

CPS ENERGY BOARD OF TRUSTEES 21 JUN 16 AM 11:22**NOTICE OF SPECIAL MEETING**

Notice is hereby given of a Special Meeting of the CPS Energy Board of Trustees convening as the Risk Management Committee, **to be held on Tuesday, June 22, 2021, 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 meeting will also be live-streamed.

To protect the health of the public and limit the potential spread of COVID-19, facial coverings, social distancing, and limited in-person attendance will be enforced at the meeting. Facial coverings are encouraged. Public comment on agenda items may be provided in-person, virtually or in writing. These meeting standards are based upon the provisions of the Open Meetings Act, as modified by the Governor of Texas in response to the COVID-19 crisis, and shall remain in place until further notice or until the state disaster declaration expires or is otherwise terminated by the Texas Governor.

This is an informational meeting at which the Board will receive an update on business continuity matters, as well as 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.

Those wishing to speak on an agenda item during the Public Comment portion of the meeting must register on Monday, June 21, 2021, from 7:00 a.m. CT to 1:00 p.m. CT. Registration may be made by email at 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
- Designate whether public comment will be provided in person or virtually
- Group for which the individual is speaking, if applicable
- Agenda item # about which they are speaking
- Any required translation services

In-person commenters, followed by virtual commenters, will be called to speak in the order that each registers.

Written comments may be sent to PublicCommentRegistration@cpsenergy.com. Note that written comments will not be read during the Board meeting.

The agenda packet is attached. It and other informational material may be found at:

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

A recording of the telephonic meeting will be made and 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
Interim Chief Legal & Ethics Officer and General Counsel
June 16, 2021



**SPECIAL MEETING OF THE CPS ENERGY BOARD OF TRUSTEES
CONVENING AS THE RISK MANAGEMENT COMMITTEE**

TO BE HELD ON JUNE 22, 2021 AT 1:00 PM

LOCATION: CPS ENERGY BOARD ROOM (500 MCCULLOUGH AVE.)

RECEIVED
CITY OF SAN ANTONIO
CITY CLERK
21 JUN 16 AM 11:22

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ITEM	TOPIC	ACTION	PRESENTER/ SPONSOR
1	CALL TO ORDER	Execute	Dr. Willis Mackey
2	SAFETY MESSAGE, INVOCATION & PLEDGE OF ALLEGIANCE	Execute	Mr. Kevin Pollo
3	PUBLIC COMMENT Pre-Registration on Monday, June 21, 2021 from 7:00 AM – 1:00 PM @ (210) 353-4662 or PublicCommentRegistration@CPSEnergy.com • Chair's Announcements • Comments	Discuss	Dr. Willis Mackey
4	CEO'S REMARKS	Discuss	Ms. Paula Gold-Williams
CHAIR'S PRIORITIES			
5	RESOLUTION FOR APPOINTMENT OF BOARD SECRETARY FOR THE CPS ENERGY BOARD OF TRUSTEES (Ms. Paula Gold-Williams)	Vote	Dr. Willis Mackey
RISK MANAGEMENT COMMITTEE			
6	DEMAND & SUPPLY (Mr. Kevin Pollo)	Discuss	Mr. Frank Almaraz
7	SUMMER & WINTER PEAK PLANNING	Discuss	Mr. John Kosub
8	A COMPARISON OF SOLAR & NATURAL GAS	Discuss	Mr. John Kosub
CONVENE TO EXECUTIVE SESSION			
9	EXECUTIVE SESSION: Please see the narrative list at the top of this agenda for potential discussion topics.	Discuss	Dr. Willis Mackey
RECONVENE TO OPEN SESSION			
10	ADJOURNMENT	Execute	Dr. Willis Mackey
If the Board meeting has not adjourned by 4:00 PM, the presiding officer shall 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.			



**RESOLUTION APPROVING APPOINTMENT OF SECRETARY
FOR THE CPS ENERGY BOARD OF TRUSTEES**

WHEREAS, the CPS Energy Board of Trustees is required to designate and authorize specific officers and staff to conduct business on behalf of CPS Energy; and

WHEREAS, effective December 7, 2009, CPS Energy appointed Carolyn E. Shellman to serve as the Board Secretary; and

WHEREAS, Ms. Shellman announced her June 16, 2021, resignation; and

WHEREAS, effective June 16, 2021, CPS Energy appointed Ms. Shanna M. Ramirez to serve as Interim Chief Legal & Ethics Officer (CLEO), to oversee all of CPS Energy's legal functions; and

WHEREAS, in her new role as CLEO, Ms. Ramirez will assume responsibility for managing and directing the legal activities that require Board of Trustees approval and will be providing support to the Board related to these legal matters; and

NOW, THEREFORE, BE IT RESOLVED that the CPS Energy Board of Trustees hereby approves the appointment of Shanna M. Ramirez as Secretary to the Board of Trustees, effective June 16, 2021.



