

## Summary

### SPSC Scenario Work Group

Conference Call October 13, 2010

#### Participants:

Jeff Goltz (WA UTC), Scott Barillaro and Jack Buchanon (BC), Sharon Podein and Duane Braunagel (CO PUC), Kelcey Brown (OR PUC), Prem Bahl and Toby Little (ACC), Michael Wheeler (CA PUC), Grace Anderson (CEC), Alex Davis (CO Dept. of Natural Resources), Robert Henke (ICF International), Lisa Schwartz (WRAP), Linda Davis (WGA), and Tom Carr and Steve Ellenbecker (WIEB).

#### Action Items:

- Reviewed options for the SPSC High Load case and agreed by consensus to recommend using the WECC staff proposed high load case rather than the IRP-derived high load case.

#### Summary

Chairman Jim Tarpey was unable to participate. In his absence, Tom Carr led the discussion.

Tom Carr summarized the agenda topics:

- High Load Case Study Implementation
- Update on other SPSC study requests
  - Reference case
  - High DSM case
  - Low carbon case
- Memo to poll SPSC members on development of the TEPPC 10-Year plan
- Update on the 10-Year Plan Task Force

Tom reminded the work group that Chairman Tarpey plans to continue holding weekly conference call/webinars of the SWG through Nov. 3, to maintain communication on and information flow between SPSC and the TEPPC/SPSG 10-Year Task Force as it develops a White Paper on elements of and process for developing the WECC 10-Year Transmission Plan for presentation at the Nov. 8-9 meetings of SPSG and TEPPC. He reiterated that the goal of Chairman Savage to ensure ongoing communication within SPSC and input into TEPPC regarding the transition from 2010 studies to the 10-Year Transmission Plan.

#### High Load Case Implementation

Tom reminded the WG that the High Load Case was discussed during the Oct. 6 meeting and members participating in that discussion asked for additional time to consider the options

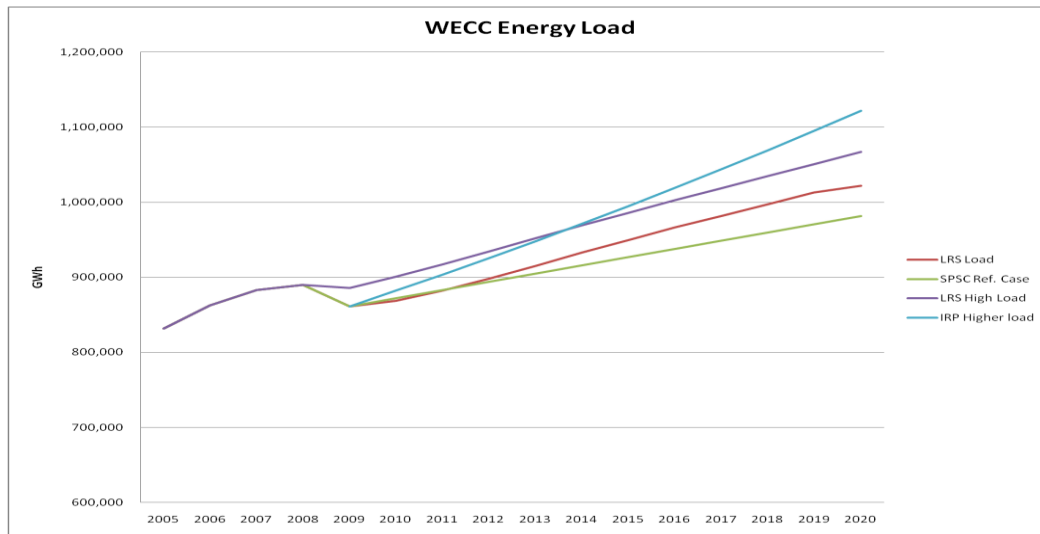
presented. He stated he hoped a decision would be reached in this meeting to recommend to SPSC.

