

Assumptions in Model:

Switchables
New unit added to the 2010 list
Private use network generation
RMR
New unit with signed interconnect and air permit
Mothballs
Uncertain on technology type

All four STP units included in this case.

Mothballs removed from dispatch.

2009 Actual ERCOT load by hour.

New units with signed interconnect and air permit are not included in dispatch.

Gas price used (fuel index price on next tab) is from 2009 State of the Market report.

Unit fuel cost data is from Section 6.8.2.1 of the Zonal Protocols - Resource Category Generic Costs

Start Up costs are not included.

LaaRs, DC Ties and Block Load Transfers were separated by 0.10 heat rates for purposes of this model.

Renewable availability factors are based on the hourly average of the actual wind capacity factors in 2009 (file ERCOT_2009_Hourly_Wind_Outp

Availability factors for all unit types except wind, LaaRs, DC ties and BLTs are from NERC 2005-2009 Generating Availability Reports (EAF).

Distributed generation given a dispatch rank of 12. They are indicated by mnemonic of DG in unit dispatch list.

PUN plants > 300 MW assumed CC greater than 90 MW, i.e., dispatch rank = 5

PUN plants < 300 MW but > 150 assumed CC less than 90 MW, i.e., dispatch rank = 6

PUN plants < 150 MW but > 90 assumed simple cycle greater than 90 MW, i.e., dispatch rank = 9

PUN plants < 90 MW assumed simple cycle less than 90 MW, i.e., dispatch rank = 11

A proxy Block Load Transfer of 1,500 MWs is included.

Rank		Tech Type	In service	MW from CDR	Availability Factor	Corrected MWs	Cumulative MWs
1	1 Pyron Wind Farm	Wind	2007	249.0	0.245	61.0	61.0
2	1 Buffalo Gap Wind Farm 2	Wind	2006	233.0	0.245	57.1	118.0
3	1 Horse Hollow Wind 3	Wind	2006	220.0	0.245	53.9	171.9
4	1 Horse Hollow Wind 1	Wind	2007	210.0	0.245	51.4	223.4
5	1 Capricorn Ridge Wind 1	Wind	2008	200.0	0.245	49.0	272.3
6	1 Mesquite Wind	Wind	2006	200.0	0.245	49.0	321.3
7	1 Panther Creek 3	Wind	2009	200.0	0.245	49.0	370.3
8	1 Penascal Wind	Wind	2010	200.0	0.245	49.0	419.3
9	1 Roscoe Wind Farm	Wind	2006	200.0	0.245	49.0	468.3
10	1 Inadale Wind	Wind	2006	197.0	0.245	48.2	516.5
11	1 Capricorn Ridge Wind 2	Wind	2007	186.0	0.245	45.6	562.1
12	1 Horse Hollow Wind 4	Wind	2006	180.0	0.245	44.1	606.2
13	1 Papalote Creek Wind Farm	Wind	2010	180.0	0.245	44.1	650.3
14	1 Turkey Track Wind Energy Center	Wind	2008	170.0	0.245	41.6	691.9
15	1 Hackberry Wind Farm	Wind	2008	165.0	0.245	40.4	732.3
16	1 Notrees-1	Wind	2008	153.0	0.245	37.5	769.8
17	1 Buffalo Gap Wind Farm 3	Wind	2007	150.0	0.245	36.7	806.5
18	1 Goat Wind	Wind	2008	150.0	0.245	36.7	843.2
19	1 Langford Wind Power	Wind	2010	150.0	0.245	36.7	880.0
20	1 McAdoo Wind Farm	Wind	2008	150.0	0.245	36.7	916.7
21	1 Sherbino I	Wind	2008	150.0	0.245	36.7	953.5
22	1 Trent Wind Farm	Wind	1999	150.0	0.245	36.7	990.2
23	1 Gulf Wind I	Wind	2003	143.0	0.245	35.0	1025.2
24	1 Panther Creek 1	Wind	2008	143.0	0.245	35.0	1060.2
25	1 Capricorn Ridge Wind 3	Wind	2008	140.0	0.245	34.3	1094.5
26	1 Gulf Wind II	Wind	2008	140.0	0.245	34.3	1128.8
27	1 Desert Sky Wind Farm 2	Wind	2002	135.0	0.245	33.1	1161.9
28	1 Camp Springs 1	Wind	2004	130.0	0.245	31.8	1193.7
29	1 Sweetwater Wind 4	Wind	2004	130.0	0.245	31.8	1225.6
30	1 Lorraine Windpark I	Wind	2009	126.0	0.245	30.9	1256.4
31	1 Lorraine Windpark II	Wind	2009	125.0	0.245	30.6	1287.0
32	1 Forest Creek Wind Farm	Wind	2008	124.0	0.245	30.4	1317.4
33	1 Barton Chapel Wind	Wind	2007	120.0	0.245	29.4	1346.8
34	1 Buffalo Gap Wind Farm 1	Wind	2006	120.0	0.245	29.4	1376.2
35	1 Camp Springs 2	Wind	2007	120.0	0.245	29.4	1405.6
36	1 Champion Wind Farm	Wind	2008	120.0	0.245	29.4	1435.0
37	1 Stanton Wind Energy	Wind	2008	120.0	0.245	29.4	1464.4
38	1 Sweetwater Wind 7	Wind	2007	119.0	0.245	29.1	1493.5
39	1 Elbow Creek Wind Project	Wind	2008	117.0	0.245	28.7	1522.2
40	1 Capricorn Ridge Wind 4	Wind	2007	115.0	0.245	28.2	1550.3
41	1 Horse Hollow Wind 2	Wind	2005	115.0	0.245	28.2	1578.5
42	1 Panther Creek 2	Wind	2008	115.0	0.245	28.2	1606.7
43	1 Callahan Wind	Wind	2004	114.0	0.245	27.9	1634.6
44	1 Wolfe Ridge	Wind	2008	113.0	0.245	27.7	1662.2
45	1 Sweetwater Wind 6	Wind	2007	105.0	0.245	25.7	1688.0
46	1 Penascal Wind	Wind	2001	101.0	0.245	24.7	1712.7
47	1 Penascal Wind	Wind	2008	101.0	0.245	24.7	1737.4
48	1 Nacogdoches Project	Biomass		0.0	0.245	0.0	1737.4
49	1 Post Oak Wind 1	Wind	2008	100.0	0.245	24.5	1761.9
50	1 Post Oak Wind 2	Wind	2007	100.0	0.245	24.5	1786.4
51	1 Sweetwater Wind 3	Wind	2006	100.0	0.245	24.5	1810.9

