



**Report on the Capacity, Demand and Reserves
(CDR) in the ERCOT Region, 2021-2030**

May 13, 2020

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Disclaimer

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Notes on Changes Relative to the Last CDR Report, Published December 2019

1 The following Planned Resources have been moved to Operational Status since the release of the December 2019 CDR report:

Project Name	Unit Code	County	Fuel	Zone	Installed Capacity MW	Summer Capacity MW
VICTORIA CITY (CITYVICT) CTG 1	CITYVICT CTG01	VICTORIA	GAS	SOUTH	44	44
VICTORIA CITY (CITYVICT) CTG 2	CITYVICT CTG02	VICTORIA	GAS	SOUTH	44	44
KARANKAWA WIND 1A	KARAKAW1 UNIT1	SAN PATRICIO	WIND-C	COASTAL	103	65
KARANKAWA WIND 1B	KARAKAW1 UNIT2	SAN PATRICIO	WIND-C	COASTAL	103	65
KARANKAWA WIND 2	KARAKAW2 UNIT3	SAN PATRICIO	WIND-C	COASTAL	100	63
CANADIAN BREAKS WIND	CN BRKS UNIT 1	OLDHAM	WIND-P	PANHANDLE	210	61
BLUE SUMMIT WIND 2 A	BLSUMMIT UNIT2 25	WILBARGER	WIND-O	WEST	90	14
BLUE SUMMIT WIND 2 B	BLSUMMIT UNIT2 17	WILBARGER	WIND-O	WEST	7	1
CABEZON WIND (RIO BRAVO I WIND) 1 A	CABEZON WIND1	STARR	WIND-O	SOUTH	115	18
CABEZON WIND (RIO BRAVO I WIND) 1 B	CABEZON WIND2	STARR	WIND-O	SOUTH	122	20
FOARD CITY WIND 1 A	FOARDCTY UNIT1	FOARD	WIND-O	WEST	187	30
FOARD CITY WIND 1 B	FOARDCTY UNIT2	FOARD	WIND-O	WEST	164	26
GOPHER CREEK WIND 1	GOPHER UNIT1	BORDEN	WIND-O	WEST	82	13
GOPHER CREEK WIND 2	GOPHER UNIT2	BORDEN	WIND-O	WEST	76	12
RANCHERO WIND	RANCHERO UNIT1	CROCKETT	WIND-O	WEST	150	24
RANCHERO WIND	RANCHERO UNIT2	CROCKETT	WIND-O	WEST	150	24
WILSON RANCH (INFINITY LIVE OAK WIND)	WL RANCH UNIT1	SCHLEICHER	WIND-O	WEST	200	32
QUEEN SOLAR PHASE I	QUEEN SL SOLAR1	UPTON	SOLAR	WEST	103	78
QUEEN SOLAR PHASE I	QUEEN SL SOLAR2	UPTON	SOLAR	WEST	103	78
WEST OF PECOS SOLAR	W PECOS UNIT1	REEVES	SOLAR	WEST	101	77
RABBIT HILL ENERGY STORAGE PROJECT	RHESS2 ESS 1	WILLIAMSON	STORAGE	SOUTH	10	-
WORSHAM BATTERY	WRSBES BESS1	REEVES	STORAGE	WEST	10	-
TOTAL					2,273	790

2 The following Planned Resources have finalized the necessary agreements and permits to be added to the CDR report:

Project Name	GENERATION INTERCONNECTION PROJECT CODE	County	Fuel	Zone	Year of Projected Commercial Operations ^(a)	Capacity MW	Summer Capacity MW
PES1	20INR0206	HARRIS	GAS	HOUSTON	2020	363	363
EL ALGODON ALTO W	15INR0034	SAN PATRICIO	WIND-C	COASTAL	2021	201	127
ESPIRITU WIND	17INR0031	CAMERON	WIND-C	COASTAL	2020	25	16
MONTE ALTO I	19INR0022	WILLACY	WIND-C	COASTAL	2021	224	141
APOGEE WIND	21INR0467	HASKELL	WIND-O	WEST	2021	452	72
MARYNEAL WINDPOWER	18INR0031	NOLAN	WIND-O	WEST	2021	182	29
WILDWIND	20INR0033	COOKE	WIND-O	NORTH	2020	180	29
ROADRUNNER CROSSING WIND 1	19INR0117	EASTLAND	WIND-O	NORTH	2021	200	32
VERA WIND V110	20INR0305	KNOX	WIND-O	WEST	2020	34	5
CROWDED STAR SOLAR II	22INR0274	JONES	SOLAR	WEST	2022	200	152
OLD 300 SOLAR CENTER	21INR0406	FORT BEND	SOLAR	HOUSTON	2021	400	304
AZURE SKY SOLAR	21INR0477	HASKELL	SOLAR	WEST	2021	227	173
BLUEBELL SOLAR II	20INR0204	STERLING	SOLAR	WEST	2021	115	87
CONIGLIO SOLAR	20INR0037	FANNIN	SOLAR	NORTH	2021	128	97
CORAZON SOLAR	15INR0044	WEBB	SOLAR	SOUTH	2021	200	152
CROWDED STAR SOLAR	20INR0241	JONES	SOLAR	WEST	2021	400	304
DANCIGER SOLAR	20INR0098	BRAZORIA	SOLAR	COASTAL	2021	200	152
DANISH FIELDS SOLAR I	20INR0069	WHARTON	SOLAR	SOUTH	2021	201	153
DANISH FIELDS SOLAR II	21INR0016	WHARTON	SOLAR	SOUTH	2021	201	153
DANISH FIELDS SOLAR III	21INR0017	WHARTON	SOLAR	SOUTH	2021	201	153
EUNICE SOLAR	20INR0219	ANDREWS	SOLAR	WEST	2020	420	319
GALLOWAY 2 SOLAR	21INR0431	CONCHO	SOLAR	WEST	2021	110	84
PROSPERO SOLAR II	21INR0229	ANDREWS	SOLAR	WEST	2021	250	190

STRATEGIC ENERGY	20INR0081	ELLIS	SOLAR	NORTH	2021	135	103
SUN VALLEY	19INR0169	HILL	SOLAR	NORTH	2021	250	190
TIMBERWOLF POI A	20INR0226	UPTON	SOLAR	WEST	2021	150	114
WESTORIA SOLAR	20INR0101	BRAZORIA	SOLAR	COASTAL	2021	200	152
AZURE SKY BESS	21INR0476	HASKELL	STORAGE	WEST	2021	78	-
BAT CAVE	21INR0365	MASON	STORAGE	SOUTH	2021	100	-
EUNICE STORAGE	20INR0220	ANDREWS	STORAGE	WEST	2020	40	-
MADERO GRID	21INR0244	HIDALGO	STORAGE	SOUTH	2021	202	-
NORTH FORK	20INR0276	WILLIAMSON	STORAGE	SOUTH	2021	100	-
SILICON HILL STORAGE	20INR0291	TRAVIS	STORAGE	SOUTH	2021	100	-
BRP ALVIN ^(b)	BRPALVIN_UNIT1	BRAZORIA	STORAGE	COASTAL	2020	10	-
BRP ANGELTON ^(b)	BRPANGLE_UNIT1	BRAZORIA	STORAGE	COASTAL	2020	10	-
BRP BRAZORIA ^(b)	BRP_BRAZ_UNIT1	BRAZORIA	STORAGE	COASTAL	2020	10	-
BRP DICKINSON ^(b)	BRP_DIKN_UNIT1	GALVESTON	STORAGE	HOUSTON	2020	10	-
BRP HEIGHTS ^(b)	BRHEIGHT_UNIT1	GALVESTON	STORAGE	HOUSTON	2020	10	-
BRP MAGNOLIA ^(b)	BRPMAGNO_UNIT1	GALVESTON	STORAGE	HOUSTON	2020	10	-
BRP ODESSA SW ^(b)	BRPODESA_UNIT1	ECTOR	STORAGE	WEST	2020	10	-
TOTAL						6,540	3,845

(a) This date is based on the projected Commercial Operations Date (COD) reported by the project developer. In contrast, a unit's first summer CDR forecast year (reported in the SummerCapacities sheet) is defined as the first year in which the capacity is available for the entire summer Peak Load Season. (The summer Peak Load Season constitutes the months of June, July, August and September.) For example, if a unit has a projected COD of July 1, 2020, the first summer CDR forecast year would be 2021.

(b) These planned projects are Distributed Generation Resources (DGRs). Since they are 10 MW or less, they are not going through the GINR application process.

Notable Resource Changes:

(a) GREGORY POWER PARTNERS [365 MW] 'seasonal mothball' operational period has changed from [June 1 through September 30] to [May 1 through September 30].

(b) SPENCER [118 MW] 'seasonal mothball' operational period has changed from [June 1 through September 30] to [May 20 through October 10].

(c) EAGLE PASS TIE [30 MW] retired on 4/9/2020. The retirement has no impact on the DC tie capacity forecast since it contributed negligible net imports during summer 2019 EEA events.

(d) OKLAUNION U1 [650 MW] is expected to retire on 10/1/2020. A NSO reliability analysis study determined the unit is not required to support ERCOT system reliability.

(e) CITY OF GONZALES HYDRO [1.5 MW], a DG hydro unit retired on 3/1/2020.

Impact of the COVID-19 Pandemic Impact on the CDR report:

Due to the uncertainty regarding the long term COVID-19 impacts on peak load, this CDR report uses the peak demand forecast developed in November 2019 for the 'SummerSummary' and 'WinterSummary' tabs. ERCOT's COVID-19 impact peak demand forecast is provided in a new supplementary tab named 'Load Scenario - COVID-19 Impact.' The impact of this alternative peak demand scenario on summer reserve margins for 2021-2024 is also presented on this tab. At the time that this report was produced, ERCOT was not aware of any resource-related impacts such as planned project delays or outage scheduling changes.

Notable Report Format Changes:

Inactive planned projects are now being shown in the 'Capacities' tabs. These planned projects are not being counted as available capacity in the CDR report. See the entry for Inactive Projects in the 'Definitions' tab for background. The list of Inactive planned projects has been moved from the Generation Resource Scenarios tab to the Capacities tabs due to Board of Directors approval of NPRR980 in February 2020.

Hydro generators, classified as Settlement Only Distribution Generators (SODGs), are reflected in the Reserve Margin calculations for the first time. The contribution of these resources are based on the existing Hydro Capacity Contribution Percentage. This percentage is calculated using the three-year average historical capability of Hydro Generator Resources (GRs) for each Summer Season's 20 highest peak load hours.

