



**coalition for green capital**

# **Growing Clean Energy Markets Quickly with Green Bank Financing & Market Development**

*Jeffrey Schub, Executive Director, CGC*

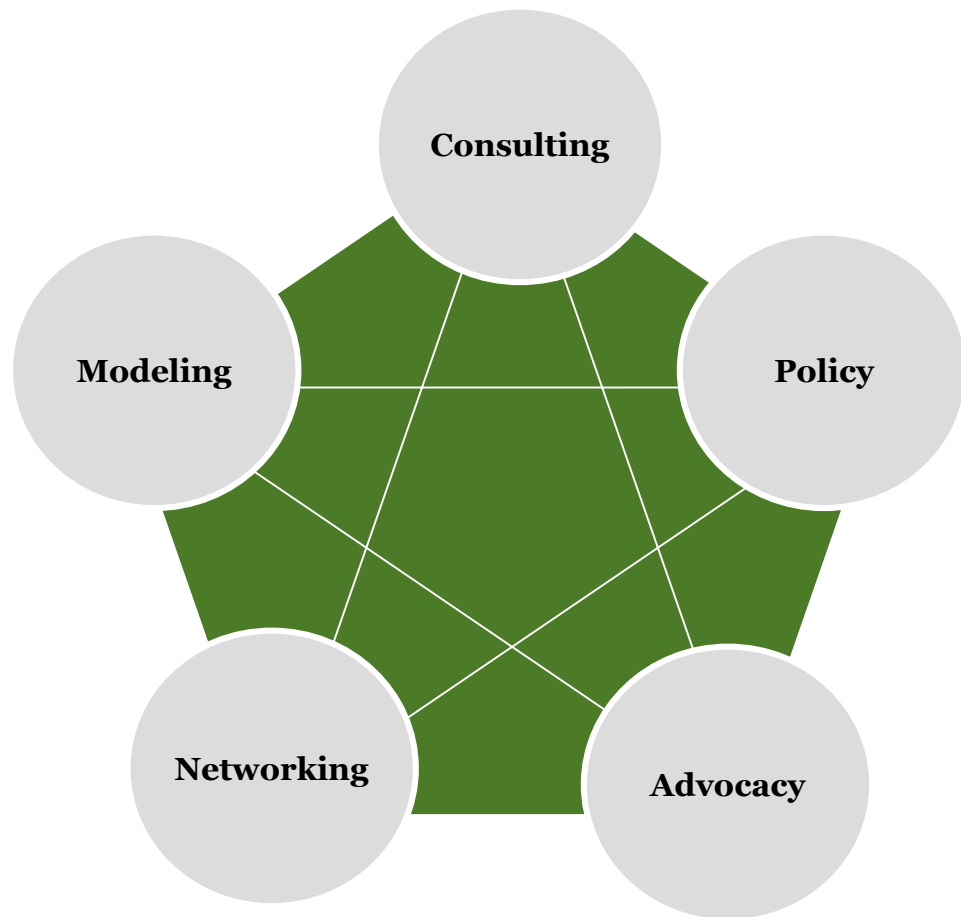
*CT Exploring Climate Solutions*

*July 22, 2016*

# CGC provides expert support and advice to states exploring Green Bank creation

**CGC's mission** is to use state finance, regulatory and legal power to accelerate move to clean power platform.

- Nonprofit 501(c)(3) organization
- CGC's leaders have been driving Green Bank movement since '09
- Based in Washington, DC
- Receives pro bono support from Latham & Watkins LLP & Covington & Burling LLP



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Many large projects – fossil & renewable – can access financing, but not so for distributed projects

