

**CPS ENERGY BOARD OF TRUSTEES**  
**NOTICE OF REGULAR MEETING**

Notice is hereby given that the CPS Energy Board of Trustees will hold its **Regular Monthly Meeting on Monday, December 19, 2022 at 1:00 p.m.** in the Board Room located on the First Floor of the CPS Energy headquarters located at 500 McCullough, San Antonio, Texas. The Regular Board meeting will also be live-streamed.

The subject of this meeting is to act upon all matters pertaining to the current management and operation of the municipal electric and gas systems, including the acquisition of real property and interest therein by purchase and condemnation, the facilities, financing, the handling and administration of funds and accounts, consideration of matters relating to operations and administration and such other matters as may be brought before the meeting by the Trustees of the Board, and specifically those matters referred to in the attached agenda, which is incorporated herein.

**The meeting will be streamed on [cpsenergy.com](https://cpsenergy.com).**

Those wishing to speak on an agenda item during the Public Comment portion of the meeting must register between Wednesday, December 14, 2022 at 5:00 p.m. and Friday, December 16, 2022 at 1:00 p.m. CT. Registration may be made by email at **[publiccommentregistration@cpsenergy.com](mailto:publiccommentregistration@cpsenergy.com)** or by phone at **(210) 353-4662**. Those registering to speak should be prepared to provide the following information:

- First & last name
- City & state of residence
- Phone number
- Email address
- Group for which the individual is speaking, if applicable
- Agenda item # listed on the Agenda (any item other than #1, 2 or 3) about which they are speaking
- Any required translation services

Commenters will be called to speak in the order that each registers.

Written comments may be sent to **[publiccommentregistration@cpsenergy.com](mailto:publiccommentregistration@cpsenergy.com)** and will be shared with the Board prior to the start of the meeting.

The agenda packet is attached and can be found with other related informational material at:

**<https://www.cpsenergy.com/en/about-us/who-we-are/trustees/board-meetings.html>**

A recording of the meeting will be available to the public in accordance with the Open Meetings Act upon written request.

*At any time during the Board Meeting, and pursuant to the provisions of Chapter 551 of the Texas Government Code, the Board may meet in executive session for consultation concerning attorney-client matters under Section 551.071; for deliberations and other authorized action on real property under Section 551.072; on prospective gifts or donations under Section 551.073; on personnel under Section 551.074; on security personnel or devices under Section 551.076; on economic development negotiations under Section 551.087; to deliberate, vote, or take final action on competitive matters under Section 551.086; to deliberate regarding security audits and devices under Section 551.089; or to deliberate under Texas Government Code Section 418.183(f) about confidential information under the Texas Homeland Security Act.*



Shanna M. Ramirez  
Secretary of the Board  
December 14, 2022

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**REVISED**  
**CPS ENERGY BOARD OF TRUSTEES MEETING**  
**TO BE HELD ON DECEMBER 19, 2022 AT 1:00 PM**  
**LOCATION: CPS ENERGY BOARD ROOM (500 MCCULLOUGH AVE)**

At any time during the Board Meeting, and pursuant to the provisions of Chapter 551 of the Texas Government Code, the Board may meet in executive session concerning:

- attorney-client matters under Section 551.071;
- deliberations and other authorized action on real property under Section 551.072;
- prospective gifts or donations under Section 551.073;
- personnel under Section 551.074;
- security personnel or devices under Section 551.076;
- economic development negotiations under Section 551.087;
- deliberations, voting or taking final action on competitive matters under Section 551.086;
- deliberations regarding security audits and devices under Section 551.089; or
- deliberations under Texas Government Code Section 418.183(f) about confidential information under the Texas Homeland Security Act.

**AGENDA**

ITEM	TOPIC	ACTION	PRESENTER/ SPONSOR
1	CALL TO ORDER	Execute	Dr. Willis Mackey
2	SAFETY MESSAGE, INVOCATION & PLEDGE OF ALLEGIANCE	Execute	Ms. Melissa Carrillo Cox
3	<b>PUBLIC COMMENT</b> Pre-Registration is from Wednesday, December 14, 2022 5:00 PM – Friday, December 16, 2022 1:00 PM. Dial (210) 353-4662 or email PublicCommentRegistration@CPSEnergy.com	Discuss	Dr. Willis Mackey
<b>UPDATE ON CHAIR'S PRIORITIES</b>			
4	CHAIR'S REMARKS	Discuss	Dr. Willis Mackey
5	CEO'S REPORT	Discuss	Mr. Rudy Garza
6	RATE ADVISORY COMMITTEE (RAC) UPDATE	Discuss	Dr. Francine Romero
7	MONTHLY PERFORMANCE UPDATE & RESOLUTION SUPPORTING CPS ENERGY PLAN TO MITIGATE CUSTOMER DEBT	Discuss & Possible Vote	Ms. DeAnna Hardwick
8	GOVERNANCE – DUTIES OF THE BOARD REGARDING CPS ENERGY EMPLOYEE BENEFIT PLANS	Discuss	Ms. Debra Wainscott
<b>CONVENE TO EXECUTIVE SESSION</b>			
9	<b>EXECUTIVE SESSION:</b> Please see the narrative list at the top of this agenda for the potential discussion topics.	Discuss	Dr. Willis Mackey
<b>RECONVENE TO OPEN SESSION</b>			
<b>CONSENT AGENDA</b>			
10	<b>APPROVAL OF CONSENT ITEMS:</b> A. Payment to the City of San Antonio for November 2022 B. Procurements Items: 1. <b>General Services:</b> Electric Overhead and Underground Temporary Permanent Electric Services (Mr. Richard Medina) 2. <b>General Services:</b> Competitively Sensitive Item (Mr. Benny Ethridge) 3. <b>General Services:</b> Competitively Sensitive Item (Mr. Evan O'Mahoney)	Vote	Dr. Willis Mackey

CPSA - CITY CLERK  
2022 DEC 15 PM 04:15:01

**REGULAR AGENDA**

11	<b>COMMITTEE REPORTS:</b> A. Operations Oversight Committee (OOC) meeting held on 11/10/2022 (Dr. Francine Romero) B. Nominations Committee meeting held on 12/06/2022 (Dr. Willis Mackey)	Discuss	Dr. Willis Mackey
12	<b>RATE ADVISORY COMMITTEE (RAC) GENERATION PLANNING RECOMMENDATION</b> (Mr. Reed Williams, RAC Chair)	Discuss	Dr. Francine Romero
13	<b>GENERATION PLANNING</b>	Discuss	Ms. Kathy Garcia
14	<b>ADJOURNMENT</b>	Execute	Dr. Willis Mackey

If the Board meeting has not adjourned by 3:55 PM, the presiding officer may entertain a motion to continue the meeting, postpone the remaining items to the next Board meeting date, or recess and reconvene the meeting at a specified date and time.

