

Release Date: September 6, 2018

**PRELIMINARY
Seasonal Assessment of Resource Adequacy for the ERCOT Region (SARA)
Winter 2018/2019**

SUMMARY

The ERCOT Region is expected to have sufficient installed generating capacity to serve the forecasted peak demand in the upcoming winter season (December 2018 through February 2019). The forecasted peak demand of 61,780 MW is based on expected winter peak weather conditions.

ERCOT also expects that 496 MW of planned winter-rated resource capacity will be added between now and the start of the winter season. This amount includes 330 MW of gas-fired generation, 808 MW of nameplate wind capacity (162 MW winter capacity contribution), and 37 MW of nameplate grid-scale solar capacity (4 MW winter capacity contribution).

Based on the scenarios evaluated, an extreme higher-than-normal number of forced generation outages occurring during a period of unusually high demand would be unlikely to result in insufficient resources.

This preliminary winter SARA report includes a unit outage forecast of 7,524 MW developed from historical winter season outage data gathered since 2015. For an extreme peak load scenario, the outage amount increases by 1,512 MW to account for typical gas curtailment-related outages.

Seasonal Assessment of Resource Adequacy for the ERCOT Region

Winter 2018/19 - Preliminary

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Forecasted Capacity and Demand

Operational Resources (thermal and hydro), MW	68,163	Based on current Seasonal Maximum Sustainable Limits reported through the unit registration process
Switchable Capacity Total, MW	3,736	Installed capacity of units that can interconnect with other Regions and are available to ERCOT
less Switchable Capacity Unavailable to ERCOT, MW	-802	Based on survey responses of Switchable Resource owners
Available Mothball Resources, MW	0	Based on seasonal Mothball units plus Probability of Return responses of Mothball Resource owners
Private Use Network Capacity Contribution, MW	3,305	Average capability of the top 20 hours in the fall peak seasons for the past three years (2015-2017)
Non-Coastal Wind Resources Capacity Contribution, MW	3,712	Based on 20% of installed capacity for non-coastal wind resources per ERCOT Nodal Protocols Section 3.2.6.2.2
Coastal Wind Resources Capacity Contribution, MW	1,126	Based on 43% of installed capacity for coastal wind resources per ERCOT Nodal Protocols Section 3.2.6.2.2
Solar Utility-Scale, Peak Average Capacity Contribution, MW	178	Based on 12% of installed capacity for solar resources per Nodal Protocols Section 3.2.6.2.2
RMR Resources to be under Contract, MW	0	
Capacity Pending Retirement	0	Announced retired capacity that is undergoing ERCOT grid reliability reviews pursuant to Nodal Protocol Section 3.14.1.2.
Non-Synchronous Ties Capacity Contribution, MW	287	Average capability of the top 20 hours in the fall peak seasons for the past three years (2015-2017)
Planned Thermal Resources with Signed IA, Air Permits and Adeq. Water Supplies, MW	330	Based on in-service dates provided by developers
Planned Non-Coastal Wind with signed IA , MW	162	Based on in-service dates provided by developers and 20% of installed capacity for non-coastal wind resources.
Planned Coastal Wind with signed IA , MW	0	Based on in-service dates provided by developers and 43% of installed capacity for coastal wind resources
Planned Solar Utility-Scale with signed IA, MW	4	Based on 12% of installed capacity for solar resources
[a] Total Resources, MW	80,202	
[b] Peak Demand, MW	61,780	Based on expected peak weather conditions
[c] Reserve Capacity [a - b], MW	18,422	

Range of Potential Risks

	Forecasted Season Peak Load	Extreme Peak Load / Typical Generation Outages During Extreme Peak Load	Extreme Peak Load / Extreme Generation Outages During Extreme Peak Load	
Seasonal Load Adjustment	-	5,633	5,633	Based on the 2011 winter, the extreme winter forecast is 67,413 MW
Typical Maintenance Outages	3,964	3,964	3,964	Based on historical average of planned outages for December through February weekdays (starting in 2015)
Typical Forced Outages, Thermal	3,560	5,072	5,072	Based on historical average of forced outages for December through February weekdays (starting in 2015); both Extreme Load scenarios include typical outages/derates due to natural gas curtailments during extreme peak load hours
90th Percentile Forced Outages, Thermal	-	-	3,374	Based on historical forced outages at the 90% confidence interval plus additional derates due to natural gas curtailments resulting from combined low ambient temperatures and extreme peak loads
[d] Total Uses of Reserve Capacity	7,524	14,669	18,043	
[e] Capacity Available for Operating Reserves (c-d), MW	10,898	3,753	379	
Less than 2,300 MW indicates risk of EEA1				