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## Centralized Projects

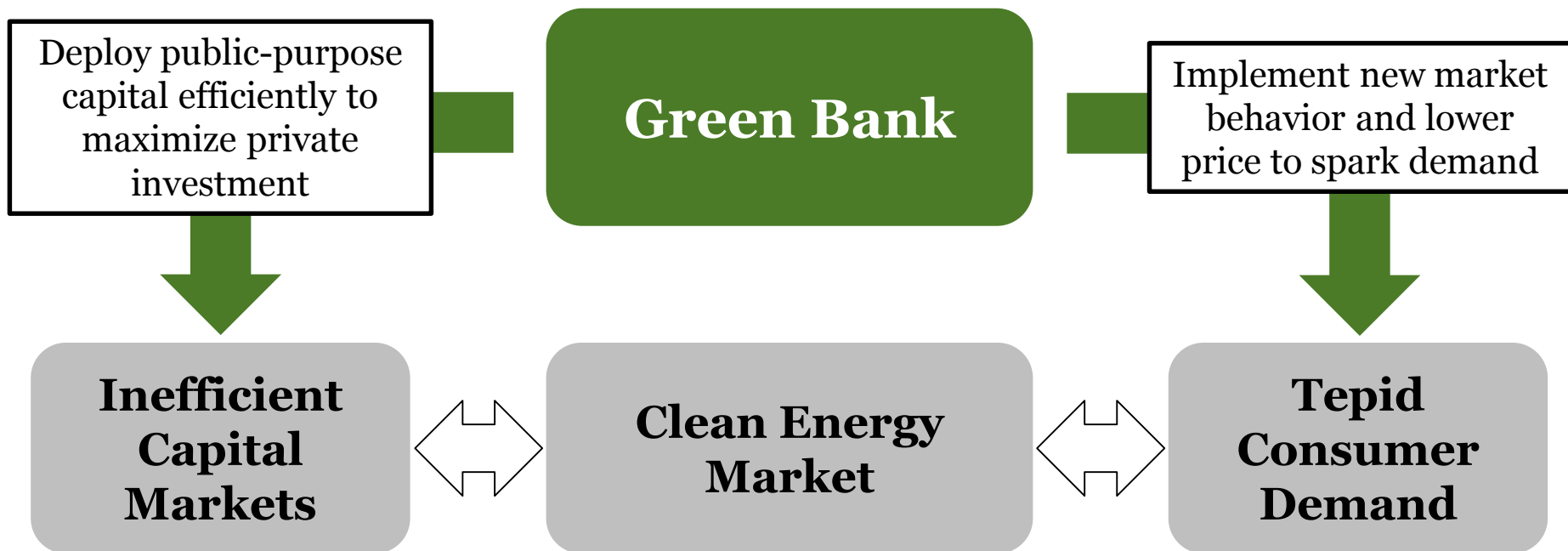
- Utility-scale
- Power directly to grid
- Strong credit
- Traditional project finance
- Relatively easy to finance

## Distributed Projects

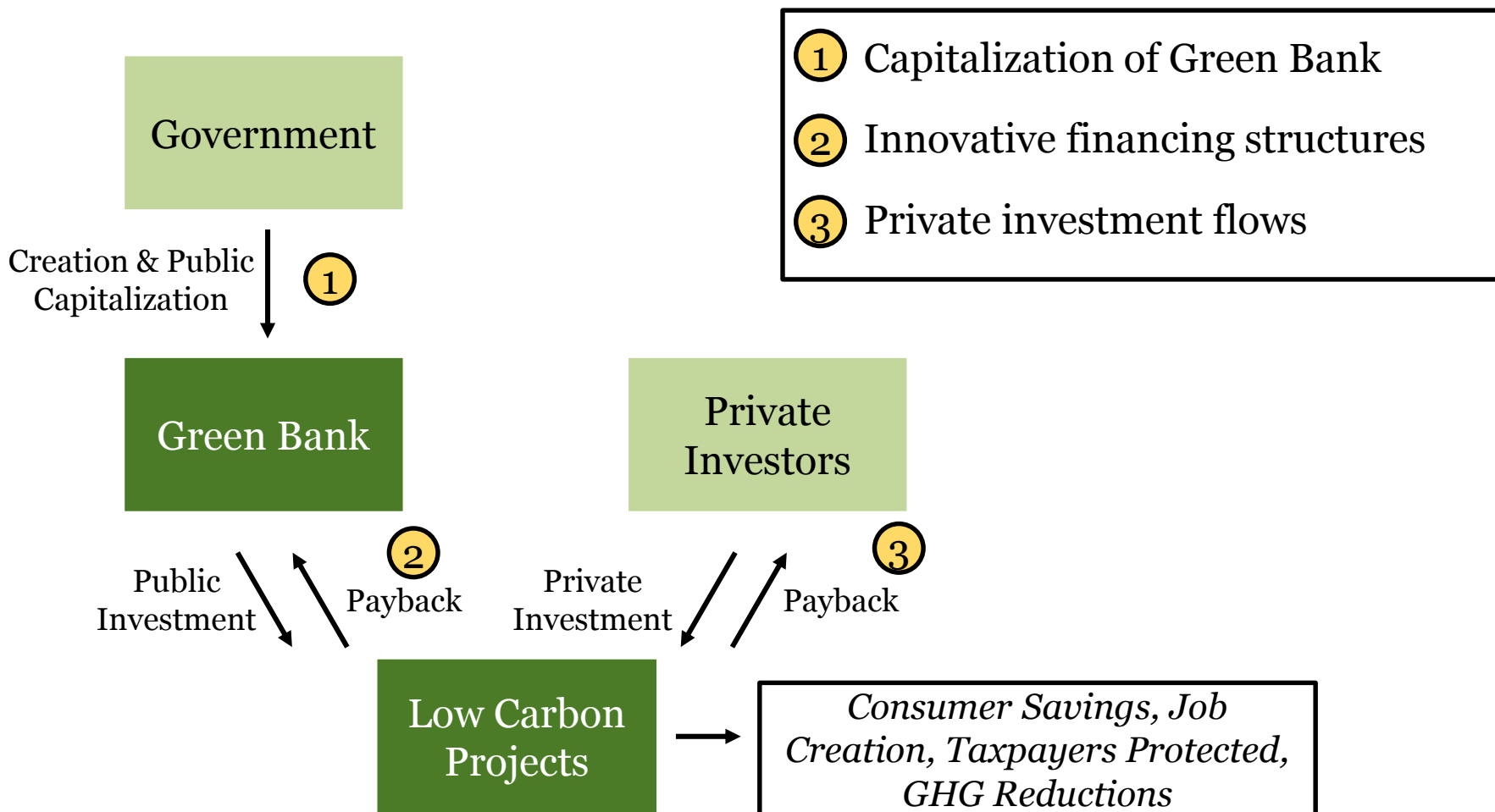
- Smaller scale
- Scattered locations
- On-site energy use
- Varying credits
- Range of structures and approaches to finance