**THE REGULAR MEETING OF THE CPS ENERGY BOARD OF TRUSTEES WILL BE FOLLOWED DIRECTLY BY A MEETING OF THE RISK MANAGEMENT COMMITTEE (RMC)**

2022-12-19 09:45:44



# ***GOVERNANCE – DUTIES OF THE BOARD REGARDING CPS ENERGY EMPLOYEE BENEFIT PLANS***

*PRESENTED BY:*

**Debra Wainscott**

Chair, Administrative Committee  
VP, People & Culture

December 19, 2022

*Informational Update*

# AGENDA



- **GOVERNANCE OVERVIEW**
- **INVESTMENT PRACTICES & PERFORMANCE REPORT REQUIRED UNDER TEXAS LAW**

**Our objective today is to discuss Pension Plan governance and obtain your guidance on next steps.**

# **PENSION PLAN GOVERNING BODY**

## **TEXAS GOVERNMENT CODE SEC. 802.001**



**“Governing body of a public retirement system** means the board of trustees, pension board, or other public retirement system governing body that has the fiduciary responsibility for assets of the system and has the duties of overseeing the investment and expenditure of funds of the system and the administration of benefits of the system.”

**The Administrative Committee is the “Governing Body” of the CPS Energy retirement plan & has the fiduciary responsibility for the plan assets.**

# DUTIES OF ADMINISTRATIVE COMMITTEE

## TEXAS GOVERNMENT CODE CH. 802

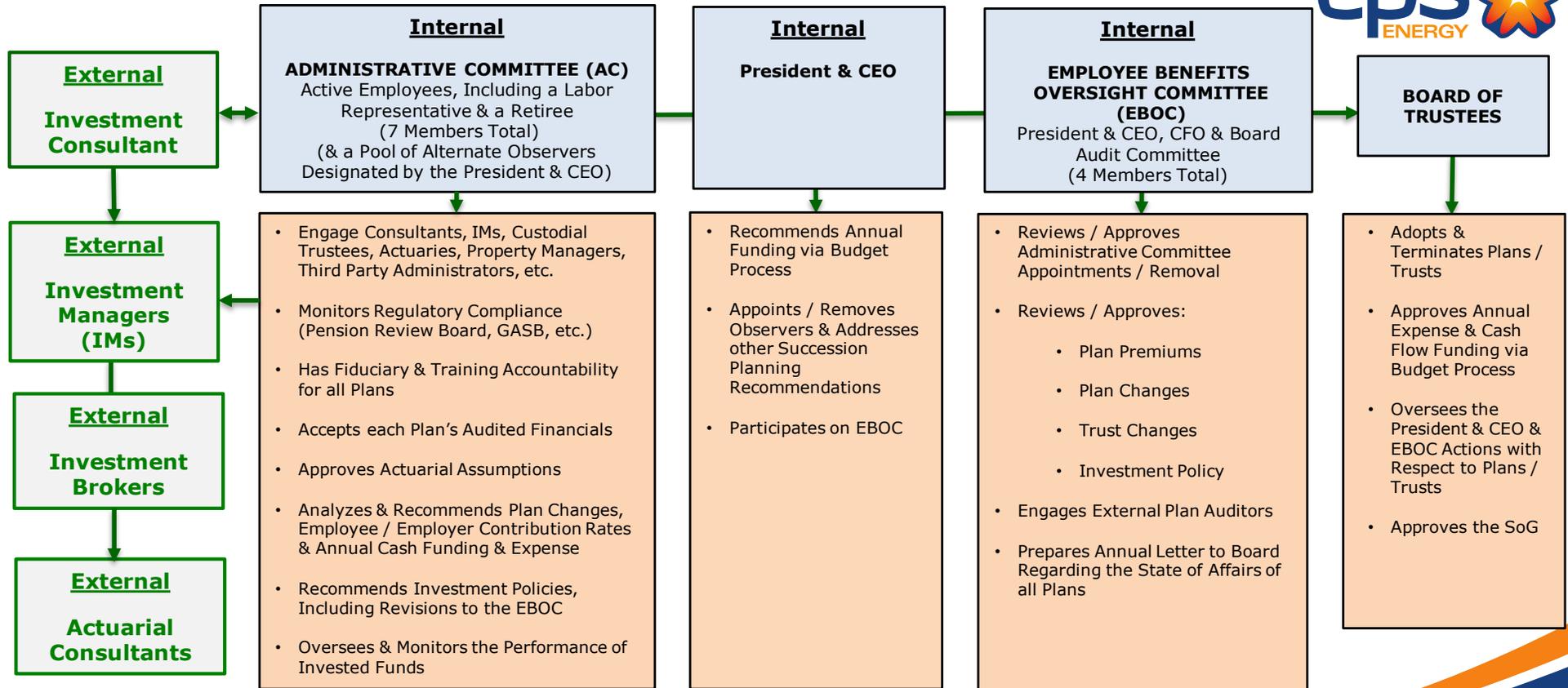


As the **governing body** for the CPS Energy benefit plans, the Administrative Committee is statutorily responsible for:

- administration of benefits of the system
- employing an actuary and reviewing actuarial valuations
- appointing investment managers and monitoring investments
- ensuring annual audit is completed
- publishing annual financial report and performance reports
- registering with the Texas Pension Review Board
- completing training required by the Texas Pension Review Board
- all the other fiduciary and oversight responsibilities

**The duties and responsibilities of the Administrative Committee are set by state statute.**

# STATEMENT OF GOVERNANCE



**This governance structure is consistent with Texas law, utilizing a pension review committee for detailed administration that reports out to you.**

# INVESTMENT PRACTICES & PERFORMANCE REPORT



## TEXAS GOV'T CODE SEC. 802.109

- Texas law requires public pension plans of our size to:
  - Obtain an independent Investment Practices & Performance Evaluation every three years.
  - Select an independent firm with substantial experience to evaluate investment practices and performance, and make recommendations for improvement.
- The Administrative Committee (AC) engaged Champion Capital Research this year to conduct the independent assessment for 2022, early in the new year, with a report due to the AC in May 2023.

**The Administrative Committee will report the results of the independent review to you as soon as possible in 2023.**

# INVESTMENT PRACTICES & PERFORMANCE REPORT



## 2019 REVIEW

- The prior review was conducted in 2020. It identified no non-conformities.
- Provided several opportunities for improvement (OFIs), in the form of Investment Policy enhancements, which included:
  - Clarification of third-party roles and responsibilities and objective criteria for related selection and performance-monitoring.
  - Monitoring and reporting of investment-related performance.
  - Monitoring and reporting of investment-related fees.

**Opportunities for Improvement from the prior review were incorporated in the plan's governance, policy documents, and administrative practices.**

# TAKEAWAYS & NEXT STEPS



- The current governance model is consistent with Texas law, and the Administrative Committee acts as the Governing Body.
- A deep dive into additional topics can be performed by the EBOC at your direction.



***Thank You***



## CPS Energy Board of Trustees Meeting December 19, 2022

### Approval of Payment to the City of San Antonio for November 2022

The New Series Bond Ordinance that took effect February 1, 1997 provides for a total cash payment to the City of San Antonio (City) in an amount not to exceed 14% of gross revenue as calculated pursuant to such Ordinance, less the value of other services provided to the City, with the percentage (within the 14% limitation) to be determined by the governing body of the City. The cash transfer to the City for the month of November 2022 is based on actual gross revenue per the New Series Bond Ordinance of \$197,112,293.38, less applicable exclusions. The revenue for the month of November 2022 is calculated as follows:

Gross revenue per CPS Energy financial statements	
Electric revenue	\$196,116,895.27
Gas revenue	28,086,739.95
Interest and other income	8,548,602.80
Gross revenue per CPS Energy financial statements	<u>232,752,238.02</u>
Excluded revenue	
School and hospital revenue per City Ordinance 55022	(8,071,443.00)
LVG revenue per City Ordinance 100709	(246,875.60)
Fuel cost component of off-system nonfirm energy sales per City Ordinance 61794 and revenue for wholesale special contracts	(12,402,539.32)
Noncash and other income, GASB 31 investment market value change, miscellaneous interest income, gas billing adjustment and unbilled revenue	(14,919,086.72)
Total excluded revenue	<u>(35,639,944.64)</u>
Gross revenue per New Series Bond Ordinance subject to 14% payment to the City	<u>\$197,112,293.38</u>
City payment per Bond Ordinance for November 2022 based upon November 2022 revenue	
	\$27,595,721.07
City payment per memorandum of understanding (MOU) regarding wholesale special contracts	
	363,303.49
Wholesale Special Contract Annual True Up	
	0.00
City Payment reduction per gas customer billing adjustment MOU	
	<u>(12,500.00)</u>
City payment per Bond Ordinance plus adjustments for memorandums of understanding	
	27,946,524.56 <b>A</b>
Utility services provided to the City for November 2022	
	<u>(2,802,291.87)</u>
Net amount to be paid from November 2022 revenue to the City in December 2022	
	<u>\$25,144,232.69</u>

## CPS Energy Board of Trustees Meeting December 19, 2022

Comparison of City payment per Bond Ordinance (plus adjustments for memorandums of understanding) vs. Budget before deduction for utility services provided to the City:

(Dollars in thousands)

November 2022	Actual	Budget	Variance	
Current Month* <b>A</b>	\$27,947	\$26,841	\$1,106	4.1%
Year-to-Date*	\$376,282 **	\$328,628	\$47,654 **	14.5%

\* This amount does not include any additional funding authorized by the Board of Trustees.

\*\* Includes a rounding adjustment of \$1 to agree to correctly rounded YTD amount.

Approval of the following resolution is requested:

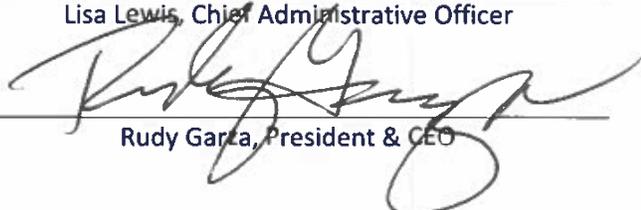
**"BE IT RESOLVED** by the CPS Energy Board of Trustees that payment to the City of San Antonio in the amount of \$25,144,232.69 representing 14% of applicable system gross revenues for the month of November 2022, such payment being net of City utility services (\$2,802,291.87), is hereby approved."



