

Southwestern Public Service Company

Peak Demand Information

**Total System for (a) Twelve Months of the Future Test Year, (c) Four Years Prior to the Future Test Year, and
(d) Five Years Beyond the Future Test Year by Month**

Line No.	Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2012 - Actual												
2	Total System ⁽¹⁾	3,756	3,962	3,884	4,442	4,528	5,037	5,015	5,174	4,962	3,845	3,653	3,763
3	2013 - Actual												
4	Total System ⁽¹⁾	4,010	3,845	3,807	4,160	4,558	5,050	4,918	5,052	4,807	4,143	4,082	4,245
5	2014 - Base Period - Actual												
6	Total System	4,069	4,190	3,898	3,718	4,287	4,743	4,773	4,867	4,814	3,908	4,047	4,287
7	New Mexico Retail	787	800	714	654	768	891	889	878	874	715	748	843
8	2015 - Forecast												
9	Total System ⁽¹⁾	4,047	4,046	3,826	3,995	4,626	4,761	4,925	4,920	4,627	3,923	3,838	4,081
10	2016 - Future Test Year - Forecast												
11	Total System	3,959	4,012	3,791	3,971	4,620	4,967	5,139	5,138	4,845	4,129	4,043	4,298
12	New Mexico Retail	846	889	812	875	1,039	1,065	1,109	1,141	1,066	925	908	973
13	2017 - Forecast												
14	Total System ⁽¹⁾	4,161	4,190	3,958	4,143	4,800	4,980	5,145	5,134	4,870	4,139	4,043	4,306
15	2018 - Forecast												
16	Total System ⁽¹⁾	4,217	4,245	4,003	4,192	4,856	5,177	5,343	5,330	5,062	4,319	4,221	4,487
17	2019 - Forecast												
18	Total System ⁽¹⁾	4,334	4,363	4,116	4,307	4,781	4,651	4,805	4,779	4,522	3,921	3,853	4,091
19	2020 - Forecast												
20	Total System ⁽¹⁾	3,950	3,950	3,741	3,961	4,510	4,783	4,935	4,914	4,652	4,040	3,971	4,212
21	2021 - Forecast												
22	Total System ⁽¹⁾	4,069	4,070	3,854	4,078	4,637	4,915	5,070	4,957	4,694	4,085	4,016	4,255

⁽¹⁾ No allocation study has been developed for this period to determine the New Mexico demand.

Note: Peak Demand data provided is based on Production Peaks.

Southwestern Public Service Company

Peak Demand Information

(b) (i) Functional Classification for the New Mexico Jurisdiction

SPS does not forecast system peak in a way such that it can be broken down into functional classification

Southwestern Public Service Company
Peak Demand Information

Part (b) ii (2 & 3)
NON-COINCIDENT CLASS PEAK DEMAND
FOR THE TEST PERIOD ENDING: DECEMBER 31, 2016

NON-COINCIDENT PEAK DEMAND AT THE METER

Line No.	Total		Total		Total		Total		Total	
	Loss Level 6	Loss Level 5	Loss Level 4	Loss Level 3	Loss Level 2	Loss Level 1	Loss Level 0	Loss Level -1	Loss Level -2	Loss Level -3
1 JANUARY 16	318,017	139,590	181,658	48,118	188,783	876,166				
2 FEBRUARY	317,576	107,095	181,518	56,741	207,523	870,453				
3 MARCH	292,462	106,883	171,312	59,157	223,875	853,689				
4 APRIL	247,535	163,294	264,072	58,088	223,857	956,847				
5 MAY	338,684	180,093	266,564	74,029	228,924	1,088,294				
6 JUNE	343,495	179,012	246,708	58,893	233,632	1,061,741				
7 JULY	359,860	186,419	225,814	55,691	239,015	1,066,799				
8 AUGUST	376,212	190,327	245,622	63,356	242,638	1,118,155				
9 SEPTEMBER	351,648	172,887	208,884	62,896	247,007	1,043,322				
10 OCTOBER	243,635	165,890	237,597	63,748	254,341	965,212				
11 NOVEMBER	278,428	128,190	230,909	63,904	234,857	936,289				
12 DECEMBER	347,303	128,049	215,705	68,521	243,528	1,003,107				
13 Max	376,212	190,327	266,564	74,029	254,341	1,118,155				

NON-COINCIDENT PEAK DEMAND AT THE SOURCE

Line No.	Total		Total		Total		Total		Total	
	Loss Level 6	Loss Level 5	Loss Level 4	Loss Level 3	Loss Level 2	Loss Level 1	Loss Level 0	Loss Level -1	Loss Level -2	Loss Level -3
14 JANUARY 16	370,209	161,736	204,794	49,821	193,724	980,284				
15 FEBRUARY	369,696	124,085	204,636	58,749	212,954	970,121				
16 MARCH	340,461	123,840	193,130	61,251	229,735	948,416				
17 APRIL	288,160	189,200	297,704	60,143	229,716	1,064,925				
18 MAY	394,268	208,664	300,514	76,649	234,916	1,215,010				
19 JUNE	399,869	207,412	278,129	60,977	239,747	1,186,135				
20 JULY	418,920	215,993	254,574	57,662	245,271	1,192,419				
21 AUGUST	437,955	220,521	276,905	65,599	248,989	1,249,969				
22 SEPTEMBER	409,360	200,316	235,487	65,122	253,472	1,163,756				
23 OCTOBER	283,620	192,208	267,857	66,005	260,998	1,070,688				
24 NOVEMBER	324,123	148,527	260,317	66,166	241,004	1,040,138				
25 DECEMBER	404,302	148,364	243,177	70,946	249,902	1,116,691				
26 Max	437,955	220,521	300,514	76,649	260,998	1,249,969				

Southwestern Public Service Company

Peak Demand Information

Part (b) ii (2 & 3)
NON-COINCIDENT CLASS PEAK DEMAND
FOR THE TEST PERIOD ENDING: DECEMBER 31, 2016

NON-COINCIDENT PEAK DEMAND AT THE METER

Line No.	(RWH) Residential With Water Heating	(RL) Residential Service	(RH) Residential With Heating	Total Residential	(SGS) Small General Service	(SL) Street Lighting	(AL) Area Lighting	(SMS) Small Municipal and School Service	Total Loss Level 6 Sec Non-Demand
1 JANUARY 16	0	134,260	151,491	285,751	23,338	3,272	3,807	1,848	318,017
2 FEBRUARY	0	121,924	159,428	281,353	26,915	3,263	4,007	2,039	317,576
3 MARCH	0	110,811	147,865	258,676	24,562	3,501	4,088	1,635	292,462
4 APRIL	0	101,936	104,064	206,000	32,099	3,271	3,992	2,172	247,535
5 MAY	0	167,640	123,549	291,189	37,217	3,378	3,951	2,948	338,684
6 JUNE	0	169,524	124,083	293,607	40,173	3,282	3,925	2,507	343,495
7 JULY	0	172,775	134,211	306,987	42,500	3,379	4,170	2,824	359,860
8 AUGUST	0	192,514	128,664	321,178	44,586	3,270	3,938	3,239	376,212
9 SEPTEMBER	0	182,090	124,231	306,322	35,957	3,273	3,998	2,099	351,648
10 OCTOBER	0	120,074	85,997	206,071	28,116	3,384	4,171	1,892	243,635
11 NOVEMBER	0	116,714	127,170	243,884	25,368	3,279	3,973	1,925	278,428
12 DECEMBER	0	124,568	188,281	312,849	25,113	3,392	4,243	1,707	347,303
13 Max	0	192,514	188,281	321,178	44,586	3,501	4,243	3,239	376,212

NON-COINCIDENT PEAK DEMAND AT THE SOURCE

DEMAND LOSS FACTOR									1.164118
Line No.	(RWH) Residential With Water Heating	(RL) Residential Service	(RH) Residential With Heating	Total Residential	(SGS) Small General Service	(SL) Street Lighting	(AL) Area Lighting	(SMS) Small Municipal and School Service	Total Loss Level 6 Sec Non-Demand
14 JANUARY 16	0	156,294	176,354	332,648	27,168	3,809	4,432	2,152	370,209
15 FEBRUARY	0	141,934	185,593	327,528	31,332	3,799	4,664	2,374	369,696
16 MARCH	0	128,997	172,133	301,130	28,593	4,076	4,759	1,903	340,461
17 APRIL	0	118,666	121,143	239,809	37,367	3,808	4,647	2,529	288,160
18 MAY	0	195,153	143,826	338,979	43,325	3,932	4,600	3,432	394,268
19 JUNE	0	197,346	144,448	341,794	46,767	3,821	4,570	2,918	399,869
20 JULY	0	201,131	156,238	357,369	49,475	3,934	4,855	3,288	418,920
21 AUGUST	0	224,109	149,780	373,889	51,904	3,807	4,584	3,771	437,955
22 SEPTEMBER	0	211,975	144,620	356,594	41,858	3,810	4,654	2,444	409,360
23 OCTOBER	0	139,780	100,111	239,891	32,731	3,939	4,856	2,203	283,620
24 NOVEMBER	0	135,869	148,040	283,909	29,531	3,817	4,625	2,241	324,123
25 DECEMBER	0	145,012	219,181	364,193	29,234	3,948	4,939	1,987	404,302
26 Max	0	224,109	219,181	373,889	51,904	4,076	4,939	3,771	437,955

Southwestern Public Service Company

Peak Demand Information

Part (b) ii (2 & 3)
NON-COINCIDENT CLASS PEAK DEMAND
FOR THE TEST PERIOD ENDING: DECEMBER 31, 2016

NON-COINCIDENT PEAK DEMAND AT THE METER

Line No.		(IP)		(LMS)		(SG)		Total
		Irrigation Service	Large Municipal and School Service	Large Municipal and School Service	Sec General Service	Sec General Service	Loss Demand	
1	JANUARY 16	4,542	20,232	114,816			139,590	
2	FEBRUARY	9,569	18,133	79,392			107,095	
3	MARCH	14,777	17,860	74,246			106,883	
4	APRIL	21,278	27,937	114,080			163,294	
5	MAY	21,262	35,189	123,642			180,093	
6	JUNE	21,287	23,651	134,074			179,012	
7	JULY	22,883	25,026	138,510			186,419	
8	AUGUST	22,867	36,810	130,650			190,327	
9	SEPTEMBER	38,838	32,391	101,659			172,887	
10	OCTOBER	7,690	29,441	128,760			165,890	
11	NOVEMBER	5,905	22,063	100,222			128,190	
12	DECEMBER	3,544	19,531	104,975			128,049	
13	Max	38,838	36,810	138,510			190,327	

NON-COINCIDENT PEAK DEMAND AT THE SOURCE

		(IP)		(LMS)		(SG)		Total
		Irrigation Service	Large Municipal and School Service	Large Municipal and School Service	Sec General Service	Sec General Service	Loss Demand	
14	JANUARY 16	5,263	23,442	133,031			161,736	
15	FEBRUARY	11,087	21,010	91,988			124,085	
16	MARCH	17,121	20,693	86,025			123,840	
17	APRIL	24,654	32,369	132,178			189,200	
18	MAY	24,635	40,771	143,257			208,664	
19	JUNE	24,664	27,403	155,344			207,412	
20	JULY	26,513	28,996	160,484			215,993	
21	AUGUST	26,495	42,650	151,377			220,521	
22	SEPTEMBER	44,999	37,530	117,787			200,316	
23	OCTOBER	8,909	34,112	149,187			192,208	
24	NOVEMBER	6,842	25,564	116,121			148,527	
25	DECEMBER	4,106	22,629	121,629			148,364	
26	Max	44,999	42,650	160,484			220,521	

(LMS -Pri)	Large Municipal and School Pri	(PG)	Primary General Service	Total	Sub-Trans, Loss Level 3 NCP Demand	BB Transmission Loss Level 2 NCP Demand
0	0	181,658	181,658	181,658	48,118	188,783
0	0	181,518	181,518	181,518	56,741	207,523
0	0	171,312	171,312	171,312	59,157	223,875
0	0	264,072	264,072	264,072	58,088	223,857
0	0	266,564	266,564	266,564	74,029	229,924
0	0	246,708	246,708	246,708	58,893	233,632
0	0	225,814	225,814	225,814	55,691	239,015
0	0	245,622	245,622	245,622	63,356	242,638
0	0	208,884	208,884	208,884	62,896	247,007
0	0	237,597	237,597	237,597	63,748	254,341
0	0	230,909	230,909	230,909	63,904	234,857
0	0	215,705	215,705	215,705	68,521	243,528
0	0	266,564	266,564	266,564	74,029	254,341

(LMS -Pri)	Large Municipal and School Pri	(PG)	Primary General Service	Total	Sub-Trans, Loss Level 3 NCP Demand	BB Transmission Loss Level 2 NCP Demand
0	0	204,794	204,794	204,794	49,821	193,724
0	0	204,636	204,636	204,636	58,749	212,954
0	0	193,130	193,130	193,130	61,251	229,735
0	0	297,704	297,704	297,704	60,143	229,716
0	0	300,514	300,514	300,514	76,649	234,916
0	0	278,129	278,129	278,129	60,977	239,747
0	0	254,574	254,574	254,574	57,662	245,271
0	0	276,905	276,905	276,905	65,599	248,989
0	0	235,487	235,487	235,487	65,122	253,472
0	0	267,857	267,857	267,857	66,005	260,998
0	0	260,317	260,317	260,317	66,166	241,004
0	0	243,177	243,177	243,177	70,946	249,902
0	0	300,514	300,514	300,514	76,649	260,998

Southwestern Public Service Company

Peak Demand Information

Part (b) ii (1 & 3)
FOR THE FUTURE TEST YEAR ENDED: DECEMBER 31, 2016

ADJUSTED COINCIDENT PEAK DEMAND AT THE METER

Line No.	Total Loss Level 6	Total Loss Level 5	Total Loss Level 4	Total Loss Level 3	Total Loss Level 2	New Mexico Retail CP Demand
1 JANUARY 16	272,314	88,155	170,381	40,974	187,400	759,224
2 FEBRUARY	306,615	72,894	173,656	44,462	201,000	798,628
3 MARCH	272,846	66,959	157,906	33,518	199,285	730,513
4 APRIL	171,119	129,992	218,848	53,785	217,200	790,943
5 MAY	288,754	149,174	224,065	46,056	223,787	931,836
6 JUNE	303,567	174,139	221,698	48,960	203,962	952,325
7 JULY	317,897	175,976	216,929	44,758	237,971	993,531
8 AUGUST	331,934	173,936	233,796	40,790	240,939	1,021,394
9 SEPTEMBER	312,445	156,934	202,828	54,169	229,775	956,150
10 OCTOBER	211,183	107,456	227,056	49,316	241,507	836,519
11 NOVEMBER	234,015	94,299	225,350	38,176	226,550	818,389
12 DECEMBER	315,008	74,264	199,665	59,658	227,203	875,798
13 12-CP	278,141	122,015	206,015	46,218	219,715	872,104
14 4-CP	316,461	170,246	218,813	47,169	228,162	980,850
15 MAX PEAK	331,934	175,976	233,796	59,658	241,507	1,021,394

ADJUSTED COINCIDENT PEAK DEMAND AT THE SOURCE

Line No.	Total Loss Level 6	Total Loss Level 5	Total Loss Level 4	Total Loss Level 3	Total Loss Level 2	New Mexico Retail CP Demand
16 JANUARY 16	317,005	102,140	192,081	42,424	192,305	845,955
17 FEBRUARY	356,936	84,459	195,773	46,036	206,261	889,465
18 MARCH	317,625	77,582	178,016	34,704	204,501	812,428
19 APRIL	199,202	150,615	246,721	55,688	222,885	875,111
20 MAY	336,144	172,840	252,601	47,686	229,644	1,038,916
21 JUNE	353,387	201,765	249,933	50,693	209,300	1,065,079
22 JULY	370,069	203,894	244,557	46,342	244,200	1,109,062
23 AUGUST	386,410	201,530	263,571	42,233	247,245	1,140,990
24 SEPTEMBER	363,723	181,831	228,660	56,086	235,789	1,066,088
25 OCTOBER	245,842	124,504	252,973	51,062	247,829	925,210
26 NOVEMBER	272,421	109,259	254,050	39,527	232,480	907,736
27 DECEMBER	366,707	86,046	225,094	61,770	233,149	972,765
28 12-CP	323,789	141,372	232,253	47,854	225,466	970,734
29 4-CP	368,397	197,255	246,680	48,839	234,133	1,095,305
30 MAX PEAK	386,410	203,894	263,571	61,770	247,829	1,140,990

Southwestern Public Service Company

Peak Demand Information

Part (b) ii (1 & 3)
FOR THE FUTURE TEST YEAR ENDED: DECEMBER 31, 2016

ADJUSTED COINCIDENT PEAK DEMAND AT THE METER

Line No.	(RWH) Residential With Water Heating	(RL) Residential Service	(RH) Residential With Heating	Total Residential	(SGS) Small General Service	(SL) Street Lighting	(AL) Area Lighting	(SMS) Small Muni and School Service	Total Loss Level 6 Secondary Non-Demand
1 JANUARY 16	-	112,511	136,019	248,530	18,814	1,501	1,747	1,721	272,314
2 FEBRUARY	-	120,865	158,325	279,190	22,144	1,497	1,839	1,945	306,615
3 MARCH	-	105,779	146,535	252,314	18,983	-	-	1,549	272,846
4 APRIL	-	82,334	62,977	145,311	24,208	-	-	1,600	171,119
5 MAY	-	143,325	111,867	255,192	31,470	-	-	2,092	288,754
6 JUNE	-	150,240	111,944	262,183	39,444	-	-	1,939	303,567
7 JULY	-	151,252	124,428	275,680	40,178	-	-	2,039	317,897
8 AUGUST	-	171,799	118,789	290,588	38,634	-	-	2,712	331,934
9 SEPTEMBER	-	171,568	103,997	275,565	35,191	-	-	1,690	312,445
10 OCTOBER	-	106,476	77,509	183,985	25,864	-	-	1,334	211,183
11 NOVEMBER	-	107,260	96,283	203,543	25,357	1,505	1,823	1,787	234,015
12 DECEMBER	-	122,017	163,698	285,715	24,314	1,556	1,947	1,476	315,008
13 12-CP	-	128,785	117,698	246,483	28,717	505	613	1,824	278,141
14 4-CP	-	161,215	114,789	276,004	38,361	-	-	2,095	316,461
15 MAX PEAK	-	171,799	163,698	290,588	40,178	1,556	1,947	2,712	331,934

ADJUSTED COINCIDENT PEAK DEMAND AT THE SOURCE

Line No.	(RWH) Residential With Water Heating	(RL) Residential Service	(RH) Residential With Heating	Total Residential	(SGS) Small General Service	(SL) Street Lighting	(AL) Area Lighting	DEMAND LOSS FACTOR	
								(SMS) Small Muni and School Service	Total Loss Level 6 Secondary Non-Demand
16 JANUARY 16	-	130,976	158,342	289,319	21,902	1,748	2,034	2,004	317,005
17 FEBRUARY	-	140,701	184,309	325,010	25,779	1,743	2,140	2,264	356,936
18 MARCH	-	123,139	170,584	293,724	22,098	-	-	1,803	317,625
19 APRIL	-	95,846	73,313	169,159	28,181	-	-	1,862	199,202
20 MAY	-	166,847	130,226	297,074	36,635	-	-	2,435	336,144
21 JUNE	-	174,897	130,316	305,212	45,917	-	-	2,258	353,387
22 JULY	-	176,075	144,849	320,923	46,772	-	-	2,374	370,069
23 AUGUST	-	199,994	138,285	338,279	44,974	-	-	3,158	386,410
24 SEPTEMBER	-	199,726	121,064	320,790	40,966	-	-	1,967	363,723
25 OCTOBER	-	123,951	90,229	214,180	30,109	-	-	1,553	245,842
26 NOVEMBER	-	124,863	112,085	236,948	29,519	1,752	2,123	2,080	272,421
27 DECEMBER	-	142,042	190,563	332,606	28,304	1,812	2,267	1,718	366,707
28 12-CP	-	149,921	137,014	286,935	33,430	588	714	2,123	323,789
29 4-CP	-	187,673	133,628	321,301	44,657	-	-	2,439	368,397
30 MAX PEAK	-	199,994	190,563	338,279	46,772	1,812	2,267	3,158	386,410

1.164118

Southwestern Public Service Company

Peak Demand Information

Part (b) ii (1 & 3)
FOR THE FUTURE TEST YEAR ENDED: DECEMBER 31, 2016

ADJUSTED COINCIDENT PEAK DEMAND AT THE METER

Line No.	(IRR) Irrigation Service	(LMS) Large Municipal and School Service	(SG) Sec General Service	Total Loss Level 5 Secondary- Demand
1 JANUARY 16	1,316	11,959	74,880	88,155
2 FEBRUARY	584	11,598	60,712	72,894
3 MARCH	2,702	8,981	55,277	66,959
4 APRIL	16,684	18,199	95,109	129,992
5 MAY	19,067	24,644	105,463	149,174
6 JUNE	21,024	22,077	131,038	174,139
7 JULY	20,277	21,099	134,600	175,976
8 AUGUST	18,163	29,645	126,128	173,936
9 SEPTEMBER	30,285	28,325	98,325	156,934
10 OCTOBER	4,171	19,048	84,237	107,456
11 NOVEMBER	1,459	12,773	80,066	94,299
12 DECEMBER	784	11,622	61,859	74,264
13 12-CP	11,376	18,331	92,308	122,015
14 4-CP	22,437	25,286	122,523	170,246
15 MAX PEAK	30,285	29,645	134,600	175,976

ADJUSTED COINCIDENT PEAK DEMAND AT THE SOURCE

Line No.	(IRR) Irrigation Service	DEMAND LOSS FACTOR		Total Loss Level 5 Secondary- Demand
		(LMS) Large Municipal and School Service	(SG) Sec General Service	
16 JANUARY 16	1,525	13,856	86,759	102,140
17 FEBRUARY	676	13,438	70,344	84,459
18 MARCH	3,130	10,406	64,046	77,582
19 APRIL	19,331	21,087	110,198	150,615
20 MAY	22,092	28,554	122,194	172,840
21 JUNE	24,359	25,579	151,827	201,765
22 JULY	23,494	24,446	155,954	203,894
23 AUGUST	21,044	34,348	146,138	201,530
24 SEPTEMBER	35,089	32,818	113,923	181,831
25 OCTOBER	4,832	22,070	97,601	124,504
26 NOVEMBER	1,691	14,800	92,769	109,259
27 DECEMBER	908	13,466	71,672	86,046
28 12-CP	13,181	21,239	106,952	141,372
29 4-CP	25,997	29,298	141,961	197,255
30 MAX PEAK	35,089	34,348	155,954	203,894

(LMS - Pri) Large Municipal and School Service	(PG) Primary General Service	Total		Sub-Trans. Loss Level 3 Transmission	BB - Transmission Loss Level 3 Transmission
		Loss Level 4 Primary Distribution	Loss Level 3 Transmission		
-	170,381	170,381	40,974	187,400	
-	173,656	173,656	44,462	201,000	
-	157,906	157,906	33,518	191,285	
-	218,848	218,848	53,785	217,200	
-	224,065	224,065	46,056	223,787	
-	221,698	221,698	48,960	203,962	
-	216,929	216,929	44,758	237,971	
-	233,796	233,796	40,790	240,939	
-	202,828	202,828	54,169	229,775	
-	227,056	227,056	49,316	241,507	
-	225,350	225,350	38,176	226,550	
-	199,665	199,665	59,658	227,203	
-	206,015	206,015	46,218	219,715	
-	218,813	218,813	47,169	228,162	
-	233,796	233,796	59,658	241,507	

(LMS - Pri) Large Municipal and School Service	(PG) Primary General Service	1.127359		1.035392		1.026174	
		Loss Level 4 Primary Distribution	Loss Level 3 Transmission	Loss Level 4 Primary Distribution	Loss Level 3 Transmission	Loss Level 2 Transmission	Loss Level 2 Transmission
-	192,081	192,081	42,424	192,081	42,424	192,305	192,305
-	195,773	195,773	46,036	195,773	46,036	206,261	206,261
-	178,016	178,016	34,704	178,016	34,704	204,501	204,501
-	246,721	246,721	55,688	246,721	55,688	222,885	222,885
-	252,601	252,601	47,686	252,601	47,686	229,644	229,644
-	249,933	249,933	50,693	249,933	50,693	209,300	209,300
-	244,557	244,557	46,342	244,557	46,342	244,200	244,200
-	263,571	263,571	42,233	263,571	42,233	247,245	247,245
-	228,660	228,660	56,086	228,660	56,086	235,789	235,789
-	255,973	255,973	51,062	255,973	51,062	247,829	247,829
-	254,050	254,050	39,527	254,050	39,527	232,480	232,480
-	225,094	225,094	61,770	225,094	61,770	233,149	233,149
-	232,253	232,253	47,854	232,253	47,854	225,466	225,466
-	246,680	246,680	48,839	246,680	48,839	234,133	234,133
-	263,571	263,571	61,770	263,571	61,770	247,829	247,829

Southwestern Public Service Company
Peak Demand Information

Part (b) ii (1 & 3)
FOR THE FUTURE TEST YEAR ENDED: DECEMBER 31, 2016

ADJUSTED COINCIDENT PEAK DEMAND AT THE METER											
Line No.	Total		Total		Total		Total		Total		New Mexico Retail CP Demand
	Loss Level 6	Loss Level 5	Loss Level 4	Loss Level 3	Loss Level 2	Loss Level 1	Loss Level 0	Loss Level -1	Loss Level -2	Loss Level -3	
1 JANUARY 16	272,314	88,155	170,381	40,974	187,400						759,224
2 FEBRUARY	306,615	72,894	173,656	44,462	201,000						798,628
3 MARCH	272,846	66,959	157,906	33,518	199,285						730,513
4 APRIL	171,119	129,992	218,848	53,785	217,200						790,943
5 MAY	288,754	149,174	224,065	46,056	223,787						931,836
6 JUNE	303,567	174,139	221,698	48,960	203,962						952,325
7 JULY	317,897	175,976	216,929	44,758	237,971						993,531
8 AUGUST	331,934	173,936	233,796	40,790	240,939						1,021,394
9 SEPTEMBER	312,445	156,934	202,828	54,169	229,775						956,150
10 OCTOBER	211,183	107,456	227,056	49,316	241,507						836,519
11 NOVEMBER	234,015	94,299	225,350	38,176	226,550						818,389
12 DECEMBER	315,008	74,264	199,665	59,658	227,203						875,798
13 12-CP	278,141	122,015	206,015	46,218	219,715						872,104
14 4-CP	316,461	170,246	218,813	47,169	228,162						980,850
15 MAX PEAK	331,934	175,976	233,796	59,658	241,507						1,021,394
ADJUSTED COINCIDENT PEAK DEMAND AT THE SOURCE											
Line No.	Total		Total		Total		Total		Total		New Mexico Retail CP Demand
	Loss Level 6	Loss Level 5	Loss Level 4	Loss Level 3	Loss Level 2	Loss Level 1	Loss Level 0	Loss Level -1	Loss Level -2	Loss Level -3	
16 JANUARY 16	317,005	102,140	192,081	42,424	192,305						845,955
17 FEBRUARY	356,936	84,459	195,773	46,036	206,261						889,465
18 MARCH	317,625	77,582	178,016	34,704	204,501						812,428
19 APRIL	199,202	150,615	246,721	55,688	222,885						875,111
20 MAY	336,144	172,840	252,601	47,686	229,644						1,038,916
21 JUNE	353,387	201,765	249,933	50,693	209,300						1,065,079
22 JULY	370,069	203,894	244,557	46,342	244,200						1,109,062
23 AUGUST	386,410	201,530	263,571	42,233	247,245						1,140,990
24 SEPTEMBER	363,723	181,831	228,660	56,086	235,789						1,066,088
25 OCTOBER	245,842	124,504	255,973	51,062	247,829						925,210
26 NOVEMBER	272,421	109,259	254,050	39,527	232,480						907,736
27 DECEMBER	366,707	86,046	225,094	61,770	233,149						972,765
28 12-CP	323,789	141,372	232,253	47,854	225,466						970,734
29 4-CP	368,397	197,255	246,680	48,839	234,133						1,095,305
30 MAX PEAK	386,410	203,894	263,571	61,770	247,829						1,140,990

Southwestern Public Service Company
Peak Demand Information

Part (b) ii (1 & 3)
FOR THE FUTURE TEST YEAR ENDED: DECEMBER 31, 2016

ADJUSTED COINCIDENT PEAK DEMAND AT THE METER										
Line No.	(RWH) Residential With Water Heating	(RL) Residential Service	(RH) Residential With Heating	Total Residential	(SGS) Small General Service	(SL) Street Lighting	(AL) Area Lighting	(SMS) Small Muni and School Service	Total Loss Level 6	Secondary Non-Demand
1	JANUARY 16	-	112,511	136,019	248,530	18,814	1,501	1,747	1,721	272,314
2	FEBRUARY	-	120,865	158,325	279,190	22,144	1,497	1,839	1,945	306,615
3	MARCH	-	105,779	146,535	252,314	18,983	-	-	1,549	272,846
4	APRIL	-	82,334	62,977	145,311	24,208	-	-	1,600	171,119
5	MAY	-	143,325	111,867	255,192	31,470	-	-	2,092	288,754
6	JUNE	-	150,240	111,944	262,183	39,444	-	-	1,939	303,567
7	JULY	-	151,252	124,428	275,680	40,178	-	-	2,039	317,897
8	AUGUST	-	171,799	118,789	290,588	38,634	-	-	2,712	331,934
9	SEPTEMBER	-	171,568	103,997	275,565	35,191	-	-	1,690	312,445
10	OCTOBER	-	106,476	77,509	183,985	25,864	-	-	1,334	211,183
11	NOVEMBER	-	107,260	96,283	203,543	25,357	1,505	1,823	1,787	234,015
12	DECEMBER	-	122,017	163,698	285,715	24,314	1,556	1,947	1,476	315,008
13	12-CP	-	128,785	117,698	246,483	28,717	505	613	1,824	278,141
14	4-CP	-	161,215	114,789	276,004	38,361	-	-	2,095	316,461
15	MAX PEAK	-	171,799	163,698	290,588	40,178	1,556	1,947	2,712	331,934
ADJUSTED COINCIDENT PEAK DEMAND AT THE SOURCE										
DEMAND LOSS FACTOR										
Line No.	(RWH) Residential With Water Heating	(RL) Residential Service	(RH) Residential With Heating	Total Residential	(SGS) Small General Service	(SL) Street Lighting	(AL) Area Lighting	(SMS) Small Muni and School Service	Total Loss Level 6	Secondary Non-Demand
16	JANUARY 16	-	130,976	158,342	289,319	21,902	1,748	2,034	2,004	317,005
17	FEBRUARY	-	140,701	184,309	325,010	25,779	1,743	2,140	2,264	356,936
18	MARCH	-	123,139	170,584	293,724	22,098	-	-	1,803	317,625
19	APRIL	-	95,846	73,313	169,159	28,181	-	-	1,862	199,202
20	MAY	-	166,847	130,226	297,074	36,635	-	-	2,435	336,144
21	JUNE	-	174,897	130,316	305,212	45,917	-	-	2,258	353,387
22	JULY	-	176,075	144,849	320,923	46,772	-	-	2,374	370,069
23	AUGUST	-	199,994	138,285	338,279	44,974	-	-	3,158	386,410
24	SEPTEMBER	-	199,726	121,064	320,790	40,966	-	-	1,967	363,723
25	OCTOBER	-	123,951	90,229	214,180	30,109	-	-	1,553	245,842
26	NOVEMBER	-	124,863	112,085	236,948	29,519	1,752	2,123	2,080	272,421
27	DECEMBER	-	142,042	190,563	332,606	28,304	1,812	2,267	1,718	366,707
28	12-CP	-	149,921	137,014	286,935	33,430	588	714	2,123	323,789
29	4-CP	-	187,673	133,628	321,301	44,657	-	-	2,439	368,397
30	MAX PEAK	-	199,994	190,563	386,279	46,772	1,812	2,267	3,158	386,410

Southwestern Public Service Company
Peak Demand InformationPart (b) ii (1 & 3)
FOR THE FUTURE TEST YEAR ENDED: DECEMBER 31, 2016

ADJUSTED COINCIDENT PEAK DEMAND AT THE METER

Line No.	(IRR) Irrigation Service	(LMS)		(SG)		Total Loss Level 5 Secondary- Demand
		Large Municipal and School Service	Sec General Service	Sec General Service	Sec General Service	
1	JANUARY 16	1,316	11,959	74,880		88,155
2	FEBRUARY	584	11,598	60,712		72,894
3	MARCH	2,702	8,981	55,277		66,959
4	APRIL	16,684	18,199	95,109		129,992
5	MAY	19,067	24,644	105,463		149,174
6	JUNE	21,024	22,077	131,038		174,139
7	JULY	20,277	21,099	134,600		175,976
8	AUGUST	18,163	29,645	126,128		173,936
9	SEPTEMBER	30,285	28,325	98,325		156,934
10	OCTOBER	4,171	19,048	84,237		107,456
11	NOVEMBER	1,459	12,773	80,066		94,299
12	DECEMBER	784	11,622	61,859		74,264
13	12-CP	11,376	18,331	92,308		122,015
14	4-CP	22,437	25,286	122,523		170,246
15	MAX PEAK	30,285	29,645	134,600		175,976

ADJUSTED COINCIDENT PEAK DEMAND AT THE SOURCE

	(IRR) Irrigation Service	(LMS)		(SG)		Total Loss Level 5 Secondary- Demand
		Large Municipal and School Service	Sec General Service	Sec General Service	Sec General Service	
16	JANUARY 16	1,525	13,856	86,759		102,140
17	FEBRUARY	676	13,438	70,344		84,459
18	MARCH	3,130	10,406	64,046		77,582
19	APRIL	19,331	21,087	110,198		150,615
20	MAY	22,092	28,554	122,194		172,840
21	JUNE	24,359	25,579	151,827		201,765
22	JULY	23,494	24,446	155,954		203,894
23	AUGUST	21,044	34,348	146,138		201,530
24	SEPTEMBER	35,089	32,818	113,923		181,831
25	OCTOBER	4,832	22,070	97,601		124,504
26	NOVEMBER	1,691	14,800	92,769		109,259
27	DECEMBER	908	13,466	71,672		86,046
28	12-CP	13,181	21,239	106,952		141,372
29	4-CP	25,987	29,298	141,961		197,255
30	MAX PEAK	35,089	34,348	155,954		203,894

	(LMS -Pri) Large Municipal and School Service	(PG) Primary General Service	Total		Sub-Trans. Loss Level 3 Transmission	BB - Transmission Loss Level 2 Transmission
			Loss Level 4 Primary Distribution	Loss Level 3 Transmission		
	-	170,381	170,381	40,974	187,400	201,000
	-	173,656	173,656	44,462	201,000	199,285
	-	157,906	157,906	33,518	217,200	223,787
	-	218,848	218,848	46,056	203,962	237,971
	-	224,065	224,065	48,960	240,939	229,775
	-	221,698	221,698	44,758	241,507	226,550
	-	216,929	216,929	38,176	227,203	219,715
	-	233,796	233,796	47,169	228,162	241,507
	-	202,828	202,828	59,658		
	-	227,056	227,056			
	-	225,350	225,350			
	-	199,665	199,665			
	-	206,015	206,015			
	-	218,813	218,813			
	-	233,796	233,796			

	(LMS -Pri) Large Municipal and School Service	(PG) Primary General Service	Total		Sub-Trans. Loss Level 3 Transmission	BB - Transmission Loss Level 2 Transmission
			Loss Level 4 Primary Distribution	Loss Level 3 Transmission		
	-	192,081	192,081	42,424	192,305	206,261
	-	195,773	195,773	46,036	204,501	222,885
	-	178,016	178,016	34,704	229,644	209,300
	-	246,721	246,721	55,688	244,200	247,245
	-	252,601	252,601	47,686	235,789	247,829
	-	249,933	249,933	50,693	232,480	233,149
	-	244,557	244,557	46,342	225,466	248,839
	-	263,571	263,571	61,770	241,507	
	-	228,660	228,660			
	-	255,973	255,973			
	-	254,050	254,050			
	-	225,094	225,094			
	-	232,253	232,253			
	-	246,680	246,680			
	-	263,571	263,571			

Southwestern Public Service Company

Plant in Service

Parts (a, c & d) Four Years Prior to Future Test Year
Total Company

Line No.	Functional Classification	12/31/2012	12/31/2013	12/31/2014	12/31/2015 ⁽¹⁾
1	Intangible Plant	\$ 74,441,586	\$ 77,525,694	\$ 106,679,097	\$ 153,633,726
2	Steam Production Plant	1,681,542,595	1,700,748,261	1,728,281,464	1,774,746,165
3	Other Production Plant	179,053,124	281,956,632	289,691,384	289,794,012
4	Transmission Plant	1,264,776,442	1,411,206,287	1,903,924,091	2,224,379,949
5	Distribution Plant	921,344,004	969,925,696	1,036,030,062	1,130,195,184
6	General Plant	256,196,121	269,915,570	303,318,976	347,918,363
7	Electric Plant Purchased	0	0	0	0
8	Total Electric Plant In Service *	\$ 4,377,353,873	\$ 4,711,278,142	\$ 5,367,925,075	\$ 5,920,667,400
9	Plant Held For Future Use	27,164	18,629	0	0
10	Construction Work In Progress	237,135,981	388,322,705	238,518,687	273,822,246
11	Electric Plant Acquisition Adj.	0	0	0	0
12	Total Electric Utility Plant	\$ 4,614,517,018	\$ 5,099,619,476	\$ 5,606,443,762	\$ 6,194,489,646

*Note: FERC Account 101 Balance differs from Trial Balance for SPS due to Asset Retirement Cost associated with Asset Retirement Obligation which is not included in Rate Base. The forecast also does not include this cost.

