

State-Adjusted Load Forecast: Washington

Reviewed by	Date
Galen Barbose (revised)	08/02/10

This document presents the 2020 State-Adjusted Load Forecast recommended by the SPSC DSM Working Group, and describes the underlying analysis. The State-Adjusted Load Forecast will be used in the SPSC Reference Case, and will be the starting point in developing alternate load forecasts for the other scenarios in the SPSC study request. The State-Adjusted Load Forecast recommended by the DSM Working Group is intended to reflect the expected energy savings and peak demand savings from current energy efficiency policies and utility resource plans, based on the methodology and assumptions described in the Reference Case proposal from the DSM Working Group to the SPSC, and incorporating any subsequent guidance from each state/province's designated DSM technical contact.¹

We seek approval from SPSC members of the State-Adjusted Load Forecasts shown in Column D of Tables 1 and 2. Please respond to Michael Wheeler (michael.wheeler@cpuc.ca.gov) by August 4th indicating whether the proposed forecast is acceptable, and if not, what specific changes are needed.

Given the limited time available for making revisions to this analysis, we request that revisions to the analysis be made only if they are likely to have a material impact on the load forecasts at the balancing authority level. Any questions about how the State-Adjusted Load Forecasts were developed that are not addressed within this document should be directed to Galen Barbose (galbarbose@lbl.gov, 510-495-2593).

A. Recommended State-Adjusted Load Forecast

Tables 1 and 2 present the SPSC DSM Working Group's recommended State-Adjusted Load Forecast for each balancing authority in the state/province (Column D), compared to the forecasts that were submitted by the balancing authorities to WECC. The difference between these two sets of load forecasts reflects the difference between the estimated reference case energy efficiency savings (Column B) and the amount of savings already embedded in the WECC load forecast (Column C). The remainder of this document provides details on the analysis underlying the values shown in Columns B and C.

¹ See: "Proposed TEPPC Reference Case DSM Assumptions: Request for Review and Input from SPSC Members," dated April 3, 2010.

Table 1. State-Adjusted Load Forecasts for 2020: Annual Electricity Consumption (GWh)

Balancing Authority (In-State Portion)	A	B	C	D = A - (B - C)	E = (D/A - 1)
	Load Forecast Submitted to WECC	Reference Case Efficiency Savings	Savings Embedded in WECC Load Forecast	State-Adjusted Load Forecast	Percent Change from BA Forecast
	(GWh)	(GWh)	(GWh)	(GWh)	(%)
AVA	9,460	1,162	992	9,290	-2%
BPA ¹	34,730	3,779	1,815	32,767	-6%
CHPD	4,080	345	166	3,901	-4%
DOPD	2,148	222	107	2,033	-5%
GCPD	5,198	598	287	4,888	-6%
PACW	4,672	715	499	4,456	-5%
PSE	26,482	4,120	3,533	25,895	-2%
SCL	10,929	1,582	1,139	10,486	-4%
TPWR	5,438	900	433	4,970	-9%

Deleted: 33,890

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¹ The data for BPA in column A was revised to reflect the updated BPA load forecast that WECC provided to LBNL on 07/30/10. The change in the value in Column A resulted in an equivalent change in the value in Column D.

Table 2. State-Adjusted Load Forecasts for 2020: Peak Demand (MW)

Balancing Authority (In-State Portion)	A	B	C	D=A-(B-C)	E = (D/A - 1)
	Load Forecast Submitted to WECC	Reference Case Efficiency Savings	Savings Embedded in WECC Load Forecast	State-Adjusted Load Forecast	Percent Change from BA Forecast
	(MW)	(MW)	(MW)	(MW)	(%)
AVA	1,808	204	167	1,771	-2%
BPA ¹	6,233	501	241	5,973	-4%
CHPD	719	70	33	683	-5%
DOPD	458	45	22	435	-5%
GCPD	865	121	58	802	-7%
PACW	949	139	91	901	-5%
PSE	5,355	830	700	5,225	-2%
SCL	1,924	318	235	1,841	-4%
TPWR	1,031	182	87	937	-9%

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¹ The data for BPA in column A was revised to reflect the updated BPA load forecast that WECC provided to LBNL on 07/30/10. The change in the value in Column A resulted in an equivalent change in the value in Column D.

