



coalition for green capital

National Climate Bank: Investing to Win the War Against Climate Change

Coalition for Green Capital

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Trillions of dollars needed to lower emissions and win war on climate change, but not coming fast enough



Climate Bank is now a leading proposal to tackle climate change as part of comprehensive federal policy

Drive \$1T of Investment to Reduce GHG

Transition to Clean Economy while Lowering Prices

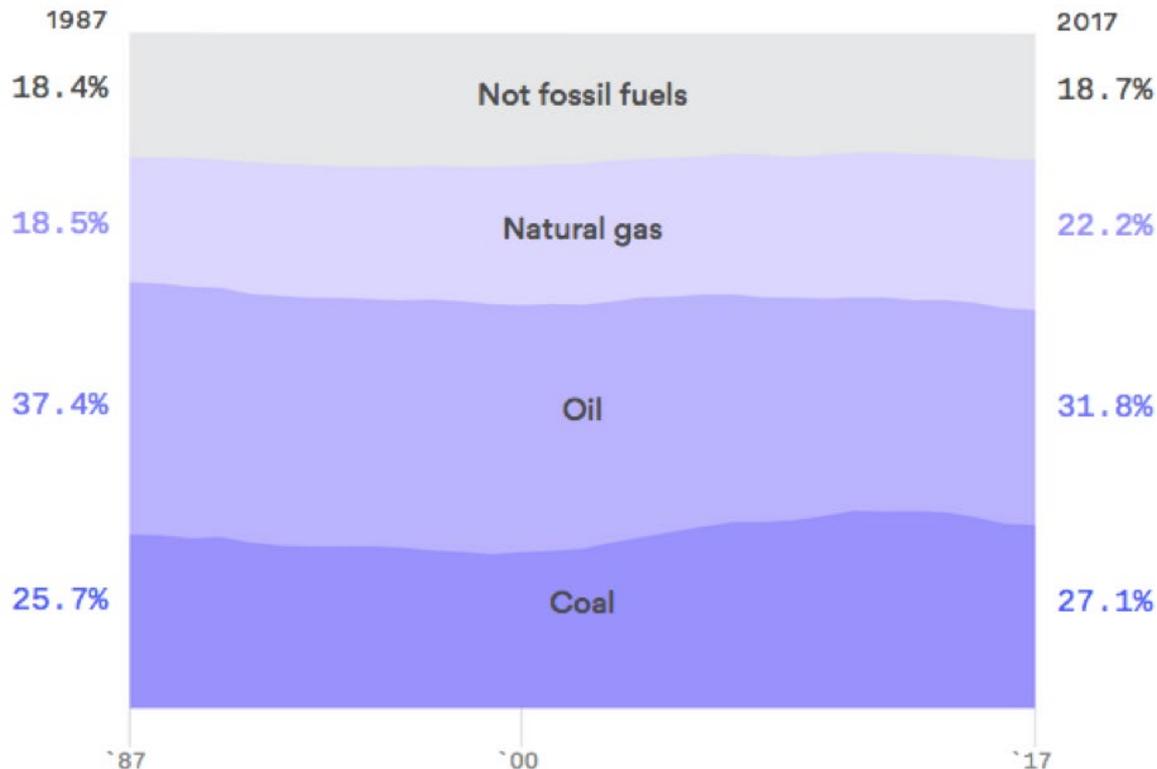
Unleash Private Investment that Still Earns Returns

Target Low-Income & Frontline Communities

Work in Tandem with Other Climate Policies

Current investment not nearly enough; three decades of effort is sadly negligible

Global energy consumption share by source, 1987–2017



Data: IEA; Note: Coal, includes all coal, peat and oil shale. Oil includes primary and secondary oil products; Chart: Naema Ahmed/Axios

National Climate Bank will use public funds to drive private investment to reduce emissions, earn returns



- New proven technologies coming to market quickly and **can generate strong returns** for capital
- **But several barriers** – perceived risk, market complexity, scale, novel structures – have produced **low market penetration**
- Climate Bank will **address barriers**, create **enormous markets**, let private **capital flow at scale**

Climate Bank has quickly become priority of congressional leaders creating blueprint of 2021 climate action

Senators Markey and Van Hollen Introduce Legislation to Create a National Climate Bank



Rep. Debbie Dingell @RepDebDingell · Dec 12, 2019

This **bank** will help implement and drive investments in clean infrastructure to address the **climate** crisis and achieve a **#100by50** target, while seizing the opportunity to build a clean and robust economy.