**CPS Energy Board of Trustees Meeting  
December 19, 2022  
APPROVAL of PROCUREMENT ITEMS  
Table of Contents**

<b>1. Item Description:</b>	<b><u>Electric Overhead and Underground Temporary and Permanent Electric Services</u></b>
<b>Purchase Category:</b>	<b>General Services</b>
<b>Supplier:</b>	<b>Chain Electric Company</b>
	<b>HJD Capital Electric, Inc</b>

**Approval:**   
\_\_\_\_\_  
Lisa Lewis, Chief Administrative Officer

**Approval:**   
\_\_\_\_\_  
Rudy Garza, President & CEO



**CPS Energy Board of Trustees Meeting**  
**December 19, 2022**  
**Procurement Form 1**

<b>Item Description</b>	<b>Electric Overhead and Underground Temporary and Permanent Electric Services</b>
<b>Purchase Order Value</b>	<b>\$ 20,000,000</b>
<b>Purchase Category</b>	<b>General Services</b>
<b>Department</b>	<b>Resource Management</b>
<b>VP Construction &amp; Maintenance Services</b>	<b>Darrell Clifton</b>
<b>EVP Energy Delivery Services</b>	<b>Richard Medina</b>

**Detailed Description**

CPS Energy staff recommend that a contract be awarded to Chain Electric Company a local, non-diverse firm, and HJD Capital Electric, Inc. a local, diverse firm as the respondents who will provide the goods or services at the best value for CPS Energy based on the evaluation criteria set forth below.

This recurring contract is for installation and removal of temporary and permanent Underground Residential Distribution (“URD”) services and meters. Temporary installation and removal services are currently being executed by contractors only. This contract will allow CPS Energy to continue to meet the high demand of CPS Energy customer need by dates for new services without delay. This contract will expire on July 31, 2026.

**Subcontracting Opportunities**

Chain Electric Company has committed to subcontracting at least 20% of overall spend to the following diverse businesses:

- Bartek Construction is a local, small business providing underground digging operations in soil, sand, and rock.
- Bexar Pipeline & Utilities is a local, small business providing underground digging operations in soil, sand, and rock.

**The solicitation method for this procurement was a Request for Proposals.** An evaluation team considered the following weighted evaluation criteria to determine the best value to CPS Energy.

<b>Evaluation Criteria</b>	<b>Points</b>
Experience and qualifications to perform the Services	31
The overall cost	21
Safety records and training program	20
The financial soundness of the Respondent	10
Economic Development (local & diverse consideration)	10
The ability to meet CPS Energy’s requirements	8
<b>TOTAL</b>	<b>100</b>



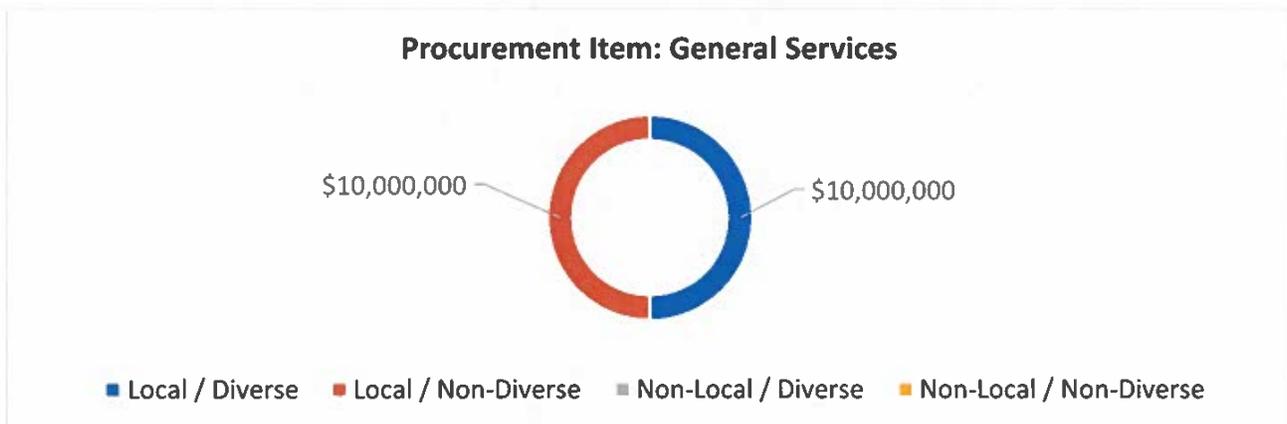
**CPS Energy Board of Trustees Meeting**  
**December 19, 2022**  
**Procurement Form 1**

Recommended Respondent(s) & Award					
Respondent Name	SBA Classification & Details	Score	PO Value	PO #	Comments
Chain Electric Company	Local/Non-Diverse	90	\$10,000,000	2204327	
HJD Capital Electric, Inc	Local/Diverse (Small, Hispanic American-Owned)	75	\$10,000,000	2204328	
<b>TOTAL</b>			<b>\$20,000,000</b>		

Three (3) additional respondents were not recommended for award: Source Power, LLC.; Pike Electric, LLC.; and FNT Services dba Quality Power Distribution.

Annual Funds Budgeted							
Corporate Annual Budget	Funding Method	Projected FY2023 PO Spend	% of FY2023 Annual Corp Budget	Projected FY2024 PO Spend	Projected FY2025 PO Spend	Projected FY2026 PO Spend	Projected FY2026 PO Spend
\$832,904,076	Capital	\$500,000	0.06%	\$5,700,000	\$5,700,000	\$5,700,000	\$2,400,000
\$729,676,030	Non-Fuel O&M	\$0	0%	\$0	\$0	\$0	\$0

Our current approved budget and latest estimates support these new purchase orders.





## OPERATIONS OVERSIGHT COMMITTEE (OOC) MEETING

### **EXECUTIVE SUMMARY AND CHAIR REPORT FROM THE NOVEMBER 10, 2022 MEETING PREPARED FOR COMMITTEE CHAIR, DR. FRANCINE ROMERO FOR REPORT AT THE DECEMBER 19, 2022 BOARD OF TRUSTEES MEETING**

The Operations Oversight Committee met on November 10, 2022. As part of the agenda, the Committee:

- A. Approved meeting minutes from the prior meeting held on August 19, 2022.
- B. Received an update on the Operational Efficiency Review that included:
  - a. An update from Daymark Energy Advisors
  - b. And an update from Gallup, Inc.
- C. Received a presentation on the Update on Equity-Focused STEP Programs that included:
  - a. A discussion on Energy Burden
  - b. An update on the shift from a single prime contractor to multiple prime vendors
  - c. An overview of enhancements to the Weatherization Program & the new multifamily offering
  - d. And a discussion on solar accessibility for low- & moderate-income customers
- D. Received a Procurement preview for:
  - a. A purchase order increase for residential electric meters
- E. Received an update on FY2024 Performance Measures that included:
  - a. An overview of the move to simplified Enterprise Performance Measures
  - b. And a review of the proposed FY2024 measures

The next meeting of the Operations Oversight Committee meeting is TBD.