B. Reference Case Energy Efficiency Savings

The DSM Working Group developed reference case energy efficiency savings projections for each balancing authority, based on the best available information. These projections represent the cumulative impact in 2020 from programs and policies implemented over the 2010-2020 time period; that is, they are incremental to impacts from programs or policies implemented prior to 2010.

For Washington, the approach used to develop the reference case energy efficiency savings projection differed depending on the balancing authority. For AVA, PACW, PSE, and SCL, the reference case savings projection was developed by separately estimating the expected impact from: (1) ratepayer-funded energy efficiency programs and (2) new federal appliance and lighting standards. This is the standard approach that the DSM Working Group used throughout its analysis of all western states and provinces.

For the other balancing authorities in Washington (BPA, CHPD, DOPD, GCPD, and TPWR), which consist entirely of public utilities, the reference case energy efficiency savings projections are equal to their pro-rated share of the cumulative 2020 conservation target identified in the Northwest Power and Conservation Council's 6th Power Plan. The primary rationale for this approach is that it would not be practical to develop estimates of the savings from ratepayer-funded energy efficiency programs for each individual public utility in Washington. Furthermore, given the policies in place in Washington, the Council's conservation targets represent a reasonable approximation for the total energy savings – including the effects of both ratepayer-funded programs and new federal lighting and appliance standards – over the forecast period. Thus, although the analysis for these balancing authorities does not itemize the contribution from ratepayer-funded programs and new federal lighting and appliance standards, we believe that the approach taken for these entities is largely consistent with the approach taken for the other balancing authorities, in terms of the scope of policy mechanisms covered and the “aggressiveness” of the underlying policy assumptions.² As an aside, it is important to note that the Council's conservation targets are measured against a “frozen efficiency” baseline. Thus, the magnitude of the reference case savings for this set of balancing authorities (as shown in Tables 1 and 2) cannot necessarily be directly compared to the savings projections for the other balancing authorities, as those savings targets are likely measured relative to a different baseline definition.

In the remainder of this section, we describe more specifically how the reference case energy efficiency savings estimates were developed for each balancing authority.

Ratepayer-Funded Energy Efficiency Program Savings

The DSM Working Group's estimate of savings from ratepayer-funded energy efficiency programs for the three IOUs and Seattle City Light is summarized in Table 3. These projections are based directly on the savings targets identified within each utility's most recently-filed IRP and, for the two utilities with service territories in multiple states (Avista and PacifiCorp), the values in Table 3 represent just the portion of the savings estimated to occur within Washington. The four utilities listed in Table 3 represent the entirety of the load in their respective balancing authorities; thus these projections are assumed to represent the entirety of the savings from ratepayer-funded energy efficiency programs in these balancing authorities.

² It is possible that the NPCC conservation targets may not *fully* capture the savings from the set of new federal lighting and appliance standards included in our analysis. However, at this point in time, it is not possible to quantify the residual savings.

Table 3. Cumulative Savings from Ratepayer-Funded Energy Efficiency Programs (Washington Portion)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Energy Savings (GWh)											
Avista ¹	69	138	207	276	351	426	507	589	670	758	846
PacifiCorp ²	31	62	91	121	152	176	204	231	257	285	312
Puget Sound Energy ³	275	551	826	1101	1376	1652	1927	2202	2477	2753	3027
Seattle City Light ⁴	131	263	403	543	657	771	876	990	1086	1113	1139
Peak Demand (MW)											
Avista ¹	12	24	35	47	61	73	87	101	115	130	145
PacifiCorp ⁵	7	13	20	26	33	39	45	49	54	59	63
Puget Sound Energy ³	45	91	140	197	262	341	407	467	525	580	624
Seattle City Light ⁴	21	43	68	97	125	159	185	210	230	234	235