New supplemental tabs added to the report:

(a) 'Rooftop Solar Scenarios' to show projects of rooftop solar photovoltaic capacity projections bases on "S-Curve" model.

(b) 'Fossil-Fuel SODG Capacities' to list the operating fossil fuel Settlement Only Distribution Generators (SODGs).

Definitions

Available Mothballed Capacity based on Owner's Return Probability

Mothballed capacity with a return-to-service probability of 50% or greater for a given season of the year, as provided by its owner, constitutes available mothballed generation. Return probabilities for individual units are considered protected information under the ERCOT Protocols and therefore are not included in this report.

Distribution Resource Types:

Settlement Only Distribution Generator (SODG)

A generator that is connected to the Distribution System with a rating of:

- (1) One MW or less that chooses to register as an SODG; or
- (2) Greater than one and up to ten MW that is capable of providing a net export to the ERCOT System and does not register as a Distribution Generation Resource (DGR).

SODGs are settled for exported energy only, but may not participate in the Ancillary Services market, Reliability Unit Commitment (RUC), Security-Constrained Economic Dispatch (SCED), or make energy offers.

Distribution Generation Resource (DGR)

A Generation Resource connected to the Distribution System that is either:

- (1) Greater than ten MW and not registered with the Public Utility Commission of Texas (PUCT) as a self-generator; or
- (2) Ten MW or less that chooses to register as a Generation Resource to participate in the ERCOT markets.

DGRs must be registered with ERCOT in accordance with Planning Guide Section 6.8.2, Resource Registration Process, and will be modeled in ERCOT systems in accordance with Section 3.10.7.2, Modeling of Resources and Transmission Loads.

Emergency Response Service

ERCOT uses the methodology specified in Protocol Section 3.2.6.2.1, Peak Load Estimate, to derive the ERS capacity forecast for future years. The Current Year for the calculations is defined as the latest year for which ERS has been procured. The ERS capacity amounts are grossed up by 2% to reflect avoided transmission line losses.

Energy Efficiency Program Savings Forecast

ERCOT's energy efficiency forecast uses the PUCT's annual verified energy efficiency program savings estimates as the starting point. (See the definition for verified energy efficiency program savings below.) Savings from TDSP standard offer load management programs are not included in the ERCOT energy efficiency forecast. ERCOT computes the historical average annual verified savings, but excludes 2017 from the calculation due to Hurricane Harvey load impacts. (For prior forecasts, ERCOT used a formula based on the State energy efficiency goals in Utilities Code Section 39.905. Since the impacts of the goals were assumed to accumulate for just seven years from the time that the goals must be first met (2013), ERCOT no longer uses the goal-based forecasting approach.)

Finally, ERCOT incorporates annual energy efficiency estimates from municipal utilities and electric cooperatives provided to the State Energy Conservation Office (SECO). Annual SECO report submission by these entities is required under S.B. No. 924. If annual reports for the previous calendar year are not available at the time the CDR is prepared, ERCOT incorporates report data for the most recently available reporting year.

The energy efficiency capacity amounts are grossed up by a factor representing avoided transmission and distribution line losses. The factor is currently 1.076, reflecting 2% for avoided transmission losses and 5.6% for avoided distribution losses. The loss percentages are based on transmission and distribution loss factors posted to ERCOT's MIS website.

Energy Emergency Alert (EEA)

An ERCOT EEA declaration is made when operating reserves and system frequency drop below established severity levels (Levels 1, 2 and 3) and reserves are not projected to recover within 30 minutes unless certain actions are taken. An EEA declaration initiates an orderly, predetermined procedure for maximizing the use of available Resources, including the use of voluntary load reduction programs that are only available under EEA operations. Only under the most severe EEA level, would ERCOT direct Transmission and Distribution Service Providers to start shedding Load on a rotating basis in order to maintain system reliability and integrity. See Nodal Protocol Section 6.5.9.4, Energy Emergency Alert, for more details.

Forecast Zone

The CDR report uses Forecast Zones to identify the geographical location of generation resources. Forecast Zones generally have the same boundaries as the 2003 Congestion Management Zones with the following exceptions: A) Panhandle Zone for resources in the Texas Panhandle counties and outside the 2003 Congestion Management Zones, and B) Coastal Zone for resources in 11 counties along the Texas Gulf Coast and formerly in the South Zone of the 2003 Congestion Management Zones. There are six Forecast Zones: Coastal, Houston, North, Panhandle, South, and West.

Full Interconnection Study (FIS)

The set of studies conducted by a Transmission Service Provider (TSP) for the purpose of identifying any electric system improvements or enhancements required to reliably interconnect a new All-Inclusive Generation Resource consistent with the provisions of Planning Guide Section 5, Generation Resource Interconnection or Change Request. These studies may include steady-state studies, system protection (short-circuit) studies, dynamic and transient stability studies, facility studies, and sub-synchronous oscillation studies.

Inactive Projects

Per Planning Guide Section 5.7.6, a proposed Resource shall be given the status of "Inactive" if the Resource has not met the conditions for inclusion in the ERCOT planning models, as specified in Section 6.9, Addition of Proposed Generation to the Planning Models, within two years of the date on which ERCOT posts the final FIS studies for the Resource to the MIS Secure Area. A developer may also elect Inactive status and stop any interconnection studies in process at its own discretion. When an Inactive Resource subsequently meets the requirements of Section 6.9, it shall be added to the planning models and the status changed back to Planned. If a Resource has been Inactive for five years, ERCOT may cancel the project pursuant to Planning Guide Section 5.7.7, Cancellation of a Project Due to Failure to Comply with Requirements.

Per new ERCOT Nodal Protocol rules (NPRR980), Inactive planned projects are excluded from the CDR's reserve margin calculations.

Mothballed Unit

A generation resource for which a generation entity has submitted a Notification of Suspension of Operations, for which ERCOT has declined to execute an RMR agreement, and for which the generation entity has not announced retirement of the generation resource. A seasonal mothballed unit is one in which the generation entity requests a seasonal operation period that must include the summer Peak Load Season, June 1 through September 30.

LRs (Load Resources)

Load capable of reducing or increasing the need for electrical energy or providing Ancillary Services to the ERCOT System, as described in the ERCOT Protocols, Section 6, Ancillary Services. These Resources may provide the following Ancillary Services: Responsive Reserve Service, Non-Spinning Reserve Service, Replacement Reserve Service, and Regulation Service. The Resources must be registered and qualified by ERCOT and will be scheduled by a Qualified Scheduling Entity (QSE). LR capacity has been grossed up by 2% to reflect avoided transmission line losses.

Mothballed Capacity

Capacity that is designated as mothballed by a generating unit's owner as described above, and which is not available for operations during the summer Peak Load Season (June, July, August and September) or winter Peak Load Season (December, January and February).

Peak Load Seasons

Summer months are June, July, August, and September; winter months are December, January, and February.

Private Use Networks

An electric network connected to the ERCOT transmission grid that contains load that is not directly metered by ERCOT (i.e., load that is typically netted with internal generation).

Non-Synchronous Tie

Any non-synchronous transmission interconnection between ERCOT and non-ERCOT electric power systems.

Reliability Must-Run (RMR) Unit

A generation resource unit operated under the terms of an agreement with ERCOT that would not otherwise be operated except that they are necessary to provide voltage support, stability or management of localized transmission constraints under first contingency criteria.

Signed SGIA (Standard Generation Interconnection Agreement)

An agreement that sets forth requirements for physical connection between an eligible transmission service customer and a transmission or distribution service provider.

Switchable Generation Resource (SWGR)

A generation resource that can be connected to either the ERCOT transmission grid or a grid outside the ERCOT Region.

TDSP Standard Offer Load Management Programs

For the May releases of the CDR report, ERCOT uses the megawatt amount of verified peak load capacity reductions, adjusted for avoided transmission losses, due to TDSP Standard Offer load management programs that are reported by electric utilities in the ERCOT Region to the Public Utility Commission of Texas. The reported amounts are for the most current reporting year, which is the calendar year prior to the year during which the May CDR is prepared. (For example, the May 2019 CDR report used verified program savings for the 2018 reporting year.)

For the December CDR releases, ERCOT uses TDSP data received for the current load management program year, which is more timely than the verified savings estimates provided to the PUCT. The data obtained from the TDSPs reflect verified program performance for the summer based on testing, and is adjusted for avoided transmission losses.

Unconfirmed Retirement

A Generation Resource for which a public announcement of the intent to permanently shut the unit down has been released, but a Notice of Suspension of Operations for the unit has not been received by ERCOT. This is an informal definition that is not currently included in the Nodal Protocols or Other Binding Documents.

The criteria for classifying a Generation Resource as an Unconfirmed Retirement include the following:

- a. A specific retirement date is cited in the announcement, or other timing information is given that indicates the unit will be unavailable as of June 1 of a CDR Reporting Year.
- b. The announcement, with follow-up inquiry by ERCOT, does not indicate that retirement timing is highly speculative.

Verified Energy Efficiency Program Savings

The total megawatt (MW) amount of verified peak load capacity reductions due to residential and commercial sector energy efficiency incentive programs that are reported by electric utilities in the ERCOT Region to the Public Utility Commission of Texas. See Utilities Code Section 39.905. Note that savings from TDSP standard offer load management programs are not included in the ERCOT energy efficiency forecast, but rather handled as a separate reporting line item.

Wind Peak Average Capacity Contribution

The seasonal net capacity rating of wind resources multiplied by the Seasonal Peak Average Capacity Percentage for the Coastal, Panhandle and Other CDR reporting regions.

Wind Seasonal Peak Average Capacity Percentage

The average wind capacity available for the summer and winter Peak Load Seasons for a CDR reporting region (Coastal, Panhandle, Other) divided by the installed capacity for the region, expressed as a percentage. Details for the derivation of the percentages are outlined in ERCOT Protocol Section 3.2.6.2.2 (see http://www.ercot.com/content/wcm/current_guides/53528/03-110119_Nodal.docx).

