

## State-Adjusted Load Forecast: Idaho

Reviewed by	Date
Wayne Hart	07/12/10
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.<sup>1</sup>

**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](mailto:michael.wheeler@cpuc.ca.gov)) by August 4<sup>th</sup> 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@ibl.gov](mailto:galbarbose@ibl.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.

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<sup>1</sup> 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	5,615	488	403	5,531	-2%
IPC	18,642	2,634	1,532	17,539	-6%
PACE	4,219	324	238	4,133	-2%
BPA <sup>1</sup>	<del>2,535</del>	276	132	<del>2,391</del>	-6%

Deleted: 2,473

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<sup>1</sup> The data 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	1,073	87	68	1,054	-2%
IPC	4,019	376	200	3,843	-4%
PACE	834	74	55	814	-2%
BPA <sup>1</sup>	<del>455</del>	37	18	<del>436</del>	-4%

Deleted: 441

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<sup>1</sup> The data 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 reference case energy efficiency savings are associated with: (1) ratepayer-funded energy efficiency programs and (2) new federal appliance and lighting standards. Table 3 summarizes the DSM Working Group’s Reference Case projection of the expected energy and peak savings from each of these policy mechanisms. 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.

In the case of BPA, we report only the total reference case energy efficiency savings, and do not differentiate between savings from ratepayer-funded programs and from new federal lighting/appliance standards. The reference case energy efficiency savings for BPA are equal to its pro-rated share of the cumulative 2020 conservation target identified in the Northwest Power and Conservation Council’s 6<sup>th</sup> Power Plan. Those targets will be achieved, in part, through ratepayer-funded energy efficiency programs and in part through new federal lighting and appliance standards. Thus, although our analysis does not itemize the contribution from the two policies, we believe that the approach taken for BPA is largely consistent with the approach taken for the other BAs, in terms of the scope of policy mechanisms

covered.<sup>2</sup> It is also 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 BPA 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 how the values in Table 3 were derived.

Table 3. Reference Case Energy Efficiency Savings in 2020

Balancing Authority (In-State Portion)	Ratepayer-Funded Energy Efficiency		New Federal Lighting/ Appliance Standards		Total	
	GWh	MW	GWh	MW	GWh	MW
AVA	331	57	157	30	488	87
IPC	2,107	275	527	102	2,634	376
PACE	164	43	160	31	324	74
BPA	n/a	n/a	n/a	n/a	276	37

Ratepayer-Funded Energy Efficiency Program Savings

The DSM Working Group’s estimate of savings from ratepayer-funded energy efficiency programs for each of the large IOUs is summarized in Table 4. The projections are based directly on the savings targets identified within each utility’s most recently-filed IRP (as documented in the notes section to the table), and represent only the savings estimated to occur within the Idaho portion of each utility’s service territory. Public utilities are not included in this table, as they are largely served by BPA, and thus the savings from their programs is assumed to be captured within the reference case savings projection for BPA.

Table 4. Cumulative Savings from Ratepayer-Funded Energy Efficiency Programs (Idaho Portion)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Energy Savings (GWh)</b>											
Avista <sup>1</sup>	27	54	81	108	137	167	199	230	262	297	331
Idaho Power <sup>2</sup>	163	358	547	739	933	1,125	1,319	1,514	1,711	1,909	2,107
PacifiCorp <sup>3</sup>	17	33	50	67	83	96	109	122	135	149	164
<b>Peak Demand (MW)</b>											
Avista <sup>1</sup>	5	9	14	18	24	29	34	39	45	51	57
Idaho Power <sup>4</sup>	22	48	73	100	125	150	174	199	224	249	275
PacifiCorp <sup>5</sup>	5	9	14	18	23	26	30	33	36	40	43

<sup>1</sup> 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 to the

<sup>2</sup> 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.

Idaho portion of Avista's service territory in proportion to the historical distribution in Avista's energy efficiency program budget between Idaho and Washington, where Idaho represented 28% of the total utility budget in 2008.

- <sup>2</sup> Data Source: Idaho Power's 2009 IRP (December 2009). The savings projection shown in Table 4 includes both savings from programs administered directly by Idaho Power (Table DSM-7 in Appendix C of the 2009 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 accrue at the 2008 savings level (see Idaho Power's 2008 DSM Report, Table 2). The historical NEEA program savings are reported at the customer-meter; we therefore grossed up those savings to the generator by applying an 11% T&D loss factor (see Table DSM-1 in Appendix C of the 2009 IRP). The IRP reports savings only for the entirety of Idaho Power's service territory. We assume that the portion of the savings occurring within Idaho is proportional to the historical distribution in Idaho Power's energy efficiency program budget between Idaho and Oregon, where Idaho represented 95% of the total utility budget in 2008.
- <sup>3</sup> 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 (17 GWh, equal to the incremental savings identified by the IRP for 2010) from the savings values identified 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 (15 GWh).
- <sup>4</sup> Idaho Power's 2009 IRP provides peak demand savings estimates only for its existing programs (Appendix A, pp. 59 and 61), but not for the new programs proposed within its IRP. We estimate the peak demand savings for new programs by applying the peak-to-energy savings ratio for the existing programs.
- <sup>5</sup> These values are based on the peak demand savings identified in Table ES-1 of PacifiCorp's 2008 IRP Update. That table identifies the peak savings for all of PacifiCorp-East. We estimate the peak demand savings in Idaho by pro-rating the total peak demand savings in PacifiCorp-East, based on the proportion of energy savings occurring in Idaho (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) standards<sup>3</sup>, 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 5. 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