- ¹ Data Source: Avista 2009 IRP (August 2009). The savings projection shown in Table 4 includes both savings from programs administered directly by Avista (Tables 8.12 and 8.13 in the IRP) and savings from regional market transformation programs administered by Northwest Energy Efficiency Alliance (NEEA). For the purpose of this projection, we assume that savings from NEEA programs will continue to generate savings within Avista’s service territory at their historical rate (see Table 3.1 of the IRP). We allocate savings between the Idaho and Washington portions of Avista’s service territory in proportion to the historical distribution in Avista’s energy efficiency program budget between the two states.
- ² Data source: PacifiCorp’s 2008 IRP Update (dated March 2010), Table A.3. The savings numbers in the IRP are cumulative savings that include savings achieved in 2009. For the TEPPC reference case analysis, we must identify the cumulative savings starting in 2010. Thus, we have deducted the estimated savings achieved in 2009 (31 GWh, equal to the incremental savings identified by the IRP for 2010) from the cumulative savings values reported in the IRP. In addition, the forecast in the IRP extends only to 2019. For 2020, we assume that cumulative savings increase by the same amount as in 2019 (27 GWh).
- ³ Data source: Gurvinder Singh (Puget Sound Energy). PSE’s 2009 IRP does not provide a table itemizing the planned conservation savings. Peter Larsen (LBNL) contacted Mr. Singh, who provided a table with the annual DSM savings targets associated with PSE’s 2009 IRP. That savings projection represented the planned savings from all DSM activities, including energy efficiency, distributed generation, and fuel switching. We estimate the contribution from energy efficiency based on its percentage share of the total achievable DSM potential identified in the IRP (Appendix L, Table 1).
- ⁴ Data source: Seattle City 2008 IRP, Recommended Resource Portfolio on p. x of the Executive Summary. The data source presents cumulative savings beginning in 2008. For the TEPPC reference case analysis, we must identify the cumulative savings starting in 2010. Thus, we have deducted the cumulative savings achieved through 2009 (22 aMW or 193 GWh) from the cumulative energy savings values reported in the IRP. Peak demand savings are estimated from energy savings, based on the peak-to-energy savings ratio for the savings targets identified in PSE’s IRP.
- ⁵ Data source: PacifiCorp’s 2008 IRP Update, Table ES-1. That table identifies the peak savings for all of PacifiCorp-East. We estimate the peak demand savings in Washington by pro-rating the total peak demand savings in PacifiCorp-West, based on the proportion of energy savings occurring in Washington (as indicated by Table A.3). In addition, as with the energy savings projection, we assume that incremental peak demand savings in 2020 are the same as in 2019.

New Federal Lighting and Appliance Standards

In developing its projection of savings from federal lighting and appliance standards, the DSM Working Group focused exclusively on the impact of *new* (or relatively recent) standards³, including:

- Standards established directly by Congress through the Energy Independence and Security Act of 2007 (EISA), the most significant of which being the lighting standard;
- Standards established by DOE since 2009 through its normal rulemaking process, or scheduled to be established by January 2013.

The projected state-level energy and peak demand savings from those new standards are summarized in Table 4. These projections derive largely from secondary data sources, as described in the notes section of the table. For some standards, the data sources directly provided state-level savings estimates based on state-specific demographic and end-use data. For other standards, the data sources provided only national estimates, and the DSM Working Group estimated the state-level impacts based on the projected savings from standards for similar standards for which both state and national savings estimates were available. Within each state, savings were allocated to individual balancing authorities in proportion to their projected 2020 load. For reasons already discussed, we did not separately estimate the savings from new federal lighting and appliance standards for BPA.