Wind Regions: Coastal, Panhandle, and Other

Wind Generation Resources (WGRs) are classified into regions based on the county that contains their Point of Interconnection (POI). The Coastal region is defined as the following counties along the Gulf Coast: Aransas, Brazoria, Calhoun, Cameron, Kenedy, Kleberg, Matagorda, Nueces, Refugio, San Patricio, and Willacy. The Panhandle region is defined as the following counties: Armstrong, Bailey, Briscoe, Carson, Castro, Childress, Cochran, Collingsworth, Crosby, Dallam, Deaf Smith, Dickens, Donley, Floyd, Gray, Hale, Hall, Hansford, Hartley, Hemphill, Hockley, Hutchinson, Lamb, Lipscomb, Lubbock, Moore, Motley, Ochiltree, Oldham, Parmer, Potter, Randall, Roberts, Sherman, Swisher, and Wheeler. The "Other" Wind Region consists of all other counties in the ERCOT Region.

The assigned Wind Region for each WGR is indicated as "WIND-C," "WIND-P," or "WIND-O" in the Fuel columns of the summer/winter Capacities tabs.

CDR Report - Executive Summary

The Capacity, Demand and Reserves (CDR) Report reflects pre-COVID load forecasts due to the high level of uncertainty in how the pandemic will affect future years. ERCOT will continue to monitor changes and make adjustments as needed, and a special tab was created in the report to show how COVID-19 could impact peak demands and planning reserve margins through 2024.

Based on the pre-COVID load forecast of 78,299 MW, the planning reserve margin for summer 2021 is forecasted to be 17.3%. According to the report, the planning reserve margin is forecasted to increase to 19.7% in 2022 and then decrease to 18% in 2023.

Since the December 2019 CDR, resources totaling 2,273 MW have been approved by ERCOT for commercial operations, with summer peak capacity contributions of 790 MW. New planned resources eligible for inclusion in the report since the last CDR total 6,540 MW.

Based on preliminary data provided by generation project developers, planned capacity additions for summer 2021 total 17,993 MW. The majority of these planned projects are renewables and some small, flexible gas-fired resources.

Report on the Capacity, Demand and Reserves in the ERCOT Region

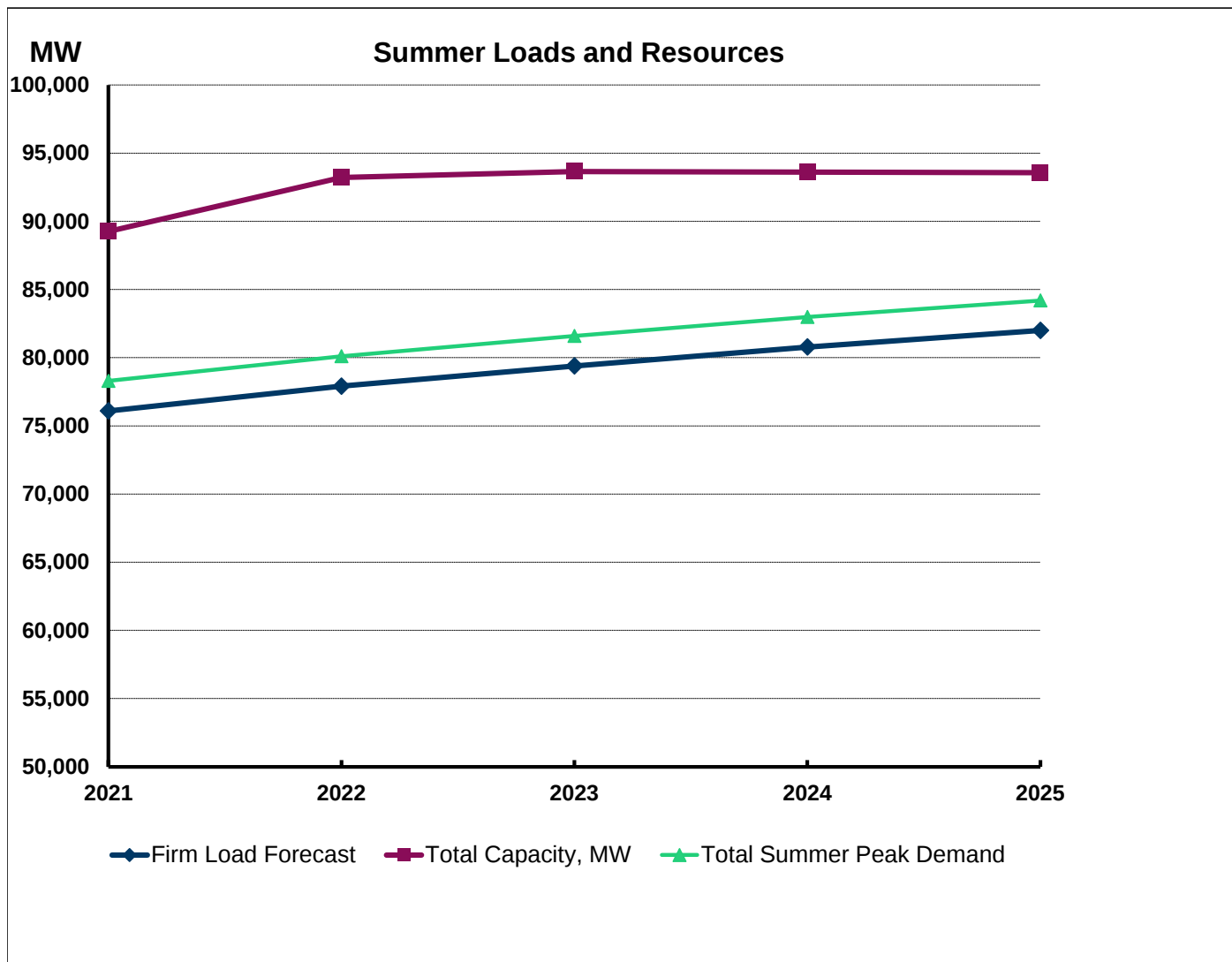
Summer Summary: 2021-2025

Load Forecast, MW:	2021	2022	2023	2024	2025
Summer Peak Demand (based on normal weather)	78,299	80,108	81,593	82,982	84,193
plus: Energy Efficiency Program Savings Forecast	2,110	2,337	2,648	2,884	3,205
Total Summer Peak Demand (before Reductions from Energy Efficiency Programs)	80,409	82,444	84,242	85,866	87,398
less: Load Resources providing Responsive Reserves	-1,172	-1,172	-1,172	-1,172	-1,172
less: Load Resources providing Non-Spinning Reserves	0	0	0	0	0
less: Emergency Response Service (10- and 30-min ramp products)	-767	-767	-767	-767	-767
less: TDSP Standard Offer Load Management Programs	-262	-262	-262	-262	-262
less: Energy Efficiency Program Savings Forecast	-2,110	-2,337	-2,648	-2,884	-3,205
Firm Peak Load, MW	76,098	77,907	79,393	80,781	81,993

Resources, MW:	2021	2022	2023	2024	2025
Installed Capacity, Thermal/Hydro	64,684	64,684	64,684	64,684	64,684
Switchable Capacity, MW	3,490	3,490	3,490	3,490	3,490
less: Switchable Capacity Unavailable to ERCOT, MW	-542	-542	-542	-542	-542
Available Mothballed Capacity, MW	483	365	365	365	365
Capacity from Private Use Networks	3,099	3,012	3,007	2,962	2,922
Coastal Wind, Peak Average Capacity Contribution (63% of installed capacity)	2,073	2,073	2,073	2,073	2,073
Panhandle Wind, Peak Average Capacity Contribution (29% of installed capacity)	1,279	1,279	1,279	1,279	1,279
Other Wind, Peak Average Capacity Contribution (16% of installed capacity)	2,703	2,703	2,703	2,703	2,703
Solar Utility-Scale, Peak Average Capacity Contribution (76% of installed capacity)	1,883	1,883	1,883	1,883	1,883
Storage, Peak Average Capacity Contribution (0% of installed capacity)	0	0	0	0	0
RMR Capacity to be under Contract	0	0	0	0	0
Capacity Pending Retirement, MW	0	0	0	0	0
Operational Generation Capacity, MW	79,152	78,947	78,942	78,897	78,857
Non-Synchronous Ties, Capacity (Based on average net import contribution during summer 2019 EEA events)	850	850	850	850	850
Planned Resources (not wind or solar) with Signed IA, Air Permits and Water Rights	1,001	1,001	1,001	1,001	1,001
Planned Coastal Wind with Signed IA, Peak Average Capacity Contribution (63% of installed capacity)	1,137	1,405	1,405	1,405	1,405
Planned Panhandle Wind with Signed IA, Peak Average Capacity Contribution (29% of installed capacity)	81	271	271	271	271
Planned Other Wind with Signed IA, Peak Average Capacity Contribution (16% of installed capacity)	982	1,480	1,521	1,521	1,521
Planned Solar Utility-Scale, Peak Average Capacity Contribution (76% of installed capacity)	6,046	9,265	9,658	9,658	9,658
Planned Storage, Peak Average Capacity Contribution (0% of installed capacity)	0	0	0	0	0
Total Capacity, MW	89,250	93,219	93,648	93,603	93,563

Reserve Margin	17.3%	19.7%	18.0%	15.9%	14.1%
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(Total Resources - Firm Load Forecast) / Firm Load Forecast



Summer Fuel Types - ERCOT

Fuel type is based on the primary fuel. Capacity contribution of the wind resources is included at 63% for Coastal counties, 29% for Panhandle counties, and 16% for all other counties, while the solar capacity contribution is 76%. Private Use Network, and Hydro are included based on the three-year average historical capability for each Summer Season's 20 peak load hours. Non-Synchronous Tie resources import forecast is based on flows seen during Energy Emergency Alert (EEA) periods in the most recent summer of occurrence. Non-Synchronous Tie resources are categorized as Other. Mothballed resource capacity is excluded except for Available Mothball Capacity based on a Seasonal Availability Schedule or Owner's reported Return Probability. Private Use Network is categorized as gas.