⁽¹⁾ 2015 values are based on actuals through January and 11 months of forecast

Southwestern Public Service Company

Plant in Service

Parts (b, c & d) Four Years Prior to Future Test Year
New Mexico Jurisdiction

Functional Classification	12/31/2012 ⁽²⁾	12/31/2013 ⁽²⁾	12/31/2014 ⁽³⁾	12/31/2015 ^{(1) (4)}
13 Intangible Plant	\$ 15,570,872	\$ 16,215,972	\$ 25,442,965	\$ 39,152,480
14 Steam Production Plant	296,366,838	299,751,779	320,267,838	390,717,467
15 Other Production Plant	31,557,576	49,694,011	53,682,710	63,799,311
16 Transmission Plant	217,822,328	243,040,769	343,566,910	447,841,088
17 Distribution Plant	260,819,589	274,572,386	341,875,416	380,291,466
18 General Plant	51,310,703	54,058,420	69,437,297	87,179,296
19 Electric Plant Purchased	0	0	0	
20 Total Electric Plant In Service	\$ 873,447,906	\$ 937,333,337	\$ 1,154,273,136	\$ 1,408,981,108
21 Plant Held For Future Use	4,918	3,208	0	0
22 Construction Work In Progress	43,110,844	69,624,656	49,188,063	59,874,253
23 Electric Plant Acquisition Adj.	0	0	0	0
24 Total Electric Utility Plant	\$ 916,563,667	\$ 1,006,961,201	\$ 1,203,461,199	\$ 1,468,855,361

⁽¹⁾ 2015 values are based on actuals through January and 11 months of forecast⁽²⁾ Plant in Service and Construction Work in Progress allocated to New Mexico jurisdiction based on factors from Case No. 12-00350-UT.⁽³⁾ Plant in Service and Construction Work in Progress allocated to New Mexico jurisdiction based on factors from this current filing's Base Period ending December 31, 2014.⁽⁴⁾ Plant in Service and Construction Work in Progress allocated to New Mexico jurisdiction based on factors from this current filing's Future Test Year ending December 31, 2016

Southwestern Public Service Company

Plant in Service

Parts (a, c, & e) Twelve Months of the Future Test Year
Total Company

Line No.	Functional Classification	January 2016	February 2016	March 2016	April 2016	May 2016	June 2016
1	Intangible Plant	\$ 154,122,690	\$ 154,476,395	\$ 154,730,322	\$ 154,956,161	\$ 155,259,205	\$ 156,150,061
2	Steam Production Plant	1,776,691,897	1,777,415,819	1,779,506,213	1,784,141,032	1,784,745,061	1,801,302,683
3	Other Production Plant	289,794,012	289,794,012	290,375,299	290,394,199	290,458,264	290,614,354
4	Transmission Plant	2,254,549,937	2,259,025,102	2,265,438,429	2,351,543,966	2,361,677,893	2,386,722,808
5	Distribution Plant	1,133,706,543	1,137,298,685	1,141,911,575	1,146,832,084	1,170,869,658	1,177,122,747
6	General Plant	350,226,686	352,456,106	354,896,073	357,436,262	367,598,664	370,102,088
7	Electric Plant Purchased	0	0	0	0	0	0
8	Total Electric Plant In Service *	\$ 5,959,091,766	\$ 5,970,466,119	\$ 5,986,857,911	\$ 6,005,203,703	\$ 6,130,608,744	\$ 6,182,014,742
9	Plant Held For Future Use	0	0	0	0	0	0
10	Construction Work In Progress	286,328,276	325,256,263	361,385,439	317,597,010	312,152,787	296,125,198
11	Electric Plant Acquisition Adj.	0	0	0	0	0	0
12	Total Electric Utility Plant	\$ 6,245,420,042	\$ 6,295,722,382	\$ 6,348,243,349	\$ 6,402,900,714	\$ 6,442,761,531	\$ 6,478,139,940

* Note: The forecast does not include Asset Retirement Costs associated with Asset Retirement Obligations, and these costs are not included in Rate Base.

Parts (b, c, & e) Twelve Months of the Future Test Year
New Mexico Jurisdiction

Line No.	Functional Classification	January 2016 ⁽¹⁾⁽²⁾	February 2016 ⁽¹⁾⁽²⁾	March 2016 ⁽¹⁾⁽²⁾	April 2016 ⁽¹⁾⁽²⁾	May 2016 ⁽¹⁾⁽²⁾	June 2016 ⁽¹⁾⁽²⁾
13	Intangible Plant	\$ 39,277,102	\$ 39,367,241	\$ 39,431,953	\$ 39,489,507	\$ 39,566,735	\$ 39,793,764
14	Steam Production Plant	391,146,425	391,305,800	391,766,385	392,786,385	392,919,364	396,564,597
15	Other Production Plant	63,799,408	63,927,381	63,927,381	63,931,542	63,945,646	63,980,010
16	Transmission Plant	453,914,937	454,815,934	456,107,148	473,443,020	475,483,312	480,525,676
17	Distribution Plant	381,472,839	382,681,533	384,233,692	385,889,359	393,977,591	396,081,648
18	General Plant	87,757,671	88,316,305	88,927,698	89,564,203	92,110,635	92,737,928
19	Electric Plant Purchased	0	0	0	0	0	0
20	Total Electric Plant In Service	\$ 1,417,368,383	\$ 1,420,286,223	\$ 1,424,393,880	\$ 1,445,104,014	\$ 1,458,003,284	\$ 1,469,683,623
21	Plant Held For Future Use	0	0	0	0	0	0
22	Construction Work In Progress	63,158,891	71,997,053	80,206,707	72,417,874	69,393,468	66,190,926
23	Electric Plant Acquisition Adj.	0	0	0	0	0	0
24	Total Electric Utility Plant	\$ 1,480,527,274	\$ 1,492,283,275	\$ 1,504,600,587	\$ 1,517,521,888	\$ 1,527,396,751	\$ 1,535,874,549

(1) Plant in Service, excluding Construction Work in Progress, allocated to New Mexico jurisdiction based on factors from this current filing's Future Test Year ending December 31, 2016.

(2) Construction Work in Progress allocated to New Mexico jurisdiction based on factors from this current filing's Future Test Year ending December 31, 2016.

Southwestern Public Service Company

Plant in Service

Parts (a, c, & e) Twelve Months of the Future
Total Company

Line No.	Functional Classification	July 2016	August 2016	September 2016	October 2016	November 2016	December 2016
1	Intangible Plant	156,440,356 \$	156,730,164 \$	156,918,879 \$	157,472,098 \$	180,462,850 \$	188,876,430 \$
2	Steam Production Plant	1,802,695,625	1,803,896,844	1,804,825,004	1,810,528,044	1,813,631,421	1,819,696,552
3	Other Production Plant	290,638,285	290,638,285	290,638,285	290,712,842	290,724,875	290,732,475
4	Transmission Plant	2,401,929,346	2,442,544,513	2,442,291,375	2,499,358,310	2,503,338,363	2,567,710,321
5	Distribution Plant	1,183,996,212	1,189,268,845	1,193,743,518	1,200,803,492	1,206,786,760	1,218,324,361
6	General Plant	372,908,514	375,479,784	379,094,856	383,304,212	385,427,756	391,468,101
7	Electric Plant Purchased	0	0	0	0	0	0
8	Total Electric Plant In Service *	6,208,608,337 \$	6,244,558,437 \$	6,267,511,918 \$	6,342,178,998 \$	6,380,372,026 \$	6,476,808,238 \$
9	Plant Held For Future Use	0	0	0	0	0	0
10	Construction Work In Progress	313,148,952	326,046,222	356,094,266	336,058,389	338,932,172	304,586,489
11	Electric Plant Acquisition Adj.	0	0	0	0	0	0
12	Total Electric Utility Plant	6,521,757,288 \$	6,570,604,659 \$	6,623,606,184 \$	6,678,237,387 \$	6,719,304,198 \$	6,781,394,728 \$

* Note: The forecast does not include Asset Retirement Costs associated with Asset Retirement Obligations, and these costs are not included in Rate Base.

Parts (b, c, & e) Twelve Months of the Future
New Mexico Jurisdiction

Line No.	Functional Classification	July 2016 (1)(2)	August 2016 (1)(2)	September 2016 (1)(2)	October 2016 (1)(2)	November 2016 (1)(2)	December 2016 (1)(2)
13	Intangible Plant	39,867,743 \$	39,941,599 \$	39,989,692 \$	40,130,676 \$	45,989,710 \$	48,133,853 \$
14	Steam Production Plant	396,871,259	397,135,712	397,340,051	398,595,600	399,278,822	400,614,087
15	Other Production Plant	63,985,279	63,985,279	63,985,279	64,001,693	64,004,342	64,006,015
16	Transmission Plant	483,587,251	488,945,759	491,713,453	503,202,901	504,004,216	516,964,406
17	Distribution Plant	398,394,451	400,168,602	401,674,253	404,049,813	406,063,080	409,945,286
18	General Plant	93,441,145	94,085,438	94,991,281	96,046,036	96,578,141	98,091,694
19	Electric Plant Purchased	0	0	0	0	0	0
20	Total Electric Plant In Service	1,476,147,129 \$	1,484,262,389 \$	1,489,694,009 \$	1,506,026,719 \$	1,515,918,311 \$	1,537,755,339 \$
21	Plant Held For Future Use	0	0	0	0	0	0
22	Construction Work In Progress	69,843,385	72,985,362	79,485,481	75,521,536	75,069,567	67,144,723
23	Electric Plant Acquisition Adj.	0	0	0	0	0	0
24	Total Electric Utility Plant	1,545,990,514 \$	1,557,247,751 \$	1,569,179,490 \$	1,581,548,255 \$	1,590,987,878 \$	1,604,900,062 \$

(1) Plant in Service, excluding Construction Work in Progress, allocated to New Mexico jurisdiction based on factors from this current filing's Future Test Year ending December 31, 2016.

(2) Construction Work in Progress allocated to New Mexico jurisdiction based on factors from this current filing's Future Test Year ending December 31, 2016.

Southwestern Public Service Company

Plant in Service

Parts (a, c, & f) Five Years Beyond Base Period
Total Company

Line No.	Functional Classification	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019
1	Intangible Plant	\$ 153,633,726	\$ 188,876,430	\$ 223,651,296	\$ 240,405,050	\$ 256,292,790
2	Steam Production Plant	1,774,746,165	1,819,696,552	1,868,807,767	2,136,607,463	2,156,400,390
3	Other Production Plant	289,794,012	290,732,475	302,969,591	437,101,395	439,261,735
4	Transmission Plant	2,224,379,949	2,567,710,321	2,776,716,629	3,156,777,550	3,525,800,374
5	Distribution Plant	1,130,195,184	1,218,324,361	1,290,088,743	1,354,809,955	1,424,899,296
6	General Plant	347,918,363	391,468,101	434,398,748	460,856,767	486,125,261
8	Electric Plant Purchased			0	0	0
9	Total Electric Plant In Service *	\$ 5,920,667,400	\$ 6,476,808,238	\$ 6,896,632,773	\$ 7,786,558,179	\$ 8,288,779,846
10	Plant Held For Future Use	0	0	0	0	0
11	Construction Work In Progress	273,822,246	304,586,490	639,019,726	393,803,974	304,421,749
12	Electric Plant Acquisition Adj.	0	0	0	0	0
13	Total Electric Utility Plant w/ CWIP	\$ 6,194,489,646	\$ 6,781,394,728	\$ 7,535,652,499	\$ 8,180,362,153	\$ 8,593,201,595

* Note: The forecast does not include Asset Retirement Costs associated with Asset Retirement Obligations, and these costs are not included in Rate Base.

Parts (b, c, and f) Five Years Beyond Base Period⁽¹⁾
New Mexico Jurisdiction

Functional Classification	12/31/2015 ⁽²⁾	12/31/2016 ⁽³⁾	12/31/2017 ⁽³⁾	12/31/2018 ⁽³⁾	12/31/2019 ⁽³⁾
14 Intangible Plant	\$ 39,152,493	\$ 48,133,853	\$ 56,995,987	\$ 61,265,565	\$ 65,314,446
15 Steam Production Plant	390,718,064	400,614,087	411,426,133	470,383,398	474,740,897
16 Other Production Plant	63,799,408	64,006,015	66,700,069	96,229,767	96,705,376
17 Transmission Plant	447,840,727	516,964,406	559,044,239	635,562,982	709,859,395
18 Distribution Plant	380,291,327	409,945,286	434,092,771	455,870,351	479,454,214
19 General Plant	87,179,265	98,091,694	108,848,994	115,478,683	121,810,308
20 Electric Plant Purchased	0	0	0	0	0
21 Completed Const. Not Classified	0	0	0	0	0
22 Total Electric Plant In Service	\$ 1,408,981,285	\$ 1,537,755,339	\$ 1,637,108,193	\$ 1,834,790,747	\$ 1,947,884,635
23 Plant Held For Future Use	0	0	0	0	0
24 Construction Work In Progress	59,874,253	67,144,723	136,053,276	81,909,485	63,225,939
25 Electric Plant Acquisition Adj.	0	0	0	0	0
26 Total Electric Utility Plant w/ CWIP	\$ 1,468,855,538	\$ 1,604,900,062	\$ 1,773,161,469	\$ 1,916,700,232	\$ 2,011,110,574

⁽¹⁾ In accordance with Rule 17.1.3.8(A), SPS is providing information contained in this schedule for five years beyond the Base Period, rather than five years beyond the Test Year Period, as requested in 17.9.530.14(P)(2)(f).

⁽²⁾ Plant in Service and Construction Work in Progress allocated to New Mexico jurisdiction based on factors from this current filing for the Future Test Year ending December 31, 2016.

⁽³⁾ Construction Work in Progress allocated to New Mexico jurisdiction based on factors from this current filing for the Future Test Year ending December 31, 2016.

Southwestern Public Service Company

Property Retirements and Property Investment Information

Parts (a, c, & d) Four Years Prior to Future Test Year
Total Company

Line No.	Functional Classification	12/31/2012	12/31/2013	12/31/2014	12/31/2015 ⁽¹⁾
<u>Property Additions</u>					
1	Production	\$ 54,282,942	\$ 146,145,734	\$ 57,145,568	\$ 46,567,329
2	Transmission	153,346,481	170,054,679	497,237,227	328,127,882
3	Distribution	52,197,908	58,409,963	74,525,510	104,478,275
4	General & Intangible	31,556,111	22,245,219	63,614,244	91,587,210
5	Total Additions	\$ 291,383,442	\$ 396,855,595	\$ 692,522,549	\$ 570,760,696
<u>Property Retirements</u>					
6	Production	\$ (12,757,360)	\$ (24,036,559)	\$ (21,870,546)	\$ -
7	Transmission	(5,280,433)	(10,273,232)	(4,433,797)	(7,672,024)
8	Distribution	(11,568,901)	(9,686,429)	(8,508,649)	(10,313,152)
9	General & Intangible	(18,019,608)	(5,441,664)	(1,057,434)	(33,195)
10	Total Retirements	\$ (47,626,302)	\$ (49,437,884)	\$ (35,870,426)	\$ (18,018,371)

Parts (b, c, & d) Four Years Prior to Future Test Year
New Mexico Jurisdiction

Line No.	Functional Classification	12/31/2012 ⁽²⁾	12/31/2013 ⁽²⁾	12/31/2014 ⁽³⁾	12/31/2015 ^{(1) (4)}
<u>Property Additions</u>					
11	Production	\$ 9,567,188	\$ 25,757,699	\$ 10,589,651	\$ 10,251,999
12	Transmission	26,409,582	29,287,096	89,727,562	66,062,918
13	Distribution	14,776,509	16,535,056	24,592,355	35,155,150
14	General & Intangible	6,386,360	4,500,670	14,843,430	23,149,823
15	Total Additions	\$ 57,139,639	\$ 76,080,520	\$ 139,752,997	\$ 134,619,891
<u>Property Retirements</u>					
16	Production	\$ (2,248,442)	\$ (4,236,363)	\$ (4,052,833)	\$ -
17	Transmission	(909,405)	(1,769,273)	(800,089)	(1,544,630)
18	Distribution	(3,274,997)	(2,742,095)	(2,807,733)	(3,470,199)
19	General & Intangible	(3,660,694)	(1,107,847)	(243,473)	(6,432)
20	Total Retirements	\$ (10,093,538)	\$ (9,855,578)	\$ (7,904,127)	\$ (5,021,262)

⁽¹⁾ 2015 values are based on actuals through January and 11 months of forecast.

⁽²⁾ Plant in Service allocated to New Mexico jurisdiction based on factors from Case No. 12-00350-UT.

⁽³⁾ Plant in Service allocated to New Mexico jurisdiction based on factors from this current filing's Base Period ending December 31, 2014.

⁽⁴⁾ Plant in Service allocated to New Mexico jurisdiction based on factors from this current filing's Future Test Year ending December 31, 2016.

Southwestern Public Service Company

Property Retirements and Property Investment Information

Parts (a, c, & e) Twelve Months of the Future Test Year
Parts (a, c, & d) Four Years Prior to Future Test Year

Line No.	Functional Classification	January 2016	February 2016	March 2016	April 2016	May 2016	June 2016	July 2016	August 2016	September 2016	October 2016	November 2016	December 2016
<u>Property Additions</u>													
1	Production	\$ 1,945,732	\$ 723,921	\$ 2,671,681	\$ 4,653,719	\$ 668,094	\$ 16,713,713	\$ 1,416,873	\$ 1,201,220	\$ 928,159	\$ 5,777,597	\$ 3,115,411	\$ 6,072,730
2	Transmission	30,924,097	5,229,273	7,167,435	86,859,645	10,888,035	25,799,023	15,960,646	27,369,276	14,500,970	57,821,043	4,734,161	65,126,066
3	Distribution	4,426,253	4,507,037	5,527,784	5,835,404	24,952,468	7,167,984	7,788,359	6,187,528	5,389,567	7,974,868	6,898,163	12,452,495
4	General & Inangible	2,797,287	2,583,124	2,693,895	2,766,028	10,465,446	3,394,280	3,096,721	2,861,078	3,803,788	4,762,575	25,114,296	14,453,923
5	Total Additions	\$ 40,093,368	\$ 13,043,356	\$ 18,060,794	\$ 100,114,795	\$ 46,974,044	\$ 53,074,999	\$ 28,262,598	\$ 37,619,102	\$ 24,622,465	\$ 76,336,082	\$ 39,862,031	\$ 98,105,215
<u>Property Retirements</u>													
7	Production	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8	Transmission	(754,108)	(754,108)	(754,108)	(754,108)	(754,108)	(754,108)	(754,108)	(754,108)	(754,108)	(754,108)	(754,108)	(754,108)
9	Distribution	(914,894)	(914,894)	(914,894)	(914,894)	(914,894)	(914,894)	(914,894)	(914,894)	(914,894)	(914,894)	(914,894)	(914,894)
10	General & Inangible	0	0	0	0	0	0	0	0	0	0	0	0
11	Total Retirements	\$ (1,669,003)	\$ (1,669,003)	\$ (1,669,003)	\$ (1,669,003)	\$ (1,669,003)	\$ (1,669,003)	\$ (1,669,003)	\$ (1,669,003)	\$ (1,669,003)	\$ (1,669,003)	\$ (1,669,003)	\$ (1,669,003)

Parts (b, c, & e) Twelve Months of the Future Test Year
New Mexico Jurisdiction

Line No.	Functional Classification	January 2016	February 2016	March 2016	April 2016	May 2016	June 2016	July 2016	August 2016	September 2016	October 2016	November 2016	December 2016
<u>Property Additions</u>													
13	Production	\$ 428,361	\$ 159,374	\$ 588,182	\$ 1,024,536	\$ 147,084	\$ 3,679,596	\$ 311,931	\$ 264,454	\$ 204,338	\$ 1,271,963	\$ 685,871	\$ 1,336,938
14	Transmission	6,226,036	1,052,824	1,443,040	17,487,699	2,192,119	5,194,191	3,213,402	5,510,334	2,919,521	11,641,275	953,142	13,112,016
15	Distribution	1,489,358	1,516,541	1,860,005	1,963,513	8,396,078	2,411,904	2,620,649	2,081,997	1,813,497	2,683,407	2,321,114	4,190,051
16	General & Inangible	703,015	648,774	676,104	694,058	2,623,662	854,321	777,197	718,149	953,936	1,195,739	6,391,139	3,657,695
17	Total Additions	\$ 8,846,770	\$ 3,377,513	\$ 4,567,331	\$ 21,169,807	\$ 13,358,943	\$ 12,140,012	\$ 6,923,179	\$ 8,574,934	\$ 5,891,293	\$ 16,792,383	\$ 10,351,266	\$ 22,296,700
<u>Property Retirements</u>													
19	Production	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20	Transmission	(151,827)	(151,827)	(151,827)	(151,827)	(151,827)	(151,827)	(151,827)	(151,827)	(151,827)	(151,827)	(151,827)	(151,827)
21	Distribution	(307,846)	(307,846)	(307,846)	(307,846)	(307,846)	(307,846)	(307,846)	(307,846)	(307,846)	(307,846)	(307,846)	(307,846)
22	General & Inangible	0	0	0	0	0	0	0	0	0	0	0	0
23	Total Retirements	\$ (459,673)	\$ (459,673)	\$ (459,673)	\$ (459,673)	\$ (459,673)	\$ (459,673)	\$ (459,673)	\$ (459,673)	\$ (459,673)	\$ (459,673)	\$ (459,673)	\$ (459,673)

(1) Amounts allocated to New Mexico jurisdiction are based on factors from this current filing's Future Test Year ending December 31, 2016.

Southwestern Public Service Company

Property Retirements and Property Investment Information

Parts (a, c, & d) Four Years Prior to Future Test Year⁽¹⁾
Total System

Line No.	Functional Classification	2015	2016	2017	2018	2019
Property Additions						
1	Production	\$ 46,567,329	\$ 45,888,849	\$ 61,348,331	\$ 401,931,500	\$ 52,606,825
2	Transmission	328,127,882	352,379,669	228,262,204	410,397,785	412,078,553
3	Distribution	104,478,275	99,107,910	90,251,920	91,416,617	105,708,001
4	General & Intangible	91,587,210	78,792,441	77,705,514	43,211,773	41,156,234
5	Total Additions	\$ 570,760,696	\$ 576,168,869	\$ 457,567,968	\$ 946,957,676	\$ 611,549,612
Property Retirements						
6	Production	\$ -	\$ -	\$ -	\$ -	\$ (30,653,557)
7	Transmission	(7,672,024)	(9,049,298)	(19,255,896)	(30,336,863)	(43,055,729)
8	Distribution	(10,313,152)	(10,978,733)	(18,487,538)	(26,695,405)	(35,618,660)
9	General & Intangible	(33,195)	-	-	-	-
10	Total Retirements	\$ (18,018,371)	\$ (20,028,031)	\$ (37,743,434)	\$ (57,032,269)	\$ (109,327,946)

Parts (b, c, & d) Four Years Prior to Future Test Year
New Mexico Jurisdiction

Line No.	Functional Classification	2015 ⁽²⁾	2016 ⁽³⁾	2017 ⁽³⁾	2018 ⁽³⁾	2019 ⁽³⁾
11	Production	\$ 10,251,999	\$ 10,102,629	\$ 13,506,101	\$ 88,486,963	\$ 11,581,621
12	Transmission	66,062,918	70,945,599	45,956,677	82,626,551	82,964,944
13	Distribution	35,155,150	33,348,115	30,368,226	30,760,126	35,568,932
14	General & Intangible	23,149,823	23,149,823	19,619,435	10,899,268	10,380,506
15	Total Additions	\$ 134,619,891	\$ 137,546,165	\$ 109,450,439	\$ 212,772,907	\$ 140,496,003
Property Retirements						
16	Production	-	-	-	-	(6,748,513)
17	Transmission	(1,544,630)	(1,821,921)	(3,876,844)	(6,107,807)	(8,668,532)
18	Distribution	(3,470,199)	(3,694,156)	(6,220,740)	(8,982,547)	(11,985,069)
19	General & Intangible	(6,432)	-	-	-	-
20	Total Retirements	\$ (5,021,262)	\$ (5,516,077)	\$ (10,097,584)	\$ (15,090,354)	\$ (27,402,115)

⁽¹⁾ In accordance with Rule 17.1.3.8(A), SPS is providing information contained in this schedule for five years beyond the Base Period, rather than five years beyond the Test Year Period, as requested in 17.9.530.14(P)(2)(f).

⁽²⁾ Plant in Service allocated to New Mexico jurisdiction based on factors from this current filing's Future Test Year ending December 31, 2016.

⁽³⁾ Amounts allocated to New Mexico jurisdiction are based on factors from this current filing's Future Test Year ending December 31, 2016.

Southwestern Public Service Company

Operation and Maintenance Expense Information

(a, c, d) Total System Excluding Fuel and Purchased Power
Four Years Prior to Future Test Year

Line No.	Classification	Actual		
		2012	2013	2014
1	Production	\$ 133,394,884	\$ 134,335,647	\$ 142,867,108
2				\$ 139,453,345
3	Transmission ⁽¹⁾	102,452,833	115,727,911	126,490,016
4				126,613,153
5	Regional Markets	4,390,272	6,172,743	7,442,791
6				7,446,555
7	Distribution	34,555,642	35,179,199	36,160,331
8				36,485,690
9	Customer Operations	31,978,870	31,200,055	31,034,391
10				31,047,364
11	Administrative & General	84,026,034	96,827,631	100,213,742
12				100,867,400
13	Total	<u>\$ 390,798,536</u>	<u>\$ 419,443,186</u>	<u>\$ 444,208,380</u>
				<u>\$ 441,913,508</u>

⁽¹⁾ SPS does not record Transmission O&M expense by voltage level.

⁽²⁾ 2015 represents escalated forecast amounts based on 2014 adjusted Base Period data.

Southwestern Public Service Company

Operation and Maintenance Expense Information

(b, c, d) New Mexico Jurisdiction Excluding Fuel and Purchased Power
Four Years Prior to Future Test Year

Line No.	Classification	Actual		
		2012 ⁽²⁾	2013 ⁽²⁾	2014 ⁽⁴⁾
1	Production	\$ 23,722,261	\$ 23,889,562	\$ 26,511,108
2				\$ 30,254,139
3	Transmission ⁽¹⁾	16,553,724	18,698,633	19,180,044
4				35,206,671
5	Regional Markets	1,056,009	1,484,753	1,991,560
6				2,244,284
7	Distribution	9,244,780	9,411,602	11,806,323
				12,450,154
8	Customer Operations	8,027,689	7,832,182	12,478,262
				7,390,431
9	Administrative & General	19,722,847	22,727,677	23,387,222
10				27,527,069
11	Total	<u>\$ 78,327,309</u>	<u>\$ 84,044,407</u>	<u>\$ 95,354,518</u>
				<u>\$ 115,072,747</u>

⁽¹⁾ SPS does not record Transmission O&M expense by voltage level.

⁽²⁾ 2012 & 2013 O&M expenses allocated to New Mexico jurisdiction based on factors from Case No. 12-00350-UT.

⁽³⁾ 2015 O&M expense allocated to New Mexico jurisdiction based on factors from this current filing's Future Test Year.

⁽⁴⁾ The 2014 Jurisdictional amounts are allocated to the New Mexico Jurisdiction based on factors from this current filing's Base Period ending December 31, 2014.

Southwestern Public Service Company

Operation and Maintenance Expense Information

(a, c, e) Total System Excluding Fuel and Purchased Power ⁽³⁾
Future Test Year - Calendar Year 2016

Line No.	Classification	Future Test Year ⁽²⁾	New Mexico Portion ⁽²⁾	Jurisdictional Allocation	Reference
1	Production	\$ 144,472,739	\$ 31,343,087	21.69%	
2					
3	Transmission ⁽¹⁾	120,446,383	33,491,909	27.81%	
4					
5	Regional Markets	6,234,797	1,879,078	30.14%	
6					
7	Distribution	37,689,850	12,861,054	34.12%	
8					
9	Customer Operations	24,749,632	5,891,336	23.80%	
10					
11	Administrative & General	99,286,062	27,095,516	27.29%	
12					
13	Total	<u>\$ 432,879,464</u>	<u>\$ 112,561,980</u>		Attachment APF-2, page 22, line 315

⁽¹⁾ SPS does not record Transmission O&M expense by voltage level.

⁽²⁾ Please refer to Attachment APF-2 to the testimony of SPS witness Arthur P. Freitas for development of the Base Period data.

⁽³⁾ SPS utilized the Global Insight Escalators to arrive at the Future Test Year numbers, due to this we are unable to provide this information on a monthly basis.

Southwestern Public Service Company

Operation and Maintenance Expense Information

(a, c, f) Total System Excluding Fuel and Purchased Power
Five Years Beyond the Base Year Period
Amounts in '000s

Line No.	Classification	2015	2016	2017 ⁽²⁾⁽³⁾	2018 ⁽²⁾⁽³⁾	2019 ⁽²⁾⁽³⁾
1	Production	\$ 139,453	\$ 144,473	\$ 112,891	\$ 115,988	\$ 118,533
2						
3	Transmission ⁽¹⁾	126,613	120,446	18,921	19,229	19,719
4						
5	Regional Markets	7,447	6,235	7,187	7,433	7,610
6						
7	Distribution	36,486	37,690	38,679	38,953	39,252
8						
9	Customer Operations	31,047	24,750	19,167	19,614	20,025
10						
11	Administrative & General	100,867	99,286	95,788	98,057	98,595
12						
13	Total	\$ 441,914	\$ 432,879	\$ 292,632	\$ 299,274	\$ 303,734

⁽¹⁾ SPS does not record Transmission O&M expense by voltage level.

⁽²⁾ 2017-2019 represents the Budgeted amounts from SPS's 2015 budget cycle.

⁽³⁾ In accordance with Rule Proposal 17.1.3.8(A), SPS is providing operating and maintenance expense information for five years beyond the Base Period, rather than five years beyond the Test Year Period, as requested in 17.9.530.14(P)(4)(f).

Southwestern Public Service Company

Operation and Maintenance Expense Information

(b, c, f) New Mexico Jurisdiction Excluding Fuel and Purchased Power
Five Years Beyond the Base Year Period
Amounts in '000s

Line No.	Classification	2015	2016	2017 ⁽²⁾⁽³⁾	2018 ⁽²⁾⁽³⁾	2019 ⁽²⁾⁽³⁾
1	Production	\$ 30,254	\$ 31,343	\$ 24,492	\$ 25,163	\$ 25,715
2						
3	Transmission ⁽¹⁾	35,207	33,492	5,261	5,347	5,483
4						
5	Regional Markets	2,244	1,879	2,166	2,240	2,293
6						
7	Distribution	12,450	12,861	13,198	13,292	13,394
8						
9	Customer Operations	7,390	5,891	4,562	4,669	4,767
10						
11	Administrative & General	27,527	27,096	26,141	26,760	26,907
12						
13	Total	\$ 115,073	\$ 112,562	\$ 75,821	\$ 77,471	\$ 78,560

⁽¹⁾ SPS does not record Transmission O&M expense by voltage level.

