



FLEXPOWER BUNDLE UPDATE

PRESENTED BY:

Dr. Cris Eugster

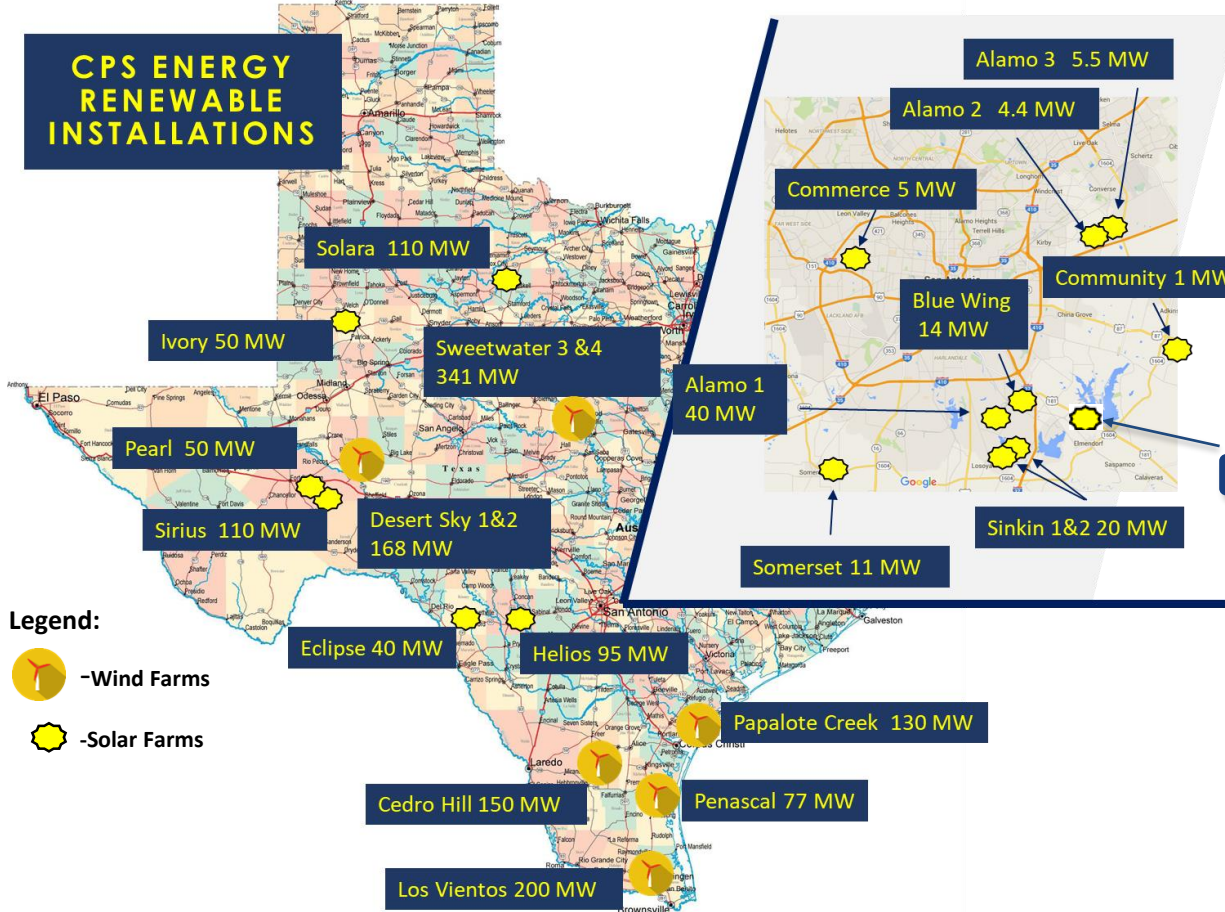
Chief Operating Officer (COO)

October 24, 2020

DIVERSE RENEWABLE PORTFOLIO



CPS ENERGY RENEWABLE INSTALLATIONS



More than 1,600 MW of Renewables

Residential Solar

- 185 MW Homeowner owned
- 5 MW Solar Host installed
- 6 MW Community Solar

- Legend:**
- Wind Farms
 - Solar Farms

WATER & ENERGY NEXUS



William Sinkin Solar Plant located at the SAWS Dos Rios Waste Water Treatment Site in South S.A.

