

Glossary – Release #2

Provided by CPS Energy to the Rate Advisory Committee – September 2022

Additions and Revisions since the last release are highlighted.

Term/Acronym	Definition
Accelerated Depreciation	Accelerated Depreciation - a depreciation method whereby an asset loses book value at a faster rate than the traditional straight-line method.
Adaptation	The process of adjustment to actual or expected climate and its effects such as temperature extremes and precipitation changes.
ADSC	Adjusted Debt Service Coverage - measurement of available cash flow to pay current debt obligations.
Affordability	Affordability is a planning objective that assesses a customer's ability to pay for monthly electric services. Common metrics used to assess affordability are monthly bill impact and the present value of revenue requirements.
Affordable Clean Energy (ACE)	Establishes emission guidelines for states to use when developing plans to limit carbon dioxide (CO ₂) at their coal-fired electric generating units (EGUs).
Baseload	The minimum level of demand on an electrical grid over a span of time. Baseload power plants are designed to meet this minimum level of demand.
Behind-the-meter	Reference point to what occurs on the energy user's side of the utility meter.
BESS	Battery Energy Storage System - are rechargeable battery systems that store energy from solar arrays or the electric grid and provide that energy to a home or business.
Bill Impact	Average combined monthly residential bills for a given scenario represent the expected revenue (which includes base, fuel adjustment, and regulatory adjustment revenue) per bill for all projected residential electric and gas customers. The impact to CPS Energy's financial metrics and bills across all scenarios under consideration are weighed to help determine which one provides the best overall value.
CAAP	The Climate Action and Adaptation Plan (CAAP) is a City of San Antonio guiding document created over a 2-year community input process and adopted by the City of San Antonio City Council in October 2019. The CPS Energy Board of Trustees made a resolution in support of CAAP in August 2019. The CAAP contains potential strategies to mitigate (reduce) greenhouse gases (GHG) and adapt to a changing climate in order to make our community more resilient. The CAAP has an overall goal consistent with the Paris Agreement to reach net-zero carbon emissions by 2050. The CAAP also contains two interim goals to check progress, a 41% reduction in GHGs by 2030, and a 71% reduction by 2040. The baseline year for the CAAP GHG Inventory is 2016.
Calendar Year (CY)	January 1 to December 31
Capacity Factor	The ratio of actual electric energy produced over the maximum possible electric energy that could be produced.
Carbon Intensity	The total amount of Carbon Dioxide (CO ₂) emitted by fossil fuel power generation units (coal & natural gas) in pounds (lb) divided by the total power generation (MWh) from all generation sources including coal, natural gas, nuclear, and renewables.

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Carbon Neutral	Having achieved a state in which the net amount of carbon dioxide or other greenhouse gases emitted into the atmosphere is reduced to zero because it is balanced by action to reduce or offset these emissions. We use this term interchangeably with “net-zero”. In other words, there needs to be a reduction in greenhouse gases or some type of method to offset or remove them from the atmosphere so that the net impact to the atmosphere is zero.
Cash on Hand	Funds available to a company that can be spent as necessary.
Clean Air Act (CAA)	The Clean Air Act of 1963 is a United States federal law designed to control air pollution on a national level.
Climate Change	Changes in average weather conditions persist over multiple decades or longer. Although sometimes referred to as “global warming”, climate change encompasses both increases and decreases in temperature, as well as shifts in precipitation, changing risk of certain types of severe weather events, increased instability and reduced predictability, and changes to other features of the climate system.
Climate Equity	Equity means that our policymaking, service delivery, and distribution of resources account for the different histories, challenges, and needs of the people we serve. Equity differs from equality, which treats everyone the same despite disparate outcomes (City of San Antonio, Equity Office, 2017). This term is used widely in the City of San Antonio Climate Action & Adaptation Plan (CAAP).
CO ₂	Carbon Dioxide, is the most commonly produced greenhouse gas.
Combined-Cycle (CC)	A type of power plant (typically natural gas fueled) where power is generated using two thermal cycles, typically a CT (see definition) and an ST (see definition).
Congestion	There are limitations on the electrical grid that prevent the flow of power from one location to the next. These limitations create costs for moving power through limited transmission lines.
Credit Downgrade	Debt is classified by Credit Rating Agencies based on the risk of the borrower not being able to repay. The Credit Rating Agencies downgrade a credit when they think a borrower has more risks, not as creditworthy.
CT	Combustion Turbine - a machine in which air enters, becomes compressed, and is mixed with gas or oil before being ignited. Combustion turbine units are typically used to supplement power supply during peak demand periods when electricity use is highest.
D/C	Debt to Capitalization - the total D/C ratio is a measure that shows the proportion of debt a company uses to finance its assets, relative to the amount of cash (equity) used for the same purpose.
DCOH	Days Cash on Hand - represents the number of days a company can continue to pay its operating expenses with the current cash available.
DDP	Distribution Development Plan - a plan to manage distribution systems and ensure continuous, reliable, and affordable electric service to customers through the identification of infrastructure requirements.
Decay (Energy Efficiency)	Decay is the estimated degradation of EE programs over time as products like LED lighting, solar, and HVAC equipment reaches the end of their engineered life span.