⁽²⁾ O&M expense allocated to New Mexico jurisdiction based on factors from this current filing's Test Year.

⁽³⁾ In accordance with Rule 17.1.3.8(A), SPS is providing operating and maintenance expense information for five years beyond the Base Period, rather than five years beyond the Future Test Year, as requested in 17.9.530.14(P)(4)(f).

Southwestern Public Service Company

Customer Information

(b) Annual kWh Sales and the Revenue Produced and the Increase or Decrease in kWh sales due to Changes in Number of Customers by Customer Class for the Twelve Months of the Test Year Period

Line No.	New Mexico Customer Class	Rate No.	Base Period kWh Sales	Future Test Year kWh Sales	kWh Adjustment	Adjusted Revenues
1	Residential Service	1	590,652,052	618,257,111	27,605,059	\$ 6,202,954
2	Residential Space Heating Service	39	510,928,268	533,281,943	22,353,675	5,000,714
3	Small General Service	6	123,044,426	173,863,789	50,819,362	4,712,490
4	Secondary General Service	40	711,515,896	679,617,273	(31,898,623)	(3,381,738)
5	Irrigation Power Service	3	76,029,723	81,736,289	5,706,567	798,738
6	Primary General Service	13	1,294,270,231	1,826,115,951	531,845,720	29,744,355
7	Large General Service - Trans	34	175,400,992	408,445,099	233,044,107	10,672,058
8	Large General Service - Backbone Trans	34	1,364,155,496	1,909,082,009	544,926,513	21,993,466
9	Small Municipal and School Service	42	10,900,823	13,365,257	2,464,434	217,383
10	Large Municipal and School Service	16	121,389,831	123,917,633	2,527,802	513,115
11	Municipal Street Lighting Service	14	13,297,872	13,421,501	123,629	243,480
12	Area Lighting Service	28	16,223,814	16,215,207	(8,607)	241,300
13	Retail		5,007,809,425	6,397,319,061	1,389,509,636	\$ 76,958,314

Note: Please refer to the testimony of SPS witness Jannell E. Marks for explanation of the forecast kWh.

Southwestern Public Service Company

Customer Information

(c)(i) Four Years Prior to the Test Year Period

Line No.	Customer Class	Rate No.	Custs at Dec		Avg 2012	Custs at Dec		Avg 2013	Custs at Dec		Avg 2014	Custs at Dec		1moHist+11moFcst	
			2012			2013			2013			2014		2015	Avg 2015
1	Residential Service	1	56,143		55,518	56,867		56,558	57,661		57,385	58,548		58,142	
2	Residential Space Heating Service	39	29,817		29,885	29,780		29,814	29,809		29,793	29,833		29,822	
3	Small General Service	6	8,304		8,574	8,341		8,335	11,204		10,022	11,507		11,364	
4	Secondary General Service	40	5,316		4,932	5,576		5,470	3,119		4,130	3,203		3,167	
5	Irrigation Power Service	3	1,011		992	1,002		1,012	1,014		1,012	1,041		1,028	
6	Primary General Service	13	4,326		4,282	4,400		4,367	4,534		4,475	4,657		4,600	
7	Large General Service - Trans	34	7		7	7		7	6		6	6		6	
8	Large General Service - Backbone Trans	34	18		17	19		18	20		20	20		20	
9	Small Municipal and School Service	42	1,077		1,077	1,021		1,031	1,201		1,134	1,215		1,209	
10	Large Municipal and School Service	16	617		594	680		664	513		575	518		515	
11	Municipal Street Lighting Service	14	19		19	19		19	19		19	19		19	
12	Area Lighting Service	28	9,574		9,367	9,488		9,520	9,441		9,480	9,372		9,403	
13	Retail		116,229		115,264	117,200		116,815	118,541		118,051	119,939		119,295	

Southwestern Public Service Company

Customer Information

(c)(ii) Test Year Information and (iii) Five Years Beyond the Base Year Period⁽¹⁾

Line No.	Customer Class	Rate No.	Custs at Dec 2015	Avg 2015 Custs	Custs at Dec 2016	Avg 2016 Custs	Custs at Dec 2017	Avg 2017 Custs	Custs at Dec 2018	Avg 2018 Custs	Custs at Dec 2019	Avg 2019 Custs
1	Residential Service	1	58,548	58,142	59,438	59,024	60,370	59,942	61,301	60,886	62,155	61,770
2	Residential Space Heating Service	39	29,833	29,822	29,857	29,846	29,881	29,870	29,905	29,894	29,929	29,918
3	Small General Service	6	11,507	11,364	11,818	11,675	12,134	11,989	12,452	12,306	12,769	12,624
4	Secondary General Service	40	3,203	3,167	3,290	3,250	3,378	3,338	3,465	3,426	3,554	3,514
5	Irrigation Power Service	3	1,041	1,028	1,070	1,057	1,098	1,085	1,127	1,114	1,156	1,143
6	Primary General Service	13	4,657	4,600	4,781	4,724	4,909	4,851	5,038	4,979	5,166	5,107
7	Large General Service - Trans	34	6	6	6	6	6	6	6	6	6	6
8	Large General Service - Backbone Trai	34	20	20	21	21	21	21	21	21	22	22
9	Small Municipal and School Service	42	1,215	1,209	1,229	1,223	1,243	1,237	1,257	1,251	1,270	1,264
10	Large Municipal and School Service	16	518	515	524	521	530	527	535	533	541	538
11	Municipal Street Lighting Service	14	19	19	19	19	19	19	19	19	19	19
12	Area Lighting Service	28	9,372	9,403	9,300	9,333	9,228	9,261	9,156	9,189	9,084	9,117
13	Retail		119,939	119,295	121,353	120,698	122,817	122,145	124,282	123,623	125,671	125,042

⁽¹⁾ In accordance with Rule 17.1.3.8(A), SPS is providing the year-end number of customers and average number of customers for the year by customer class for five years beyond the Base Period, rather than five years beyond the Test Year Period, as requested in 17.9.530.14(P)(5)(c)(iii).

Southwestern Public Service Company

Customer Information

(d) Annual kWh Sales for
(i) Four Years Prior to the Test Year Period, and
(ii) Five Years Beyond the Test Year Period

Line No.	Customer Class	Rate No.	Actual		
			kWh Sales at Dec 2012	kWh Sales at Dec 2013	kWh Sales at Dec 2015
1	Residential Service	1	571,576,977	590,378,001	611,872,328
2	Residential Space Heating Service	39	516,400,003	527,247,851	533,010,361
3	Small General Service	6	85,948,370	71,179,192	174,472,674
4	Secondary General Service	40	626,074,385	748,132,945	679,338,915
5	Irrigation Power Service	3	95,583,232	90,431,290	81,965,735
6	Primary General Service	13	1,215,486,429	1,212,343,633	1,554,882,763
7	Large General Service - Trans	34	247,741,113	235,225,788	305,981,761
8	Large General Service - Backbone Trans	34	1,067,911,852	1,162,122,993	1,505,408,862
9	Small Municipal and School Service	42	8,332,139	6,593,518	13,317,008
10	Large Municipal and School Service	16	129,972,940	129,398,672	122,514,784
11	Municipal Street Lighting Service	14	13,324,621	13,301,035	13,358,522
12	Area Lighting Service	28	16,390,972	16,476,446	16,329,791
13	Retail		4,594,743,032	4,802,831,364	5,612,453,503

^ 2015 kWh Sales = 1 month of actual; 11 months of forecast

Southwestern Public Service Company

Customer Information

(d) Annual kWh Sales for
(i) Four Years Prior to the Test Year Period, and
(ii) Five Years Beyond the Test Year Period

Line No.		Customer Class	Rate No.	Forecast				
				kWh Sales at Dec 2016	kWh Sales at Dec 2017	kWh Sales at Dec 2018	kWh Sales at Dec 2019	
1		Residential Service	1	618,257,111	630,308,293	638,439,989	649,949,046	
2		Residential Space Heating Service	39	533,281,943	542,177,788	548,191,174	556,316,531	
3		Small General Service	6	173,863,789	174,716,449	175,133,402	175,991,832	
4		Secondary General Service	40	679,617,273	683,573,036	683,167,474	686,481,592	
5		Irrigation Power Service	3	81,736,289	82,130,774	82,010,091	81,703,984	
6		Primary General Service	13	1,826,115,951	2,163,424,616	2,492,379,245	2,823,909,275	
7		Large General Service - Trans	34	408,445,099	499,055,310	585,702,859	668,652,220	
8		Large General Service - Backbone Trans	34	1,909,082,009	2,099,122,525	2,657,414,790	2,730,839,901	
9		Small Municipal and School Service	42	13,365,257	13,580,715	13,741,327	13,925,772	
10		Large Municipal and School Service	16	123,917,633	125,952,166	127,441,741	129,152,346	
11		Municipal Street Lighting Service	14	13,421,501	13,475,156	13,508,065	13,531,154	
12		Area Lighting Service	28	16,215,207	16,149,553	16,049,001	15,963,838	
13		Retail		6,397,319,061	7,043,666,381	8,033,179,157	8,546,417,492	

^ 2015 kWh Sales = 1 month of actual; 11 months of forecast

Southwestern Public Service Company

Weather Data

In accordance with rule 17.1.3.16(A), SPS has not weather normalized the Base Period data. However, SPS uses 30-year normal weather in its econometric regression models to forecast Test Year sales. The workpaper for Schedule P-6, provided in electronic format in Attachment EDE-1(Media) to the Direct Testimony of Evan D. Evans, contains 30 years of actual cooling degree day (CDD) and heating degree day (HDD) data as well as the calculation of 30 year daily normal HDD's and CDD's. The file also contains the daily number of cycles recording usage for each day in each billing month from 1997-2016. This information is used in the actual and normal billing month weather calculations that are inputs into the econometric regression models. Reference the "Forecast Development" section of Jannell E. Marks' Direct Testimony for additional information regarding the weather used in the Test Year forecast.

Southwestern Public Service Company

Power Plant Maintenance Information

(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
2012					
1	Cunningham 1	01/01/12	01/05/12	0.06	Limited by controls
2	Cunningham 2	01/01/12	01/05/12	0.05	Suspected problem with Nozzle Block in turbine
S	Cunningham 3	01/01/12	01/06/12	5.67	Combustor rebuild
4	Harrington 1	01/01/12	01/04/12	1.84	Unit is derated because we do not have 4160 Volt P busses in service due to extensive repairs
5	Harrington 3	01/01/12	01/01/12	0.12	While racking in the north main circ pump bkr, a close relay on the breaker operated and tried to close the bkr. When this happened, the normal source 4160 transformer differential relay mis-operated and tripped the generator off line.
6	Moore County 3	01/01/12	06/01/12	0.00	Unit is out of service until crews can prepare the unit for service. This will take 2 to 3 weeks.
7	Plant X 1	01/01/12	01/07/12	6.35	ID fan burned up.
8	Plant X 4	01/01/12	01/04/12	3.20	Shut down for boiler inspection
9	Harrington 1	01/03/12	01/04/12	0.89	Unit's bottom ash drag chain has several broken flights and needs to be repaired. Unit has to be off line for furnace and ash trough clean up.
10	Harrington 2	01/03/12	01/03/12	0.05	The P Buss Normal Source breaker was tripped open because of the repair work being performed on the Unit 1 P Buss.
11	Harrington 1	01/04/12	01/09/12	2.77	Unit is derated due to major pieces of equipment not being available. The equipment is unavailable due to 4160 P Buss being repaired from flood damages.
12	Harrington 3	01/04/12	01/04/12	0.17	Unit is derated due to only having 3 mills available. A mill needs to have the motor bumped to determine correct rotation after damages to the electrical system after Harrington flood.
13	Harrington 3	01/04/12	01/04/12	0.13	Unit was derated due to the TDBFP tripping on low lube oil pressure. Unit is only capable of carrying 200 MW with MDBFP.
14	Cunningham 1	01/05/12	01/06/12	0.72	Pinnacle fuel regulator frozen-fuel gas pressure control problems
15	Cunningham 2	01/05/12	01/06/12	0.82	Pinnacle fuel pressure regulator frozen-causing fuel pressure control problems
16	Cunningham 1	01/06/12	01/17/12	0.15	Limited by Controls
17	Cunningham 2	01/06/12	01/07/12	0.01	Suspected problems in HP/IP Turbine.

Southwestern Public Service Company

Power Plant Maintenance Information

(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
18	Harrington 2	01/06/12	01/07/12	0.17	Unit 2 Q buss is supplying station power to #1 Q buss due to the start up station power transformers being out of service for the #1 P buss tie in after repairs were made after the #3 circ line failure.
19	Nichols 2	01/06/12	01/06/12	0.08	Gas Firing Valve "B" position feedback reads in error. Repaired power supply.
20	Nichols 3	01/06/12	01/06/12	0.01	Repair South FD Fan VFD Controls to clear "Cell by-pass Com Fault" alarm. Reset Controls. Alarm came from 10/21/11.
21	Cunningham 2	01/07/12	03/02/12	55.97	Hp/IP Turbine Inspection-Major Overhaul
22	Tolk 1	01/07/12	02/27/12	51.95	Generator Overhaul/Inspection
23	Tolk 2	01/07/12	01/08/12	0.08	Load reduction for excessive vibration on 9 bearing turbine-generator
24	Harrington 1	01/09/12	01/09/12	0.54	Unit had to come off line to repair an external tube leak on the #1 corner 3rd floor.
25	Harrington 1	01/09/12	01/10/12	0.94	While being off line for a tube leak repair we discovered we needed to clean out the ESP ash hoppers that had wet ash in them. Ultimately, we had to clean out all 28 compartments. We feel that this was a result of burning gas and coal at the same time.
26	Harrington 2	01/09/12	01/09/12	0.00	Unit derate due to having 2 baghouse compartments out of service to repair blown bags. With 2 compartments out of service the baghouse DP increases to the point a load drop is needed to decrease the DP.
27	Harrington 3	01/09/12	01/10/12	0.10	We had been having trouble with the long retract blowers since 11:15. We had only blown 3 retracts until 16:40. Blower controls had to be looked at by technicians to make the repairs. Lack of blowing caused the unit to be derated to prevent furnace issue.
28	Tolk 2	01/10/12	01/12/12	0.20	Reduced load for turbine bearing vibration problems on #9 bearing
29	Harrington 2	01/13/12	01/13/12	0.01	Unit was derated due to high baghouse DP. The high DP was due to having a baghouse compartment out of service to replace blown bags.
30	Jones 3	01/16/12	01/24/12	7.77	Siemens performing a boroscope inspection
31	Tolk 2	01/16/12	01/17/12	0.08	High vibration #9 bearing

Southwestern Public Service Company

Power Plant Maintenance Information

(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
32	Cunningham 1	01/17/12	01/18/12	0.40	Pinnacle fuel line modification-had to use El Paso
33	Cunningham 3	01/17/12	01/18/12	0.71	Pinnacle fuel supply line modification-fuel unavailable
34	Cunningham 4	01/17/12	01/18/12	0.71	Pinnacle fuel supply line modification-fuel supply unavailable
35	Jones 2	01/17/12	01/19/12	2.05	Superheat tube leak (fishmouth blowout) - required immediate shutdown of unit. Also repaired 3 DMW reheater tubes that were discovered during inspection.
36	Nichols 1	01/17/12	01/21/12	4.33	Replace Underground Condensate Piping
37	Tolk 2	01/17/12	01/17/12	0.06	High vibration on #9 Bearing
38	Tolk 2	01/17/12	01/17/12	0.03	High vibration on #9 bearing
39	Tolk 2	01/17/12	01/18/12	0.14	High vibration on #9 bearing
40	Cunningham 1	01/18/12	03/13/12	0.78	Limited by controls
41	Harrington 1	01/18/12	01/18/12	0.09	Unit is derated because the East Main Circ pump was taken out of service for repairs and inspection to IB motor bearing. (west pump is unavailable)
42	Tolk 2	01/18/12	01/19/12	0.08	High vibration on #9 bearing
43	Tolk 2	01/19/12	01/19/12	0.01	High vibration on #9 bearing
44	Tolk 2	01/19/12	01/19/12	0.01	High vibration on #9 bearing
45	Tolk 2	01/19/12	01/19/12	0.00	High vibration on #9 bearing
46	Tolk 2	01/19/12	01/19/12	0.04	High vibration on #9 bearing
47	Tolk 2	01/19/12	01/20/12	0.02	High vibration on #9 bearing
48	Harrington 1	01/20/12	01/21/12	1.89	Unit is coming off line to locate and repair condenser/hotwell air leaks. Unit is running in an abnormal condition with Hogger Jet to maintain back pressure.
49	Harrington 3	01/20/12	01/20/12	0.00	Unit was derated to remove B Mill from service to replace the mill exit gas temp RTD. C Mill was unavailable and unit is only good for 235 with 3 mills
50	Tolk 2	01/20/12	01/20/12	0.03	High vibration on #9 bearing
51	Tolk 2	01/20/12	01/20/12	0.02	High vibration on #9 bearing
52	Tolk 2	01/20/12	01/21/12	0.27	High vibration on #9 bearing
53	Tolk 2	01/21/12	01/22/12	0.04	High vibration on #9 bearing
54	Tolk 2	01/22/12	01/22/12	0.00	High vibration on #9 bearing
55	Jones 3	01/24/12	01/24/12	0.10	Tripped due to high BP temperature spread, #16 BPT
56	Jones 3	01/26/12	01/29/12	2.79	Continued MO for Siemens to perform testing.

Southwestern Public Service Company

Power Plant Maintenance Information

(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
57	Harrington 1	01/29/12	01/31/12	1.01	Unit was derated to 185 gross to take the Main Feed Pump out of service to make inspection and repairs to the IB pump breakdown bushings.
58	Harrington 1	01/31/12	02/10/12	0.53	Unit is having to be derated due to high vibration on the IB pump bearing on the MBFP. Full load on the unit causes the added load on the pump to create a vibration of >5 on the bearing.
59	Harrington 1	02/03/12	02/03/12	0.01	Unit was derated to try and drop the furnace temperatures to a point where we would not have to use the SH sprays so we could make repairs to the sprays control valve. We were unable to do this and elected to take care of the repairs during a load drop tonight.
60	Harrington 2	02/03/12	02/03/12	0.01	Unit was derated due to high delta P on the bag house. We had two compartments out at one time on the bag house to replace blown bags.
61	Jones 2	02/05/12	02/07/12	1.07	Tube leak in primary superheat section of boiler, required immediate shutdown.
62	Cunningham 3	02/06/12	02/06/12	0.02	Trip on BPT spread.
63	Cunningham 4	02/06/12	02/06/12	0.27	CEMS Probe box heater problems
64	Harrington 3	02/08/12	02/10/12	0.09	Unit was derated because boiler pressure had to be reduced due to a main steam line safety was lifting. Highest pressure we can build without lifting the safety is 2200 psi throttle pressure
65	Nichols 3	02/08/12	02/08/12	0.03	North Boiler Feed Pump breaker problem
66	Harrington 1	02/10/12	02/16/12	0.70	Unit is having to be derated due to high vibration on the Main Feed Pump #3 bearing.
67	Nichols 3	02/10/12	02/12/12	2.05	Steam leak on Air Ejector Piping
68	Harrington 1	02/11/12	02/11/12	0.04	TR set E/A4 failed and would not reset. This caused the opacity to increase and the unit load having to be dropped.
69	Maddox 2	02/12/12	02/12/12	0.04	Lube oil too hot, fan did not start, bypass did not close
70	Nichols 3	02/12/12	02/13/12	1.23	OMC - Extreme wind chill, snow flurries, and ice - DA Heater Level Primary Transmitter Froze
71	Harrington 2	02/13/12	02/13/12	0.05	Started the South Condensate Booster Pump since the October flood. Had some residual water that had bad water chemistry. The increase in Boiler Cation reading caused us to have to drop pressure.

Southwestern Public Service Company

Power Plant Maintenance Information

(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
72	Harrington 2	02/13/12	02/13/12	0.00	Unit pressure had to be dropped due to an increase in boiler cation conductivity. Conductivity increase when the South condensate booster pump was put in service. First time since flood in October.
73	Cunningham 3	02/14/12	02/14/12	0.17	L915 Low gas pressure
74	Cunningham 4	02/14/12	02/14/12	0.15	L915 Low gas pressure
75	Harrington 2	02/15/12	02/15/12	0.03	Unit had to be derated to operate the 4160 P buss start up breaker. During the Load drop test for swapping the NS to SU Source power, the SU breaker would not close.
76	Harrington 1	02/16/12	02/28/12	11.84	Unit has been taken off line to replace the pump element on the Main Boiler Feed Pump. We did not derate on the Start up pump because of high vibration on the Pump IB bearing and Motor IB bearing temperature.
77	Plant X 1	02/18/12	12/08/12	69.73	West circ. pumps shaft broken
78	Plant X 4	02/19/12	02/19/12	0.08	High drum level trip
79	Tolk 2	02/19/12	02/19/12	0.92	Equilizing line on the TDBFP discharge valve has developed a leak; cannot be isolated.
80	Harrington 2	02/20/12	02/20/12	0.01	Unit had to be derated due to high bag house delta P. The high delta P was a result of us having to have two bag house compartment out of service to replace blown bags.
81	Tolk 2	02/20/12	02/20/12	0.02	Low Turbine Lube Oil Pressure Trip
82	Tolk 2	02/20/12	02/21/12	0.14	Load restricted due to excessive vibration in #9 bearing
83	Carlsbad 5	02/21/12	02/21/12	0.17	Startup sequence failure
84	Tolk 2	02/21/12	02/21/12	0.05	Breaker burned up on K Bus due to Vent gas fan in baghouse issue. Had to drop load to unload bus to fix problem.
85	Tolk 2	02/21/12	02/23/12	0.33	Monitoring vibration on #9 bearing
86	Cunningham 3	02/22/12	02/22/12	0.52	Pinnacle had to replace a section of their supply pipeline
87	Cunningham 4	02/22/12	02/22/12	0.52	Pinnacle pipeline outage-Pinnacle had to replace a section of their line.
88	Harrington 3	02/22/12	02/24/12	1.27	Unit tripped when a fault occurred on a start up power supply lightning arrestor on the high side of the start up transformers. The unit experienced a decrease in station power due to the fault that caused the outage.
89	Riverview 6	02/23/12	02/23/12	0.12	OMC- No gas available from DCP
90	Tolk 2	02/23/12	02/23/12	0.02	Vibration in #9 bearing

Southwestern Public Service Company

Power Plant Maintenance Information

(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
91	Tolk 2	02/23/12	03/12/12	2.68	Vibration in #9 bearing Unit was derated due to high bag house delta pressure because we had to remove 2 compartments from service to replace blown bags.
92	Harrington 2	02/24/12	02/24/12	0.02	
93	Harrington 3	02/25/12	02/29/12	0.41	Unit had to drop drum pressure due to the East main steam line safety not seating off correctly. Max throttle pressure on the unit is 2100psi. at this pressure and full valve we get 310mw net.
94	Jones 2	02/26/12	02/27/12	0.91	Tube leak in the superheat section of boiler (fishmouth blowout). Panel #8, 16th tube down.
95	Plant X 4	02/26/12	02/26/12	0.04	Damper drive on west FD fan broke
96	Jones 2	02/27/12	02/28/12	1.31	DMW failure in the superheat section of boiler, panel 28, 12th tube down.
97	Tolk 1	02/27/12	03/01/12	2.80	Planned outage - Trip checks, balance shots complete unit on line
98	Harrington 1	02/29/12	03/01/12	0.48	Unit was derated because the main boiler feed pump had to be taken out of service. The pump needed to have adjustments made after the pump element was replaced.
99	Harrington 1	03/01/12	03/01/12	0.04	Derate was due to the LP heater Drains pump motor failing. The unit can only pull 315 gross without the pump in service.
100	Cunningham 2	03/02/12	03/09/12	6.60	HP/IP Turbine Inspection
101	Harrington 3	03/03/12	04/21/12	49.83	Major Outage
102	Tolk 1	03/05/12	03/06/12	0.31	TDBFP balance leak off line under pump is leaking
103	Harrington 1	03/06/12	03/07/12	0.14	Unit was derated when a pressure sensing valve on the Main Boiler Feed Pump balance leak off line failed. The pump had to be taken out of service and cooled down to make necessary repairs.
104	Jones 1	03/06/12	03/06/12	0.07	Lost east forced draft fan due to problems in the VFD - excessive drive loss was the alarm on the VFD.
105	Tolk 1	03/06/12	03/07/12	1.05	TDBFP balance leak off line under pump is leaking; could not isolate on line
106	Nichols 3	03/09/12	03/10/12	0.64	Steam leak on extraction piping to deaerating heater at space heat steam supply connection

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Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
107	Maddox 1	03/10/12	03/18/12	8.42	Repair weeping west drum SRV, hot spot repair level 4, repack valves on economizer and heater, inspect/repair circulating water line
108	Cunningham 4	03/12/12	03/12/12	0.38	Borecope Inspection
109	Cunningham 4	03/12/12	03/14/12	1.89	Starting Package oil pump seal leaks
110	Tolk 2	03/12/12	03/15/12	0.21	Vibration in #9 bearing
111	Cunningham 1	03/13/12	03/13/12	0.00	Failed O2 Probe.
112	Cunningham 1	03/13/12	04/18/12	0.51	Limited by controls
113	Jones 2	03/13/12	04/07/12	0.52	Leakage on the beal seals will not allow the unit to get to full load.
114	Tolk 2	03/15/12	03/28/12	13.00	Boiler Mini Outage and address #9 bearing vibrator
115	Cunningham 3	03/21/12	03/21/12	0.01	Unit would not auto sync to system
116	Cunningham 3	03/21/12	03/21/12	0.03	CDMS Tuning-trip on BPT spread
117	Cunningham 3	03/21/12	03/21/12	0.03	CDMS Tuning-trip on BPT spread
118	Cunningham 3	03/21/12	03/21/12	0.03	Turbine exhaust vibration trip
119	Cunningham 4	03/21/12	03/21/12	0.07	CDMS tuning-BPT spread trip
120	Tolk 1	03/21/12	03/21/12	0.06	Faulty limit switch on low pressure stop valve during routine valve freedom test
121	Harrington 1	03/24/12	03/24/12	0.41	Repairs on a Main Feed Pump balanced leak off piping leak. Pump was isolated and cooled down to make the repairs.
122	Harrington 1	03/24/12	03/25/12	0.88	The Main Feed pump had a leaking balance leak off line and would not isolate on line. Had to take the unit off line to bleed the pressure and lower temperatures to make the repairs.
123	Plant X 4	03/26/12	03/28/12	1.40	Before seat drain line steam leak
124	Cunningham 3	03/27/12	03/27/12	0.08	Combustor bypass valve control problem:
125	Cunningham 3	03/27/12	03/28/12	0.64	Combustor bypass valve control problem: Outage required to replace control system time keeping hardware (GPS). Unit never functioned properly and is being replaced by Seimens (warranty issue).
126	Jones 3	03/27/12	03/27/12	0.28	
127	Nichols 3	03/27/12	03/27/12	0.00	South FD Fan Tripped, "Communication Loss" alarm. Reset Controls, Keypad was non-responsive. Need to replace board.
128	Nichols 1	03/28/12	03/28/12	0.55	Repair Circulating Water Line leaks on South Return line in pit, and spot coated both lines in pit.

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Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
129	Tolk 2	03/28/12	04/05/12	8.29	Boiler Mini Outage and address #9 bearing vibration. Extension due to #9 vibration issues and damage.
130	Harrington 2	03/29/12	03/30/12	0.94	Unit had to be taken off line to replace a Feedwater vent valve on the #3 High Pressure Feedwater Heater. The heater would not isolate due to an internal leak and valve misoperation. The valve vented to a floor drain. Safety!!
131	Jones 1	03/29/12	03/30/12	0.17	Gas firing valve controller (Blac drive) caused the valve to close unexpectedly causing the gas burner pressure to drop below the trip point.
132	Riverview 6	03/29/12	03/29/12	0.15	OMC- Gas supplier DCP fixed a gas leak on their piping.
133	Jones 1	04/01/12	04/01/12	0.25	Gas firing valve controller (Blac drive) caused the valve to close unexpectedly causing the gas burner pressure to drop below the trip point.
134	Tolk 2	04/05/12	04/06/12	0.24	Boiler Mini Outage/addressing #9 bearing vibration
135	Harrington 1	04/06/12	04/07/12	0.17	Unit had to be derated to take the East Cooling Tower Main Circ out of service to make motor alignment adjustments. The inboard motor bearing was running hot due to the misalignment. The West pump is out of service and we can only pull 175g with one pump.
136	Tolk 2	04/06/12	04/06/12	0.35	Unit was in process of ramping down to be off line and do balance shots for #9 bearing vibration and the East Air preheater motor and transformer in 480V breaker burned up
137	Tolk 2	04/06/12	04/06/12	0.15	Mini Boiler Outage with excessive #9 bearing vibration issues on Turbine
138	Jones 2	04/07/12	05/21/12	43.21	Planned outage for turbine (LP) overhaul.
139	Jones 1	04/12/12	04/12/12	0.02	Lost east forced draft fan due to problems in the VFD - excessive drive loss was the alarm on the VFD.
140	Tolk 2	04/12/12	04/12/12	0.01	Problems with Delta p being high on West Reverse Gas Fan
141	Tolk 1	04/14/12	04/14/12	0.05	East FD Fan caused unit trip - had bad speed indication that gave false overspeed and trip unit
142	Tolk 1	04/14/12	04/14/12	0.06	Change out speed indicator on East FD Fan
143	Plant X 4	04/17/12	04/20/12	2.45	Collector fire--Brush failure
144	Cunningham 1	04/18/12	04/18/12	0.06	DA Level indication went erratic.
145	Cunningham 1	04/18/12	05/07/12	0.26	Limited by controls
146	Nichols 1	04/19/12	04/23/12	3.33	Replace underground Gas Supply Piping
147	Nichols 2	04/19/12	04/24/12	4.97	Replace underground Gas Supply Piping

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Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
148	Harrington 3	04/21/12	05/12/12	20.91	Unit outage had to be extended due to repairs that had to be made on the nozzle blocks being sand blasted incorrectly.
149	Nichols 3	04/21/12	04/26/12	5.42	Install Cap on #5 Extraction Piping and Blind Flanges on FW piping to Retube #5 FW Heater on line
150	Jones 3	04/24/12	05/01/12	0.62	Broken water line caused evaporative cooling system to be out of service.
151	Cunningham 4	04/25/12	04/25/12	0.05	Unit failed to start-loss of indication of voltage on 1 phase-bad PT connection.
152	Riverview 6	04/25/12	04/25/12	0.12	Loss of Instrument Air. Compressor tripped on high temperature, dirty aftercooler.
153	Riverview 6	04/25/12	04/25/12	0.07	Starting Diesel tripped on high temperature. Had to spray the radiator.
154	Jones 1	04/26/12	04/26/12	0.01	Due to alarm on east FD fan (excessive amps), forced the unit to be derated.
155	Nichols 3	04/26/12	05/17/12	1.70	#5 Feedwater Heater Tubing Replacement
156	Tolk 1	04/27/12	04/27/12	0.18	Repairs to East PA fan inboard fan bearing
157	Tolk 1	04/27/12	04/30/12	2.48	Boiler tube leak first superheater section-Steam cool spacer in reheater pendants. Blew out and cut waterwall tube
158	Tolk 1	04/30/12	04/30/12	0.02	Lost Unit on High Vacuum due to operator error/no mechanical failure
159	Tolk 1	05/01/12	05/02/12	0.31	East PA fan motor outboard bearing running 200 deg, had to remove fan from service to repair
160	Tolk 1	05/02/12	05/02/12	0.03	Turbine follow mode closed governor values. Unit tripped on reverse power.
161	Nichols 3	05/03/12	05/03/12	0.03	South FD Fan demand problems required FD Fan to be shutdown.
162	Tolk 2	05/03/12	05/03/12	0.05	The plc and the hmi did not agree, resulting in a trip of the fan.
163	Harrington 1	05/04/12	05/06/12	1.50	North Main Circulation return line from the condenser water box back to the tower started leaking and needs to be replaced. Had to come off quick to get all the Main Circulators out of service and all circ line valves closed.
164	Nichols 3	05/04/12	05/04/12	0.14	South FD Fan demand problems required FD Fan to be shutdown.