Dingell Leads House Bill to Establish a National Climate Bank to Finance the Clean Economy Transi...

debbiedingell.house.gov



“This bill **establishes a first of its kind National Climate Bank** to help our states, help our communities, and help our companies in the transition to a clean economy” – Energy Subcommittee Chairman Rep. Paul Tonko announcing key provisions of CLEAN Future Act

And now a favored policy of numerous presidential candidates

WARREN

MY PLAN TO CREATE 10.6 MILLION GREEN JOBS

A NEW GREEN BANK

A Green Bank is among the best ways to ensure a dedicated funding stream for an economy-wide climate transition to reconcile the scale of investment required with the speed of transition necessary to defeat the climate crisis. I'll work with Congress to establish a bank modeled after and expanded upon the **National Climate Bank Act**, introduced earlier this year by my friend and



American Clean Energy Bank. Building on the success of green banks in states, the American Clean Energy Bank will have \$250 billion of initial capitalization. It will provide loans, grants, credit enhancements, and loan guarantees to finance clean energy technologies and energy efficiency, waste and water, and resilient infrastructure projects that create good local jobs, through which the bank can leverage up to six times more private-sector capital.¹⁰ These

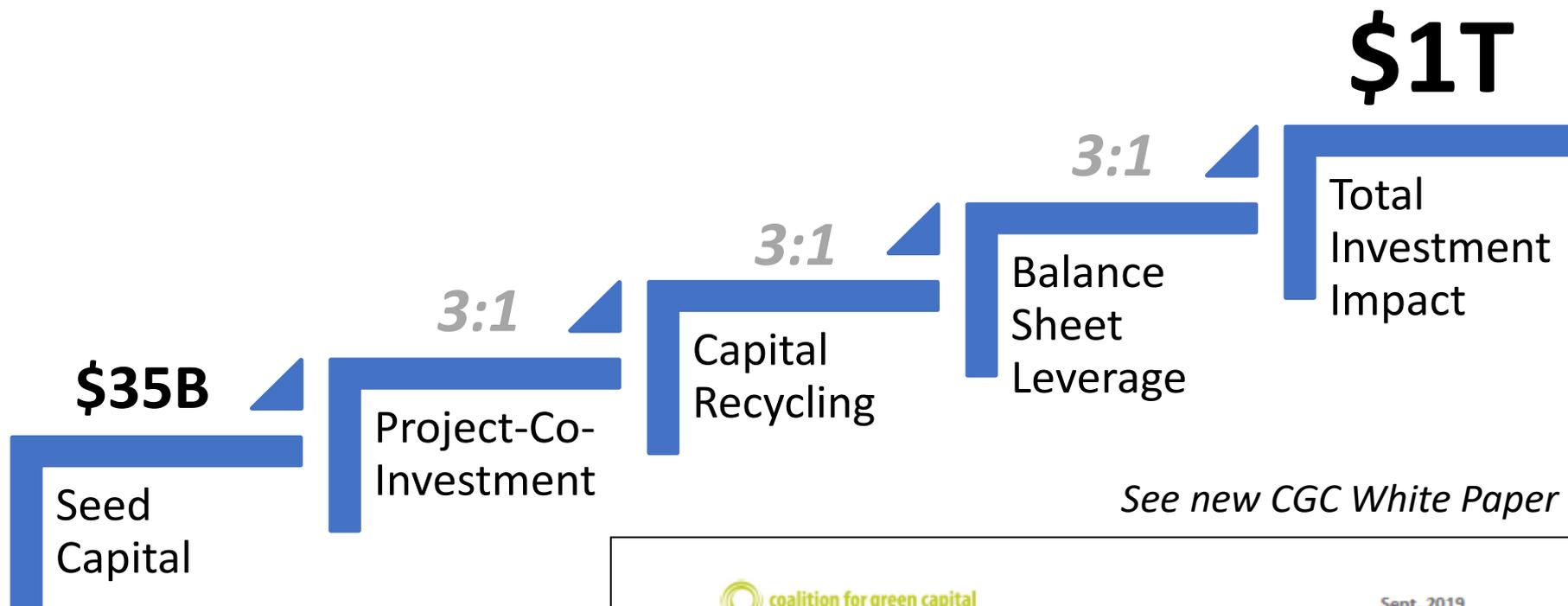
JAY INSLEE'S
EVERGREEN ECONOMY
PLAN

- **Clean Energy Deployment Authority (CEDA or “Green Bank”):** Governor Inslee’s plan will charter a new federal financing authority to catalyze increased and swifter investment into clean energy projects and other initiatives that reduce climate pollution; put Americans to work; and ensure affordable energy. Green Bank financing can accelerate deployment of proven technology, and lower costs for ratepayers and families. The CEDA is modeled on the Clean Energy Deployment Administration first proposed in 2009 by then-Rep. Jay Inslee and the late Rep. John Dingell (D-MI).¹¹ It is also built on the proven

National Climate Bank Act creates non-profit entity to catalyze private investment that lowers emissions

- **Newly formed Non-profit Climate Bank is NOT A BANK**
 - Not a regulated, depository institution
 - Non-partisan, non-profit, market-oriented specialized finance company
- **Receives \$35 billion public funds to invest in GHG reduction**
 - Will use funds to catalyze multiples of private co-investment
- **Uses “Green Bank” model to crowd-in capital, not compete**
 - Green Banks around the country and world have shown this works
- **Bills in Senate & House, part of CLEAN Future Act in the House**
 - Senate bill from Sens. Markey, Van Hollen, Blumenthal & Schatz (S 2057)
 - House bill from Reps. Dingell, Tonko, Blunt Rochester & Axne (HR 5416)

Climate Bank can turn \$35B of public funds into \$1T of private investment to reduce emissions



See new CGC White Paper



Sept. 2019

Mobilizing \$1 Trillion Towards Climate Action
An Analysis of the National Climate Bank

Use range of tools to reduce emissions across sectors, “crowd in” private capital and strengthen communities

Target Sectors

- Transmission, renewable power generation, storage, transportation, electrification, efficiency, industry, agriculture, climate-resilient infrastructure

Finance Toolkit

- Senior, mezz, subordinated debt
 - Loan syndication
- Credit enhancement, guarantees
 - Warehousing, aggregation, securitization