DEMAND & SUPPLY

PRESENTED BY:

Kevin Pollo

Interim VP, Energy Supply & Market Operations (ESMO)

June 22, 2021

Informational Update



OBJECTIVES & TAKEAWAYS



- **REVIEW OUR CUSTOMER DEMAND PROJECTIONS & KEY DRIVERS**
- **DISCUSS OUR SUPPLY POSITION & UPCOMING TRANSITION**



AGENDA



- OUR *GUIDING VALUE PILLARS*
- PROJECTED POPULATION GROWTH
- KEY DRIVERS IN PROJECTED CUSTOMER DEMAND GROWTH
- UPCOMING SUPPLY CONSIDERATIONS



OUR GUIDING PILLARS & FOUNDATION



Reliability



Customer Affordability



Security



Safety



Environmental Responsibility



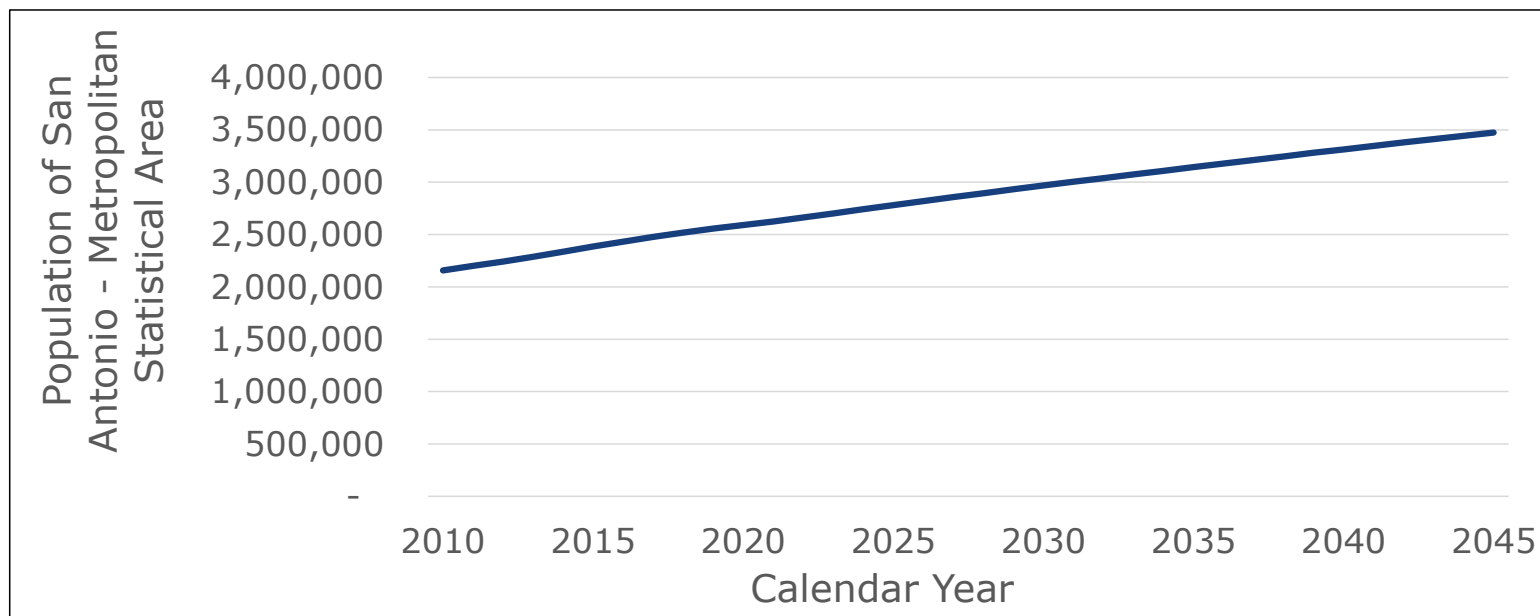
Resiliency



● *Financially Responsible* ●

All business decisions are based on our commitment to being one of the best-managed & most ***Financially Responsible*** utilities in the nation!

PROJECTED POPULATION GROWTH



Notes: Data source is IHS Markit. San Antonio Metropolitan Statistical Area is made up of 8 counties: Atascosa, Bandera, Bexar, Comal, Guadalupe, Kendall, Medina, & Wilson

In spite of the pandemic, projections have the area gaining approximately 1 million residents over the next 20 to 30 years.

PROJECTED CUSTOMER GROWTH

KEY DRIVERS



Customer usage growth over the next 20 to 30 years:

- Driven by population growth
- Offset by energy efficiency & conservation (***FlexSTEP***SM)
- Results in annual growth projection of approximately 1.5% in peak usage needs



