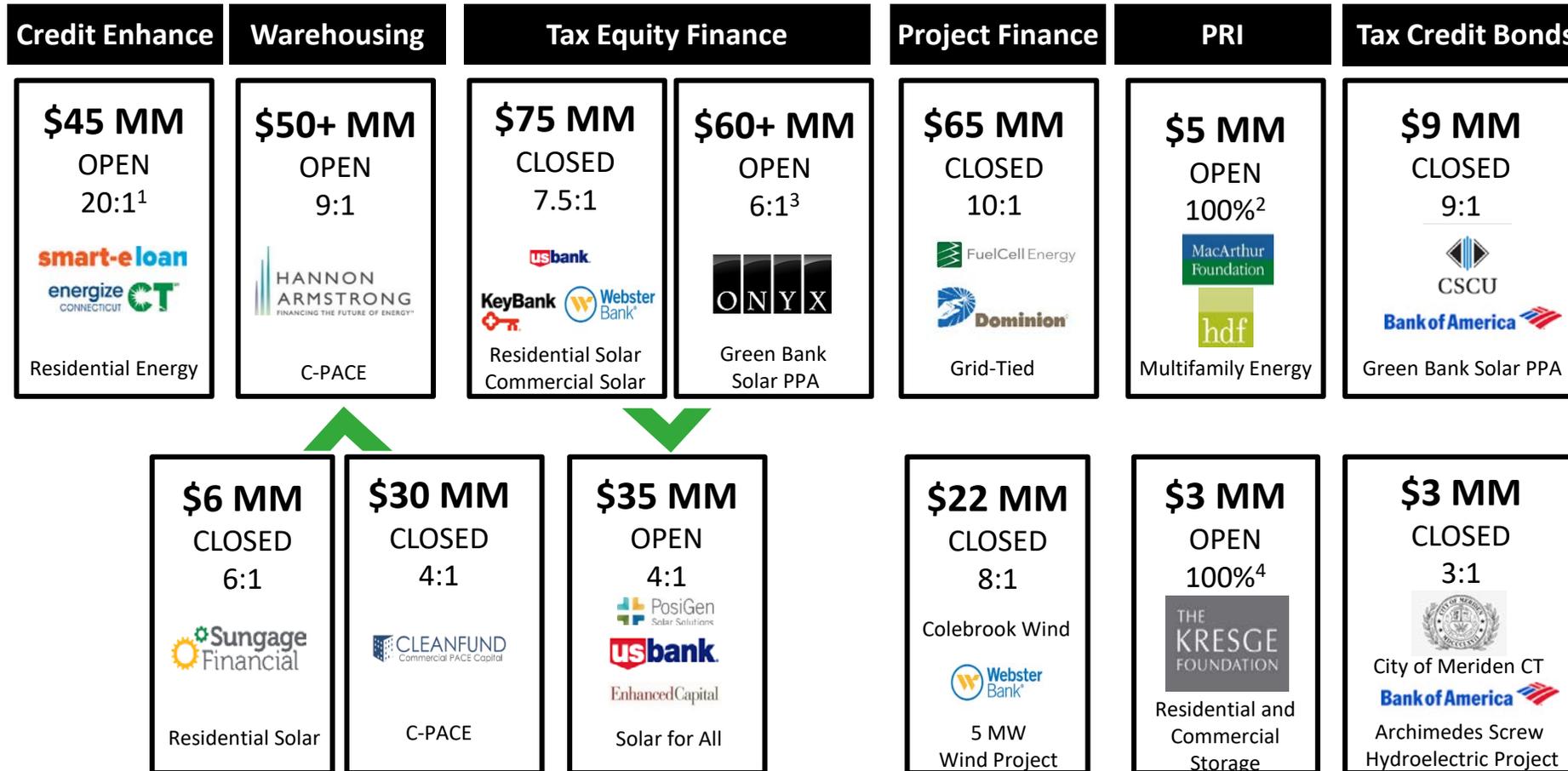
Utilities required to enter into 15-year contracts with the Green Bank to purchase the stream of SHRECs produced. This helps utilities comply with their clean energy goals (i.e., Class I RPS).

The Green Bank would then use the revenues from the 15-year fixed price contracts to support the RSIP incentives (i.e., PBI and EPBB), cover admin costs, and fund securitization or financing costs.

