

Black Hills

Appendix A – Load Forecast Information and Class Load Profiles

**Table A-1
Peak Demand and Annual Energy Forecast – Base Case**

Year	RES (GWh)	COM (GWh)	IND (GWh)	WHO (GWh)	OTH (GWh)	Total Sales (GWh)	Sales Growth (GWh)	T&D Losses (GWh)	Total Energy (GWh)	T&D Losses	Summer Peak (MW)	Winter Peak (MW)	Annual Load Factor
1996	466.7	487.7	330.4	2.7	64.9	1352.4		100.5	1452.9	6.9%	247.0	242.0	67.0%
1997	468.6	520.6	355.1	0.4	77.6	1422.3	69.9	117.1	1539.4	7.6%	263.0	236.0	66.8%
1998	481.0	552.7	383.9	0.5	63.8	1481.8	59.5	112.8	1594.6	7.1%	272.0	260.0	66.9%
1999	484.1	561.7	406.4	0.6	65.6	1518.4	36.6	109.9	1628.3	6.7%	280.0	257.0	66.4%
2000	507.4	587.4	417.2	0.5	71.9	1584.3	65.9	130.6	1714.9	7.6%	292.0	268.0	66.9%
2001	517.0	587.2	372.3	0.5	80.9	1557.8	-26.5	105.0	1662.8	6.3%	297.0	258.0	63.9%
2002	542.9	604.3	410.1	0.1	85.8	1643.1	85.4	113.7	1756.9	6.5%	319.0	278.0	62.9%
2003	545.9	610.8	505.5	0.2	66.7	1729.1	85.9	100.6	1829.7	5.5%	345.0	274.0	60.5%
2004	535.2	623.6	512.1	0.1	63.8	1734.9	5.8	152.3	1887.1	8.1%	347.0	289.0	61.9%
2005	569.4	636.3	539.2	0.1	46.7	1791.6	56.8	122.9	1914.6	6.4%	366.0	297.0	59.7%
2006	572.0	665.9	544.4	0.6	41.8	1824.8	33.1	114.1	1938.9	5.9%	357.0	297.0	62.0%
2007	593.7	686.4	532.5	0.4	40.0	1853.1	28.3	106.6	1959.6	5.4%	372.0	316.0	60.1%
2008	598.9	701.4	541.0	0.4	39.9	1881.7	28.6	122.7	2004.3	6.1%	369.0	325.0	61.8%
2009	612.2	722.6	565.6	0.4	40.1	1940.9	59.2	126.5	2067.4	6.1%	378.0	334.0	62.4%
2010	625.7	744.5	583.3	0.4	40.3	1994.2	53.4	130.0	2124.2	6.1%	388.0	341.0	62.5%
2011	656.9	758.0	608.2	0.4	41.8	2065.2	71.0	134.6	2199.9	6.1%	397.0	350.0	63.3%
2012	672.5	780.4	622.0	0.4	41.6	2117.0	51.8	138.0	2255.0	6.1%	406.0	359.0	63.2%
2013	687.0	798.8	638.0	0.4	41.6	2165.8	48.8	141.2	2307.0	6.1%	415.0	368.0	63.5%
2014	702.5	819.8	652.8	0.4	41.6	2217.1	51.3	144.5	2361.7	6.1%	424.0	376.0	63.6%
2015	718.6	839.9	667.4	0.4	41.6	2267.9	50.8	147.8	2415.8	6.1%	433.0	385.0	63.7%
2016	736.1	862.8	681.8	0.4	41.6	2322.7	54.8	151.4	2474.1	6.1%	442.0	394.0	63.7%
2017	752.4	881.9	697.6	0.4	41.6	2374.0	51.3	154.8	2528.8	6.1%	452.0	403.0	63.9%
2018	770.0	904.1	712.3	0.4	41.6	2428.5	54.4	158.3	2586.8	6.1%	461.0	412.0	64.1%
2019	788.1	926.8	726.3	0.4	41.6	2483.2	54.8	161.9	2645.1	6.1%	471.0	421.0	64.1%
2020	807.7	952.2	740.3	0.4	41.6	2542.3	59.0	165.7	2708.0	6.1%	481.0	430.0	64.1%
2021	827.1	974.2	754.9	0.4	41.6	2598.2	55.9	169.4	2767.6	6.1%	491.0	440.0	64.3%
2022	846.8	997.2	772.0	0.4	41.6	2658.1	59.9	173.3	2831.4	6.1%	501.0	450.0	64.5%
2023	867.4	1021.0	789.4	0.4	41.6	2719.8	61.7	177.3	2897.1	6.1%	512.0	460.0	64.6%
2024	888.6	1044.9	804.9	0.4	41.6	2780.5	60.6	181.3	2961.7	6.1%	522.0	470.0	64.6%
2025	910.5	1069.5	821.3	0.4	41.6	2843.3	62.8	185.3	3028.7	6.1%	533.0	480.0	64.9%
2026	932.9	1094.6	837.2	0.4	41.6	2906.8	63.4	189.5	3096.2	6.1%	544.0	491.0	65.0%
2027	955.8	1120.2	853.1	0.4	41.6	2971.2	64.4	193.7	3164.9	6.1%	556.0	502.0	65.0%
2028	979.4	1146.3	869.2	0.4	41.6	3036.9	65.7	198.0	3234.9	6.1%	567.0	513.0	65.0%
2029	1003.6	1173.2	885.5	0.4	41.6	3104.3	67.4	202.4	3306.7	6.1%	579.0	524.0	65.2%
2030	1028.4	1200.8	902.9	0.4	41.6	3174.2	69.8	206.9	3381.1	6.1%	591.0	535.0	65.3%
Growth:													
1996-2006	2.1%	3.2%	5.1%	-13.9%	-4.3%	3.0%		6.8%	2.9%	6.8%	3.8%	2.1%	-0.8%
2007-2010	1.8%	2.7%	3.1%	0.0%	0.3%	2.5%		5.9%	2.7%	5.9%	1.4%	2.6%	1.3%
2008-2030	2.5%	2.5%	2.4%	0.0%	0.2%	2.4%		2.4%	2.4%	0.0%	2.2%	2.3%	0.2%

