



coalition for green capital

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

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CT Exploring Climate Solutions

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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

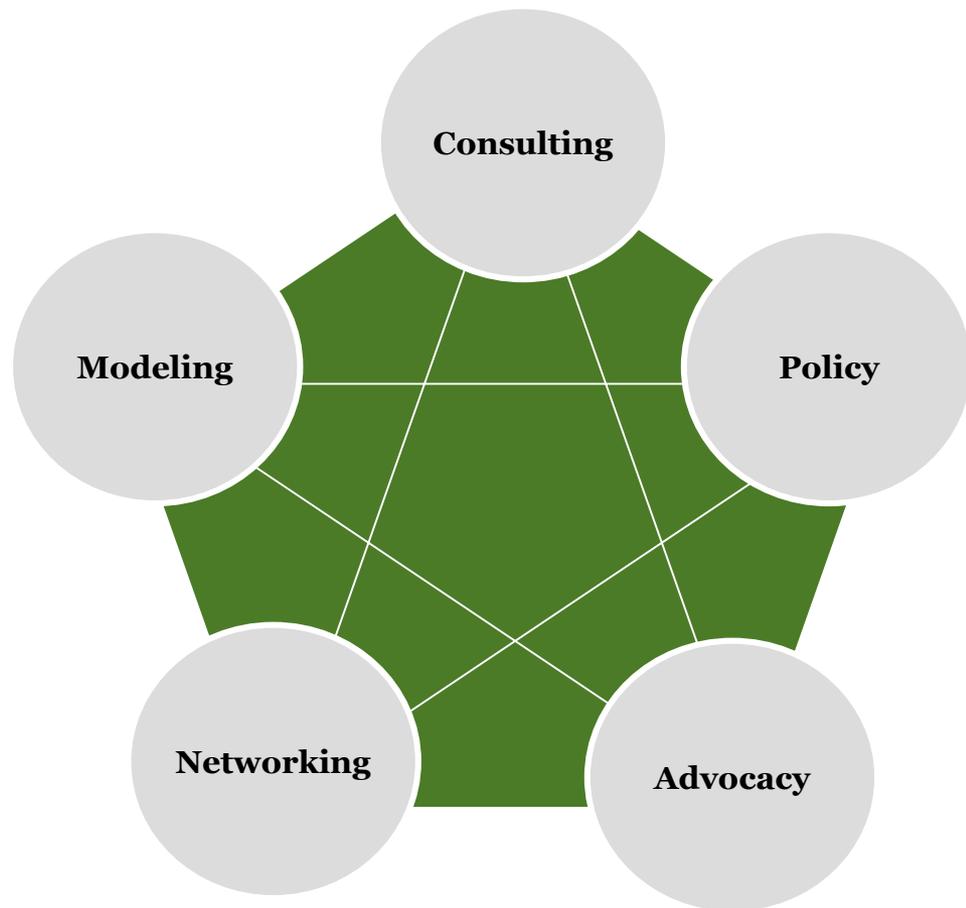


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Many large projects – fossil & renewable – can access financing, but not so for distributed projects