Prioritization

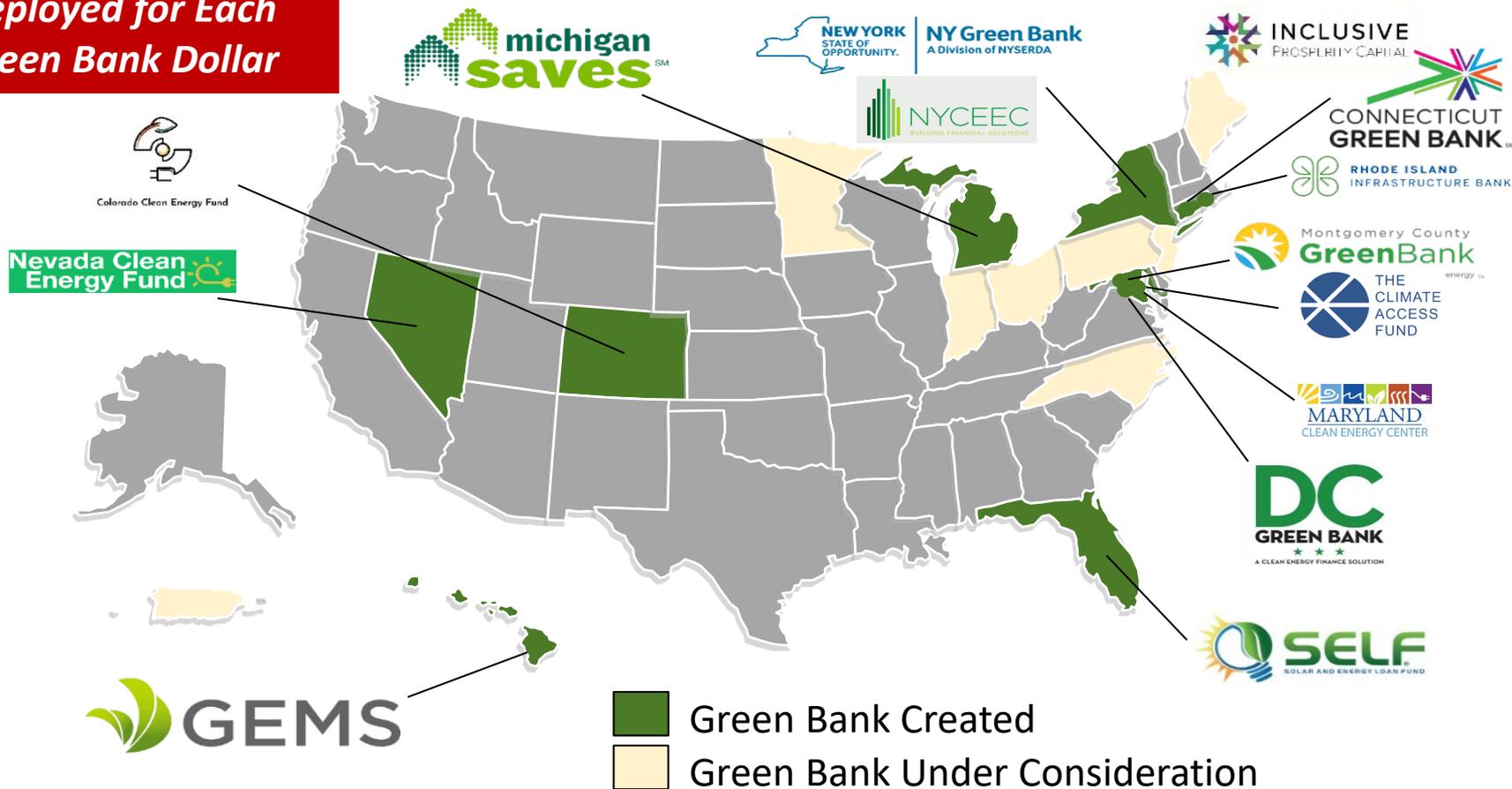
- Projects that deliver maximum benefits to consumers
- Projects in disadvantaged communities most effected by climate change

Field Building

- Work with developers to build pipeline of projects
- Create state, local Green Banks
 - Support finance of smaller projects with local lenders

Experience counts! Green Banks in the U.S. have already driven \$4B of investment; can apply lessons learned

**\$3 of Private Capital
Deployed for Each
Green Bank Dollar**



With Climate Bank finance, state and local Green Banks could be numerous across the country

- Climate Bank to build lending network across the country
- “Start-Up Division” will provide assistance to form new Green Banks
- Climate Bank provides capital to all Green Banks
- Similar to CDFI model – designated and funded by govt, driving private and philanthropic investment

**Over 1,000 CDFIs Across U.S.
with \$108B in Assets**



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Sept. 2019

Supporting State and Local Green Banks
An Analysis of the National Climate Bank

See new CGC White Paper

Notes & Sources: American Green Bank Consortium;
http://www.lisc.org/media/file_public/8f/21/8f21577d-bcf1-4b23-a180-f59a581558b0/011118_resource_report_cdfi_impact_investing_final.pdf; Opportunity Finance Network.