A public policy with 300 MW target will create more locally-sourced sustainable energy, helping make our power grid more secure and less congested, and also curb pollution.

# Investment Business

## Public-Private Partnerships



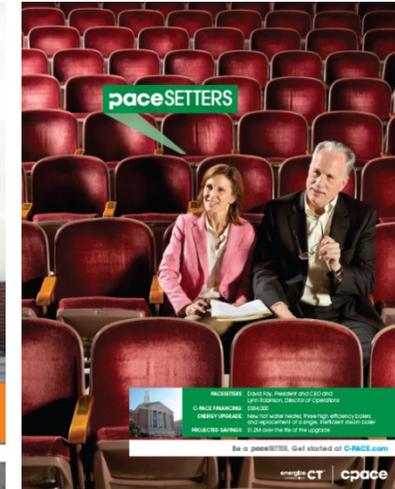
### REFERENCES

1. LLR yields high leverage – and it is 2<sup>nd</sup> loss and thus with no to low defaults, we haven't used to date. IRB's not considered in the leverage ratio.
2. Foundation PRI is to HDF, guaranteed by the CGB in the case of MacArthur Foundation.
3. Onyx Partnership has no upper limit and CGB currently has authorization to commit up to \$15mm.
4. Foundation PRI's are backed by CGB balance sheet