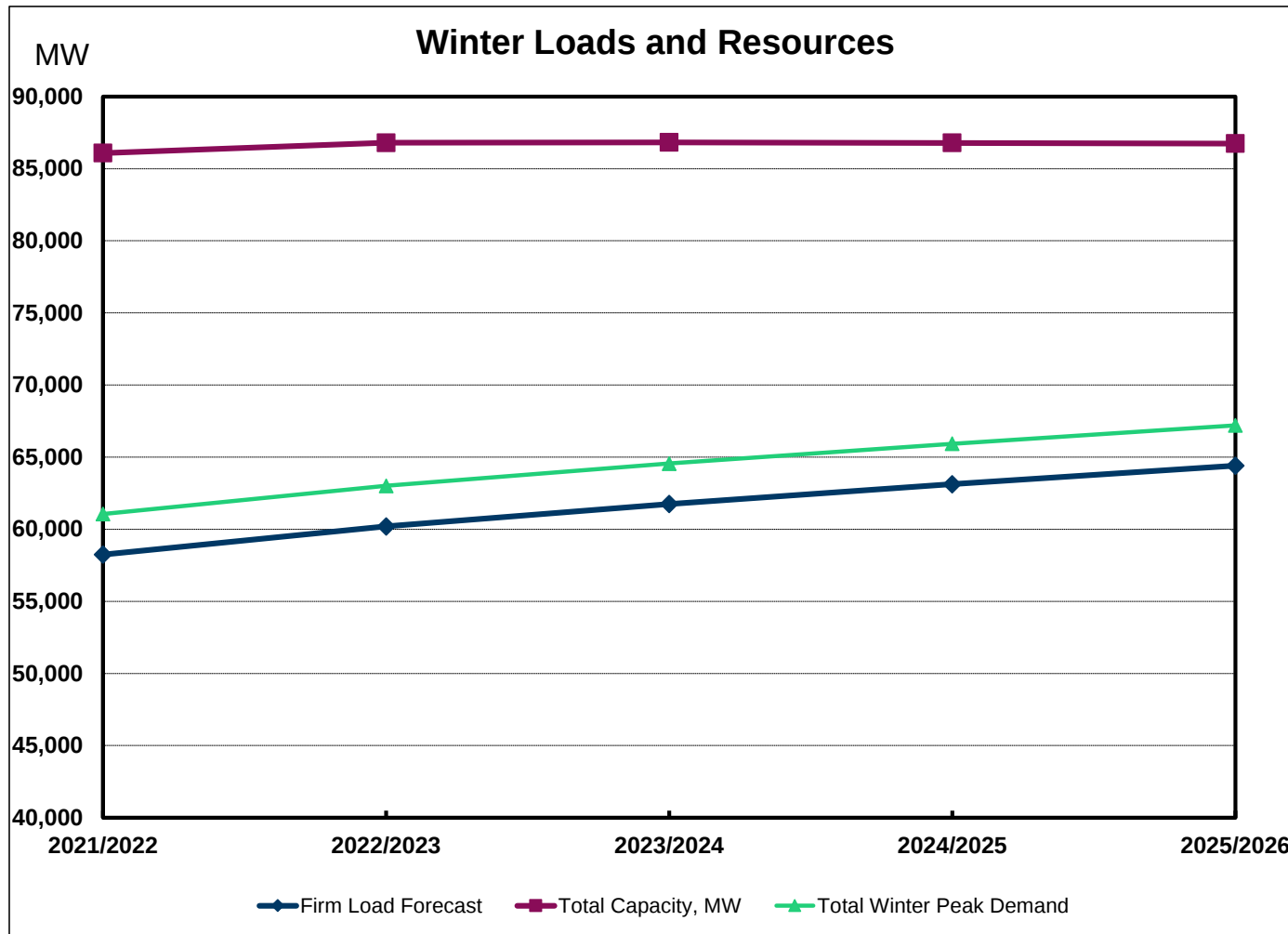
In MW											
Fuel_Type	Capacity_Pct	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Biomass	100%	169	169	169	169	169	169	169	169	169	169
Coal	100%	13,995	13,995	13,995	13,995	13,995	13,995	13,995	13,995	13,995	13,995
Gas	100%	52,125	52,038	52,033	51,988	51,948	51,733	51,733	51,728	51,728	51,728
Nuclear	100%	4,973	4,973	4,973	4,973	4,973	4,973	4,973	4,973	4,973	4,973
Other	70%	850	850	850	850	850	850	850	850	850	850
Hydro	85%	474	474	474	474	474	474	474	474	474	474
Wind-C	63%	3,210	3,478	3,478	3,478	3,478	3,478	3,478	3,478	3,478	3,478
Wind-P	29%	1,360	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550
Wind-O	16%	3,685	4,183	4,224	4,224	4,224	4,224	4,224	4,224	4,224	4,224
Solar	76%	7,451	10,326	10,720	10,720	10,720	10,720	10,720	10,720	10,720	10,720
Storage	0%	-	-	-	-	-	-	-	-	-	-
Total		88,293	92,037	92,466	92,421	92,381	92,166	92,166	92,161	92,161	92,161

In Percentages											
Fuel_Type		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Biomass		0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Coal		15.9%	15.2%	15.1%	15.1%	15.1%	15.2%	15.2%	15.2%	15.2%	15.2%
Natural Gas		59.0%	56.5%	56.3%	56.3%	56.2%	56.1%	56.1%	56.1%	56.1%	56.1%
Nuclear		5.6%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%
Other		1.0%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%
Hydro		0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Wind-C		3.6%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%
Wind-P		1.5%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%
Wind-O		4.2%	4.5%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%
Solar		8.4%	11.2%	11.6%	11.6%	11.6%	11.6%	11.6%	11.6%	11.6%	11.6%
Storage		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Report on the Capacity, Demand and Reserves in the ERCOT Region

Winter Summary: 2021/2022 through 2025/2026

Load Forecast, MW:	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026
Winter Peak Demand (based on normal weather)	61,053	63,006	64,557	65,933	67,207
plus: Energy Efficiency Program Savings Forecast	2,110	2,337	2,648	2,884	3,205
Total Winter Peak Demand (before Reductions from Energy Efficiency Programs)	63,163	65,342	67,205	68,817	70,412
less: Load Resources providing Responsive Reserves	-1,678	-1,678	-1,678	-1,678	-1,678
less: Load Resources providing Non-Spinning Reserves	0	0	0	0	0
less: Emergency Response Service (10- and 30-min ramp products)	-1,129	-1,129	-1,129	-1,129	-1,129
less: TDSP Standard Offer Load Management Programs	0	0	0	0	0
less: Energy Efficiency Program Savings Forecast	-2,110	-2,337	-2,648	-2,884	-3,205
Firm Peak Load, MW	58,246	60,199	61,750	63,126	64,400
Resources, MW:	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026
Installed Capacity, Thermal/Hydro	68,220	68,220	68,220	68,220	68,220
Switchable Capacity, MW	3,710	3,710	3,710	3,710	3,710
less: Switchable Capacity Unavailable to ERCOT, MW	-568	-568	-568	-568	-568
Available Mothballed Capacity, MW	0	0	0	0	0
Capacity from Private Use Networks	3,554	3,467	3,462	3,417	3,377
Coastal Wind, Peak Average Capacity Contribution (43% of installed capacity)	1,415	1,415	1,415	1,415	1,415
Panhandle Wind, Peak Average Capacity Contribution (32% of installed capacity)	1,411	1,411	1,411	1,411	1,411
Other Wind, Peak Average Capacity Contribution (19% of installed capacity)	3,210	3,210	3,210	3,210	3,210
Solar Utility-Scale, Peak Average Capacity Contribution (7% of installed capacity)	173	173	173	173	173
Storage, Peak Average Capacity Contribution (0% of installed capacity)	0	0	0	0	0
RMR Capacity to be under Contract	0	0	0	0	0
Capacity Pending Retirement, MW	0	0	0	0	0
Operational Generation Capacity, MW	81,126	81,039	81,034	80,989	80,949
Non-Synchronous Ties, Capacity (Based on average net import contribution during winter 2011 EEA events)	838	838	838	838	838
Planned Resources (not wind or solar) with Signed IA, Air Permits and Water Rights	1,007	1,007	1,007	1,007	1,007
Planned Coastal Wind with Signed IA, Peak Average Capacity Contribution (43% of installed capacity)	776	959	959	959	959
Planned Panhandle Wind with Signed IA, Peak Average Capacity Contribution (32% of installed capacity)	90	299	299	299	299
Planned Other Wind with Signed IA, Peak Average Capacity Contribution (19% of installed capacity)	1,524	1,806	1,806	1,806	1,806
Planned Solar Utility-Scale, Peak Average Capacity Contribution (7% of installed capacity)	723	854	890	890	890
Planned Storage, Peak Average Capacity Contribution (0% of installed capacity)	0	0	0	0	0
Total Capacity, MW	86,083	86,801	86,832	86,787	86,747
Reserve Margin	47.8%	44.2%	40.6%	37.5%	34.7%
(Total Resources - Firm Load Forecast) / Firm Load Forecast					