52	1 Green Mountain Energy 1	BRAZ_WND_WND1	Wind	2008	99.0	0.245	24.2	1835.2
53	1 South Trent Wind Farm	STWF_T1	Wind	2007	98.0	0.245	24.0	1859.2
54	1 Bull Creek Wind Plant	BULLCRK_WND1	Wind	2008	91.0	0.245	22.3	1881.4
55	1 Sand Bluff Wind Farm	MCDLD_SBW1	Wind	2008	90.0	0.245	22.0	1903.5
56	1 Bull Creek Wind Plant	BULLCRK_WND2	Wind	2008	89.0	0.245	21.8	1925.3
57	1 Red Canyon	RDCANYON_RDCNY1	Wind	2008	84.0	0.245	20.6	1945.9
58	1 Indian Mesa Wind Farm	INDNNWP_INDNNWP	Wind	2008	80.0	0.245	19.6	1965.5
59	1 King Mountain NE	KING_NE_KINGNE	Wind	2001	80.0	0.245	19.6	1985.0
60	1 King Mountain NW	KING_NW_KINGNW	Wind	2001	80.0	0.245	19.6	2004.6
61	1 King Mountain SW	KING_SW_KINGSW	Wind	2001	80.0	0.245	19.6	2024.2
62	1 Pecos Wind (Woodward 1)	WOODWRD1_WOODWRD1	Wind	2008	80.0	0.245	19.6	2043.8
63	1 Pecos Wind (Woodward 2)	WOODWRD2_WOODWRD2	Wind	2001	80.0	0.245	19.6	2063.4
64	1 Sweetwater Wind 5	SWEETWN4_WND5	Wind	2005	80.0	0.245	19.6	2083.0
65	1 West Texas Wind Energy	SW_MESA_SW_MESA	Wind	1999	70.0	0.245	17.1	2100.2
66	1 Snyder Wind Farm	ENAS_ENA1	Wind	2007	63.0	0.245	15.4	2115.6
67	1 Green Mountain Energy 2	BRAZ_WND_WND2	Wind	2003	61.0	0.245	14.9	2130.5
68	1 Silver Star	FLTCK_SSI	Wind	2008	60.0	0.245	14.7	2145.2
69	1 Whirlwind Energy	WEC_WECG1	Wind	1999	60.0	0.245	14.7	2159.9
70	1 Ocotillo Wind Farm	OWF_OW	Wind	2008	59.0	0.245	14.5	2174.4
71	1 Lufkin	08INR0033	Biomass	2001	0.0	0.245	0.0	2174.4
72	1 King Mountain SE	KING_SE_KINGSE	Wind	2001	43.0	0.245	10.5	2184.9
73	1 Texas Big Spring	SGMTN_SIGNALMT	Wind	1999	40.0	0.245	9.8	2194.7
74	1 Sweetwater Wind 1	SWEETWND_WND1	Wind	2008	37.0	0.245	9.1	2203.8
75	1 Kunitz Wind	KUNITZ_WIND_LGE	Wind	2001	35.0	0.245	8.6	2212.3
76	1 Delaware Mountain Wind Farm	DELAWARE_WIND_NWP	Wind	2001	30.0	0.245	7.3	2219.7
77	1 Desert Sky Wind Farm 1	INDNENR_INDNENR	Wind	2001	25.0	0.245	6.1	2225.8