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Demand Response (DR)	Demand Response is a change in the power consumption of electric customers to better match the demand for power with the supply. Customers may adjust power demand by reducing or shifting tasks that require large amounts of electric power.
Depreciation	An accounting reduction in the value of an asset with the passage of time, due in particular to wear and tear.
Discount Rate	See WACC.
Econometric Regression Computer model	A multiple variable regression model that has the application of statistical methods to economic data.
ELG	Effluent Limitation Guidelines - are national regulatory standards for wastewater discharged to surface waters and municipal sewage treatment plants. EPA issues these regulations for industrial categories, based on the performance of treatment and control technologies.
Energy Efficiency (EE)	Using technology or services that require less energy to perform the same function.
Environmental Sustainability & Climate Resiliency	Environmental Sustainability & Climate Resiliency is a planning objective that measures the environmental impact of the CPS Energy generation mix. Example metrics are: tons of carbon dioxide emitted, compliance with environmental regulations, and compliance with local environmental goals.
EOY	End of Year
EPA	Environmental Protection Agency - an independent executive agency of the United States federal government tasked with protecting people and the environment from significant health risks, sponsoring and conducting research, and developing and enforcing environmental regulations.
ERCOT	Electric Reliability Council of Texas - operates the electric grid and manages the deregulated market for 75 percent of the state of Texas.
ESG	Environmental, Social and Corporate Governance - refers to the three central factors in measuring the sustainability and societal impact of an investment in a company or business. These criteria help to better determine the future financial performance of companies (return and risk).
Extreme Weather Event	For the CPS Energy generation planning process, an extreme weather event is defined as a record low-temperature event in the winter and a record high-temperature event in the summer. The extreme weather event is then analyzed as a sensitivity that involves a modification to key external inputs to reflect observed levels of electricity demand, renewable generation, commodity prices, and market electricity prices.
Financial Stability	Financial Stability is a planning objective that assesses CPS Energy's financial health. Common metrics are: the debt to capitalization ratio, adjusted debt service ratio, and days cash on hand.
Fiscal Year (FY)	For CPS Energy, February 1 to January 31.
Flexible Path SM	CPS Energy's strategic approach to thoughtfully discover, explore, and implement new power generation and demand-side solutions to transform the utility to lower and non-emitting energy resources over the next 20 years and beyond.
FlexPOWER Bundle SM	An initiative supporting the Flexible Path SM strategy; envisioning adding 900 Megawatts of generation capacity by adding solar, storage, and firming capacity to the utility's power generation mix.