Unit Megawatt Capacities - Winter

UNIT NAME	INR	UNIT CODE	COUNTY	FUEL	ZONE	IN SERVICE	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	2030/2031
914 SILICON HILL STORAGE	20INR0291		TRAVIS	STORAGE	SOUTH	2021	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
915 BRP ALVIN		BRPALVIN_UNIT1	BRAZORIA	STORAGE	COASTAL	2020	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
916 BRP ANGELTON		BRPANGLE_UNIT1	BRAZORIA	STORAGE	COASTAL	2020	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
917 BRP BRAZORIA		BRP_BRAZ_UNIT1	BRAZORIA	STORAGE	COASTAL	2020	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
918 BRP DICKINSON		BRP_DIKN_UNIT1	GALVESTON	STORAGE	HOUSTON	2020	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
919 BRP HEIGHTS		BRHEIGHT_UNIT1	GALVESTON	STORAGE	HOUSTON	2020	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
920 BRP MAGNOLIA		BRPMAGNO_UNIT1	GALVESTON	STORAGE	HOUSTON	2020	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
921 BRP ODESSA SW		BRPODESA_UNIT1	ECTOR	STORAGE	WEST	2020	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
922 COMMERCE ST BESS		X443ESS1_SWRI	BEKAR	STORAGE	SOUTH	2019	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
923 FLAT TOP BATTERY		FLTBS_BESS1	REEVES	STORAGE	WEST	2019	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
924 JOHNSON CITY BESS		JC_BAT_UNIT_1	BLANCO	STORAGE	SOUTH	2020	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
925 Planned Capacity Total (Storage)							912.4	912.4	912.4	912.4	912.4	912.4	912.4	912.4	912.4	912.4
926 Storage Peak Average Capacity Percentage		STORAGE_PL_PEAK_PCT	%				-	-	-	-	-	-	-	-	-	-
927																
928 Inactive Planned Resources																
929 HALYARD WHARTON ENERGY CENTER	16INR0044		WHARTON	GAS	SOUTH	2021	484.0	484.0	484.0	484.0	484.0	484.0	484.0	484.0	484.0	484.0
930 MARIAH DEL ESTE	13INR0010a		PARMER	WIND-P	PANHANDLE	2020	152.5	152.5	152.5	152.5	152.5	152.5	152.5	152.5	152.5	152.5
931 NORTHDRAW WIND	13INR0025		RANDALL	WIND-P	PANHANDLE	2020	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
932 PANHANDLE WIND 3	14INR0030c		CARSON	WIND-P	PANHANDLE	2022	-	248.0	248.0	248.0	248.0	248.0	248.0	248.0	248.0	248.0
933 WILDOUSE WIND (SWISHER WIND)	13INR0038		SWISHER	WIND-P	PANHANDLE	2021	-	302.5	302.5	302.5	302.5	302.5	302.5	302.5	302.5	302.5
934 LOMA PINTA WIND	16INR0112		LA SALLE	WIND-O	SOUTH	2021	-	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0
935 AGATE SOLAR	20INR0023		ELLIS	SOLAR	NORTH	2020	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
936 GARNET SOLAR	20INR0021		WILLIAMSON	SOLAR	SOUTH	2020	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
937 HOVEY (BARILLA SOLAR 1B)	12INR0059b		PECOS	SOLAR	WEST	2020	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
938 SPINEL SOLAR	20INR0025		MEDINA	SOLAR	SOUTH	2020	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
939 SUN VALLEY	19INR0169		HILL	SOLAR	NORTH	2021	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
940 Inactive Planned Capacity Total							1,153.9	1,904.4	1,904.4	1,904.4	1,904.4	1,904.4	1,904.4	1,904.4	1,904.4	1,904.4
941																
942 Seasonal Mothballed Resources																
943 GREGORY POWER PARTNERS GT1 (AS OF 10/17/2019, AVAILABLE 5/1 THROUGH 9/30)		LGE_LGE_GT1	SAN PATRICK	GAS	COASTAL	2000	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0
944 GREGORY POWER PARTNERS GT2 (AS OF 10/17/2019, AVAILABLE 5/1 THROUGH 9/30)		LGE_LGE_GT2	SAN PATRICK	GAS	COASTAL	2000	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0
945 GREGORY POWER PARTNERS STG (AS OF 10/17/2019, AVAILABLE 5/1 THROUGH 9/30)		LGE_LGE_STG	SAN PATRICK	GAS	COASTAL	2000	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
946 SPENCER STG U4 (AS OF 10/3/2018, AVAILABLE 5/20 THROUGH 10/10)		SPNCER_SPNCE_4	DENTON	GAS	NORTH	1966	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
947 SPENCER STG U5 (AS OF 10/3/2018, AVAILABLE 5/20 THROUGH 10/10)		SPNCER_SPNCE_5	DENTON	GAS	NORTH	1973	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0
948 Total Seasonal Mothballed Capacity							509.0	509.0	509.0	509.0	509.0	509.0	509.0	509.0	509.0	509.0
949																
950 Mothballed Resources																
951 J T DEELY U1 (AS OF 12/31/2018)		CALAVERS_JTD1_M	BEKAR	COAL	SOUTH	1977	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0
952 J T DEELY U2 (AS OF 12/31/2018)		CALAVERS_JTD2_M	BEKAR	COAL	SOUTH	1978	420.0	420.0	420.0	420.0	420.0	420.0	420.0	420.0	420.0	420.0
953 Total Mothballed Capacity							850.0	850.0	850.0	850.0	850.0	850.0	850.0	850.0	850.0	850.0
954																
955 Retiring Resources Unavailable to ERCOT (since last CDR/SARA)																
956 CITY OF GONZALES HYDRO (AS OF 3/1/2020)		DG_GONZ_HYDRO_GONZ_HYDRO	GONZALES	HYDRO	SOUTH	1986	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
957 EAGLE PASS TIE (AS OF 4/9/2020)		DC_S	MAVERICK	OTHER	SOUTH		30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
958 OKLAUNION U1 (AS OF 10/1/2020)		OKLA_OKLA_G1	WILBARGER	COAL	WEST	1986	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
959 Total Retiring Capacity							681.5	681.5	681.5	681.5	681.5	681.5	681.5	681.5	681.5	681.5

Notes:

Capacity changes due to planned repower/upgrade projects are reflected in the operational units' ratings upon (1) receipt and ERCOT approval of a new Resource Asset Registration Form (RARF). Projects associated with interconnection change requests that change the MW capacity by more than zero are indicated with a code in the "Generation Interconnection Project Code" column of operational units.

Although seasonal capacity ratings for battery energy storage systems are reported above, the ratings are not included in the operational/planned capacity formulae. These resources are assumed to provide regulation reserves rather than sustained capacity available to meet system peak loads.

The projects listed in the "Planned Storage Resources with Executed SGIA" section with UNIT CODE entries are Distributed Generation Resources (DGRs). Since they are 10 MW or less, they are not going through the GINR application process.

The retiring hydro unit (CITY OF GONZALES HYDRO) has been removed from the settlement system and is now treated as a load reduction by LCRA

Winter Fuel Types - ERCOT

Fuel type is based on the primary fuel. Capacity contribution of the wind resources is included at 43% for Coastal counties, 32% for Panhandle counties, and 19% for all other counties, while the solar capacity contribution is 7%. Private Use Network, and Hydro are included based on the three-year average historical capability for each Summer Season's 20 peak load hours. Non-Synchronous Tie resources import forecast is based on flows seen during Energy Emergency Alert (EEA) periods in the most recent winter of occurrence. Non-Synchronous Tie resources are categorized as Other. Mothballed resource capacity is excluded except for Available Mothball Capacity based on a Seasonal Availability Schedule or Owner's reported Return Probability. Private Use Network is categorized as gas.

In MW

Fuel_Type	Capacity_Pct	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	2030/2031
Biomass	100%	169	169	169	169	169	169	169	169	169	169
Coal	100%	14,067	14,067	14,067	14,067	14,067	14,067	14,067	14,067	14,067	14,067
Gas	100%	56,103	56,016	56,011	55,966	55,926	55,711	55,711	55,706	55,706	55,706
Nuclear	100%	5,153	5,153	5,153	5,153	5,153	5,153	5,153	5,153	5,153	5,153
Other	69%	838	838	838	838	838	838	838	838	838	838
Hydro	78%	436	436	436	436	436	436	436	436	436	436
Wind-C	43%	2,191	2,374	2,374	2,374	2,374	2,374	2,374	2,374	2,374	2,374
Wind-P	32%	1,501	1,710	1,710	1,710	1,710	1,710	1,710	1,710	1,710	1,710
Wind-O	19%	839	937	973	973	973	973	973	973	973	973
Solar	7%	839	937	973	973	973	973	973	973	973	973
Storage	0%	-	-	-	-	-	-	-	-	-	-
Total		82,135	82,637	82,704	82,659	82,619	82,404	82,404	82,399	82,399	82,399

In Percentages

Fuel_Type		2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	2030/2031
Biomass	100%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Coal	100%	17.1%	17.0%	17.0%	17.0%	17.0%	17.1%	17.1%	17.1%	17.1%	17.1%
Gas	100%	68.3%	67.8%	67.7%	67.7%	67.7%	67.6%	67.6%	67.6%	67.6%	67.6%
Nuclear	100%	6.3%	6.2%	6.2%	6.2%	6.2%	6.3%	6.3%	6.3%	6.3%	6.3%
Other	69%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Hydro	78%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Wind-C	43%	2.7%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%
Wind-P	32%	1.8%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%
Wind-O	19%	1.0%	1.1%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%
Solar	7%	1.0%	1.1%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%
Storage	0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Capacity of Proposed Generation Resources Based on Interconnection Milestone Status

	Cumulative Summer Capacity Contribution (in MW) of Resources Available by June 1 of the Reporting Year				
	2021	2022	2023	2024	2025
Planned Resource Category					
Commissioning Plan Submitted	821	821	821	821	821
Planning Guide 6.9 Criteria plus completed Full Interconnect Study	7,607	9,467	9,507	9,507	9,507
Meets Planning Guide Sec. 6.9 Criteria (CDR plus TSP Financial Security Posted and Notice to Proceed)	7,759	9,730	9,771	9,771	9,771
CDR Eligible (signed IA, air permits, proof of adequate water supply)	9,248	13,422	13,856	13,856	13,856
Signed Interconnection Agreement with the TSP	10,080	14,254	14,688	14,688	14,688
Full Interconnect Study Requested	18,007	42,095	49,943	51,962	52,122

Notes:

- (1) Resource categories are listed by highest to lowest likelihood that the resource capacity will be in commercial operation in the reported year. For example, resources in the Commissioning Plan Submitted category have reached the "substantially completed construction" phase, and associated transmission switchyard facilities are operational. Conversely, resources in the Full Interconnection Study Requested category include projects that are generally in the development proposal stage and have a significant risk of interconnection request cancellation or project development delays.
- (2) The data presented here is based upon the latest information provided to ERCOT by resource developers and can change without notice.
- (3) Resource developers may execute an Interconnection Agreement with a TSP prior to completion of the Full Interconnection Study. This is most common with wind and solar projects.
- (4) Wind and solar resource capacities reflect their estimated summer on-peak average values as determined by the methodologies in Protocol section 3.2.6.2.2.
- (5) Battery storage projects are assumed to provide no seasonal sustained peak-hour capacity contributions, and are thus reported as zero MW.

Unconfirmed Retirement Capacity

	Cumulative Summer Capacity Contribution (in MW) of Unconfirmed Retirements Not Available as of June 1 of the Reporting Year				
	2021	2022	2023	2024	2025
Unit Name					
DECKER CREEK CTG 1	315	315	315	315	315
DECKER CREEK CTG 2	-	415	415	415	415
TOTAL	315	730	730	730	730
Reserve Margin including Unconfirmed Retirement Capacity	17.3%	19.7%	18.0%	15.9%	14.1%
Reserve Margin Excluding Unconfirmed Retirement Capacity	16.9%	18.7%	17.0%	15.0%	13.2%

Notes:

- (1) An "Unconfirmed Retirement" is defined as a generation unit for which a public announcement of the intent to permanently shut the unit down has been released, but a Notice of Suspension of Operations for the unit has not been received by ERCOT.
- (2) The criteria for listing a unit as an Unconfirmed Retirement include the following:
 - a. A specific retirement date is cited in the announcement, or other timing information is given that indicates the unit will be unavailable as of June 1 of a CDR Reporting Year.
 - b. The announcement, with follow-up inquiry by ERCOT, does not indicate that retirement timing is highly speculative.