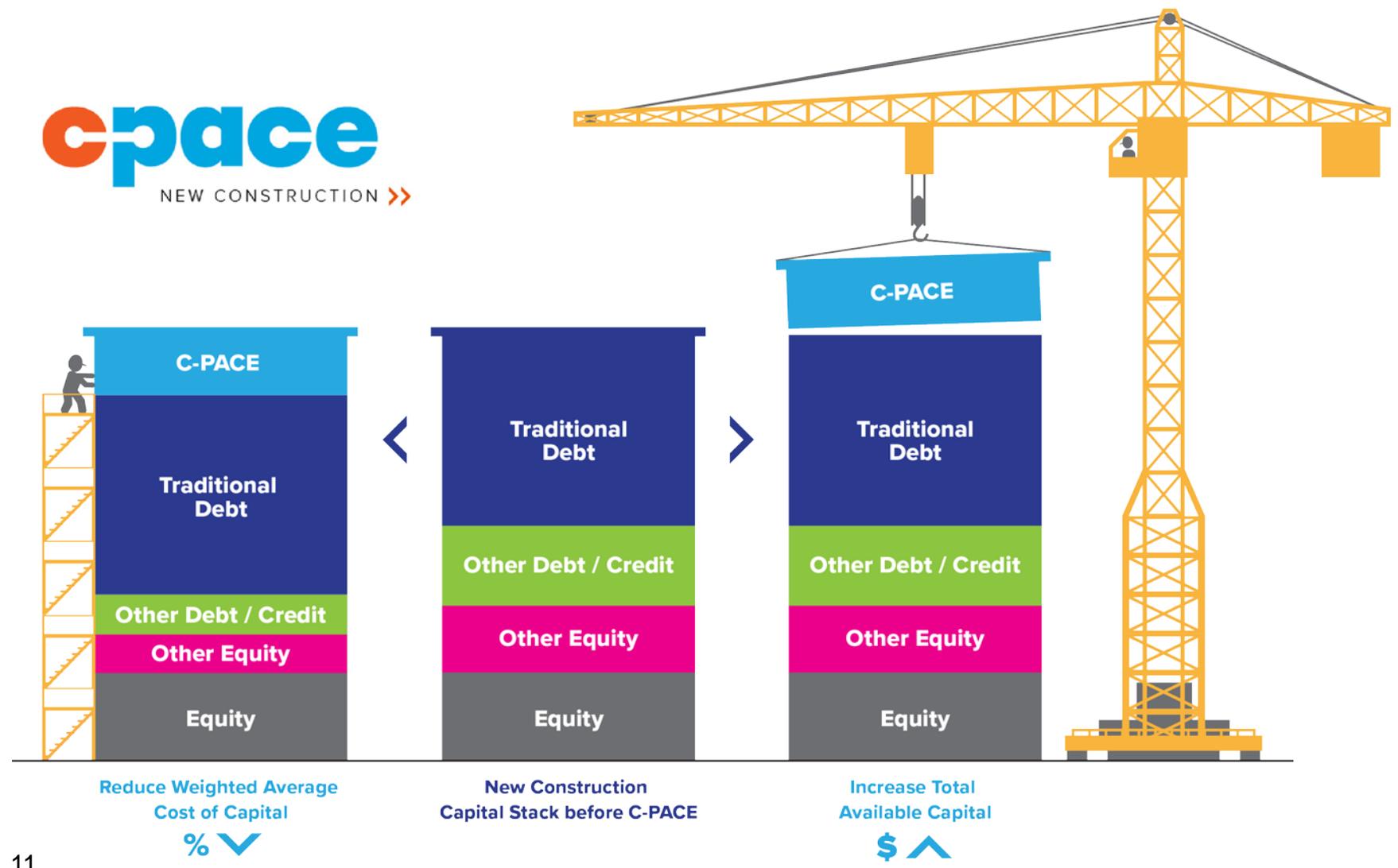
# Investment Business

## C-PACE (Example)

<b>Market Segment</b>	<b>Commercial, Industrial, Nonprofit and Multifamily</b>
<b>Product Summary</b>	Commercial Property Assessed Clean Energy (C-PACE) applies a benefit assessment to a property to finance clean energy improvements with $SIR > 1$
<b>Support Needed</b>	<ul style="list-style-type: none"> <li>• Capital to finance clean energy improvements</li> <li>• Contractors to install clean energy improvements</li> <li>• Supportive municipality</li> <li>• Supportive mortgage lender</li> </ul>
<b>CT Results</b>	232 projects for \$135.9 MM investment and \$220.5 MM in savings over the life of the projects



# C-PACE New Construction (or Gut Rehab, Adaptive Reuse) in the Capital Stack





CONNECTICUT  
BANK



Inclusive  
**PROSPERITY**



# Inclusive Prosperity Capital

## Sparked by the Connecticut Green Bank



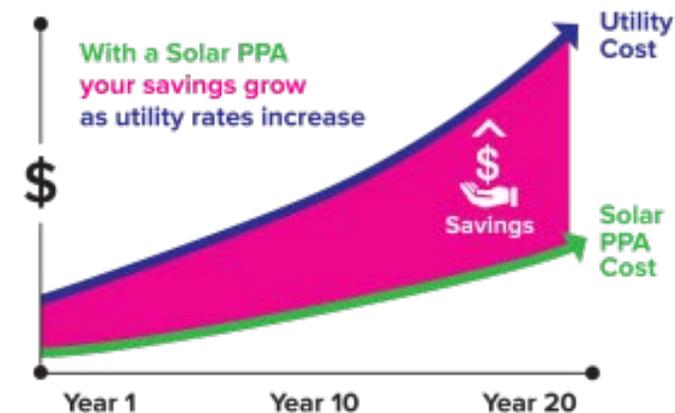
- **Foundation of Success** – mobilized over \$1.3 billion of public and private capital deployed in Connecticut from 2012–2018 (\$360 million in underserved markets)
- **Geographic Expansion** – \$810 billion of renewable generation investment potential across the U.S. from 2018-2050 (Real 2017 \$'s);
- **Cost Reductions & Scale** – origination expansion, geographic diversification, and operational efficiencies; and
- **Project Deployment & Risk-Adjusted Returns** – successful capitalization of underserved markets & credits with private capital at appropriate returns.

# Green Bank Solar PPA

## Underserved Commercial Credits

<b>Market Segment</b>	<b>Small/medium commercial, MUSH, affordable housing, nonprofits, community assets</b>
<b>Product Summary</b>	3 <sup>rd</sup> party solar power purchase agreement, backed by C-PACE lien where possible
<b>Support Needed</b>	<ul style="list-style-type: none"> <li>▪ Good solar economics for C&amp;I</li> <li>▪ Local solar installer &amp; project developer introductions</li> <li>▪ Municipal, community and nonprofit introductions</li> <li>▪ Subordinated debt capital – if available, but not required</li> </ul>
<b>CT Results</b>	94 PPAs closed/completed, \$69.3 MM, and 22.7 MW