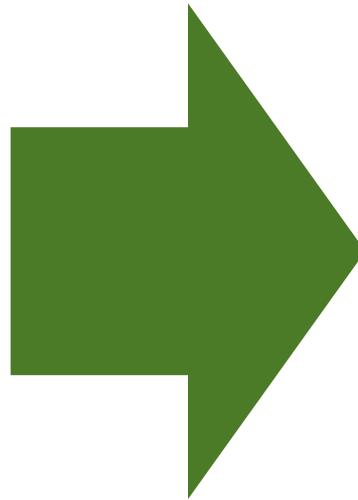
Climate Bank will target specific barriers to investment

Barrier to Investment	NCB Solution	Context
Perceived project risk	Credit enhancement	Loan loss reserve from NCB can mitigate risk and allow investment to flow at longer term of lower rate
Inefficiencies of scale	Aggregation & Warehousing	NCB can aggregate multiple small projects to meet scale to attract private capital
First-of-kind transaction	Technical assistance	NCB will put in technical legwork that comes with closing more labor-intensive innovative transactions
Marginal economics	Co-investment	NCB can lend to project, in senior or junior position, to improve overall economics for investors and customers

If a project is perceived as too risky, private capital stays on the sideline, but the NCB can mitigate the risk

PERCEIVED RISKS SLOW INVESTMENT

- **Off-taker risk** – lower credit scores, short-track record, hard to underwrite
- **New applications of technology** – Tech is proven, but never used in the way proposed
- **Market uncertainty** – Concern about changing policies, regs, market economics



CLIMATE BANK SOLUTIONS

- Full or partial **loan guarantees** let commercial lenders enter a new market with confidence
- **Loan loss reserves** can minimize cash flow uncertainty
- **Subordinated debt** can create a buffer and fill unmet capital need

Many projects are small and disaggregated, but a financial intermediary can aggregate for scalable investment

Institutional Investor or
Large Commercial Bank



*Capital doesn't flow because
projects are too small, not cost-
effective for large capital
providers*



Commercial building
efficiency projects



Institutional Investor or
Large Commercial Bank

Climate
Bank

Seed \$

Take-Out
Finance

Aggregated
Payments

Warehouse
Facility

Project
Finance

Repayment

Commercial building
efficiency projects



New or novel transactions can be expensive, but the Climate Bank can show the way and absorb costs

“Part of the role of Green Banks is to incur the **brain damage** that it takes to figure out how to do **complex, first-of-kind transactions** so that private investors can learn from us and **then repeat at scale.**”
- *NY Green Bank President Alfred Griffin*