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Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
165	Harrington 1	05/06/12	05/19/12	12.93	Planned mini outage for summer load. Scope of work is: air preheater wash, 4160 NS XFMR installation, main power xfmr repairs, main circ return line expansion joint repair, west main circ flanges removed, east boiler circ repairs, and CCOFA damper repair.
166	Cunningham 1	05/07/12	05/07/12	0.04	Waterwell circuit tripped-well field unavailable
167	Cunningham 1	05/07/12	05/07/12	0.00	Limited by controls.
168	Cunningham 1	05/07/12	05/10/12	2.37	Lightning strike to main power transformer.
169	Cunningham 2	05/07/12	05/07/12	0.05	Waterwell field feeder failure...wellfield unavailable
170	Harrington 2	05/09/12	05/10/12	0.05	We had 4 baghouse compartments out of service with blown bags that had to be isolated. Isolating these compartments caused the bag house delta P to in creas above a normal operating range. we had to take a unit derate to decrease the Baghouse DP
171	Tolk 2	05/09/12	05/09/12	0.02	E FD Fan tripped, electricians replaced coax and fan is back in service
172	Plant X 4	05/10/12	05/11/12	0.87	Economizer leak
173	Tolk 2	05/10/12	05/10/12	0.03	Repair Mechanical seal on center condensate pump
174	Tolk 2	05/11/12	05/11/12	0.02	Repair Mechanical seal on center condensate pump
175	Harrington 3	05/12/12	05/14/12	0.02	We needed to make some balance shots on the turbine after it ran for several hours at higher loads.
176	Harrington 2	05/13/12	05/13/12	0.03	We had 3 bag house compartments out of service because they had blown bags and were causing the opacity to be higher than necessary. With 3 compartments out of service, the baghouse Delta P is not in the normal and acceptable range.
177	Harrington 2	05/13/12	05/13/12	0.02	We have 2 baghouse compartments out of service due to bag failures which increases the opacity. With 2 compartments out of service, the bag house Delta P becomes to high to continue operating at full load. We had to derate the unit to drop the Delta P.
178	Harrington 2	05/13/12	05/14/12	0.01	We were able to increase load due to a baghouse compartment being placed back in service. This allows us to increase load due to the bag house Delta P decreasing.
179	Tolk 2	05/13/12	05/14/12	0.11	Loss of Discharge Pressure on Center Condensate Pump due to air leakage around mechanical seals

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Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
180	Cunningham 3	05/14/12	05/18/12	4.14	Controls Server Upgrade.
181	Cunningham 4	05/14/12	05/18/12	4.14	Controls server upgrade
182	Harrington 3	05/14/12	05/14/12	0.17	Unit was taken off line to place a balanced shot on the turbine to decrease vibration.
183	Nichols 3	05/14/12	05/17/12	2.29	#5 Feedwater Heater, reinstall tube bundle and remove Blind Flanges
184	Nichols 3	05/17/12	05/17/12	0.02	Trip after unit came on line. Operator selected Auto on Turbine Master while the Megawatt Demand was set to zero.
185	Nichols 3	05/17/12	05/18/12	0.06	#5 Feedwater Heater tripped on high level at 25 MW's. Had to adjust vent valves.
186	Harrington 1	05/19/12	05/19/12	0.27	During the start up of the unit after an outage, the #2 Throttle Valve would not operate as designed. The valve would not open correctly.
187	Harrington 1	05/19/12	05/19/12	0.18	Generator Breaker would not close due to a broken wire in the "Breaker Close" circuitry. Substation crews had to be called to make the repairs.
188	Harrington 1	05/19/12	05/19/12	0.00	Testing of equipment after a planned mini outage. Primary piece of equipment is testing and putting the 4160 normal source transformer in service.
189	Harrington 1	05/19/12	05/19/12	0.04	The #2 throttle valve was not operating as designed. The valve would not fully open.
190	Jones 2	05/21/12	05/21/12	0.18	East boiler feedwater pump out of service. Repairs still being made from overhaul.
191	Jones 2	05/21/12	05/21/12	0.16	Re-establishing planned LP turbine outage for balance shot and tuning.
192	Jones 2	05/21/12	05/21/12	0.07	East boiler feed pump out of still out of service due to overhaul.
193	Jones 2	05/21/12	05/23/12	1.09	Re-established the LP turbine overhaul
194	Cunningham 3	05/22/12	05/22/12	0.27	Controls Tuning Logic Problems
195	Harrington 2	05/22/12	05/30/12	8.92	Planned Outage for air pre heater wash, main power transformer repairs, SOFA damper repairs, rebag 3 compartments, and wiring terminations on select motors.
196	Maddox 2	05/22/12	05/22/12	0.26	Turning gear tripped, gear box was likely over torqued, re-torqued bearing retainers, cleaned motor brushes.

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Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
197	Harrington 1	05/23/12	05/23/12	0.03	The EH system developed a leak on the on the auto stop oil control block. There was a plug on the block that the O Ring had failed on.
198	Harrington 1	05/23/12	05/23/12	0.01	The operator had closed the generator breaker and did not open the control valves to pick up load soon enough, and reverse power protective relay tripped the unit.
199	Jones 2	05/23/12	05/23/12	0.25	East boiler feed pump out of service due to overhaul
200	Plant X 2	05/23/12	06/08/12	3.38	West preheater locked down and tripped motor
201	Cunningham 3	05/24/12	05/24/12	0.02	Wet Compression tuning-logic problems caused BPT spread trip.
202	Jones 2	05/24/12	05/25/12	0.26	Bearing on east boiler feed pump running hot. Took feed pump off line to repair bearing.
203	Harrington 1	05/25/12	05/25/12	0.03	Unit load had to be reduced because stack opacity was increasing to the point of exceedences. Problem is with the ESP ash rapping system not working as designed.
204	Harrington 1	05/25/12	05/26/12	0.16	Unit load had to be derated to prevent an opacity exceedence due to the ESP ash rapping system not operating as designed.
205	Jones 2	05/25/12	05/25/12	0.08	Thermocouple on bearing FD motor went bad, took fan off line to replace thermocouple.
206	Harrington 1	05/27/12	05/27/12	0.00	Unit load had to be reduced to prevent opacity exceedences due to the ESP ash rapping system not operating as designed.
207	Harrington 1	05/27/12	05/27/12	0.05	Unit had to be derated to prevent opacity exceedences due to the ESP ash rapping system not operating as designed.
208	Tolk 1	05/27/12	05/28/12	0.08	Wiped the inboard bearing on the north main circulator.
209	Nichols 3	05/29/12	05/29/12	0.00	South FD Fan VFD Controls had communication error. Shut down fan to reset controls.
210	Nichols 3	05/29/12	05/29/12	0.00	South FD Fan VFD Controls had communication error. Shut down fan to reset controls.
211	Harrington 2	05/30/12	06/02/12	2.49	Unit had to extend its outage due to the new leads that are being replaced and rerouted to Fans, Mills, Pump, and 480 busses are not completed.
212	Nichols 3	05/30/12	05/30/12	0.01	South FD Fan VFD Controls had communication error. Shut down fan to reset controls & replaced Modulator board

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Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
213	Tolk 1	05/30/12	05/30/12	0.07	Mechanical seals leaking by allowing water in the bearing oil on the East BFBP. Have changed out about 15 gallons of oil with pump running, need to drain oil completely and flush to get rid of all water.
214	Maddox 2	05/31/12	05/31/12	0.18	Repair oil leak at thermocouple, number 4 bearing
215	Harrington 2	06/01/12	06/01/12	0.14	Unit is derated due to the re-wiring to the west Induced Draft fan was delayed. We only have one set of ID and FD fans to operate with.
216	Moore County 3	06/01/12	06/06/12	4.84	Burner tuning for summer operation
217	Harrington 2	06/03/12	06/03/12	0.09	East Reheat spray valve had a severe packing leak. Isolation of the valve for repairs requires the Main Feed pump to be taken out of service. This valve was rebuilt during the May outage.
218	Jones 2	06/04/12	06/05/12	0.94	Due to a leak in the EH system, piping had to come off to repair.
219	Jones 2	06/05/12	06/06/12	0.48	Intercept valve did not open on startup due to trash in the hydraulic system.
220	Moore County 3	06/06/12	06/06/12	0.03	The Unit had a new Start Up Feedwater valve installed and was being tuned during a start up. During the tuning, the drum level was lost and the unit had to be tripped.
221	Moore County 3	06/06/12	06/10/12	3.87	Unit had to be taken off line because the #17 Low Pressure Feedwater heater tube leaks were more than the the shell side level controlling valves or pumps could keep up with
222	Harrington 1	06/07/12	06/07/12	0.21	Unit needs to derate to test and place the 4160NS transformer back in service. Derate is to take the feedpump out of service and remove the coal mills from service.
223	Jones 1	06/07/12	06/08/12	1.01	Superheat spray valve check valve gasket leak
224	Moore County 3	06/10/12	06/28/12	9.59	Unit will be derated to having 2 feedwater heaters out of service. Units drains systems and temperatures will not allow for the unit to operate above the 22MW net value.
225	Harrington 2	06/11/12	06/11/12	0.01	Bag House Delta Pressure was running too high for normal operations due to having two baghouse compartments out of service to replace blown bags.
226	Plant X 2	06/11/12	06/11/12	0.02	West preheater temp thermocoupler bac
227	Cunningham 3	06/12/12	06/12/12	0.09	Tuning caused BPT spread

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Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
228	Harrington 3	06/14/12	06/14/12	0.03	Unit needs to be taken off line to make factory setting adjustments to the new Auto Voltage Regulator that was installed during the #3 Planned outage.
229	Harrington 2	06/15/12	06/19/12	3.94	Unit has a condenser tube leak. Unit was off line for the amount of time it took inspect/replace all comprised condenser tube plugs, flush systems, and get back on line
230	Harrington 3	06/15/12	06/16/12	0.37	Unit had to derate due to Boiler chemistry. We had cross contamination from H2 when it suffered a condenser tube leak. H3 BCPs were being supplies purge water from H2. Boiler Conductivity went out of range
231	Jones 1	06/15/12	06/16/12	0.96	Desuperheater/attemperor valves - check valve leaking come off line to repair leak.
232	Harrington 3	06/18/12	06/19/12	0.21	Derate was due to the lid on the main feed pump suction strainer gasket failure.
233	Riverview 6	06/18/12	06/19/12	0.81	Starting Diesel water temperature spiking, diesel tripped on high temp. Replaced thermocouple.
234	Carlsbad 5	06/19/12	06/23/12	4.05	Sequence failure-unit would not reach synchronous speed
235	Harrington 2	06/19/12	06/22/12	0.22	Unit derated to allow for boiler water chemistry to clean up. Pressure had to be ramped as the Conductivity vs Pressure curve would allow.
236	Nichols 1	06/19/12	06/22/12	2.34	Low Temperature Superheater tube leak at 53 Assy. from left, 7th tube down at lug attachment. Capped ends of Assy
237	Harrington 2	06/22/12	06/23/12	0.03	Unit had to be derated to reduce the Baghouse delta p. We had 2 compartments out of service with blown bags.
238	Maddox 2	06/22/12	06/23/12	1.10	Repair low pressure bleed valve air diaphragm
239	Carlsbad 5	06/23/12	06/23/12	0.23	Unit would not load.
240	Carlsbad 5	06/23/12	06/24/12	0.71	Fire in exhaust bearing tunnel-suspect oil leak
241	Harrington 3	06/23/12	06/23/12	0.04	Unit had to be derated to calibrate two feeders by months end. We did not have an extra mill to allow us to stay at full load. C Mill in major OH
242	Maddox 2	06/23/12	06/24/12	0.99	Work on inlet guide vanes, air actuator broke, still not fixed; however, the unit starts and runs with no issues.
243	Carlsbad 5	06/24/12	06/28/12	3.93	Sequence Failure-Unit will not reach Synchronous speed
244	Harrington 2	06/24/12	06/24/12	0.03	Unit had to be derated to reduce the Baghouse Delta P. Unit had 2 baghouse compartments out of service to replace blown bags.

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Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
245	Harrington 3	06/24/12	06/24/12	0.04	Unit had to be derated to calibrate 2 feeders by months end. With C Mill in an major overhaul, I have to derate to make feeder calibrations.
246	Riverview 6	06/24/12	06/24/12	0.15	Main Power Transformer hot spot. Two out of three fans failed. Forced two pumps on without fans running.
247	Riverview 6	06/24/12	06/25/12	0.21	Main Power Transformer hot spot. Two out of three fans failed. Replaced one fan motor. Will replace other bad motor.
248	Plant X 4	06/25/12	06/25/12	0.01	Main power Transformer
249	Cunningham 4	06/27/12	06/28/12	1.01	Lube oil cooler fan motor bearing failure
250	Harrington 1	06/27/12	07/01/12	3.71	Unit had to be taken off line to replace to the super heat spray nozzle and make repairs to the super heat spray line caused by the failure of spray nozzle.
251	Harrington 2	06/27/12	06/27/12	0.03	Unit was derated to reduce high baghouse delta. We had 2 baghouse compartments out of service to replace blown bags.
252	Harrington 3	06/27/12	06/27/12	0.01	Unit had to be derated to reduce the high Delta P on the bag house. We had two bag house compartments out of service to replace blown bags.
253	Carlsbad 5	06/28/12	07/03/12	4.92	Unit would not load.
254	Moore County 3	06/28/12	09/24/12	32.48	Unit is derated due to having 2 feedwater heaters out of service. Heaters have extensive heater tube bundle damage.
255	Harrington 2	06/29/12	06/29/12	0.01	Unit had to be derated to reduce high bag house delta P. We had 2 baghouse compartments out of service to replace blown bags.
256	Harrington 3	06/29/12	07/01/12	1.70	Unit had to be taken off line to repair a 2" vent line on the cooling tower main circulation line.
257	Harrington 2	06/30/12	06/30/12	0.02	Unit had to be derated to reduce the high bag house delta P. We had 2 compartments out of service to replace blown bags.
258	Harrington 3	07/01/12	07/05/12	3.49	The coupling between the HP/IP and LP turbine had a bolt/nut failure. A nut came off of a bolt and caused a vibration that was not allowing us to return to line.
259	Cunningham 2	07/02/12	07/05/12	1.69	Boiler skin leak on 3rd floor just above burner level on east side of furnace.
260	Maddox 2	07/03/12	07/03/12	0.11	Replace inlet guide vane actuator.

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
261	Nichols 2	07/03/12	07/03/12	0.06	Unit tripped on High Drum Level when putting on second Boiler Feed Pump. Operator tending to several tasks on other units over reacted causing drum to go high.
262	Jones 2	07/04/12	07/05/12	0.32	Control valve problem - Moog valve on right side governor valves failed to operate as required closing right side governor valves unexpectedly.
263	Cunningham 2	07/05/12	07/07/12	1.10	Boiler skin leak on 3rd floor under nose arch.
264	Plant X 3	07/05/12	07/05/12	0.38	Communication cable loose - lost communication
265	Harrington 2	07/06/12	07/06/12	0.02	Unit was derated to reduce the baghouse Delta P due to 2 baghouse compartments out of service for replacement of blown bags.
266	Moore County 3	07/11/12	07/11/12	0.33	#3 high pressure heater head gasket started leaking. Unit had to be derated due to excessive heaters out of service
267	Harrington 2	07/12/12	07/12/12	0.01	Unit had to be derated to relieve the Delta P on the baghouse because we had a compartment out of service to replace blown bags.
268	Jones 3	07/12/12	07/12/12	0.12	Unit out of service while #6 & #10 exhaust thermal couplings were replaced.
269	Maddox 1	07/12/12	07/12/12	0.01	Derate to re-pack 1A condensate pump shaft
270	Plant X 1	07/13/12	07/13/12	0.30	50 gas header stopped up
271	Tolk 1	07/13/12	07/14/12	0.50	T-1 #1 Y bearing comes in alarm on vibration when load gets below 450 MW - Balance Shots on Main Turbine
272	Jones 3	07/14/12	07/14/12	0.24	Instrumentation problem on the turbine exhaust bearing, causing unexpected spikes in the bearing vibration.
273	Plant X 4	07/14/12	07/14/12	0.21	Boiler furnace camera area has a hot spot and is bulging
274	Plant X 4	07/14/12	07/14/12	0.05	Boiler furnace camera port hot spot and bulging.
275	Tolk 1	07/14/12	07/14/12	0.04	Balance shots on the turbine
276	Tolk 1	07/14/12	07/14/12	0.18	T-1 #1 Y bearing comes in alarm on vibration when load gets below 450 MW - Balance shots to the turbine
277	Jones 3	07/15/12	07/15/12	0.03	Instrumentation problems on the vibration probe on the turbine exhaust bearing.
278	Cunningham 3	07/16/12	07/16/12	0.18	Replace gas separator relief valve & inspect bearings on aux oil cooler.
279	Tolk 2	07/17/12	07/17/12	0.03	While running the valve freedom test, the RH upper intercept valve did not reopen. Valve was reopened and available for full load.

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
280	Harrington 2	07/18/12	07/19/12	0.02	Unit had to be derated relieve the Baghouse Delta Pressure. The high DP was caused by a baghouse compartment being taken out of service to replace blown bags.
281	Harrington 2	07/19/12	07/20/12	0.01	Unit had to be derated due to high Delta P caused by dirty bags and a cleaning cycle that is not operating due to the baghouse logic not allowing it to.
282	Jones 1	07/20/12	07/20/12	0.02	Lost east forced draft fan due to problems in the VFD - excessive drive loss was the alarm on the VFD
283	Harrington 2	07/21/12	07/21/12	0.01	Unit was derated to relieve the Baghouse Delt P. The high DP was caused due to having a baghouse compartment out of service to replace blown bags.
284	Harrington 2	07/21/12	07/21/12	0.03	Unit was derated to relieve baghouse delta P. High Delta P was caused by 2 baghouse compartments being out of service to replace blown bags.
285	Harrington 2	07/21/12	07/21/12	0.00	Unit was derated to relieve the baghouse Delta P. The high DP was caused by having a baghouse compartment out of service to replace blown bags.
286	Harrington 2	07/21/12	07/21/12	0.01	Unit had to be derated to relieve the Baghouse Delta P caused by a baghouse compartment being taken out of service to replace blowr bags.
287	Harrington 2	07/21/12	07/22/12	0.07	Unit was derated to relieve the baghouse Delta P caused by having a baghouse compartment out of service to replace blown bags.
288	Harrington 2	07/22/12	07/22/12	0.01	Unit was derated to relieve the baghouse Delta P caused by having a baghouse compartment out of service to replace blown bags.
289	Jones 3	07/22/12	07/24/12	2.39	Instrumentation problems on the vibration probe on the turbine exhaust bearing.
290	Harrington 2	07/24/12	07/26/12	0.08	Unit was derated due to high Bag house Delta P. The high Delta P was caused by baghouse compartments being out of service and fouled bags.
291	Harrington 2	07/26/12	07/27/12	0.06	Unit was derated due to High Baghouse Delta P. The high Delta P was caused by compartments being out of service to replace blown bags and fouled bags.

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
292	Harrington 3	07/27/12	07/27/12	0.00	Unit was derated due to high baghouse Delta P. High Delta P was caused from having 2 baghouse compartments out of service at the same time to replace blown bags.
293	Harrington 2	07/29/12	07/29/12	0.02	Unit was derated due to high baghouse Delta P. The high Delta P was caused by compartments being out of service to replace blown bags and fouled bags.
294	Harrington 2	07/30/12	07/30/12	0.02	Unit is derated due to high baghouse Delta P. The high Delta P was caused by fouled bags and compartments being out of service to replace blown bags.
295	Harrington 2	07/30/12	07/30/12	0.01	Unit was derated due to high Bag House Delta P. The Delta P is high due to fouled bags and compartments being taken out of service to replace blown bags.
296	Jones 3	07/30/12	07/30/12	0.06	Gas valve controller in the DCS was in manual position and should have been in automatic. Lost gas pressure during start up.
297	Plant X 2	07/30/12	07/30/12	0.12	#4 West BFP breaker would not Trip. Took 2400-BUSS out to fix. Unit had to come off-line.
298	Riverview 6	07/30/12	07/30/12	0.12	Turbine Low Pressure Bleed Valve failed to Open. Replaced Diaphragm.
299	Tolk 2	07/30/12	07/31/12	1.33	Boiler tube in the reheater section blew out
300	Harrington 2	07/31/12	07/31/12	0.03	Unit was derated due to high Bag House Delta P. The high Delta P was caused because we have fouled bags and compartments out of service to replace blown bags.
301	Moore County 3	07/31/12	07/31/12	0.11	Unit will be taken off line to make repairs to an inspection door on the Iso Phase Buss.
302	Maddox 1	08/01/12	08/01/12	0.03	FBM failure, BFP 1A, no control signal sent to pump or VFD. Pump tripped.
303	Carlsbad 5	08/03/12	08/03/12	0.15	Tripped on combustor outlet temperature.
304	Jones 2	08/03/12	08/05/12	1.27	Waterwall tube leak just above C corner burners
305	Harrington 2	08/04/12	08/06/12	1.29	The unit was taken off line to make repairs to two finishing superheater tube leaks. The tubes had cracks on the tube side weld that attached the tube to the header.
306	Plant X 4	08/04/12	08/04/12	0.00	Gas temp. bad
307	Riverview 6	08/05/12	08/06/12	0.14	Average Disc Cavity Temperature high, causing Unit to runback.

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
308	Maddox 1	08/07/12	08/07/12	0.15	Valve freedom testing, South governor valve would not open after test
309	Maddox 1	08/07/12	08/09/12	1.79	Forced outage to fix South governor valve after valve freedom test, valve would not open after test
310	Harrington 2	08/08/12	08/08/12	0.02	Unit had to be derated to relieve the Delta Pressure on the baghouse. The increase in DP was caused due to a baghouse compartment being taken out of service to replace damaged bags.
311	Jones 2	08/08/12	08/10/12	1.33	Superheat tube leak (fishmouth).
312	Harrington 1	08/09/12	08/09/12	0.04	Unit had to be derated to prevent opacity violations due to a fouled precipitator. Dead rapping was needed to help situation but system conditions prevented it.
313	Harrington 2	08/09/12	08/09/12	0.02	Unit was derated to make repairs on the west deflation fan IB fan bearing. With one deflation fan, we have to derate to keep up with baghouse cleaning
314	Tolk 1	08/09/12	08/12/12	2.75	Tube leak in the Low Temp Superheater and also in the Platen Superheater.
315	Carlsbad 5	08/10/12	08/10/12	0.11	Tripped on combustor/outlet temp hi.
316	Jones 2	08/10/12	08/10/12	0.20	Problems with voltage regulator.
317	Jones 1	08/13/12	08/13/12	0.01	East condensate pump bearing leaking oil. Took pump offline to repair leak.
318	Harrington 2	08/14/12	08/14/12	0.01	Unit had to be derated to relieve the Delta Pressure off of the baghouse. High DP was caused by fouled bags causing the cleaning cycle to be disabled.
319	Jones 3	08/16/12	08/16/12	0.14	Maintenance on the T-3000 control system
320	Tolk 2	08/16/12	08/16/12	0.00	Motor & Drive tripped when cabinet door was opened-possible loose connection on coax cable-cable was checked, did not seem loose but connection was lost so fan trip was reset and load resumed.
321	Jones 1	08/17/12	08/17/12	0.00	Due to lighting strike, lost west VFD fan for approximately 30 minutes.
322	Riverview 6	08/17/12	08/17/12	0.09	Disc Cavity 1-2 temp is too high, bad reading, disconnected TC.
323	Tolk 1	08/17/12	08/20/12	3.05	Make changes to the Turbine HP/IP #1 bearing probe to address vibration issues.

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
324	Plant X 2	08/18/12	08/18/12	0.03	A voltage surge from a lightning strike tripped all cooling tower fan motor breakers on #1,2,3 Cooling Tower. We had to take a derate because we had insufficient cooling of our circulating water to units 1,2,& 3 with the loss of all cooling tower fans.
325	Plant X 3	08/18/12	08/18/12	0.03	A voltage surge from a lightning strike tripped all cooling tower fan motor breakers on #1,2,3 Cooling Tower. We had to take a derate because we had insufficient cooling of our circulating water to units 1,2,& 3 with the loss of all cooling tower fans.
326	Riverview 6	08/20/12	08/21/12	1.06	Lost 480V power feed to plant. Turb. Circulating Oil Pump motor failed.
327	Tolk 1	08/22/12	08/24/12	0.80	East FD Fan IB bearing has temperature spike, inspected and found it had pulled babbit
328	Jones 3	08/23/12	08/23/12	0.08	Performed an inspection and calibration of the fuel orifice plate.
329	Jones 3	08/24/12	08/24/12	0.08	Inspection and repair of the gas orifice plate.
330	Riverview 6	08/24/12	08/24/12	0.10	High Pressure Bleed Valve failed to open. Hole in Diaphragm. Replaced diaphragms with High Temperature diaphragms.
331	Harrington 1	08/25/12	08/30/12	5.35	Hydrogen side seal oil system drain regulator vessel oil make up float valve failed to operate as designed and caused the system to overflow, causing oil to be pushed in to the generator.
332	Tolk 2	08/25/12	08/26/12	1.08	Reheater tube leak
333	Harrington 3	08/26/12	08/27/12	0.02	Unit was derated to relieve the baghouse Delta P. The DP was high due to a baghouse compartment being out of service to replace failed bags.
334	Harrington 2	08/27/12	08/27/12	0.02	Unit was derated to decrease the Baghouse Delta P. Delta P was high due to us having a baghouse compartment out of service to replace blown bags.
335	Harrington 2	08/27/12	08/28/12	0.03	Unit was derated to lower the Delta P on the baghouse. The high Delta P was due to us having two baghouse compartments out of service to replace failed bags.

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
336	Harrington 1	08/30/12	09/22/12	22.53	In the boiler circulation downcomer, there are diffusers to prevent vortexing. One of the diffusers came loose and ended up in the impeller of one of the pumps. This pump failure combined with the diffuser caused the other 2 pumps to fail.
337	Harrington 2	08/30/12	08/31/12	0.06	Derate was due to baghouse Delta P running high because a baghouse compartment is out of service to replace failed bags.
338	Tolk 2	08/30/12	08/30/12	0.02	Repair west FD Fan "A" channel controller
339	Riverview 6	09/01/12	12/31/12	0.00	Retired Unit (Move to Quay County)
340	Plant X 2	09/03/12	09/05/12	1.34	Boiler tube leak
341	Harrington 2	09/04/12	09/04/12	0.01	Unit was derated to relieve high baghouse delta P. The delta P was increased due to having a baghouse compartment out of service to replace failed bags.
342	Harrington 2	09/04/12	09/04/12	0.03	Unit was derated to relieve the baghouse high Delta Pressure. The high DP was caused by us having to take a baghouse compartment out of service to replace failed bags.
343	Harrington 3	09/06/12	09/06/12	0.02	Unit was derated to relieve the high baghouse Delta Pressure. The high DP was caused due to having 2 baghouse compartments out of service to replace failed bags.
344	Cunningham 4	09/07/12	09/07/12	0.31	Repair hydraulic leak on combustor bypass actuator
345	Jones 1	09/07/12	09/09/12	1.35	The south boiler mud drum drain/blowdown valve leaking. Safety concern. Unit offline to make repairs.
346	Harrington 2	09/08/12	09/08/12	0.02	Unit was derated due to high baghouse delta Pressure. The high DP was due to us having a baghouse compartment out of service to replace failed bags.
347	Plant X 4	09/09/12	09/10/12	1.31	West and east Superheater spray motor operator block valves blowing steam and water. Replacing valves
348	Plant X 3	09/12/12	09/13/12	1.10	Tube leak
349	Cunningham 3	09/13/12	09/13/12	0.09	Blade Path Spread trip
350	Harrington 2	09/13/12	09/13/12	0.02	Unit had to drop operating steam pressure to reset a boiler steam drum valve that was lifting. The valve was lifting at 2300psi.
351	Carlsbad 5	09/18/12	09/19/12	1.22	Bad Positioner on Firing valve-caused high combustion temps on startup.

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
352	Harrington 2	09/20/12	09/20/12	0.03	Unit was derated to relieve the baghouse Delta P. The high delta p was due to having a baghouse compartment out of service to replace failed bags.
353	Harrington 2	09/21/12	09/21/12	0.00	Unit was derated due to high baghouse Delta Pressure caused from having a baghouse compartment out of service to replace failed bags.
354	Harrington 3	09/21/12	09/21/12	0.02	Unit was derated due to high baghouse delta P caused from having a baghouse compartment out of service to replace failed bags.
355	Jones 3	09/21/12	09/29/12	8.76	Removed Red River gas line from service to perform cleaning and testing of supply line. Unit off due to gas supply line out of service.
356	Harrington 2	09/23/12	09/23/12	0.02	Unit was derated due to high baghouse Delta P caused by having a baghouse compartment out of service to replace failed bags.
357	Moore County 3	09/24/12	09/24/12	0.18	Unit had to be derated due to the #6 Feedwater heater head gasket leaking.
358	Nichols 2	09/24/12	09/25/12	0.70	Economizer tube leak on third tube from north end of economizer inlet header at bottom tube where it enters the boiler.
359	Cunningham 1	09/25/12	10/05/12	9.78	Economizer Tube leak
360	Jones 2	09/27/12	09/29/12	1.19	Waterwall tube leak on "C" corner on the windbox side of the tube.
361	Harrington 3	09/28/12	09/28/12	0.00	Unit had to derate due to high baghouse delta pressure caused from having 2 baghouse compartments out of service to replace failed bags.
362	Harrington 3	09/29/12	09/30/12	0.03	Unit was derated due to high baghouse delta pressure caused from having 2 baghouse compartments out of service to replace failed bags.
363	Harrington 2	09/30/12	09/30/12	0.01	Unit had to be derated due to high baghouse delta pressure caused from having a baghouse compartment out of service for failed bags.
364	Cunningham 3	10/01/12	10/01/12	0.20	Replace Control system servers
365	Cunningham 4	10/01/12	10/01/12	0.20	Replace Control system servers

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
366	Harrington 1	10/01/12	10/01/12	0.03	Unit was lost when the electricians were attempting to switch the inverter to clean AC from Line Feed. We feel there is an internal problem on the inverter and will be investigated during the next outage.
367	Nichols 3	10/01/12	10/05/12	4.60	OMC- Relay Department installing Relay Packages on 230 KV Substation Breakers
368	Cunningham 3	10/02/12	10/02/12	0.27	Transmission Operations
369	Cunningham 4	10/02/12	10/02/12	0.27	Transmission Operations
370	Jones 1	10/02/12	10/02/12	0.10	Removed east FD fan from service to perform maintenance on the east VFD controller.
371	Jones 1	10/03/12	10/03/12	0.17	Removed east FD fan from service to perform maintenance on the east VFD controller.
372	Harrington 2	10/06/12	10/19/12	13.96	Unit was taken off line for the following repairs and inspections: Main Feed Pump element replacement, Drum inspections, BCP inspections, Circ expansion joint and 96" riser replaced, Seal oil sys inspection, #3 and #5 FW heater repairs, vacuum jet inspect.
373	Plant X 1	10/08/12	10/08/12	0.04	FD FAN CONTROLLER WENT TO ZERO CAUSING BOILER TRIPP
374	Plant X 1	10/08/12	10/08/12	0.05	SUCTION VALVE TURNED THROUGH ITSELF CAUSING UNIT TO TRIP ON LOW VACUUM
375	Cunningham 1	10/10/12	10/25/12	8.39	Economizer Tube Leak
376	Cunningham 3	10/11/12	10/11/12	0.00	Tripped on BPT spread hi.
377	Cunningham 3	10/11/12	10/11/12	0.04	Vibration trip on startup.
378	Cunningham 3	10/11/12	10/11/12	0.03	Tripped on BPT spread hi
379	Plant X 3	10/11/12	10/13/12	1.68	Hot Spot on NE corner(c)level 3and 4.Casing glowing red and bulging right behind level 3 and 4 gas burners
380	Cunningham 3	10/12/12	10/12/12	0.09	Maintenance on Hydraulic skid-check for leaks.
381	Harrington 1	10/13/12	10/13/12	0.00	Unit had to be taken off of control and derated for a short period of time to prevent an opacity exceedence. ESP could not keep up with the markers load ramp.
382	Carlsbad 5	10/16/12	10/18/12	1.98	Tripped on combustor outlet temperature high.
383	Maddox 2	10/16/12	10/18/12	2.05	Unit was off line on turning gear, upper input shaft bearing failed to turning gear box
384	Tolk 1	10/16/12	10/16/12	0.08	E FD Fan controller tripped "input protection fault"

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Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
385	Harrington 2	10/19/12	10/21/12	1.66	The work performed on the circ lines caused the line to "relax" and this disturbed several gaskets on the amertap system to leak.
386	Harrington 2	10/21/12	10/21/12	0.04	The unit was lost on a high drum level when the control room operator was putting the #2 heater in service.
387	Jones 1	10/21/12	10/22/12	0.78	Hot spot on "C" corner, 2nd floor view port. Forced to lower load.
388	Jones 1	10/22/12	10/23/12	1.01	Repair hot spot on "C" corner, 2nd floor view port.
389	Nichols 2	10/22/12	10/22/12	0.19	South Boiler Drum Gasket leaked. Replace the Drum Gasket
390	Jones 1	10/23/12	10/24/12	0.55	Due to problems with the portable demin system, the condensate water was contaminated with silica. The unit was not able to come back on line after a hot spot repair, original reason the unit was offline, due to contaminated water.
391	Jones 2	10/23/12	10/25/12	1.62	Due to problems with the portable demin unit, boiler water chemistry was contaminated with silica. Had to shut down unit to drain system.
392	Cunningham 1	10/25/12	11/14/12	20.38	Replace Turbine Lube oil, generator bushings, & raw water inlet valve.
393	Cunningham 2	10/26/12	10/26/12	0.02	Unit tripped on loss of excitation.
394	Cunningham 2	10/26/12	11/08/12	13.12	Upgrade DCS hardware & software.
395	Harrington 2	10/26/12	10/26/12	0.04	Unit had to be derated to determine if the Rotor Position alarm was correct. The instrumentation was worked on during the recent mini outage.
396	Harrington 2	11/04/12	11/04/12	0.01	The unit had 2 bh compartments out of service to replace blown bags. Having 2 compartments out of service caused the baghouse delta pressure to be to high and cause a derate in load.
397	Maddox 1	11/07/12	11/10/12	3.30	Forced outage, unit already off line in RS, cooling tower inspection revealed damaged wooden structure that required immediate repair.
398	Cunningham 2	11/08/12	11/09/12	1.03	Upgrade DCS Hardware & software
399	Cunningham 2	11/09/12	11/09/12	0.16	Unit trip on Loss of excitation on startup-problems with AVR reset.

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Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
400	Harrington 2	11/09/12	11/09/12	0.05	Unit tripped off because a vibration indication on the OB pump bearing tripped the pump. Boiler tripped on low drum level and generator tripped on RP.
401	Harrington 2	11/09/12	11/09/12	0.06	Operator tripped the turbine/gen on high drum level. We are having the #3 heater isolated and having to go thru the heater bypass make the boiler drum make up had to control
402	Harrington 2	11/09/12	11/19/12	9.81	Unit had to be taken off line due to a condenser tube sheet plug failure.
403	Jones 2	11/09/12	12/21/12	41.87	Planned outage to inspect and repair HP bell seals
404	Jones 3	11/09/12	11/09/12	0.22	Removed all electrical power to Jones #3 to make the tie in to Jones #4 construction project.
405	Nichols 2	11/10/12	12/14/12	34.73	Turbine Valve Inspection, Throttle & Reheat Stop & Intercept Valves
406	Harrington 1	11/11/12	11/13/12	1.56	Unit had to be taken off line to repair a water wall tube leak
407	Harrington 3	11/11/12	11/12/12	1.10	Unit boiler/feedwater got contaminated from the unit space heat steam supply.
408	Harrington 3	11/12/12	11/16/12	4.54	Unit was not able to start up due to a problem with the seal oil system h2 drain regulator high level alarm needing to be repaired.
409	Tolk 1	11/12/12	11/13/12	0.31	Unit 1 tripped Due to Emergency Trip System Test - Low EH Fluid Pressure tripped turbine.
410	Harrington 1	11/13/12	11/13/12	0.22	Unit had to be taken off line due to a leak on the EH system on the west reheat intercept valve.
411	Cunningham 1	11/14/12	11/18/12	3.13	Replace turbine lube oil, generator bushings, raw water inlet valve.
412	Cunningham 4	11/16/12	11/16/12	0.02	Trip on BPT spread
413	Harrington 3	11/16/12	11/17/12	0.34	Unit had to derate to clean up the boiler and feedwater system chemistry due to getting contaminated space heat steam supply from unit 2. The unit was being supplied from 2 during its trip and the #5 extraction did not trip closed on unit trip.
414	Harrington 2	11/19/12	11/25/12	2.84	Unit is derated due to boiler and feedwater system chemistry clean up after a condenser tube plug failure.
415	Jones 3	11/20/12	11/21/12	0.60	Jones #3 unavailable due to MO while tie was made between unit #3 and unit #4 on the 480V system.

