CHAPTER 3 – RESOURCE NEEDS ASSESSMENT UPDATE

Introduction

This chapter presents the update to PacifiCorp's resource needs assessment, focusing on the 2014-2023 planning period covered by the fall 2013 ten-year business plan (Business Plan). Updates to the Company's long-term load forecast, resources, and capacity position are presented and summarized.

Coincident Peak Load Forecast

Load Forecast

PacifiCorp's Business Plan reflected an updated load forecast finalized in June 2013. Relative to the load forecast prepared for the 2013 IRP, PacifiCorp system sales initially decrease in the short term and then increase over the planning period. The primary driver of the changes in the forecast are an increase in the industrial forecast due to improving economic conditions and a decrease in the residential forecast due to changes in energy efficiency and lower average-use per customer.

The coincident peak forecast decreased through the planning period due to decreases in forecast residential loads and a relatively flat peak load growth over the last five years. The coincident peak forecast decreased even though overall loads are increasing due to industrial and commercial class loads increasing relative to the decreasing residential loads and historically flat peak load growth over the last five years, which in turn reduces the long-term forecast peak load growth expectations.

In October 2013, the Company updated the load forecast for the residential class loads. Due to lower than expected weather normalized residential usage in the summer of 2013, the Company incorporated February through August 2013 actual loads for the residential class. The change between the October 2013 forecast and the June 2013 forecast reflects the changes in the residential forecast. The October 2013 load forecast is used for the 2013 IRP Update resource needs assessment.

Tables 3.1 and 3.2 report the October 2013 (2013 IRP Update) annual load and coincident peak load forecasts, respectively. Note that these forecast data exclude load reduction projections from new energy efficiency measures (Class 2 DSM), since such load reductions are included as resources in the resource portfolio.

APPENDIX A – ADDITIONAL LOAD FORECAST DETAILS

The load forecast presented in Chapter 3 represents the data used for capacity expansion modeling, and excludes load reductions from incremental energy efficiency resources (Class 2 DSM). To arrive at the retail sales forecast, the initial load forecast is reduced by total Class 2 DSM as well as line losses. Table A.1 shows the retail sales forecast by state that is consistent with the 2013 IRP Update load forecast. Table A.2 shows the change in the load forecast as compared to the 2013 IRP.

Table A.1 – 2013 IRP Update Annual Retail Sales Forecast in Megawatt-hours by State

Year	OR	WA	CA	UT	WY	ID	Total
2014	13,011,121	3,971,579	769,597	22,860,795	9,705,269	3,389,170	53,707,529
2015	13,116,271	3,967,117	767,691	23,671,994	9,877,707	3,402,445	54,803,225
2016	13,113,018	3,979,083	768,813	24,536,991	10,049,251	3,421,656	55,868,812
2017	13,167,161	3,969,219	765,290	24,802,309	10,147,190	3,431,597	56,282,766
2018	13,178,870	3,975,811	764,323	25,076,147	10,257,657	3,443,919	56,696,727
2019	13,206,484	3,983,129	763,662	25,421,246	10,371,679	3,457,402	57,203,602
2020	13,267,439	3,999,854	763,991	26,333,407	10,507,412	3,474,599	58,346,703
2021	13,258,936	3,994,501	760,844	26,654,633	10,572,081	3,483,313	58,724,307
2022	13,302,688	4,001,736	760,086	27,076,817	10,663,730	3,497,362	59,302,419
2023	13,364,939	4,016,918	760,400	27,602,041	10,764,257	3,516,168	60,024,723
Average Annual Growth Rate for 2014-2023							
2014-2023	**0.30%**	**0.13%**	**-0.13%**	**2.12%**	**1.16%**	**0.41%**	**1.24%**

Table A.2 – Change in Annual Retail Sales Forecast in Megawatt-hours by State compared to the 2013 IRP