UNIT NAME	GENERATION INTERCONNECTION PROJECT CODE	UNIT CODE	COUNTY	FUEL	ZONE	START YEAR	CAPACITY (MW)
380 BUCHANAN HYDRO 1		BUCHAN_BUCHANG1	LLANO	HYDRO	SOUTH	1938	16.0
381 BUCHANAN HYDRO 2		BUCHAN_BUCHANG2	LLANO	HYDRO	SOUTH	1938	16.0
382 BUCHANAN HYDRO 3		BUCHAN_BUCHANG3	LLANO	HYDRO	SOUTH	1950	17.0
383 DENISON DAM 1		DNDAM_DENISOG1	GRAYSON	HYDRO	NORTH	1944	40.0
384 DENISON DAM 2		DNDAM_DENISOG2	GRAYSON	HYDRO	NORTH	1948	40.0
385 FALCON HYDRO 1		FALCON_FALCONG1	STARR	HYDRO	SOUTH	1954	12.0
386 FALCON HYDRO 2		FALCON_FALCONG2	STARR	HYDRO	SOUTH	1954	12.0
387 FALCON HYDRO 3		FALCON_FALCONG3	STARR	HYDRO	SOUTH	1954	12.0
388 GRANITE SHOALS HYDRO 1		WIRTZ_WIRTZ_G1	BURNET	HYDRO	SOUTH	1951	29.0
389 GRANITE SHOALS HYDRO 2		WIRTZ_WIRTZ_G2	BURNET	HYDRO	SOUTH	1951	29.0
390 INKS HYDRO 1		INKSDA_INKS_G1	LLANO	HYDRO	SOUTH	1938	14.0
391 MARBLE FALLS HYDRO 1		MARBFA_MARBFAFAG1	BURNET	HYDRO	SOUTH	1951	21.0
392 MARBLE FALLS HYDRO 2		MARBFA_MARBFAFAG2	BURNET	HYDRO	SOUTH	1951	20.0
393 MARSHALL FORD HYDRO 1		MARSFO_MARSFOG1	TRAVIS	HYDRO	SOUTH	1941	36.0
394 MARSHALL FORD HYDRO 2		MARSFO_MARSFOG2	TRAVIS	HYDRO	SOUTH	1941	36.0
395 MARSHALL FORD HYDRO 3		MARSFO_MARSFOG3	TRAVIS	HYDRO	SOUTH	1941	29.0
396 WHITNEY DAM HYDRO		WND_WHITNEY1	BOSQUE	HYDRO	NORTH	1953	24.0
397 WHITNEY DAM HYDRO 2		WND_WHITNEY2	BOSQUE	HYDRO	NORTH	1953	24.0
398 ARLINGTON OUTLET HYDROELECTRIC FACILITY		DG_OAKHL_1UNIT	TARRANT	HYDRO	NORTH	2014	1.4
399 EAGLE PASS HYDRO		DG_EAGLE_HY_EAGLE_HY1	MAVERICK	HYDRO	SOUTH	2005	9.6
400 GUADALUPE BLANCO RIVER AUTH-CANYON		DG_CANHYH_CANYHYG1	COMAL	HYDRO	SOUTH	1989	6.0
401 GUADALUPE BLANCO RIVER AUTH-LAKEWOOD TAP		DG_LKWDT_2UNITS	GONZALES	HYDRO	SOUTH	1931	4.8
402 GUADALUPE BLANCO RIVER AUTH-MCQUEENEY		DG_MCQUE_5UNITS	GUADALUPE	HYDRO	SOUTH	1928	7.7
403 GUADALUPE BLANCO RIVER AUTH-SCHUMANSVILLE		DG_SCHUM_2UNITS	GUADALUPE	HYDRO	SOUTH	1928	3.6
404 LEWISVILLE HYDRO-CITY OF GARLAND		DG_LWSVL_1UNIT	DENTON	HYDRO	NORTH	1991	2.2
405 Operational Capacity Total (Hydro)							555.1
406 Hydro Capacity Contribution (Top 20 Hours)							457.1
407							
408 Operational Capacity Unavailable due to Extended Outage or Derate							(391.0)