## NOMINATIONS COMMITTEE (NC) MEETING

### EXECUTIVE SUMMARY AND CHAIR REPORT FROM THE DECEMBER 06, 2022 MEETING

#### PREPARED FOR COMMITTEE CHAIR DR. WILLIS MACKEY

#### FOR REPORT AT THE DECEMBER 19, 2022 BOARD OF TRUSTEES MEETING

The Nominations Committee met on December 06, 2022. As part of the Nominations Committee Meeting agenda, the Committee:

- A. Nominated Vice Chair Gonzalez to serve as the next Chair at the conclusion of Chair Dr. Mackey's term on January 31, 2023.
- B. Nominated Trustee Dr. Romero to serve as the Vice Chair, at the conclusion of Vice Chair Gonzalez's term on January 31, 2023.



# ***GENERATION PLAN RECOMMENDATIONS***

*PRESENTED BY:*

**Kathy Garcia**

VP, Govt & Reg Affairs & Public Policy

December 19, 2022

*Informational Update*



# AGENDA



- **OUR PATHWAY**
- **GENERATION PLANNING OBJECTIVES**
- **OUR PLANNING APPROACH**
- **PORTFOLIO OVERVIEW & RECOMMENDATIONS**
- **INFLUENTIAL FACTORS**

**Our objective today is to present an update on our generation planning process & discuss potential options.**

# OUR COMMITMENT

## HOST COMMUNITY CONVERSATION ON ENERGY SUPPLY

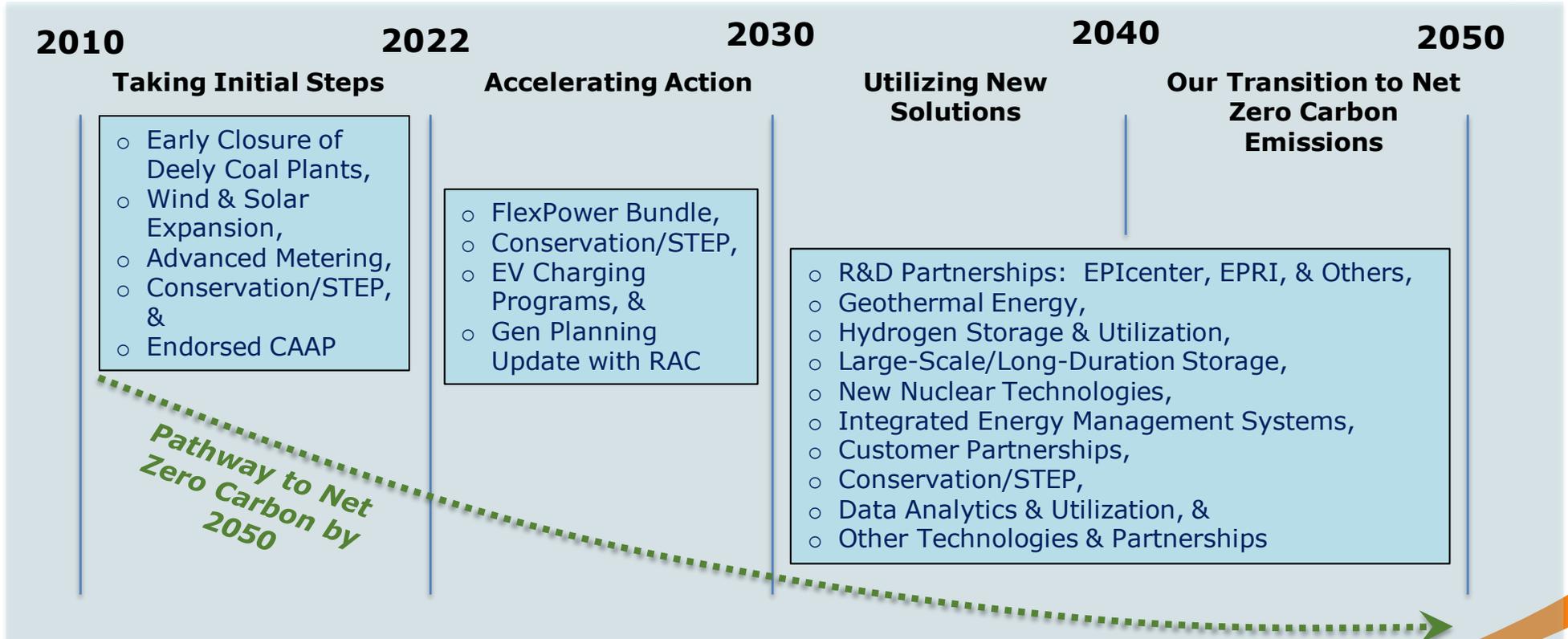


- Gain Rate Advisory Committee (RAC) & community feedback in the energy planning process
- Achieve the objectives of community Climate Action & Adaptation Plan (CAAP)
- Analyze a comprehensive list of options to gain broad perspectives
- Initial focus is on transitional needs through 2030, next we will leverage developing technologies to achieve the 2050 CAAP goal

**Our goal this planning cycle is to ensure reliable, affordable, & sustainable energy resources through 2030.**

# PATHWAY TO 2050

## OUR TRANSITION TO NET ZERO CARBON EMISSIONS



**A blend of proven technologies & timely commercialization of new generation & storage technologies is our path to net zero carbon by 2050.**

