Clean Energy Implementation Plan: Distributed Energy Resources Program Concepts

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Background

PSE's Clean Energy Implementation Plan (CEIP) includes draft programs, actions and investments that PSE will undertake from 2022-2025. The first CEIP will identify and implement Distributed Energy Resources (DERs) programs to help reach our clean electricity targets.

DERs are small-scale generators and assets, like rooftop solar panels and battery storage that are located locally within the utility's service area. For PSE, these distributed resources can help balance energy demand and supply and/or supplement sources of energy generated and transmitted from larger, more traditional utility resources, like hydroelectric dams or large wind turbines that are farther away.

For customers, DERs allows for energy to be developed locally, expands ownership and access to a broader set of customers, may create savings on energy bills, and may increase reliability during power outages.

DER concepts under consideration

PSE is working with Black & Veatch and West Monroe, third-party consultants, on identifying and analyzing DER concepts for the first CEIP. We're calling these programs "concepts," as they will provide guidance on a potential mix of programs that PSE could pursue over the next four years.

When considering these concepts, we have different options for siting locations, applicable customers and implementation focus.

Solar concepts

Siting options:	Applicable customers:	Implementation focus:
• *Customer sited* located at customers' home, business or property • *PSE sited* located at a PSE facility such as the Wild Horse Wind and Solar Facility • *Multifamily* located on a multifamily building	• Residential (renters and owners) • Commercial and industrial • Vulnerable populations/ Low-income/ Highly Impacted Communities	• *Power-purchase agreements (PPAs)*, where a third party builds and manages system and PSE purchases power from that system • *Incentives,* like rebates and offers • *Rooftop or area leasing*, where a rooftop or area is leased by PSE for the installation of solar panels that feed energy back into the grid • *Partnerships* with multifamily properties to install solar for the residents • *Bring your own Solar + battery*, incentivize customers to install both solar and batteries, and PSE pays to use them

Storage concepts

Siting options:	Applicable customers:	Implementation Focus:
• *Customer sited* • *PSE sited* • *Multifamily* • *Third-party sited*, developed and	• Residential (renters and owners) • Commercial and industrial	• *PPAs* • *Incentives* • *Bring your own battery*, similar to PSE's Customer Connected Solar program, where customer owns their battery and PSE pays to use it

Siting options:	Applicable customers:	Implementation Focus:
managed by a third party	• Vulnerable populations/ Low-income/ Highly Impacted Communities	• *Mobile batteries*, where small, mobile batteries are deployed during power outages • *Substation-sited batteries,* where a single or network of batteries are deployed at existing PSE substations • *Distributed battery stations*, where a single or network of batteries are deployed on customer or third-party premises for PSE use • *Leasing,* where space is leased by PSE to install a battery; the resident at the facility may be able to use the power during some power outage events

PSE, Black and Veatch, and West Monroe considered programs being deployed by other utilities and other potential programs, as well as PSE's existing net metering (known as Customer Connect Solar program) and community solar/low-income solar program. In addition, we're analyzing the costs and market potential for each DER program concept considered.

PSE is currently considering the following concepts, though others may be added based on advisory group and stakeholder feedback.

Existing DERs
- Net Metering
- Community Solar & Low-Income Community Solar

Storage
- Customer-Sited Distributed Battery Power Purchase Agreement (PPA)
- Utility-scale Distributed Battery PPA
- Commercial and industrial (C&I) Battery Install Incentive
- C&I Bring Your Own (BYO) Battery
- C&I Space for Batteries - Leasing
- Multi-Family Unit Battery Program
- PSE Mobile Batteries
- PSE Substation Batteries
- PSE Utility-Scale Distributed Battery Stations
- Residential Battery Install Incentive
- Residential PSE Battery Leasing
- Residential PSE Battery (Low Income) Leasing

Distributed Solar
- Distributed Solar PPA
- C&I Roof-top Solar Incentive
- C&I Roof-top Solar Leasing
- Multi-Family Solar Partnership
- Multi-Family Unit Roof-top Solar Incentive
- Residential Roof-top Solar Leasing
- Residential Roof-top Solar (Low Income) Leasing

Hybrid
- PSE Customer-sited Solar + Storage Offering

What's next?
Next, PSE will use the draft Customer Benefit Indicators (CBIs) to evaluate the DER concepts and ultimately develop different program mixes that address cost, CETA needs, and resource adequacy. The studied scenarios and resulting draft program concept mix will be shared at the Equity Advisory Group's Sept. 13 meeting.

Once the program concept mix is determined in the final CEIP, PSE will issue a DER request for proposal (RFP) of which we expect to receive a varying program offers, some within the existing concept mix, and some that could be new to PSE. The implementation and design of these concepts will begin after the DER RFP process.