

Montgomery County Green Bank Information Session



City of
Rockville
Get Into It



DEPARTMENT OF
**ENVIRONMENTAL
PROTECTION**

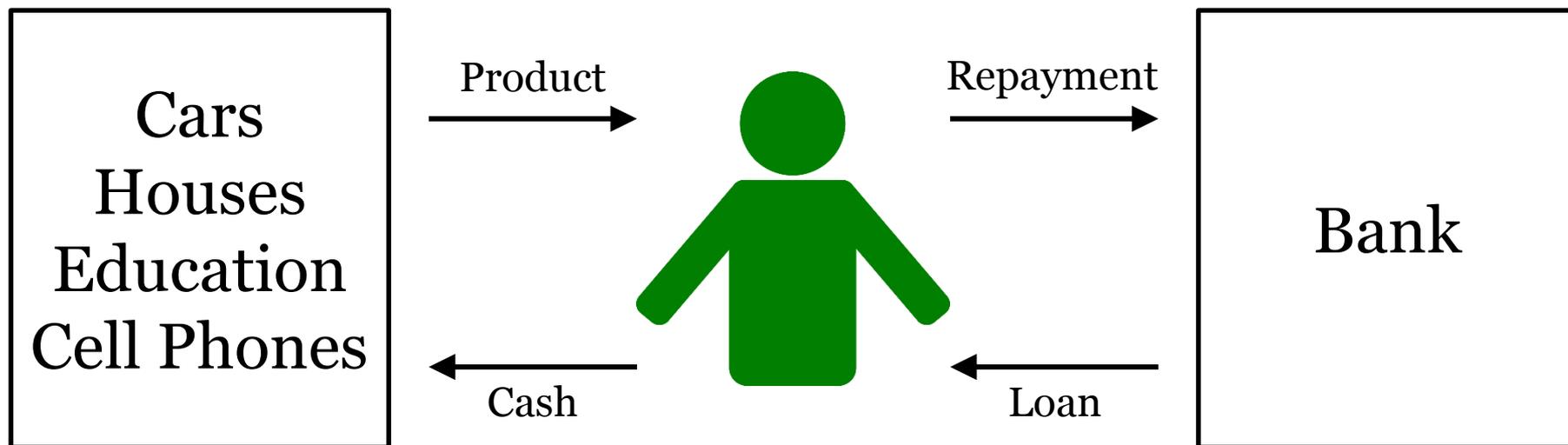


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Intro to Green Banks & Montgomery County Opportunity

*Jeffrey Schub, Executive Director, CGC
Montgomery County Green Bank Info Session
September 16, 2015*

We finance everything to avoid the high upfront cost of a purchasing goods & services, large & small



Would you buy a house without financing?



\$300,000

Mortgage

Down
Payment

Price

Bank financing, aka Mortgage,
eliminates 80% of upfront cost.

Down
Payment

Upfront

Mortgage
Payment

Year 1

...

Mortgage
Payment

Year 30

85% of all vehicle purchases are financed with a loan or a lease



\$25,000

Auto Loan

Down
Payment

Price

Auto loans can eliminate 100% of
upfront cost of a car.

Down
Payment

Upfront

Loan
Payment

Year 1

...

Loan
Payment

Year 5

But how do you get cleaner & cheaper energy without financing?



\$30,000

Upfront Cost
with no
Financing

Price



Upfront

Without financing
for clean energy, you
have to pay the
entire cost upfront!

Government & utility grants can help, but still leave you with significant upfront costs.