* Actual 1996-2007, Forecast 2008-2030

Public Service Company

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See Below

Subject: PSCO peak demand and annual energy 2010-2030

Peak load demand for PSCo retail and wholesale customers in MW. Does not include Black Hills after 2011.

		Energy GWH
2010	6490	32328
2011	6542	35319
2012	6350	33984
2013	6495	34529
2014	6628	34972
2015	6742	35750
2016	6861	36250
2017	6949	36839
2018	7035	37650
2019	7126	38037
2020	7225	38761
2021	7321	39604
2022	7292	39385
2023	7375	39369
2024	7455	40417
2025	7530	40680
2026	7606	41236
2027	7680	41987
2028	7710	42353
2029	7779	42771
2030	7850	43483

250 MW was removed from the peak forecast when IREA and Holy Cross purchase their 250 MW from the Comanche power plant. You will have to add that 250 MW back in to get the total load forecast. The energy associated with the 250 MW is also not included in the energy.

Colorado Springs Utilities

Electric Energy and Peak Demand Long Term
2010 Forecast

Energy Including Losses

	GWH	Peak Demand - MW
2010	4,608	824
2011	4,623	830
2012	4,635	834
2013	4,638	834
2014	4,663	837
2015	4,686	839
2016	4,761	847
2017	4,811	856
2018	4,882	872
2019	4,970	889
2020	5,036	901
2021	5,099	913
2022	5,132	923
2023	5,196	937
2024	5,274	952
2025	5,355	969
2026	5,441	986
2027	5,529	1,004
2028	5,619	1,034
2029	5,708	1,053
2030	5,803	1,072