COVID-19 Impact on Summer Peak Loads

Due to the uncertainty regarding the long term COVID-19 impacts on peak demand, the COVID-19 load impact forecast is treated as an alternative scenario in this CDR report. ERCOT developed the COVID-19 impact load forecast using Moody Analytics' updated economic forecasts for Texas counties along with normal weather conditions. The top section below compares original and COVID-19 peak load forecasts and Planning Reserve Margins. The bottom section shows the complete Summer Summary table substituting with the COVID-19 impact load forecast.

	Summer			
	2021	2022	2023	2024
Summer Load Forecast				
Summer Peak Demand (based on normal weather)	78,299	80,108	81,593	82,982
Summer Peak Demand (based on normal weather and updated to reflect impacts of COVID-19)	76,609	78,484	79,856	80,772
Resource Margin Impact				
Reserve Margin excluding the impacts of COVID-19 on load and the economy	17.3%	19.7%	18.0%	15.9%
Reserve Margin including the impacts of COVID-19 on load and the economy	19.9%	22.2%	20.6%	19.1%
Difference	2.7%	2.5%	2.6%	3.3%

Report on the Capacity, Demand and Reserves in the ERCOT Region

Summer Summary: 2021-2024

Load Forecast, MW:	2021	2022	2023	2024
Summer Peak Demand (based on normal weather and updated to reflect impacts of COVID-19)	76,609	78,484	79,856	80,772
plus: Energy Efficiency Program Savings Forecast	2,110	2,337	2,648	2,884
Total Summer Peak Demand (before Reductions from Energy Efficiency Programs)	78,719	80,821	82,504	83,656
less: Load Resources providing Responsive Reserves	-1,172	-1,172	-1,172	-1,172
less: Load Resources providing Non-Spinning Reserves	0	0	0	0
less: Emergency Response Service (10- and 30-min ramp products)	-767	-767	-767	-767
less: TDSP Standard Offer Load Management Programs	-262	-262	-262	-262
less: Energy Efficiency Program Savings Forecast	-2,110	-2,337	-2,648	-2,884
Firm Peak Load, MW	74,408	76,283	77,655	78,571

Resources, MW:	2021	2022	2023	2024
Installed Capacity, Thermal/Hydro	64,684	64,684	64,684	64,684
Switchable Capacity, MW	3,490	3,490	3,490	3,490
less: Switchable Capacity Unavailable to ERCOT, MW	-542	-542	-542	-542
Available Mothballed Capacity, MW	483	365	365	365
Capacity from Private Use Networks	3,099	3,012	3,007	2,962
Coastal Wind, Peak Average Capacity Contribution (63% of installed capacity)	2,073	2,073	2,073	2,073
Panhandle Wind, Peak Average Capacity Contribution (29% of installed capacity)	1,279	1,279	1,279	1,279
Other Wind, Peak Average Capacity Contribution (16% of installed capacity)	2,703	2,703	2,703	2,703
Solar Utility-Scale, Peak Average Capacity Contribution (76% of installed capacity)	1,883	1,883	1,883	1,883
Storage, Peak Average Capacity Contribution (0% of installed capacity)	0	0	0	0
RMR Capacity to be under Contract	0	0	0	0
Capacity Pending Retirement, MW	0	0	0	0
Operational Generation Capacity, MW	79,152	78,947	78,942	78,897
Non-Synchronous Ties, Capacity (Based on average net import contribution during summer 2019 EEA events)	850	850	850	850
Planned Resources (not wind or solar) with Signed IA, Air Permits and Water Rights	1,001	1,001	1,001	1,001
Planned Coastal Wind with Signed IA, Peak Average Capacity Contribution (63% of installed capacity)	1,137	1,405	1,405	1,405
Planned Panhandle Wind with Signed IA, Peak Average Capacity Contribution (29% of installed capacity)	81	271	271	271
Planned Other Wind with Signed IA, Peak Average Capacity Contribution (16% of installed capacity)	982	1,480	1,521	1,521
Planned Solar Utility-Scale, Peak Average Capacity Contribution (76% of installed capacity)	6,046	9,265	9,658	9,658
Planned Storage, Peak Average Capacity Contribution (0% of installed capacity)	0	0	0	0
Total Capacity, MW	89,250	93,219	93,648	93,603

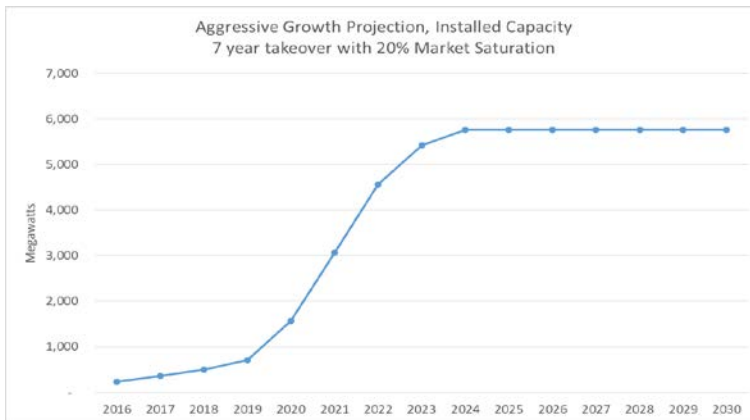
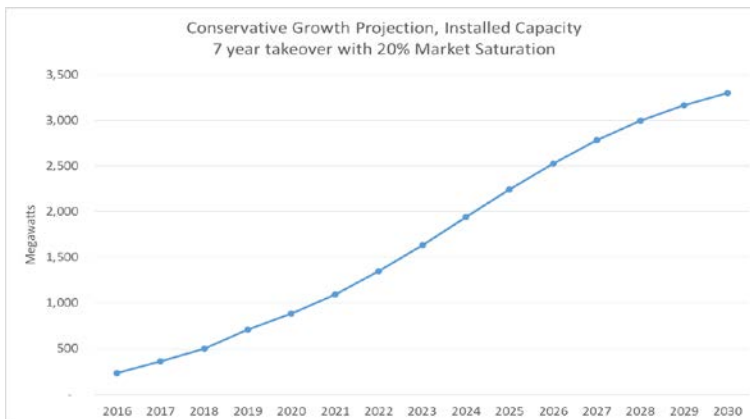
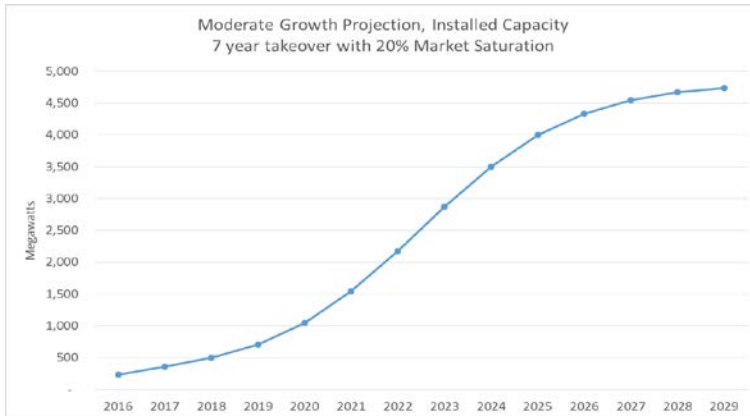
Reserve Margin	19.9%	22.2%	20.6%	19.1%
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(Total Resources - Firm Load Forecast) / Firm Load Forecast

Rooftop Solar Photovoltaic Capacity Projections, 2020-2029

The charts below show three scenarios -- moderate, aggressive, and conservative -- for the long-term installed capacity growth of solar rooftop PV systems in the ERCOT Region. ERCOT developed the forecasts using a logistic growth or "S-curve" model of the type that is frequently used for technology diffusion forecasting. The model and its initial parameters were presented to stakeholders at the Supply Analysis Working Group (SAWG) meeting on April 12, 2019. The charts represent the final forecasts based on parameter refinements agreed to during SAWG meetings in late 2019 and early 2020. Note the following:

- The Takeover Time referenced in the charts is a model parameter that specifies the amount of time that the rooftop solar PV systems are in the accelerating growth stage.
- The Market Saturation Rate is another model parameter that represents the maximum expected penetration based on an upper limit once the market becomes mature. There are other model parameters that are used to refine the shape of the logistic curve.
- The upper limit for installed capacity (total market potential) is based on an ERCOT metropolitan solar PV rooftop potentials study conducted by AWS Truepower, along with ERCOT assumptions regarding market potential for non-metro areas. The total market potential is estimated at 23,041 MW.
- Additional information on forecast development can be found using the following links to SAWG meeting webpages and presentation files:
<http://www.ercot.com/calendar/2019/4/12/172702-SAWG>
http://www.ercot.com/content/wcm/key_documents_lists/190770/SAWG_Meeting_Solar_PV_Discussion_10-31-2019.pptx
http://www.ercot.com/content/wcm/key_documents_lists/172749/SAWG_Meeting_12-13-2019_Solar_PV_Forecast_Discussion.pptx
http://www.ercot.com/content/wcm/key_documents_lists/195745/SAWG_April_2020_Solar_PV_Growth_Projection_Discussion.pptx



Fossil Fuel Settlement Only Distributed Generator (SODG) Capacities

The following is a list of operating fossil fuel Settlement Only Distribution Generators (SODGs) being provided for informational purposes. (The reported capacities are not included in the reserve margin calculations.) Currently there are 485.6 MW of fossil fuel SODG capacity (291.6 MW fired by diesel fuel and 194.0 MW by natural gas). These resources have not been included in past CDR reports due to the difficulty in determining their capacity contributions during peak load periods, and because many are intended as emergency standby generators and are not available to ERCOT for dispatch when needed to address capacity scarcity conditions. Another complication is that such standby generators may be used to reduce on-site loads in order to participate in Demand Response programs such as "4 Coincident Peak" (4CP) and Emergency Response Service (ERS). As a result, historical load reduction impacts would be accounted for in the peak demand forecast, while the capacity of SODGs participating in ERS would already be accounted for in the CDR's ERS line items.

The formal incorporation of fossil-fueled SODGs into future CDR reports has been a discussion topic at Supply Analysis Working Group meetings. Since SODG capacity accounting is not currently addressed in the ERCOT Nodal Protocols, a Nodal Protocol Revision Request (NPRR) is needed to address capacity double-counting, peak average capacity contributions, and other Distribution Generator (DG) accounting issues. ERCOT plans to submit an NPRR by late 2020.