\$30,000

Grants

Upfront Cost
with no
Financing
after Grants

Price



Upfront

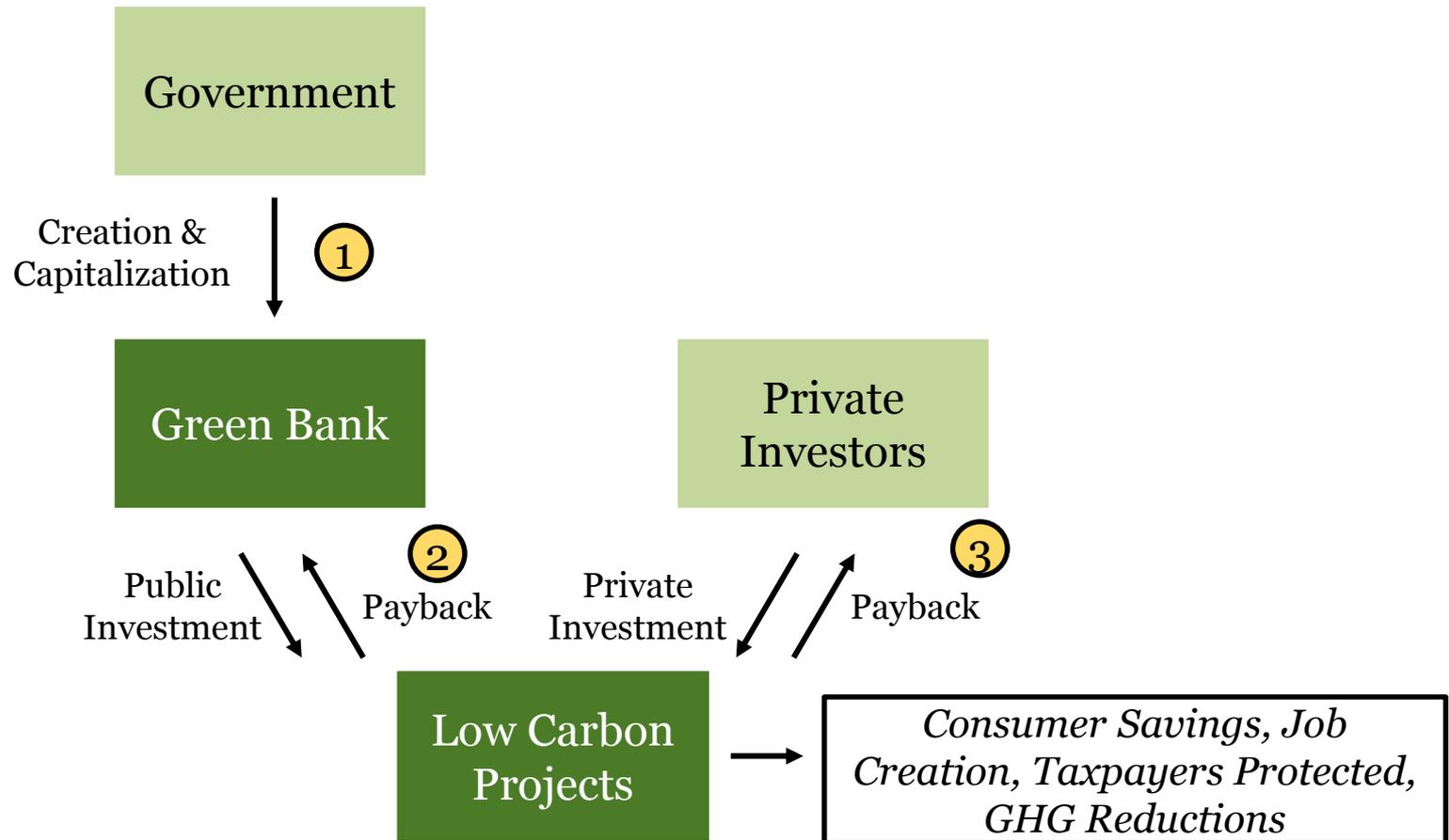
Grants reduce the price, but still leave you with upfront costs w/o financing.

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 public institution that channels public & private investment



Green banks use a range of financing tools to address hard to reach markets, fill gaps