FOCUS ON AGING GAS & COAL PLANTS

OVER 3,000 MW OF GENERATION CAPACITY



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



Sommers 1 & 2 Gas Plant
Built in 1972 & 1974
830 MW



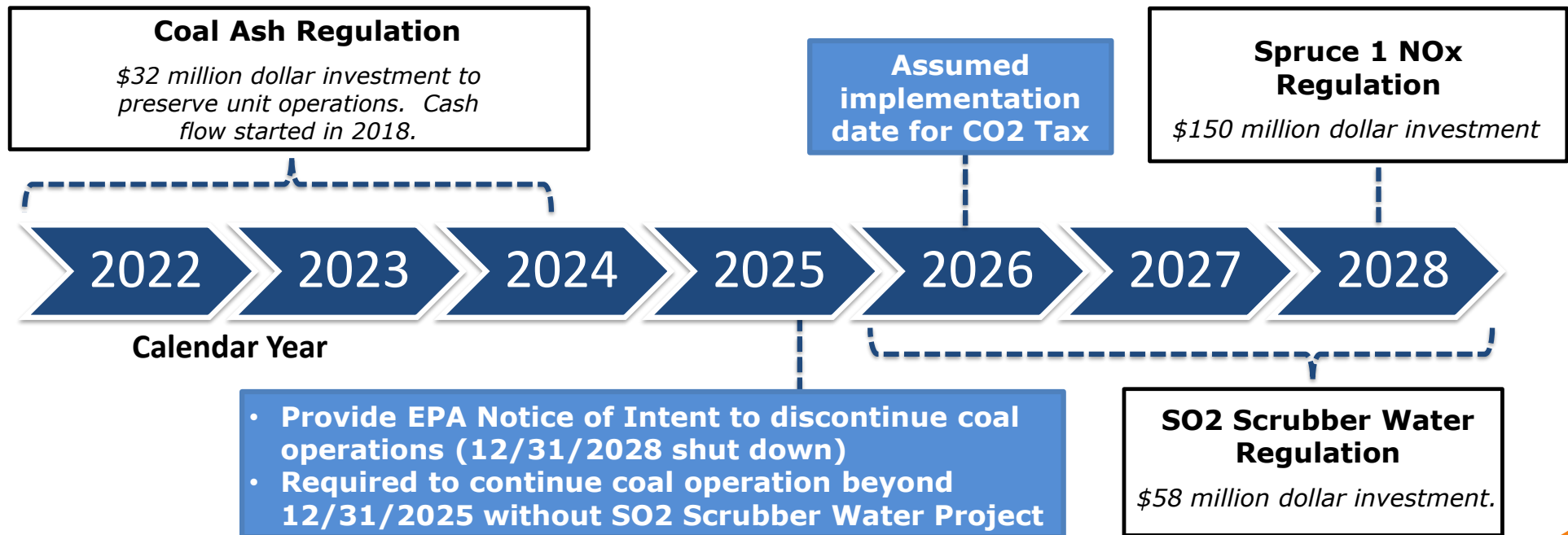
Spruce 1 & 2 Coal Plant
Built in 1992 & 2010
1345 MW



**The Braunig & Sommers units are reaching their end of design life.
We must thoughtfully sequence the order of plant changes to
maintain *Reliability* & *Customer Affordability*.**