# Green Banks fill the financing gap and draw in the capital needed to make clean energy markets grow

*A green bank is a public financing authority that leverages private capital with limited public-purpose dollars to accelerate the growth of clean energy markets*



# Green Bank is a publicly capitalized institution that channels public and private investment



# Green Bank plays dual role of increasing the flow of capital and building market to increase demand

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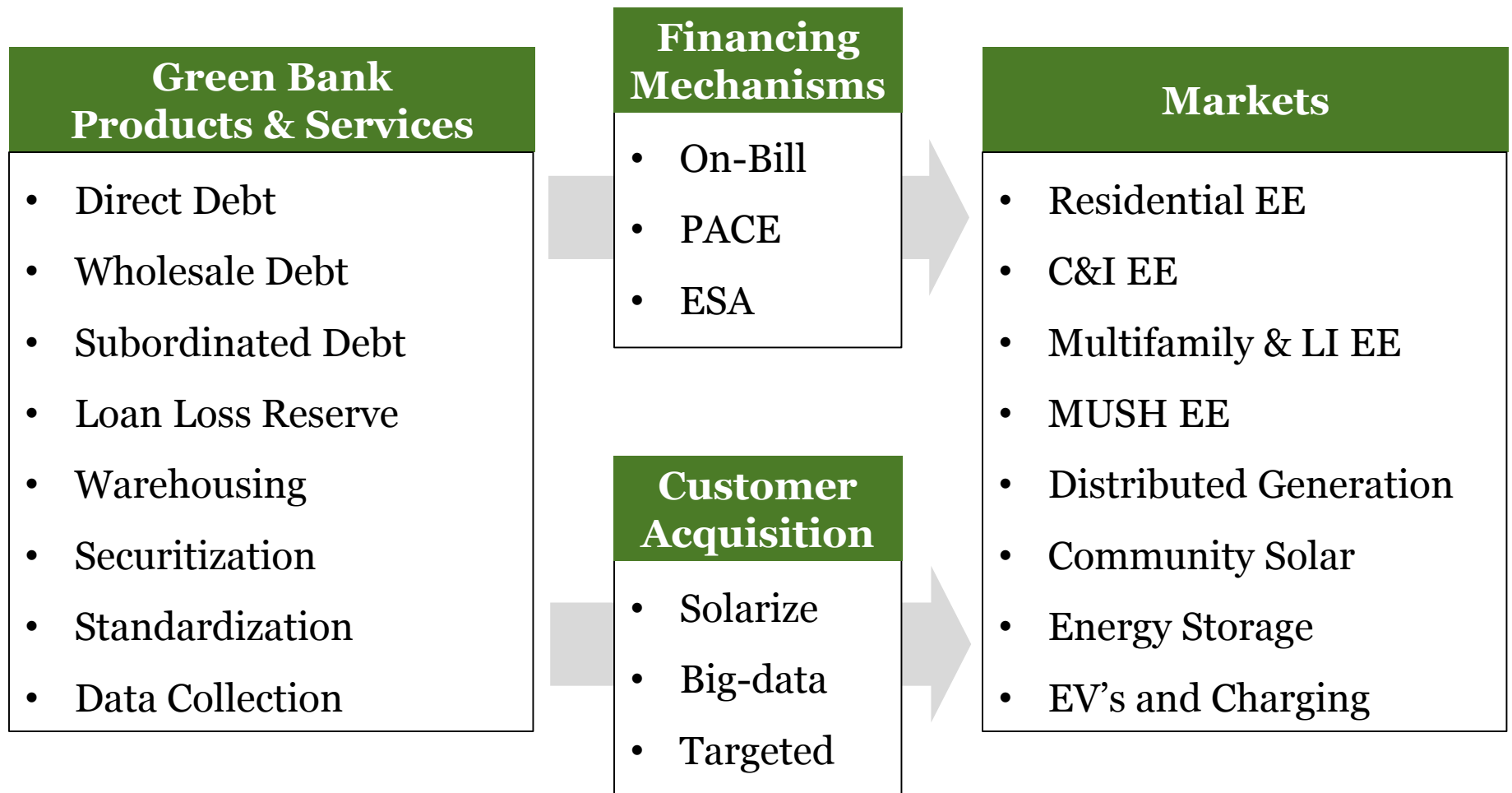
## Financing Projects