Table 4. Projected Savings from New Federal Appliance and Lighting Standards in 2020

Balancing Authority (In-State Portion)	EISA ¹		DOE ²		Total	
	GWh	MW	GWh	MW	GWh	MW
AVA	147	22	170	38	316	59
PACW	187	28	216	48	403	76
PSE	506	76	587	130	1,093	206
SCL	205	31	238	53	443	83

¹ Data Source: Andrew deLaski, executive director of the Appliance Standards Awareness Project (ASAP), provided a spreadsheet with his analysis of the expected savings from each EISA standard. This is an updated version of an analysis previously published jointly by ASAP and ACEEE, and includes only the savings from those standards directly established by EISA. This data source provided only national impacts.

² Data Sources: For new standards that DOE has *scheduled* but not yet established, we rely on the savings projections estimated in Neubauer et al. (2009).⁴ That report provides estimates of the expected national savings from each individual standard for which DOE expects to complete its rulemaking by January 2013. State-level estimates are not contained within the report, but are published on ASAP's website, at the following URL: http://www.standardsasap.org/state/2009%20federal%20analysis/ka-BOOM_overview.html. For new standards that DOE has *already* established, since July 2009, we rely on the DOE technical support documentation associated with the final rule, rather than on the projections in Neubauer et al. (2009).

NPCC 6th Power Plan Conservation Targets for BPA, CHPD, DOPD, GCPD, and TPWR

³ The DSM Working Group's decision to focus exclusively on the impact of *new* standards was predicated on the assumption that, in general, the load forecasts submitted by balancing authorities to WECC will already adequately account for the future impact of *existing* standards, by virtue of the econometric load forecasting methods commonly used.

⁴ Max Neubauer, Andrew deLaski, Marianne DiMascio & Steven Nadel . 2009. *Ka-BOOM! The Power of Appliance Standards Opportunities for New Federal Appliance and Equipment Standards*. Washington, DC: American Council for an Energy-Efficient Economy (ACEEE) and the Appliance Standards Awareness Project (ASAP). Report Number ASAP-7/ACEEE-A091.

The reference case energy efficiency savings projections for BPA, CHPD, DOPD, GCPD, and TPWR are equal to their shares of the cumulative 2020 conservation target identified in the NPCC's 6th Power Plan. The council's conservation targets are allocated to each balancing authority in proportion to historical retail sales. Table 5 presents the targets for BPA, allocated to each state in the BPA balancing authority footprint, and Table 6 presents the targets for CHPD, DOPD, GCPD, and TPWR.

Table 5. NPCC 6th Plan Conservation Targets for the BPA Balancing Authority

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Energy Savings (GWh)											
Washington ²	222	482	780	1,114	1,480	1,810	2,190	2,588	3,001	3,428	3,779
Oregon ²	111	240	388	554	737	901	1,090	1,288	1,494	1,706	1,881
Idaho ²	16	35	57	81	108	132	160	189	219	250	276
Montana ²	21	45	73	105	139	170	206	243	282	322	355
Total BPA¹	370	803	1,298	1,854	2,464	3,013	3,646	4,308	4,996	5,707	6,290
Peak Demand (MW)											
Washington ²	30	65	105	150	199	243	293	346	401	457	501
Oregon ²	15	32	52	75	99	121	146	172	199	227	250
Idaho ²	2	5	8	11	15	18	21	25	29	33	37
Montana ²	3	6	10	14	19	23	28	33	38	43	47
Total BPA¹	50	108	175	250	331	404	488	577	667	761	834

¹ Data Source: Oattie Nabors (BPA). BPA's share of the total regional conservation target was calculated as follows: BPA share = Total regional conservation target x 42% (public utility share of regional retail sales) x 56% (portion of public utility retail sales within the BPA balancing authority).

² The total BPA conservation target was allocated across states according to following distribution, which was provided by NPCC and is based on historical retail sales: Washington (60.1%), Oregon (29.9%), Idaho (4.4%), and Montana (5.6%).