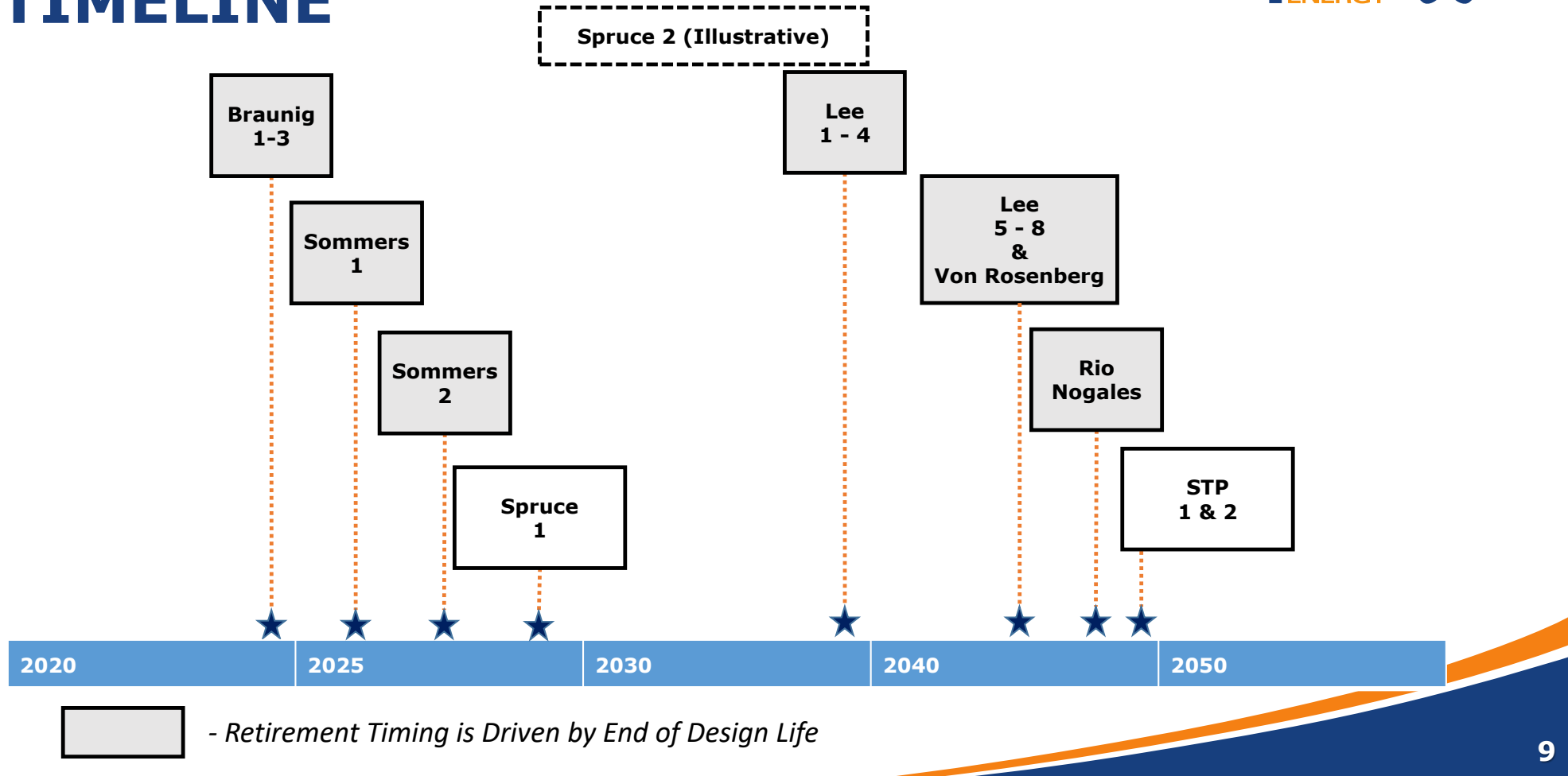
COAL ENVIRONMENTAL COMPLIANCE

SIGNIFICANT INVESTMENTS EXPECTED



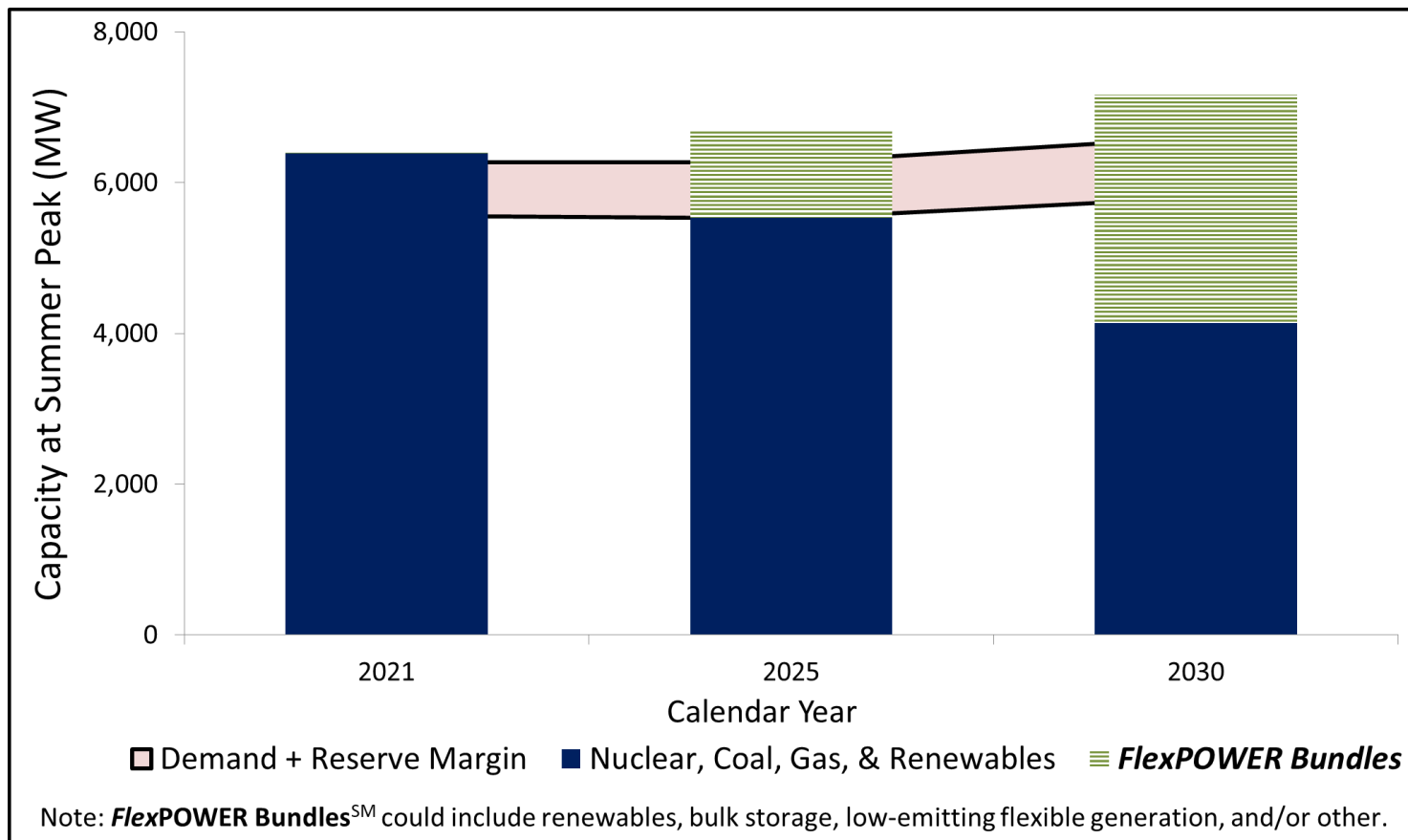
Investments beyond the on-going annual capital / O&M spend are expected for continued environmentally compliant coal operations.

TENTATIVE PLANT RETIREMENT TIMELINE



ENERGY CAPACITY

WE MUST CAREFULLY COVER S.A.'S NEEDS



Our approach is to add new innovative technologies to replace older units, while reliably meeting our customers' energy needs.

TRANSITION OF GENERATION FLEET

KEY TAKEAWAYS



- We must meet our community's projected increase in peak usage
- We must prioritize plants that are approaching the end of their design life
- Community discussions are continuing about potential options for our two coal units
- Sequencing is critical
- Velocity matters

Maintaining *Reliability* & *Customer Affordability* is essential as we transition our generation fleet.