- Leverage public dollars
- Stimulate private investment
- Fill market gaps

## Generating Demand

- Turn-key solutions
- Support full market ecosystem
- Minimize customer confusion

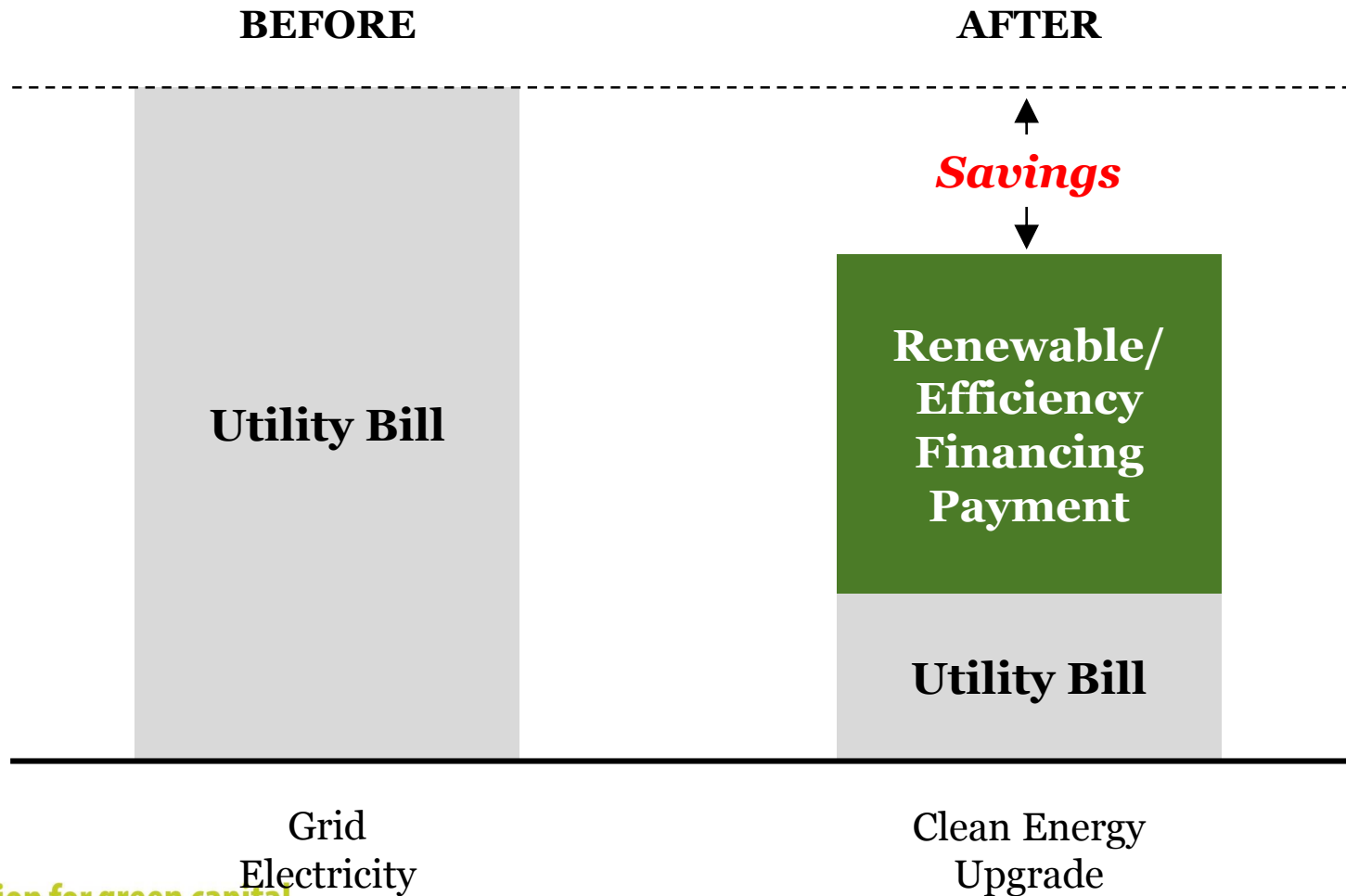
# Range of financial tools, applied to prioritized markets, through innovative structures