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<sup>3</sup> 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.

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

Balancing Authority (In-State Portion)	EISA <sup>1</sup>		DOE <sup>2</sup>		Total	
	GWh	MW	GWh	MW	GWh	MW
AVA	72	11	84	19	157	30
IPC	243	37	284	65	527	102
PACE	74	11	86	20	160	31

<sup>1</sup> 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.

<sup>2</sup> 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).<sup>4</sup> 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](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 6<sup>th</sup> Power Plan Conservation Targets for BPA

For load within the BPA balancing authority, the reference case energy efficiency savings is equal to BPA's pro-rated share of the cumulative 2020 conservation target identified in the Northwest Power and Conservation Council's 6<sup>th</sup> Power Plan (see Table 6). Those savings are allocated among the states in the BPA footprint in proportion to historical retail sales.

Table 6. NPCC 6<sup>th</sup> Plan Conservation Targets for the BPA Balancing Authority

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

<sup>4</sup> 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.

<b>Total BPA<sup>1</sup></b>	<b>50</b>	<b>108</b>	<b>175</b>	<b>250</b>	<b>331</b>	<b>404</b>	<b>488</b>	<b>577</b>	<b>667</b>	<b>761</b>	<b>834</b>
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<sup>1</sup> 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).

<sup>2</sup> The total BPA conservation target was allocated across states according to following distribution, based data provided by NPCC: Washington (60.1%), Oregon (29.9%), Idaho (4.4%), and Montana (5.6%).

### 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. Further details on the underlying analysis are presented in the remainder of this section.

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	331	57	72	11	403	68
IPC	1,532	200	0	0	1,532	200
PACE	164	43	74	11	238	55
BPA	n/a	n/a	n/a	n/a	132	18

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 8<sup>th</sup>, requesting that they complete the survey by June 30<sup>th</sup>. To date, survey responses have been received from PacifiCorp and BPA. To supplement these survey responses, the DSM Working Group also reviewed each utility's most-recent IRP, in order to identify additional information that could be useful in estimating the amount of energy efficiency embedded in the balancing authorities' 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*. Note that the data in this table applies to the entire Avista/AVA footprint, not just the Idaho 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)*.<sup>5</sup> 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 <sup>1</sup>	10,819	12,737	2.4%	1,906	2,233	2.3%
<i>Planned conservation</i> <sup>1</sup>	280	894		48	153	
Avista 2009 IRP Forecast (net of conservation)	10,538	11,844	1.7%	1,858	2,080	1.6%

<sup>1</sup> 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.

## IPC

Following the same logic as above, Table 9 compares the load forecast that IPC submitted to WECC to Idaho Power’s 2009 IRP load forecast. Idaho Power’s IRP forecast does include the effect of current and committed energy efficiency programs, but it does not include the impact of new programs that Idaho Power proposes within its IRP. Thus, for comparison, Table 9 also shows Idaho Power’s IRP load forecast *net of the proposed new conservation programs*. Note that the data in this table applies to the entire IPC/Idaho Power footprint, not just the Idaho portion.

As shown, the IPC balancing authority forecast has a similar growth rate to the Idaho Power IRP forecast prior to accounting for the impact of the proposed new conservation programs (i.e., annual energy growth rates of 0.7% and 0.6%, respectively). We therefore assume that the balancing authority forecast has similarly accounted for the impact of current and committed efficiency programs, but does not account for the impact of new programs that Idaho Power proposed in its IRP (and which are part of the reference case energy efficiency savings).

<sup>5</sup> 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.