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FlexSTEPSM	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.
FOM	Fixed Operations and Maintenance - is the recurring annual cost that occurs regardless of the size or architecture of the power system.
Forecast of Retail Electric Sales	The predicted amount of electrical usage by CPS Energy Customers.
Front of the Meter	Reference point to what occurs on the grid side and is deemed to be in front of the utility meter.
Generation Production Cost Modeling	A model that is used to forecast the cost of producing electric power.
Global Warming	The observed increase in average temperature near the Earth’s surface is due to the effects of the increased greenhouse gases in the atmosphere. Global warming is a type of climate change; it can also lead to other changes in climate conditions, such as changes in precipitation patterns.
Greater San Antonio	See San Antonio Metropolitan Statistical Area definition.
Greenhouse Gases (GHGs)	Gases that absorb heat in the atmosphere near the Earth’s surface, preventing it from escaping into space. As the atmospheric concentrations of these gases rise, the average temperature of the lower atmosphere gradually increases, a phenomenon known as the greenhouse effect. Greenhouse gases include carbon dioxide, water vapor, and methane. The primary GHG emitted by the burning of fossil fuels for power generation is carbon dioxide. The terms GHGs, carbon, and carbon dioxide are often used interchangeably.
Heat Rate (Btu/kWh)	“Heat Rate” refers to energy conversion efficiency for a thermal electric power plant, in terms of, “how much energy must be expended to obtain a unit of useful work”. Heat Rate is the amount of energy, expressed in British thermal unit (Btu), required to produce 1 kilowatt-hour (kWh) of electric energy and is expressed in units of “Btu per kWh”. Because approximately 3,412 Btu equals 1 kWh, we can easily determine the thermodynamic efficiency of a power plant by dividing 3,412 Btu/kWh by the heat rate (in Btu/kWh).
Internal Rate of Return (IRR)	The internal rate of return (IRR) is a metric used in financial analysis to estimate the profitability of potential investments. IRR is a discount rate that makes the net present value of all cash flows equal to zero in a discounted cash flow analysis. In general, a higher IRR is indicative of a more desirable project to undertake.
ISO - Electricity	Independent System Operator – An organization formed to coordinate controls and monitors the operation of the electrical power system, in Texas this is ERCOT (See ERCOT above).
ISO - Standards	International Organization for Standardization - is an international standard-setting body composed of representatives from various national standards organizations.
Kilowatt-hour (kWh)	A standard unit to measure electricity. One kWh is 1,000 watts of electricity used for 1 hour.
LOLE	Loss of load expectation, a reliability metric representing how many hours the electricity supply will not meet demand.

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LRT	Long Range Transmission - allows remote renewable energy resources to be used in populous cities. Hydro and wind sources cannot be moved closer to populous cities, and solar costs are lowest in remote areas where local power needs are minimal.
Market Perspective/Scenario	The two terms, "Market Perspective" and "Scenario" are used interchangeably and represent a future external state-of-the-world that is independent of CPS Energy resource decisions. A market perspective or scenario will generally be made up of linked and correlated key variables (i.e. key market conditions). Examples of scenario variables include commodity prices, technology costs, carbon policies, electricity demand, market design changes, the ERCOT regional generation mix, and ERCOT market prices.
Megawatt (MW)	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.
Megawatt-hour (MWh)	A unit to measure electricity one MWh is 1 MW used for 1 hour, or 1,000 kWh's.
Metric	A quantitative measure that is used to assess and compare the performance of an electric resource portfolio against a planning objective.
Metric Tons CO2 Equivalent (MtCO2e)	At CPS Energy we typically show units of carbon dioxide in tons (note: 1 ton equals 2,000 lbs.). For GHG Inventories, such as the one used for the City of San Antonio Climate Action & Adaptation Plan (CAAP), carbon dioxide and other GHGs such as methane are converted to MtCO2e. A measure used to compare the emissions from various GHGs on the basis of their global warming potential, by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential. Often reported as Million metric tons CO2 equivalent (MtCO2e).
Metropolitan Statistical Area (MSA)	A geographic region with a relatively high population density at its core and close economic ties throughout the area, is typically centered on a single large city or multiple large cities that have significant influence over the region.
mmBtu	Million British Thermal Units – A measure of the energy content of the fuel.
Mothballing	For power plants, putting the plant in a deactivated state but not decommissioning/deconstructing the plant.
NBV	Net Book Value - is based on the original cost of the asset less any depreciation, amortization, or impairment costs made against the asset.
NCP	Non-Coincidental Peak, reducing energy consumption throughout the day.
NGCC	Natural-Gas Combined Cycle - is an advanced power generation technology that improves the fuel efficiency of natural gas.
Nonattainment	If the air quality in a geographic area meets or is cleaner than the national standard, it is called an attainment area (designated as "attainment/unclassifiable"); areas that don't meet the national standard are called nonattainment areas. Bexar County is currently designated as a nonattainment area for ozone.

