



# Utility Overview, *Flexible Path*<sup>SM</sup>, & *FlexPOWER*<sup>SM</sup> Bundle

Dr. Cris Eugster  
*Chief Operating Officer*



# EARLY HISTORY



## **Texas' oldest utility company**

- Gas system originated in 1860

## **CPS Energy began as San Antonio Public Service Co. (SAPSCo) in 1917**

- Owned by American Light and Traction Co.
- Ran city's power plants, gas network and streetcar lines

## **Purchased by City of San Antonio (COSA) in 1942**

- \$34 million sale price
- Financed by revenue bonds
- Sold transportation division
- Became City Public Service Board of San Antonio
- Became CPS Energy in 2003



**We are a business owned by the community  
for over 78 years.**

# OUR GUIDING PILLARS



**Reliability**



**Customer  
Affordability**



**Security**



**Safety**



**Environmental  
Responsibility**



**Resiliency**



**FINANCIALLY  
RESPONSIBLE**

**Our Guiding Pillars are the foundation for the work we do every day.**

# FLEXIBLE PATH STRATEGY

## TRANSFORMATION & INNOVATION



**Flexible Path:**  
Traditional + Renewables  
+ Energy Storage + Smart Grid +  
Energy Efficiency

**Transformation & Innovation:**  
*FlexPOWER* Bundle our next step  
in our **Flexible Path**

Power Plants



Transitioning to Innovation

Technology Drives Timing

Past

Present

Future

# A NEW VISION



*Proven model for delivering energy savings & empowering customer choice*

*Future-focused transition to low carbon & distributed generation*

*Dynamic, flexible program for promoting efficiency & new technology*

**FlexSTEP balances the tried & true with new clean & innovative product offerings**

# SYSTEM GROWTH



## UTILITY AND STAKEHOLDER PLANNING

**San Antonio continues to experience economic & population growth.**

### Texas cities that added the most people from 2017 to 2019

City	2019 Population	Population Increase
San Antonio	1,547,253	36,099
Fort Worth	909,585	34,776
Austin	978,908	27,355
Frisco	200,490	22,760
McKinney	199,177	17,073
Leander	62,608	12,816
New Braunfels	90,209	11,307
Farmers Branch	48,158	10,558
Midland	146,038	9,833
Round Rock	133,372	9,688

- **San Antonio's metro growth rate has climbed consistently for the last few years**
- **The 2019 increase of 36,099 represents an average of 46 people per day**
- **The San Antonio area is preparing for a 1.1 million population increase by the year 2040**