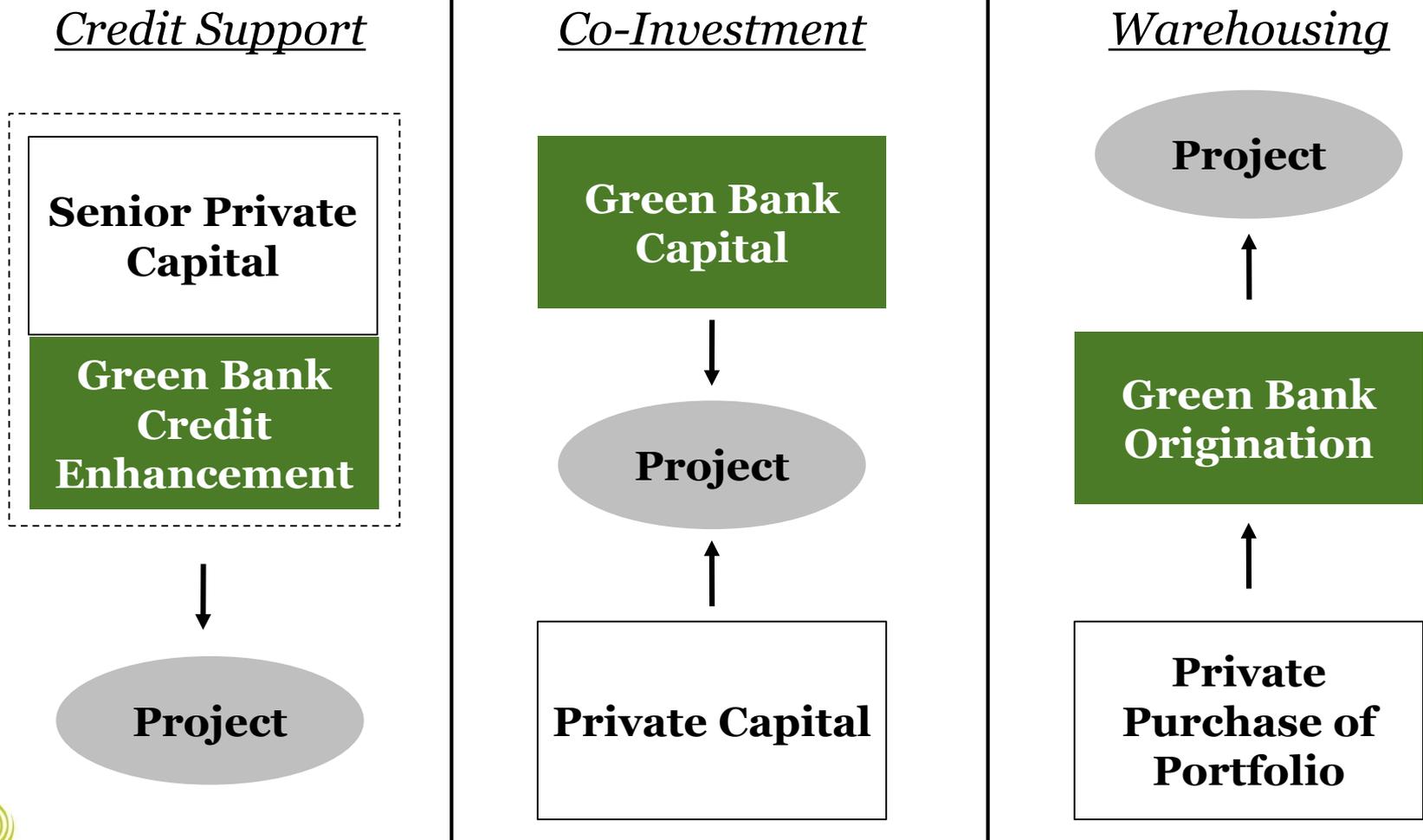
Green Bank Products & Services



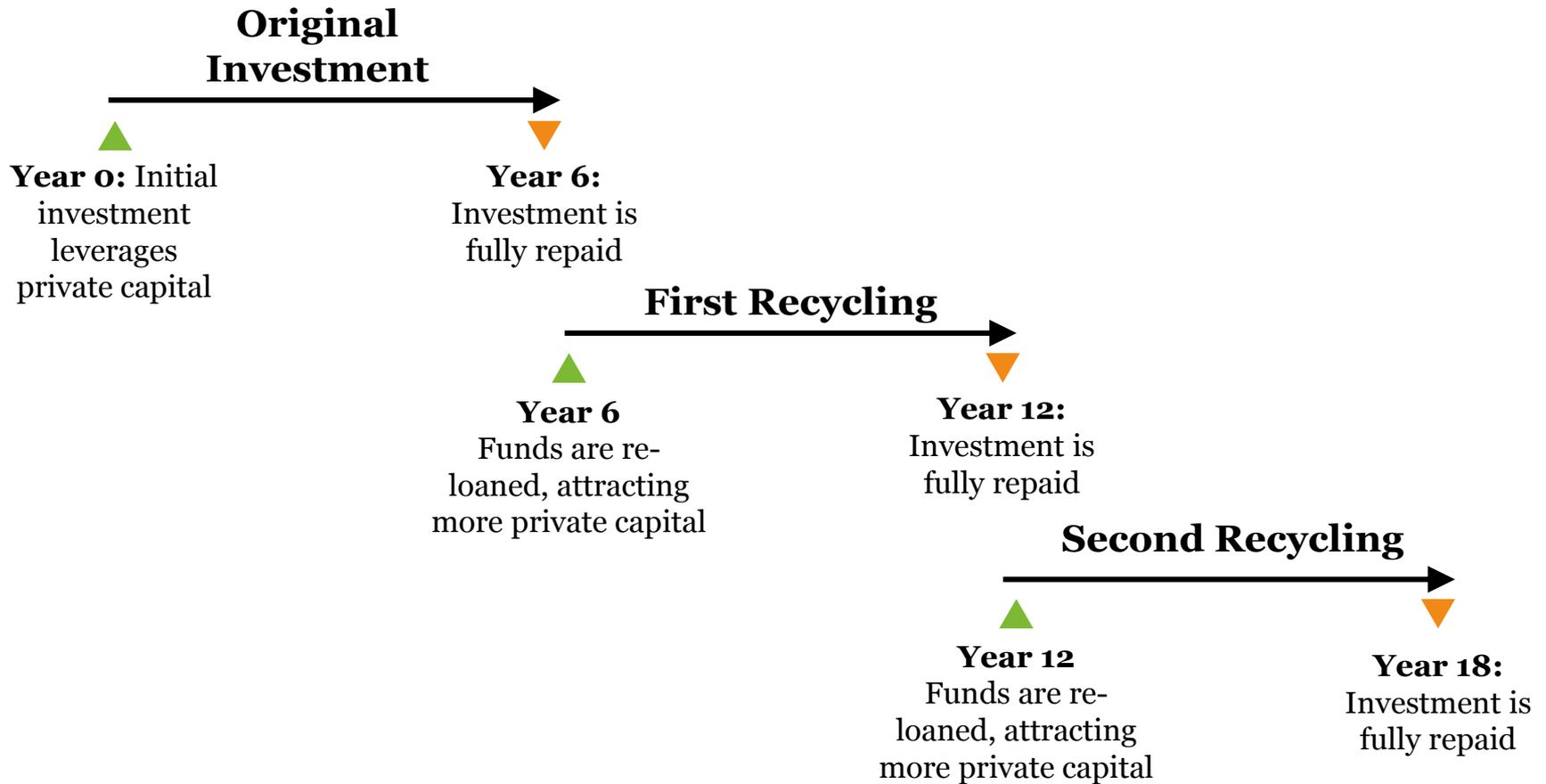
Potential Markets

- Residential EE
- C&I EE
- Multifamily & LMI EE
- MUSH EE
- Distributed Generation
- Community Solar
- Energy Storage
- EV's and Charging

Green banks are flexible institutions that can employ various financing methods to suit the need



Green bank recycles capital, re-leverages private investment multiple times