Thank You





SUMMER & WINTER PEAK PLANNING

PRESENTED BY:

John Kosub

Sr. Director, Energy Portfolio Analytics

June 22, 2021

Informational Update



OBJECTIVES & TAKEAWAYS



- **DISCUSS & UNDERSTAND SUMMER & WINTER PEAKS & THEIR IMPACT ON PLANNING**



AGENDA



- **OUR *GUIDING VALUE PILLARS***
- **RESERVE MARGIN REVIEW**
- **COLLABORATIVE RESEARCH OPPORTUNITIES**
- **SUMMER & WINTER PEAK PLANNING**



OUR GUIDING PILLARS & FOUNDATION



Reliability



Customer Affordability



Security



Safety



Environmental Responsibility



Resiliency



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RESERVE MARGIN - BACKGROUND



- ***Reserve margin*** is the extra capacity needed to meet customer demand if power plants generate less than expected, or customer demand increases more than expected
- Reserve margin is a metric used in long-range planning to quantify a reliable system
- Reserve margin methodology is in question due to:
 - Loss of conventional coal & gas resources
 - Substantial renewable additions (i.e. output is not “controllable”)
 - Potential for failures, such as a system-wide lack of natural gas
 - Extreme weather risk



COLLABORATIVE RESEARCH FUTURE CAPACITY NEEDS



Electric Power Research Institute:

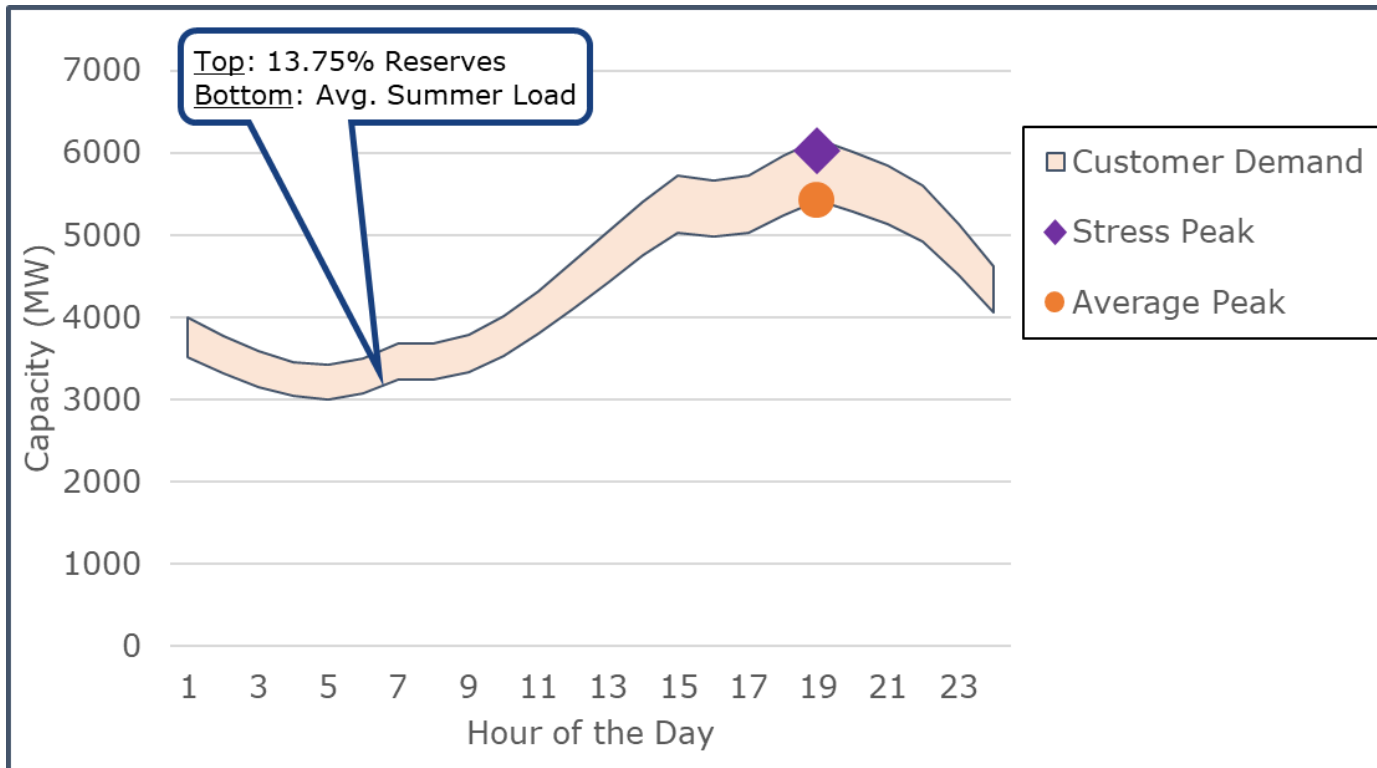
"The electric power industry is shifting... towards variable energy resources and natural gas...the industry needs to...make electric service more resilient to significant disruptions of supply..."



The electric industry is looking at how capacity needs across the nation & globe will change in the future.