78	1 Sweetwater Wind 2	SWEETWN2_WND24	Wind	2003	16.0	0.245	3.9	2229.7
79	1 Atascocita 1	_HB_DG1	Biomass	2003	10.1	0.245	2.5	2232.2
80	1 Covel Gardens LG Power Station	DG_MEDIN_1UNIT	Other	2005	10.0	0.245	2.4	2234.6
81	1 Tessonman Road 1	DG_WALZE_4UNITS	Biomass	2003	10.0	0.245	2.4	2237.1
82	1 Wolfe Flats	DG_TURL_UNIT1	Wind	2007	10.0	0.245	2.4	2239.5
83	1 Coastal Plains RDF	_AV_DG1	Biomass	2003	6.7	0.245	1.6	2241.2
84	1 Austin Landfill Gas	DG_SPRIN_4UNITS	Other	1988	6.4	0.245	1.6	2242.8
85	1 DFW Gas Recovery	DG_BIO2_4UNITS	Biomass	1980	6.4	0.245	1.6	2244.3
86	1 Skyline Landfill Gas	DG_FERIS_4UNITS	Other	2007	6.4	0.245	1.6	2245.9
87	1 RGV Sugar Mill	DG_S_SNR_UNIT1	Biomass	1973	4.5	0.245	1.1	2247.0
88	1 Baytown 1	TRN_DG1	Biomass	2003	3.9	0.245	1.0	2247.9
89	1 Bluebonnet 1	_LB_DG1	Biomass	2003	3.9	0.245	1.0	2248.9
90	1 Nelson Gardens Landfill 1	DG_PEAR_2UNITS	Other	1990	3.6	0.245	0.9	2249.8
91	1 Trinity Oaks LFG	DG_KLBRG_1UNIT	Biomass	2009	3.2	0.245	0.8	2250.6
92	1 TSTC West Texas Wind	DG_ROSCZ_1UNIT	Wind	2008	2.0	0.245	0.5	2251.1
93	2 Denison Dam 1	DNDAM_DENISOG1	Hydro	1944	40.0	0.860	34.4	2285.4
94	2 Denison Dam 2	DNDAM_DENISOG2	Hydro	1944	40.0	0.860	34.4	2319.8
95	2 Amistad Hydro 1	AMISTAD_AMISTAG1	Hydro	1983	38.0	0.860	32.7	2352.5
96	2 Amistad Hydro 2	AMISTAD_AMISTAG2	Hydro	1983	38.0	0.860	32.7	2385.2
97	2 Marshall Ford 1	MARSHFO_MARSHFOG1	Hydro	1941	36.0	0.860	31.0	2416.1
98	2 Marshall Ford 2	MARSHFO_MARSHFOG2	Hydro	1941	36.0	0.860	31.0	2447.1
99	2 Granite Shoals 1	WIRTZ_WIRTZ_G1	Hydro	1951	30.0	0.860	25.8	2477.2
100	2 Granite Shoals 2	WIRTZ_WIRTZ_G2	Hydro	1951	30.0	0.860	25.8	2503.0
101	2 Marble Falls 1	MARBFA_MARBFAG1	Hydro	1951	21.0	0.860	18.1	2546.8
102	2 Marble Falls 2	MARBFA_MARBFAG2	Hydro	1951	21.0	0.860	18.1	2564.9
103	2 Buchanan 1	BUCHAN_BUCHANG1	Hydro	1938	18.0	0.860	15.5	2580.4