Tom mentioned that the High Load Case had been requested by SPSC as a sensitivity analysis within the 2020 Reference Case study request of TEPPC. He then compared the annual growth rates of loads for the period 2009 to 2020 for different cases under consideration:

- LRS BA load growth Base case annual growth rate 1.55%
- Reference case with state-adjusted loads growth rate 1.19%
- WECC staff proposed High Load growth rate derived by extrapolating BA load forecasts made up to 2008 under pre-recession perspective. Annual growth rate of 1.69% assuming 2009 load starts at 885,460 GWh. But if assume the same 2009 starting point for loads as in the Reference and Base case (861,314 GWh), then annual growth rate is 1.95%.
- LBNL survey of 11 utility IRPs have an average High Load Growth rate of 2.38% (rounded off to 2.40% in the table and graphics)

Year	2008 LRS			IRP Rate
	LRS	SPSC Ref. Case	LRS High Load	IRP Higher Load
1990	650,792	650,792	650,792	
1991	649,876	649,876	649,876	
1992	662,227	662,227	662,227	
1993	669,369	669,369	669,369	
1994	688,101	688,101	688,101	
1995	689,885	689,885	689,885	
1996	721,596	721,596	721,596	
1997	734,614	734,614	734,614	
1998	742,892	742,892	742,892	
1999	754,430	754,430	754,430	
2000	786,087	786,087	786,087	
2001	758,837	758,837	758,837	
2002	792,137	792,137	792,137	
2003	795,161	795,161	795,161	
2004	816,079	816,079	816,079	
2005	831,570	831,570	831,570	
2006	862,357	862,357	862,357	
2007	883,022	883,022	883,022	
2008	889,670	889,670	889,670	
2009	861,314	861,314	885,460	861,314
2010	868,490	872,251	900,779	882,236
2011	882,382	883,188	917,364	903,665
2012	897,984	894,125	934,349	925,616
2013	915,262	905,062	952,082	948,099
2014	932,989	915,999	969,546	971,129
2015	949,197	926,936	985,838	994,718
2016	966,579	937,873	1,002,922	1,018,880
2017	981,600	948,810	1,018,623	1,043,629
2018	996,928	959,747	1,034,920	1,068,979
2019	1,012,752	970,683	1,050,820	1,094,945
2020	1,021,873	981,620	1,066,819	1,121,541
2009-2020				
Annual Rate	1.55%	1.19%	1.69%	2.40%
			1.95%	

% Difference in 2020 from:				
Ref Case	4.10%	0.00%	8.68%	14.25%
Base Case	0.00%	-3.94%	4.40%	9.75%



LSE	IRP Year	Unit	Type	Range	Average Annual Growth Rate (AAGR)		Notes:
					Base/Ref	High	
APS	2009	Peak MW	Base	2009-2025	3.30%		Forecast prior to EE/DSM/DG impacts.
APS	2009	Peak MW	High	2009-2025		4.30%	Forecast prior to EE/DSM/DG impacts.
Avista	2009	aMW	Base	2010-2029	1.60%		Includes effects of conservation.
Avista	2009	aMW	High	2010-2029		2.60%	Includes effects of conservation.
BC Hydro	2008	Peak MW	Mid	2009-2020	-0.30%		Includes current and future DSM. +1.0% AAGR without DSM effects.
BC Hydro	2008	Peak MW	High	2009-2020		0.10%	Includes current and future DSM. +1.4% AAGR without DSM effects.
El Paso	2009	GWh	Expected (2009-2013)	2009-2013	2.90%		Conservation and load management effects are included in forecasted demand.
El Paso	2009	GWh	Upper Bound (2009-2013)	2009-2013		4.00%	Conservation and load management effects are included in forecasted demand.
Idaho Power	2009	aMW	Expected	2009-2029	0.70%		Includes existing EE/DSM program effects.
Idaho Power	2009	aMW	High	2009-2029		1.60%	Includes existing EE/DSM program effects.
LADWP	2007	Peak MW	Base	2007-2020	0.90%		EE and DSM effects not included in forecast.
LADWP	2007	Peak MW	Hot	2007-2020		0.90%	EE and DSM effects not included in forecast.
NV Power	2009	GWh	Base	2010-2020	1.40%		Past/recent conservation only.
NV Power	2009	GWh	High	2010-2020		2.70%	Past/recent conservation only.
Pacificorp	2008 (Update)	MWh	Base	2010-2019	2.10%		Includes effects of current and incremental DSM.
Pacificorp	2008 (Update)	MWh	High	2010-2019		3.10%	Includes effects of current and incremental DSM.
PGE	2009	aMW	Reference	2010-2030	1.90%		Includes current and future EE effects. Without EE, AAGR is +2.2%.
PGE	2009	aMW	High	2010-2030		2.70%	Includes current and future EE effects. Without EE, AAGR is +3.0%.
PSE	2009	aMW	Base (2007)	2008-2027	1.90%		Past/recent conservation only.
PSE	2009	aMW	High (2007)	2008-2027		2.20%	Past/recent conservation only.
Seattle City Light	2008	aMW	Base	2007-2027	1.30%		Includes past, but no future conservation. New IRP filing soon.
Seattle City Light	2008	aMW	High	2007-2027		2.00%	Includes past, but no future conservation. New IRP filing soon.
Average					1.61%	2.38%	