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Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
416	Moore County 3	11/24/12	12/31/12	0.00	Unit has been shut down and winterized for the winter months.
417	Jones 1	11/26/12	11/27/12	0.45	Removed J1 west main circulating pump from service to perform maintenance on the voltage regulator (rheostat not working properly).
418	Plant X 1	11/26/12	12/04/12	8.64	Replace relays
419	Plant X 2	11/26/12	12/04/12	8.64	Replace relays
420	Plant X 3	11/26/12	12/04/12	8.64	Replace relays
421	Jones 3	11/28/12	11/28/12	0.04	Unit failed to start due to problem with the SFC.
422	Jones 3	11/28/12	11/28/12	0.28	Startup failure due to problems in the SFC.
423	Maddox 2	12/03/12	12/04/12	1.25	Unit was off line, forced outage to replace turning gear motor bearings.
424	Plant X 1	12/04/12	12/08/12	3.54	Replace relays
425	Plant X 2	12/04/12	12/08/12	3.54	Replace relays
426	Plant X 3	12/04/12	12/08/12	3.54	Replacing relays
427	Harrington 3	12/05/12	12/06/12	0.31	Prepare for mini outage. Derate is for steam cooling the turbine rotor and emptying coal bunkers.
428	Harrington 3	12/06/12	12/17/12	11.57	Unit was taken off line for inspection and repairs. Scope of work: Steam Drum, Boiler Circ. Pumps, Station Power Breakers, Seal Oil System, Turbine Lube Oil System, and Main Feed Pump coupling
429	Maddox 2	12/06/12	12/06/12	0.11	Unit was off line. Forced outage to replace compressor motor on 52G (generator breaker).
430	Harrington 2	12/07/12	12/08/12	0.04	Unit was derated due to high baghouse delta pressure. We had two baghouse compartments put of service to replace failed bags. Two compartments out of service caused the high DP
431	Maddox 2	12/08/12	12/08/12	0.09	Unit was off line, forced outage to set compressor start pressure switch, was starting at 125 psi, new start setting is 160 psi, on 52G (generator breaker).
432	Harrington 2	12/11/12	12/11/12	0.01	Baghouse compartment was out of service to replace failed bags; as a result the baghouse Delta Pressure went high causing a drop in load.
433	Cunningham 3	12/12/12	12/12/12	0.39	(unit was off line) Starting Motor space heater breaker tripped-low motor winding temps.

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
434	Tolk 2	12/12/12	12/12/12	0.11	Steam system contaminated by plant heating and ventilating system repairs
435	Cunningham 3	12/13/12	12/31/12	18.77	(unit was off line) Starting Motor protection relay failure
436	Nichols 2	12/14/12	12/20/12	5.85	Calibrate Turbine Thrust Monitor and Repair Thrust Bearing Shoes
437	Harrington 2	12/16/12	12/16/12	0.01	Unit had to be derated because baghouse delta pressure increased due to having a baghouse compartment out of service to replace failed bags.
438	Harrington 2	12/17/12	12/17/12	0.02	Unit derate was due to baghouse Delta Pressure increased because we had to take a baghouse compartment out of service to replace failed bags.
439	Harrington 3	12/21/12	12/31/12	0.90	The unit derate is to prevent the boiler circ pump to drum pressure delta pressure from being too close to the trip point. The east bcp motor has a leak in the lead box and taken out of service.
440	Jones 2	12/21/12	12/31/12	11.00	Extended the HP/IP Outage due to more extensive repairs required on the beal seals and nozzle block
441	Harrington 1	12/23/12	12/24/12	0.01	The unit was derated to prevent opacity exceedences caused by an ESP fouling. We will take a load drop and dead rap the precipitator asap.
442	Harrington 2	12/23/12	12/23/12	0.00	Unit was derated to prevent high baghouse delta pressure due to having to take a compartment out of service to replace fouled bags.
443	Nichols 3	12/23/12	12/23/12	0.13	Iso-Phase Bus Duct to Main Power Transformer has cracks on two phases at the expansion joints. Came off line to tape the joints.
444	Harrington 2	12/24/12	12/25/12	0.22	The DCS inverter failed and caused us to loose all control power and indications. The unit was tripped for safety precautions.
445	Harrington 2	12/25/12	12/31/12	1.08	Unit is derated to prevent the superheat and reheat steam from exceeding the operating permits. This is a result from all of the HP feedwater heaters being out of service. #2 and #3 heaters have feedwater tube leaks and #1 has to be out of service.
446	Cunningham 4	12/26/12	12/26/12	0.07	RTD Differential problem.

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
447	Jones 3	12/27/12	12/27/12	0.38	Repair to the inlet heating air line to turbine (flange gasket leaking).
448	Plant X 3	12/27/12	12/31/12	2.92	Rexa Governor Drive will not move either direction
449	Harrington 1	12/28/12	12/30/12	0.12	Unit was derated to prevent opacity exceedences caused by a fouled ESP. We have been dead rapping the ESP with out any long-term effectiveness.
450	Plant X 2	12/28/12	12/28/12	0.03	Forced Draft fan controls freezing up, causing low air flow trip.
451	Plant X 2	12/28/12	12/28/12	0.08	FD Fans control freezing up causing low air trip.
452	Maddox 3	12/30/12	12/31/12	0.61	Unit was off line, due to glitch in AC power, instrumentation showed failures; however, there were no instrumentation failures.
2013					
1	Cunningham 3	01/01/13	01/25/13	24.48	(unit was offline) Starting motor protection relay failure. The unit is derated to prevent the SH and RH steam temperatures from increasing above designed temperatures. All HP feedwater heaters are out of service for leaks in the #2 and #3 feedwater tubes.
2	Harrington 2	01/01/13	01/05/13	0.70	Unit is derated to keep the drum to boiler circ pump discharge delta pressure above the trip point. The east bcp is out of service due to leaks in the leak box
3	Harrington 3	01/01/13	01/09/13	0.79	Planned outage extension from 2012 for repair to the the HP turbine beal seals.
4	Jones 2	01/01/13	01/08/13	7.89	Extended outage
5	Jones 2	01/01/13	01/01/13	0.00	Unit is shut down and winterized for the winter months. Unit will be made available for the summer months as needed by commercial operations.
6	Moore County 3	01/01/13	05/15/13	0.00	Rexa Governor Drive will not move either direction (carried over from 2012).
7	Plant X 3	01/01/13	01/05/13	1.16	Calibration problems with lube oil cooler control valve
8	Cunningham 4	01/02/13	01/02/13	0.21	Gas regulator plugged up
9	Plant X 1	01/02/13	01/02/13	0.34	Turb. Overspeed Trip Test
10	Nichols 2	01/03/13	01/03/13	0.23	Not able to keep up with water usage. Leak heard @ 3 1/2 floor of boiler.
11	Plant X 1	01/03/13	01/06/13	3.24	Instrument air compressor problems-tripped breaker
12	Carlsbad 5	01/05/13	01/07/13	2.34	

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
13	Harrington 2	01/05/13	01/11/13	6.09	Unit was taken off line to make repairs to feedwater tube leaks on the #2 High Pressure Heater.
14	Plant X 3	01/05/13	02/06/13	32.61	Unit #3 Turbine valve and boiler Overhaul
15	Jones 3	01/07/13	01/08/13	1.60	Due to the installation of Jones #4 4160V transformer had to take the 4160V feed from Jones #2 down causing J3 to be in a MO.
16	Harrington 3	01/09/13	01/12/13	2.59	Unit had to take a planned outage to replace the east boiler circ pump that did not operate, after the planned mini outage, as designed from the vendor and repair a water wall tube leak.
17	Nichols 2	01/11/13	01/11/13	0.21	Replace 45 lb. gas regulator controller
18	Harrington 1	01/13/13	01/13/13	0.21	Planned derate to prepare the unit for a major outage. Bunkers were staggered empty and turbine rotor steam cooled.
19	Harrington 1	01/13/13	03/06/13	51.55	Unit outage for a major outage. Scope of work includes: Boiler RH and Nose, Generator, Seal Oil System, ESP, Turbine oil system, steam drum, and center boiler circ pump
20	Harrington 2	01/13/13	01/14/13	0.07	Unit had to be derated to maintain the baghouse Delta Pressure at normal operating ranges. Baggouse delta P increased due to having compartments out of service to replace failed bags.
21	Jones 2	01/14/13	01/16/13	1.75	Leak in the circulating water line, had to take unit off line to repair.
22	Plant X 1	01/14/13	01/14/13	0.13	X1 received this alarm: (X1 Generator Field Breaker 1X16 showed a loss of control power) 1X16 breaker control contacts were dirty and caused the problem. The contacts were cleaned and the breaker was put back in service.
23	Harrington 2	01/15/13	01/15/13	0.04	Unit was derated due to the baghouse Delta P being out of normal operating range. This increase in DP was caused by having 2 baghouse compartments out of service to replace failed bags.
24	Harrington 2	01/16/13	01/17/13	0.08	Derate was due to high baghouse Delta P. The baghouse had 3 compartments out of service to replace fouled bags

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
25	Plant X 1	01/16/13	08/20/13	22.68	X1 Induced Draft Fan reaches full load when the unit reaches about 37MW gross. Loading the unit up any higher causes the boiler to go positive because the I.D. fan can't draw enough air through the boiler.
26	Harrington 2	01/17/13	01/18/13	0.03	Unit had to derate due to high baghouse Delta P. The baghouse has 3 compartments out of service to replace fouled bags.
27	Jones 2	01/19/13	01/19/13	0.02	During the weekly overspeed trip check on the turbine, the unit tripped.
28	Harrington 2	01/20/13	01/21/13	0.02	Unit had to be derated due to high baghouse Delta Pressure. The DP increase was caused from having to remove a compartment from service to replace fouled bags.
29	Harrington 2	01/21/13	01/22/13	0.01	Unit was derated due to high baghouse Delta P. The high delta P was caused from having a compartment out of service to replace failed bags.
30	Maddox 3	01/21/13	01/22/13	1.38	Bore scope inspection
31	Harrington 2	01/22/13	01/23/13	0.09	Unit had to be derated due to High baghouse Delta P. The high Delta P was caused from having more than one baghouse compartment out of service at once to replace failed bags.
32	Jones 3	01/22/13	01/23/13	1.02	Upgrading control system software.
33	Maddox 1	01/23/13	01/23/13	0.42	BFP 1B discharge valve packing failure
34	Plant X 1	01/23/13	01/31/13	8.30	Cooling tower inspection
35	Plant X 2	01/23/13	01/31/13	8.31	Cooling tower inspection
36	Nichols 2	01/24/13	01/25/13	1.09	Recoat the Circulating Water Piping Suction Reducers
37	Maddox 1	01/30/13	01/30/13	0.04	Unit tripped on high drum level after startup.
38	Cunningham 3	01/31/13	02/01/13	1.27	Repair fuel regulator valve.
39	Cunningham 4	01/31/13	02/01/13	1.21	Repair fuel gas regulator valve.
40	Harrington 2	01/31/13	02/01/13	0.11	Unit was derated to lower the baghouse Delta P. The Delta P was increased due to having several baghouse compartments out of service to replace failed bags.
41	Plant X 4	02/01/13	02/02/13	1.03	We believe that we have a boiler tube leak in the economizer section.
42	Jones 2	02/03/13	02/03/13	0.53	Steam leak in the 1st Stage Pressure sensing line below the turbine. Cracked union.

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
43	Jones 3	02/03/13	02/03/13	0.62	Jones 3 electrical had to be isolated for interconnection to Jones 4 (new construction).
44	Carlsbad 5	02/04/13	02/06/13	1.50	Instrument air compressor problems-breaker tripped
45	Harrington 2	02/04/13	02/04/13	0.02	Unit is derated due to high baghouse Delta P. The high DP is being caused from having 2 baghouse compartments to replace failed bags.
46	Nichols 1	02/04/13	02/05/13	1.18	OMC- Replace PT's on Nichols #1 Substation Bus and Transmission Constraint, Randall Co. Transformer, Nichols #1 cannot start.
47	Nichols 3	02/04/13	02/15/13	6.76	OMC- Transmission Constraint, Randall Co. Transformer, Unit Limited to 100 MW
48	Maddox 1	02/05/13	04/09/13	63.07	HP, IP, LP planned outage
49	Nichols 1	02/05/13	02/08/13	2.96	OMC- Replace PT's on Nichols 1 and 2 115KV Bus and Transmission Constraint, Randall Co. Transformer, Nichols #1 cannot start.
50	Nichols 2	02/05/13	02/08/13	2.96	OMC- Replace PT's on Nichols #1 and #2 115KV Bus and Transmission Constraint, Randall Co. Transformer, Nichols #2 cannot start.
51	Harrington 2	02/07/13	02/07/13	0.00	Baghouse house Delta P waqs running high due to baghouse compartments being out of service to replace failed bags.
52	Nichols 1	02/08/13	02/15/13	7.18	OMC- Transmission Constraint, Randall Co. Transformer, Nichols #1 cannot Start
53	Nichols 2	02/08/13	02/15/13	7.18	OMC- Transmission Constraint, Randall Co. Transformer, Nichols #2 cannot Start
54	Jones 1	02/11/13	02/11/13	0.01	UPS problems caused one of two FD fans to trip thereby causing a runback/derate on the unit.
55	Harrington 2	02/12/13	02/12/13	0.01	Unit was derated due to Baghouse Delta P being out of operating range. The high Delta P was a result of taking baghouse compartments out of service to replace failed bags.
56	Harrington 2	02/14/13	02/14/13	0.05	Unit had to derate because of high baghouse Delta P. The high DP is being caused from having baghouse compartments out of service to replace failed bags.

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
57	Harrington 3	02/14/13	02/14/13	0.02	Unit was derated due to baghouse Delta P being high. We had 2 compartments out of service on one side. We had a compartment out for a deflation damper problem and later a compartment came out of service to replace failed bags
58	Nichols 2	02/17/13	02/17/13	0.07	Repair Generator Breaker B964 B Phase Connector loose bolt that was arcing.
59	Nichols 3	02/20/13	02/23/13	0.24	#4 LP Feedwater Heater Tube Leak, plugged tube
60	Carlsbad 5	02/21/13	02/21/13	0.40	Loss of substation resulted in Not ready to start-had problems closing in NS breaker.
61	Harrington 2	02/21/13	02/21/13	0.01	Unit was derated due to high baghouse Delta P. The high DP was caused by having 2 baghouse compartments out of service to replace failed bags.
62	Plant X 4	02/22/13	04/11/13	47.67	Generator and turbine valve inspection
63	Harrington 2	02/23/13	02/23/13	0.02	Unit was derated due to high baghouse DP. The DP was caused from having baghouse compartments out of service to replace failed bags.
64	Cunningham 4	02/24/13	02/25/13	0.36	Starting sequence failure-motor protection relay issues-found loose connection.
65	Harrington 3	02/24/13	02/24/13	0.20	There is a leak on the Exciter acw piping.
66	Harrington 2	02/25/13	02/26/13	0.02	Unit was derated due to high baghouse DP caused by fouled bags.
67	Harrington 3	02/25/13	02/26/13	0.02	Unit had to be derated due to high turbine condenser back pressure caused by fouled condenser tubes or debris in waterboxes.
68	Harrington 2	02/26/13	02/27/13	0.04	Unit was derated due to high baghouse delta P caused by compartments being out of service to replace failed bags
69	Jones 3	02/27/13	02/27/13	0.08	Due to Jones #4 construction, remove 4160V power for maintenance and testing.
70	Harrington 2	03/02/13	03/03/13	0.09	Unit had to be derated due to high baghouse DP. The high DP was caused due to having the baghouse west deflation fan out of service to replace bearing and slowing the baghouse cleaning cycle.
71	Harrington 2	03/05/13	03/06/13	0.02	Unit had to be derated due to high baghouse DP. The high DP was due to having baghouse compartments out of service to replace failed bags.

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
72	Harrington 1	03/06/13	03/06/13	0.12	Unit was derated to perform tuning and testing of the new voltage regulator. This was part of the scope of work during the outage.
73	Harrington 1	03/06/13	03/07/13	0.37	Unit had to be taken back off line due to a leak on a main circulation line that was worked on during the spring 2013 planned outage.
74	Harrington 1	03/07/13	03/10/13	2.43	Unit had to be taken off line to make repairs on a water wall tube leak.
75	Nichols 1	03/07/13	04/12/13	35.76	Turbine Control Valve Inspection
76	Tolk 1	03/07/13	03/07/13	0.09	Check and re-grease TDBFP coupling.
77	Cunningham 4	03/08/13	03/08/13	0.01	Unit trip on loss of flame.
78	Maddox 2	03/11/13	03/11/13	0.22	Unit was off line, planned black plant on M1 killed DCS power to unit 2, inverter failed to pick up load.
79	Maddox 3	03/11/13	03/11/13	0.20	Unit was off line, Planned M1 black plant killed DCS power to unit 3, inverter failed to pick up load.
80	Cunningham 4	03/12/13	03/13/13	0.67	Unable to meet permit emissions limits-tuning performed. Intend to do borescope inspection of burners.
81	Harrington 1	03/12/13	03/12/13	0.26	Unit was derated to take the main boiler feed pump out of service to make vibration balance shots. This is planned due to this being part of the 2013 outage scope of work.
82	Harrington 2	03/12/13	03/13/13	0.01	Unit was derated due to high baghouse DP. The high DP was caused from having compartments out of service to replace failed bags.
83	Harrington 3	03/12/13	03/13/13	0.01	Unit was derated due to high baghouse DP. the High DP was caused from having baghouse compartments out of service to replace failed bags.
84	Jones 2	03/12/13	03/13/13	0.97	Switchyard personnel were checking a new relay installation and accidentally tripped unit #2 generator breaker.
85	Maddox 2	03/12/13	03/12/13	0.06	Unit was off line. No gas pressure due to gas controller not in auto (due to M1 planned black plant to work on switch gear the night before).
86	Cunningham 4	03/13/13	03/15/13	2.08	Unable to meet permit emissions limits-tuning performed. Foreign object found in 1 burner. Complete inspection of burner assy performed.
87	Maddox 2	03/13/13	03/13/13	0.12	Blade path temperature spread, unit never got online
88	Maddox 2	03/13/13	03/13/13	0.01	Blade path temperature spread, unit never got online

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
89	Harrington 1	03/14/13	03/14/13	0.07	Unit was derated to place balance shots on the main feed pump coupling to improve vibration. This is a planned derate due to this being part of the "13 outage scope of work.
90	Harrington 2	03/14/13	03/15/13	0.05	Unit had to be derated for high baghouse DP. The high baghouse DP was caused due to baghouse compartments being out of service to replace failed bags.
91	Cunningham 4	03/15/13	03/16/13	0.79	Unable to meet permit emissions limits-tuning performed. Air leaks discovered on rotor air cooler piping
92	Cunningham 4	03/16/13	03/16/13	0.03	Unable to meet permit emissions limits-tuning performed
93	Harrington 1	03/17/13	03/17/13	0.02	Unit had to be derated to take D mill out of service to repair a coal line leak. With E Mill was out of service from the "13 outage.
94	Nichols 2	03/17/13	03/20/13	2.85	Modify Brush Holders on Generator Brush Rigging
95	Cunningham 2	03/18/13	03/25/13	6.49	Spring planned outage-boiler inspection & firing valve work.
96	Cunningham 3	03/19/13	03/19/13	0.13	Replace fuel block valve on Cunningham 4
97	Cunningham 4	03/19/13	05/02/13	44.32	Inspection of combustor components due to problems meeting permitted emission limits.
98	Jones 3	03/19/13	03/20/13	1.05	Unit unavailable due to environmental upgrades to the CEM's system.
99	Maddox 3	03/21/13	03/23/13	2.13	Unit was off line, planned m1 black plant killed power to communication equipment, unit has gas pressure however instrumentation is behaving as if it does not have gas pressure.
100	Harrington 2	03/22/13	03/22/13	0.21	Planned derate was to empty coal bunkers and steam cool the turbine rotor so the turbine lube oil will not put heat load on the lube oil system and the circ systems can be removed from service sooner.
101	Harrington 2	03/22/13	04/08/13	16.98	Unit was taken out of service to make repairs to the baghouse, #2 and #3 HP heaters, ammetap system, and start up feed pump.
102	Nichols 2	03/22/13	03/22/13	0.09	Adjust Brush Holders on Generator Brush Riggine

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
103	Maddox 3	03/23/13	04/04/13	11.90	Unit was off line, planned m1 black plant killed power to communication equipment, unit has gas pressure however instrumentation is behaving as if it does not have gas pressure
104	Cunningham 2	03/25/13	03/26/13	0.25	High BFP bearing Temps - cardboard found in cooler
105	Jones 3	03/27/13	03/27/13	0.51	Unit offline to perform a control system software upgrade/change.
106	Jones 3	03/28/13	03/28/13	0.12	Blown fuse on rotor air cooling motor forced the unit offline
107	Jones 3	03/28/13	03/28/13	0.11	Blown fuse on the motor for the bypass valve on the glycol cooling sysytem.
108	Harrington 3	03/29/13	03/29/13	0.01	Unit had to be derated due high baghouse delta pressure. The high DP is caused from compartments being taken out of service to replace failed bags.
109	Harrington 3	03/30/13	03/31/13	0.04	Unit had to be derated due to high baghouse Delta P. The high DP was due to having baghouse compartments out of service to replace failed bags.
110	Harrington 1	03/31/13	04/01/13	0.14	Planned derate was to force steam cool the turbine rotor so it could be taken off of turning gear sooner to make repairs. These repairs are related to the major outage of Jan. 2013
111	Harrington 1	04/01/13	04/06/13	5.71	Planned Outage was to make repairs to the cooling tower circ line, Turbine steam leak, Lube oil ejector, and water wall tube leak. All of these items were part of the original scope of work during the spring 2013 outage.
112	Jones 1	04/02/13	04/02/13	0.02	VFD problems casused one of two FD fans to trip thereby causing a runback/derate on the unit.
113	Harrington 3	04/04/13	04/04/13	0.01	The unit was derated due to high baghouse DP. The high DP was caused by having a baghouse compartment out of service to replace failed bags.
114	Harrington 2	04/08/13	04/17/13	4.40	Unit is derated to season new baghouse bags. We replaced all the bags in 14 compartments on the baghouse. New bags require a breaking time to season the bags.
115	Maddox 1	04/09/13	05/01/13	21.34	Unit was offline: HP, IP, LP planned outage
116	Tolk 1	04/09/13	04/20/13	11.89	Mini Boiler Outage -
117	Nichols 1	04/13/13	04/13/13	0.15	Control System Testing new Overspeed Trip Tes
118	Plant X 2	04/14/13	04/14/13	0.13	West ID fan drive problems
119	Jones 3	04/15/13	05/08/13	23.12	Planned outage to upgrade to the fast start system on J3

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
120	Tolk 1	04/20/13	04/27/13	6.81	Extension due to unexpected repairs to complete original scope of work.
121	Harrington 2	04/24/13	04/27/13	2.25	Unit had to come off line to repair a tube leak in the Platen section of the boiler.
122	Nichols 1	04/25/13	04/26/13	1.25	DA Heater Relief Valve Set Pressure is set incorrectly. Changed spring and reset valve.
123	Cunningham 2	04/26/13	05/10/13	3.28	Circ Water Pump Motor went to ground. Unit had to be derated to make repairs to the Low Pressure Heaters Drains Pump on the #8 feedwater heater. Unit cannot pull full load due to the lowered suction pressure to the Feedwater booster pumps.
124	Harrington 2	04/27/13	04/29/13	0.30	Unit had to be derated due to high baghouse DP. The high DP was due to having baghouse compartments out of service to replace failed bags.
125	Harrington 3	04/27/13	04/29/13	0.10	Checking the TDBFP discharge check valve that was cycled during outage.
126	Tolk 1	04/27/13	04/28/13	0.18	Mini Boiler Outage-Startup checking TDBFP discharge check valve that was cycled during outage-found steam leak from 1" line at drum that could not be tightened on line.
127	Tolk 1	04/28/13	04/28/13	0.50	Unit had to be derate due to E mill feeder tripping and not restarting. B mill was out of service for high vibration. Cannot pull full load with 3 remaining feeders.
128	Harrington 3	04/29/13	04/29/13	0.06	Unit had to be derated due to the ID fan operating at max capacity. Reasons for the ID fan running at max is due to a high DP across the Air Preheater and Economizer sections of the furnace gas path.
129	Harrington 3	04/29/13	04/29/13	0.00	Problem with BFP motor bearings.
130	Jones 2	04/30/13	05/02/13	0.73	Unit was off line, TWR to fix oil leak on main power transformer
131	Maddox 2	04/30/13	04/30/13	0.35	Turbine Control Valve Actuator leak & Intercept Valve Dump Valve cleaning for Valve Freedom tes
132	Nichols 3	04/30/13	05/03/13	2.94	Condenser tube leak
133	Plant X 3	04/30/13	05/03/13	2.25	Replace fuel block valve on C4
134	Cunningham 3	05/01/13	05/01/13	0.34	

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Power Plant Maintenance Information

(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
135	Harrington 2	05/01/13	05/20/13	18.41	Unit was removed from line to make repairs to a Platen section tube leak. It was discovered that the leaks were caused from overheating due to restricted flow. The restriction is from the SH Spray liner coming apart. 405.92 hours of this was liner repairs.
136	Maddox 1	05/01/13	05/02/13	1.16	4160 volt bus tripped causing trip on low drum level-had to wait for metal temps to drop before filling.
137	Maddox 2	05/01/13	05/01/13	0.24	Turning gear failure-not ready to start DC TG control power fuses blown.
138	Plant X 1	05/01/13	05/04/13	2.50	X3 condenser tube leak
139	Plant X 2	05/01/13	05/03/13	2.03	X3 condenser tube leak
140	Jones 1	05/02/13	05/16/13	13.32	Planned outage to make work on boiler to prepare for the summer months. (Boiler hot spot repairs & GSU transformer, Planned derate- outage related cooling tower repairs & checkout/testing
141	Maddox 1	05/02/13	05/03/13	0.15	Unit had to be derated due to high baghouse DP. The high DP was caused from having a baghouse compartment out of service to replace failed bags. We are also having plugging issues in the AHP and Economizer.
142	Harrington 3	05/03/13	05/03/13	0.00	Tuning on Turbine control system valve transition point
143	Maddox 1	05/03/13	05/03/13	0.21	Outage related cooling tower repairs
144	Maddox 1	05/03/13	05/17/13	2.57	Noise in FD Fan during start up, pieces of Air Preheater baskets in duct. Secured loose basket elements
145	Nichols 3	05/03/13	05/05/13	1.14	Unit was derated to steam cool the turbine rotor and empty coal bunkers for a mini outage.
146	Harrington 3	05/04/13	05/04/13	0.16	Unit is shutting down to perform a mini outage. Primary reason for outage is to wash the APH. Other items include: S. main circ line, #7 turbine bearing, condenser tubes and waterbox cleaning, 3 comp bag change.
147	Harrington 3	05/04/13	05/14/13	10.07	Contractor are repairing cooling tower. The repairs require distribution header(s) to be removed from service. If the ambient temps are high, we have to take load drops to remove the headers to keep back pressure and ACW temp in operating range.
148	Harrington 1	05/06/13	05/06/13	0.08	Boroscope Inspection of Combustion Turbine
149	Cunningham 3	05/07/13	05/07/13	0.32	Unit Offline, Borescope Finds Combustion Basket Damage
150	Cunningham 3	05/07/13	06/06/13	29.72	

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
151	Cunningham 4	05/07/13	05/07/13	0.02	Unit Offline; Gas Block Valve not holding to shut off gas
152	Harrington 1	05/07/13	05/08/13	0.25	Contractors are making repairs to the cooling tower and need distribution headers to be taken out of service. If a header is taken out of service with high ambient temps, the back pressure and ACW temps get above operating ranges
153	Jones 3	05/08/13	05/09/13	0.46	Planned outage to install fast start capability on unit
154	Jones 3	05/09/13	05/10/13	1.01	Planned outage to install fast start capability on unit
155	Plant X 4	05/09/13	05/10/13	1.00	STEAM LEAKING FROM A BOILER FEED PUMP CHECK VAVLE WAS CAUSING MOISTURE TO ACCUMULATE IN A 480 VOLT SWITCHGEAR. WE DECIDED TO SHUT DOWN BEFORE ANY ELECTRICAL DAMAGE WAS DONE.
156	Jones 3	05/10/13	05/11/13	0.74	Planned outage to install fast start capability on unit
157	Jones 3	05/11/13	05/13/13	1.93	Planned outage to install fast start capability on unit
158	Jones 3	05/13/13	05/13/13	0.15	Planned outage to install fast start capability on unit. (Unit tripped on test during fast start)
159	Jones 3	05/13/13	05/14/13	0.79	Planned outage to install fast start capability on unit. (Unit tripped on test during fast start)
160	Jones 4	05/13/13	05/13/13	0.23	Maintenance outage to change out an orifice on disc cavity three.
161	Plant X 4	05/13/13	05/13/13	0.07	Pro Tech control failed
162	Harrington 3	05/14/13	05/28/13	13.72	During the mini outage, it was discovered that the pipe liner in the circ line had failed due to what seems to be improper application. The liner will be removed and replaced with a new liner.
163	Jones 3	05/14/13	05/14/13	0.10	Planned outage to install fast start capability on unit. (Unit tripped on test during fast start)
164	Jones 3	05/14/13	05/15/13	0.73	Planned outage to install fast start capability on unit. (Unit tripped on test during fast start)
165	Plant X 1	05/15/13	05/19/13	3.51	Possible gas leak on X1 gas header
166	Harrington 1	05/16/13	05/16/13	0.00	The unit was derated due to fouling of the ESP. When this occurs, the unit opacity will spike high and not recover in the amount of time to prevnet an exceedence
167	Maddox 1	05/17/13	05/18/13	0.15	Planned derate - BFP thermocouple oil leak reapiu

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
168	Moore County 3	05/17/13	05/17/13	0.13	Unit trip was caused by loss of station power. The loss of power was due to a failure of equipment on the substation side of the system.
169	Maddox 1	05/18/13	05/20/13	0.40	Planned derate - cooling tower repairs
170	Cunningham 1	05/19/13	05/20/13	0.87	Repairs to Leak on Boiler external tubing TWR87036€
171	Jones 1	05/20/13	05/23/13	2.75	Due to issues in the substation, lost unit one on frequency control.
172	Maddox 1	05/20/13	05/29/13	0.97	Planned derate - cooling tower repairs
173	Maddox 2	05/21/13	05/21/13	0.18	Black start testing M3 per NERC Reliability Standard EOP-005-2
174	Maddox 3	05/21/13	05/21/13	0.18	Black start testing M3 per NERC Reliability Standard EOP-005-2
175	Harrington 1	05/23/13	05/24/13	0.03	Unit was derated due to high condenser back pressure. The cause of the high PB seems to be condenser related and not cooling tower related.
176	Jones 4	05/23/13	05/23/13	0.19	Unit shutdown due to gas leaks and exceeding the LEL in the turbine enclosure.
177	Tolk 1	05/23/13	05/23/13	0.00	Close #5 Turbine Governor Valve to replace spring
178	Harrington 1	05/25/13	05/26/13	0.19	Unit is derating to steam cool the turbine rotor and empty coal bunkers. Unit needs to be shut down to inspect the condenser waterboxes. Event will stay planned if the problem is circ liner related.
179	Harrington 1	05/26/13	06/01/13	6.40	Unit had to be taken offline to inspect the condenser waterboxes. Unit Back Pressure has been running higher than normal operating ranges. Unit had CT repair debris in condenser inlet. This was part of the original scope in fall 2013 outage.
180	Moore County 3	05/27/13	05/28/13	1.44	Unit had to be taken off line due to experiencing low H2 purity. The seal oil regulator mis-operated and caused oil to get into the generator and get entrained in the H2 gas and cause low purity readings.
181	Harrington 2	05/28/13	05/28/13	0.02	Unit was derated due to high baghouse delta pressure. The high DP was due to having a compartment out of service to repair failed bags.
182	Harrington 3	05/28/13	05/29/13	0.33	Unit had to perform a vibration balance shot on the turbine.
183	Harrington 3	05/29/13	05/29/13	0.31	Unit needed to perform a balance shoot on the turbine

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
184	Jones 3	05/29/13	05/29/13	0.21	Unit offline to make programming changes for the PSS requirements.
185	Jones 4	05/29/13	05/29/13	0.21	DCS upgrades for the PSS.
186	Jones 4	05/29/13	05/31/13	1.92	Due to combustor dynamics Nox emission outside of permit limits.
187	Jones 1	05/31/13	06/01/13	0.14	Due to loss of control power (blown fuses) on the BFP discharge valve the pump was out of operation.
188	Harrington 1	06/01/13	06/15/13	13.77	Unit had to be taken off line due to circ line leaks in the basement. Circ line liner failed and exposed holes in the underground pipe.
189	Harrington 3	06/01/13	06/03/13	0.22	Unit had to be derated due to high baghouse delta pressure. The high DP was caused having a several compartments out of service to repalce failed bags.
190	Plant X 2	06/01/13	06/03/13	2.21	X2 WAS TAKEN OFFLINE DUE TO A CONDENSER TUBE LEAK.
191	Cunningham 4	06/03/13	06/03/13	0.10	Unit Offline; Gas Out of Service to Replace Gas Valve
192	Jones 4	06/03/13	06/03/13	0.05	Failure of CEMs computer due to high temperatures in the enclosure.
193	Maddox 2	06/04/13	06/04/13	0.07	Black start testing M3 per NERC Reliability Standard EOP-005-2
194	Maddox 3	06/04/13	06/04/13	0.07	Black start testing M3 per NERC Reliability Standard EOP-005-2
195	Plant X 3	06/04/13	06/04/13	0.06	X123 ACW Cooling tower fan gearbox locked up and had to be replaced. The loss of the ACW cooling tower fan caused our cooling water system to get hot quickly. X3 generator windings started to overheat due to insufficient cooling
196	Jones 2	06/05/13	06/08/13	2.16	DMW failure in reheater.
197	Jones 2	06/08/13	06/09/13	1.74	High eccentricity due to loose governor nu
198	Plant X 2	06/11/13	06/11/13	0.09	X2 VOLTAGE REGULATOR INDICATED A "LOSS OF CONTROL POWER" WHICH TRIPPED THE GENERATOR OFFLINE.
199	Cunningham 4	06/12/13	06/12/13	0.47	Unit Offline; Basket Damage Repair
200	Cunningham 4	06/12/13	06/13/13	0.54	Unit Offline; Unavailable/Used Circuit Card in Unit3
201	Cunningham 4	06/13/13	06/13/13	0.19	Unit Offline; Unavailable/Used Circuit Card in Unit3
202	Harrington 3	06/19/13	06/20/13	1.08	Unit had to be taken out of service to make repairs to an external water wall tube leak.