409 Operational Capacity Total (Including Hydro)							68,163.3
410							
411 Operational Resources (Switchable)							
412 ANTELOPE IC 1		AEEC_ANLTP_1	HALE	GAS	PANHANDLE	2016	56.0
413 ANTELOPE IC 2		AEEC_ANLTP_2	HALE	GAS	PANHANDLE	2016	56.0
414 ANTELOPE IC 3		AEEC_ANLTP_3	HALE	GAS	PANHANDLE	2016	56.0
415 ELK STATION CTG 1		AEEC_ELK_1	HALE	GAS	PANHANDLE	2016	195.0
416 ELK STATION CTG 2		AEEC_ELK_2	HALE	GAS	PANHANDLE	2016	195.0
417 TENASKA KIAMICHI STATION 1CT101		KMCHI_1CT101	FANNIN	GAS	NORTH	2003	178.0
418 TENASKA KIAMICHI STATION 1CT201		KMCHI_1CT201	FANNIN	GAS	NORTH	2003	180.0
419 TENASKA KIAMICHI STATION 1ST		KMCHI_1ST	FANNIN	GAS	NORTH	2003	307.0
420 TENASKA KIAMICHI STATION 2CT101		KMCHI_2CT101	FANNIN	GAS	NORTH	2003	178.0
421 TENASKA KIAMICHI STATION 2CT201		KMCHI_2CT201	FANNIN	GAS	NORTH	2003	180.0
422 TENASKA KIAMICHI STATION 2ST		KMCHI_2ST	FANNIN	GAS	NORTH	2003	307.0
423 TENASKA FRONTIER STATION CTG 1		FTR_FTR_G1	GRIMES	GAS	NORTH	2000	180.0
424 TENASKA FRONTIER STATION CTG 2		FTR_FTR_G2	GRIMES	GAS	NORTH	2000	180.0
425 TENASKA FRONTIER STATION CTG 3		FTR_FTR_G3	GRIMES	GAS	NORTH	2000	180.0
426 TENASKA FRONTIER STATION STG 4		FTR_FTR_G4	GRIMES	GAS	NORTH	2000	400.0
427 TENASKA GATEWAY STATION CTG 1		TGCCS_CT1	RUSK	GAS	NORTH	2001	162.0
428 TENASKA GATEWAY STATION CTG 2		TGCCS_CT2	RUSK	GAS	NORTH	2001	179.0
429 TENASKA GATEWAY STATION CTG 3		TGCCS_CT3	RUSK	GAS	NORTH	2001	178.0
430 TENASKA GATEWAY STATION STG 4		TGCCS_UNIT4	RUSK	GAS	NORTH	2001	389.0
431 Switchable Capacity Total							3,736.0
432							
433 Switchable Capacity Unavailable to ERCOT							
434 ANTELOPE IC 1		AEEC_ANLTP_1_UNAVAIL	HALE	GAS	PANHANDLE	2017	(56.0)
435 ANTELOPE IC 2		AEEC_ANLTP_2_UNAVAIL	HALE	GAS	PANHANDLE	2017	(56.0)
436 ANTELOPE IC 3		AEEC_ANLTP_3_UNAVAIL	HALE	GAS	PANHANDLE	2017	-
437 ELK STATION CTG 1		AEEC_ELK_1_UNAVAIL	HALE	GAS	PANHANDLE	2017	(195.0)
438 ELK STATION CTG 2		AEEC_ELK_2_UNAVAIL	HALE	GAS	PANHANDLE	2017	(195.0)
439 TENASKA FRONTIER STATION		FTR_FTR_UNAVAIL	FANNIN	GAS	NORTH	2016	(300.0)
440 Switchable Capacity Unavailable to ERCOT		SWITCH_UNAVAIL					(802.0)
441							