### green bank solar ppa



# PosiGen “Solar for All” Underserved LMI Households

<b>Market Segment</b>	 	
<b>Product Summary</b>	<p><b>Connecticut Green Bank and PosiGen “Solar for All” Partnership – Bringing the Benefits of Clean Energy to LMI Communities</b></p> <p>By Maria Blais Costello July 19, 2018</p> <ul style="list-style-type: none"> <li>There are many barriers to going solar for low- to moderate-income (LMI) communities and homeowners, including access to financing, real and perceived credit-quality issues, inability to fully realize public incentives, education gaps, and contractors’ customer acquisition strategies.</li> </ul>	
<b>Support Needed</b>	<ul style="list-style-type: none"> <li></li> <li></li> <li></li> </ul>	
<b>CT Results</b>	<p>1, investment, 99.9% get EE (HES), 63% ESA, and 63% LMI</p>	

# Affordable Multifamily Housing

## A Suite of Products

<b>Market Segment</b>	<b>Naturally occurring and subsidized/regulated affordable housing (5+ units)</b>
Product Summary	Pre-development and term financing products (including unsecured) for renewables, efficiency, storage, resiliency, health & safety and other building improvements
Support Needed	<ul style="list-style-type: none"> <li>Overview of utility and state affordable housing program/incentive landscape</li> <li>Portfolio owner introductions</li> <li>Municipal, community and nonprofit introductions</li> <li>Subordinated debt capital – if available, but not required</li> </ul>
CT Results	73 loans for \$72MM impacting ~5,400 units



Save money on energy



Increase property value



Improve occupancy rates



Improve comfort and safety



# Energize CT Smart-E Loan

## Comprehensive Energy and H&S Measures



**smart-e loan**



<b>Market Segment</b>	<b>Residential Single Family</b>
<b>Product Summary</b>	Partnership with eleven (11) local community banks and credit union to provide easy access to affordable financing for comprehensive clean energy measures, including H&S. 5-20 year terms at rates ranging from 4.99-6.99% for \$500-\$40,000 of borrowing.
<b>Support Needed</b>	<ul style="list-style-type: none"> <li>Provide 2<sup>nd</sup> Loan Loss Reserve (LLR) up to 7.5% of losses</li> <li>EV pilot</li> </ul>
<b>CT Results</b>	2,942 projects for \$51.8 MM financed with \$5.9 MM of Interest Rate Buydowns (IRB)



**PLUG IN!**

**Special Offer for Electric Vehicle buyers!**

LIMITED-TIME LOW RATES **0.99%** APR\*

NO MONEY DOWN

NCTUA

# Inclusive Prosperity Capital Fund Launch



- **Launch Date:** August 2018
- **Assets Under Management at Launch:** \$20 million
- **Assets Under Management Year 1 Total Target Raise:** \$75+ million
- **Key Contributors at Launch:** Connecticut Green Bank, Kresge Foundation, Hewlett Foundation, Calvert Impact Capital
- **Fund Leadership:** Seven (7) program and investment professionals transferring from the Connecticut Green Bank at launch
- **Unique Features:** In addition to capital injection, Connecticut Green Bank to provide full operational support of \$10 million<sup>1</sup> over first six (6) years of operation (no “going concern” risk)

#### NOTES

1. Of this total, \$6 million will run through Inclusive Prosperity Capital, while \$4 million will be expenses covered directly by the Connecticut Green Bank



**Thank You**  
[www.ctgreenbank.com](http://www.ctgreenbank.com)

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CEO, Inclusive Prosperity Capital, Inc.



**INCLUSIVE**  
PROSPERITY CAPITAL

# Connecticut Green Bank

## Mission and Goals



Support the 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**

# Tom Deyo

Montgomery County Green Bank



Montgomery County  
**GreenBank**

Your partner for clean energy <sup>TM</sup>

## Emerging Trends in Green Banks

*Presented at*

*2018 Better Building Summit*

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Tom Deyo, CEO, Montgomery County Green Bank



# Who We Are

## *Montgomery County Green Bank*

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- The nation's FIRST County-level green bank, designated in July 2016, chartered by the County in 2015
- Not a Bank, a **Fund**.
- Independent, 501(c)3 non-profit corporation; 11 member board (2 County members)
- Capital opportunity of \$14 million (County settlement from Pepco-Exelon merger)



# What are we trying to do?

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In partnership, grow the clean energy market  
in Montgomery County.