LOAD Forecast

June 15, 2010

	Annual Peak (MW)	Annual Growth	Annual Energy (GWh)	Annual Growth
2010	637		3,157	
2011	652	2.4%	3,218	1.9%
2012	668	2.4%	3,279	1.9%
2013	683	2.3%	3,341	1.9%
2014	699	2.3%	3,402	1.8%
2015	714	2.2%	3,463	1.8%
2016	729	2.1%	3,523	1.8%
2017	744	2.1%	3,584	1.7%
2018	759	2.0%	3,644	1.7%
2019	774	2.0%	3,704	1.6%
2020	792	2.3%	3,780	2.0%
2021	811	2.3%	3,855	2.0%
2022	829	2.3%	3,931	2.0%
2023	847	2.2%	4,008	1.9%
2024	866	2.2%	4,085	1.9%
2025	884	2.1%	4,162	1.9%
2026	902	2.1%	4,239	1.9%
2027	921	2.0%	4,317	1.8%
2028	939	2.0%	4,395	1.8%
2029	957	2.0%	4,473	1.8%
2030	976	1.9%	4,551	1.7%
Growth 2010-2030		2.2%		1.8%

Note: The data contained to the left is adjusted for estimated DSM savings.

CONCEPTUAL RESOURCE Forecast

	MW	Year	Location	
Wind	20	2015	SW WY or NE CO	
	7	2017	SW WY or NE CO	
	32	2020	SW WY or NE CO	
	12	2021	SW WY or NE CO	
	10	2023	SW WY or NE CO	
	22	2026	SW WY or NE CO	
	13	2027	SW WY or NE CO	
	10	2030	SW WY or NE CO	
	Wind Total	126		
	Natural Gas, Type FA	128	2018	Rawhide
128		2024	Rawhide	
NG Total	256			

Tri-State

Section 3606 (a) (i): Base Case Load Forecast

Year	TOTAL 44 MEMBERS			COLORADO JURISDICTION			OTHER STATE JURISDICTIONS		
	Annual Energy (GWh)	Summer Peak (MW)	Winter Peak (MW)	Annual Energy (GWh)	Summer Peak (MW)	Winter Peak (MW)	Annual Energy (GWh)	Summer Peak (MW)	Winter Peak (MW)
2011	15,489	2,668	2,243	9,718	1,670	1,467	5,770	997	776
2012	15,734	2,705	2,281	9,928	1,706	1,500	5,807	999	782
2013	15,937	2,736	2,319	10,102	1,733	1,532	5,835	1,002	787
2014	16,201	2,778	2,370	10,319	1,769	1,572	5,882	1,009	797
2015	16,535	2,835	2,425	10,571	1,810	1,615	5,964	1,025	810
2016	16,846	2,882	2,475	10,810	1,848	1,654	6,036	1,034	821
2017	17,143	2,930	2,524	11,037	1,884	1,692	6,106	1,046	832
2018	17,453	2,978	2,578	11,273	1,922	1,734	6,180	1,056	844
2019	17,792	3,032	2,636	11,520	1,962	1,778	6,272	1,070	859
2020	18,144	3,087	2,691	11,777	2,004	1,819	6,367	1,083	872
2021	18,444	3,132	2,740	11,995	2,037	1,856	6,449	1,095	884
2022	18,775	3,185	2,795	12,239	2,077	1,898	6,536	1,108	897
2023	19,117	3,238	2,853	12,493	2,117	1,942	6,624	1,121	911
2024	19,480	3,295	2,910	12,762	2,161	1,985	6,718	1,134	924
2025	19,810	3,345	2,963	13,004	2,198	2,026	6,805	1,147	937
2026	20,153	3,399	3,018	13,259	2,240	2,068	6,894	1,160	950
2027	20,490	3,450	3,076	13,510	2,279	2,112	6,980	1,171	964
2028	20,859	3,510	3,131	13,783	2,325	2,154	7,076	1,185	977
2029	21,165	3,554	3,181	14,011	2,359	2,193	7,154	1,195	988
2030	21,503	3,608	3,236	14,263	2,400	2,234	7,240	1,208	1,001