442 Available Mothball Capacity based on Owner's Return Probability		MOTH_AVAIL					-
443							
444 Private-Use Network Capacity Contribution (Top 20 Hours)		PUN_CAP_CONT		GAS			3,456.2
445 Private-Use Network Forecast Adjustment (per Protocol 10.3.2.4)		PUN_CAP_ADJUST		GAS			(151.0)
446							
447 Operational Resources (Wind)							
448 ANACACHO WIND		ANACACHO_ANA	KINNEY	WIND	SOUTH	2012	99.8
449 BARTON CHAPEL WIND		BRTSW_BCW1	JACK	WIND	NORTH	2007	120.0
450 BLUE SUMMIT WIND 5		BLSUMMIT_BLSTM1_5	WILBARGER	WIND	WEST	2013	9.0
451 BLUE SUMMIT WIND 6		BLSUMMIT_BLSTM1_6	WILBARGER	WIND	WEST	2013	126.4
452 BOBCAT BLUFF WIND		BCATWIND_WIND_1	ARCHER	WIND	WEST	2012	150.0
453 BRISCOE WIND		BRISCOE_WIND	BRISCOE	WIND	PANHANDLE	2015	149.8
454 BUCKTHORN WIND 1 A		BUCKTHRN_UNIT1	ERATH	WIND	NORTH	2017	44.9
455 BUCKTHORN WIND 1 B		BUCKTHRN_UNIT2	ERATH	WIND	NORTH	2017	55.7
456 BUFFALO GAP WIND 1		BUFF_GAP_UNIT1	TAYLOR	WIND	WEST	2006	120.6
457 BUFFALO GAP WIND 2_1		BUFF_GAP_UNIT2_1	TAYLOR	WIND	WEST	2007	115.5
458 BUFFALO GAP WIND 2_2		BUFF_GAP_UNIT2_2	TAYLOR	WIND	WEST	2007	117.0
459 BUFFALO GAP WIND 3		BUFF_GAP_UNITS3	TAYLOR	WIND	WEST	2008	170.2
460 BULL CREEK WIND U1		BULLCRK_WND1	BORDEN	WIND	WEST	2009	88.0
461 BULL CREEK WIND U2		BULLCRK_WND2	BORDEN	WIND	WEST	2009	90.0
462 CALLAHAN WIND		CALLAHAN_WND1	CALLAHAN	WIND	WEST	2004	114.0
463 CAMP SPRINGS WIND 1		CSEC_CSECG1	SCURRY	WIND	WEST	2007	130.5
464 CAMP SPRINGS WIND 2		CSEC_CSECG2	SCURRY	WIND	WEST	2007	120.0
465 CAPRICORN RIDGE WIND 1		CAPRIDGE_CR1	STERLING	WIND	WEST	2007	214.5
466 CAPRICORN RIDGE WIND 2		CAPRIDGE_CR2	STERLING	WIND	WEST	2007	149.5
467 CAPRICORN RIDGE WIND 3		CAPRIDGE_CR3	STERLING	WIND	WEST	2008	186.0
468 CAPRICORN RIDGE WIND 4		CAPRIDG4_CR4	COKE	WIND	WEST	2008	112.5
469 CEDRO HILL WIND 1		CEDROHIL_CHW1	WEBB	WIND	SOUTH	2010	75.0
470 CEDRO HILL WIND 2		CEDROHIL_CHW2	WEBB	WIND	SOUTH	2010	75.0
471 CHAMPION WIND		CHAMPION_UNIT1	NOLAN	WIND	WEST	2008	126.5
472 COTTON PLAINS WIND		COTPPLNS_COTTONPL	FLOYD COUNTY	WIND	PANHANDLE	2017	50.4
473 DERMOTT WIND 1_1		DERMOTT_UNIT1	SCURRY	WIND	WEST	2017	126.5
474 DERMOTT WIND 1_2		DERMOTT_UNIT2	SCURRY	WIND	WEST	2017	126.5