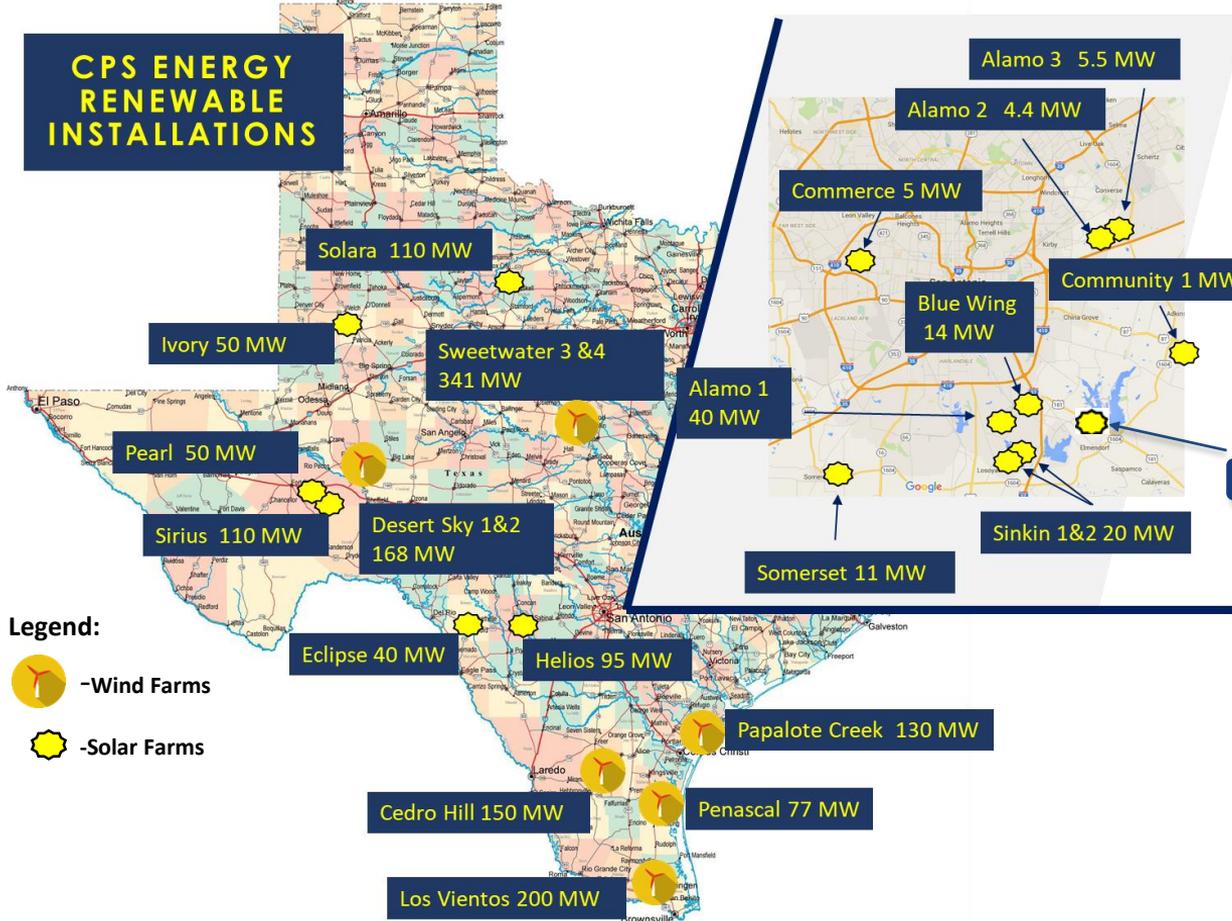
Source: U.S. Census Bureau

(1) Source – <https://www2.census.gov/programs-surveys/popest/tables/2010-2019/cities/totals/SUB-IP-EST2019-ANNRES-48.xlsx>