Green banks create numerous public benefits

- Speed deployment of clean energy technologies, reduce GHGs
- Lower energy costs for consumers & businesses
- Crowd-in private capital, leverage public resources
- Maximize efficiency of public-purpose dollars through recycling
- Create robust clean energy markets with easy adoption
- Increase resiliency of energy system
- Create jobs!!

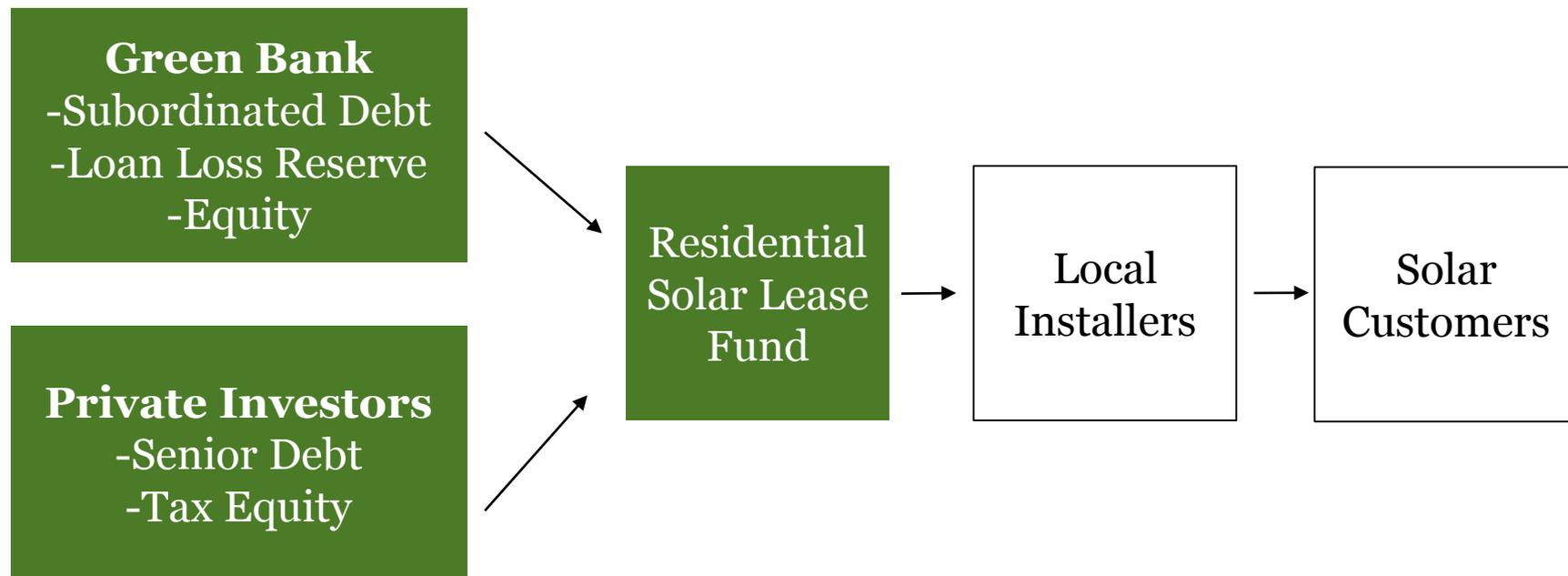
Green Banks are quickly spreading across U.S.