# Financing structured so that repayment plus remaining utility bill are less than prior utility bill

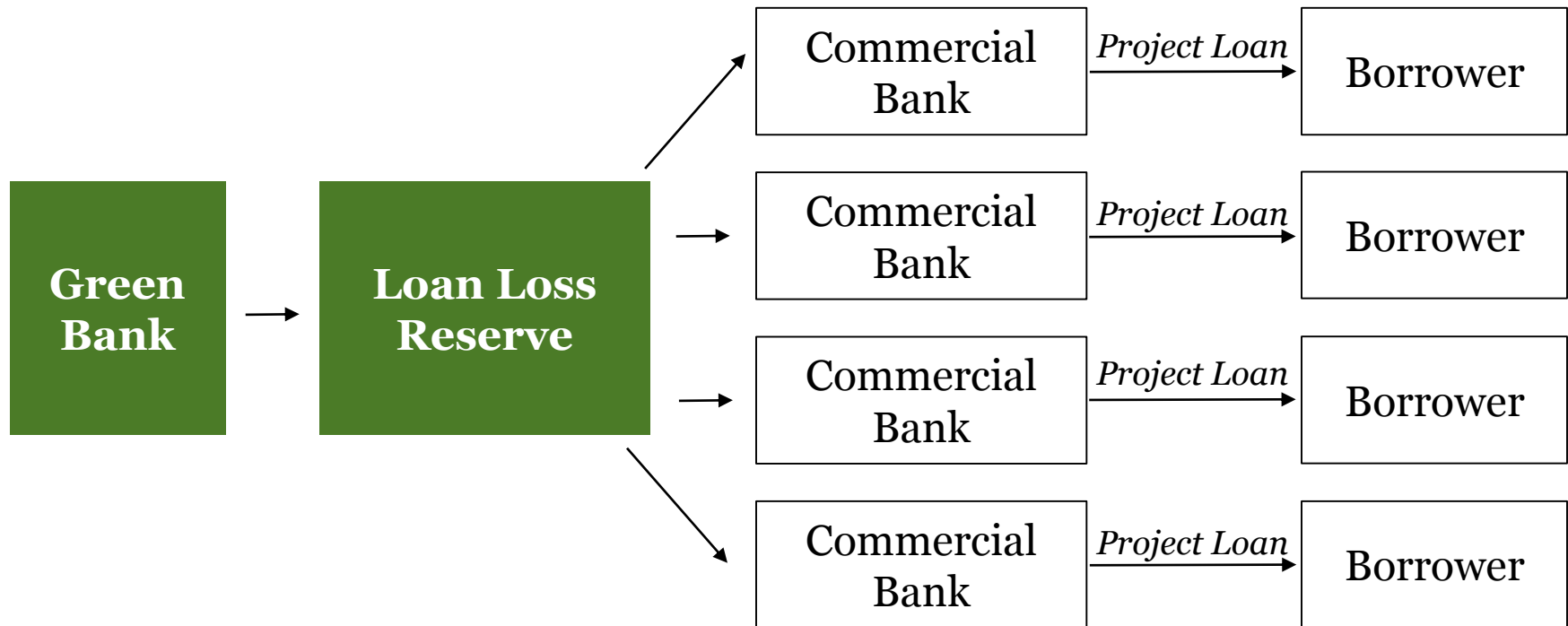
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One example Green Bank product uses public dollars to credit enhance private loans for home upgrades