# DIVERSE RENEWABLE PORTFOLIO



## CPS ENERGY RENEWABLE INSTALLATIONS



**More than 1,600 MW of Renewables**

- Legend:**
- Wind Farms
  - Solar Farms

**Residential Solar**

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

# WATER & ENERGY NEXUS



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

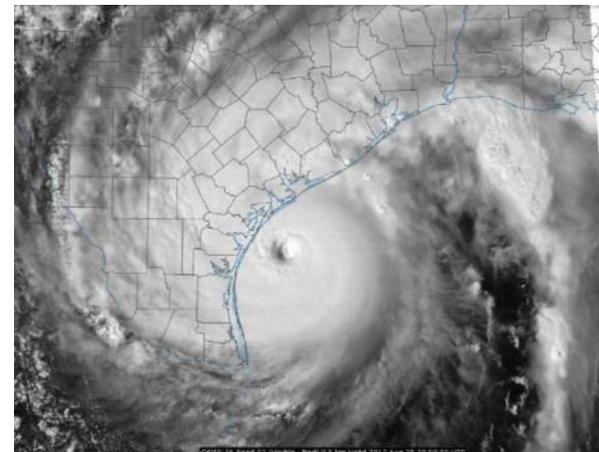
**CPS Energy has over 500 MW of Solar**

# 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**

# ENVIRONMENTAL SUSTAINABILITY & STEWARDSHIP REPORT

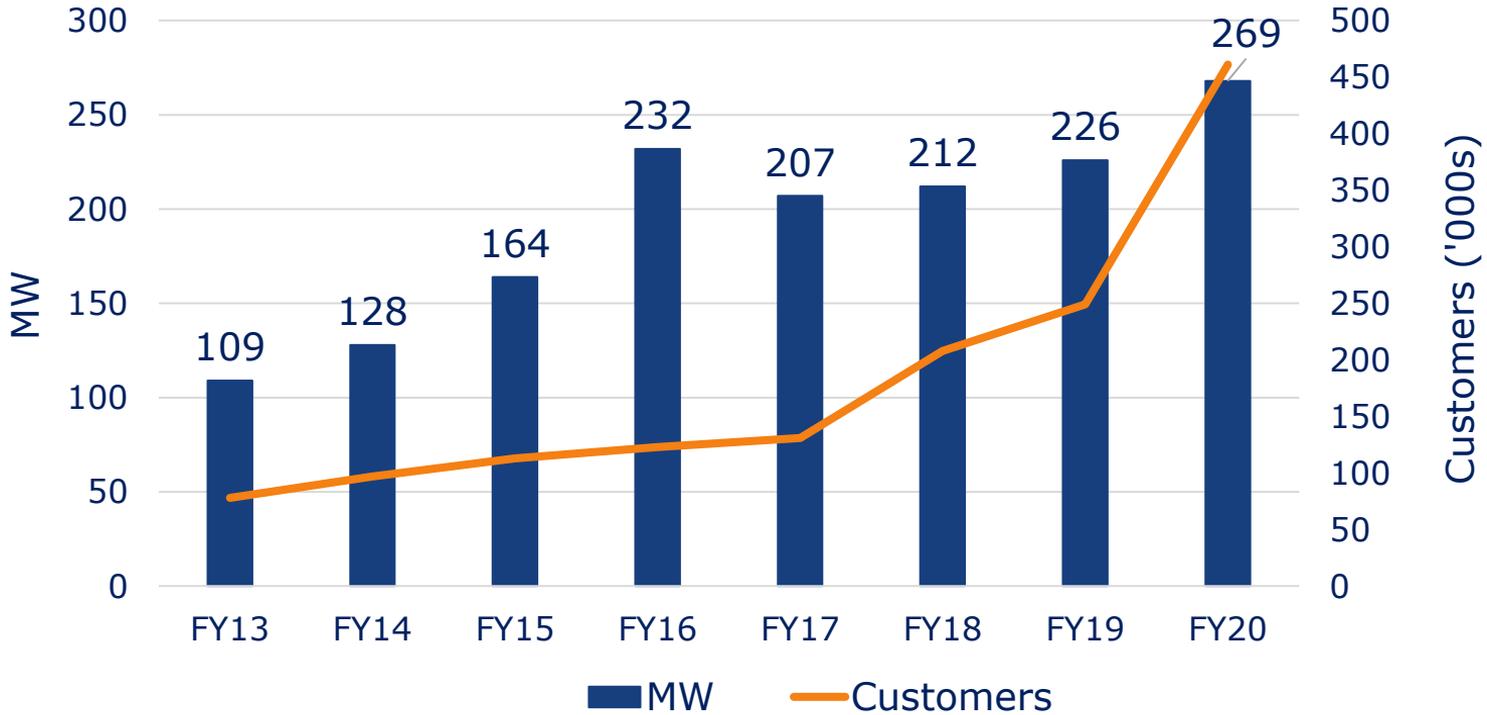


## Balancing "Tried & True with the New" for greater environmental benefits:

- Issued on September 21, 2020
- Thoughtful journey for decades to make improvements for the environment and our community
- Report highlights our many accomplishments over a 20-year journey, which is driving toward lower emissions

# ENERGY EFFICIENCY IMPORTANT

## 250 MW+ VIRTUAL POWER PLANT



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



**FLEXPOWER**  
BUNDLE



[cpsenergy.com/flexrfi](https://cpsenergy.com/flexrfi)



**FlexPOWER Bundle RFI**

# THINK GLOBAL, APPLY LOCAL

## FLEXPOWER BUNDLE ALL-SOURCE RFI



The all-source RFI process will raise global awareness to provide us with valuable & innovative solutions for our customers.