Green Banks Operating or in Development in 12 States

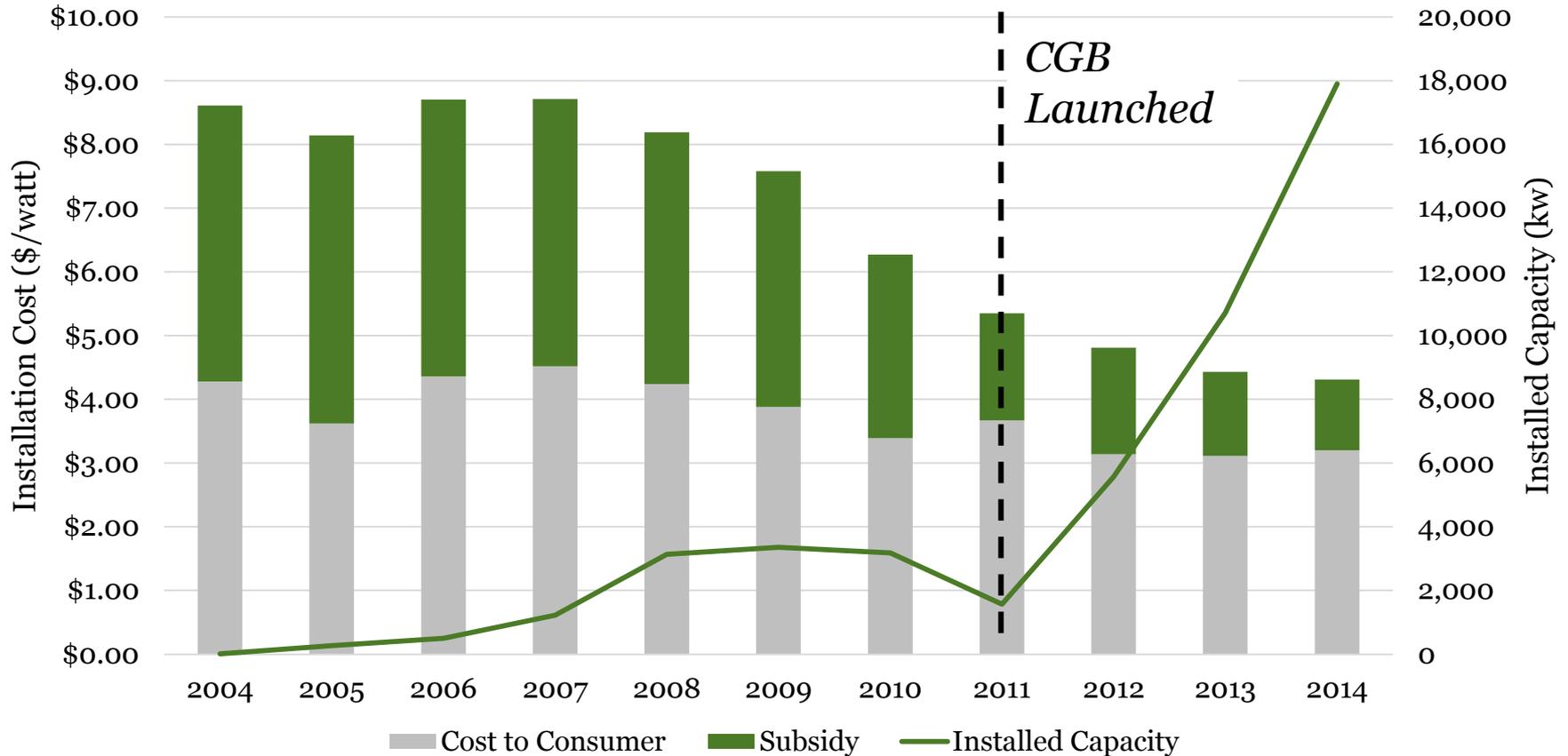


Example: CGB's Residential Solar Tax Equity Fund expands customer access to rooftop solar

- CGB created unique public-private financing platform
- Product enables local developers to offer financing to customers who otherwise would have to pay all upfront



Example: Connecticut Green Bank changes grants to loans, and expands solar penetration



Green Banks work!

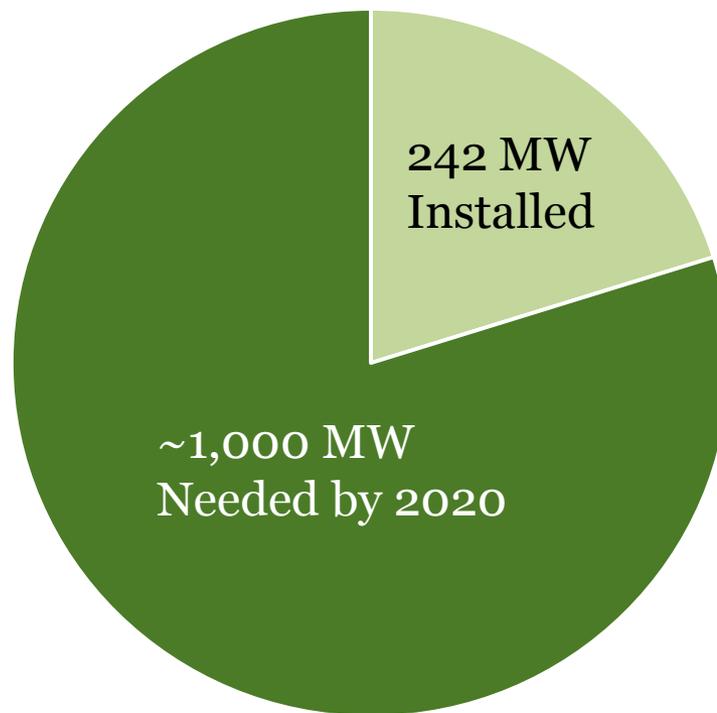
Connecticut Grant-Making Authority versus Connecticut Green Bank