SUMMER DAY

2025 PROJECTION - DEMAND



2025 Summer Forecast:

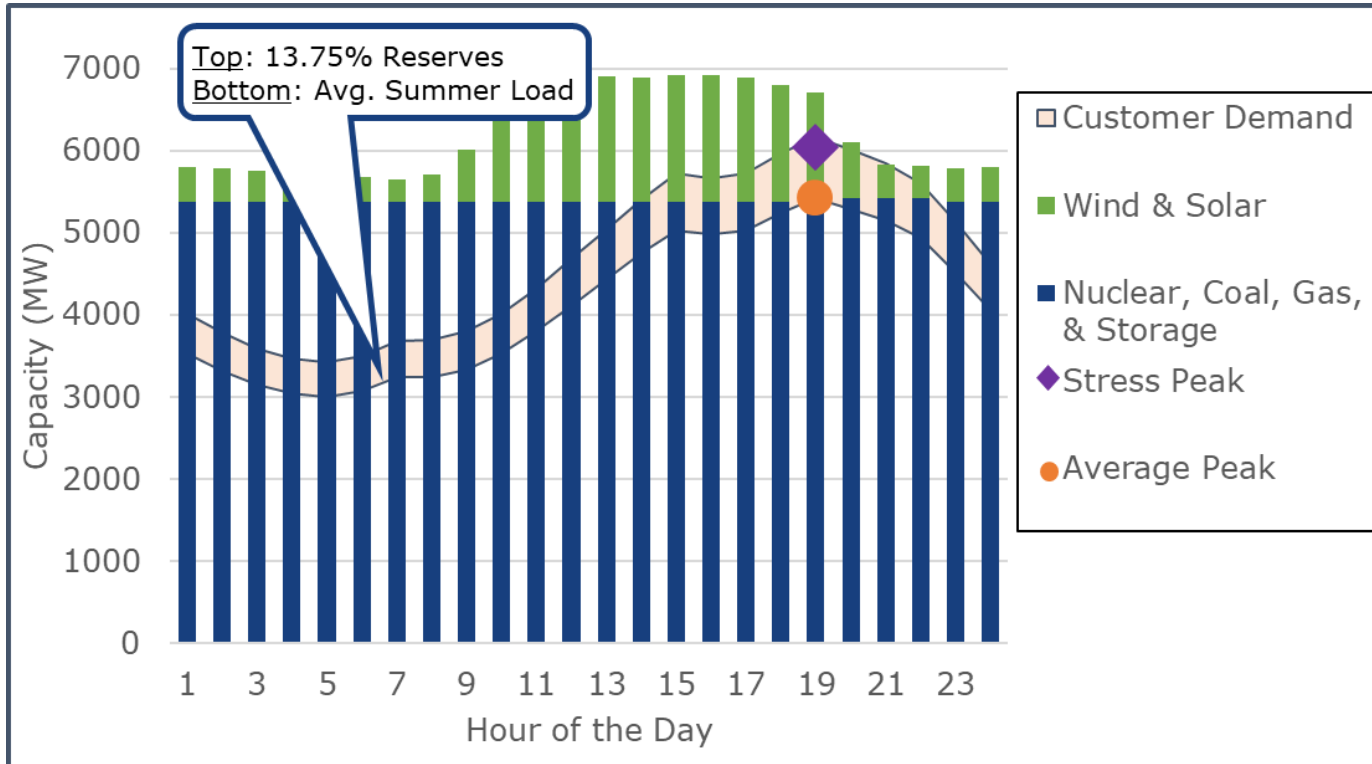
Demand:

Avg. Peak: 5,424MW

Stress Peak: 6,028MW

The 2025 summer stress peak is projected to be within the reserve margin band.

SUMMER DAY 2025 PROJECTION – DEMAND & SUPPLY



2025 Summer Forecast:

Demand:

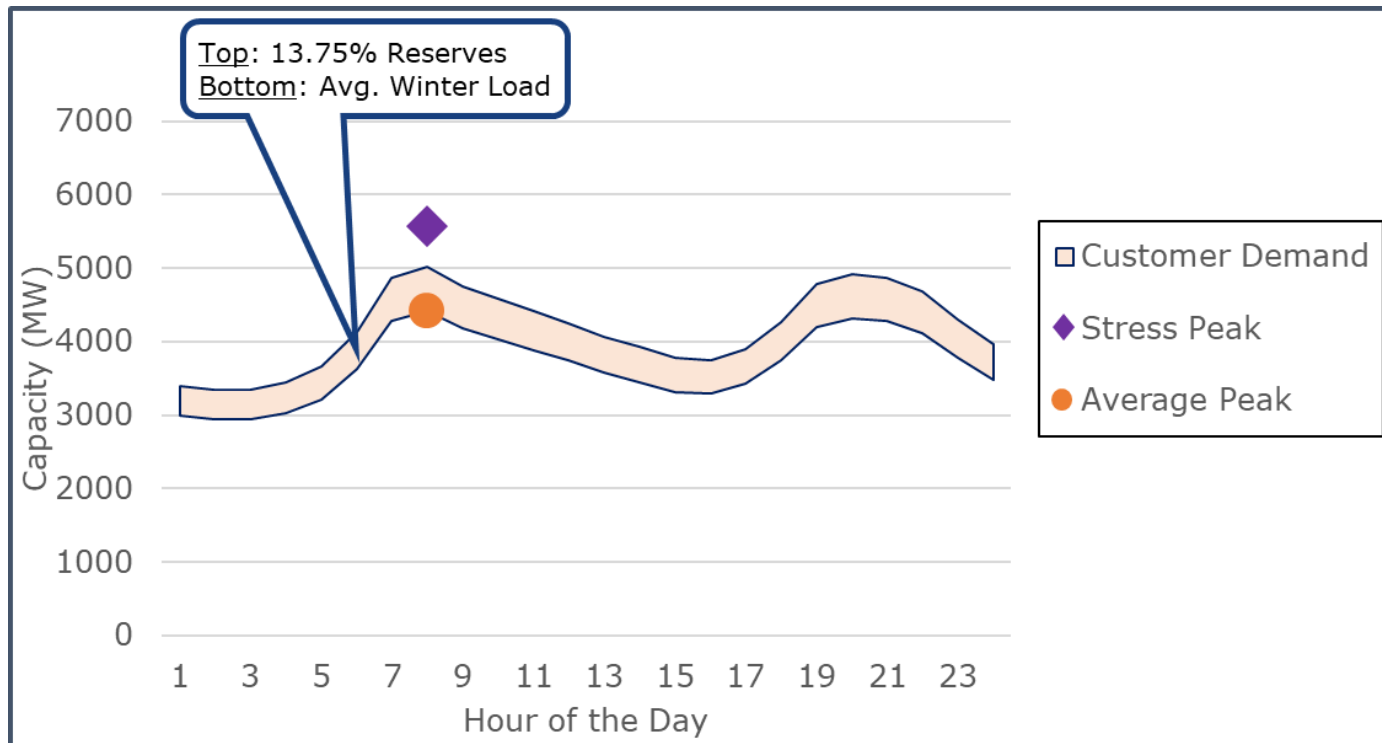
- Avg. Peak: 5,424MW
- Stress Peak: 6,028MW