Centralized Projects

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

Distributed Projects

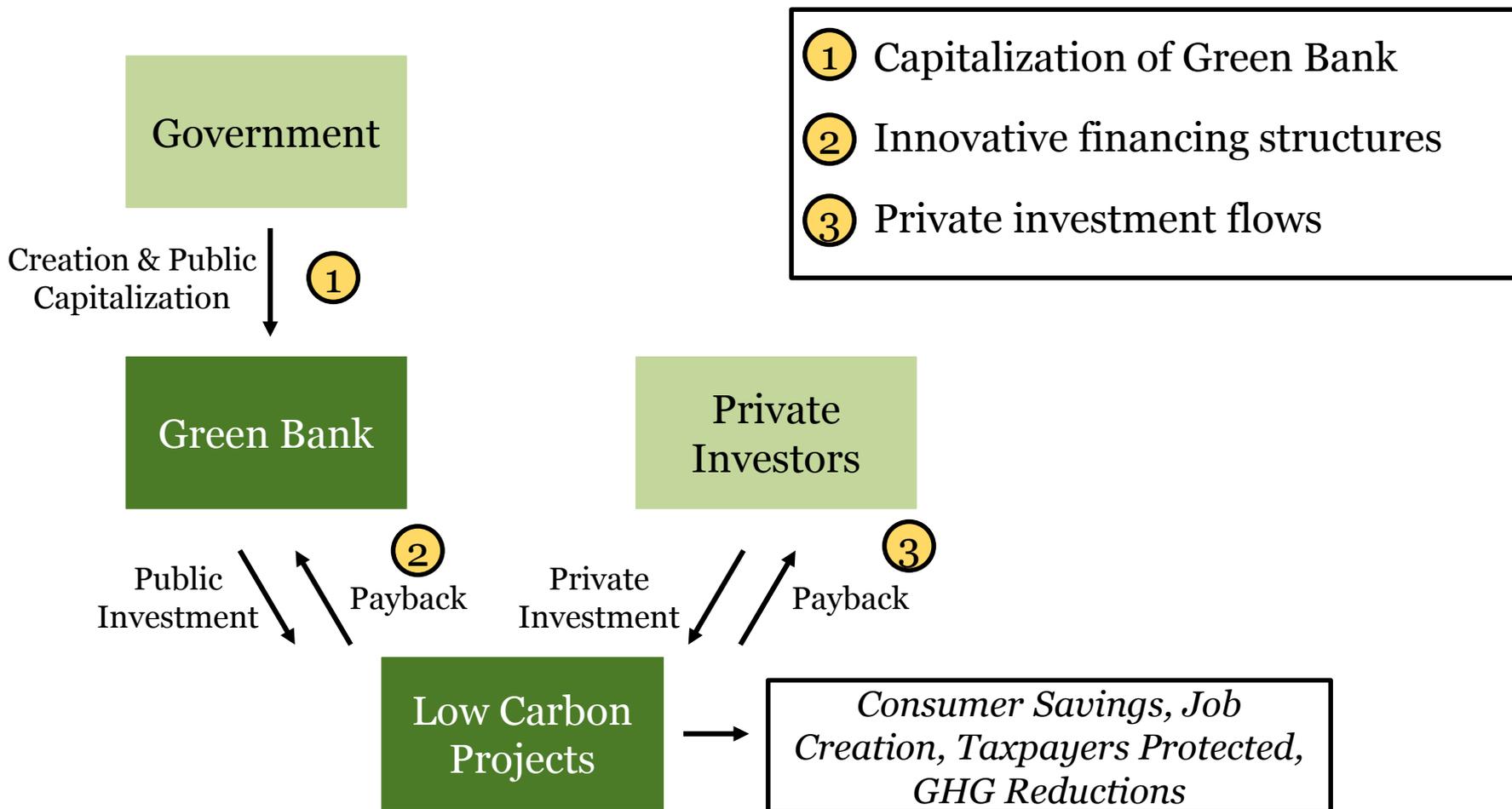
- Smaller scale
- Scattered locations
- On-site energy use
- Varying credits
- Range of structures and approaches to finance