# PLANNING OBJECTIVES IN ORDER OF RAC PRIORITY\*



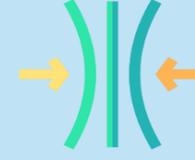
**System Reliability & Climate Resiliency**  
Consistent delivery & ability to cope with extreme events



**Environmental Sustainability**  
Support for community environmental goals



**Affordability**  
Customers' ability to pay for service



**System Flexibility**  
Ability to respond to changing conditions



**Workforce Impact**  
Employees needed to operate effectively

**CPS Energy considers all objectives equally critical to serving our customers.**

\* CPS Energy Financial Stability was moved to a model requirement based on input from the RAC & is not shown

# ROBUST PLANNING PROCESS

## LEVERAGING BROAD PERSPECTIVES & EXPERTISE



- Engaged consultants with broad expertise supporting utilities in comprehensive generation resource planning
- Jointly developed 9 portfolios, each with a diverse set of technologies to serve the expected energy demand
- Analyzed 50 data sets, across 4 market scenarios & sensitivities like extreme weather & conservation/STEP
- Detailed feedback/input from the Rate Advisory Committee shaped the planning process
- Focused on near-term ability to replace 2,100 MW of retiring fossil-fuel power plants by 2030
- Further our strategy to reduce carbon intensity

# POWER GENERATION RESOURCE PLANNING APPROACH



## Identify Planning Objectives

Agree on planning objectives & metrics to measure the performance of the plan against each objective

## Develop Market Scenarios

Identify key sources of uncertainty & the potential range of future outcomes, & design internally consistent future scenarios

## Develop Resource Portfolios

Design options for future resource plans, often based on different future scenarios & priorities

## Portfolio Modeling & Analysis

Evaluate the performance of each resource portfolio against each future scenario, stochastic uncertainty, & extreme risk events

## Select Preferred Plan

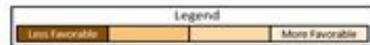
Identify trade-offs from each resource portfolio & select the preferred portfolio

# PORTFOLIO METRIC RESULTS



System Reliability & Climate Resiliency				Environmental Sustainability				Affordability				System Flexibility		Workforce Impact		
Diversity of Generation Mix	Capacity Head-room	Extreme Weather Exposure		Progress Towards City of SA CAAP Goals				Energy Cost (\$/MWh)		Present Value (PV) Revenue Requirements		Market Purchases	Dispatch-ability	CPS Energy Workforce Impact	Local Economic Impact	
Generation Mix (MWh)	Expected Reserve Margin (%)	Rev. Req. Extreme Weather (\$Billion)	% Of CPS Energy Consumption That Is Met Through ERCOT Market Purchases	% CO2 Intensity Reduction Relative To 2016 (Ref Scenario)	Emission Intensity (lb CO2/MWh)		% Reduction In Consumption Due To STEP	Reference Scenario Average Cost (\$/MWh)	Range In Cost In <u>All</u> Scenarios (\$/MWh)	Ref Scenario (\$Billion)	Range Across <u>All</u> Scenarios (\$Billion)	% Of CPS Energy Consumption That Is Met Through ERCOT Market Purchases	% Of CPS Energy Capacity That Is Dispatchable	# Of Impacted CPS Energy Generation Employees	Capital Expenditures For New Generation Capacity Built In Greater San Antonio Area (\$Millions)	
2030	2030	2030	2030	2030	2030	2040	2030	2023 - 2030		2023 - 2030	2023 - 2030	2030	2030	2030	2023 - 2030	
P1		13.7%	\$1.70	1.0%	37%	578	547	9.7%	\$58.07	\$52-60	\$8.58	\$7.87-8.58	1%	61%	155	\$2,758
P2		15.7%	\$2.04	3.1%	44%	518	350	9.7%	\$60.04	\$55-63	\$8.85	\$8.19-8.99	4%	57%	170	\$2,004
P3		14.5%	\$3.26	12.8%	65%	321	161	9.7%	\$60.58	\$56-63	\$8.90	\$8.36-8.98	13%	46%	345	\$1,310
P4		15.3%	\$2.02	6.1%	30%	641	361	9.7%	\$59.16	\$53-61	\$8.72	\$7.99-8.72	7%	63%	90	\$1,787
P5		15.0%	\$3.28	13.5%	65%	325	161	9.7%	\$60.47	\$55-62	\$8.88	\$8.23-8.88	13%	46%	355	\$866
P6		13.2%	\$3.27	19.6%	78%	200	31	9.7%	\$65.34	\$61-69	\$9.54	\$9.07-9.68	18%	39%	355	\$4,041
P7		13.1%	\$3.34	19.7%	78%	202	35	9.7%	\$65.96	\$61-69	\$9.63	\$9.14-9.76	18%	39%	355	\$4,041
P8		15.4%	\$2.79	11.2%	59%	378	160	9.7%	\$60.67	\$55-62	\$8.92	\$8.20-8.92	11%	48%	295	\$548
P9		14.6%	\$2.69	7.9%	60%	371	160	9.7%	\$58.64	\$54-59	\$8.65	\$8.04-8.65	9%	46%	295	\$548

- Nuclear
- Geothermal
- Coal
- Gas
- Gas Toll
- Wind
- Solar
- Other
- Storage
- Hydrogen
- Energy Efficiency



# PORTFOLIO SCORING DETAIL



1. Assigned metric scores per the scale
2. Calculated an average score by Objective
3. Calculated a unweighted total score by Portfolio

**Scale**

1	2	3	4
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*Note: Refer to Portfolio Metric Results Scorecard*