### Our innovative approach will:

- Raise global visibility
- Find innovative solutions
- Discover global & local players
- Reveal market conditions
- Understand COVID-19 impacts

# **FLEXPOWER BUNDLE**

## **REPLACING AGING GAS PLANTS**



**Braunig 1, 2 & 3 Gas Power Plant**  
**Built in 1966, 1968, 1970**  
**859MW**



**An integrated FlexPOWER Bundle aimed at  
transitioning to a cleaner generation mix**



**900MW Solar**



**50MW Storage**



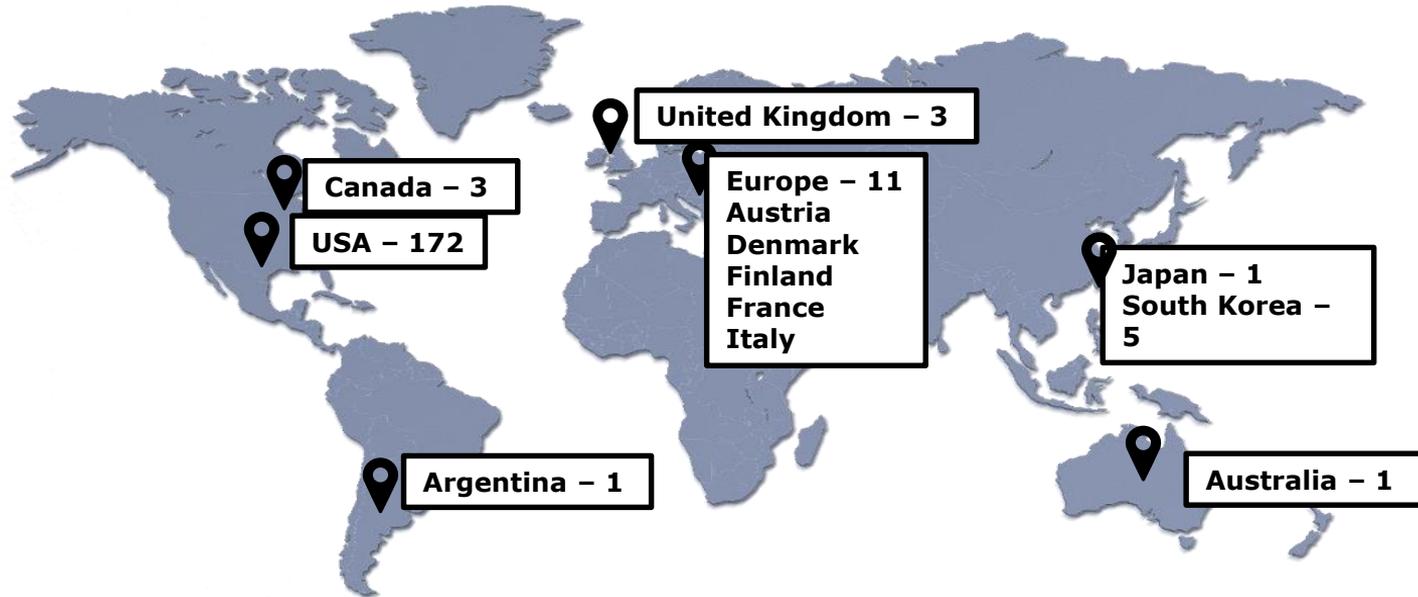
**All-Source  
Firming  
Capacity**

**The *FlexPOWER* Bundle is the next step in our *Flexible Path* & strategy to replace our aging Braunig gas plants.**

# FLEXPOWER BUNDLE

## RFI INSIGHTS: ORIGIN OF RESPONSES

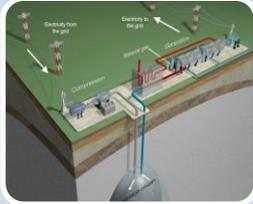
Nearly 200 responses received from across the globe!