105	2 Buchanan 2	BUCHAN_BUCHANG2	Hydro	1938	18.0	0.860	15.5	2595.8
106	2 Buchanan 3	BUCHAN_BUCHANG3	Hydro	1950	18.0	0.860	15.5	2611.3
107	2 Whitney 1	WIND_WHITNEY1	Hydro	1953	15.0	0.860	12.9	2624.2
108	2 Whitney 2	WIND_WHITNEY2	Hydro	1953	15.0	0.860	12.9	2637.1
109	2 Inks 1	INKSDA_INKS_G1	Hydro	1938	14.0	0.860	12.0	2649.1
110	2 Falcon Hydro 1	FALCON_FALCONG1	Hydro	1954	12.0	0.860	10.3	2659.5
111	2 Falcon Hydro 2	FALCON_FALCONG2	Hydro	1954	12.0	0.860	10.3	2669.8
112	2 Falcon Hydro 3	FALCON_FALCONG3	Hydro	1954	12.0	0.860	10.3	2680.1
113	2 Morris Sheppard	MSP_MSP_1	Hydro	1942	12.0	0.860	10.3	2690.4
114	2 Morris Sheppard	MSP_MSP_2	Hydro	1942	12.0	0.860	10.3	2700.7
115	2 Austin 2	AUSTPL_AUSTING2	Hydro	1940	9.0	0.860	7.7	2708.5
116	2 Austin 1	AUSTPL_AUSTING1	Hydro	1940	8.0	0.860	6.9	2715.3
117	2 McQueeney (Abbott)	DG_MCQUE_5UNITS	Hydro	1927	8.0	0.860	6.9	2722.2
118	2 Dunlop (Schumannville) 1	DG_SCHUM_2UNITS	Hydro	1927	3.6	0.860	3.1	2725.3
119	2 Canyon 1	CANYHY_CANYHYG1	Hydro	1989	3.0	0.860	2.6	2727.9
120	2 Canyon 2	CANYHY_CANYHYG2	Hydro	1989	3.0	0.860	2.6	2730.5
121	2 Lewisville 1	DG_LWSVL_1UNIT	Hydro	1992	2.8	0.860	2.4	2732.9
122	2 Eagle Pass 1	EAGLE_HY_EAGLE_HY1	Hydro	1954	2.0	0.860	1.7	2734.6
123	2 Eagle Pass 2	EAGLE_HY_EAGLE_HY2	Hydro	1954	2.0	0.860	1.7	2736.3
124	2 Eagle Pass 3	EAGLE_HY_EAGLE_HY3	Hydro	1954	2.0	0.860	1.7	2738.0
125	2 Small Hydro of Texas 1	CUECPT_UNIT1	Hydro	1992	1.0	0.860	0.9	2738.9
126	3 South Texas 1	STP_STP_G1	Nuclear	1988	1362.0	0.885	1205.9	3944.8
127	3 South Texas 2	STP_STP_G2	Nuclear	1989	1362.0	0.885	1205.9	5150.7
128	3 STP 3		Nuclear		1350	0.885	1195.3	6346.0
129	3 STP 4		Nuclear		1350	0.885	1195.3	7541.3
130	3 Comanche Peak 1	CPSES_UNIT1	Nuclear	1990	1209.0	0.885	1070.4	8611.8
131	3 Comanche Peak 2	CPSES_UNIT2	Nuclear	1993	1158.0	0.885	1025.3	9637.1
132	4 Sandy Creek 1	09INR0001	Coal		0.0	0.842	0.0	9637.1
133	4 Limestone 2	LEG_LEG_G2	Coal	1986	858.0	0.842	722.4	10359.4
134	4 Limestone 1	LEG_LEG_G1	Coal	1985	831.0	0.842	699.6	11059.0