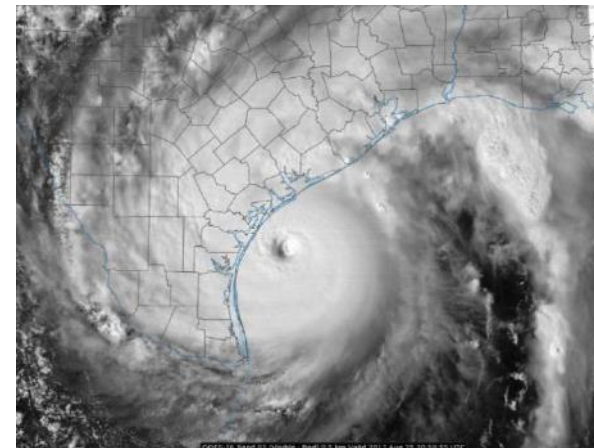
CPS Energy has over 500 MW of Solar

LARGE WIND PORTFOLIO

IMPORTANCE OF RESILIENCY



Papalote Creek Wind Farm Near Corpus Christi

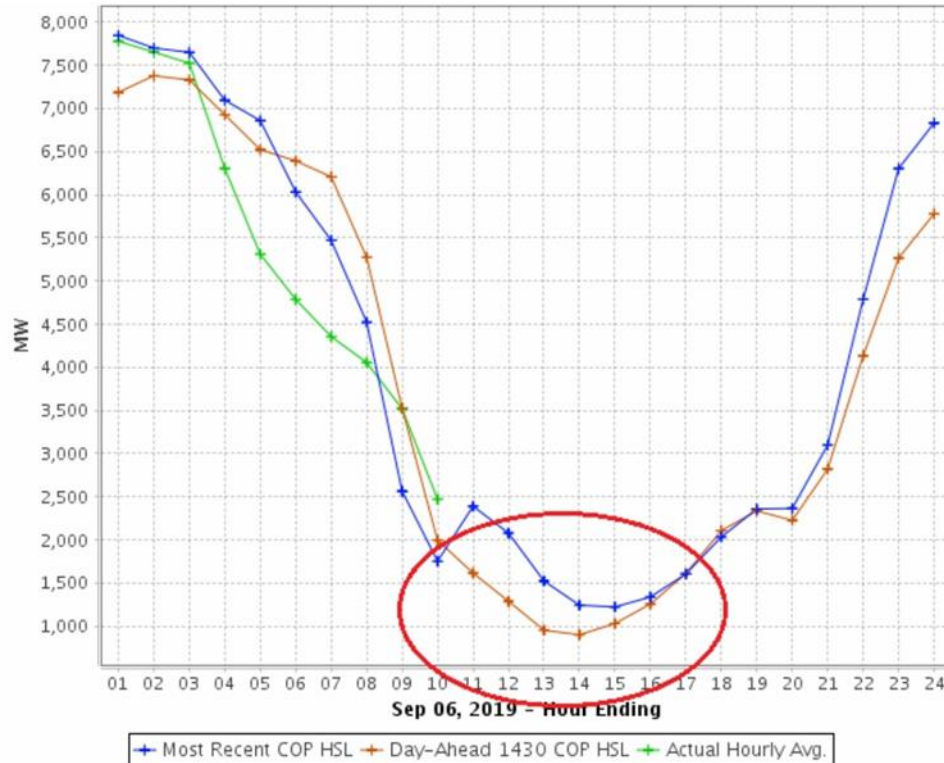