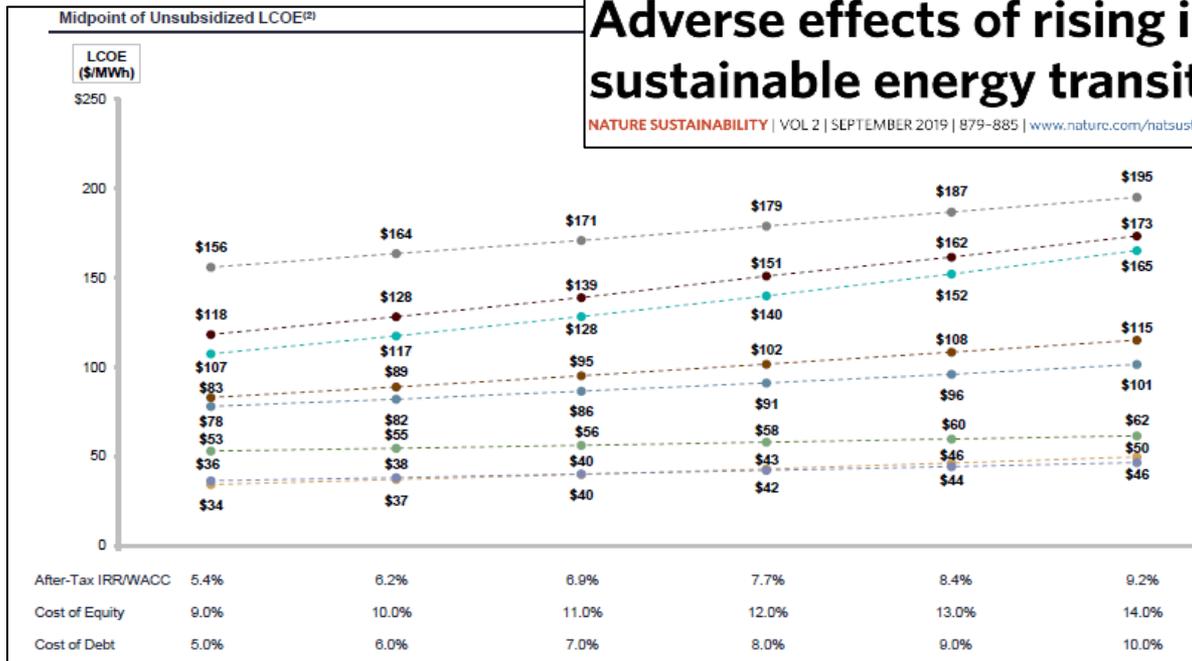


Biggest potential unlocked by addressing adverse project economics in untapped markets across the country

Adverse effects of rising interest rates on sustainable energy transitions

NATURE SUSTAINABILITY | VOL 2 | SEPTEMBER 2019 | 879-885 | www.nature.com/natsustain

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What is the unaddressed