Supply:

- Nuclear, Coal, Gas, & Storage: 100%
- Coastal Wind: 63%
- West Wind: 16%
- Solar: 50%

Given the South Texas weather pattern, typical summer day peak has been the focal point of generation planning.

WINTER DAY 2025 PROJECTION - DEMAND



2025 Winter Forecast:

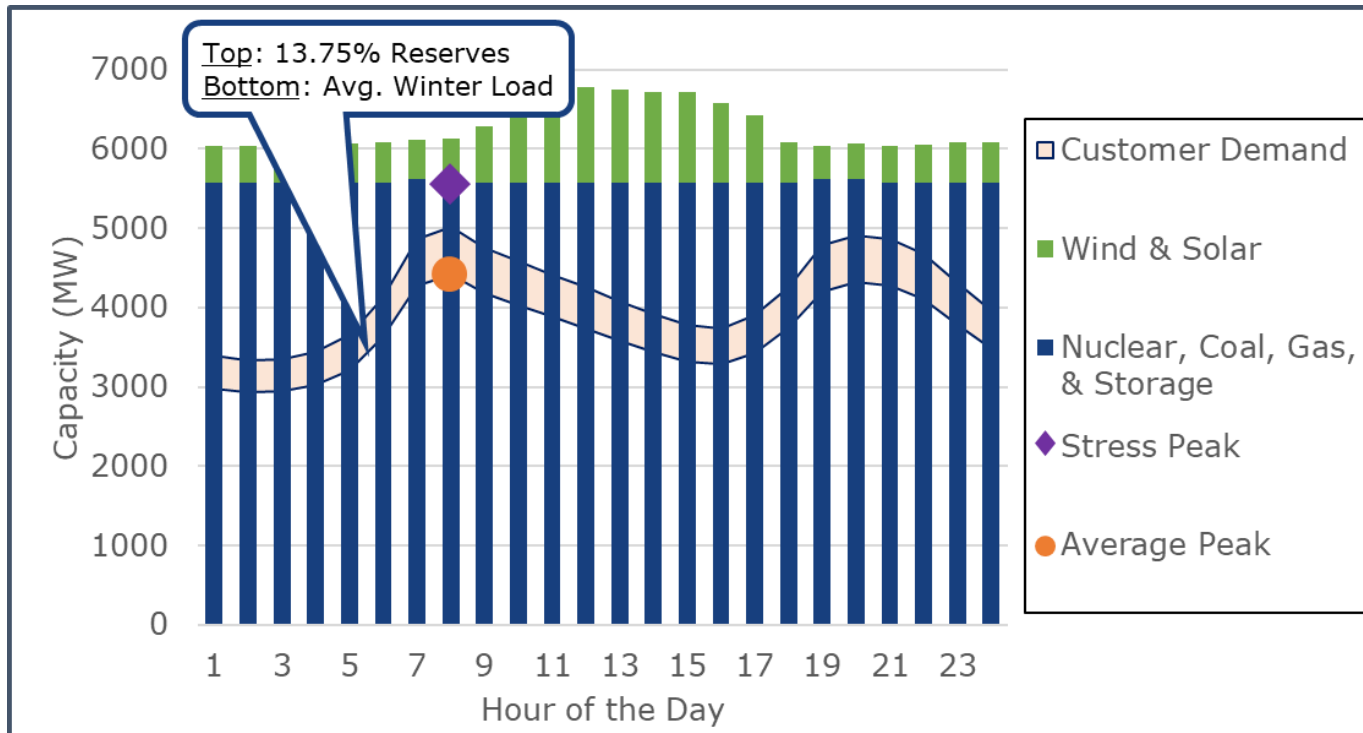
Demand:

- Avg. Peak: 4,411MW
- Stress Peak: 5,555MW

The 2025 winter stress peak is projected to land outside of the reserve margin band, which requires us to incorporate winter stress peak needs into our planning.