Cascade of results:

More Capital =

More Projects / Jobs =

Greater Energy Savings =

Better Financial Security =

Less Energy Demand =

*Lower Greenhouse Gas Emissions*



# Can a local green bank work?

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## Local is a benefit – everything is local:

- Understand and connect to local energy sector issues
- Define products that meet specific gaps
- Build partnerships that bring new resources
- Support local goals: **greenhouse gas reduction goals, jobs, business strength, and equity**

## Being local does not mean being alone - green banks have network

- Knowledge exchange
- Resources
- Peer mentoring

## Scale – many different considerations

- Production is important
- Scale of connections on energy efficiency and clean energy
- Scale of Partnerships – bring new players into markets
- Scale on voice – identify issues and get parties focuses on a response



# Case Study:

## *Building A Product Portfolio:*

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**Identify and fill gaps in the existing market** for private sector financing products (e.g., loans) offered to property owners for energy efficiency/renewable energy projects.



**Partner with private lenders to co-invest Green Bank capital**, reducing their risk in order to attract their capital into the market. Target 5:1 leverage of Montgomery County Green Bank capital.



**Meet key goals** of leveraging our dollars at 5:1, lowering county's green house gas emission, reaching lower income households and multifamily communities, and generate revenue to sustain operations.



# First Product:

## Commercial Loan for Energy Efficiency and Renewables (CLEER)

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- Commercial buildings and businesses (include nonprofit, multifamily properties)
- Scope of work – energy efficiency, Co-Gen, Solar PV, Energy Storage, water conservation
  
- Loan Loss Reserve Structure
- Revere Bank (local) and Ascentium Capital (national) lenders in pilot
- Contractors are on PEPCO list for Commercial and Industrial Program
  
- Loans generally between \$10,000 to \$250,000
- 100% financing for retrofits
- Up to 12 years – helps match savings to loan payment
- Not Secured by Property
- Lower rates
- Customer underwritten for credit and not energy savings



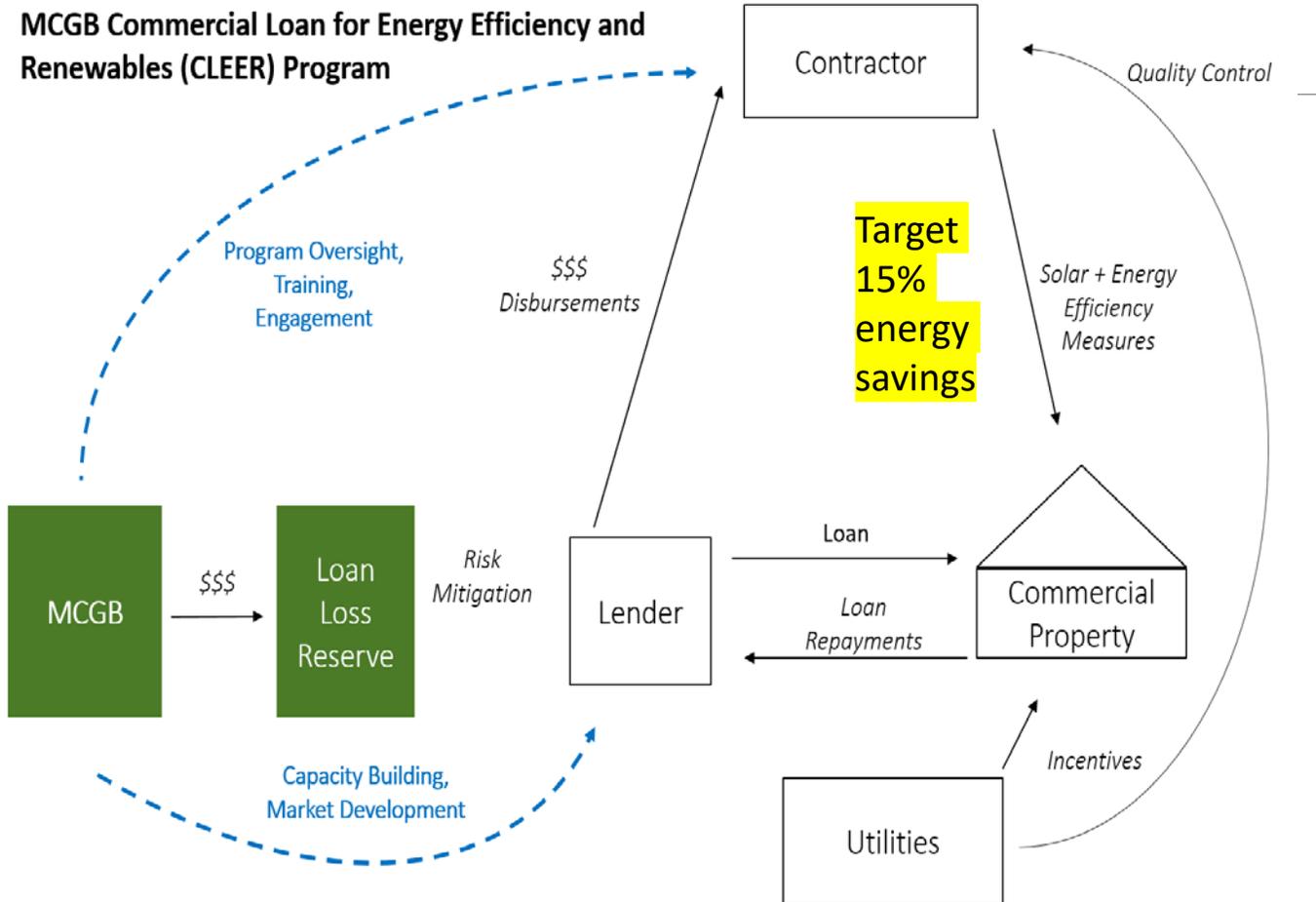
# How Did We Get There? Product Development Cycle