market? Over 75% of solar installations in the US are in only 9 states. And in none of those 9 states is penetration greater than 11%.

Real Example: OH solar market dead, but can animate solar market by blending NCB capital with commercial bank

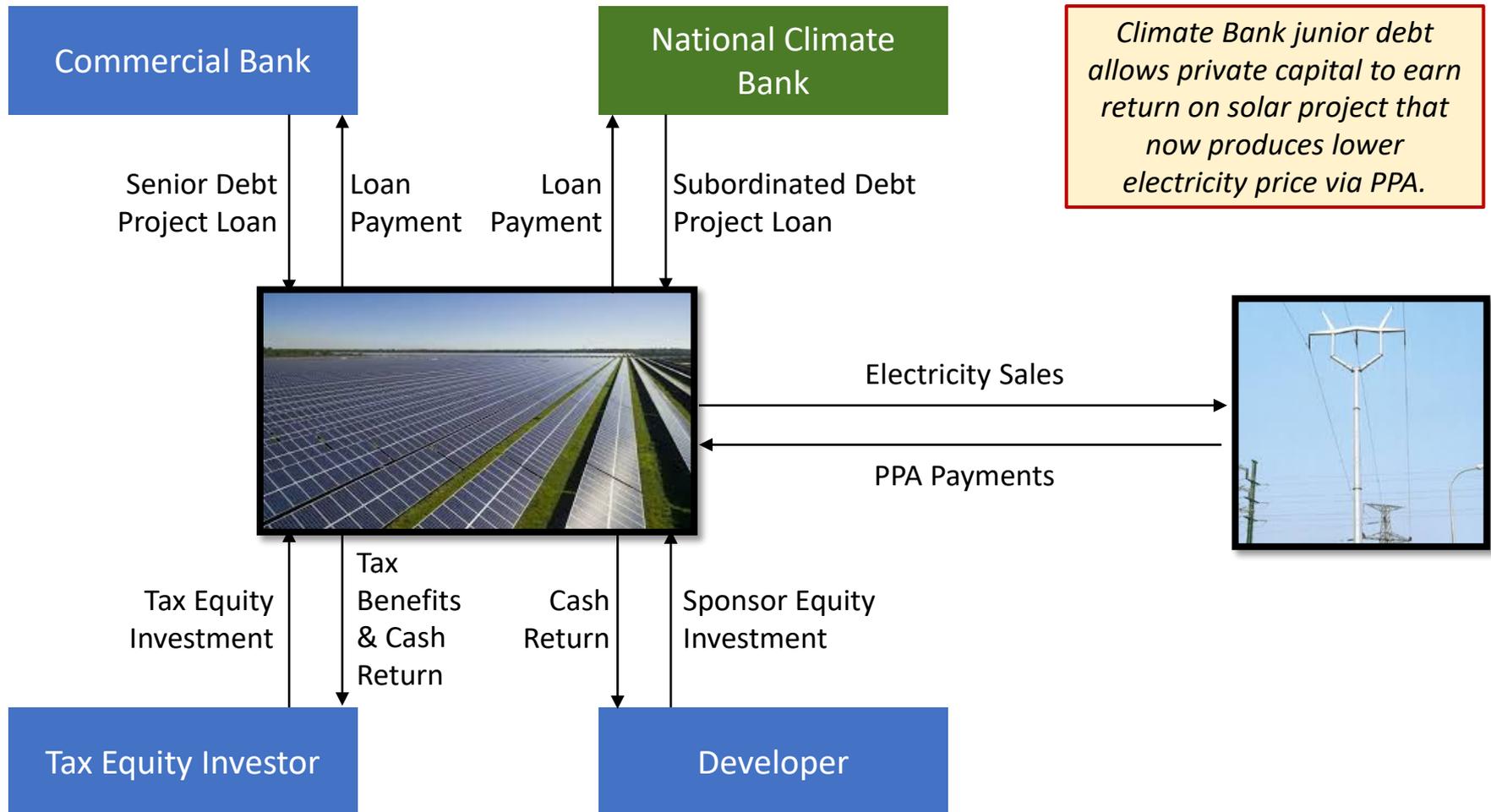
The price of solar offered to the customer falls if project's total cost of financing goes down.