**Survived
Hurricane Harvey
August 2017**

More than 1,000 MW of Wind

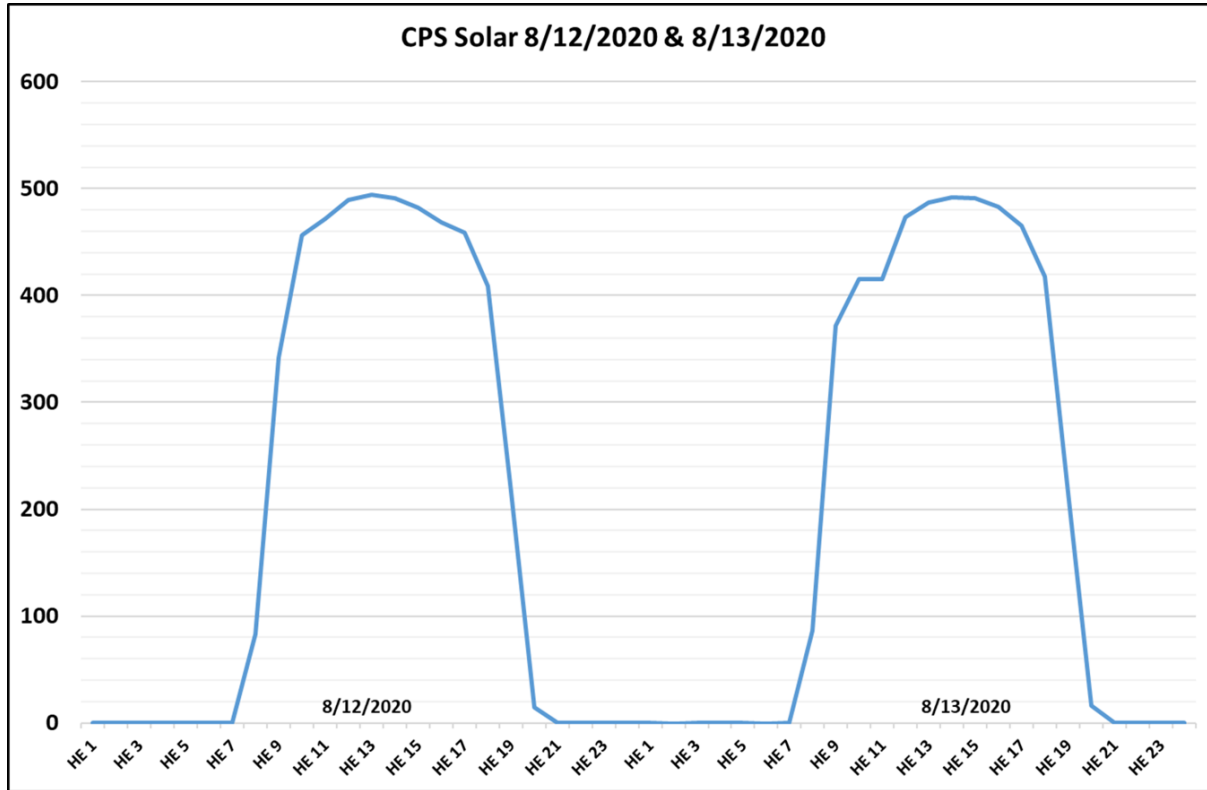
CHALLENGE WITH WIND

ERCOT WIND FORECAST EXAMPLE



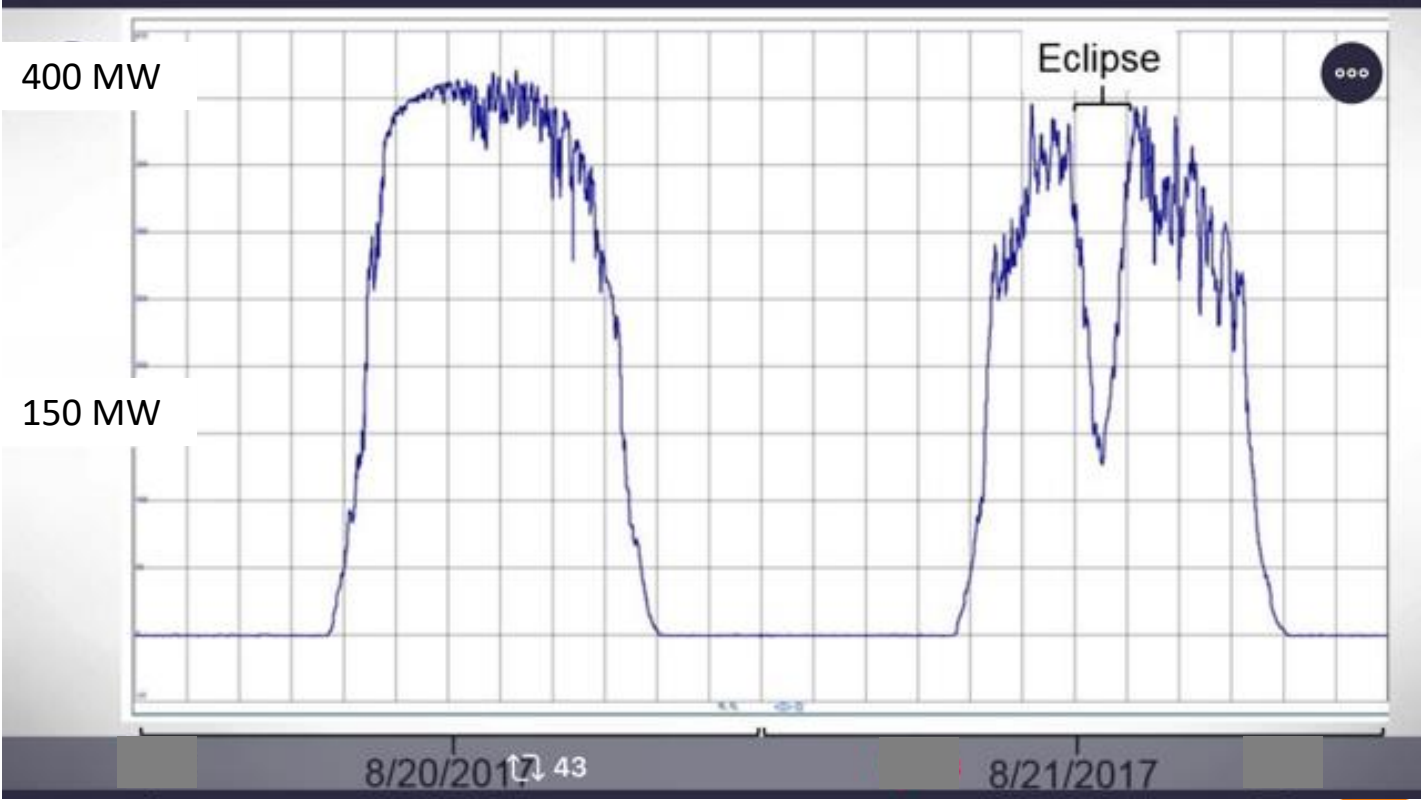
On a typical day, wind drops off in the afternoon, then picks up in the evening hours.

SOLAR MORE CONSISTENT



Solar produces power in the afternoon hours complementing wind which sometimes declines at that time.