UNIT NAME	GENERATION INTERCONNECTION PROJECT CODE	UNIT CODE	COUNTY	FUEL	ZONE	START YEAR	CAPACITY (MW)
665 BECK 1		DG_CECOSOLAR_DG_BECK1	BEXAR	SOLAR	SOUTH	2016	1.0
666 BLUE WING 1 SOLAR		DG_BROOK_1UNIT	BEXAR	SOLAR	SOUTH	2010	7.6
667 BLUE WING 2 SOLAR		DG_ELEM_1UNIT	BEXAR	SOLAR	SOUTH	2010	7.3
668 FIFTH GENERATION SOLAR 1		DG_FGSOLAR1	TRAVIS	SOLAR	SOUTH	2016	1.6
669 HM SEALY SOLAR 1		DG_SEALY_1UNIT	AUSTIN	SOLAR	SOUTH	2015	1.6
670 OCI ALAMO 2 SOLAR-ST. HEDWIG		DG_STHWG_UNIT1	BEXAR	SOLAR	SOUTH	2014	4.4
671 OCI ALAMO 3-WALZEM SOLAR		DG_WALZM_UNIT1	BEXAR	SOLAR	SOUTH	2014	5.5
672 RENEWABLE ENERGY ALTERNATIVES-CCS1		DG_COSERVSS_CCS1	DENTON	SOLAR	NORTH	2015	2.0
673 SUNEDISON RABEL ROAD SOLAR		DG_VALL1_1UNIT	BEXAR	SOLAR	SOUTH	2012	9.9
674 SUNEDISON VALLEY ROAD SOLAR		DG_VALL2_1UNIT	BEXAR	SOLAR	SOUTH	2012	9.9
675 SUNEDISON CPS3 SOMERSET 1 SOLAR		DG_SOME1_1UNIT	BEXAR	SOLAR	SOUTH	2012	5.6
676 SUNEDISON SOMERSET 2 SOLAR		DG_SOME2_1UNIT	BEXAR	SOLAR	SOUTH	2012	5.0
677 WALNUT SPRINGS		DG_WLNTSPRG_1UNIT	BOSQUE	SOLAR	NORTH	2016	10.0
678 Operational Capacity Total (Solar)							1,485.4
679 Solar Peak Average Capacity Percentage		SOLAR_PEAK_PCT	%				12.0
680							-
681 Reliability Must-Run (RMR) Capacity		RMR_CAP_CONT		GAS			-
682							-
683 Capacity Pending Retirement		PENDRETIRE_CAP					-
684							-
685 Non-Synchronous Tie Resources							
686 EAST TIE		DC_E	FANNIN		NORTH		600.0
687 NORTH TIE		DC_N	WILBARGER		WEST		220.0
688 EAGLE PASS TIE		DC_S	MAVERICK		SOUTH		30.0
689 LAREDO VFT TIE		DC_L	WEBB		SOUTH		100.0
690 SHARYLAND RAILROAD TIE		DC_R	HIDALGO		SOUTH		150.0
691 SHARYLAND RAILROAD TIE 2			HIDALGO		SOUTH		150.0
692 Non-Synchronous Ties Total							1,250.0
693 Non-Synchronous Ties Capacity Contribution (Top 20 Hours)		DCTIE_CAP_CONT		OTHER			286.6
694							-
695 Planned Thermal Resources with Executed SGIA, Air Permit, GHG Permit and Proof of Adequate Water Supplies							
696 BETHEL CAES PROJECT	15INR0013		ANDERSON	GAS	NORTH	2020	-
697 FGE TEXAS I PROJECT	16INR0010		MICHELL	GAS	WEST	2020	-
698 FRIENDSWOOD G	13INR0049		HARRIS	GAS	HOUSTON	2018	119.0
699 HALYARD HENDERSON	16INR0045		HENDERSON	GAS	NORTH	2021	-
700 HALYARD WHARTON ENERGY CENTER	16INR0044		WHARTON	GAS	SOUTH	2020	-
701 HUDSON (BRAZORIA ENERGY G)	16INR0076		BRAZORIA	GAS	COASTAL	2019	-
702 INDECK WHARTON ENERGY CENTER	15INR0023		WHARTON	GAS	SOUTH	2021	-
703 MIRAGE	17INR0022		HARRIS	GAS	HOUSTON	2018	11.0
704 PINECREST ENERGY CENTER PROJECT	16INR0006		ANGELINA	GAS	NORTH	2020	-
705 VICTORIA CITY (CITYVICT)	18INR0035		VICTORIA	GAS	SOUTH	2018	100.0
706 VICTORIA PORT (VICTPORT)	17INR0045		VICTORIA	GAS	SOUTH	2018	100.0
707 Planned Capacity Total (Coal, Gas & Storage)							330.0
708							-
709 Planned Wind Resources with Executed SGIA							
710 BLUE SUMMIT II	18INR0070		WILBARGER	WIND	WEST	2019	-
711 CABEZON WIND (RIO BRAVO I WIND)	17INR0005		STARRE	WIND	SOUTH	2019	-
712 CACTUS FLATS WIND	16INR0086		CONCHO	WIND	WEST	2018	148.4