Table 6. NPCC 6th Plan Conservation Targets for CHPD, DOPD, GCPD, and TPWR

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Energy Savings (GWh)											
CHPD	21	46	74	105	139	168	199	232	269	308	345
DOPD	14	29	48	68	89	108	128	149	173	198	222
GCPD	37	79	128	182	241	291	345	401	466	534	598
TPWR	56	120	193	274	363	439	520	605	702	804	900
Peak Demand (MW)											
CHPD	5	10	15	22	28	34	40	47	54	62	70
DOPD	3	6	10	14	18	22	26	30	35	40	45
GCPD	8	17	27	37	49	59	70	81	94	108	121
TPWR	12	25	40	56	73	89	105	122	142	162	182

Data Source: NPCC (Massoud Jourabchi). The Council develops its conservation forecasts for each state, and then allocates the forecasts to individual balancing authorities in proportion to historical retail sales.

C. Energy Efficiency Savings Embedded in the WECC Load Forecasts

The State-Adjusted Load Forecasts were developed by deducting from the load forecast that each balancing authority submitted to WECC the *incremental* reference case savings not already embedded within that forecast. The incremental reference case savings is equal to the difference between the total reference case savings (as described in the previous section) and the energy savings from the same programs/policies that are already embedded within the load forecast. Table 7 presents the DSM Working Group’s estimates of the energy efficiency program/policy savings already embedded in the balancing authority load forecasts. For those balancing authorities where the reference case savings projection is based on the Council’s conservation targets, we show only the total embedded energy efficiency savings and do not differentiate between embedded savings associated with ratepayer-funded programs and new federal standards.

Table 7. Energy Efficiency Savings Embedded in the WECC Load Forecasts (2020)

Balancing Authority (In-State Portion)	Ratepayer-Funded Energy Efficiency		New Federal Lighting/ Appliance Standards		Total	
	GWh	MW	GWh	MW	GWh	MW
AVA	846	145	147	22	992	167
BPA	n/a	n/a	n/a	n/a	1,815	241
CHPD	n/a	n/a	n/a	n/a	166	33
DOPD	n/a	n/a	n/a	n/a	107	22
GCPD	n/a	n/a	n/a	n/a	287	58
PACW	312	63	187	28	499	91
PSE	3,027	624	506	76	3,533	700
SCL	1,139	235	0	0	1,139	235
TPWR	n/a	n/a	n/a	n/a	433	87

Members of the SPSC DSM Working Group and the TEPPC DSM Task Force developed a survey instrument to collect information from load serving entities (LSEs) regarding the energy efficiency and DSM assumptions incorporated into the load forecasts provided to WECC. WECC distributed this survey to LSEs on June 8th, requesting that they complete the survey by June 30th. To date, survey responses have been received from PacifiCorp, BPA, and DOPD. To supplement these survey responses, the DSM Working Group also reviewed each utility’s most-recent IRP and contacted individuals within some utilities, in order to identify additional information that could be useful in estimating the amount of energy efficiency embedded in the balancing authority load forecasts. Key findings from the survey responses and supplementary data analysis follow, for each balancing authority.

AVA

Table 8 compares the load forecast that AVA submitted to WECC to Avista’s 2009 IRP load forecast, which does not account for future conservation programs (as those programs are treated as a resource in the IRP). Thus, for comparison, Table 8 also shows Avista’s IRP load forecast *net of planned conservation*. The table uses 2013 as the starting year of the forecast, as the balancing area load forecast data for 2010-2012 is not public. Also note that the data in this table applies to the entire Avista/AVA footprint, not just the Washington portion.