UNIT NAME	UNIT CODE	COUNTY	FUEL	ZONE	IN-SERVICE YEAR	MW CAPACITY
DGS 5 POINTS	DG_ABEC_1UNIT	TAYLOR	DIESEL	WEST	2014	9.8
DGS PALO PINTO	MNWLL_1UNIT	PALO PINTO	DIESEL	NORTH	2013	9.8
DGSP2 BIGCAT	ABEC2_3UNIT	TAYLOR	DIESEL	WEST	2015	9.8
DGSP2 PLAZA	ABEC_2UNIT	TAYLOR	DIESEL	WEST	2014	9.8
GCWA IPS	INTRCITY_8UNITS	GALVESTON	DIESEL	HOUSTON	2014	5.0
GCWAMUNI	GCWAMUNI_4UNITS	GALVESTON	DIESEL	HOUSTON	2014	2.5
HARRIS COUNTY MUD #36	WF_1UNIT	HARRIS	DIESEL	HOUSTON	2017	0.5
HARRIS COUNTY MUD 536	KT_1UNIT	HARRIS	DIESEL	HOUSTON	2017	0.5
HARRIS COUNTY WCID 109	BA_1UNIT	HARRIS	DIESEL	HOUSTON	2017	0.3
HIGHGATE BIG SPRING	HISPRING_IC	HOWARD	DIESEL	WEST	2018	9.1
HIGHGATE COLORADO CITY	HIGHCOL_IC	MITCHELL	DIESEL	WEST	2018	9.1
HIGHGATE SWEETWATER	HIWATER_IC	NOLAN	DIESEL	WEST	2018	9.1
JRABTUD	JKRBT_JRB	HARRIS	DIESEL	HOUSTON	2018	1.1
LANGHAM CREEK	ADK_1UNIT	HARRIS	DIESEL	HOUSTON	2017	0.5
NORTHAMPTON MUD	KDL_1UNIT	HARRIS	DIESEL	HOUSTON	2017	0.3
OAKBEND MEDICAL CENTER	READNG_1UNIT	HARRIS	DIESEL	HOUSTON	2017	1.6
POWER DEPOT - ADDICKS	WO_15UNITS	HARRIS	DIESEL	HOUSTON	2013	9.4
POWER DEPOT - ANDREWS	ANDNR_15UNITS	ANDREWS	DIESEL	WEST	2013	9.4
POWER DEPOT - BAKKE	BAKKE_15UNITS	ANDREWS	DIESEL	WEST	2013	9.4
POWER DEPOT - CITRUS CITY	CITRUSCY_15UNITS	HIDALGO	DIESEL	SOUTH	2013	9.4
POWER DEPOT - E HARRISON	E_HARRIS_15UNITS	CAMERON	DIESEL	COASTAL	2013	9.4
POWER DEPOT - FRANKEL CITY	FKLCY_15UNITS	ANDREWS	DIESEL	WEST	2013	9.4
POWER DEPOT - GOLDSMITH	GSMTH_15UNITS	ECTOR	DIESEL	WEST	2013	9.4
POWER DEPOT - HAINE	HAINE_DR_15UNITS	CAMERON	DIESEL	COASTAL	2013	9.4
POWER DEPOT - HILMONT	ECTHM_15UNITS	ECTOR	DIESEL	WEST	2013	9.4
POWER DEPOT - KATY	FL_15UNITS	WALLER	DIESEL	HOUSTON	2013	9.4
POWER DEPOT - MCKEEVER	DGWAP_15UNITS	FORT BEND	DIESEL	HOUSTON	2013	9.4
POWER DEPOT - S. SANTA ROSA	S_SNROSA_15UNITS	CAMERON	DIESEL	COASTAL	2013	9.4
POWER DEPOT - SOUTHWICK	DGHOC_15UNITS	HARRIS	DIESEL	HOUSTON	2013	9.4
POWER DEPOT - TH WHARTON	DGTHW_15UNITS	HARRIS	DIESEL	HOUSTON	2013	9.4
POWER DEPOT - VILLA CAVASOS	VCAVASOS_15UNITS	CAMERON	DIESEL	COASTAL	2013	9.4
POWER DEPOT - WESTOVER	WOVER_15UNITS	ECTOR	DIESEL	WEST	2013	9.4
POWER DEPOT EL GATO	ELGATO_15UNITS	HIDALGO	DIESEL	SOUTH	2013	9.4
POWERSECURE NORBORD TEXAS	NOR1_NORBORD_1	NACOGDOCHES	DIESEL	NORTH	2019	5.0
POWERSECURE NORBORD TEXAS	NOR2_NORBORD_2	NACOGDOCHES	DIESEL	NORTH	2019	2.5
REMINGTON MUD 001	CYFAIR_1UNIT	HARRIS	DIESEL	HOUSTON	2017	0.5
SAMSUNG AUSTIN SEMICONDUCTOR	SAMSUNG_7UNITS	TRAVIS	DIESEL	SOUTH	2016	19.6
SATSUMA	SATSUM_1UNIT	HARRIS	DIESEL	HOUSTON	2017	0.6
SILVER EAGLE	TBFY_U1	HARRIS	DIESEL	HOUSTON	2019	1.5
TERRANOVA WEST MUD	LU_1UNIT	HARRIS	DIESEL	HOUSTON	2017	0.3
TOTAL ENERGY SOLUTIONS 1	TES1_DGDRUPA	BRAZORIA	DIESEL	COASTAL	2015	7.2
TOTAL ENERGY SOLUTIONS 2	TES2_DGGROUPB	BRAZORIA	DIESEL	COASTAL	2015	5.4
TPC POWER STATION	TPC_6UNITS	SMITH	DIESEL	NORTH	2015	9.9
WINDFERN FOREST UD	FR_1UNIT	HARRIS	DIESEL	HOUSTON	2017	0.5
BUC-EES STORE 003	BUC003_BRZIA003	BRAZORIA	GAS	COASTAL	2017	0.4
BUC-EES STORE 018	BUC018_WALLR018	WALLER	GAS	HOUSTON	2017	1.1
BUC-EES STORE 030	BUC030_WHRTN030	WHARTON	GAS	SOUTH	2017	0.8

UNIT NAME	UNIT CODE	COUNTY	FUEL	ZONE	IN-SERVICE YEAR	MW CAPACITY
BUC-EES STORE 033	BUC033_TXCTY033	GALVESTON	GAS	HOUSTON	2017	1.1
BUC-EES STORE 034	BUC034_BYTWN034	HARRIS	GAS	HOUSTON	2017	1.1
BUC-EES STORE 035	BUC035_TMNTN035	BELL	GAS	NORTH	2018	1.1
BUC-EES STORE 038	BUC038_RYSSW038	ROCKWALL	GAS	NORTH	2019	1.2
BUC-EES STORE 040	BUC040_KATY040	FORT BEND	GAS	HOUSTON	2017	1.1
BUC-EES STORE 044	BUC044_ANASE044	COLLIN	GAS	NORTH	2019	1.2
BUC-EES STORE 048	BUC048_ENSSO048	ELLIS	GAS	NORTH	2019	1.2
HEB CC BAKERY	HEBCCB_HWY9CCB	NUECES	GAS	COASTAL	2019	3.2
HEB SA DC	CHEBDC_DG_L2_1	BEXAR	GAS	SOUTH	2020	6.4
HEB SNACK PLANT	HEBSP_TANNERSP	HARRIS	GAS	HOUSTON	2019	1.6
HEB STORE 026	CHEB026_DG_Q5_1	COMAL	GAS	SOUTH	2019	1.2
HEB STORE 038	HEB038_PHARR038	HIDALGO	GAS	SOUTH	2018	1.2
HEB STORE 054	HEB054_HALL054	HARRIS	GAS	HOUSTON	2018	1.2
HEB STORE 069	HEB069_AIRLN069	NUECES	GAS	COASTAL	2017	1.6
HEB STORE 070	HEB070_MCMRY070	TAYLOR	GAS	WEST	2018	1.2
HEB STORE 084	CHEB084_DG_J0_1	BEXAR	GAS	SOUTH	2020	1.2
HEB STORE 085	CHEB085_DG_P5_1	BEXAR	GAS	SOUTH	2019	1.6
HEB STORE 092	HEB092_LEALN092	VICTORIA	GAS	SOUTH	2018	1.6
HEB STORE 095	HEB095_MILOA095	WEBB	GAS	SOUTH	2018	1.6
HEB STORE 109	HEB109_ECHO109	HARRIS	GAS	HOUSTON	2018	1.1
HEB STORE 110	HEB110_SIEN110	FORT BEND	GAS	HOUSTON	2017	1.1
HEB STORE 136	HEB136_EHRSN136	CAMERON	GAS	COASTAL	2018	0.8
HEB STORE 139	HEB139_HOLLY139	NUECES	GAS	COASTAL	2017	0.8
HEB STORE 182	HEB182_TMSTH182	BELL	GAS	NORTH	2018	1.2
HEB STORE 20	HEB020_CYFR020	HARRIS	GAS	HOUSTON	2017	1.5
HEB STORE 210	HEB210_SOUSD210	NUECES	GAS	COASTAL	2017	0.8
HEB STORE 212	HEB212_PLKAV212	HIDALGO	GAS	SOUTH	2018	0.8
HEB STORE 223	HEB223_STCSW223	JIM WELLS	GAS	SOUTH	2018	1.2
HEB STORE 231	HEB231_WESLA231	HIDALGO	GAS	SOUTH	2018	0.8
HEB STORE 236	HEB236_RDRSE236	TRAVIS	GAS	SOUTH	2018	0.8
HEB STORE 255	HEB255_ZACAT255	WEBB	GAS	SOUTH	2018	1.2
HEB STORE 270	HEB270_ARLN270	NUECES	GAS	COASTAL	2017	0.8
HEB STORE 28	HEB028_LGCTY028	GALVESTON	GAS	HOUSTON	2017	1.1
HEB STORE 291	HEB291_WHRLG291	CAMERON	GAS	COASTAL	2018	1.2
HEB STORE 292	HEB292_BYCTY292	MATAGORDA	GAS	COASTAL	2016	1.1
HEB STORE 334	HEB334_WMCAL334	HIDALGO	GAS	SOUTH	2018	1.2
HEB STORE 373	HEB373_RNDRK373	WILLIAMSON	GAS	SOUTH	2018	0.8
HEB STORE 381	HEB381_HKHTS381	BELL	GAS	NORTH	2018	1.2
HEB STORE 383	HEB383_CAUSE383	CAMERON	GAS	COASTAL	2020	0.8
HEB STORE 401	HEB401_KNGVL401	KLEBERG	GAS	COASTAL	2018	0.8
HEB STORE 423	HEB423_WNTHW423	MCLENNAN	GAS	NORTH	2018	0.8
HEB STORE 426	HEB426_WXNTH426	ELLIS	GAS	NORTH	2018	1.2
HEB STORE 431	HEB431_MCOLL431	HIDALGO	GAS	SOUTH	2018	1.2
HEB STORE 449	HEB449_DELMA449	WEBB	GAS	SOUTH	2018	0.8
HEB STORE 462	HEB462_ARCIA462	NUECES	GAS	COASTAL	2017	1.2
HEB STORE 473	HEB473_CARDF473	HARRIS	GAS	HOUSTON	2018	1.2
HEB STORE 474	HEB474_DWLT474	FORT BEND	GAS	HOUSTON	2017	1.1
HEB STORE 479	HEB479_PFLGV479	TRAVIS	GAS	SOUTH	2018	0.8
HEB STORE 488	HEB488_PTLND488	SAN PATRICIO	GAS	COASTAL	2018	0.8
HEB STORE 491	HEB491_SNFLP491	HARRIS	GAS	HOUSTON	2018	1.1
HEB STORE 492	HEB492_FRANZ492	HARRIS	GAS	HOUSTON	2016	1.1
HEB STORE 495	HEB495_RDRSE495	WILLIAMSON	GAS	SOUTH	2018	0.8
HEB STORE 497	HEB497_MASRD497	HARRIS	GAS	HOUSTON	2017	1.1
HEB STORE 498	HEB498_HUMBL498	HARRIS	GAS	HOUSTON	2018	1.1
HEB STORE 540	HEB540_GGATE540	HARRIS	GAS	HOUSTON	2018	1.1
HEB STORE 541	HEB541_ROARK541	HARRIS	GAS	HOUSTON	2016	1.1
HEB STORE 545	HEB545_FARON545	TARRANT	GAS	NORTH	2019	1.2
HEB STORE 546	HEB546_RENSW546	COLLIN	GAS	NORTH	2018	1.2
HEB STORE 551	HEB551_WSTCS551	HARRIS	GAS	HOUSTON	2017	1.1
HEB STORE 552	HEB552_GAVSW552	DALLAS	GAS	NORTH	2019	1.2
HEB STORE 553	HEB553_GRTIE553	HARRIS	GAS	HOUSTON	2018	0.8
HEB STORE 554	HEB554_NVICT554	VICTORIA	GAS	SOUTH	2018	1.2
HEB STORE 558	HEB558_FRDSW558	GALVESTON	GAS	HOUSTON	2018	1.1
HEB STORE 559	HEB559_BLUER559	HARRIS	GAS	HOUSTON	2019	0.8
HEB STORE 562	HEB562_FULTN562	ARANSAS	GAS	COASTAL	2018	0.8
HEB STORE 563	HEB563_CRABB563	FORT BEND	GAS	HOUSTON	2019	1.2