AN INTERESTING DAY FOR SOLAR CPS ENERGY



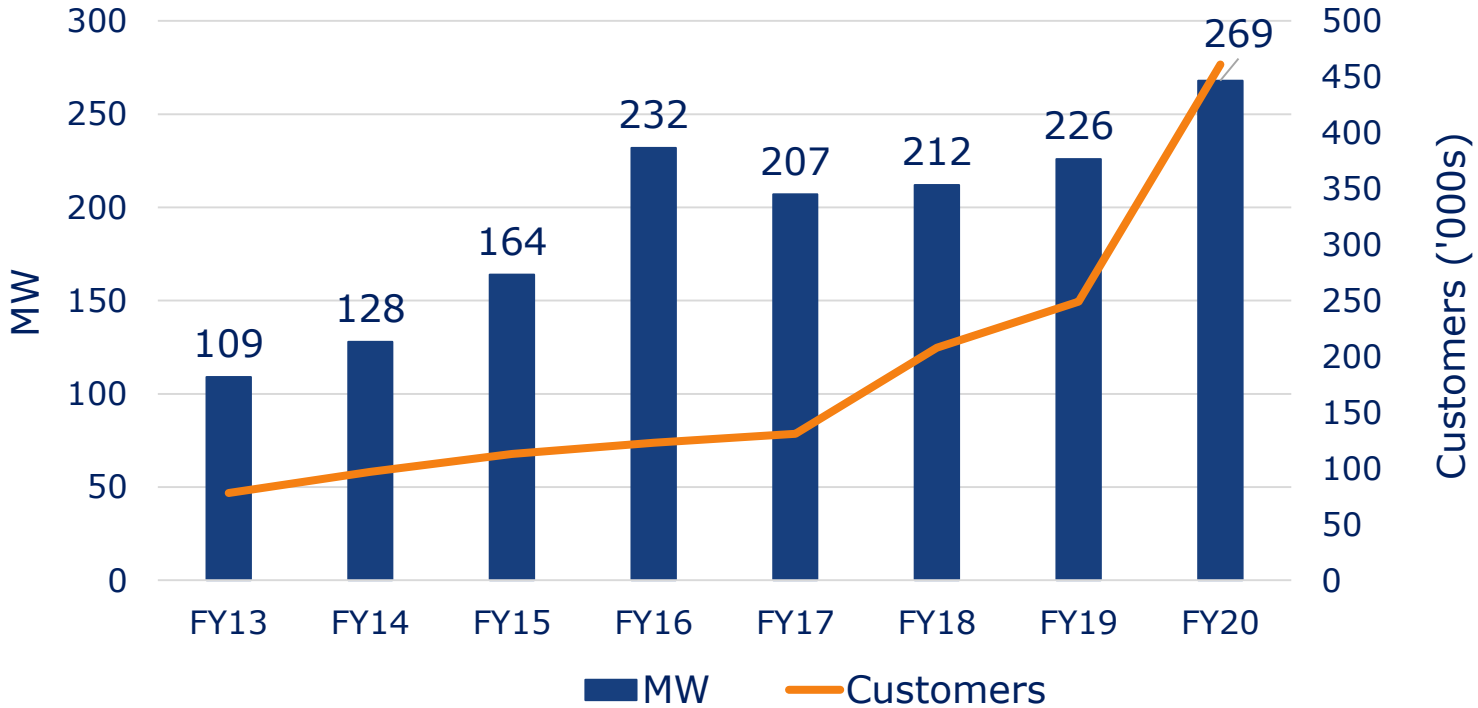
ENERGY STORAGE: KEY TO RENEWABLES



CPS Energy's 10 MW – 1 Hr Battery System at SWRI

ENERGY EFFICIENCY IMPORTANT

250 MW+ VIRTUAL POWER PLANT



Over 400,000 customers provide 269 MW of Demand Response.

