

Your Energy. Your Voice.

UPCOMING PILOT PROJECTS

CERTIFIED BUSINESS ENTERPRISE WEBINAR SERIES

Raj Barua

Chief, Office of Policy and Development DCPSC

WEDNESDAY, JUNE 2, 2021





Background

- In March of 2016, as a result of the PHI-Exelon Merger approved by the Commission, a \$21.55 million Pilot Project Fund was created which would be used to support pilot projects related to energy delivery system modernization.
- To distribute these funds, the Commission called for the formation of a Governance Board responsible for reviewing and recommending innovative pilot projects in accordance with the principles of the Power Path DC Vision Statements.







Governance Board members

- Solar United Neighbors of DC
- Sierra Club Washington D.C.
- DC Consumer Utility Board
- Office of the People's Counsel for the District of Columbia
- Greater Washington Urban League
- District Department of Energy & Environment
- Maryland-DC-Delaware-Virginia Solar Energy Industries Association
- Apartment and Office Building Association of Metropolitan Washington

DCPSC staff also serve as both members and facilitators.





Upcoming pilot projects

Transactive Energy Neighborhood Renewable Microgrid Pilot

Virtual Power Plant using Grid-Interactive Efficient Buildings Pilot

High Efficiency Heat Pump Pilot

Solar Communications Pilot

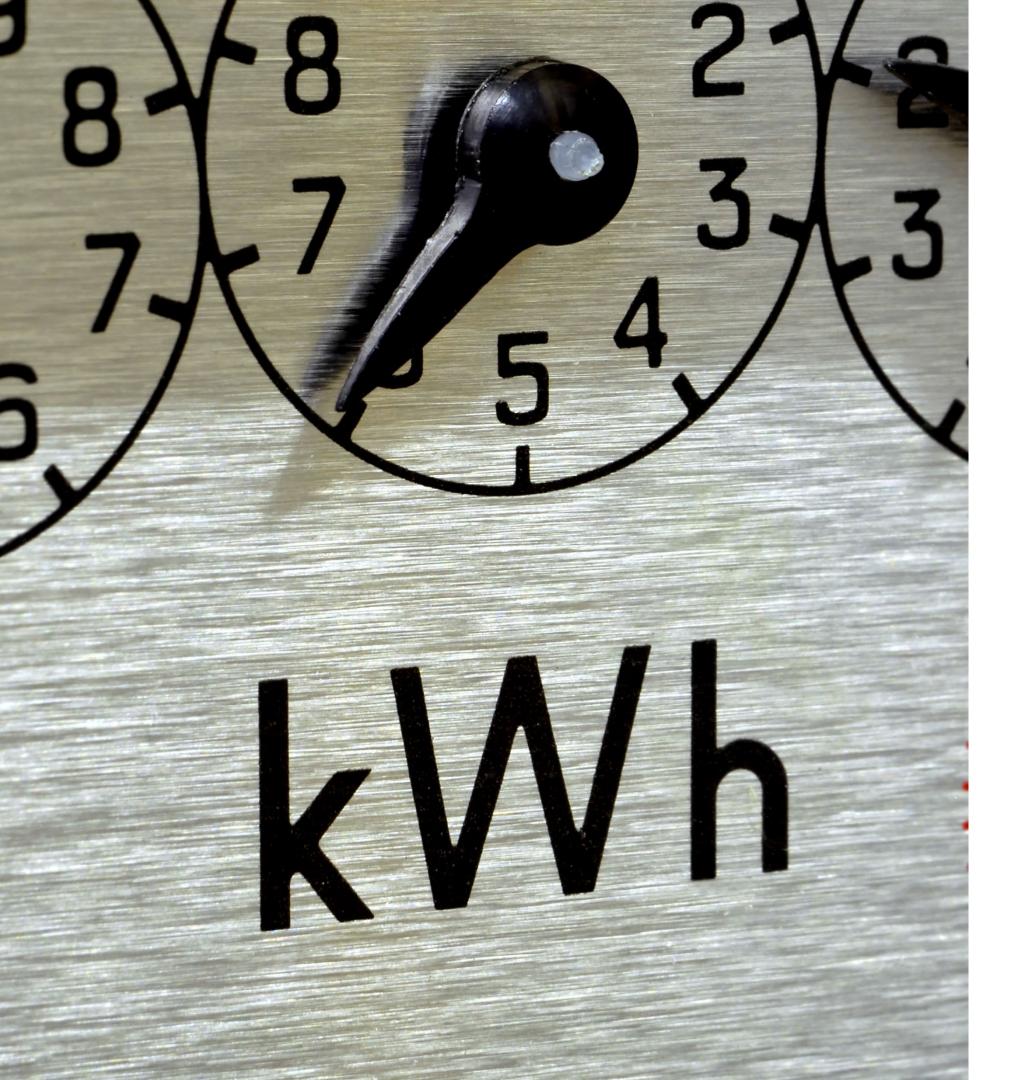
All projects are subject to final approval.





Transactive Energy Neighborhood Renewable Microgrid Pilot

- Develop neighborhood-scale, multi-customer microgrid using renewable energy that allows microgrid customers to trade with each other in realtime, with community ownership stake in project.
- System will provide back-up power to critical loads in the event of a power outage, reduce GHG emissions, and demonstrate the grid services that the microgrid can provide to the distribution system acting as a single resource.
- This will also serve as a demonstration project for the Commission to develop a regulatory framework for multi-customer microgrids.





Virtual Power Plant using Grid-Interactive Efficient Buildings Pilot

- Install distributed storage
- Demonstrate the ability of grid-interactive and interoperable buildings with building energy management systems and DER to serve as grid resources and assets
- Aggregate flexible demand to avoid peak hours
- Demonstrate frequency response, volt/VAR control, generation capacity





High Efficiency Heat Pump Pilot

- Electrification of space conditioning through purchase and installation of a large heat pump system (i.e., campus) or a large amount of single-building heat pump systems
- Including installation and monitoring and evaluation of reductions in GHG and air pollutants
- There may be efficiency upgrades required to ensure right-sizing the heat pumps





Solar Communications Pilot

- Demonstration project of alternative communications strategy between solar projects and the electric utility
- Using advanced inverter-based systems that are compliant with the IEEE 1547-2018 Standard, including the required communications protocols
- Demonstrate the communication functionalities of inverters and transducers to provide data at regular intervals to an aggregator and address cyber security risks.





Timelines (tentative)

June 2021

Governance Board provides draft RFPs to Commission

Summer 2021

Commission begins Issuance of RFPs to bidders lists

October / November 2021

Proposals are Submitted and evaluated

December 2021 / January 2022

Contracts are awarded

Commission staff contacts

- **Technical**: Isabella Cotrupi (<u>icotrupi@psc.dc.gov</u>)
- Contract: Karen Hester (khester@psc.dc.gov)

THANK YOU

Raj Barua
Chief, Office of Policy and Development

rbarua@psc.dc.gov