

## Fact Sheet – Pennsylvania Clean Energy Market Report and Energy Investment Partnerships

Nearly all of the energy produced, generated and consumed in Pennsylvania comes from fossil-fuel sources. Renewables only comprise 4% of the electricity consumed in the state. As a result, Pennsylvania is the third largest CO<sub>2</sub> emitter of any state in the country. However, Pennsylvania has a massive clean energy market potential, with \$16 to \$20 billion of investment opportunity. About \$7 to \$9 billion of that potential is in distributed energy technologies such as rooftop solar panels and building efficiency.

### Distributed Clean Energy Investment Potentials by Technology

Technologies	Savings, Capacity & Project Potentials	Investment Potential (\$M)
Solar (Distributed)	970 MW	\$2,910
Efficiency (Electric)	6,748 - 61,000 GWh	\$889 - \$2,233
Efficiency (Thermal)	218,800 BBTU	\$577
Fuel Switching	429,930 households	\$2,107
Micro Hydro	200 MW	\$528
Bioenergy Electric Generation	80 - 348 projects	\$16 - \$1,000
<b>TOTAL</b>	-	<b>\$7,027 - \$9,355</b>

Realizing this potential will lower energy costs for Pennsylvania consumers and businesses, and create new local jobs. Tapping into this incredible opportunity requires a large amount of investment capital to pay for the upfront cost of clean energy projects, and the formation of a mature, transparent market for clean energy solutions. However, for a number of reasons, the market remains small:

- There is a historical reliance on subsidies, rather than financing, to support the deployment of mature, commercially viable clean energy technologies;
- Government programs and resources are disaggregated and constrained;
- The energy market in Pennsylvania is complex due to regional differences and a large number of actors, like utilities, sustainable energy funds, and others;
- There is little marketing and consumer awareness of clean energy solutions;
- Financing products that are available are not designed for seamless, turn-key distribution by installers and adoption by customers; and
- There are low levels of private sector finance participation.

Growth in Pennsylvania clean energy markets is constrained by two overarching factors: various information gaps, transaction costs, and learning curves inhibit demand for clean energy projects and associated financing; and the fragmented and constrained supply of affordable, long-term capital. Though there have been pockets and instances of success, they are either geographically limited, constrained by budgets, or undercut by inefficient policy or program design.

Innovative states around the U.S. are using Energy Investment Partnerships (EIPs), or “Green Banks” to address these same market barriers. An EIP offers multiple clean energy financing products and supports market development to eliminate barriers to clean energy market growth. EIPs make affordable financing

available at terms tailored to the clean energy technologies being financed. And, in addition to sourcing and deploying its own capital, EIPs leverage private investment in clean energy. Beyond financing, an EIP helps eliminate information gaps and transaction costs that are currently hampering market growth. Through these activities, EIPs aim to animate private investment, stimulate demand, and build channels connecting to the ends of the market.

***EIP Market Development Activity Bridges Gap  
Between Supply & Demand***



An EIP can provide a platform for a more focused, market-oriented approach to clean energy investment in Pennsylvania. An EIP could enable clean energy growth by offering finance products that target underserved markets, by drawing in more private capital, and by partnering with existing actors in the space to help unify a fragmented clean energy program landscape.

*Pennsylvania EIP Potential Relationships to Existing Landscape*