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
203	Tolk 2	06/19/13	06/19/13	0.00	West ID Fan A & B controllers tripped fan VFD - Fan was restarted at 17:00
204	Jones 4	06/21/13	06/21/13	0.02	Trip testing
205	Maddox 1	06/21/13	06/22/13	0.19	Leak on DA Storage Door
206	Maddox 2	06/22/13	06/27/13	4.81	Unit was off line, Main power transformer PT failure on generator side, bad PT caused false indication to controls that there was a transformer problem.
207	Maddox 3	06/22/13	06/22/13	0.07	Unit was off line, Ring buss open due to Maddox 2 main power transformer PT failure on generator side, bad PT caused false indication to controls that there was a transformer problem.
208	Jones 1	06/24/13	06/24/13	0.05	Loss of east VFD FD fan due to excessive drive losses
209	Carlsbad 5	06/26/13	07/11/13	14.75	Unit Offline; Unable to Fire, Bad Pilot/Ignition Positioner
210	Jones 1	06/26/13	06/26/13	0.02	Loss of east VFD due to excessive drive losses
211	Jones 4	06/26/13	06/26/13	0.01	Startup failure due to problems in the blade path temperature controls.
212	Plant X 4	06/26/13	07/08/13	4.25	X4 took a 70MW derate to 130MW Gross due to the west cooling water circulating pump bearings failing.
213	Jones 1	06/27/13	07/01/13	0.27	Derate to keep from losing east VFD on excessive drive losses.
214	Jones 3	06/28/13	06/28/13	0.22	MO to tie in the new gas compressor fuel lines to unit #3
215	Jones 4	06/28/13	06/28/13	0.22	MO to tie in gas compressor fuel lines to unit #4
216	Jones 1	07/06/13	07/09/13	0.08	Derate to keep from losing east VFD on excessive drive losses.
217	Jones 2	07/06/13	08/02/13	26.93	Failure of the stub shaft. Stub shaft broke causing the unit to trip on high vibration on #1 bearing.
218	Jones 1	07/09/13	07/09/13	0.02	Loss of east VFD due to excessive drive losses in VFD
219	Jones 1	07/09/13	07/16/13	0.23	Derate to keep from losing east VFD on excessive drive losses.
220	Jones 3	07/09/13	07/09/13	0.26	Maintenance outage to repair leaking o-ring on fuel separator tank.
221	Jones 4	07/12/13	07/12/13	0.12	During startup of the gas compressor, the protective relays on the main breaker took the circuit breaker out.
222	Tolk 2	07/15/13	07/15/13	0.02	Maintenance on West ID fan controllers
223	Jones 1	07/16/13	07/19/13	2.35	Waterwall leak in the penthouse - NW corner just after the waterwall penetrates into the penthouse

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
224	Jones 3	07/17/13	07/17/13	0.30	Siemens installed a new actuator controller for the gas heater bypass.
225	Jones 4	07/18/13	07/18/13	0.25	Siemens installed a new actuator controller for the gas heater bypass.
226	Jones 1	07/19/13	07/19/13	0.02	Derate to keep from losing east VFD on excessive drive losses.
227	Jones 1	07/19/13	07/19/13	0.02	Derate due to loss of east VFD drive due to excessive drive losses ongoing problem.
228	Jones 1	07/19/13	07/20/13	0.03	Derate due to VFD drive to prevent runback due to excessive drive losses.
229	Plant X 4	07/19/13	07/20/13	1.10	X4 Main Power Transformer 480v Breaker to fan banks blew up in its cabinet.
230	Jones 1	07/20/13	07/20/13	0.01	Derate due to loss of east VFD drive on excessive drive losses.
231	Jones 1	07/20/13	07/26/13	0.19	Derate to keep from losing east VFD on excessive drive losses.
232	Carlsbad 5	07/23/13	07/25/13	1.81	Unit Offline; Not Ready to Start; Battery Charger Bad
233	Jones 3	07/24/13	07/24/13	0.33	Due to a bad connector in the MMC, the system thought the turning gear lube oil pumps were off causing the unit to come off turning gear. Once back on, turning gear had to stay on turning gear for 6 hours before a startup was allowed.
234	Jones 1	07/26/13	07/26/13	0.08	East FD fan out of service - Siemens to work on east VFD
235	Jones 1	07/29/13	07/29/13	0.05	Loss of east FD fan due to excessive drive losses in VFD
236	Jones 1	07/29/13	08/07/13	0.51	Unit derated to keep fan from tripping off due to VFD - excessive drive losses.
237	Maddox 1	07/29/13	07/30/13	0.09	Conserving water due to loss of wells caused by public accident taking out distribution pole.
238	Jones 3	07/30/13	07/30/13	0.16	Due to valves not set correctly on the glychol system the pumps tripped on low differential pressure therefore not providing proper cooling to the generator - unit tripped due to glychol system not running.
239	Carlsbad 5	07/31/13	08/05/13	4.90	Starting package diesel engine battery charger failure. Replaced battery charger and batteries.
240	Tolk 2	08/01/13	08/01/13	0.02	West ID Fan tripped-A & B channelks both have faults that will not reset-Electricians called out

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
241	Harrington 3	08/02/13	08/02/13	0.14	East ACW heat exchanger developed a leak and had to be taken out of service for repairs. The unit can only operate at 220mw with one heat exchanger in service.
242	Nichols 3	08/06/13	08/06/13	0.00	FD fan VFD HVAC 3 of 8 compressors on HVAC units tripped causing VFD room to overheat.
243	Nichols 3	08/06/13	08/06/13	0.01	FD fan VFD HVAC 3 of 8 compressors on HVAC units tripped causing VFD room to overheat. Continued to drop load to reduce heat load on HVAC system.
244	Jones 1	08/07/13	08/07/13	0.05	Derate due to east FD fan out of service while Siemens makes repairs to VFD.
245	Jones 1	08/07/13	08/07/13	0.03	Derated unit due to problems with east VFD unit.
246	Jones 1	08/07/13	08/08/13	0.07	Derated unit while east FD out of service for Siemens to work on VFD.
247	Tolk 2	08/09/13	08/09/13	0.14	Turbine Driven Feed pump Suction Safety blew off.
248	Tolk 2	08/09/13	08/10/13	0.70	Turbine Driven Feed pump Suction safety blew off and can not repair on line.
249	Jones 1	08/10/13	08/11/13	0.07	Derated unit due to problems with east VFD unit.
250	Jones 1	08/11/13	08/11/13	0.02	Derated unit due to problems with east VFD unit. Lost east VFD fan due to excessive drive losses
251	Jones 1	08/11/13	08/28/13	1.78	Derated unit due to problems with east VFD unit.
252	Harrington 2	08/12/13	08/12/13	0.03	Unit had to be derated due to a feedwater tube leak in the #3 HP feedwater heater. Additional items that caused the derate was #2 heater extraction out of service for transmitter issues and #1 heater being out of service because #2 heater is out of service.
253	Nichols 3	08/12/13	08/12/13	0.01	FD fan VFD HVAC 1 HVAC tripped, condenser motor failed. Reduced unit load to lower temperature in FD fan Drive room.
254	Jones 3	08/14/13	08/17/13	2.86	Waiting for gas separator to cool off to hot to put O ring on separator.
255	Cunningham 3	08/16/13	08/16/13	0.03	Unit was off line, switchyard breaker low on SF6 gas, forced outage to add gas.
256	Cunningham 4	08/16/13	08/16/13	0.03	Unit was off line, switchyard breaker low on SF6 gas, forced outage to add gas.
257	Nichols 2	08/16/13	08/23/13	0.61	1 High Pressure Heater out of service. Steam leak on gasket between head and shell. Installed pumpable clamp

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
258	Plant X 1	08/19/13	08/20/13	0.24	I.D. FAN DAMPER WAS IN MANUAL AFTER PERFORMING AN EMERGENCY CAPABILITY TEST. WHEN DROPPING LOAD AFTER THE TEST WE HAD AIR FLOW PROBLEMS CAUSING A LOSS OF F.D. FAN TRIP.
259	Harrington 3	08/20/13	08/20/13	0.13	Unit had to be derated due to having the west ACW heat exchanger out of service. The heat exchanger had a tube leak that needed to be repaired. The unit cannot maintain full load without both heat exchangers.
260	Plant X 2	08/21/13	08/22/13	0.07	Control valve pin came out.
261	Maddox 1	08/23/13	08/23/13	0.03	Struck by lightning at 1704 on 8/23. Lost DCS control, 2 cooling tower fans will not run.
262	Maddox 1	08/23/13	08/24/13	0.51	Struck by lightning at 1704 on 8/23. Lost DCS control, Dropping load to the bottom for testing and trouble shooting incase we trip.
263	Maddox 1	08/24/13	08/24/13	0.20	Struck by lightning at 1704 on 8/23. Lost DCS control, Forced outage to come off line and repair DCS. Bottled boiler, found and repaired DCS trouble, put unit back online.
264	Nichols 2	08/24/13	08/25/13	0.08	1 High Pressure Heater out of service. Steam leak on gasket between head and shell. Pumped additional sealant into clamp.
265	Maddox 1	08/27/13	08/27/13	0.06	Looking for DC ground, opened a DC breaker which caused turbine control to close turbine valves. Unit tripped on reverse power.
266	Jones 1	08/28/13	08/29/13	0.12	Derated unit due to problems with east VFD unit.
267	Jones 1	08/29/13	08/29/13	0.04	Derated unit due to problems with east VFD unit.
268	Jones 1	08/29/13	08/29/13	0.01	Derated unit due to problems with east VFD unit.
269	Jones 1	08/29/13	08/30/13	0.06	Derated unit due to problems with east VFD unit.
270	Jones 1	08/30/13	08/30/13	0.07	Broke pin on east FD fan air damper drive unit, had to take fan off line to repair.
271	Jones 1	08/30/13	08/30/13	0.01	Derated unit due to problems with east VFD unit.
272	Jones 1	08/30/13	08/30/13	0.01	Unit tripped on "Cell Bypass Fault".
273	Jones 1	08/30/13	09/16/13	1.75	Derated unit due to problems with east VFD unit.
274	Nichols 3	08/30/13	08/30/13	0.01	FD Fan VFD HVAC tripped. Dropped load to 160 MWG to lower temperature in VFD Room. Slowly increased load to 200 MWG.

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
275	Plant X 2	08/31/13	08/31/13	0.06	DERATED X2 TO 70 MW GROSS DUE TO A BOILER TUBE LEAK
276	Plant X 2	08/31/13	09/04/13	3.08	X2 boiler tube leak
277	Cunningham 4	09/02/13	09/02/13	0.41	Unit Offline; Nox Bottle Pressure Alarm/CEMS Calibration
278	Harrington 2	09/02/13	09/18/13	15.10	Unit has a 180 deg crack on a finishing superheat inlet header "T".
279	Cunningham 2	09/13/13	09/28/13	15.01	Planned Outage/Boiler & Misc. Work.
280	Nichols 3	09/13/13	10/18/13	35.11	Generator Inspection and Hitt Skid tests to check for water leaks in Stator Cooling connections
281	Harrington 1	09/15/13	09/16/13	0.11	Unit was derated to prevent opacity exceedences due to ESP fouling. Lack of dead rapping the ESP and chemical pump failures added to this event.
282	Moore County 3	09/15/13	12/31/13	0.00	Moore County was shut down to retire the unit
283	Jones 1	09/16/13	09/23/13	0.57	Derated unit due to problems with east VFD unit.
284	Jones 2	09/18/13	09/20/13	1.21	Waterwall tube leakage on "C" corner just above the burners
285	Harrington 2	09/19/13	09/21/13	1.07	Tube Leak Platen Section
286	Maddox 2	09/20/13	09/20/13	0.18	Unit was off line. Insurance requirements have asked us to install a transformer protection fire wall to protect the gas fuel line in the event of fire.
287	Tolk 1	09/21/13	09/22/13	0.59	Unit trip was a result of loss of equipment after sub-station TK43 trip of Unit 2. Multitude of alarms lead to critical alarms being missed. Low pressure heater drains and condensate pump trips lead to unit trip.
288	Tolk 2	09/21/13	09/21/13	0.17	Unit tripped due to the failure of TK43 in substation. 286 substation relay trip operated.
289	Tolk 1	09/22/13	10/01/13	9.74	Turbine Mini Outage-Vlv issues (#3 Gov vlv , steam leak #2 GV drain line, circ line repair, reset limits/torque settings on mtr op SH spray block vlv, steam traps, safeties on MD & TD BFP's, boiler drain vlv, repk W Blr Circ Disc vlv) #1 throttle vlv
290	Harrington 1	09/23/13	09/23/13	0.01	ESP is fouling and causing opacity spikes. Unit had to be derated to prevent any possible exceedences. Fouling is not being aided by dead rapping ESP.
291	Tolk 2	09/23/13	09/23/13	0.04	Inboard bearing got hot on the west condensate pump
292	Harrington 1	09/24/13	09/24/13	0.01	Unit is derated to prevent Opacity exceedences. The ESP is fouled.

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
293	Harrington 1	09/27/13	09/27/13	0.05	Unit was derated to prevent Opacity Exceedences. The EOP is fouling for unknown reasons.
294	Tolk 2	09/27/13	09/28/13	0.06	East ID fan indicated tripped and Unit runback initiated, look into controls problems.
295	Harrington 1	09/28/13	09/29/13	0.01	Unit was derated to prevent opacity exceedences. The ESP is fouling for unknown reasons.
296	Maddox 2	09/28/13	12/31/13	95.04	Combustion Inspection Major
297	Tolk 1	10/01/13	10/02/13	0.18	Problems with the Turbine Driven Boiler Feedpump roll to 1000rpm
298	Harrington 2	10/05/13	10/15/13	10.23	Unit was taken offline due to inadequate boiler water chemistry caused from a condenser tube leak or a failed tube sheet plug.
299	Plant X 2	10/05/13	10/05/13	0.41	Gas firing valve
300	Plant X 4	10/05/13	10/07/13	1.74	Water wall tube leak
301	Jones 2	10/10/13	10/11/13	0.46	Loss of normal source transformers due to contractor and the fact that the startup transformer was out of service.
302	Quay County 1	10/11/13	11/08/13	28.06	Unit was on line for a few seconds. The problem appears to be a failure of the Unit Inverter.
303	Jones 1	10/12/13	10/12/13	0.09	Loss of west FD fan due to loss of control power on the VFD.
304	Harrington 2	10/15/13	10/17/13	1.30	Unit is derated on start up due to inadequate water quality caused from a condenser tube plug failure.
305	Harrington 3	10/16/13	10/16/13	0.07	Unit was derated to steam cool the turbine rotor and empty coal bunkers to prepare for the planned mini outage.
306	Harrington 3	10/16/13	10/25/13	8.86	Unit went into a planned mini outage to: Wash APH, inspect penthouse welds, inspect generator backing ring supports, change all ACW HE valves, and inspect B/H dampers.
307	Nichols 3	10/18/13	10/30/13	11.78	Stator water leaks were repaired, but outage is extended as a result of delays.
308	Tolk 1	10/18/13	10/20/13	2.68	Replace West Air preheater Gearbox
309	Harrington 2	10/19/13	10/19/13	0.03	Unit had to be derated due to having 2 mills out of service. We were calibrating feeders which makes a mill unavailable and had to take another out of service due to the vertical thrust bearing getting hot.
310	Maddox 1	10/20/13	11/08/13	20.00	Reheat Intercept/Stop Valves Work

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
311	Cunningham 4	10/25/13	12/31/13	67.71	Major Overhaul
312	Harrington 2	10/25/13	10/25/13	0.09	Unit was derated because the DC motor control board failed. D mill is out of service due to the thrust bearing being replaced. This left us with 3 mills in service.
313	Harrington 2	10/25/13	10/25/13	0.02	Unit was derated due to A mill feeder motor DC control board failed again and had to be replaced. D mill was also out of service to repair the thrust bearing, leaving us with 3 feeders in service.
314	Harrington 3	10/25/13	11/05/13	10.51	Unit outage has been extended to make additional inspections to the superheat inlet header tee welds
315	Jones 1	10/25/13	12/23/13	58.82	LP Turbine/Generator planned outage
316	Harrington 1	10/28/13	11/07/13	2.85	The unit had to be derated to prevent opacity exceedences. The ESP has 2 TR sets out of service and 2 others at half load.
317	Cunningham 3	10/30/13	10/31/13	0.87	Unit Offline; Exhaust Silencer Inspection
318	Maddox 3	10/30/13	10/31/13	1.02	Unit was off line, replace sync PT
319	Nichols 3	10/30/13	10/30/13	0.03	The unit tripped on low vacuum resulting from hogging jet valve misoperation.
320	Nichols 3	10/31/13	10/31/13	0.01	Reload software on Turbine Control System to change the tuning parameters.
321	Nichols 3	11/01/13	11/02/13	0.82	Voltage regulator cooling fans failed. Three fans slipped on the shaft and rubbed. The regulator tripped on high temperature.
322	Harrington 2	11/02/13	11/02/13	0.04	Unit had to be derated due to contaminated condensate and feedwater systems. We had a major contamination outage last month and started a piece of equipment that had contaminated water in it that caused a slight contamination.
323	Tolk 2	11/05/13	11/05/13	0.00	West ID Fan on unit 2 tripped due to the electricians hooking up high speed data recorders.
324	Harrington 1	11/07/13	11/07/13	0.15	The planned derate was to steam cool the turbine rotor and empty coal bunkers for the planned mini outage.
325	Harrington 1	11/07/13	11/24/13	16.63	Planned outage with scope of work being: APH wash, Circ suction Hood replacement, 6900/480 feeder breaker relay install, NCT distribution line valve replacements, and inspection and repair of ESP, Circ Line liner, penthouse welds, and generator

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
326	Maddox 1	11/08/13	11/09/13	0.17	Cooling Tower Header Distribution Valves Not Holding
327	Maddox 1	11/09/13	11/09/13	0.01	Cooling Tower Rebuild Work
328	Maddox 1	11/09/13	11/09/13	0.14	High gas burner pressure (excess O2 probes failed)
329	Maddox 1	11/09/13	11/10/13	0.77	Cooling Tower Rebuild Work
330	Cunningham 1	11/10/13	11/11/13	0.46	Accurate cems readings unavailable to control room and cems building. Working to resolve issues. Can move Load if needed for emergency ONLY.
331	Maddox 1	11/10/13	11/15/13	1.70	Cooling Tower Rebuild Work
332	Nichols 3	11/10/13	11/11/13	0.38	South Circulating Water Line leaked on discharge pipe. Welded a patch over the hole.
333	Jones 2	11/11/13	11/17/13	5.85	Switchyard maintenance and upgrade - OMC
334	Nichols 3	11/12/13	11/13/13	0.72	Voltage Regulator tripped due to failure of the DX Module. Module was replaced.
335	Plant X 2	11/12/13	11/12/13	0.70	X2 gas firing valve lost ability to be controlled from the control room. The gas burner pressure continued to drop, causing the unit to trip offline.
336	Plant X 2	11/12/13	11/13/13	0.34	Boiler feed pump struggling to maintain drum level
337	Quay County 1	11/12/13	11/13/13	1.18	Black Start failed. Emergency Diesel Generator wouldn't start. Engine lost prime. Also, combustion turbine tuning parameters were lost from PLC memory during station battery changeout.
338	Jones 4	11/13/13	11/13/13	0.19	Flange leaking on inlet heating air line
339	Carlsbad 5	11/15/13	11/15/13	0.11	Unit offline; Not Ready to Start; House Service Air Compressor
340	Maddox 1	11/15/13	11/15/13	0.07	Cooling Tower Rebuild Work
341	Maddox 1	11/15/13	11/15/13	0.12	Cooling Tower Rebuild Work
342	Maddox 1	11/15/13	11/16/13	0.17	Cooling Tower Rebuild Work
343	Nichols 3	11/15/13	11/15/13	0.26	Voltage Regulator tripped. The controls were slamming the Fans on and off. Regulator tripped on loss of both fans. Installed jumpers so that fans run if 41A breaker is closed.
344	Carlsbad 5	11/16/13	11/18/13	2.54	Unit offline; Not Ready to Start; House Service Air Compressor
345	Maddox 1	11/16/13	11/16/13	0.31	Cooling Tower Rebuild Work
346	Maddox 1	11/16/13	11/25/13	3.13	Cooling Tower Rebuild Work

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
347	Jones 2	11/17/13	11/17/13	0.25	Operations took unit off line because they thought the PSS was not operating correctly, but actually the unit had not reached a sufficient load for the PSS to activate.
348	Harrington 2	11/18/13	11/18/13	0.03	Unit had to be derated to take #6 turbine governor valve had to be removed from service to replace a broken spring
349	Cunningham 3	11/19/13	11/22/13	3.15	Unit Offline; Exhaust Silencers Repairs
350	Harrington 3	11/19/13	11/19/13	0.13	The DC oil pump on the main feed pump would not shut down after the periodic test. The feed pump was removed from service to make repairs to pressure switch.
351	Maddox 3	11/19/13	11/19/13	0.31	Blade path temperature spread, bad thermocouples
352	Jones 3	11/20/13	11/21/13	1.37	Loss of primary and backup CP's that control gas valve
353	Jones 4	11/20/13	11/21/13	1.37	Loss of primary and backup CP's that control gas valve
354	Nichols 3	11/20/13	11/20/13	0.06	South Boiler Feed Pump casing drain valve line was leaking between the pump and the valve. Nichols welders replaced the line and the valve.
355	Maddox 3	11/21/13	11/21/13	0.22	Blade path temperature spread, bad thermocouples
356	Maddox 3	11/21/13	11/21/13	0.01	Blade path temperature spread, bad thermocouples
357	Tolk 2	11/22/13	11/22/13	0.06	West FD Fan controller A & B channel tripped causing fan trip - load drop to reset
358	Harrington 2	11/23/13	11/23/13	0.02	Unit had to be derated due to 2 baghouse compartments being taken out of service to repair baghouse bags and prevent opacity exceedences.
359	Plant X 3	11/23/13	11/28/13	4.58	Collector brush failure
360	Maddox 1	11/25/13	11/25/13	0.04	Water well power lines down due to ice build up
361	Maddox 1	11/25/13	12/10/13	5.28	Cooling Tower Rebuild Work
362	Plant X 3	11/28/13	11/28/13	0.05	Collector brush failure
363	Plant X 3	12/02/13	12/02/13	0.07	Pro Tech A module bad
364	Carlsbad 5	12/05/13	12/06/13	0.56	Instrument air compressor trouble
365	Jones 3	12/06/13	12/06/13	0.24	Unit tripped during startup due to blade path temperature spread - clean witch hat strainers.
366	Jones 4	12/06/13	12/06/13	0.09	Pressure relief valve located on fuel separator tank stuck open. Took unit off at marketers discretion to replace valve.
367	Harrington 1	12/07/13	12/08/13	0.20	The unit was derated due to the AB chemical lance freezing up and not allowing us to inject chemicals into the boiler exhaust duct work.

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
368	Cunningham 3	12/09/13	12/10/13	0.09	Unit Offline; Electrical Package door blew open and recieved a not ready to start due to low temps
369	Maddox 1	12/10/13	12/11/13	0.65	Cooling Tower Rebuild Work
370	Maddox 1	12/11/13	12/14/13	1.12	Cooling Tower Rebuild Work
371	Maddox 1	12/14/13	12/14/13	0.22	Cooling Tower Rebuild Work
372	Maddox 1	12/14/13	12/16/13	0.58	Cooling Tower Rebuild Work
373	Cunningham 3	12/16/13	12/20/13	4.15	Unit Offline; Repair Leaks on Breaker L915
374	Maddox 1	12/16/13	12/16/13	0.22	Cooling Tower Rebuild Work
375	Maddox 1	12/16/13	12/31/13	5.49	Cooling Tower Rebuild Work
376	Quay County 1	12/16/13	12/31/13	3.33	Derate due to permit limitations
377	Harrington 2	12/20/13	12/20/13	0.02	Unit was derated due to high Baghouse delta pressure. The high DP was caused from having 2 bh compartments out of service at the same time due to bag failures.
378	Tolk 2	12/20/13	12/20/13	0.02	Tolk 2 Generator cooling line leak at coupling, isolate part of generator cooler to repair leak
379	Jones 1	12/23/13	12/31/13	2.82	Planned derate after overhaul and boiler acid cleaning to clean up water chemistry.
380	Harrington 3	12/30/13	12/30/13	0.19	Repair North Condensate Pump. Using a lot of oil.
2014					
1	Cunningham 4	01/01/14	04/24/14	113.37	Major Overhaul
2	Jones 1	01/01/14	01/04/14	1.09	Planned derate to clean up boiler water chemistry after superheat tube replacement and boiler acid cleaning during 2013 outage.
3	Maddox 1	01/01/14	05/01/14	42.92	Cooling Tower Rebuild Work
4	Maddox 2	01/01/14	02/04/14	34.55	Combustion Inspection Major
5	Quay County 1	01/01/14	01/23/14	4.53	Derate due to permit limitations
6	Harrington 2	01/02/14	01/03/14	0.04	Unit was derated due to high baghouse DP caused from having 2 compartments out of service to replace failed bags
7	Harrington 2	01/03/14	01/03/14	0.32	Unit was derated to empty coal bunkers and steam cool the turbine rotor to prepare for a major outage.
8	Harrington 2	01/03/14	03/31/14	86.36	Unit was shutdown to perform a major outage.
9	Harrington 3	01/06/14	01/14/14	7.62	Unit tripped off line due to the winding insulation between the AC Exciter and Rectifier Wheel failed and caused winding damage.

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
10	Cunningham 3	01/07/14	01/07/14	0.08	Trip on StartUp - Gas Flow Control Valve/Pressure Regulator
11	Jones 1	01/07/14	01/24/14	7.49	Derate due to taking one of two main circulating pumps off. Suspect clogging of the west distribution header on J1 cooling tower - stand pipe overflows with both circ pumps on. New liner was installed in 2013 outage; suspect liner coming loose (overspray). Replace leaking gasket on inlet heating flange
12	Jones 4	01/07/14	01/07/14	0.14	
13	Cunningham 3	01/08/14	01/09/14	1.01	Trip on StartUp - Gas Flow Control Valve/Pressure Regulator
14	Harrington 1	01/08/14	01/15/14	0.86	Unit is derated to prevent opacity exceedences due to having several TR sets out of service due to faults
15	Jones 3	01/09/14	01/09/14	0.17	Cleaned inlet fuel strainers (witchhat).
16	Nichols 3	01/10/14	01/12/14	2.55	A crack developed in the DA heater drive steam line. Replaced 12x14 reducer at DA heater connection.
17	Harrington 3	01/14/14	01/14/14	0.12	Unit was put on line and held at this load to warm up the turbine components to make a balance shot
18	Harrington 3	01/14/14	01/14/14	0.27	Unit was taken off line to make a balance move.
19	Harrington 1	01/15/14	01/16/14	1.00	Unit was taken off line to make repairs to 3 TR sets in the ESP. The loss of TR sets was causing a derate to prevent opacity exceedences.
20	Plant X 4	01/17/14	01/20/14	2.93	Boiler feed pump leaking
21	Jones 1	01/24/14	02/07/14	14.45	Outage due to circ line liner coming off and fouling the header pipe on the cooling tower. This will continue the fall 2013 outage due to the fact the liner was installed during the outage.
22	Jones 3	01/24/14	01/24/14	0.00	Startup was aborted due to substation crew needing to add SF6 gas to the transformer and lack of communication between Amarillo dispatch and marketing.
23	Tolk 2	01/24/14	01/24/14	0.30	Contractor landed a wire on the wrong contact, tripping the 2-86 SUB relay in the sub station causing immediate trip of unit.
24	Cunningham 3	01/27/14	01/27/14	0.33	Unit Offline;Repair Inst. Air Compressor Valves
25	Jones 2	01/27/14	01/27/14	0.06	Second BFP would not start due to problems with the controls.

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
26	Tolk 1	01/29/14	01/31/14	1.60	Reheat tube leak coming off line at normal rate, when ????? happened and automatic trip took unit off line.
27	Jones 3	01/31/14	01/31/14	0.27	Unit offline to clean three fuel strainers (#1, #2, #3 witch hat strainers).
28	Tolk 1	01/31/14	01/31/14	0.15	Found large crack in P.A. Ductwork, coming down on load to remove coal from boiler to repair ductwork. Will stay on line with warm-up gas.
29	Harrington 3	02/01/14	02/01/14	0.07	Unit was derated to remove a mill at a time to check damper drive welds on exhauster linkage. C Mill has a failure on its linkage and we wanted to check the other mills.
30	Tolk 2	02/01/14	02/01/14	0.40	Loss of F bus causing turbine trip on high drum level-result of generator tripped on reverse power while work was being done on #2 B Mill oil pump that had a leak.
31	Tolk 2	02/01/14	02/02/14	0.48	Turbine Driven Boiler Feedpump onboard pump bearing vibration increased to trip limit as pump was loaded up and pump tripped.
32	Jones 4	02/03/14	02/03/14	0.66	Inlet air system (DAIS) tripped causing timer before unit can start.
33	Cunningham 1	02/05/14	02/05/14	0.31	Unit Startup - LP Rupture Disk Failure
34	Jones 1	02/07/14	02/08/14	0.43	Planned derate to clean up water chemistry (silica) after prolonged outage.
35	Tolk 2	02/08/14	02/08/14	0.00	East ID Fan A channel tripped, had to drop load to take B channel off to reset fan processor
36	Maddox 1	02/09/14	02/10/14	0.81	Lightning arrestor short to ground on main power transformer, due to heavy dense fog.
37	Jones 1	02/10/14	02/10/14	0.00	Removed one of two condensate pumps from service to change oil due to water in oil.
38	Maddox 1	02/10/14	02/11/14	0.74	Tripped, field breaker closed too early during startup.
39	Maddox 2	02/10/14	02/10/14	0.05	(unit was off line) DC lube oil pump contactor trouble. Cleaned and exercised contactor.
40	Tolk 1	02/11/14	02/11/14	0.03	Feedwater Heater #1 has a tube leak and unable to isolate heater due to feedwater inlet valve packing leaking
41	Plant X 3	02/13/14	02/14/14	1.51	Brought off line for commissioning of GCB X947KV breaker
42	Carlsbad 5	02/14/14	02/14/14	0.08	PLC, bad communication, reboot PLC

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
43	Jones 1	02/14/14	02/14/14	0.03	Developed a small pinhole leak in the east circ pipe from the circ pump to the waterbox. Able to isolate and weld patch on pinhole.
44	Maddox 2	02/18/14	02/18/14	0.25	Replace thermocouples
45	Nichols 1	02/18/14	02/20/14	1.79	The circulating water return line had a small leak that was repaired while the unit was off line. The patch required curing time.
46	Maddox 2	02/24/14	02/24/14	0.25	Repair perimeter lighting, unit unavailable for worker safety under high voltage power lines.
47	Maddox 3	02/24/14	02/28/14	4.39	Replace thermocouples
48	Tolk 1	02/24/14	02/25/14	0.47	Loss of seal on the inboard pump - west boiler feedwater booster pump. (Center pump is already out of service)
49	Cunningham 3	02/26/14	02/28/14	2.03	Tripped by Fire System - Bearing #5
50	Jones 1	02/27/14	03/01/14	1.05	Inboard bearing on west circ pump became hot shut down circ pump to repair derated due to loss of one circ pump.
51	Tolk 1	03/01/14	03/03/14	1.03	TDBFP has a leak at the horizontal joint of the steam chest
52	Tolk 2	03/01/14	03/02/14	0.08	Reduce load due to boiler tube leak need load Unit 1 is derated
53	Cunningham 3	03/02/14	03/06/14	3.77	Tripped by Fire System - Bearing #5
54	Jones 3	03/02/14	03/10/14	7.99	Startup failure due to blade path temperature spread.
55	Tolk 2	03/02/14	03/02/14	0.48	Reduce load due to Boiler tube leak - need load Unit 1 derated
56	Tolk 2	03/02/14	03/03/14	0.23	Reduce load due to Boiler tube leak - Unit now off line to repair tube leak
57	Tolk 2	03/03/14	03/04/14	1.68	Off line to repair tube leak - waterwall tube 13th floor
58	Maddox 2	03/04/14	03/08/14	4.44	Starting package outboard nearing temp high
59	Nichols 2	03/04/14	03/07/14	0.24	Low pressure heater drains pump failure. Unit derated by 9 MW.
60	Harrington 1	03/05/14	03/07/14	0.92	East side ESP rappers failed and we could not remove ash from the plates and wires sets. With only one half of the ESP in service, we could only pull partial load.
61	Quay County 1	03/05/14	03/05/14	0.27	OMC - Substation Dept changing Current Transformer in substation
62	Harrington 3	03/07/14	03/07/14	0.03	Had to remove D coal mill due to a coal leak. C mill is o/s for repairs and this left us with a 3 mill operation causing the load derate

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
63	Plant X 3	03/07/14	03/07/14	0.14	Unit tripped due to gas firing valve
64	Tolk 2	03/07/14	03/07/14	0.01	East ID Fan tripped-did not receive any alarms on screen telling why
65	Jones 3	03/10/14	03/11/14	0.93	Unit trip due to high blade path temperature spread.
66	Tolk 2	03/10/14	03/10/14	0.01	Monitoring tube leak
67	Tolk 2	03/10/14	03/11/14	0.05	Monitoring tube leak
68	Jones 3	03/11/14	03/12/14	0.80	Unit trip on high blade path differential.
69	Plant X 3	03/11/14	03/11/14	0.09	Generator winding temp
70	Tolk 2	03/11/14	03/12/14	1.48	Tube leak - found tube leak on waterwall tube 10 floor/repaird and 3/12 at 5:56 rolled turbine and tripped due to N main steam drain leak @ 6:10 on 3/12 was back on turning gear due to N Main steam drain valve blew out never hit line
71	Plant X 3	03/12/14	03/19/14	7.14	Possible blown tube on waterwall
72	Harrington 3	03/13/14	03/13/14	0.04	Unit had to be derated due to having only 3 mills available. We had to get quartly feed calibrations done and c mill is out of service for repairs from a past failure.
73	Jones 2	03/14/14	03/16/14	2.06	High eccentricity during shutdown - loose eccentricity wheel.
74	Jones 1	03/18/14	03/20/14	2.81	Install new AC units on VFD house.
75	Tolk 2	03/20/14	05/14/14	55.96	Scope-Boiler chem clean, IV & TV insp, TDBFP element replacement, RH sec replace, Bull nose replace, SOFA/Low NOx burner retro, cond/wtr box insp & clean, LP 1&2 insp, main & little turbine OS trip retro, Exciter insp, gen crawl thru,Clean/insp Cool Twr
76	Harrington 3	03/22/14	03/22/14	0.03	Unit had to be derated due to having only 3 mills available. We had to get quatly feeder calibrations done and c mill is out for repairs from a past failure.
77	Nichols 3	03/23/14	03/26/14	1.74	Air preheater electric motor failed and air operated motor failed.
78	Cunningham 1	03/25/14	03/27/14	2.07	Repair Air Preheater Drain Lines
79	Cunningham 3	03/25/14	03/27/14	2.18	Trip at Full Load; Blade Path Temp Diff.
80	Jones 4	03/25/14	03/26/14	0.86	Repair leaking flange on rotor air cooling system
81	Nichols 3	03/27/14	04/02/14	0.45	The unit is derated to 235 MW Gross / 225 MW Net due to a tube leak in the #4 feedwater heater. The feedwater heater is out of service.