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

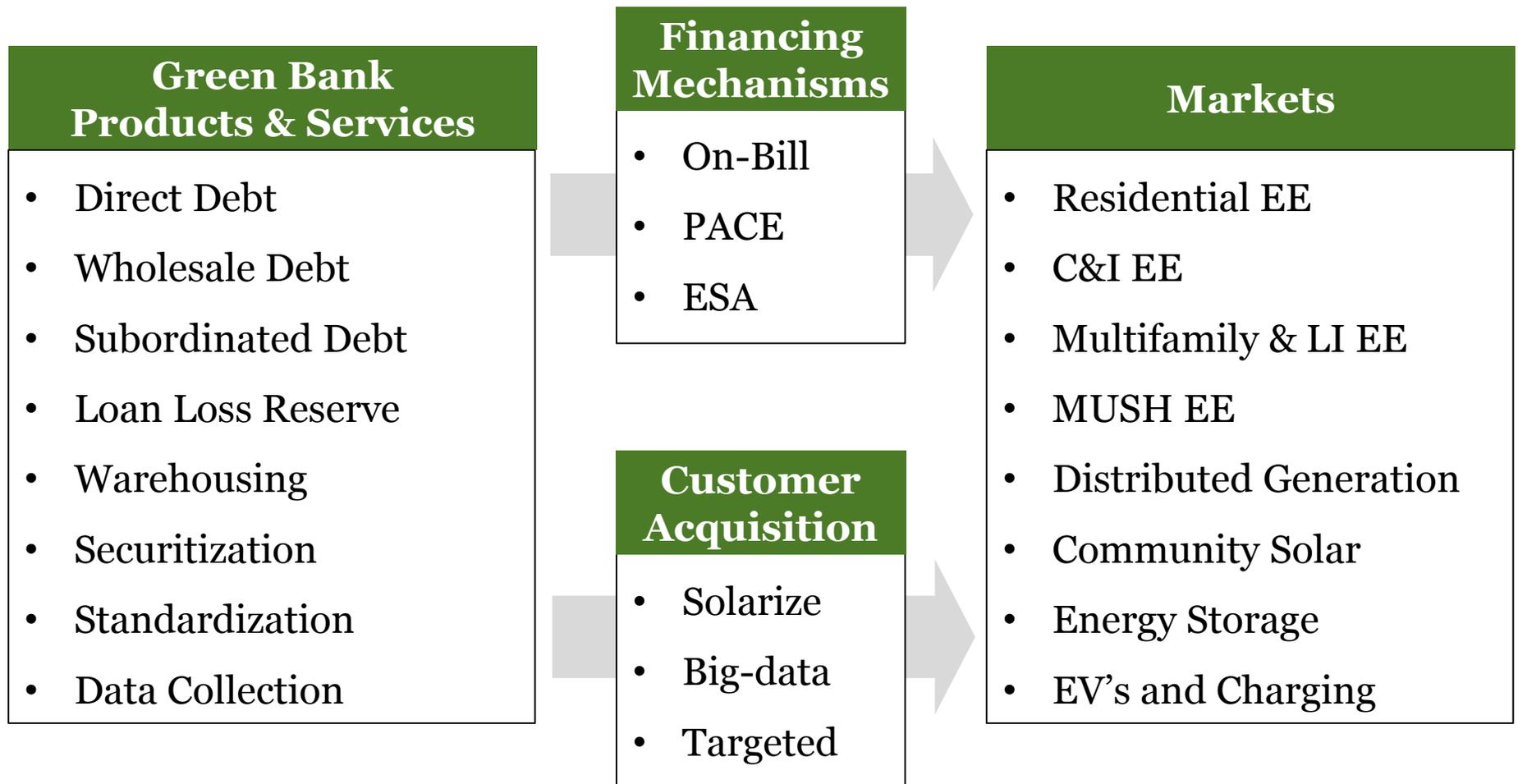
Financing Projects

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

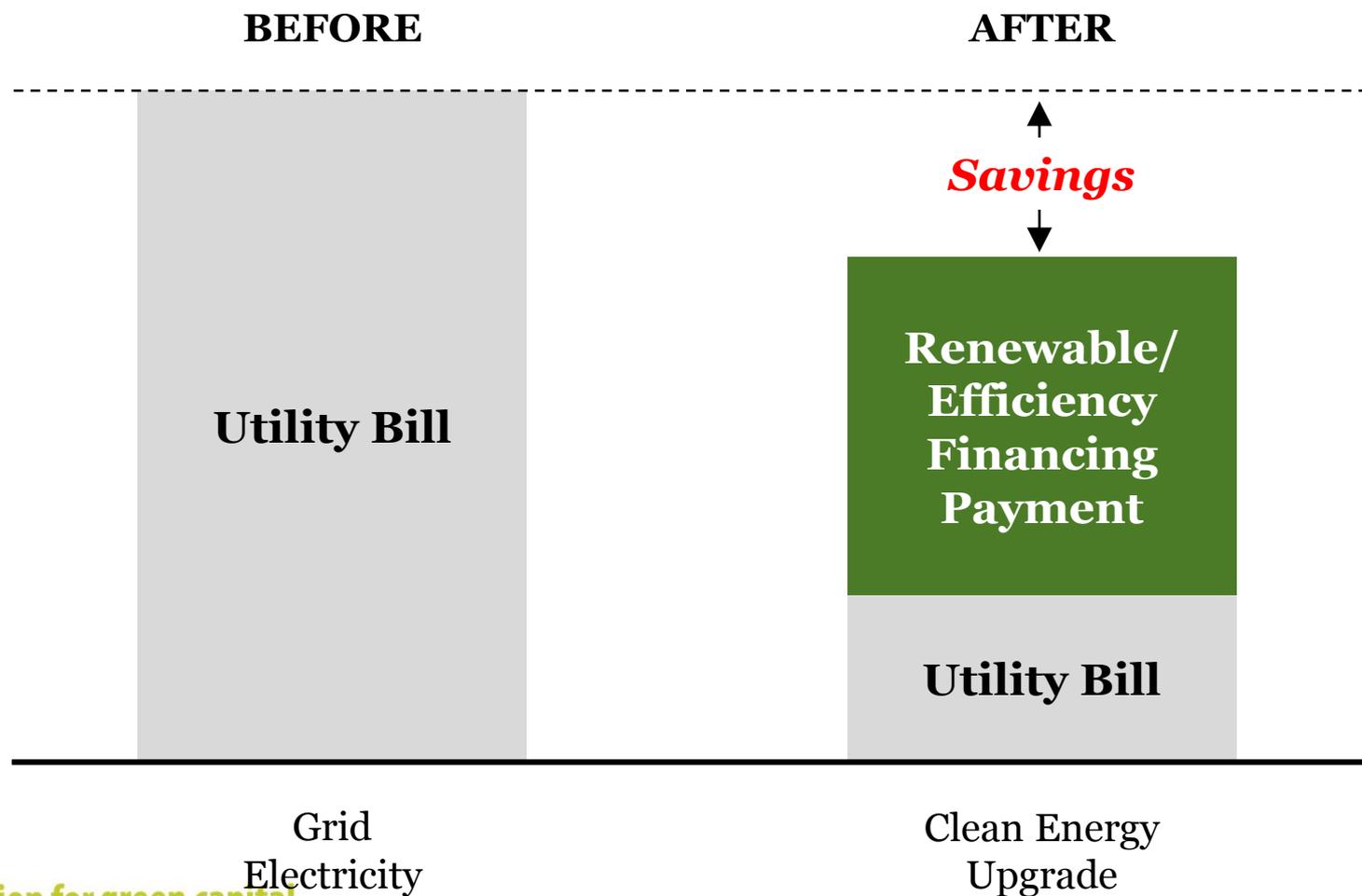
Generating Demand

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

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