Year	OR	WA	CA	UT	WY	ID	Total
2014	(156,999)	27,583	(4,491)	(455,637)	(16,052)	(41,110)	(646,705)
2015	(117,117)	27,720	(4,701)	279,644	(16,852)	(54,378)	114,315
2016	(229,875)	26,734	(5,138)	901,029	(25,728)	(68,456)	598,566
2017	(221,364)	26,049	(5,774)	859,171	(36,059)	(71,242)	550,782
2018	(259,135)	22,109	(7,449)	819,281	(50,663)	(79,555)	444,587
2019	(293,604)	18,755	(8,720)	856,911	(57,516)	(83,734)	432,093
2020	(322,604)	16,200	(10,022)	1,419,892	(70,559)	(90,002)	942,904
2021	(350,931)	15,136	(9,465)	1,528,901	(86,645)	(86,721)	1,010,274
2022	(363,139)	13,250	(8,849)	1,644,430	(104,116)	(87,909)	1,093,666
2023	(378,659)	11,100	(8,136)	1,781,790	(123,375)	(85,636)	1,197,082

Tables A.3 shows the retail sales forecast by class that is consistent with the 2013 IRP Update load forecast. Table A.4 is the change in the retail sales forecast as compared to the 2013 IRP.

Table A.3 – System Annual Retail Sales Forecast in Megawatt-hours by Class

Year	Residential	Commercial	Industrial	Irrigation	Lighting	Public Authority	Total
2014	15,425,806	17,252,544	19,346,275	1,262,775	143,080	277,050	53,707,529
2015	15,419,299	17,578,512	20,126,314	1,262,009	143,090	274,000	54,803,225
2016	15,503,658	17,865,986	20,819,565	1,261,233	143,630	274,740	55,868,812
2017	15,520,233	18,102,730	20,982,242	1,260,301	143,260	274,000	56,282,766
2018	15,607,006	18,266,895	21,146,431	1,259,066	143,330	274,000	56,696,727
2019	15,709,357	18,405,178	21,413,865	1,257,813	143,390	274,000	57,203,602
2020	15,814,139	18,606,427	22,250,818	1,256,749	143,830	274,740	58,346,703
2021	15,866,229	18,704,796	22,480,323	1,255,459	143,500	274,000	58,724,307
2022	15,982,478	18,865,953	22,782,271	1,254,177	143,540	274,000	59,302,419
2023	16,126,149	19,095,913	23,131,650	1,253,411	143,600	274,000	60,024,723
Average Annual Growth Rate for 2014-2023							
2014-2023	**0.49%**	**1.13%**	**2.01%**	**-0.08%**	**0.04%**	**-0.12%**	**1.24%**

Table A.4 – Change in System Annual Retail Sales Forecast in Megawatt-hours by Class Compared to the 2013 Integrated Resource Plan

Year	Residential	Commercial	Industrial	Irrigation	Lighting	Public Authority	Total
2014	(465,322)	(52,058)	(149,066)	17,761	1,430	550	(646,705)
2015	(541,943)	(826)	639,445	17,630	1,370	(1,360)	114,315
2016	(615,709)	9,042	1,186,215	17,489	1,430	100	598,566
2017	(657,851)	65,756	1,123,761	17,647	1,430	40	550,782
2018	(713,482)	88,712	1,050,177	17,300	1,450	430	444,587
2019	(758,034)	119,254	1,051,546	17,137	1,460	730	432,093
2020	(817,649)	153,562	1,587,063	16,888	1,450	1,590	942,904
2021	(823,357)	190,011	1,624,571	16,519	1,450	1,080	1,010,274
2022	(838,930)	235,713	1,678,009	16,233	1,450	1,190	1,093,666
2023	(861,821)	280,156	1,759,975	16,053	1,450	1,270	1,197,082

The change in the retail sales forecast is driven by a decrease in residential loads, due to increases in energy efficiency and slowing growth in central air-conditioning saturation, and an increase in commercial and industrial loads due to changes in self-generation assumptions as well as continued economic recovery.