For the purpose of inferring the underlying assumptions about future conservation in the AVA balancing authority forecast, the forecasts can be compared in terms of the *compound annual growth rate (CAGR)*.⁵ As shown, the AVA balancing authority forecast has a fairly similar growth rate to the Avista IRP forecast net of conservation (i.e., annual energy growth rates of 1.6% and 1.7%, respectively). This suggests that the balancing authority forecast has accounted for the future impact of Avista’s energy efficiency programs. In addition, Avista’s IRP explicitly indicates that the IRP load forecast accounts for the EISA lighting standards (see Appendix, p.122). We therefore assume that the WECC forecast also accounts for the savings from those standards. Thus, the only portion of the reference case energy efficiency savings projection that is not included in the AVA balancing authority load forecast is the savings associated with new DOE appliance/lighting standards.

Table 8. Comparison of AVA Balancing Authority Forecast and Avista 2009 IRP Forecast

	Annual Energy (GWh)			Peak Demand (MW)		
	2013	2020	CAGR	2013	2020	CAGR
AVA Forecast Submitted to WECC	13,486	15,078	1.6%	2,527	2,882	1.9%
Avista 2009 IRP Forecast ¹	10,819	12,737	2.4%	1,906	2,233	2.3%
<i>Planned conservation</i> ¹	280	894		48	153	
Avista 2009 IRP Forecast (net of conservation)	10,538	11,844	1.7%	1,858	2,080	1.6%

¹ Source: Avista 2009 IRP, Table 8.12 and 8.13. The IRP load forecast does not account for the impact of the conservation targets. The planned conservation savings identified in Avista’s IRP include the impact of programs administered by Avista, but not the savings from regional market transformation programs administered by NEEA.

PACW

PacifiCorp’s response to the WECC DSM Survey indicates that the load forecasts that PacifiCorp submitted to WECC do account for the impact of planned energy efficiency programs, but do not account for new federal lighting and appliance standards that have not yet been established by DOE. PacifiCorp’s 2008 IRP (dated May 29, 2009) indicates that the utility’s load forecast does, however, account for the impact of new federal lighting standard established directly by EISA; we therefore assume that the PACW load forecast submitted to WECC also accounts for those standards. Thus, the only portion of the reference case savings that is not already captured in the PACW balancing area forecast is the savings from new DOE lighting and appliance standards.

PSE

Following a similar logic as used in the case of AVA, Table 9 compares the load forecast that PSE submitted to WECC to the utility’s 2009 IRP load forecast, which does not account for future DSM

⁵ The IRP forecasts with and without conservation both differ substantially from the AVA balancing authority forecast in terms of the absolute magnitude of the load. WECC documentation does not indicate that there are any utilities within the AVA balancing authority other than Avista; thus it is unclear why the forecasts would differ.

programs. Thus, for comparison, Table 9 also shows PSE’s IRP load forecast *net of planned DSM*. As shown, the PSE balancing authority forecast has a fairly similar growth rate to the IRP forecast net of DSM (i.e., annual energy growth rates of 0.7% and 0.6%, respectively), which suggests that the balancing authority forecast does account for the future impact of PSE’s energy efficiency programs. In addition, PSE’s IRP explicitly indicates that the IRP load forecast accounts for the EISA lighting standard; we therefore assume that the load forecast submitted to WECC also accounts for the EISA standards. Thus, the only portion of the reference case energy efficiency savings projection that is not included in the PSE balancing authority load forecast is the savings associated with new DOE appliance/lighting standards.

Table 9. Comparison of PSE Balancing Authority Forecast and PSE 2009 IRP Forecast

	Annual Energy (GWh)			Peak Demand (MW)		
	2013	2020	CAGR	2013	2020	CAGR
PSE Forecast Submitted to WECC	25,217	26,482	0.7%	5,142	5,355	0.6%
PSE 2009 IRP Forecast ¹	24,872	28,667	2.0%	5,618	6,343	1.7%
<i>Planned DSM (EE, DG, and fuel-switching)</i> ²	1,421	3,906		289	916	
PSE 2009 IRP Forecast (net of planned DSM)	23,451	24,761	0.8%	5,329	5,427	0.3%

¹ Source: PSE 2009 IRP, Figures 4-7 and 4-10. Those tables provide a retail sales forecast (i.e., load at the customer meter). To compare with the balancing authority forecast, we gross the IRP forecast up to include T&D losses, based on 6.7% average T&D loss factor cited on p. 4-9 of the IRP. Also, the IRP only identifies the load forecast for every fifth year (2010, 2015, and 2020). We interpolated the intervening years, assuming an exponential growth function.