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
82	Cunningham 3	03/28/14	03/28/14	0.39	Change out Gas Valve
83	Harrington 3	03/29/14	03/29/14	0.10	D mill had to be removed from service due to a journal bearing failure. C mill is still out of service for repairs, so this left us with a 3 mill operation.
84	Harrington 2	03/31/14	03/31/14	0.14	Unit is returning to service from a 3 month outage and will be derating due to water chemistry and baghouse bag seasoning.
85	Harrington 2	03/31/14	04/01/14	0.76	Unit was removed from line to do a balance move on the turbine.
86	Harrington 2	04/01/14	04/01/14	0.07	Unit was derated to make balance move checks and collect data for another balance move.
87	Harrington 2	04/01/14	04/01/14	0.27	Unit was removed from line to make balance moves and stroke valves on the turbine.
88	Harrington 2	04/01/14	04/01/14	0.07	Unit is derated to make checks on balance moves and collect data for more balance moves.
89	Harrington 2	04/01/14	04/02/14	0.63	Unit was taken off line to make a balance move on the turbine.
90	Jones 1	04/01/14	04/01/14	0.08	Due to problem with level transmitter on DA, level went high causing boiler upset which eventually lead to drum level swing and unit tripped on high drum level.
91	Harrington 2	04/02/14	04/02/14	0.12	Unit is derated to check balance moves and collect data for another possible move.
92	Harrington 2	04/02/14	04/02/14	0.24	Unit off line to make balance moves on the turbine
93	Harrington 2	04/02/14	04/03/14	0.44	Unit is derated to check balance moves and collect data for another balance move.
94	Plant X 2	04/02/14	04/03/14	0.62	Had to shut down to work on gas firing valve problem
95	Harrington 2	04/03/14	04/05/14	1.74	Unit was removed from line to make a balance move on the LP coupling.
96	Harrington 3	04/04/14	04/04/14	0.11	Normal and redundant CP 3003 failed. This failure caused the loss of the WHIPS system and the Main Boiler Feed Pump.
97	Harrington 3	04/04/14	04/04/14	0.08	Unit was derated due to water chemistry being out of operating range. The chemistry upset was caused by the earlier upset.
98	Harrington 2	04/05/14	04/05/14	0.10	Unit has to be derated to check balance moves and gather data for another balance move.

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
99	Harrington 2	04/05/14	04/05/14	0.22	Unit was taken off line to make a balance move to the turbine.
100	Harrington 2	04/05/14	04/06/14	0.31	Unit was derated to check balance moves and collect data for another move.
101	Harrington 1	04/06/14	04/07/14	0.03	Unit was derated due to high opacity readings. The ESP was not performing within operating ranges and the load drop prevented opacity exceedences.
102	Harrington 2	04/06/14	04/26/14	20.76	Unit was taken off line to make balance moves and determine the source of the LP turbine vibration.
103	Jones 1	04/08/14	04/08/14	0.05	One of two BFPs out of service to calibrate a flow transmitter.
104	Maddox 2	04/10/14	04/10/14	0.09	Blade path temperature, bad thermocouple
105	Cunningham 2	04/11/14	04/17/14	6.12	Boiler Inspection
106	Maddox 2	04/11/14	04/14/14	2.97	Water injection GPM out of permit range.
107	Cunningham 3	04/14/14	04/14/14	0.12	Trip at Full Load; Low Fuel Press. Cleaned Strainer;
108	Cunningham 3	04/14/14	04/15/14	0.45	Unit Offline; Unable to reset Overspeed Trip
109	Harrington 3	04/14/14	05/12/14	17.28	The unit was derated due to the West ID fan motor going to ground. This event caused the unit to lose the west ID and FD fan set. The motor is having to be rewound.
110	Quay County 1	04/16/14	04/16/14	0.05	The unit tripped on low hot oil tank level. Oil cooling valve adjustments were required to resolve the problem
111	Quay County 1	04/16/14	04/16/14	0.02	The unit tripped on Lube oil bearing temperature high. This problem required additional lube oil cooling valve adjustments.
112	Jones 3	04/17/14	04/17/14	0.61	Replace #2 burner fuel housing.
113	Jones 3	04/21/14	04/22/14	0.84	CEMS system off due to a failed sample pump. No CEMS available to monitor emissions
114	Cunningham 1	04/24/14	05/02/14	7.63	#4 HP Heater Head Leak
115	Cunningham 4	04/24/14	04/24/14	0.00	Major Overhaul Test Run
116	Cunningham 4	04/24/14	04/24/14	0.27	Major Overhaul
117	Cunningham 4	04/24/14	04/24/14	0.00	Major Overhaul Test Run
118	Cunningham 4	04/24/14	04/26/14	1.92	Major Overhaul
119	Cunningham 4	04/26/14	04/26/14	0.01	Major Overhaul Test Run
120	Cunningham 4	04/26/14	04/27/14	0.94	Major Overhaul
121	Harrington 2	04/26/14	04/27/14	0.27	Unit was run at a derated load to capture vibration data on the main turbine.

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Power Plant Maintenance Information

(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
122	Cunningham 4	04/27/14	04/27/14	0.00	Major Overhaul Test Run
123	Cunningham 4	04/27/14	05/02/14	4.77	Major Overhaul
124	Harrington 2	04/27/14	04/27/14	0.39	Unit was removed from line to make a balance move on the main turbine
125	Harrington 2	04/27/14	04/28/14	0.21	Unit was derated to collect vibration data for the main turbine
126	Jones 3	04/27/14	04/28/14	1.08	Loss of communication on the T-3000 (server locked up)
127	Jones 4	04/27/14	04/28/14	1.39	Loss of communication on the T-3000 (server locked up)
128	Harrington 2	04/28/14	04/28/14	0.40	Unit was removed from line to make turbine balance moves
129	Harrington 2	04/28/14	04/29/14	0.30	Unit was in a derate to collect turbine vibration data.
130	Jones 3	04/28/14	05/02/14	4.05	Maintenance outage to perform a borescope on unit
131	Harrington 2	04/29/14	04/29/14	0.46	Unit was taken off line to make balance moves to the main turbine.
132	Harrington 2	04/29/14	04/30/14	0.26	Unit is derated to collect vibration data on the turbine.
133	Harrington 2	04/30/14	04/30/14	0.47	Unit was taken off line to make a balance move.
134	Harrington 2	04/30/14	04/30/14	0.11	Unit is derated to collect vibration data on the main turbine
135	Harrington 2	04/30/14	04/30/14	0.29	Unit was taken off line to make balance moves
136	Harrington 2	04/30/14	05/01/14	0.53	Unit is in a derate to collect vibration data on the main turbine.
137	Jones 1	04/30/14	04/30/14	0.15	Control card on the gas firing valve controller (Blac Drive) vibrated loose causing valve to closs and boiler to trip on loss of fuel.
138	Jones 1	04/30/14	04/30/14	0.29	Delay of startup after boiler trip due to high differential expansion.
139	Harrington 2	05/01/14	05/04/14	2.59	Excitor Lead went to ground - Tripped Unit
140	Jones 4	05/01/14	05/01/14	0.02	Performed a repair/upgrade to computer server so unit was unavailable.
141	Maddox 1	05/01/14	05/01/14	0.37	5 year black start test
142	Maddox 1	05/01/14	05/11/14	9.71	Boiler inspection and Cooling Tower work
143	Maddox 2	05/01/14	05/01/14	0.37	5 year black start test
144	Maddox 3	05/01/14	05/01/14	0.37	5 year black start test
145	Cunningham 4	05/02/14	05/02/14	0.00	Major Overhaul Test Run
146	Cunningham 4	05/02/14	05/06/14	3.81	Major Overhaul
147	Jones 1	05/02/14	05/02/14	0.06	East main circ tripped on high amps.
148	Jones 1	05/03/14	05/03/14	0.07	East main circ tripped on high amps.

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
149	Jones 2	05/03/14	05/06/14	0.23	HP heaters out of service due to a leaking heater drains valve.
150	Harrington 2	05/04/14	05/13/14	3.93	Seasoning of new bags
151	Jones 3	05/05/14	05/05/14	0.09	Startup failure due to high blade path temperature differential.
152	Cunningham 4	05/06/14	05/06/14	0.01	Major Overhaul Test Run
153	Cunningham 4	05/06/14	05/06/14	0.18	Major Overhaul
154	Jones 4	05/06/14	05/08/14	2.49	Maintenance outage to perform a borescope on unit
155	Jones 3	05/08/14	05/08/14	0.06	Unit failed startup due to high blade path temperature differential.
156	Jones 3	05/08/14	05/09/14	1.01	Unit failed startup due to high blade path temperature differential.
157	Cunningham 3	05/10/14	05/10/14	0.04	Tripped on under voltage
158	Plant X 4	05/10/14	05/15/14	1.97	East boiler feed pump gear box failure
159	Cunningham 1	05/11/14	05/14/14	2.35	HP feed water piping leaking near FWH.
160	Harrington 3	05/12/14	05/25/14	12.74	Unit was taken off line for a minor outage to make repairs to Mill Ductwork, ID Fan Motor Inspections and install, Condenser Circ liner inspection, HE cleaning, & 6900/480 breaker relays.
161	Harrington 2	05/13/14	05/16/14	0.05	Unit is derated to gather vibration data on the turbine at near full load capabilities.
162	Tolk 2	05/14/14	06/14/14	30.64	Original Scope- LP 1 & 2 insp - LPTurbine Innershell discovery work-alignment & Vibration issues
163	Jones 1	05/15/14	05/15/14	0.21	Discovered hole in east riser bypass line had to clear out circ pumps to make repairs.
164	Tolk 1	05/15/14	05/15/14	0.44	Woodward turbine control system locked up
165	Harrington 2	05/16/14	05/20/14	3.52	Unit tripped due to a fuse in the generator PT vibrating loose from the generator stator vibration. This was original scope of work in 2014 major outage.
166	Jones 3	05/17/14	05/20/14	2.97	Took unit offline due to excessive Nox emissions - unit removed from service to prevent exceedance
167	Jones 4	05/17/14	05/17/14	0.05	Unit trip due to high gas concentrations in the turbine enclosure - leaking gas pressure transmitter.
168	Jones 1	05/19/14	05/19/14	0.14	Right side governor valves would not open - servovalve needed tuning to actuate valve.
169	Cunningham 3	05/20/14	05/20/14	0.05	Unit was not online. Could not synchronize, blown PT fuse

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
170	Harrington 2	05/20/14	05/20/14	0.01	Unit is derated to gather vibration data on the main turbine to determine if balance moves are needed
171	Harrington 2	05/20/14	05/22/14	1.73	Unit was taken off line to make balance moves on the generator rotor.
172	Cunningham 3	05/21/14	05/22/14	0.61	Overspeed trip would not reset after overspeed test
173	Cunningham 1	05/22/14	05/23/14	0.43	Fix high pressure heater number 4 heater head leak
174	Harrington 1	05/22/14	05/22/14	0.12	Unit was derated due to the loss of the Main Feedpump. The unit lost the feedpump when a strike of lightning hit in the plants substation.
175	Harrington 2	05/22/14	05/23/14	0.43	Unit was derated to collect vibration information.
176	Madbox 1	05/22/14	05/22/14	0.04	High drum level trip
177	Harrington 2	05/23/14	05/23/14	0.32	Unit was taken off line to make balance moves
178	Harrington 2	05/23/14	05/24/14	0.01	Unit is derated to monitor and gather data on turbine vibration.
179	Harrington 2	05/24/14	05/24/14	0.06	Unit was derated due to C Mill feeder motor tripping. This leaves us with a 3 mill operations due to repairs being made on D mill.
180	Harrington 2	05/24/14	05/24/14	0.02	Unit was derated due to C mill feeder motor tripped. This left us with a 3 mill operation due to D mill is in an overhaul
181	Harrington 2	05/25/14	05/25/14	0.05	Unit derated due to C mill feeder motor tripped. This leaves us with a 3 mill operation being D mill is out of service for repairs.
182	Harrington 2	05/27/14	05/27/14	0.07	Unit was derated due to the C mill feeder tripping. This leaves us with a 3 mill operation due to D mill being out of service for repairs.
183	Harrington 3	05/27/14	05/27/14	0.12	Unit had to be taken off line due to a manhole cover being left off of the PA duct work by the C mill. Contractors had removed this cover and plant personnel missed it on start up.
184	Jones 3	05/28/14	05/29/14	1.20	Unit tripped due to high blade path temperature spread
185	Jones 3	05/29/14	05/30/14	1.01	Continuing problems with high blade path temperature spread.
186	Harrington 1	05/30/14	05/31/14	0.01	Opacity problems - Opacity running high and having problems getting opacity down
187	Harrington 2	05/30/14	05/31/14	0.09	"C" coal feeder tripped Down to 3 mill operation
188	Jones 1	05/30/14	05/30/14	0.37	Leaking drum door gasket delayed starting unit

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
189	Jones 2	05/30/14	05/30/14	0.20	Mechanical servo valves (Moog valves) would not operate (open) on the throttle valves so unit would not roll off of gear.
190	Jones 1	05/31/14	06/02/14	0.07	East condensate pump developed severe oil leak; had to remove from service.
191	Maddox 2	06/02/14	06/03/14	0.93	Tripped high temp on outboard bearing on starting motor.
192	Nichols 3	06/02/14	06/06/14	4.76	Planned outage to install air conditioners on the boiler FD fan drive house.
193	Plant X 3	06/03/14	06/06/14	2.58	LARGE BOILER TUBE LEAK INSTANTLY TOOK X3 OFFLINE.
194	Harrington 2	06/04/14	06/04/14	0.31	Unit was derated because we had to take B mill out of service due to high vibration. With D mill still out of service for a planned overhaul, this leaves us with a 3 mill operation.
195	Cunningham 4	06/05/14	06/06/14	0.75	Full Load Trip; Oil Cooler to Ground Hi Temp Trip
196	Harrington 3	06/06/14	06/06/14	0.02	Baghouse damper malfunction - Dropped load to prevent opacity exceedance.
197	Plant X 4	06/06/14	06/11/14	5.05	Multiple tube leaks
198	Tolk 1	06/06/14	06/07/14	0.02	East ID Fan tripped due to thunderstorm - lightning strike
199	Jones 3	06/07/14	06/20/14	13.02	Continuing problems with blade path temperature spread. Unit will be down to perform maintenance to correct problem.
200	Jones 4	06/07/14	06/07/14	0.01	Startup failure due to gas supply problems.
201	Jones 4	06/07/14	06/07/14	0.03	Startup failure due to gas supply problems.
202	Cunningham 4	06/09/14	06/16/14	7.15	MO; Ignitors, Vibration Probes; Exh Temp Probes
203	Nichols 3	06/11/14	06/11/14	0.06	Derated the unit to 50 MW gross because two of four air conditioners failed on the boiler-forced-draft-fan-variable-speed-drive enclosure.
204	Harrington 2	06/12/14	06/13/14	0.49	Unit was derated to replace the pillow block bearing on B mill due to high vibrations. This left us with a 3 mill operations because D mill is in an extended planned overhaul.
205	Tolk 2	06/14/14	06/15/14	0.59	On line checking vibration issues
206	Tolk 2	06/15/14	06/16/14	0.49	Balance shot on the turbine
207	Maddox 1	06/16/14	06/16/14	0.36	Hotwell Makeup Pump couples bad. Need to replace
208	Tolk 2	06/16/14	06/17/14	0.78	Having ignitor issues result of the burner retrc

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
209	Tolk 2	06/17/14	06/24/14	7.43	Ref to original scope of work-Generator Hydrogen Leak detected - replacing gaskets on doors
210	Plant X 3	06/19/14	06/24/14	5.33	X3 boiler refractory has broken down in multiple areas causing hot spots.
211	Maddox 2	06/22/14	06/23/14	0.90	Bad pressure switch on low pressure compressor bleed valve.
212	Jones 3	06/23/14	06/23/14	0.38	Fired spin start, but did not attempt to come online
213	Harrington 1	06/24/14	06/24/14	0.01	Combuster repairs A rain storm blew through the plant site and caused the opacity readings to increase to the point where we had to start dropping load to prevent getting an exceedance
214	Plant X 4	06/24/14	06/26/14	1.81	While attempting restart(hot) from reserve shutdown, we were unable to maintain Running jet pressure as required due to damaged block valve.
215	Tolk 2	06/24/14	06/24/14	0.09	Completed overhaul work and testing - Unit is in Boiler/Silica cleanup
216	Jones 3	06/25/14	06/26/14	1.03	Had to shutdown unit due to gas leak in the fuel separator
217	Jones 4	06/25/14	06/25/14	0.01	Problem with SFC package; would not sync to system
218	Jones 4	06/25/14	06/26/14	0.87	Problem with the SFC package; would not sync to the system.
219	Plant X 2	06/25/14	07/01/14	5.87	Maintenance Outage for repairs to gas valve regulator
220	Plant X 1	06/27/14	06/30/14	3.35	Needing parts from unit for repairs on X2
221	Jones 4	06/29/14	06/29/14	0.09	Unit trip during start up due to blade path temperature spread.
222	Jones 4	06/29/14	06/30/14	0.80	Unit offline due to blade path temperature spread.
223	Maddox 1	06/29/14	06/29/14	0.17	Generator sync issues, tripped manually to reset for a fresh start
224	Tolk 2	06/29/14	06/29/14	0.12	Bearing wiped on North ACW pump
225	Nichols 1	07/01/14	07/02/14	1.25	The outage was conducted to investigate a potential problem with the #1 control valve stem on the turbine. Upon disassembly, no problems were identified. The valve was reassembled.
226	Jones 1	07/06/14	07/06/14	0.03	Unit tripped off line due to loss of vacuum.
227	Jones 2	07/06/14	07/07/14	0.46	Unit derated because west main circ pump would not start.
228	Jones 3	07/07/14	07/07/14	0.06	Operator thought the CBIT had not been checked, so he manually stopped the start up.

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
229	Harrington 3	07/08/14	07/08/14	0.07	Unit was derated to remove the Main Feedpump from service to change out the pump recirc line relief valve
230	Plant X 4	07/08/14	07/10/14	1.71	Shut down to repair a waterwall tube leak
231	Nichols 1	07/09/14	07/10/14	1.32	The outage was conducted to repair a problem with the #2 control valve stem on the turbine
232	Harrington 1	07/10/14	07/10/14	0.02	The unit was derated to prevent opacity exceedances
233	Cunningham 4	07/12/14	07/13/14	0.53	Unit Offline - Alarm CEMS NOX Invalid Data
234	Harrington 2	07/14/14	07/14/14	0.08	The unit had to be derated due to E mill feeder tripping. The trip was due to the feeder speed feedback not reading
235	Carlsbad 5	07/15/14	07/16/14	1.01	Unit Unavailable until reverse power relay is rese
236	Maddox 2	07/15/14	07/15/14	0.67	Breakers U905, 915, and 919 tripped and opened
237	Maddox 3	07/15/14	07/15/14	0.67	Breakers U905, 915, and 919 tripped and opened
238	Harrington 2	07/16/14	07/16/14	0.08	Unit was derated due to having A Feeder out of service to replace head pulley bearings. With D mill in a planned outage this left us with a 3 mill operation.
239	Harrington 3	07/17/14	07/17/14	0.00	Unit was derated due to high bag house DP. The DP increased due to 2 compartments out of service for blown bags and the cleaning cycle stopped because a bypass damper limit failed.
240	Jones 1	07/18/14	07/18/14	0.60	Boiler tube leak waterwall at B corner
241	Jones 1	07/20/14	07/20/14	0.02	Flow transmitter on east feed pump not functioning properly unit limited to one feed pump.
242	Jones 4	07/22/14	07/23/14	0.61	Shutdown unit due to anticipated 3 hour CO exceedance
243	Tolk 1	07/22/14	07/27/14	5.08	Heater drain valve- 1 C Drain line-had external leak into the plant- 2 C drain line was also leaking - also have Tube Leaks in Superheat & reheat sections to repair
244	Jones 3	07/24/14	07/24/14	0.08	Repair leaking inlet heating piping gasket found on the day before run.
245	Jones 3	07/24/14	07/24/14	0.08	Due to problems with the gas supply - lost sufficient gas supply pressure
246	Cunningham 1	07/26/14	08/15/14	1.97	North BFP Unable to support max load. South Pump Unavailable
247	Maddox 3	07/28/14	07/29/14	1.22	Outage to repair stack structure - hot air leaking into turbine housing

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
248	Nichols 3	07/28/14	08/01/14	4.03	Nichols unit 3 was taken off line due to a rupture of the North circulating water expansion joint on the main condenser inlet pipe.
249	Cunningham 2	07/29/14	07/29/14	0.02	Unit Online; Tripped on High Drum Level
250	Jones 4	07/30/14	07/30/14	0.20	Unit offline to calibrate gas flow orifice
251	Cunningham 3	08/01/14	08/01/14	0.44	Unit Offline; Relief Valve Replacement on Oil System A maintenance outage was initiated for safety purposes for replacement of the expansion joint on the north condenser inlet pipe. The unit was available for 130 MW gross if the System needed to have the unit on line
252	Nichols 3	08/01/14	08/02/14	0.89	Boiler Circ Pump suction header hand hole on West end is leaking.
253	Tolk 1	08/01/14	08/02/14	0.98	Unit was derated because the start stop contactors on the motor breaker welded closed. We had to kill D buss to open the breaker for repairs to be made to the contactors.
254	Harrington 3	08/02/14	08/02/14	0.01	Unit Generator trip on Voltage Regulator trip
255	Tolk 1	08/02/14	08/02/14	0.40	Unit Offline; Instrument Air Line Blew Out.
256	Cunningham 3	08/04/14	08/04/14	0.20	Hard drive on server failed and had to be replaced
257	Jones 3	08/04/14	08/04/14	0.08	Unit down to replace failed hard drive on server
258	Jones 4	08/04/14	08/04/14	0.06	Aux air problems, excess o2 deviation over FD fan limit
259	Plant X 3	08/04/14	08/04/14	0.01	Unit Offline; Instrument Air Line Blew Out.
260	Cunningham 3	08/05/14	08/05/14	0.06	Unit Offline; Instrument Air Line Blew Out.
261	Cunningham 4	08/05/14	08/05/14	0.04	Unit had to be derated to prevent opacity violations
262	Harrington 1	08/05/14	08/05/14	0.01	Leak on the west BFP fluid drive - out of service to repair
263	Jones 2	08/05/14	08/05/14	0.13	Reboot the Historian computer
264	Jones 3	08/05/14	08/05/14	0.07	Had to shutdown unit due to gas leak in the fuel separator
265	Jones 3	08/05/14	08/06/14	0.91	Reboot of the Historian computer
266	Jones 4	08/05/14	08/05/14	0.07	Leak in the rotor air cooling system
267	Jones 4	08/05/14	08/06/14	0.81	Fix high pressure heater number 4 heater head leak
268	Cunningham 1	08/06/14	08/12/14	6.40	Unit had to be derated to prevent opacity violations
269	Harrington 1	08/06/14	08/07/14	0.06	Unit Online; Clean N BFP Gear Reduction Oil Cooler
270	Cunningham 2	08/08/14	08/08/14	0.05	SSC tripped-Ash obstruction is binding up the chain and is underwater. Boiler must be removed from service and ash removed to clear problem
271	Tolk 1	08/12/14	08/14/14	1.30	East PA fan IB motor bearing wiped
272	Tolk 2	08/14/14	08/16/14	0.74	Main Gas firing valve blown diaphragm
273	Cunningham 4	08/15/14	08/15/14	0.09	

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(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
274	Maddox 3	08/15/14	08/15/14	0.53	Ratchet tripped on forward stroke, loss of "ready to start"
275	Plant X 1	08/15/14	08/17/14	1.14	Turbine tripped from low Condensor vacuum. Load shift
276	Plant X 2	08/15/14	08/18/14	2.53	Unable to sustain makeup water level
277	Tolk 2	08/18/14	08/24/14	5.92	Large Superheat finishing section tube leak-boiler make-up is above 180 gpm with boiler pressure @1400 psi
278	Maddox 3	08/20/14	08/20/14	0.27	Ratchet solenoid on turning gear not working
279	Jones 1	08/21/14	08/22/14	0.05	Operator error - originally thought HPFWH leak but was actually a control issue and no derate should have been taken.
280	Quay County 1	08/21/14	08/21/14	0.05	Quay County tripped on lube oil bearing supply temperature high. The flow was being adjusted to fine-tune the flow being supplied to the lube oil cooler, but the valve was closed too far. The control valve was reset to the last known workable setting.
281	Plant X 3	08/24/14	08/30/14	6.67	Superheat tube leak
282	Tolk 2	08/24/14	08/25/14	0.40	East Primary Air Fan inboard motor bearing temperature increased to high temperature after starting up. Had to remove from service to repair.
283	Harrington 1	08/27/14	08/27/14	0.01	Unit was derated to prevent getting an opacity exceedence
284	Plant X 4	08/27/14	08/27/14	0.04	10:05 Electricians began looking for a DC ground on X4 & accidentally tripped X4 boiler. High drum level tripped turbine/generator.
285	Quay County 1	08/27/14	08/28/14	1.43	A maintenance outage was taken to investigate a lube oil level control problem. All lube oil piping and tanks were examined to determine if there are any obstructions present
286	Jones 1	08/31/14	09/02/14	0.10	Loss of second cooling tower fan caused unit to be derated
287	Harrington 2	09/01/14	09/02/14	0.02	Unit was derated when E mill feeder motor tripped due to loss of tach feedback. D mill is out of service for repairs so this left us with a 3 mill operation.
288	Harrington 3	09/01/14	09/02/14	0.02	Unit was derated due to having 2 baghouse compartments out of service on the same side to replace blown bags
289	Plant X 3	09/01/14	09/05/14	4.00	Boiler tube leak, unable to maintain SUPERHEAT TUBE Condensate levels
290	Maddox 2	09/02/14	09/05/14	3.09	#5 Bearing vibration probe cable damaged, causing wild signal fluctuations which led to trip.

Southwestern Public Service Company

Power Plant Maintenance Information

(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
291	Nichols 2	09/02/14	09/02/14	0.46	The generator field breaker became disengaged in the breaker cubicle and failed to make a good electrical contact
292	Cunningham 1	09/03/14	10/30/14	20.11	Unit Online; Loss of Vacuum; High Back Pressure Unknown Leak
293	Jones 1	09/03/14	09/03/14	0.02	Issues with high back pressure - something causing lack of flow to cooling tower
294	Jones 1	09/04/14	09/04/14	0.02	Issues with high back pressure - something causing lack of flow to cooling tower
295	Jones 3	09/04/14	09/04/14	0.17	Regulatory required quarterly calibration of gas transmitters
296	Cunningham 2	09/05/14	09/06/14	0.61	Repair Leak; 12th Stage Extraction line leak at DA
297	Plant X 3	09/05/14	09/12/14	4.25	FD fan bearings - high vibration
298	Jones 1	09/06/14	09/19/14	13.41	Maintenance outage - Liner failure in suction line of main circ.
299	Cunningham 2	09/07/14	09/13/14	6.06	Unit Offline; Cooling Tower 480Bus Arc
300	Maddox 3	09/08/14	09/08/14	0.35	Installed new insulation/fill material in stack
301	Cunningham 4	09/09/14	09/17/14	7.55	Unit Unavailable; Startup NOX Test Failed
302	Plant X 4	09/10/14	09/10/14	0.03	Derate to change Boiler feed pump recirc relief valve (lifting) with unit online
303	Harrington 2	09/12/14	09/12/14	0.05	Unit was derated to replace C coal mill feeder motor. E mill is also out of service for planned repairs. This leaves us with a 3 mill operations.
304	Tolk 2	09/14/14	09/14/14	0.21	EH leak on the TDBFP reducing load to get pump off and EH system isolated
305	Cunningham 1	09/15/14	10/03/14	18.34	Cooling Tower Detailed Inspection
306	Maddox 2	09/15/14	09/15/14	0.15	Clean fuel nozzles
307	Tolk 2	09/15/14	09/15/14	0.20	Lost the excitation to the East FD fan causing it to trip. Dropping additional load to swap to motor driven feedpump to troubleshoot EH pressure unloading issue.
308	Cunningham 4	09/17/14	09/17/14	0.02	Unit Unavailable; Startup NOX Tuning
309	Cunningham 4	09/17/14	09/18/14	0.59	Unit Unavailable; Startup NOX Tuning
310	Maddox 3	09/17/14	09/25/14	8.38	Electrical short in the PT cabinet on the north side of the unit
311	Cunningham 4	09/18/14	09/18/14	0.00	Unit Unavailable; Startup NOX Tuning
312	Cunningham 4	09/18/14	10/21/14	32.89	Unit Unavailable; Waiting scheduled NOX Testing
313	Harrington 2	09/20/14	09/21/14	1.18	Unit was removed from service to make repairs to a wall tube leak.