713 CANADIAN BREAKS WIND	13INR0026		OLDHAM	WIND	PANHANDLE	2019	-
714 COMANCHE RUN WIND	12INR0029		SWISHER	WIND	PANHANDLE	2019	-
715 COYOTE WIND	17INR0027b		SCURRY	WIND	WEST	2019	-
716 DARMSTADT	18INR0023		SCHLEICHER	WIND	WEST	2019	-
717 EASTER WIND	15INR0063		CASTRO	WIND	PANHANDLE	2020	-
718 EDMONDSON RANCH WIND	18INR0043		GLASSCOCK	WIND	WEST	2019	-
719 FLAT TOP WIND I	15INR0082		COMANCHE	WIND	NORTH	2018	200.0
720 FOARD CITY WIND	19INR0019		FOARD	WIND	WEST	2019	-
721 GOODNIGHT WIND	14INR0033		ARMSTRONG	WIND	PANHANDLE	2019	-
722 GOPHER CREEK WIND	18INR0067		SCURRY	WIND	WEST	2019	-
723 GRANDVIEW WIND 3 (CONWAY)	13INR0005c		CARSON	WIND	PANHANDLE	2019	-
724 HARALD (BEARKAT WIND B)	15INR0064b		GLASSCOCK	WIND	WEST	2019	-
725 RTS 2 WIND (HEART OF TEXAS WIND)	18INR0016		MCCULLOCH	WIND	SOUTH	2019	-
726 HIGH LONESOME W	19INR0038		CROCKETT	WIND	WEST	2019	-
727 WILSON RANCH (INFINITY LIVE OAK WIND)	12INR0060		SCHLEICHER	WIND	WEST	2018	-
728 BARROW RANCH (JUMBO HILL WIND)	18INR0038		ANDREWS	WIND	WEST	2019	-
729 KONTIKI 1 WIND	19INR0099a		GLASSCOCK	WIND	WEST	2019	-
730 KONTIKI 2 WIND	19INR0099b		GLASSCOCK	WIND	WEST	2020	-
731 S_HILLS WIND (LITTLE MOUNTAIN WIND)	12INR0055		BAYLOR	WIND	WEST	2019	-
732 LOCKETT WIND FARM	16INR0062b		WILBARGER	WIND	WEST	2019	-
733 LOMA PINTA WIND	16INR0112		LA SALLE	WIND	SOUTH	2019	-
734 LORAIN WINDPARK PHASE III	18INR0068		MICHELL	WIND	WEST	2018	-
735 MARIAH DEL ESTE	13INR0010a		PARMER	WIND	PANHANDLE	2018	-
736 MESTENO WIND	16INR0081		STARR	WIND	SOUTH	2019	-
737 NORTHDRAW WIND	13INR0025		RANDALL	WIND	PANHANDLE	2019	-
738 OVEJA WIND	18INR0033		IRION	WIND	WEST	2019	-
739 PANHANDLE WIND 3	14INR0030c		CARSON	WIND	PANHANDLE	2020	-
740 PUMPKIN FARM WIND	16INR0037c		FLOYD	WIND	PANHANDLE	2019	-
741 RANCHERO WIND	20INR0011		CROCKETT	WIND	WEST	2019	-
742 RTS WIND	16INR0087		MCCULLOCH	WIND	SOUTH	2018	160.0
743 SAGE DRAW WIND	19INR0163		LYNN	WIND	WEST	2019	-
744 SCANDIA WIND DEF	13INR0010def		PARMER	WIND	PANHANDLE	2019	-
745 SILVER CANYON WIND A	12INR002a		BRISCOE	WIND	PANHANDLE	2019	-
746 TAHOKA WIND (STAKED PLAINS WIND 1)	18INR0025		LYNN	WIND	WEST	2018	300.0
747 TORRECILLAS WIND	14INR0045		WEBB	WIND	SOUTH	2018	-
748 UNITY WIND	15INR0050		DEAF SMITH	WIND	PANHANDLE	2019	-
749 VERA WIND	19INR0051		KNOX	WIND	WEST	2019	-
750 WILDROSE WIND (SWISHER WIND)	13INR0038		SWISHER	WIND	PANHANDLE	2019	-
751 WKN AMADEUS WIND	14INR0009		KENT	WIND	WEST	2019	-
752 KARANKAWA 2 WIND FARM	19INR0074		SAN PATRICIO	WIND-C	COASTAL	2019	-
753 KARANKAWA WIND ALT A	18INR0014		SAN PATRICIO	WIND-C	COASTAL	2019	-
754 LAS MAJADAS WIND	17INR0035		WILLACY	WIND-C	COASTAL	2020	-
755 MIDWAY FARMS WIND	11INR0054		SAN PATRICIO	WIND-C	COASTAL	2018	-
756 PALMAS ALTAS WIND	17INR0037		CAMERON	WIND-C	COASTAL	2019	-
757 PATRIOT WIND (PETRONILLA)	11INR0062		NUECES	WIND-C	COASTAL	2019	-
758 PEYTON CREEK WIND	18INR0018		MATAGORDA	WIND-C	COASTAL	2019	-
759 STELLA 1 WIND	15INR0035		KENEDY	WIND-C	COASTAL	2018	-