Commercial banks can earn returns and customers get attractive solar by blending Climate Bank capital.

Real-time updates: CGC working in Cuyahoga County, OH to open up commercial solar market with Green Bank.

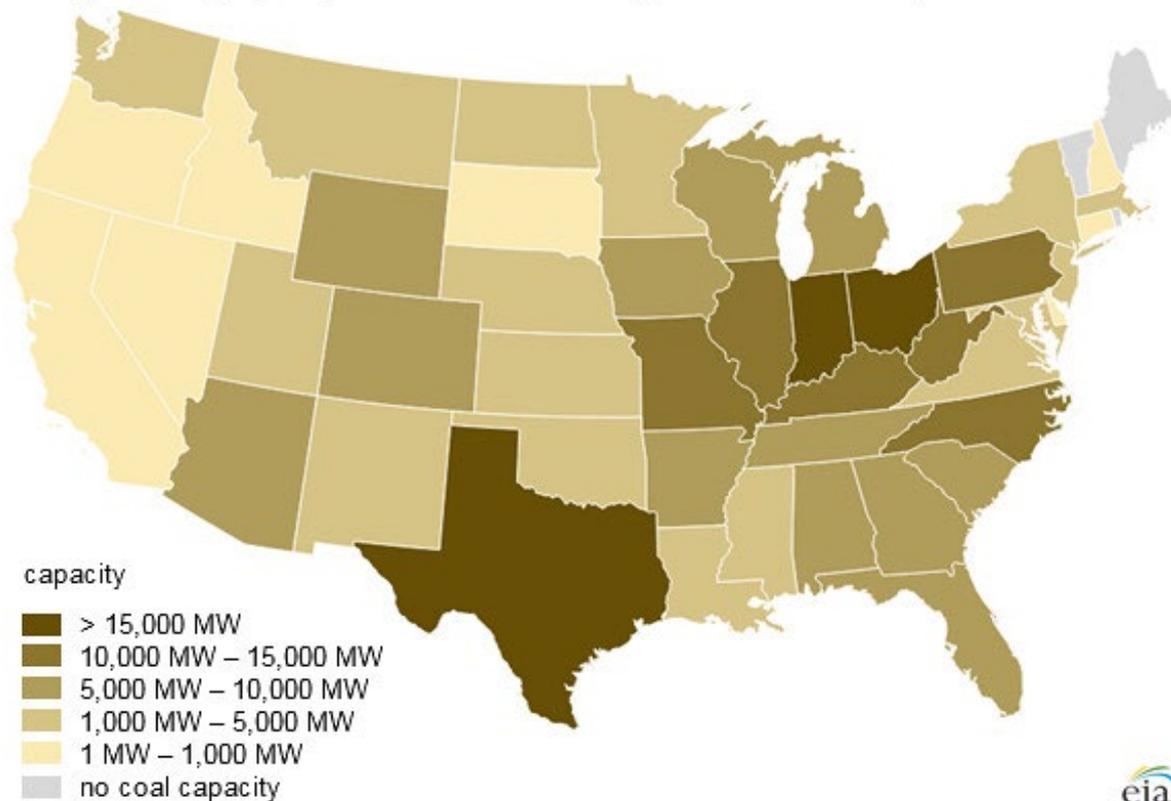
			Green Bank Debt Term			
			7 YR	10 YR	15 YR	20 YR
		\$0.0979 <i>(Current Commercial Electricity Rate, Ohio)</i>				
Green Bank Debt Rate	1.0%	Initial PPA Rate (\$/kWh) <i>Savings from Current Rate</i>	\$0.0841 14.1%	\$0.0813 17.0%	\$0.0770 21.4%	\$0.0733 25.1%
	2.0%	Initial PPA Rate (\$/kWh) <i>Savings from Current Rate</i>	\$0.0855 12.7%	\$0.0831 15.1%	\$0.0795 18.8%	\$0.0764 22.0%
	3.0%	Initial PPA Rate (\$/kWh) <i>Savings from Current Rate</i>	\$0.0869 11.2%	\$0.0851 13.1%	\$0.0822 16.0%	\$0.0797 18.6%
	4.0%	Initial PPA Rate (\$/kWh) <i>Savings from Current Rate</i>	\$0.0884 9.7%	\$0.0871 11.1%	\$0.0850 13.1%	\$0.0832 15.0%
	5.0%	Initial PPA Rate (\$/kWh) <i>Savings from Current Rate</i>	\$0.0899 8.2%	\$0.0891 9.0%	\$0.0880 10.2%	\$0.0869 11.2%
	6.0%	Initial PPA Rate (\$/kWh) <i>Savings from Current Rate</i>	\$0.0915 6.6%	\$0.0913 6.8%	\$0.0910 7.1%	\$0.0908 7.3%