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## Hypothetical Model for Standard Offer LLR



# Green Banks create jobs and economic development with local investment

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## More Jobs for Contractors

- **Increased Demand**
  - Greatest barrier to adoption of clean energy technology is the upfront cost
  - Public-private financing eliminates that barrier, enables demand for clean energy services
- **More Local Jobs**
  - Trained professionals with good wages needed to install equipment
  - Must be done locally, jobs cannot be outsourced
  - More demand and an expanding market meets new businesses

## New Investments for Lenders

- **New Profitable Opportunities**
  - Green banks stimulate market growth, create demand for financing products
  - Lenders become active in growing, low-risk market
  - Lenders can expand business
- **Early Safety Net**
  - Green Bank partnership provides initial assurance about risk
  - Credit enhancements encourage market entry
  - Lenders can learn about market structure with govt security

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# Green Banks are quickly spreading across U.S.

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## *Green Banks Operating Or Under Development/Consideration*



# Green Banks operating around the world



Sources: OECD, "Green Investment Banks – Policy Perspective."

# Each government takes a different path to Green Bank creation

	Connecticut	New York
<b>Objective</b>	Create a dedicated institution that will deploy cheap and clean energy by financing mature clean energy technologies	Create a dedicated finance institution to animate private capital markets and increase total investment in clean energy
<b>Conditions</b>	<ul style="list-style-type: none"> <li>• Existing quasi-public grant-making entity with mixed mission</li> <li>• Large annual system benefit charge collected from ratepayers.</li> <li>• Newly elected governor sought to reform state energy apparatus</li> <li>• Bipartisan support for action</li> </ul>	<ul style="list-style-type: none"> <li>• Large existing state energy agency already had legal authority to provide financing</li> <li>• Large annual system benefit charge collected from ratepayers</li> <li>• Strong Governor support from the outset</li> <li>• Regulator controlled money</li> <li>• Unclear legislative path</li> </ul>
<b>Solution</b>	<u>Repurpose existing entity</u> into green bank through <u>legislation</u> , funded with a portion of the existing system benefit charges and RGGI proceeds	Create <u>new green bank division</u> of existing state energy agency and <u>petition regulator</u> to repurpose system benefit charge to capitalize the green bank

# ...More examples of Green Bank creation

	Rhode Island	Montgomery County, MD
<b>Objective</b>	Spark economic growth, create jobs and lower energy costs by deploying clean energy with financing mechanisms	Create a dedicated clean energy finance institution to reduce emissions, lower energy costs and help meet County environmental goals
<b>Conditions</b>	<ul style="list-style-type: none"> <li>• Newly-elected Governor campaigned on platform for green bank</li> <li>• Minimal desire to create new institution</li> <li>• Existing system benefit charge not a viable pool of funds</li> <li>• Governor sought quick action</li> </ul>	<ul style="list-style-type: none"> <li>• No desire to create new government institution</li> <li>• Quasi-public instrumentality would require state approval</li> <li>• County's electric utility in the midst of a large merger</li> <li>• No pool of existing public funds</li> </ul>
<b>Solution</b>	Through annual <u>budget bill</u> , expanded <u>existing quasi-public</u> water financing authority to become state infrastructure bank. Modest start-up funding paired with existing <u>bonding authority</u> .	Legislation directing an <u>independent non-profit be incorporated</u> to receive County's designation as the Green Bank. Funded by <u>utility-merger settlement</u> payment, negotiated by County with utility to secure County merger approval.