Portfolios	System Reliability & Climate Resiliency				Environmental Sustainability				Affordability				System Flexibility		Workforce Impact	
	Diversity of Generation Mix	Capacity Headroom	Extreme Weather Exposure		Progress Towards City of SA CAAP Goals				Energy Cost (\$/M Wh)		Present Value (PV) Revenue Requirements		Market Purchases	Dispatchability	CPS Energy Workforce Impact	Local Economic Impact
	Generation Mix (MWh)	Expected Reserve Margin (%)	Rev. Req. Extreme Weather (\$Billion)	% of CPS Energy consumption that is met through ERCOT market purchases	% CO2 Intensity Reduction Relative to 2016 (Ref Scenario)	Emission Intensity		% reduction in consumption due to STEP	Reference Scenario	Range in Cost in all Scenarios (\$/M Wh)	Ref Scenario	Range Across Scenarios (\$Billion)	% of CPS Energy consumption that is met through ERCOT market purchases	% of CPS Energy Capacity that is Dispatchable	# of Impacted CPS Energy Generation Employees	Capital expenditures for new generation capacity built in greater San Antonio area (\$Millions)
						(lb CO2/M Wh)	(\$/M Wh)		(\$Billion)							
	2030	2030	2030	2030	2030	2030   2040		2030	2023 - 2030		2023 - 2030	2030	2030	2030	2023 - 2030	
P1	1	2	4	4	See Note 1	1	1	4	4	2	See Note 2	2	4	4	3	3
P2	2	4	4	4	See Note 1	2	2	4	2	2	See Note 2	2	4	4	3	3
P3	3	2	1	2	See Note 1	3	3	4	2	2	See Note 2	4	2	2	1	2
P4	2	4	4	3	See Note 1	1	2	4	4	2	See Note 2	2	4	4	4	2
P5	3	4	1	2	See Note 1	3	3	4	2	4	See Note 2	2	2	2	1	1
P6	2	1	1	1	See Note 1	4	4	4	1	2	See Note 2	4	1	1	1	4
P7	2	1	1	1	See Note 1	4	4	4	1	2	See Note 2	4	1	1	1	4
P8	4	4	2	2	See Note 1	3	3	4	2	2	See Note 2	2	2	2	2	1
P9	4	2	2	3	See Note 1	3	3	4	4	4	See Note 2	4	4	2	2	1

Portfolios	System Reliability & Climate Resiliency				Environmental Sustainability				Affordability				System Flexibility		Workforce Impact		Total Score
P1	2.75				2.00				2.67				4.00		3.00		14.42
P2	3.50				2.67				2.00				4.00		3.00		15.17
P3	2.00				3.33				2.67				2.00		1.50		11.50
P4	3.25				2.33				2.67				4.00		3.00		15.25
P5	2.50				3.33				2.67				2.00		1.00		11.50
P6	1.25				4.00				2.33				1.00		2.50		11.08
P7	1.25				4.00				2.33				1.00		2.50		11.08
P8	3.00				3.33				2.00				2.00		1.50		11.83
P9	2.75				3.33				4.00				3.00		1.50		14.58

- Notes:**
1. % CO2 intensity metric was not used since it is redundant to CO2 intensity in lb/MWh.
  2. Reference PV of Revenue Requirements in \$B was not used since it is redundant to Reference Average Cost in \$/MWh.

# PORTFOLIO SELECTION



	Objectives					Total Score
	Reliability & Resiliency	Environmental Sustainability	Affordability	Flexibility	Workforce	
<b>P1</b>	2.75	2.00	2.67	4.00	3.00	<b>14.42</b>
<b>P2</b>	3.50	2.67	2.00	4.00	3.00	<b>15.17</b>
<b>P3</b>	2.00	3.33	2.67	2.00	1.50	<b>11.50</b>
<b>P4</b>	3.25	2.33	2.67	4.00	3.00	<b>15.25</b>
<b>P5</b>	2.50	3.33	2.67	2.00	1.00	<b>11.50</b>
<b>P6</b>	1.25	4.00	2.33	1.00	2.50	<b>11.08</b>
<b>P7</b>	1.25	4.00	2.33	1.00	2.50	<b>11.08</b>
<b>P8</b>	3.00	3.33	2.00	2.00	1.50	<b>11.83</b>
<b>P9</b>	2.75	3.33	4.00	3.00	1.50	<b>14.58</b>

- **P1, P2, P4, & P9 are most aligned with the objectives.**
- **P3, P5, P6, P7, & P8 are least aligned with the objectives.**

# ALIGNED PORTFOLIOS

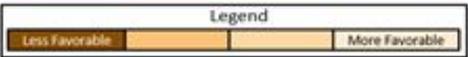
## P1, P2, P4, & P9



System Reliability & Climate Resiliency				Environmental Sustainability				Affordability				System Flexibility		Workforce Impact		
Diversity of Generation Mix	Capacity Head-room	Extreme Weather Exposure		Progress Towards City of SA CAAP Goals				Energy Cost (\$/MWh)		Present Value (PV) Revenue Requirements		Market Purchases	Dispatch-ability	CPS Energy Workforce Impact	Local Economic Impact	
Generation Mix (MWh)	Expected Reserve Margin (%)	Rev. Req. Extreme Weather (\$Billion)	% Of CPS Energy Consumption That Is Met Through ERCOT Market Purchases	% CO2 Intensity Reduction Relative To 2016 (Ref Scenario)	Emission Intensity (Lb CO2/MWh)		% Reduction In Consumption Due To STEP	Reference Scenario Average Cost (\$/MWh)	Range In Cost In <i>All</i> Scenarios (\$/MWh)	Ref Scenario (\$Billion)	Range Across <i>All</i> Scenarios (\$Billion)	% Of CPS Energy Consumption That Is Met Through ERCOT Market Purchases	% Of CPS Energy Capacity That Is Dispatchable	# Of Impacted CPS Energy Generation Employees	Capital Expenditures For New Generation Capacity Built In Greater San Antonio Area (\$Millions)	
2030	2030	2030	2030	2030	2030	2040	2030	2023 - 2030		2023 - 2030	2023 - 2030	2030	2030	2030	2023 - 2030	
P1		13.7%	\$1.70	1.0%	37%	578	547	9.7%	\$58.07	\$52-60	\$8.58	\$7.87-8.58	1%	61%	155	\$2,758
P2		15.7%	\$2.04	3.1%	44%	518	350	9.7%	\$60.04	\$55-63	\$8.85	\$8.19-8.99	4%	57%	170	\$2,004
P4		15.3%	\$2.02	6.1%	30%	641	361	9.7%	\$59.16	\$53-61	\$8.72	\$7.99-8.72	7%	63%	90	\$1,787
P9		14.6%	\$2.69	7.9%	60%	371	160	9.7%	\$58.64	\$54-59	\$8.65	\$8.04-8.65	9%	46%	295	\$548