Example: Climate Bank finances solar + storage, making previously unattractive project viable for off-takers



Climate Bank will accelerate transition, fund retirement of fossil-fueled generation facilities...

Coal generating capacity in the Lower 48 states (as of December 2016)



- Nearly all lost coal power filled by nat gas
- Coal retirements are slowing; only ~10% of today's coal fleet set to retire by 2023
- NCB uses securitization, reverse auctions, and direct negotiation to hasten retirement, lower consumer cost

..and then directly invest in the transitioning communities to support economic development, jobs and growth

- Authorized to provide direct investment into communities affected by the retirement of fossil fuel plants or end of local extraction business
- Also finance construction of clean energy projects in those communities to replace coal power, lower energy costs, reduce pollution



Climate Bank is a no regrets, win-win climate policy for private sector and consumers, with bipartisan track record

CEDA, prior federal green bank bill, was bipartisan

- 51-6 in House Energy & Commerce and 15-8 in Senate Energy & Natural Resources Committee

Connecticut Green Bank had overwhelming support

- 36-0 in State senate and 138-9 in State House

NV Clean Energy Fund enacted by Governor Sandoval (R)

National Climate Bank positioned for bipartisan support

How does the NCB become law – CGC preparing multiple pathways

- **Stand-alone bill passage**
 - Lesson learned from 2009 that Climate Bank needs its own vehicle
- **Part of a Package**
 - Energy & Commerce included the Climate Bank (copied from stand-alone) as part of its net zero by 2050 comprehensive energy legislation
 - House Climate Crisis committee also likely to include Climate Bank in its March 2020 package of recommendations
 - Likely to have congressional hearings in Q1
- **Atypical funding vehicles**
 - Preparing for the unexpected – more on that later
- **Inclusion in party platform at the convention**
 - The “plan” candidates have all adopted; increases chances of inclusion
- **Position as infrastructure for downside scenario**
 - Climate policy positioned to survive no matter presidential outcome

Which policy helps consumer? Voter? Achieves popularity?

- Clean Energy Standard
 - Clean Power Plan v2
 - Carbon Tax
- Cap/Fee and Dividend/Trade
 - National Climate Bank

Comprehensive, popular, pro-growth climate policy that serves all communities and lowers costs must include National Climate Bank