# First Product – How It Works

Simple structure:

- MCGB stands behind lender for losses
- MCGB authorizes contractors for program
- Lenders make loans on specific energy efficiency and renewable scopes of work
- Borrowers approved on credit; but savings support payments
- MCGB provides oversight



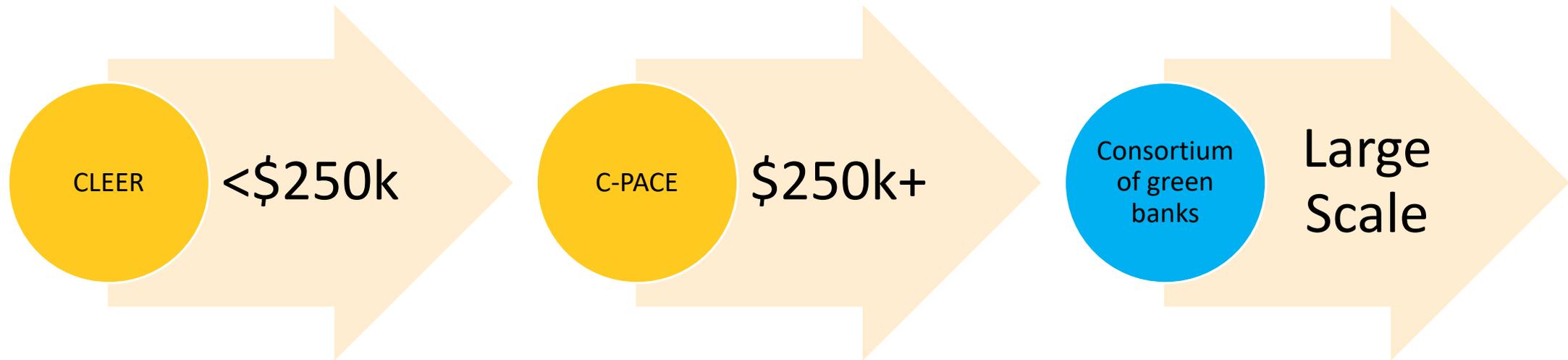
# Creating a Product Continuum using Own, Government, and National Products

## Commercial and Industrial Sector

Locally Created by Green Bank

Locally Available County Program

National Opportunities Brought Locally



# Financial Products in the Pipeline

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## **Residential Energy Efficiency and Renewables**

- Homeowners throughout County
- Focus on low and moderate income households

## **Community Solar**

- Supports market and low and moderate income communities
- Various models under review

## **Affordable Rental**

- Low and moderate income communities
- Technical assistance support being evaluated

## **Commercial PACE**

- Large-scale commercial properties



# Challenges For Standing up a Green Bank

## Capital

Key to effort. Best source offers few requirements

## Infrastructure

Emerging sector with many operational structures. But sharing is helping to create efficiencies