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Normalized Residential Use per Bill	An industry standard adopted method that will adjust the diverse weather conditions that exist from year to year to be of a common weather basis. This method is used so comparisons can be done from year to year without skewing due to differing weather conditions.
NO _x	Nitrogen oxides - may refer to a binary compound of oxygen and nitrogen, or a mixture of such compounds.
NPV	Net Present Value - is the calculation used to find today's value of a future stream of payments. It accounts for the time value of money and can be used to compare investment alternatives that are similar.
O&M Expense	Operations and Maintenance Expense – are costs incurred to keep an item in good operating condition.
Ozone	Ozone in the upper atmosphere protects the Earth from harmful levels of ultraviolet radiation from the sun. The ozone that is referenced when talking about nonattainment is the ozone in the lower atmosphere. Ozone is an air pollutant with harmful effects on human health. Burning fossil fuels for power generation, transportation, and other activities create Nitrogen Oxides (NO _x) and Volatile Organic Compounds (VOC). When NO _x and VOCs combine in the presence of sunlight, they form ozone. As we decarbonize and move away from fossil fuels, as a co-benefit we also reduce the production of ozone forming emissions.
The Paris Climate Agreement (Paris Agreement)	The United Nations met at a convention on Climate Change in Paris. There they formed an agreement that brings all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects. The agreement's central aim is to strengthen the global response to the threat of climate change by keeping the increase in global average temperature this century to well below 2 degrees Celsius (3.6°F) above pre-industrial levels (1890's) and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (2.7°F). The CoSA CAAP is aligned with the Paris Agreement.
Particulate Matter (PM)	Solid particles and liquid droplets found in the air.
Planning Objective	A goal against which various generation portfolios can be evaluated. Examples of planning objectives are: System Reliability, Affordability, Environmental Sustainability & Climate Resiliency, CPS Energy Financial Stability, System Flexibility, and Workforce Impact.
Portfolio	A combination of electric resource decisions taken by CPS Energy. A portfolio typically includes decisions on capacity retirements (when and how much) and new resource additions (what type, when, and how much).
PPA	Power Purchase Agreement - a contract between two parties, one which generates electricity (the seller) and one which is looking to purchase electricity (the buyer).
PRB	Powder River Basin is a geologic structural basin in southeast Montana and northeast Wyoming, about 120 miles east to west and 200 miles north to south, known for its coal deposits. The region supplies about 40 percent of coal in the United States.
Present Value of Revenue Requirements (PVRR)	The present value of the amount of money that must be collected from customers to compensate a utility for all expenditures associated with electric supply delivery within a defined time. This includes capital investment and recovery, as well as all operating costs associated with fuel, maintenance, emissions, and net market purchases from ERCOT.