	FY 2000 – FY 2011 (CCEF)	FY 2012 – FY 2014 (CGB)	FY 2015 (CGB)
Model	Subsidy	Financing	Financing
Years	11	3	1
Energy (MW)	43.1	65.3	62.6
Investment (\$MM)	\$350	\$350	\$365
Leverage Ratio	1:1	5:1	5-10:1
Investment % Loans	9%	57%	77%

The Mont. Co. Context – State policy requires huge and rapid deployment of renewable energy

- 20% of electricity in the state must be renewable by 2022
- **2% of that must specifically be solar by 2020**
- Translates to ~1,200 MW of solar
- 1 MW = ~140 home installations
- 242 MW installed through '14
- Nearly 1,000 MW still needed
- MC's share could be +200MW
- **200MW = ~\$600 million of capital investment for MC in only 5 years**

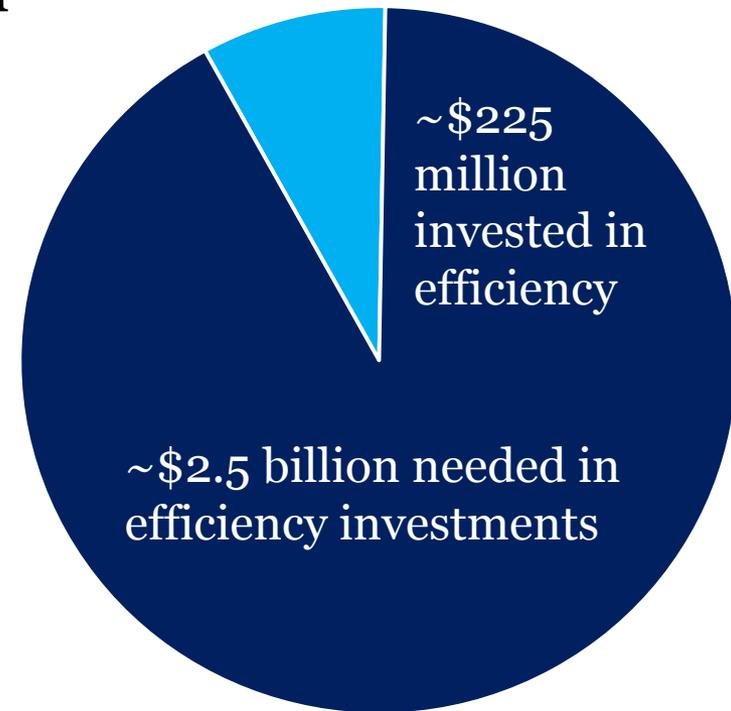
Maryland Solar Requirement



Mont. Co. Climate Protection Plan – Efficiency Goals

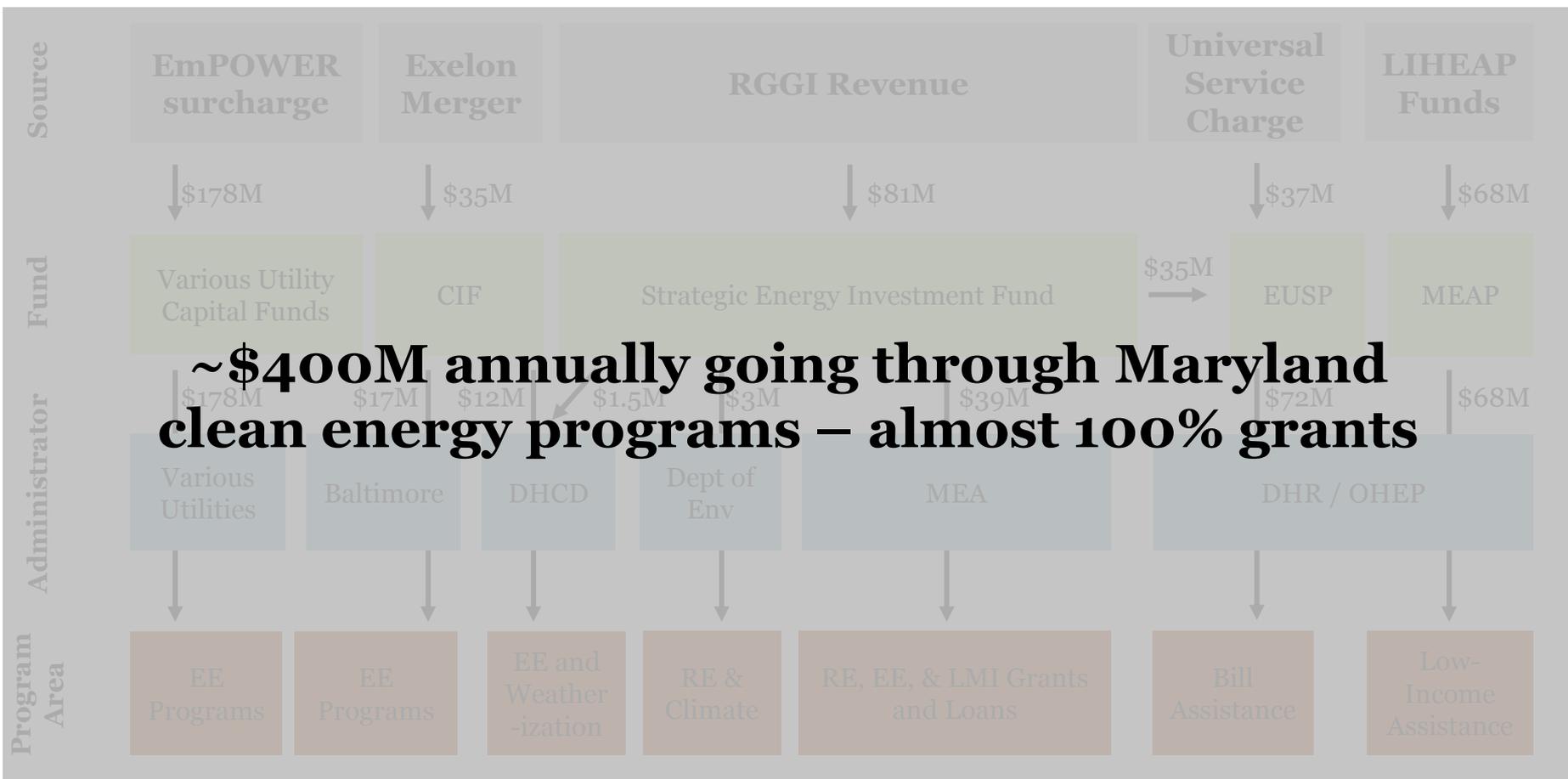
- 50% of Mont. Co. homeowners to reduce annual energy consumption by at least 25% by 2020
- This will require \$900 million in investment
- Commercial and multi-family buildings to reduce energy consumption by 25% by 2020
- This will require \$1.8 billion in investment

