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Generation Plan Update: Perspectives and Opportunities in Long Duration Energy Storage

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Abstract

CPS Energy is the electric and gas municipal utility serving the San Antonio, Texas area community. Working with community stakeholders, CPS Energy developed a new generation resource plan to provide reliable, affordable, and environmentally responsible electrical power to meet increasing energy demand through 2030 while supporting the city's net carbon neutrality goal by 2050.

This resource plan provides for the installation of new solar and wind renewable generation, flexible natural gas generation and energy storage to replace the utility's coal and aging natural gas plants.

Continued renewable generation build-out is driving the need for more dispatchable generation that can offset intermittent renewable generation output to meet energy market variable load demand. Long duration energy storage holds the promise of shifting excess power production to higher demand periods and reducing the need to increase output from dispatchable generation. Emerging storage technologies of interest include compression storage, thermal storage, and chemical storage.

Note: This document will be opened to the participants on IERE website before the Workshop and opened to the public afterward.