135	4 Martin Lake 3	MLSES_UNIT3	Coal	1979	818.0	0.842	688.7	11747.7
136	4 Martin Lake 1	MLSES_UNIT1	Coal	1977	800.0	0.842	673.5	12421.2
137	4 Martin Lake 2	MLSES_UNIT2	Coal	1978	800.0	0.842	673.5	13094.7
138	4 Oak Grove SES Unit 2	OGSES_UNIT2	Coal	2009	796.0	0.842	670.2	13764.9
139	4 Oak Grove SES Unit 1	OGSES_UNIT1	Coal	2009	785.0	0.842	660.9	14425.8
140	4 J K Spruce 2	CALAVERS_JKS2	Coal	2009	772.0	0.842	649.9	15075.7
141	4 Monticello 3	MNSESES_UNIT3	Coal	1978	765.0	0.842	644.1	15719.8
142	4 Coleto Creek Unit 2	14INR0002	Coal		0.0	0.842	0.0	15719.8
143	4 Oklaunion 1	OKLA_OKLA_G1	Coal	1986	650.0	0.842	547.2	16267.0
144	4 W A Parish 6	WAP_WAP_G6	Coal	1978	650.0	0.842	547.2	16814.3
145	4 W A Parish 5	WAP_WAP_G5	Coal	1977	645.0	0.842	543.0	17357.3
146	4 Coleto Creek	COLETO_COLETOG1	Coal	1980	632.0	0.842	532.1	17889.4
147	4 Big Brown 1	BBSES_UNIT1	Coal	1971	617.0	0.842	519.5	18408.8
148	4 Big Brown 2	BBSES_UNIT2	Coal	1972	615.0	0.842	517.8	18926.6
149	4 Fayette Power Project 1	FPFYD1_FPP_G1	Coal	1979	608.0	0.842	511.9	19438.5
150	4 Fayette Power Project 2	FPFYD1_FPP_G2	Coal	1980	608.0	0.842	511.9	19950.3
151	4 W A Parish 8	WAP_WAP_G8	Coal	1982	600.0	0.842	505.1	20455.5
152	4 Monticello 1	MNSESES_UNIT1	Coal	1974	583.0	0.842	490.8	20946.3
153	4 Monticello 2	MNSESES_UNIT2	Coal	1975	583.0	0.842	490.8	21437.1
154	4 W A Parish 7	WAP_WAP_G7	Coal	1980	565.0	0.842	475.7	21912.8
155	4 Sandow 5	SD5SES_UNIT5	Coal	2009	560.0	0.842	471.5	22384.3
156	4 J K Spruce 1	CALAVERS_JKS1	Coal	1992	555.0	0.842	467.3	22851.5
157	4 Gibbons Creek 1	GIBCRK_GIB_CRG1	Coal	1982	470.0	0.842	395.7	23247.2

12/31/2009	2200	1386	1041	8354	1117	13448	5084	1206	2496	34132	2300	1150	500	38082	229 Brazos Valley 2	5	\$ 33.66	\$	0.0038144
12/31/2009	2300	1342	974	8068	1108	13089	4798	1203	2641	33223	2300	1150	500	37173	222 Fomey Energy Center GT12	5	\$ 33.66	\$	0.0037233
12/31/2009	2400	1311	953	7870	1087	12832	4672	1197	2639	32561	2300	1150	500	36511	218 Lost Pines 1	5	\$ 33.66	\$	0.0036570
Total														336053224					\$ 36.06