Idaho Power’s IRP does not provide any indication that the load forecast has accounted for the impact of either the EISA lighting/appliance standards or any new DOE lighting/appliance standards. The DSM Working Group established as a default rule that, in the absence of any specific evidence that a load forecast accounts for the energy savings from new federal lighting and appliance standards, the load forecast is assumed to not account for those impacts.<sup>6</sup>

Table 9. Comparison of IPC Balancing Authority Forecast and Idaho Power 2009 IRP Forecast

	Annual Energy (GWh)			Peak Demand (MW)		
	2013	2020	CAGR	2013	2020	CAGR
IPC Forecast Submitted to WECC	18,728	19,615	0.7%	3,861	4,229	1.3%
Idaho Power 2009 IRP Forecast <sup>1</sup>	16,872	17,634	0.6%	3,533	3,895	1.4%
<i>Proposed new conservation</i> <sup>2</sup>	159	576		21	75	
Idaho Power 2009 IRP Forecast (net of new conservation)	16,712	17,058	0.3%	3,512	3,820	1.2%

<sup>1</sup> Source: Idaho Power 2009 IRP (December 2009), Tables 5.1 and 5.2. This is Idaho Power’s median load forecast, and it includes the impact of existing and committed EE programs, but not new/proposed programs.

<sup>2</sup> Source: Idaho Power 2009 IRP (December 2009), Appendix C, Table DSM-6

PACE

PacifiCorp’s response to the WECC DSM Survey indicates that the load forecast that PacifiCorp submitted to WECC does account for the impact of planned energy efficiency programs, but it does not account for new federal lighting and appliance standards.

For further confirmation, we also compared the PACE balancing authority load forecast with the load forecast for PacifiCorp-East in PacifiCorp’s 2008 IRP Update (see Table 10).<sup>7</sup> The comparison focuses on the years from 2013 to 2019, as that is the period of overlap between the two forecasts.<sup>8</sup> The PACE load forecast submitted to WECC includes some smaller utilities within the balancing authority. Thus, the load forecasts should be compared in terms of the *compound annual growth rate (CAGR)*, rather than in terms of the absolute load. As shown, the two load forecasts have similar growth rates over this period (i.e., annual energy growth rates of 2.4% and 2.3%, respectively). It is therefore reasonable to assume that the load forecast that PACE submitted to WECC embodies a similar set of energy efficiency assumptions as PacifiCorp’s 2008 IRP Update load forecast.

<sup>6</sup> Load forecasts that are developed through econometric methods and calibrated to historical data may implicitly assume that savings from federal lighting appliance standards will continue to accrue at the same rate as in the past. The analysis in Neubauer et al. (2009) suggests that existing federal standards generated savings at a rate of 0.5% of U.S. retail sales per year over the 2000-2010 period, and will continue to generate additional savings at the same rate over the 2010-2020 period. Thus, the savings from new federal standards represent an increase in the rate at which federal standards will accrue energy savings, and this is effect is unlikely to be captured by load forecasts that do not explicitly model the savings from these new standards.

<sup>7</sup> As noted in the IRP, the load forecast was prepared in October 2009.

<sup>8</sup> The WECC load forecast spans the period 2010-2020, but the data for 2010-2012 is confidential. The PacifiCorp IRP load forecast spans the period 2010-2019.

Table 10. Comparison of PACE Balancing Authority Forecast and PacifiCorp 2008 IRP Update Forecast

	Annual Energy (GWh)			Peak Demand (MW)		
	2013	2019	CAGR	2013	2019	CAGR
PACE Load Forecast	47,671	55,047	2.4%	9,347	10,637	2.2%
PacifiCorp 2008 IRP Update Forecast <sup>1</sup> (PacifiCorp-East)	43,636	49,930	2.3%	7,351	8,215	2.2%

<sup>1</sup> Source: PacifiCorp 2008 IRP Update, Tables A.1 and A.2. Those tables provide forecast by state; the load forecast for PacifiCorp-East was calculated as the sum of the forecasts for Idaho, Wyoming, and Utah.

PacifiCorp’s 2008 IRP Update indicates that the load forecast *does* explicitly account for the savings from planned energy efficiency programs (consistent with the response to the WECC survey). In addition, PacifiCorp’s original 2008 IRP (dated May 29, 2009) indicates that the utility’s load forecast also accounts for the impact of the federal lighting standard established by EISA. Thus, we assume that the PACE load forecast submitted to WECC also accounts for those standards. However, there is no evidence to suggest that either the balancing authority forecast or the IRP forecast accounts for savings from new federal lighting and appliance standards that DOE plans to establish in the future. Thus, that portion of the reference case energy efficiency savings is assumed to not be included in the PACE balancing authority forecast.

**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 5<sup>th</sup> Power Plan. Thus, the incremental reference case energy efficiency savings for BPA is equal to the difference between the conservation target levels in the 6<sup>th</sup> Plan and the 5<sup>th</sup> 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 <sup>1</sup>	Embedded in BPA Load Forecast (5 <sup>th</sup> Plan Target) <sup>2</sup>		Total (6 <sup>th</sup> Plan Target) <sup>2</sup>	
		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
<b>BPA Total</b>		<b>3,022</b>	<b>401</b>	<b>6,290</b>	<b>834</b>

<sup>1</sup> Source: Based on analysis provided by NPCC staff (Massoud Jourabchi).

<sup>2</sup> Source: Ottie Nabors (BPA) provided the totals for the entire BPA BA footprint