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

# ALTERNATIVE TECHNOLOGIES

## PUSHING CONVENTIONAL BOUNDARIES



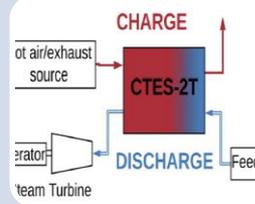
### Compressed Air Energy Storage (CAES)

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



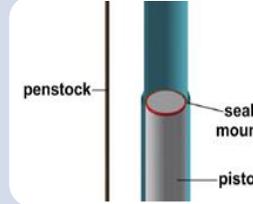
### Liquid Air Energy Storage (LAES)

- 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

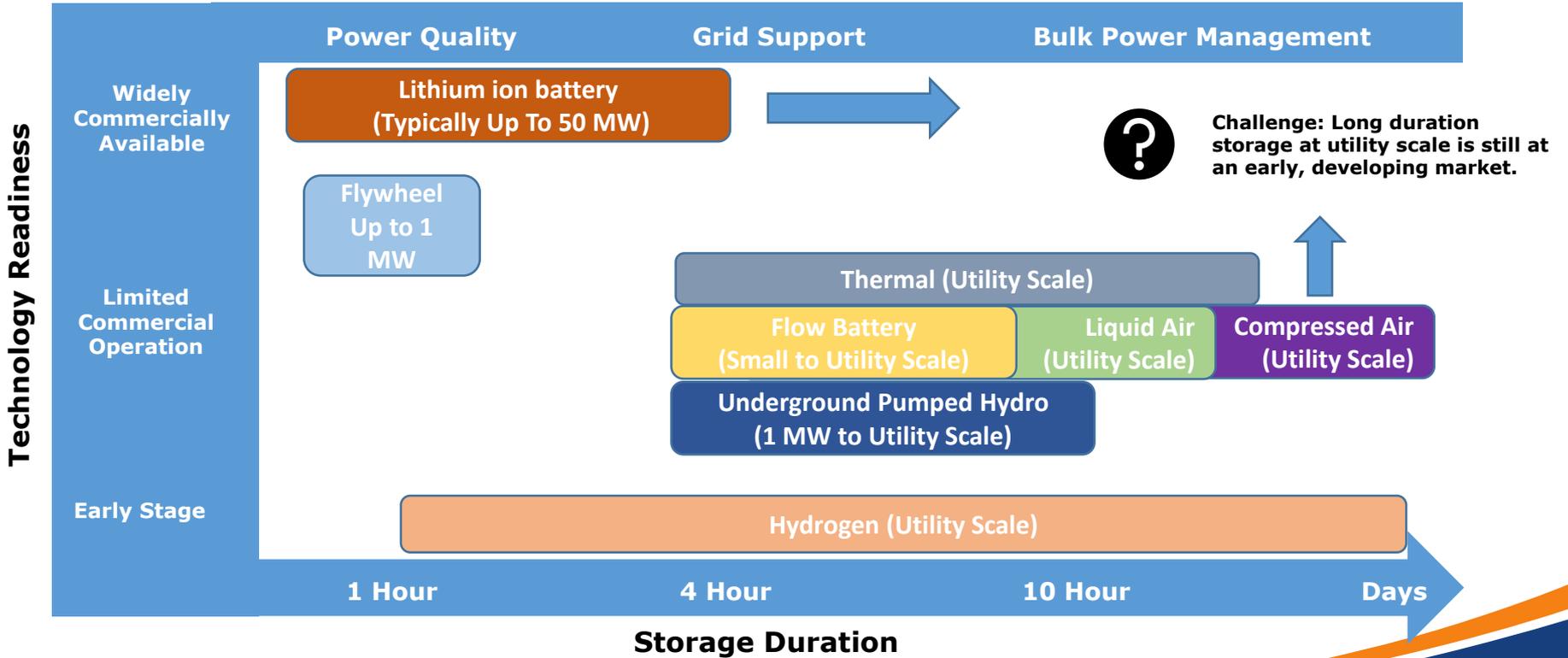
- Spin a flywheel to high speed, later reverse process and generate power

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

# STORAGE TECHNOLOGY READINESS



## MEETING THE CHALLENGE OF LONG DURATION STORAGE



Source: Black & Veatch and CPSE analysis of Industry and RFI information

# OUR PATH FORWARD



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

# STAY INVOLVED



- **Monthly Board Meetings**
- **Events**
  - [cpsenergy.com/events](https://cpsenergy.com/events)
- **Newsroom**
  - [newsroom.cpsenergy.com](https://newsroom.cpsenergy.com)
- **COVID-19 resources**
  - [cpsenergy.com/covid-19](https://cpsenergy.com/covid-19)
- **Social Media**



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***Thank You***