Southwestern Public Service Company

Power Plant Maintenance Information

(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
314	Jones 4	09/20/14	09/20/14	0.27	Tripped due to problems with rotor air cooling system
315	Tolk 2	09/20/14	09/20/14	0.15	EH leak on the Turbine driven boiler feed pump
316	Nichols 3	09/23/14	09/24/14	1.02	Boiler tube leak repaired on the south wall far west tube (outside surface) at a previous repair. The leak was located inside the pressure casing near the superheat outlet header seal box. A pinhole leak was also repaired on the LTSH outlet drain line.
317	Harrington 3	09/26/14	09/26/14	0.03	Unit was derated to remove the Main feedpump from service to make repairs to the pressure switch on the DC oil pump. The pump would not shut off after the weekly test due to a dirty orifice.
318	Plant X 3	09/27/14	09/28/14	1.12	Feedwater tubes leaking bad enough to overpressure tubes and lift safeties
319	Harrington 2	09/28/14	09/28/14	0.03	Unit was derated to change out a mill feeder motor that was going to fail soon.
320	Harrington 3	09/28/14	10/01/14	2.67	Unit tripped on high drum level at a result of an economizer tube leak.
321	Plant X 3	09/30/14	10/24/14	23.31	Turbine bearing over temp and over vibration limit
322	Tolk 1	10/01/14	10/05/14	4.09	Fall Mini Outage #2 extraction valve repair
323	Tolk 2	10/06/14	10/06/14	0.17	Reduce load due to EH leak on the TDBFP.
324	Harrington 2	10/08/14	10/11/14	2.08	Unit was removed from line to make repairs on 2 reheater tube leaks.
325	Maddox 1	10/09/14	10/09/14	0.05	Boiler drum high level trip
326	Harrington 1	10/11/14	10/11/14	0.03	Unit had to be derated to prevent an opacity exceedance. We did not get the opportunity to 100% dead rap like scheduled.
327	Harrington 1	10/17/14	10/26/14	8.78	Unit will be removed from line for a mini outage. Scope: APH wash, ESP clean up, and other miscellaneous items.
328	Cunningham 4	10/21/14	10/21/14	0.00	Unit Unavailable; Startup NOX Tuning
329	Cunningham 4	10/21/14	10/21/14	0.17	Unit Unavailable; Startup NOX Tuning
330	Cunningham 4	10/21/14	10/21/14	0.00	Unit Unavailable; Startup NOX Tuning
331	Cunningham 4	10/21/14	10/21/14	0.06	Unit Unavailable; Startup NOX Tuning
332	Cunningham 4	10/21/14	10/21/14	0.00	Unit Unavailable; Startup NOX Tuning
333	Cunningham 4	10/21/14	10/21/14	0.06	Unit Unavailable; Startup NOX Tuning
334	Cunningham 4	10/21/14	10/22/14	0.00	Unit Unavailable; Startup NOX Tuning
335	Cunningham 4	10/22/14	10/23/14	1.29	Unit Unavailable; Startup NOX Tuning

Southwestern Public Service Company

Power Plant Maintenance Information

(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
336	Jones 2	10/24/14	11/06/14	13.64	Planned Outage to replace stub shaft
337	Plant X 3	10/24/14	10/28/14	0.24	Derate 5% due to the HP feed water heaters being out of service.
338	Nichols 1	10/30/14	10/31/14	0.74	The common blowdown line for cooling tower blowdown and boiler blowdown was leaking. Blowdown was suspended, making the unit unavailable for startup.
339	Nichols 2	10/30/14	10/31/14	0.74	The common blowdown line for cooling tower blowdown and boiler blowdown was leaking. Blowdown was suspended, making the unit unavailable for startup.
340	Nichols 3	10/30/14	10/31/14	0.74	The common blowdown line for cooling tower blowdown and boiler blowdown was leaking. Blowdown was suspended, making the unit unavailable for startup.
341	Harrington 1	11/02/14	11/02/14	0.85	Unit had a failed start up due to a breakdown in the ESP. The boiler was removed from service and cooled to investigate internals of ESP.
342	Tolk 2	11/03/14	11/03/14	0.03	East FD fan issues, reset fan controller and restarted
343	Maddox 1	11/05/14	11/05/14	0.03	1A condensate pump tripped on startup, unit limited to 100 MW
344	Cunningham 2	11/08/14	11/12/14	4.06	Unit Tripped; Bad Governor Bushing
345	Plant X 3	11/08/14	11/09/14	0.03	Loss of control power to boiler feed pump (oil priming pump permissive fault)
346	Tolk 1	11/09/14	11/09/14	0.73	Off line to repair leak in transmitter line on suction side of Turbine Driven Boiler Feed Pump.
347	Maddox 2	11/11/14	11/11/14	0.12	#2 bearing vibration trip, loose wire. Code 4551, "doesn't exist"
348	Jones 1	11/12/14	11/12/14	0.34	Frozen legs on the DA storage tank could not get level indication for starting unit.
349	Maddox 2	11/13/14	11/13/14	0.32	Startup trip - outboard motor high temp at ~ 1100 rpm
350	Nichols 3	11/13/14	11/13/14	0.63	OMC event - Extreme low outside ambient temperature caused the deaerating heater level transmitters to quit indicating an accurate level. It is believed that the top sensing legs contained moisture that had frozen.
351	Cunningham 3	11/16/14	11/20/14	3.57	Scheduled: Bore Scope Inspection
352	Jones 4	11/16/14	11/16/14	0.15	Starting package would not allow unit to roll up
353	Jones 4	11/16/14	11/17/14	1.08	Starting package would not allow unit to roll up

Southwestern Public Service Company

Power Plant Maintenance Information

(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
354	Tolk 2	11/17/14	11/17/14	0.02	East PA Fan motor winding temperature high, motor filters were coated with ice.
355	Harrington 3	11/21/14	11/21/14	0.05	Unit had to be derated to remove the Main Feed Pump from service to make repairs on the pumps DC lube oil pump pressure switch.
356	Jones 1	11/24/14	11/24/14	0.19	Failure of transmitter on the superheat sprays
357	Cunningham 3	11/25/14	11/25/14	0.33	Flashback temperature channel bad on combustor
358	Jones 3	11/25/14	11/25/14	0.27	Regulatory required quarterly calibration of gas transmitters
359	Maddox 2	12/01/14	12/01/14	0.11	#4&5 bearing spike trip
360	Cunningham 1	12/02/14	12/31/14	29.99	Identify & Repair Leak on Turbine; Expansion Joint
361	Jones 4	12/02/14	12/08/14	6.10	Planned outage to replace transition pieces - warranty work
362	Nichols 3	12/02/14	12/02/14	0.51	Boiler tube leak repaired on the C corner (east wall, last straight tube at south end of the wall). The tube was a waterwall tube adjacent to the burner box that had a crack at a structural weld attachment to a beam/angle iron.
363	Plant X 3	12/05/14	12/06/14	0.48	Boiler wall hot spot due to insulation/refractory degradation
364	Plant X 1	12/06/14	12/15/14	9.69	Unit was off for flume and cooling tower repairs.
365	Plant X 2	12/06/14	12/15/14	9.66	Replace auxilliary steam valve
366	Plant X 3	12/06/14	12/20/14	14.56	Low Temperature superheat
367	Cunningham 3	12/10/14	12/10/14	0.16	MO: Repair Fuel Leak 2&3 Basket
368	Cunningham 4	12/12/14	12/12/14	0.29	Unit Offline: Lube Oil Pressure Low
369	Tolk 2	12/13/14	12/14/14	0.10	Check B Coal bunker for obstruction not allowing coal to reach feeder belt.
370	Quay County 1	12/14/14	12/14/14	0.09	Quay has a not ready to start condition due to lube oil system alarm "lube oil tank level high". Level was lowered and lube oil system control was reset.
371	Cunningham 4	12/15/14	12/15/14	0.10	SF: Low Lube Oil Pressure; Corrected
372	Jones 4	12/16/14	12/16/14	0.19	Starting package would not allow unit to roll up
373	Jones 4	12/16/14	12/16/14	0.31	Starting package would not allow unit to roll up
374	Maddox 1	12/16/14	12/16/14	0.27	Right Reheat stop valve not opening, and auxilliary oil pump/motor extreme vibrations
375	Maddox 1	12/16/14	12/22/14	6.07	Effecting repairs of the above mentioned items
376	Jones 4	12/18/14	12/18/14	0.57	Failure of the IGV & VGV.
377	Jones 4	12/20/14	12/20/14	0.07	Trouble with inlet heating valve and logic
378	Jones 3	12/23/14	12/23/14	0.06	Maintenance outage to replace two bad blade path thermocouples.

Southwestern Public Service Company

Power Plant Maintenance Information

(a) Total Maintenance by Operating Unit for Four Years Prior to the Future Test Year by month.

Line No.	Unit Name	Actual Start Date	Actual Completion Date	Outage Duration (Days)	Reason for Outage
379	Maddox 1	12/24/14	12/24/14	0.11	Gas firing valve frozen
380	Tolk 1	12/24/14	12/24/14	0.20	Tube leak in superheat section of boiler. Bring load down to 180 MW Net drip boiler pressure. Try to hold to see what make-up will do. May need to go ahead and come off line
381	Tolk 1	12/24/14	12/27/14	2.65	Superheat tube leak - was able to hold load at 180 for 8 hrs
382	Tolk 2	12/25/14	12/25/14	0.02	ID Fan tripped-restart failed
383	Jones 4	12/27/14	12/27/14	0.04	Starting package would not allow unit to roll up
384	Jones 4	12/27/14	12/27/14	0.12	Starting package would not allow unit to roll up : The plant was unaware that someone from the substation department was investigating a DC ground alarm. The substation worker was opening and closing breaker doors and when he closed the door to XK04 (X4 generator breaker) the breaker tripped which tripped the unit.
385	Plant X 4	12/29/14	12/29/14	0.27	Lube oil bearing/drain high temp
386	Maddox 2	12/30/14	12/30/14	0.05	Windbox/Furn DP transmitter line froze
387	Plant X 4	12/30/14	12/31/14	0.80	Unit was derated to prevent an opacity violation. The ESP was dirty and needed to be dead rapped beyond the 2 weekly PMs we have in place.
388	Harrington 1	12/31/14	12/31/14	0.07	Repairs to Cooling Tower Structure
389	Cunningham 1	01/01/15	01/02/15	1.60	

Southwestern Public Service Company

Power Plant Maintenance Information

(a) Total Maintenance by Operating Unit for the Future Test Year by Month				
	Line No.	Unit Name	Event No.	Planned Outage Month
S	1	Cunningham 1	Cunningham 1 Outage 1	January 2015
	2	Cunningham 1	Cunningham 1 Outage 2	January 2015
	3	Cunningham 1	Cunningham 1 Outage 3	February 2015
	4	Cunningham 1	Cunningham 1 Outage 4	March 2015
	5	Cunningham 1	Cunningham 1 Outage 5	March 2015
	6	Cunningham 2	Cunningham 2 Outage 1	January 2015
	7	Cunningham 2	Cunningham 2 Outage 2	February 2015
	8	Cunningham 2	Cunningham 2 Outage 3	March 2015
	9	Cunningham 2	Cunningham 2 Outage 4	March 2015
	10	Cunningham 2	Cunningham 2 Outage 5	March 2015
	11	Cunningham 2	Cunningham 2 Outage 6	March 2015
	12	Cunningham 3	Cunningham 3 Outage 1	January 2015
	13	Cunningham 3	Cunningham 3 Outage 2	January 2015
	14	Cunningham 3	Cunningham 3 Outage 3	February 2015
	15	Cunningham 3	Cunningham 3 Outage 4	February 2015
	16	Cunningham 4	Cunningham 4 outage 1	February 2015
	17	Cunningham 4	Cunningham 4 outage 2	February 2015
	18	Harrington 1	Harrington 1 outage 1	January 2015
	19	Harrington 2	Harrington 2 outage 1	February 2015
	20	Harrington 2	Harrington 2 outage 2	February 2015
	21	Harrington 2	Harrington 2 outage 3	March 2015
	22	Harrington 2	Harrington 2 outage 4	March 2015
	23	Harrington 3	Harrington 3 outage 1	January 2015
	24	Harrington 3	Harrington 3 outage 2	February 2015
	25	Harrington 3	Harrington 3 outage 3	March 2015
	26	Jones 1	Jones 1 outage 1	February 2015
	27	Jones 1	Jones 1 outage 2	February 2015
	28	Jones 2	Jones 2 outage 1	February 2015
	29	Jones 2	Jones 2 outage 2	March 2015
	30	Jones 2	Jones 2 outage 3	March 2015
	31	Jones 3	Jones 3 outage 1	February 2015
	32	Jones 3	Jones 3 outage 2	February 2015
	33	Jones 3	Jones 3 outage 3	February 2015
	34	Jones 3	Jones 3 outage 4	March 2015
	35	Jones 4	Jones 4 outage 1	February 2015
	36	Jones 4	Jones 4 outage 2	February 2015
	37	Jones 4	Jones 4 outage 3	February 2015
	38	Jones 4	Jones 4 outage 4	February 2015
	39	Jones 4	Jones 4 outage 5	March 2015
	40	Maddox 1	Maddox 1 outage 1	January 2015
	41	Maddox 1	Maddox 1 outage 2	February 2015
	42	Maddox 1	Maddox 1 outage 3	February 2015
	43	Maddox 1	Maddox 1 outage 4	February 2015
	44	Maddox 2	Maddox 2 outage 1	January 2015
	45	Maddox 2	Maddox 2 outage 2	January 2015
	46	Maddox 2	Maddox 2 outage 3	February 2015

Southwestern Public Service Company

Power Plant Maintenance Information

(a) Total Maintenance by Operating Unit for the Future Test Year by Month

Line No.	Unit Name	Event No.	Planned Outage Month
47	Maddox 2	Maddox 2 outage 4	February 2015
48	Maddox 2	Maddox 2 outage 5	February 2015
49	Maddox 3	Maddox 3 outage 1	February 2015
50	Maddox 3	Maddox 3 outage 2	February 2015
51	Nichols 1	Nichols 1 outage 1	January 2015
52	Nichols 1	Nichols 1 outage 2	February 2015
53	Nichols 1	Nichols 1 outage 3	March 2015
54	Nichols 2	Nichols 2 outage 1	February 2015
55	Nichols 2	Nichols 2 outage 2	March 2015
56	Nichols 3	Nichols 2 outage 3	January 2015
57	Nichols 3	Nichols 2 outage 4	February 2015
58	Plant X 2	Plant X 2 outage 1	January 2015
59	Plant X 2	Plant X 2 outage 2	March 2015
60	Plant X 3	Plant X 3 outage 1	February 2015
61	Plant X 4	Plant X 4 outage 1	January 2015
62	Plant X 4	Plant X 4 outage 2	February 2015
63	Plant X 4	Plant X 4 outage 3	February 2015
64	Plant X 4	Plant X 4 outage 4	March 2015
65	Plant X 4	Plant X 4 outage 5	March 2015
66	Tolk 1	Tolk 1 outage 1	January 2015
67	Tolk 1	Tolk 1 outage 2	January 2015
68	Tolk 1	Tolk 1 outage 3	January 2015
69	Tolk 1	Tolk 1 outage 4	February 2015
70	Tolk 1	Tolk 1 outage 5	March 2015
71	Tolk 2	Tolk 2 outage 1	January 2015
72	Tolk 2	Tolk 2 outage 2	January 2015
73	Tolk 2	Tolk 2 outage 3	January 2015
74	Tolk 2	Tolk 2 outage 4	February 2015
75	Tolk 2	Tolk 2 outage 5	February 2015
76	Tolk 2	Tolk 2 outage 6	March 2015

Southwestern Public Service Company

Power Plant Maintenance Information

(b) Scheduled System Maintenance Information
(i) Twelve Months of the Future Test Year

	Line		Planned Outage
	No.	Unit Name	Month
S	2016		
	1	Cunningham 1	January 2016
	2	Nichols 2	January 2016
	3	Plant X 2	February 2016
	4	Plant X 1	March 2016
	5	Plant X 3	March 2016
	6	Tolk 2	April 2016
	7	Tolk 1	April 2016
	8	Harrington 2	April 2016
	9	Harrington 3	May 2016
	10	Maddox 3	September 2016
	11	Harrington 1	September 2016
	12	Maddox 1	September 2016
13	Cunningham 3	November 2016	

Southwestern Public Service Company

Power Plant Maintenance Information

(b) Scheduled System Maintenance Information
(ii) Five Years Beyond the Future Test Year by Month

	Line No.	Unit Name	Planned Outage Month
S	2017		
	1	Cunningham 3	January 2017
	2		
		Nichols 1	January 2017
	3	Harrington 3	March 2017
	4	Tolk 2	March 2017
	5	Harrington 1	April 2017
	6	Tolk 1	May 2017
	7		
		Harrington 2	September 2017
	8		
		Jones 1	October 2017
	2018		
	9	Tolk 1	February 2018
	10	Harrington 1	April 2018
	11	Tolk 2	April 2018
	12	Harrington 2	May 2018
	13		
		Plant X 3	September 2018
	14	Harrington 3	September 2018
	15	Quay County	September 2018
	16	Cunningham 2	October 2018
	2019		
	17	Jones 2	February 2019
	18	Harrington 2	March 2019
	19	Tolk 2	April 2019
	20	Harrington 3	April 2019
	21	Tolk 1	May 2019
	22		
	Harrington 1	September 2019	
23			
	Plant X 4	October 2019	
2020			
24	Nichols 3	January 2020	
25	Tolk 2	February 2020	
26	Harrington 3	April 2020	
27	Tolk 1	April 2020	
28	Harrington 1	May 2020	
29	Harrington 2	September 2020	

Southwestern Public Service Company

Power Plant Maintenance Information

(b) Scheduled System Maintenance Information
(ii) Five Years Beyond the Future Test Year by Month

Line No.	Unit Name	Planned Outage Month
30	Jones 1 2021	October 2020
31	Maddox 2	January 2021
32	Harrington 3	January 2021
33	Tolk 1	February 2021
34	Harrington 1	April 2021
35	Tolk 2	May 2021
36	Harrington 2	May 2021
37	Jones 2	September 2021
38	Cunningham 2	October 2021

Southwestern Public Service Company

Customer Service Interruption Information

Total Company

NM Jurisdiction

Occurrence (Central Prevailing Time)	Duration (Minutes)	Physical Location	Occurrence (Central Prevailing Time)	Duration (Minutes)	Physical Location
Transmission 2012			Transmission 2012		
1/24/12 12:03 PM * 15		Pampa, TX	5/26/12 10:03 PM	597	Hobbs, NM
3/11/12 8:13 PM * 35		Levelland, TX	6/12/12 6:58 PM	49	Hobbs, NM
5/26/12 10:03 PM 597		Hobbs, NM	12/8/12 12:44 PM	82	Carlsbad, NM, Hobbs, NM
6/12/12 6:58 PM 49		Hobbs, NM	12/14/12 1:17 PM	1310	Hobbs, NM
6/13/12 12:50 AM * 188		Plainview, TX			
6/15/12 8:09 PM * 67		Levelland, TX			
11/5/12 8:50 AM * 48		Plainview, TX			
12/8/12 12:44 PM 82		Carlsbad, NM, Hobbs, NM			
12/14/12 1:17 PM 1310		Hobbs, NM			
12/14/12 4:01 PM * 51		Levelland, TX			
12/14/12 4:03 PM * 49		Levelland, TX			
12/20/12 11:19 AM * 71		Levelland, TX			
2013			2013		
1/8/13 6:58 PM * 109		Plainview, TX	2/21/13 12:57 AM	240	Carlsbad, NM
2/21/13 12:57 AM 240		Carlsbad, NM	5/23/13 5:06 PM	213	Hobbs, NM
3/26/13 9:45 PM * 66		Plainview, TX	6/8/13 2:05 AM	393	Hobbs, NM
4/23/13 3:35 AM 105		Amarillo, TX, Borger, TX	6/8/13 2:31 AM * 107		Hobbs, NM
4/23/13 3:58 AM * 66		Pampa, TX	6/8/13 2:37 AM * 104		Hobbs, NM
4/23/13 7:26 AM * 347		Perryton, TX	6/9/13 8:03 AM	364	Carlsbad, NM
5/23/13 5:06 PM 213		Hobbs, NM	6/20/13 7:52 PM	354	Hobbs, NM
5/28/13 1:54 PM * 308		Borger, TX, Perryton, TX	11/12/13 9:13 AM	79	Clovis, NM
6/8/13 2:05 AM 393		Hobbs, NM	12/7/13 8:53 PM	80	Carlsbad, NM, Hobbs, NM
6/8/13 2:31 AM * 107		Hobbs, NM	12/8/13 9:40 AM	63	Carlsbad, NM
6/8/13 2:37 AM * 104		Hobbs, NM			
6/9/13 8:03 AM 364		Carlsbad, NM			
6/17/13 9:36 PM * 177		Plainview, TX			
6/19/13 2:32 PM * 97		Levelland, TX			
6/19/13 2:58 PM * 71		Levelland, TX			
6/19/13 5:44 PM * 103		Levelland, TX			
6/19/13 11:07 PM * 350		Pampa, TX			
6/20/13 7:52 PM 354		Hobbs, NM			
6/20/13 8:46 PM * 509		Amarillo, TX			
6/20/13 9:19 PM * 461		Amarillo, TX, Canyon, TX			
8/7/13 3:29 PM 71		Plainview, TX			
8/13/13 5:04 PM * 89		Plainview, TX			
10/13/13 11:52 AM * 166		Levelland, TX			
11/12/13 9:13 AM 79		Clovis, NM			
11/16/13 12:46 PM * 140		Borger, TX			
11/25/13 9:54 AM * 116		Borger, TX			
11/26/13 1:24 AM 141		Pampa, TX			
12/7/13 8:53 PM 80		Carlsbad, NM, Hobbs, NM			
12/8/13 9:40 AM 63		Carlsbad, NM			

Southwestern Public Service Company

Customer Service Interruption Information

Total Company

NM Jurisdiction

Occurrence (Central Prevailing Time)	Duration (Minutes)	Physical Location	Occurrence (Central Prevailing Time)	Duration (Minutes)	Physical Location
2014			2014		
1/18/14 11:08 PM	* 82	Clovis, NM	1/18/14 11:08 PM	* 82	Clovis, NM
2/19/14 8:27 AM	* 19	Hereford, TX	8/23/14 1:00 AM	* 138	Carlsbad, NM
3/13/14 10:43 AM	102	Amarillo, TX, Canyon, TX	9/24/14 6:56 PM	* 77	Roswell, NM
4/20/14 2:10 PM	* 106	Amarillo, TX			
5/22/14 5:21 PM	* 73	Pampa, TX			
6/30/14 8:21 PM	* 99	Levelland, TX			
7/14/14 5:20 PM	59	Hereford, TX			
7/15/14 10:47 AM	* 27	Hereford, TX			
8/13/14 3:43 PM	* 41	Levelland, TX			
8/23/14 1:00 AM	* 138	Carlsbad, NM			
9/24/14 6:56 PM	* 77	Roswell, NM			
10/13/14 7:54 PM	* 65	Perryton, TX			
11/3/14 11:54 PM	* 166	Lubbock, TX			
2015			2015		
1/20/15 10:43 AM	* 45	Levelland, TX	2/22/15 11:59 AM	* 106	Carlsbad, NM
1/22/15 3:22 AM	* 342	Plainview, TX			
1/24/15 8:39 AM	* 64	Levelland, TX			
2/22/15 11:59 AM	* 106	Carlsbad, NM			
2/25/15 12:25 PM	21	Lubbock, TX			
2/26/15 7:42 AM	* 61	Levelland, TX, Lubbock, TX			
3/1/15 2:12 PM	* 158	Lubbock, TX			
3/2/15 8:05 AM	73	Lubbock, TX			
3/4/15 10:24 AM	* 201	Plainview, TX			
3/4/15 10:25 AM	* 125	Plainview, TX			
4/18/15 5:33 PM	* 101	Pampa, TX			
Distribution 2012			Distribution 2012		
1/5/12 9:59 AM	28	Seminole, TX	8/5/12 12:44 PM	383	Hobbs, NM
1/5/12 10:04 AM	23	Seminole, TX			
4/25/12 4:15 PM	159	Dumas, TX			
5/3/12 11:13 AM	30	Levelland, TX			
8/5/12 12:44 PM	383	Hobbs, NM			
8/6/12 4:32 PM	121	Amarillo, TX			
2013			2013		
2/25/13 5:19 PM	110	Amarillo, TX	5/18/13 12:48 PM	57	Roswell, NM
3/27/13 9:58 PM	101	Borger, TX	6/17/13 5:28 PM	220	Hobbs, NM
5/18/13 12:48 PM	57	Roswell, NM	6/17/13 7:55 PM	66	Hobbs, NM
6/17/13 5:28 PM	220	Hobbs, NM	6/19/13 5:59 PM	320	Carlsbad, NM, Hobbs, NM
6/17/13 7:55 PM	66	Hobbs, NM	7/18/13 10:51 AM	* 758	Carlsbad, NM
6/19/13 9:11 AM	38	Amarillo, TX			
6/19/13 5:59 PM	320	Carlsbad, NM, Hobbs, NM			
7/18/13 10:51 AM	* 758	Carlsbad, NM			

Southwestern Public Service Company

Customer Service Interruption Information

Total Company			NM Jurisdiction		
Occurrence (Central Prevailing Time)	Duration (Minutes)	Physical Location	Occurrence (Central Prevailing Time)	Duration (Minutes)	Physical Location
2014			2014		
5/3/14 1:27 PM	71	Amarillo, TX	5/12/14 11:06 PM	184	Hobbs, NM
5/12/14 11:06 PM	184	Hobbs, NM			
5/28/14 10:53 PM	96	Amarillo, TX			
6/6/14 1:02 AM	53	Pampa, TX			
9/22/14 8:37 AM	28	Amarillo, TX			
11/12/14 6:07 AM	74	Hereford, TX			
11/20/14 7:41 AM	22	Dumas, TX			
12/23/14 6:48 AM	68	Plainview, TX			
2015			2015		
3/22/15 12:13 PM	46	Amarillo, TX	3/25/15 10:46 AM	139	Hobbs, NM
3/22/15 8:51 PM	45	Borger, TX			
3/25/15 10:46 AM	139	Hobbs, NM			

* - Event MW load unavailable, can not determine if event exceeds 15 MW's.
Note: 2015 data provided includes actuals through April, 2015.

Southwestern Public Service Company

Line Loss Information

Part (a)(i) and (b)

Line loss data is calculated for total system. Refer to the table below for the historic loss factors. Factors are generated on that basis and then applied to the New Mexico retail jurisdiction according to voltage level and class of customer. Therefore, the New Mexico losses are based on system losses but the actual loss within the jurisdiction is dependent upon the customer mix. Monthly data are not available as discussed in Schedule M-3. Refer to schedule M-3 for a discussion of the methods, procedures, and formulae used for developing loss information.

2013 Line Loss Study was developed using the study year July 2012 – June 2013.

2009 Line Loss Study was developed using the study year October 2008 - September 2009. Loss Factors based on this study were approved in Case No. 10-00395-UT.

Part (a)(ii) – (v)

New Mexico Jurisdiction

	2012 (based on 2009 Line Loss Study)		2014 - Present (including Future Test Year) (based on 2013 Line Loss Study)	
Voltage Level	Demand Loss Factor	Energy Loss Factor	Demand Loss Factor	Energy Loss Factor
Backbone Transmission (115kV+)	1.030610	1.024427	1.026174	1.025158
Sub-Transmission (69kV)	1.040605	1.032089	1.035392	1.032914
Primary Distribution	1.156872	1.112001	1.127359	1.099263
Secondary Distribution	1.188431	1.130411	1.158647	1.118223
Secondary Distribution Line	1.193903	1.134348	1.164118	1.121893

Part (a)(vi)

SPS does not forecast line loss data and has no specific schedule as to when the next line loss study will occur.

Southwestern Public Service Company

Reliability Indices Information

Line		(a) Total System			(b) New Mexico Jurisdiction		
No.	Year	SAIDI ⁽¹⁾	SAIFI ⁽²⁾	CAIDI ⁽³⁾	SAIDI ⁽¹⁾	SAIFI ⁽²⁾	CAIDI ⁽³⁾
(c) Four Years Prior to the Future Test Year							
1	2012	99.3	1.03	96.1	80.4	0.98	81.7
2	2013	100.5	1.09	92.1	93.9	1.20	78.4
3	Base Period (2014)	79.8	0.86	93.0	74.6	0.80	92.8
4	2015 Year End Forecast	96.5	1.08	89.5	97.4	1.15	84.8
(e) Five Years Beyond the Base Period ⁽⁴⁾							
5	2015 YE Forecast	96.5	1.08	89.5	97.4	1.15	84.8
6	2016 ⁽⁵⁾	-	-	-	-	-	-
7	2017 ⁽⁵⁾	-	-	-	-	-	-
8	2018 ⁽⁵⁾	-	-	-	-	-	-
9	2019 ⁽⁵⁾	-	-	-	-	-	-

(d) Twelve Months of the Future Test Year

SPS forecasts targets to meet for the current year; however, SPS does not forecast beyond the current year. As such SPS is providing the above target for 2015 SAIDI, SAIFI and CAIDI reliability indices, but data is not available for 2016.

Note: SPS reliability indices are based on IEEE 1366 normalization methodology applied at the Operating Company level.

Note: New Mexico reliability indices are based on IEEE 1366 normalization methodology applied at the State of New Mexico level.

⁽¹⁾ SAIDI - System Average Interruption Duration Index	=	$\frac{\text{Sum of Customer Minutes Out}}{\text{Total Number of Customers Served}}$
⁽²⁾ SAIFI - System Average Interruption Frequency Index	=	$\frac{\text{Sum of Customers Interrupted}}{\text{Total Number of Customers Served}}$
⁽³⁾ CAIDI - Customer Average Interruption Duration Index	=	$\frac{\text{Sum of Customer Minutes Out}}{\text{Sum of Customers Interrupted}}$

⁽⁴⁾ In accordance with Rule 17.1.3.8(A), SPS is providing reliability indices information for five years beyond the Base Period, rather than five years beyond the Future Test Year, as requested in 17.9.530.14(P)(10)(e).

⁽⁵⁾ SPS forecasts targets to meet for the current year; however, SPS does not forecast beyond the current year.

Southwestern Public Service Company

Reserve Margin Information

(a), (c), (e) Total System	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Installed Capacity (MW)	4,365	4,537	4,513	4,529	4,539	4,550	4,554	4,444	4,373	4,376
Firm Purchases (MW)	1,337	1,406	1,539	1,453	1,453	1,493	1,493	1,021	1,093	1,085
Net Capacity (MW)	5,702	5,943	6,052	5,982	5,992	6,043	6,047	5,465	5,466	5,461
Demand (MW)	5,178	5,056	4,871	4,899	5,111	5,116	5,313	4,775	4,904	5,039
Reserve Margin (%)	10.1%	17.5%	24.2%	22.1%	17.2%	18.1%	13.8%	14.5%	11.5%	8.4%

(d) Twelve months of the Future Test Year	January 1 - December 31, 2016											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Installed Capacity (MW)	4,558	4,558	4,558	4,558	4,539	4,539	4,539	4,539	4,539	4,558	4,558	4,558
Firm Purchases (MW)	1,556	1,556	1,556	1,556	1,453	1,453	1,453	1,453	1,453	1,556	1,556	1,556
Net Capacity (MW)	6,114	6,114	6,114	6,114	5,992	5,992	5,992	5,992	5,992	6,114	6,114	6,114
Demand (MW)	3,951	4,005	3,783	3,964	4,595	4,941	5,112	5,111	4,818	4,122	4,035	4,290
Reserve Margin (%)	54.7%	52.7%	61.6%	54.2%	30.4%	21.3%	17.2%	17.2%	24.4%	48.3%	51.5%	42.5%

Note: (b) SPS does not track reserve margin by jurisdiction.

Southwestern Public Service Company

Fuel Statistics Information

Line No.	Description	A			B			C			D			E		
		Year Ended 12/31/2012	Year Ended 12/31/2013	Year Ended 12/31/2014	Year Ended 12/31/2013	Year Ended 12/31/2014	Year Ended 12/31/2015	Year Ended 12/31/2014	Year Ended 12/31/2015	Year Ended 12/31/2015	Three Months (Actuals) Ended 03/31/2015	Three Months (Actuals) Ended 03/31/2015	Three Months (Actuals) Ended 03/31/2015	Three Months (Actuals) Ended 03/31/2015	Nine Months (Forecasted) Ended 12/31/2015	
<u>Cost of Fuel (\$)</u>																
1	Coal Cost	\$	223,920,099.92	\$	265,153,615.81	\$	222,635,917.46	\$	57,644,566.81	\$	165,208,185.55					
2	Gas Cost		209,564,587.96		230,203,621.07		246,655,198.39		33,813,881.05		86,485,836.20					
3	Oil Cost		359,479.05		11,551.69		327,430.68		65,232.93		-					
<u>Cost of Fuel by Type</u>																
4	Coal (\$ /MMBtu)	\$	1.58	\$	1.88	\$	1.76	\$	1.84	\$	1.79					
5	Gas (\$ /MMBtu)		2.99		3.98		4.76		3.61		3.75					
6	Oil (\$ /MMBtu)		13.54		7.15		25.52		22.60		-					
<u>Generation by Type (MWh)</u>																
7	Coal		13,750,178		13,802,434		12,418,027		3,037,280		9,093,676					
8	Gas		6,190,345		4,994,643		4,544,866		824,475		2,084,698					
9	Oil		-		20		706		145		-					
<u>Total Fuel</u>																
10	Total Fuel Cost (\$)	\$	433,844,167	\$	495,368,789	\$	469,618,547	\$	91,523,681	\$	251,694,022					
11	Cost (\$ /MMBtu)	\$	2.05	\$	2.49	\$	2.64	\$	2.25	\$	2.18					
12	Generation - (MWh)		19,940,523		18,797,097		16,963,598		3,861,900		11,178,374					

Note: Excludes Non-mine and Non-freight Costs

(b) SPS does not calculate fuel cost specifically for the New Mexico jurisdiction. Instead, system fuel costs are allocated to each jurisdiction. Therefore, New Mexico fuel cost per MMBtu is the same as the system fuel cost shown above

Southwestern Public Service Company

Fuel Statistics Information

Line No.	Description	A Jan-16	B Feb-16	C Mar-16	D Apr-16	E May-16	F Jun-16
<u>Cost of Fuel (\$)</u>							
1	Coal Cost	\$ 16,367,075	\$ 21,649,818	\$ 21,940,788	\$ 19,278,496	\$ 19,323,902	\$ 18,757,397
2	Gas Cost	5,850,881	4,149,534	8,728,661	6,570,632	5,968,294	10,619,423
3	Oil Cost	-	-	-	-	-	-
<u>Cost of Fuel by Type</u>							
4	Coal (\$ /MMBtu)	\$ 1.63	\$ 1.84	\$ 1.84	\$ 1.84	\$ 1.85	\$ 1.83
5	Gas (\$ /MMBtu)	5.14	6.81	4.19	4.80	5.17	4.35
6	Oil (\$ /MMBtu)	-	-	-	-	-	-
<u>Generation by Type (MWh)</u>							
7	Coal	997,291	1,161,841	1,181,930	1,039,888	1,022,168	1,007,152
8	Gas	102,440	53,088	191,246	123,624	103,521	219,356
9	Oil	-	-	-	-	-	-
<u>Total Fuel</u>							
10	Total Fuel Cost (\$)	\$ 22,217,955	\$ 25,799,352	\$ 30,669,448	\$ 25,849,128	\$ 25,292,195	\$ 29,376,819
11	Cost (\$ /MMBtu)	\$ 1.99	\$ 2.08	\$ 2.19	\$ 2.18	\$ 2.18	\$ 2.32
12	Generation - (MWh)	1,099,731	1,214,929	1,373,176	1,163,512	1,125,689	1,226,507

Note: Excludes Non-mine and Non-freight Costs

(b) SPS does not calculate fuel cost specifically for the New Mexico jurisdiction. Instead, system fuel costs are allocated to each jurisdiction. Therefore, New Mexico fuel cost per MMBtu is the same as the system fuel cost shown above.

Southwestern Public Service Company

Fuel Statistics Information

Line No.	Description	G	Jul-16	H	Aug-16	I	Sep-16	J	Oct-16	K	Nov-16	L	Dec-16	Total
<u>Cost of Fuel (\$)</u>														
1	Coal Cost		\$ 22,798,233	\$ 22,360,698	\$ 20,629,591	\$ 20,769,411	\$ 19,863,199	\$ 23,641,531	\$ 247,380,137					
2	Gas Cost		17,656,741	17,164,285	9,213,637	5,903,298	4,616,929	5,002,001	101,444,314					
3	Oil Cost		-	-	-	-	-	-	-	-	-	-	-	-
<u>Cost of Fuel by Type</u>														
4	Coal (\$ /MMBtu)	\$	1.84	\$ 1.83	\$ 1.85	\$ 1.86	\$ 1.84	\$ 1.85	\$ 1.83					1.83
5	Gas (\$ /MMBtu)		3.79	3.86	4.74	5.82	6.23	6.22	4.53					
6	Oil (\$ /MMBtu)		-	-	-	-	-	-	-					-
<u>Generation by Type (M)</u>														
7	Coal		1,228,968	1,203,633	1,106,847	1,114,940	1,061,214	1,270,912	13,396,785					
8	Gas		421,893	404,322	171,214	92,410	63,303	72,013	2,018,431					
9	Oil		-	-	-	-	-	-	-					-
<u>Total Fuel</u>														
10	Total Fuel Cost (\$)	\$	40,454,973	\$ 39,524,983	\$ 29,843,229	\$ 26,672,709	\$ 24,480,128	\$ 28,643,532	\$ 348,824,451					
11	Cost (\$ /MMBtu)	\$	2.37	\$ 2.38	\$ 2.27	\$ 2.19	\$ 2.13	\$ 2.11	\$ 2.21					
12	Generation - (MWh)		1,650,861	1,607,955	1,278,061	1,207,350	1,124,517	1,342,925	15,415,216					

Note: Excludes Non-mine and Non-freight Costs

(b) SPS does not calculate fuel cost specifically for the New Mexico jurisdiction. Instead, system fuel costs are allocated to each jurisdiction. Therefore, New Mexico fuel cost per MMBtu is the same as the system fuel cost shown above.