Mont. Co. Efficiency Goals

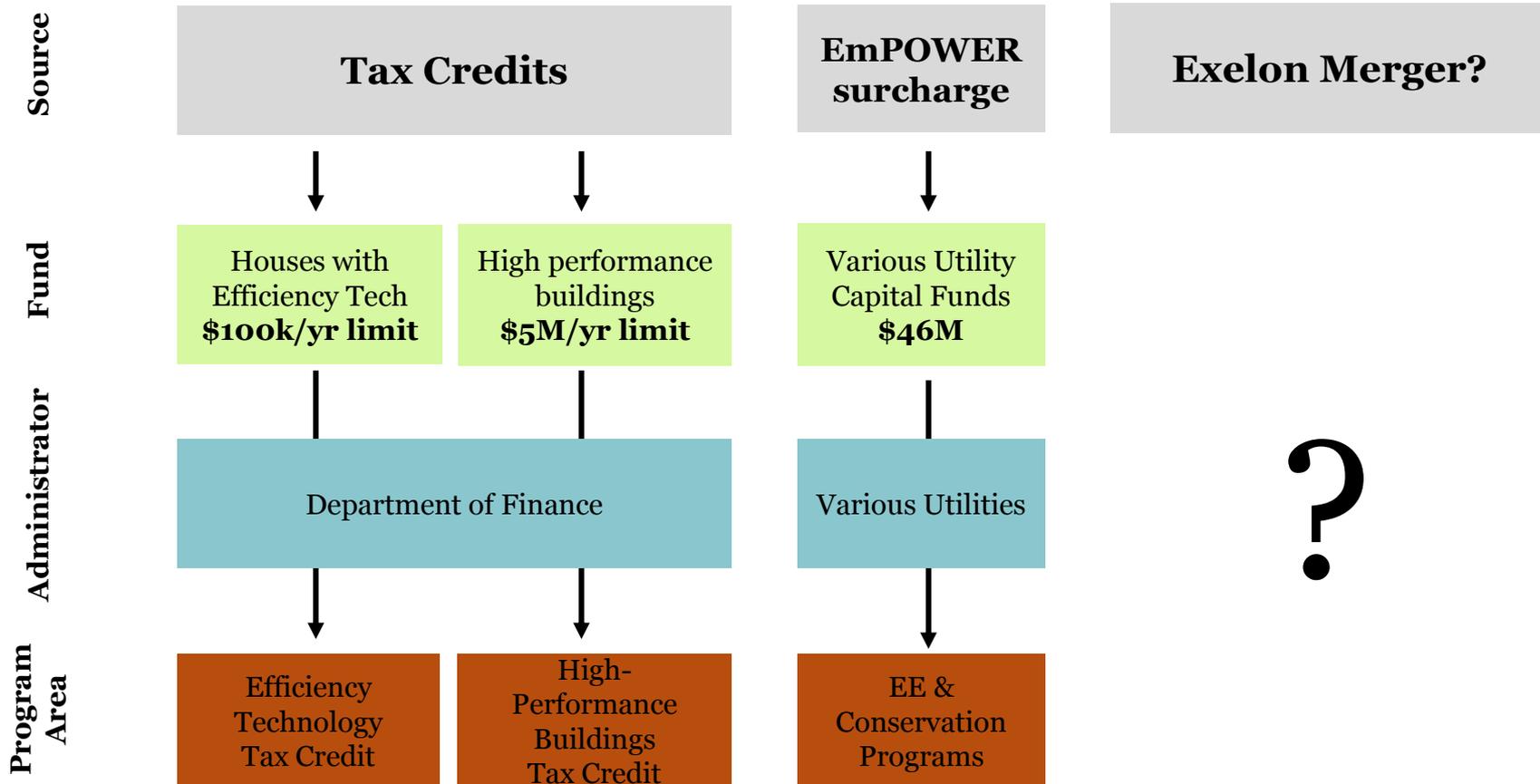


Currently, Maryland is trying to increase adoption almost exclusively through grants

~\$400M annually going through Maryland clean energy programs – almost 100% grants

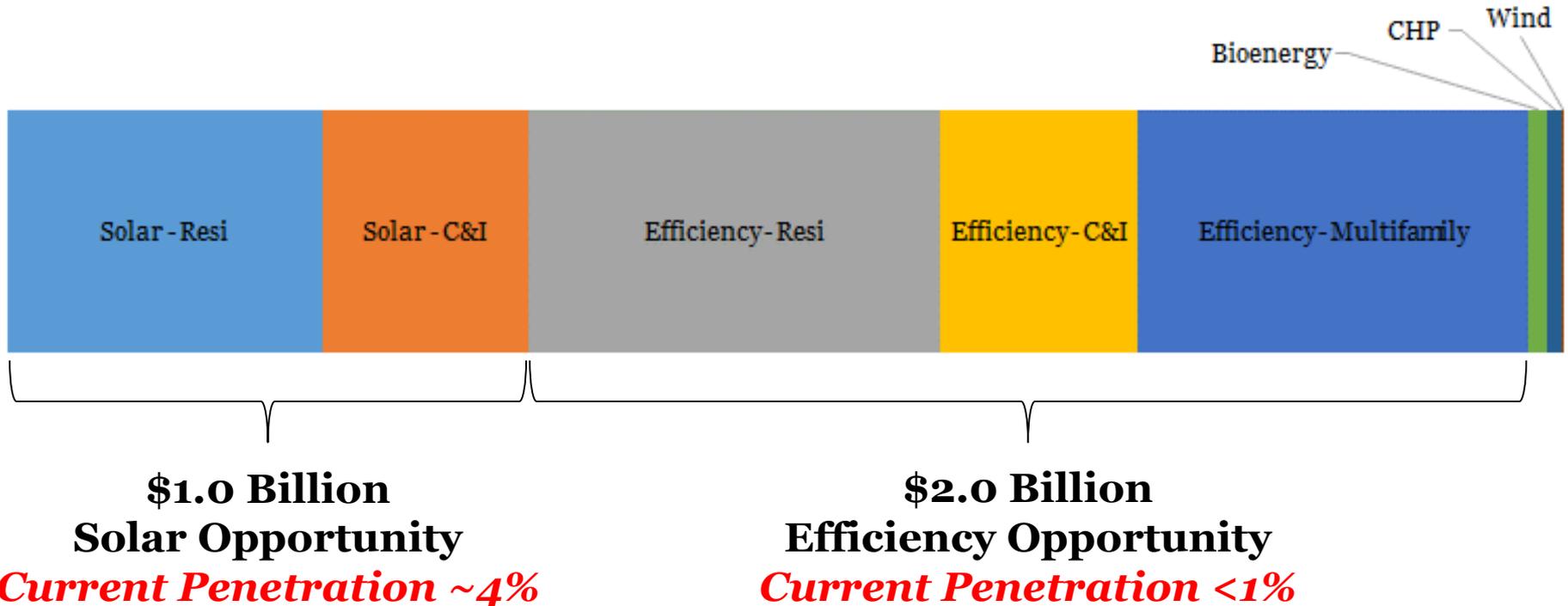


Montgomery County has its own programs, as well



But Montgomery County's clean energy market potential is over \$3B, most of which is untapped

\$3.1 Billion Estimated Potential Clean Energy Market Size in Montgomery County



Key Takeaways

- Financing increases consumer access to clean energy
- Green banks...
 - Leverage public-purpose dollars to draw in private investment
 - Recycle public-purpose dollars and are cost-efficient
 - Are a proven means of speeding up clean energy deployment
- Montgomery County needs lots of investment in clean energy to meet state and local goals
- A green bank is the ideal means of quickly scaling up clean energy investment in Montgomery County



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Thank You

Comments and Questions:

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