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760 Planned Capacity Total (Wind)							808.4
761							
762 Planned Wind Capacity Sub-total (Non-Coastal Counties)		WIND_PLANNED_NC					808.4
763 Wind Peak Average Capacity Percentage (Non-Coastal)		WIND_PL_PEAK_PCT_NC	%				20.0
764							
765 Planned Wind Capacity Sub-total (Coastal Counties)		WIND_PLANNED_C					-
766 Wind Peak Average Capacity Percentage (Coastal)		WIND_PL_PEAK_PCT_C	%				43.0
767							
768 Planned Solar Resources with Executed SGIA							
769 ARAGORN SOLAR	19INR0088		CULBERSON	SOLAR	WEST	2019	-
770 BLUEBELL SOLAR (CAPRICORN RIDGE SOLAR)	16INR0019		COKE	SOLAR	WEST	2018	30.0
771 FS BARILLA SOLAR 1B [HOVEY_UNIT2]	12INR0059b		PECOS	SOLAR	WEST	2018	7.4
772 LAMESA SOLAR (PHASE II)	16INR0023b		DAWSON	SOLAR	WEST	2018	-
773 MISAE SOLAR	18INR0045		CHILDRESS	SOLAR	WEST	2019	-
774 NAZARETH SOLAR	16INR0049		CASTRO	SOLAR	PANHANDLE	2019	-
775 EMERALD GROVE SOLAR (PECOS SOLAR POWER I)	15INR0059		PECOS	SOLAR	WEST	2019	-
776 PFLUGERVILLE SOLAR	15INR0090		TRAVIS	SOLAR	SOUTH	2019	-
777 PHOEBE SOLAR	19INR0029		WINKLER	SOLAR	WEST	2019	-
778 PROSPERO SOLAR	19INR0092		ANDREWS	SOLAR	WEST	2019	-
779 RE MAPLEWOOD 2A SOLAR	17INR0020a		PECOS	SOLAR	WEST	2019	-
780 RE MAPLEWOOD 2B SOLAR	17INR0020b		PECOS	SOLAR	WEST	2019	-
781 RE MAPLEWOOD 2C SOLAR	17INR0020c		PECOS	SOLAR	WEST	2019	-
782 RE MAPLEWOOD 2D SOLAR	17INR0020d		PECOS	SOLAR	WEST	2020	-
783 RE MAPLEWOOD 2E SOLAR	17INR0020e		PECOS	SOLAR	WEST	2020	-
784 RES WINK SOLAR	18INR0022		WINKLER	SOLAR	WEST	2019	-
785 SODA LAKE SOLAR 1 AND 2	18INR0040		CRANE	SOLAR	WEST	2019	-
786 UPTON SOLAR	16INR0114		UPTON	SOLAR	WEST	2019	-
787 WAYMARK SOLAR	16INR0115		PECOS	SOLAR	WEST	2018	-
788 WEST OF PECOS SOLAR	14INR0044		REEVES	SOLAR	WEST	2019	-
789 Planned Capacity Total (Solar)		SOLAR_PL_PEAK_PCT	%				37.4
790 Solar Peak Average Capacity Percentage							12.0
791							
792 Seasonal Mothballed Resources							-
793 N/A							
794 Total Seasonal Mothballed Capacity							
795							
796 Mothballed Resources							
797 J T DEELY U1 (AS OF 12/31/2018)		CALAVERS_JTD1_M	BEXAR	COAL	SOUTH	1977	430.0
798 J T DEELY U2 (AS OF 12/31/2018)		CALAVERS_JTD2_M	BEXAR	COAL	SOUTH	1978	420.0
799 S R BERTRON U1 (SINCE 5/15/2013)		SRB_SR_B1	HARRIS	GAS	HOUSTON	1958	118.0
800 S R BERTRON U2 (SINCE 5/15/2013)		SRB_SR_B2	HARRIS	GAS	HOUSTON	1956	174.0
801 Total Mothballed Capacity							1,142.0