## Sustainability

Achieving returns that can support operations. Takes time to build revenue streams, especially when taking risk positions at less than risk-based returns. Need operational subsidies for at least 3 years

## Market Assumptions

Presenting as an investor when market looking for subsidy

## Models

Early in green bank movement offers models for replication but must know models are not long-time tested. BUT, emerging network is a freely sharing one



# Alex Kragie

Coalition for Green Capital



**coalition for green capital**

# The American Green Bank Consortium

*Alex Kragie, Director of the American Green Bank Consortium  
Coalition for Green Capital  
August, 2018*

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- CGC's mission and team
- The American Green Bank Consortium concept

# CGC is leading expert on Green Bank model, working for a decade to drive clean energy investment

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- CGC, a non-profit, partners with governments, NGOs and market actors to create Green Banks that increase volume of clean energy investment
- CGC delivers on-the-ground technical expertise to design, launch and operate GBs
- Helped design & create 6 GBs, which have catalyzed over \$2 billion in clean energy investment
- CEO Reed Hundt, former chairman of U.S. FCC
- Supported by major global foundations

# CGC team includes deep experience with Green Banks, finance, consulting, developers, and government

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- 9 member team includes experience at:

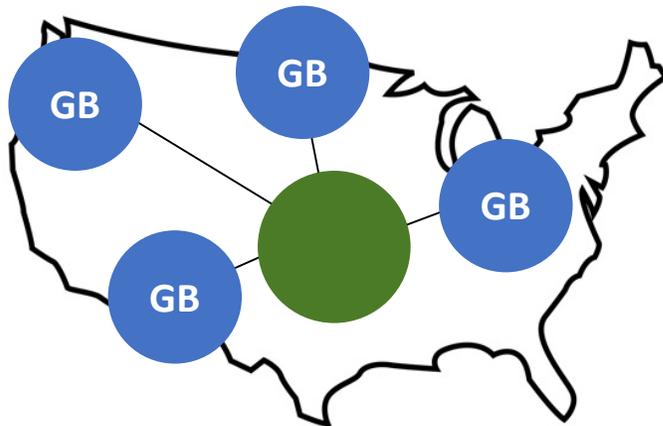


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- CGC's mission and team
- The American Green Bank Consortium

# American Green Bank Consortium allows Green Banks to tap shared resources, capital, and realize scale efficiencies



- Initiate value-creating partnerships between Green Banks and the Consortium
- Represent Green Banks in public fora
- Offer intra-organizational learning opportunities
- Realize bulk purchasing power on operational expenses and other purchases
- Create template documents for members' use
- Allow for facilitated mentorship opportunities