WINTER DAY

2025 PROJECTION – DEMAND & SUPPLY



2025 Winter Forecast:

Demand:

- Avg. Peak: 4,411MW
- Stress Peak: 5,555MW

Supply:

- Nuclear, Coal, Gas, & Storage: 100%
- Coastal Wind: 43%
- West Wind: 19%
- Solar: 0.9%

Extreme winter weather like we just experienced requires us to further harden our facilities, assess additional physical gas supply, & analyze the potential for impaired renewable production.

SUMMER & WINTER PEAK PLANNING

KEY TAKEAWAYS



- As a member of an industry coalition, we will:
 - Advance the development of low-carbon resources
 - Study & implement capacity planning improvements to make electric service more **resilient**
- We will incorporate summer & winter stress peak needs into our planning efforts as follows:
 - Further harden our facilities
 - Assess our physical gas fuel supply
 - Analyze the potential for impaired renewable production

Maintaining *Resiliency, Reliability, & Customer Affordability* is essential as we update our peak planning process.



Thank You





A COMPARISON OF SOLAR & NATURAL GAS

PRESENTED BY:

John Kosub

Sr. Director, Energy Portfolio Analytics

June 22, 2021

Informational Update



OBJECTIVES & TAKEAWAYS



- **COMPARE & CONTRAST SOLAR & GAS GENERATION RESOURCES**





AGENDA

- **OUR *GUIDING VALUE PILLARS***
- **BENEFITS & CHALLENGES**
- **COST & RISK ANALYSIS**
- **KEY TAKEAWAYS**

OUR GUIDING PILLARS & FOUNDATION



Reliability



Customer Affordability



Security



Safety



Environmental Responsibility



Resiliency



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SOLAR & NATURAL GAS

COMPARE & CONTRAST



	SOLAR	GAS
BENEFITS	<ul style="list-style-type: none"> • No fuel cost • Zero emission resource • Aligns with daytime load • Attractive fixed price 	<ul style="list-style-type: none"> • Abundant fuel supply • Mature technology • Controllable 24 x 7 • Affordable
CHALLENGES	<ul style="list-style-type: none"> • Does not produce fully at summer peak • Produces very little at winter peak • Large land footprint 	<ul style="list-style-type: none"> • Has an emissions footprint • Gas supply & fuel price risk • Outage risk • Higher maintenance costs

There is no perfect solution; each technology has benefits & challenges.

SOLAR COMPARED TO GAS

10 YEAR ESTIMATED COMPARISON



	Solar Generation	Natural Gas Generation
10-Year Cost (2021\$)	Attractive, fixed cost per-unit	\$86M more expensive, driven by capacity payment & gas fuel cost
CO2 Emissions	Emission-free	On average, 0.9 million tons per year higher, or 9 million tons total over the 10-year period
NOx Emissions	Emission-free	On average, 66 tons per year higher, or 663 tons total over the 10-year period
Natural Gas Fuel Supply/Price Risk	Not impacted by gas price volatility	Elevated risk due to increased gas dependency
Exposure to High Market Prices	Elevated risk during pre-dawn & nighttime hours	Reduced risk – as long as plant & fuel supply is available
Summer & Winter Peak Performance	Does not fully produce during summer peak & produces very little during winter peak; requires storage & firming to supplement.	Controllable, long-duration natural gas resource as long as plant & fuel supply is available

A diversified approach will continue to benefit our customers.

SOLAR & NATURAL GAS

KEY TAKEAWAYS



- Solar & gas generation have benefits & challenges
- A diversified approach to generation resources will continue to benefit our customers
- Comparing solar & gas generation highlights the need for focused planning for both summer & winter stress peaks

Resource bundling will enable a smooth transition to reduced carbon emissions while providing *Affordable, Reliable, Resilient, & Environmentally Responsible* energy supply.



Thank You



GLOSSARY / DEFINITIONS



Acronym or Word	Definition
Capacity	The amount of electricity a generator can produce when it is running at full output.
Demand	The amount of electrical power needed by our customers.
EPA	U.S. Environmental Protection Agency – Their mission is to protect human health and the environment.
FlexSTEP SM	A dynamic, flexible program for promoting energy efficiency, conservation, and new technology that builds on CPS Energy's Save for Tomorrow Energy Plan's (STEP) proven model for delivering energy savings and empowering customer choice.
Gas Price Volatility	Fluctuations in the price of natural gas.

GLOSSARY / DEFINITIONS



Acronym or Word	Definition
GTI	Gas Technology Institute - GTI is a research, development and training organization addressing energy and environmental challenges to enable a secure, abundant, and affordable energy future.
MW	Megawatt - A measure of capacity to produce electric power. A megawatt equals 1,000 kilowatts or 1,000,000 watts. One megawatt can power about 200 homes on a hot day.
NOx	Nitrogen oxide.
O&M Expense	Operations and Maintenance Expense – Costs incurred to keep an item in good operating condition.
Peak Demand	The maximum load demand imposed on a power supply system at a period in time.

GLOSSARY / DEFINITIONS



Acronym or Word	Definition
Reserve Margin	A measure of available capacity over and above the exact capacity needed to meet normal peak demand levels.
Resources	Electrical Generation facilities available to meet customer demand on an as-needed basis.
SO2	Sulfur dioxide.
Stress Peak	The maximum load demand imposed on a power supply system at a period in time that occurs during a maximum or minimum ambient temperature.
Supply	The amount of electrical power provided to meet our customer's demand.