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R&R	Repairs and Replacement Account – in accordance with CPS Energy’s Bond Ordinances, a restricted cash account which may be used to fund construction costs.
Reliability	Reliability is the ability of a utility to provide power at any given time. Outages are disruptions of reliability.
Reserve Margin	Defined as (generation capacity minus peak load) divided by the peak load. Represents the ability of electric production to meet electric consumption.
Residential Use per Bill	The amount of energy usage a customer consumes in a home. Often used as an average across all residential customers per year
Resilience, Resiliency	In the context of climate and sustainability, it is the capacity of social, economic, and environmental systems to cope with extreme events or trends by responding or reorganizing in ways that maintain their essential function, identity, and structure; while maintaining the capacity for adaptation, learning and transformation.
	In the context of electric & gas utility infrastructure, the ability to quickly recover from outages.
RICE	Reciprocating Internal Combustion Engine – these are devices that convert the chemical energy contained in a hydrocarbon into mechanical energy (rotation of a shaft with a certain speed and torque) and into the thermal energy of the waste gases that escape into the atmosphere.
RIF	Reduction in Force - is when an employee is let go from a company due to budgetary reasons, workforce planning initiatives, position eliminations or other right-sizing events.
Rooftop Solar PV	Rooftop Solar Photovoltaic (PV) is a system that has electricity generating solar panels mounted on the rooftop of a residential or commercial building or structure
San Antonio Metropolitan Statistical Area	Area in Texas made up of eight counties: Atascosa, Bandera, Bexar, Comal, Guadalupe, Kendall, Medina, & Wilson. This area is also referred to as “Greater San Antonio”.
SCR	Selective Catalytic Reactor – An electric generating plant system that reduces nitrogen oxides emissions
Sensitivity	A sensitivity is generally associated with a single variation to a key market condition or portfolio component to assess portfolio performance against specific metrics. For example, sensitivity can include changes to the external environment, such as an extreme weather event, or can include changes to portfolio composition, such as the level of energy efficiency.
SM	A service mark identifying services owned by CPS Energy. Similar to a Trademark, but legally distinct.
SO ₂	Sulfur dioxide - a toxic gas responsible for the smell of burnt matches. It is released naturally by volcanic activity and is produced as a by-product of copper extraction and the burning of fossil fuels contaminated with sulfur compounds.
Spruce	J.K. Spruce Power Plant
ST	Steam Turbine – Equipment in an electric generating plant, driven by the pressure of steam, that rotates to drive an electric generator

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STEP	CPS Energy’s Sustainable Tomorrow Energy Plan - an innovative energy conservation program with the goal to save 771 Megawatts (MW) between 2009 and 2020. The cost of the program was initially estimated at \$849 million, with annual costs ranging from \$12 million to over \$77 million. We achieved the community’s goal of reducing energy demand by 771 MW! In fact, the goal was achieved a year ahead of schedule and 15% under budget.
STP	South Texas Project - a nuclear power station southwest of Bay City, Texas, owned by NRG Energy, Inc., Austin Energy, and CPS Energy.
Stranded Asset	An asset that has suffered from unanticipated or premature write-downs, devaluations, or conversion to liabilities.
Sustainability	Sustainability means using our resources to meet our current needs without compromising the ability of future generations to meet their own needs. Long before sustainability was a term widely used to define processes, as a municipal utility, we have been committed to our customers, community, and environment to ensure the long-term health and well-being of our community. We continue that commitment as we plan for the energy needs of today and the future. Sustainability includes adapting and responding to changes in society, the economy, and the environment to build a resilient community.
System Flexibility	System flexibility is a planning objective to diversify the generation mix to support CPS Energy’s ability to respond to changing conditions. Examples of metrics are: “percent of generating capacity that can have its output adjusted on demand” and “percent of electricity demand that is met through ERCOT market purchases”.
System Reliability	System Reliability is a planning objective that assesses CPS Energy’s ability to consistently deliver electrical power to customers. Examples of metrics are: reserve margin, reliance on market purchases, and percentage of generation fleet that is dispatchable.
Terawatt-hour (TWh)	1 billion kilowatt-hours (kWh)
Utility Cost Test (UCT)	A way to measure the benefits of a program with respect to the cost of achieving those benefits.
VOM	Variable Operations and Maintenance
Vulnerability	The propensity or predisposition to be adversely affected. Vulnerability encompasses a variety of concepts and elements including sensitivity or susceptibility to harm and lack of capacity to cope and adapt.
WACC	Weighted Average Cost of Capital - the rate that a company is expected to pay on average to all its security holders to finance its assets.
Wholesale	The sale of goods (specifically power) to retailers. Effectively power sold to other power companies.
Wholesale Market	See Wholesale Power Market
Wholesale Power Market	The market where electricity can be bought and sold by power producers and electricity retail companies.
Workforce Impact	Workforce impact is a planning objective that assesses the number of CPS Energy employees negatively impacted by power plant closure or the number of additional employees needed for a planned new power plant. Also, the total dollars in capital expenditures for new CPS Energy generating capacity built in the San Antonio area is another example metric.

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WRnF	Wholesale Revenue Net Fuel – the revenues from market sales of incremental power produced less the cost of fuel to produce the power.