# Consortium will have three types of participants, with Members and Supporters contributing annual dues

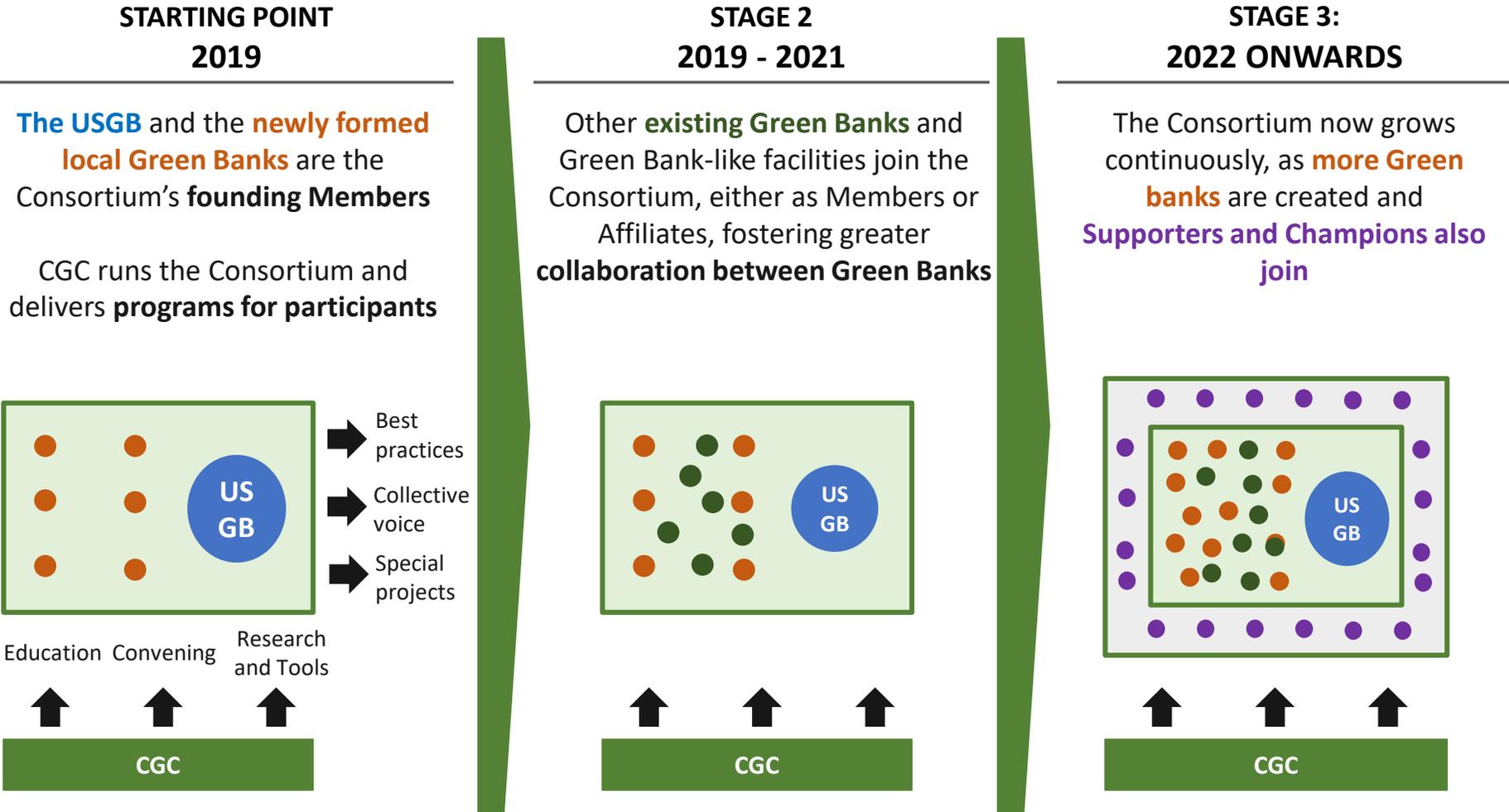
	Participants		
	Members	Supporters	Champions
Description	Green Banks of all kinds, and other entities that share a similar mission and way of operating for public benefit.	For profit, non-profit, and other organizations that can provide value to Members of the Consortium but are not Green Banks.	Validators of the Green Bank model. These are public officials and private citizens that are leaders of the Green Bank movement.
Example	Connecticut Green Bank, Michigan Saves, Nevada Clean Energy Fund, NY Green Bank etc.	SolarCity, Hannon Armstrong, Ernst + Young, Salesforce, Town Creek Foundation, Bank of America, etc.	CT Governor Dannel Malloy, Senator Chris Van Hollen, NV Governor Brian Sandoval, NY Governor Andrew Cuomo, etc.

*Want to build **expansive, inclusive community** of practitioners, supporters, investors, and service providers to deliver value to members and build robust Green Bank field.*

# Consortium designed to deliver value to Members, with goal of increasing collective investment

Value	Description
<b>Collaboration</b>	The Consortium will create structured opportunities for members to be present with each other both physically and virtually.
<b>Guidance</b>	A peer to peer mentoring network will allow Members to receive guidance and support from Members across the AGBC that might have experience with particular challenge facing them.
<b>Agency</b>	The Consortium will facilitate revenue generating programmatic opportunities for Members of the AGBC. The Consortium will serve as an agent of Member organizations that have products or services that they wish to market to other Members, Supporters, or other organizations.
<b>Influence</b>	The Consortium will provide opportunities to present the policy and funding needs of Members to government representatives on all levels.
<b>Savings</b>	The Consortium will deliver quantifiable dollar amounts that can be derived from a service provided by the Consortium.
<b>Services</b>	The Consortium will allow Members to benefit from the breadth of professional services and expertise available through the Coalition for Green Capital and its partner organizations.
<b>Access to Capital</b>	The Consortium will provide opportunities for Members to receive access to funding streams they might not otherwise be able to take advantage of.

# The American Green Bank Consortium will give voice to and add value for Green Banks across the U.S.



Questions?