² Source: Guvinder Singh (PSE).

SCL

Table 10 compares the load forecast that SCL submitted to WECC to the utility’s 2008 IRP load forecast, which does not account for future conservation programs. Thus, for comparison, the table also shows SCL’s IRP load forecast *net of planned conservation*. As shown, the SCL balancing authority forecast has an identical growth rate to the IRP forecast net of conservation (0.8%), which suggests that the balancing authority forecast does account for the future impact of SCL’s energy efficiency programs. SCL’s IRP does not provide any indication that the IRP load forecast accounts for either the EISA standards or any new standards that DOE plans to establish in the future. Thus, as a default, the DSM Working Group assumes that the load forecast does not account for the savings from either set of new federal standards.

Table 10. Comparison of SCL Balancing Authority Forecast and SCL 2008 IRP Forecast

	Annual Energy (GWh)		
	2013	2020	CAGR
SCL Forecast Submitted to WECC	10,332	10,929	0.8%
SCL 2008 IRP Forecast ¹	11,086	12,264	1.5%
<i>Planned conservation (starting in 2008)</i> ²	736	1,332	
SCL 2008 IRP Forecast (net of conservation)	10,350	10,932	0.8%

¹ Source: SCL 2008 IRP, Figures 1-1 and 1-2.

² Source: SCL 2008 IRP, page X of the executive summary. Note that the values reported in the IRP and shown in the table above are cumulative savings starting in 2008. The ratepayer-funded energy efficiency savings reported earlier in Table 3 of this document represent the cumulative savings starting in 2010.

BPA

BPA completed the WECC DSM survey, and key BPA staff (Ottie Nabors) were also in direct communication with members of the DSM Working Group. Through these communications, BPA indicated that, in virtue of the econometric methods that BPA uses, the load forecast submitted to WECC implicitly assumes a continued rate of conservation acquisition approximately equal to BPA’s share of the conservation target level in the Council’s 5th Power Plan. Thus, the incremental reference case energy efficiency savings for BPA is equal to the difference between the conservation target levels in the 6th Plan and the 5th Plan. This data is presented in Table 11, and allocated to each state in BPA’s footprint based on the portion of BPA’s BA load occurring within that state.

Table 11. Conservation Savings Embedded in BPA Forecast

State	% of BPA BA Load ¹	Embedded in BPA Load Forecast (5 th Plan Target) ²		Total Reference Case Savings (6 th Plan Target) ²	
		GWh	MW	GWh	MW
WA	60%	1,815	241	3,779	501
OR	30%	904	120	1,881	250
ID	4%	132	18	276	37
MT	6%	170	23	355	47
BPA Total		3,022	401	6,290	834

¹ Source: Based on analysis provided by NPCC staff (Massoud Jourabchi).

² Source: Ottie Nabors (BPA) provided the totals for the entire BPA BA footprint

CHPD, DOPD, GCPD, and TPWR

For these four small balancing authorities, it was not possible to independently assess the embedded savings in the balancing authority forecast. As a default, we assume that the same proportion of the reference case energy efficiency savings is embedded in their load forecasts (48% = 1,815 GWh divided by 3,779 GWh) as is reported by BPA.

Table 12. Conservation Savings Embedded in CHPD, DOPD, GCPD, and TPWR Forecasts

Balancing Authority	Embedded in BA Load Forecast (Assuming Same % as BPA)		Total Reference Case Savings (6 th Plan Target)	
	GWh	MW	GWh	MW
CHPD	80	16	166	33
DOPD	51	10	107	22
GCPD	138	28	287	58
TPWR	208	42	433	87