**Benefits & risks are examined in the following slides.**

- Nuclear
- Geothermal
- Coal
- Gas
- Gas Toll
- Wind
- Solar
- Other
- Storage
- Hydrogen
- Energy Efficiency



# P1 – GAS

## GAS ADDITIONS



Benefits	Risks
<ul style="list-style-type: none"> <li>Higher energy availability in normal &amp; extreme conditions</li> <li>Reduced market exposure</li> <li>More dispatchable generation</li> <li>Includes flexible gas technologies</li> </ul>	<ul style="list-style-type: none"> <li>Greater risk of natural gas availability issues &amp; price volatility</li> </ul>
<ul style="list-style-type: none"> <li>One of the lower-cost portfolios; especially in extreme weather</li> <li>Leveraging Spruce 2 infrastructure with gas conversion</li> </ul>	
	<ul style="list-style-type: none"> <li>Does not meet CAAP 2030 (+6%) or 2040 targets (+105%)</li> </ul>
<ul style="list-style-type: none"> <li>Low impact on our workforce</li> <li>Greater local economic impact</li> </ul>	

■ Reliability & Flexibility
 ■ Affordability
 ■ Sustainability
 ■ Workforce Impact

# P2 – BLEND

## GAS, SOLAR, WIND & STORAGE ADDITIONS



Benefits	Risks
<ul style="list-style-type: none"> <li>• Lower risk in extreme weather</li> <li>• Reduced market exposure</li> <li>• More dispatchable generation</li> <li>• Includes flexible gas technologies</li> </ul>	<ul style="list-style-type: none"> <li>• Some risk of natural gas availability &amp; price volatility</li> </ul>
<ul style="list-style-type: none"> <li>• One of the lower-cost portfolios; especially in extreme weather</li> <li>• Leveraging Spruce 2 infrastructure with gas conversion</li> </ul>	
<ul style="list-style-type: none"> <li>• Meets 2030 CAAP target (-5%)</li> </ul>	<ul style="list-style-type: none"> <li>• Does not meet 2040 CAAP target (+31%)</li> </ul>
<ul style="list-style-type: none"> <li>• Reduced impact on our workforce</li> <li>• Greater local economic impact</li> </ul>	

■ Reliability & Flexibility
 ■ Affordability
 ■ Sustainability
 ■ Workforce Impact



# P4 – BLEND (RETAINS COAL)

## GAS, SOLAR, & STORAGE ADDITIONS



Benefits	Risks
<ul style="list-style-type: none"> <li>Retains greater energy security</li> <li>Lower risk in extreme weather</li> <li>Reduced market exposure</li> <li>Greater dispatchable generation</li> </ul>	
<ul style="list-style-type: none"> <li>One of the lower-cost portfolios; especially in extreme weather</li> </ul>	<ul style="list-style-type: none"> <li>Potential for additional environmental regulations</li> </ul>
	<ul style="list-style-type: none"> <li>Does not meet CAAP 2030 (+18%) or 2040 (+35%) targets</li> </ul>
<ul style="list-style-type: none"> <li>Lower impact on our workforce</li> <li>Greater local economic impact</li> </ul>	

■ Reliability & Flexibility
 ■ Affordability
 ■ Sustainability
 ■ Workforce Impact

# P9 – RENEWABLES

## WIND, SOLAR, & STORAGE ADDITIONS



Benefits	Risks
<ul style="list-style-type: none"> <li>Retains some existing dispatchable gas generation</li> <li>Retains Spruce 2 infrastructure with gas conversion for 7 years</li> </ul>	<ul style="list-style-type: none"> <li>Less dispatchable generation</li> <li>Greater energy availability risk in normal &amp; extreme conditions</li> </ul>
<ul style="list-style-type: none"> <li>One of the lower-cost portfolios due to lower capital investment</li> </ul>	<ul style="list-style-type: none"> <li>Higher cost exposure in extreme weather events due to increased market purchases</li> </ul>
<ul style="list-style-type: none"> <li>Lower carbon intensity</li> <li>Meets 2030 (-32%) &amp; 2040 (-40%) CAAP targets</li> </ul>	
	<ul style="list-style-type: none"> <li>High impact on our workforce</li> <li>Small local economic impact</li> </ul>

■ Reliability & Flexibility
 ■ Affordability
 ■ Sustainability
 ■ Workforce Impact

## **P2 & P9 ARE MOST VIABLE**

### **RETIRE COAL & ACHIEVE 2030 CAAP TARGET**



- P2 offers increased reliability, affordability & retains our experienced workforce to support our lower-carbon transition
- P2 will require continuous evolution to meet 2040 CAAP target
- P9 allows us to meet CAAP 2030/2040 without new technology
- P9 challenges our ability to ensure reliability during extreme weather conditions - more prevalent in recent years as disruptive climate events have increased

**Regardless of portfolio selected, our plans must respond to an evolving ERCOT market & adapt to leverage new technology.**

## OTHER FACTORS ON OUR PATH FORWARD



- Adequate rate support
- PUC/ERCOT market changes
- State legislative actions
- EPA/TCEQ permitting & rulemakings
- Supply chain risks
- Geopolitical impacts on energy markets
- Timely approval of individual plant closures by ERCOT
  - ERCOT will analyze grid reliability with each plant closure
- Timely commercialization of new generation & storage technologies
  - Geothermal, hydrogen storage, large scale/long duration storage, new nuclear technologies
  - Integrated energy management systems, customer partnerships, conservation/STEP, data analytics & utilization, & others

**Carbon neutrality requires a coordinated multi-part plan.**



# DISCUSSION





***Thank You***