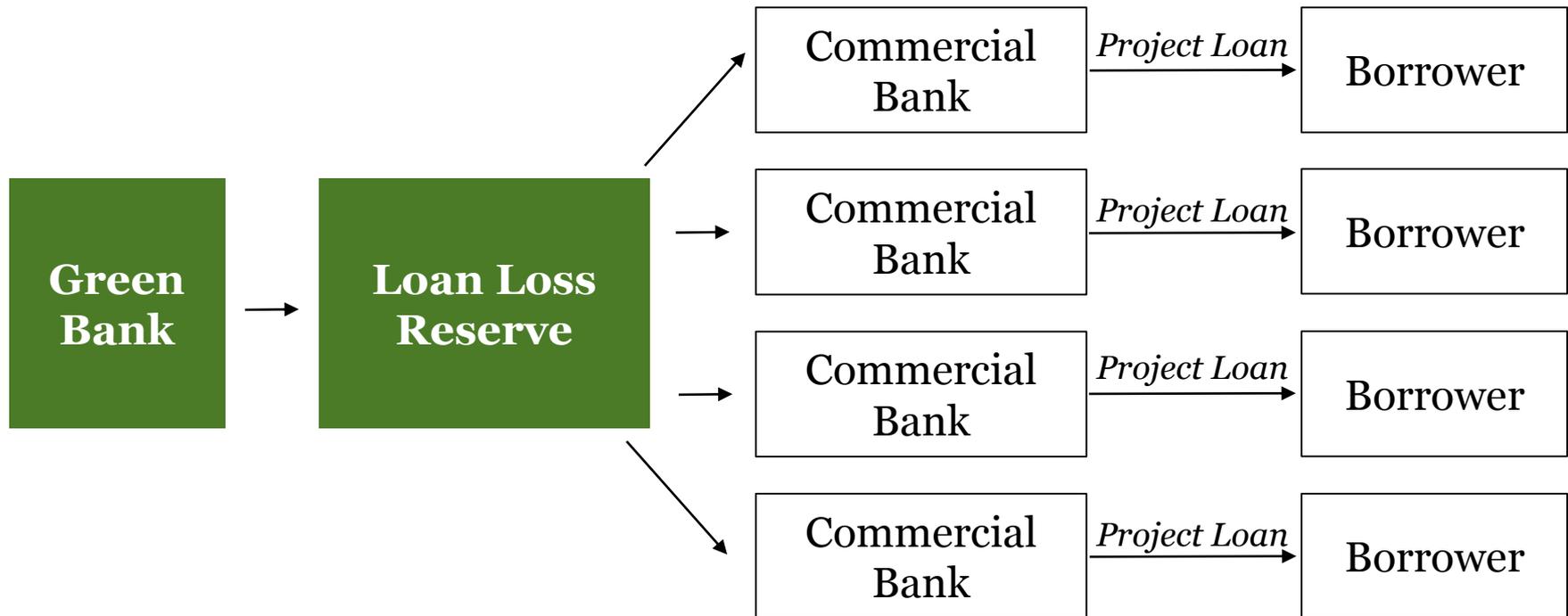


Financing structured so that repayment plus remaining utility bill are less than prior utility bill



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

Hypothetical Model for Standard Offer LLR



Green Banks create jobs and economic development with local investment

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.