Note: Capacity changes due to planned repower projects are reflected in the operational units' ratings upon project completion.

Seasonal Assessment of Resource Adequacy for the ERCOT Region

Background

The Seasonal Assessment of Resource Adequacy (SARA) report is a deterministic approach to considering the impact of potential variables that may affect the sufficiency of installed resources to meet the peak electrical demand on the ERCOT System during a particular season.

The standard approach to assessing resource adequacy for one or more years into the future is to account for projected load and resources on a normalized basis and to require sufficient reserves (resources in excess of peak demand, on this normalized basis) to cover the uncertainty in peak demand and resource availability to meet a probabilistic reliability standard.

For seasonal assessments that look ahead less than a year, specific information may be available (such as seasonal climate forecasts or anticipated common-mode events such as drought) which can be used to consider the range of resource adequacy in a more deterministic manner.

The SARA report focuses on the availability of sufficient operating reserves to avoid emergency actions such as deployment of voluntary load reduction resources. It uses an operating reserve threshold of 2,300 MW to indicate the risk that an Energy Emergency Alert Level 1 (EEA1) may be triggered during the time of the forecasted seasonal peak load. This threshold level is intended to be roughly analogous to the 2,300 MW Physical Responsive Capability (PRC) threshold for EEA1. However, PRC is a real-time capability measure for Resources that can quickly respond to system disturbances. In contrast, the SARA operating reserve reflects additional capability assumed to be available before energy emergency procedures are initiated, such as from Resources qualified to provide non-spinning reserves. Additionally, the amount of operating reserves available may increase relative to what is included in the SARA report due to the market responding to wholesale market price increases and anticipated capacity scarcity conditions. Given these considerations, ERCOT believes that the 2,300 MW reserve capacity threshold is a reasonable indicator for the risk of Energy Emergency Alerts given the uncertainties in predicting system conditions months in advance.

The SARA report is intended to illustrate the range of resource adequacy outcomes that might occur. It serves as a situational awareness tool for ERCOT operational planning purposes, and helps fulfill the "extreme weather" resource adequacy assessment requirement per Public Utility Commission of Texas rule 25.362(i)(2)(H). In addition to a base scenario, several other scenarios are developed by varying the value of load forecast and resource availability parameters. The variation in these parameters is based on historic ranges of the parameter values or known changes expected in the near-term. The SARA report is not intended to indicate the likelihood of any of these scenario outcomes.