UNIT NAME	UNIT CODE	COUNTY	FUEL	ZONE	IN-SERVICE YEAR	MW CAPACITY
HEB STORE 564	HEB564_RAFRD564	MONTGOMERY	GAS	HOUSTON	2019	0.8
HEB STORE 57	HEB057_LAGUN057	NUECES	GAS	COASTAL	2017	1.2
HEB STORE 574	HEB574_TOMBA574	HARRIS	GAS	HOUSTON	2019	1.2
HEB STORE 575	HEB575_BRKER575	HARRIS	GAS	HOUSTON	2017	1.1
HEB STORE 576	HEB576_KLEIN576	HARRIS	GAS	HOUSTON	2017	1.1
HEB STORE 581	HEB581_KLELM581	BELL	GAS	NORTH	2018	1.2
HEB STORE 586	HEB586_STNIO586	WEBB	GAS	SOUTH	2019	1.2
HEB STORE 591	HEB591_RRNES591	WILLIAMSON	GAS	SOUTH	2018	1.6
HEB STORE 596	HEB596_FLWEN596	FORT BEND	GAS	HOUSTON	2018	1.1
HEB STORE 599	HEB599_KIRBY599	HARRIS	GAS	HOUSTON	2018	1.2
HEB STORE 610	HEB610_LOU610	HARRIS	GAS	HOUSTON	2017	1.1
HEB STORE 614	HEB614_KING614	HARRIS	GAS	HOUSTON	2017	1.1
HEB STORE 615	HEB615_KATY615	FORT BEND	GAS	HOUSTON	2018	1.1
HEB STORE 616	HEB616_BAML616	HARRIS	GAS	HOUSTON	2017	0.8
HEB STORE 627	HEB627_IMPRL627	FORT BEND	GAS	HOUSTON	2017	1.1
HEB STORE 63	HEB063_SOWIK063	BRAZORIA	GAS	COASTAL	2016	1.5
HEB STORE 640	HEB640_UVLDE640	HARRIS	GAS	HOUSTON	2018	0.8
HEB STORE 642	HEB642_HAACR642	HIDALGO	GAS	SOUTH	2018	1.2
HEB STORE 645	HEB645_CDRBY645	HARRIS	GAS	HOUSTON	2017	0.8
HEB STORE 648	HEB648_BERRY648	HARRIS	GAS	HOUSTON	2018	1.1
HEB STORE 649	HEB649_LTTYK649	HARRIS	GAS	HOUSTON	2018	0.8
HEB STORE 656	HEB656_HOKLE656	HARRIS	GAS	HOUSTON	2016	1.1
HEB STORE 658	CHEB658_DG_V5_1	BEXAR	GAS	SOUTH	2019	1.2
HEB STORE 667	HEB667_FNDRN667	HARRIS	GAS	HOUSTON	2018	0.8
HEB STORE 668	HEB668_COVEE668	CORYELL	GAS	NORTH	2018	1.2
HEB STORE 672	HEB672_WSOTH672	MCLENNAN	GAS	NORTH	2018	1.2
HEB STORE 675	HEB675_MARCK675	BRAZORIA	GAS	COASTAL	2018	1.1
HEB STORE 686	HEB686_KUYKL686	HARRIS	GAS	HOUSTON	2017	1.1
HEB STORE 687	HEB687_ULRIC687	HARRIS	GAS	HOUSTON	2016	1.1
HEB STORE 697	HEB697_SOUSH697	GALVESTON	GAS	HOUSTON	2017	1.1
HEB STORE 698	HEB698_KLUGE698	HARRIS	GAS	HOUSTON	2017	1.1
HEB STORE 705	HEB705_SPRWD705	MONTGOMERY	GAS	HOUSTON	2017	1.1
HEB STORE 707	HEB707_LKJCK707	BRAZORIA	GAS	COASTAL	2018	1.1
HEB STORE 709	HEB709_FRYRD709	HARRIS	GAS	HOUSTON	2018	1.2
HEB STORE 720	HEB720_KNGWD720	HARRIS	GAS	HOUSTON	2018	1.1
HEB STORE 721	HEB721_KLNSO721	BELL	GAS	NORTH	2018	1.2
HEB STORE 722	HEB722_PINHU722	MONTGOMERY	GAS	HOUSTON	2017	1.1
HEB STORE 724	HEB724_OBRNT724	FORT BEND	GAS	HOUSTON	2017	1.1
HEB STORE 727	HEB727_CRBRR727	FORT BEND	GAS	HOUSTON	2018	1.2
HEB STORE 731	HEB731_WSFLD731	HARRIS	GAS	HOUSTON	2017	0.8
HEB STORE 734	HEB734_BLFFS734	TOM GREEN	GAS	WEST	2017	1.2
HEB STORE 736	HEB736_FLWEN736	FORT BEND	GAS	HOUSTON	2018	1.2
HEB STORE 737	HEB737_WHTOK737	HARRIS	GAS	HOUSTON	2018	1.2
HEB STORE 738	HEB738_SHPTN738	HARRIS	GAS	HOUSTON	2018	1.2
HEB STORE 741	HEB741_MTBEL741	CHAMBERS	GAS	HOUSTON	2018	0.8
HEB STORE 742	HEB742_HNYRT742	HARRIS	GAS	HOUSTON	2018	1.2
HEB STORE 747	HEB747_LKMNT747	DALLAS	GAS	NORTH	2020	0.8
HEB STORE 748	HEB748_LOUET748	HARRIS	GAS	HOUSTON	2018	0.8
HEB STORE 752	HEB752_LGVST752	PARKER	GAS	NORTH	2019	1.2
HEB STORE 753	HEB753_DRPRK753	HARRIS	GAS	HOUSTON	2018	0.8
HEB STORE 99	HEB099_KLEIN099	HARRIS	GAS	HOUSTON	2017	1.1
HOLLY HALL	HH2000_HOLMESH	HARRIS	GAS	HOUSTON	2017	1.2
PANTHER PLANT	PAPL_DG1	UPTON	GAS	WEST	2017	8.3
PEPPERL FUCHS	PEPF01_WALLER01	WALLER	GAS	HOUSTON	2017	1.1
PLANET FORD I45	PFI45_PFORDI45	HARRIS	GAS	HOUSTON	2017	1.1
RELLIS CAMPUS	TAMURE_RELLISAM	BRAZOS	GAS	NORTH	2018	9.6
RHODIA HOUSTON PLANT	DG_HG_2UNITS	HARRIS	GAS	HOUSTON	1970	8.2
ROBERT MUELLER ENERGY CENT	RMEC_CT1	TRAVIS	GAS	SOUTH	2011	5.8
STANDARD MEAT	ST_MEAT_CKRHLSTM	DALLAS	GAS	NORTH	2019	1.2
UTMB East Plant	UTMBEAST_CT1	GALVESTON	GAS	HOUSTON	2016	7.6
UTMB WEST PLANT	UTMBWEST_CT1	GALVESTON	GAS	HOUSTON	2017	5.4
WAL STORE 1040	WAL1040_GERT1040	HARRIS	GAS	HOUSTON	2019	1.2
WAL STORE 1103	WAL1103_BAM1103	HARRIS	GAS	HOUSTON	2019	1.2
WAL STORE 3226	WAL3226_KTY3226	HARRIS	GAS	HOUSTON	2019	1.2
WAL STORE 4538	WAL4538_FRAN4538	HARRIS	GAS	HOUSTON	2019	1.2
WAL STORE 768	WAL768_FRAN768	HARRIS	GAS	HOUSTON	2019	1.2