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
Objective	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
Conditions	<ul style="list-style-type: none"> • Existing quasi-public grant-making entity with mixed mission • Large annual system benefit charge collected from ratepayers. • Newly elected governor sought to reform state energy apparatus • Bipartisan support for action 	<ul style="list-style-type: none"> • Large existing state energy agency already had legal authority to provide financing • Large annual system benefit charge collected from ratepayers • Strong Governor support from the outset • Regulator controlled money • Unclear legislative path
Solution	<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

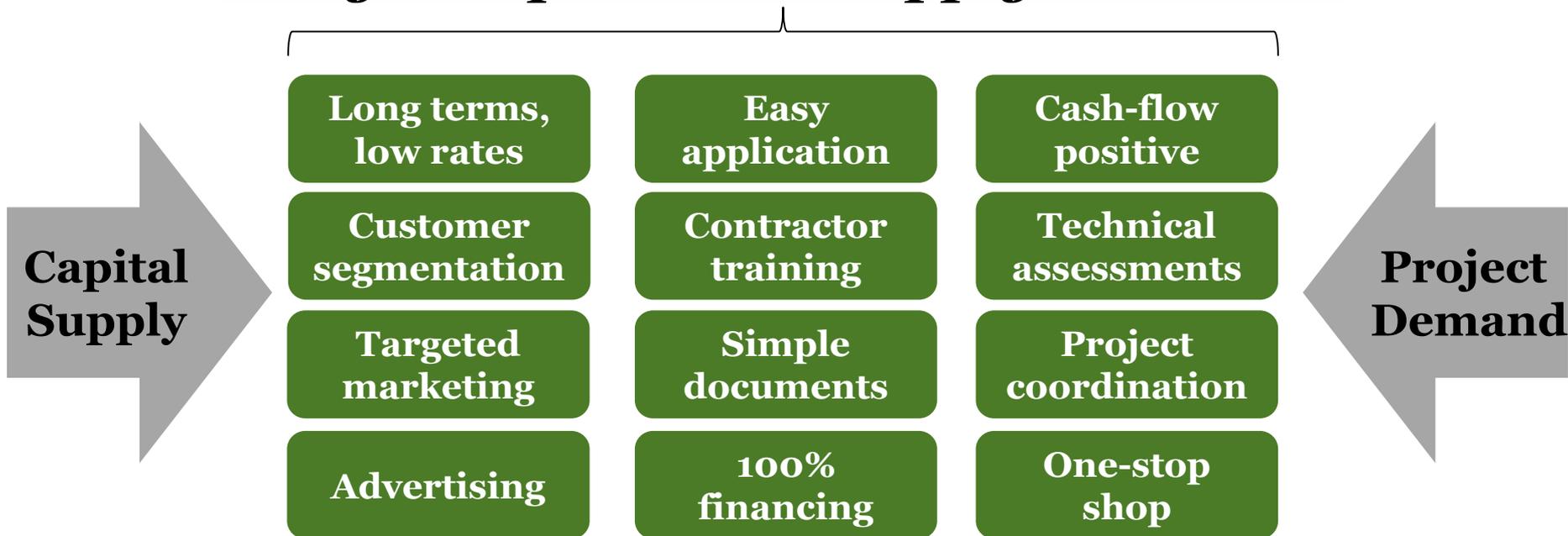
	Rhode Island	Montgomery County, MD
Objective	Spark economic growth, create jobs and lower energy costs by deploying clean energy with financing mechanisms	Create a dedicated clean energy finance institution to reduce emissions, lower energy costs and help meet County environmental goals
Conditions	<ul style="list-style-type: none"> • Newly-elected Governor campaigned on platform for green bank • Minimal desire to create new institution • Existing system benefit charge not a viable pool of funds • Governor sought quick action 	<ul style="list-style-type: none"> • No desire to create new government institution • Quasi-public instrumentality would require state approval • County's electric utility in the midst of a large merger • No pool of existing public funds
Solution	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

- **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

- 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

- 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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