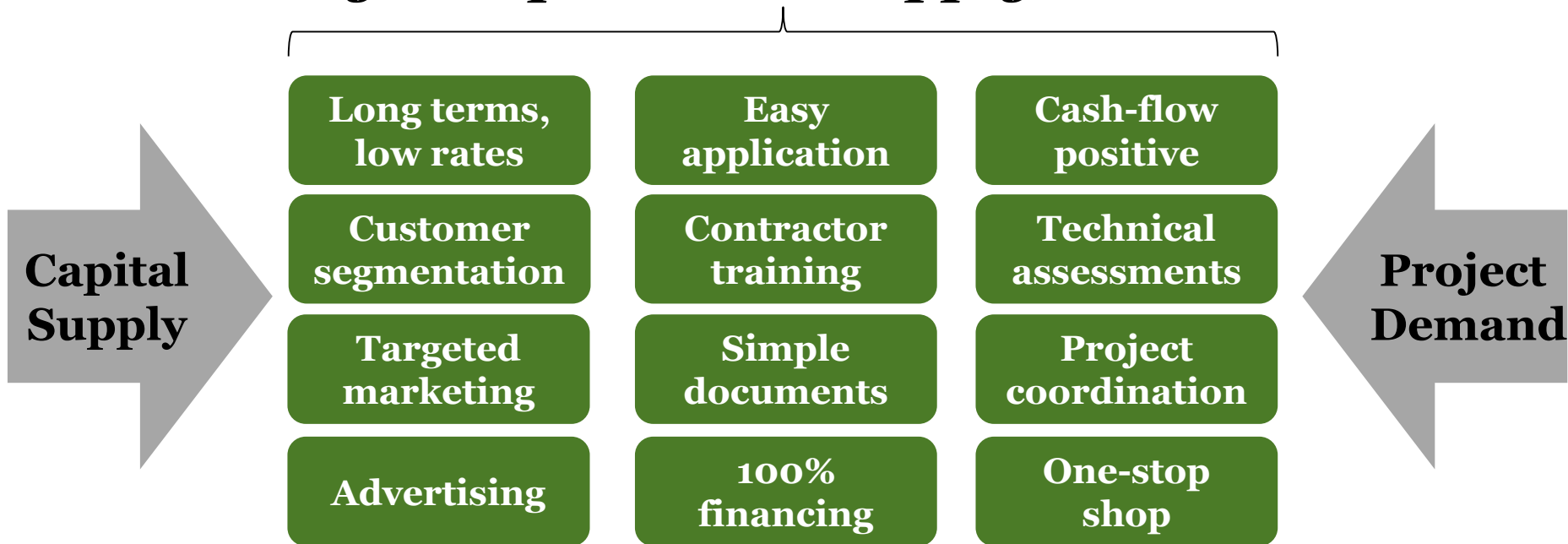
# Lessons Learned – Green Bank Operation

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- **Experiment, Measure & Adjust**
  - It is ok to fail, learn from it and try something different; be flexible
- **Use the Whole Tool Box**
  - Credit enhancements, loans, leases, REC purchasing, contractor training, issue bonds, warehousing, technical assistance – the market needs all of this
- **Target Specific Markets**
  - Hard to make one solution work for all markets
- **Design Products For Ease of Use**
  - Easy to explain to contractors, easy for consumers to understand
- **CANNOT JUST OFFER CAPITAL**

# Green Banks help bridge the long gap between capital supply and demand for clean energy

## *Green Bank Market Development Activity Bridges Gap Between Supply & Demand*



*All of this activity must occur to reduce barriers to demand – some can be done by green bank, some done by private partners*

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# Green Bank Trends

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- Green Banks moving to new Purple & Red states
- Demand, demand, demand!!
- Must make clean energy accessible to all
- Federal government supports Green Banks
- Global recognition of Green Bank role after Paris

# Federal Green Bank Legislation re-introduced, taking the CT model nationwide

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- Senator Chris Murphy (CT) and Rep. Chris Van Hollen (MD) introduced Green Bank Act of 2016
- Originally introduced in 2009 with strong bi-partisan support, passed House of Reps
- Bill updated based on success of CT, recognizes state role
  - The Federal Green Bank will be pass-through mechanism
  - Will solely exist to capitalize regional/state/local Green Banks
  - If Green Bank meets federal definition, it is eligible for funding
  - Federal Green Bank will not do any direct project finance



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# Thank You & Appendix

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