FLEXPOWER BUNDLE

AN INTEGRATED APPROACH



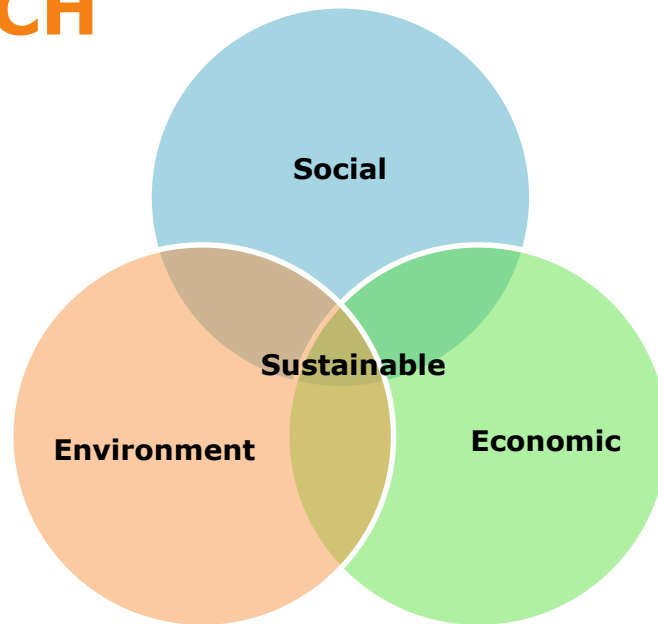
900MW Solar



50MW Storage



All-Source
Firming Capacity

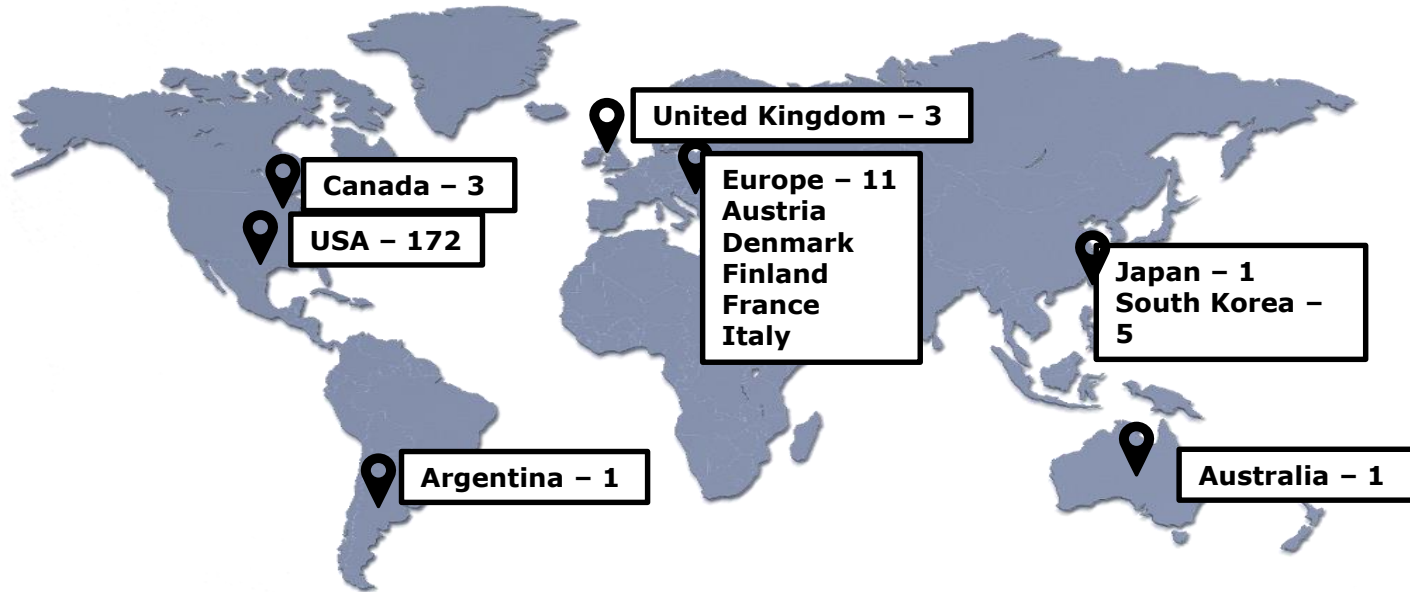


Our *FlexPOWER* Bundle RFP process will need to consider many *qualitative* & *quantitative* aspects.

FLEXPOWER BUNDLE

RFI INSIGHTS: ORIGIN OF RESPONSES

Nearly 200 responses received from across the globe!



Our all-source RFI raised global awareness & is providing us with valuable information & innovative solutions that can be considered in our RFP.