There was discussion around the extent to which the different High Load assumptions included DSM, and which measures of DSM. (Michael Wheeler first raised the discussion point and Prem Bahl, Grace Anderson, and Scott Barillaro weighed in). Grace Anderson opined that it was reasonable to assume adjustments for DSM were included in all the cases. It was generally concluded that the different analyses included differing DSM assumptions, but that the objective in the analysis was to find a reasonable assumption for a high load to serve as a sensitivity analysis in comparison to the SPSC Reference case, not to offset the value of the State-adjusted load forecasts provided through the SPSC DSM Work Group.

Scott Barillaro asked for a clarification of the purpose and origin of the High Load study request in relation to the primary study requests made by SPSC. Tom Carr clarified that the High Load case study was a requested sensitivity analysis within the SPSC-requested reference case.

Duane Braunagel suggested that we compare the High Load case in comparison to the SPSC Reference Case. Looking at the graph, Duane observed that the WECC staff high load proposal was roughly about 10% above the SPSC Reference Case in 2020, which would be a reasonable bookend for a sensitivity analysis, while the IRP high load level appeared to be about 15% higher than the Reference Case. Duane noted that he did not calculate this but simply looked at the rough magnitudes on the graph. Grace Anderson offered that this basis for the calculation might produce a reasonable “ball park” calculation. (After the call, calculations were made on the percentage difference between the SPSC Reference Case load in 2020 and the other proposed load levels in 2020. The WECC staff proposed high load was 8.68% higher than the Reference case and the IRP high load 2020 load was 14.25% higher than the Reference Case.)

Michael Wheeler urged that we take care to clarify whatever method the Work Group decides upon, and ensure that the High Load Forecast be executed separate from the High DSM analysis so as not to interfere with its separate analysis as a scenario request.

Tom polled the call participants and confirmed consensus around Duane Braunagel’s suggested approach.

### **Update on other SPSC Study Requests**

Tom Carr briefly summarized the status of other SPSC 2010 study requests:

- High DSM case
  - Galen Barbose submitted High DSM load forecasts to WECC staff on Oct. 6, reflecting all economical energy efficiency measures
  - Michael Wheeler confirmed that DSM Work Group Chair Dian Grueneich will send SPSC members a memo summarizing the results of the High DSM load forecast
- Low Carbon case
  - Includes High DSM case assumptions
  - Adds RPS requirements
  - Adds incremental carbon cost necessary to achieve targeted CO2 reduction
  - Work with Tom Moore (WRAP) is ongoing to produce coal fleet profile of SO2 and NOX emission reductions requirements to compare with the results otherwise of the model in terms of backing down coal plants. This analysis will inform the process on which coal plants are most susceptible to major upgrade/retrofit risks and costs.

Tom clarified that Chairman Savage and Chairman Tarpey are working to evaluate the best means by which SPSC members have a voice in influencing the elements of and process for developing the 10-Year Transmission Plan.

Scott Barillaro asked that the slides presented during the call be sent to call participants. Tom said he would send out the slides, and that the slides and meeting notes are posted on the SPSC SWG site.