SOLAR INSIGHTS

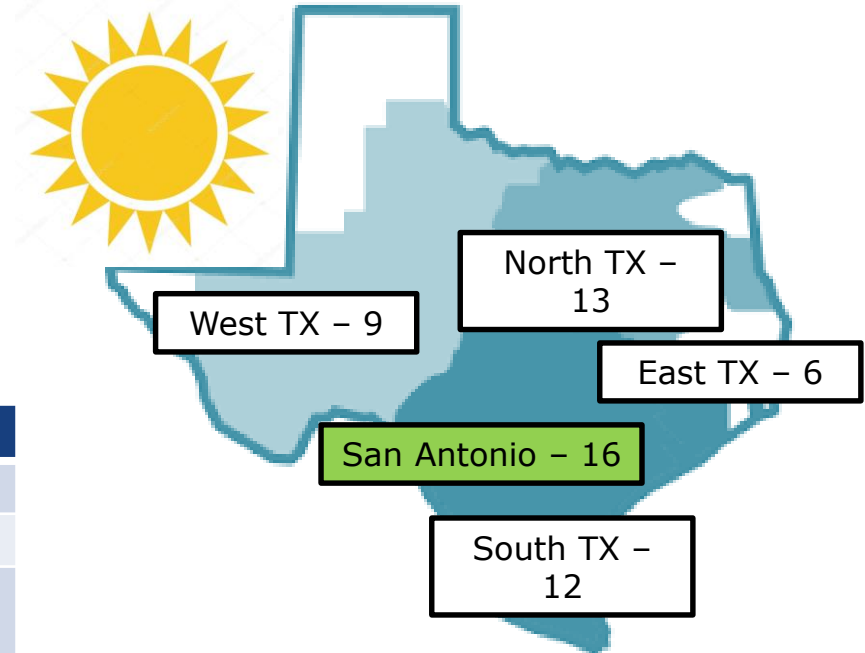
COMPETITIVE & ATTRACTIVE TERMS

Majority of the solar offers were:

- Utility-scale in planning or development stages
- Some paired with optional batteries
- Projected CODs for most between 2021-2023

PROJECT DETAILS	SUMMARY
Contract Term	10 to 25 years
Project Size	5 MWs to 900 MWs
Approx. Indicative Pricing	\$18/MWh to \$60/MWh

SOLAR PROPOSALS BY ERCOT REGION*



*Location was not determinable for 16 offers

BATTERY STORAGE INSIGHTS



COMPETITIVE & ATTRACTIVE TERMS

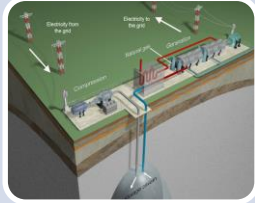
- Received 35 battery storage proposals
- Majority are located on the transmission level
- Remainder are at the distribution level in & around the San Antonio region



PROJECT DETAILS	SUMMARY
Duration	1 to 4 Hours
Project Size	10 MWs to 400 MWs
Approx. Indicative Pricing for Capacity offers	\$3/KW-month to \$15/KW-month

ALTERNATIVE TECHNOLOGIES

PUSHING CONVENTIONAL BOUNDARIES



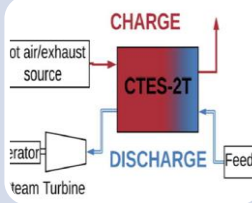
Compressed Air Energy Storage (CAES)

- Compress ambient air and store below ground, later reverse process and generate power



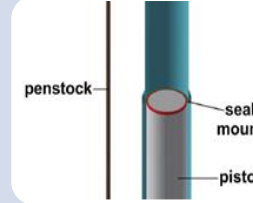
Liquid Air Energy Storage (LAES)

- Liquify ambient air and store above ground, later reverse process and generate power



Thermal Energy Storage (TES)

- Extract and store heat from existing plant, later reverse process and generate steam



Underground Pumped Hydro

- Pump water from lower to upper reservoir, later reverse process and generate hydro power



Kinetic Storage

- Spin a flywheel to high speed, later reverse process and generate power

Technologies promising longer duration, higher efficiency and less degradation than today's battery storage.

OUR PATH FORWARD



- Finalize RFP documents & evaluation process
- Continue community & stakeholder outreach
- Launch ***FlexPOWER Bundle*** RFP



Thank You