WECC Non-firm Load Forecast Adjustments

July 15, 2011

Introduction

This document serves to summarize the validation of and recommended adjustments to the WECC Balancing Authorities (BAs) non-firm load forecasts in the 2011 TEPPC Study Common Case. The document summarizes the non-firm forecast for each BA, validation results, and any recommended adjustments.

As of the date of this document, there are several BAs and utilities working to provide necessary information to complete the validation process. The recommended values should be considered preliminary. These BAs with pending information are identified in the summaries below.

Validation Methodology

WECC BAs submitted non-firm load forecasts (i.e., dispatchable demand response) by four program types: interruptible load, direct load control, critical peak pricing (CPP) with controls, and load as a capacity resource. New for this year's data collection process, WECC BAs could also voluntarily submit demand response program-specific information, breaking the major program type forecasts into individual demand response programs. Nine BAs submitted this demand response program specific information and was used to assist in the non-firm load forecast validation process.

We validated the non-firm load forecasts by comparing each BA's forecast to utility IRPs, 2010 FERC Demand Response Survey results, and state regulatory filings. We then contacted BA and utility staff responsible for non-firm load forecasts to understand differences between the WECC non-firm forecasts and what was included in the public validation sources.

Results and Recommendations

Results of the verification and recommendations are organized in tables based on regional groupings of BAs. Each table identifies the total amount of non-firm load reported in 2021, the amount of total demand response load verified among different sources (applicable year of resource is identified in parentheses), the recommended non-firm load in the 2011 TEPPC Study Common Case, and notes indicated source material and details on the verification. Green indicates the BA submitted non-firm load forecast is accepted and red indicates there has been an adjustment to the BA non-firm load forecast.

Table 1. Northwest WECC BAs

Reported Information		*Verification Sources (Year of Value)*			*Adjustment*	
BA	**2021 Forecasted Non-Firm Load (NCP)**	**IRP**	**2010 FERC DR Survey**	**Regulatory Filings**	**Recommended Common Case**	**Notes**
AVA	0	0	0 (2009)		**0**	Has very small Res. DLC program (100 customers). Demand response pilot showed programs not cost-effective. Used 2009 IRP, 2011 IRP not public until August 31.
BPA	0		0		**0**	Regional BAs do not consider individual utility demand response programs as "firm". Council plan stated no cost-effective DR through 2020.
CHPD	40	0			**40**	Used 2010 IRP.
DOPD	0	0			**0**	Used 2007 IRP.
GCPD	0	0			**0**	Used 2010 IRP.
NWMT	0	0			**0**	Used 2009 IRP. Participating in Pac NW Smart Grid Demonstration Project.
PACW	45	72 (2020)			**45**	Used 2011 IRP, Table 8.17.
PGE	0	102 (2020)	80 (2015)		**80**	Used 2010 update to 2009 IRP. FERC DR Survey forecast composed of 60 DLC and 20 CPP. Use FERC DR Survey values
PSE	0	144 (2021)	5 (2009)		**144**	Used 2011 IRP. Use IRP values, need to confirm program types.
SCL	0	0 (2011 IRP)			**0**	Used 2011 IRP and it indicates they are undertaking DR pilots but not cost-effective until 2020. Accept non-firm load forecast, validated by one source.
WAUW	0				**0**	Submitted DR program information stating it believes co-op DSM programs are "soft" and unreliable.

Further information is pending for PGE and PSE to confirm the program types for the adjustments.

Table 2. Southwest WECC BAs

Reported Information		*Verification Sources (Year of Value)*			*Adjustment*	
BA	**2021 Forecasted Non-Firm Load (NCP)**	**IRP**	**2010 FERC DR Survey**	**Regulatory Filings**	**Recommended Common Case**	**Notes**
APS	0	105 (2021)	0 (2009), 92 (2015)		**105**	Used 2009 IRP. We made 105 MW adjustment (addition) in 2010 Study; forecasting 65 DLC, 2 Int., and 25 Non-spin reserves in FERC DR Survey
EPE	58	61 (2020)	54 (2009)		**58**	Used 2011 IRP. Interruptible programs ends in March 2021. FERC DR Survey is Int., although there are TOU and CPP programs of insignificant size. 61 MW of interruptible in Resource Planning presentation (http://www.epelectric.com/files/html/IRP_2011/Resource_Planning_Presentation_6-15-11.pdf). Need to confirm no load management or capacity programs.
IID	0				**10**	Did not submit non-firm load forecast, but did submit DR program information. Confirmed with utility staff the DR program information was not included in firm load forecast and adjustment necessary.
NEVP	411	285 (2020)			**411**	Used 2009 IRP. Significant ramp-up in non-firm forecast.
PNM	45	65 (2021)	58 (2009)	67 (2010)	**45**	Used 2008 IRP and 2010 DSM program report. Confirmed the IRP value is outdated.
SPP	113	9 (2021)	40 (2009), 43 (2015)		**113**	Used 2010 IRP.
SRP	104		144 (2009), 263 (2015)		**182**	Interruptible programs ends in April 2021. Large CPP and TOU programs. Significant decrease from 2020. Add 78 MW of CPP based on FERC DR Survey
TEP	77		90 (2015)	70 (EE Plan)	**77**	Three interruptible programs end in March 2021. FERC DR Survey forecasted is DLC. Need to confirm if they are offering DLC program. EE Plan accounts for 70 MW of DLC (http://www.tucsonelectric.com/Green/Reports/EEPlan/EEPlanTEP.pdf)
WALC	0				**0**	Regional BAs do not consider individual utility demand response programs as "firm".

Information is pending for APS, SRP, and TEP. Central Arizona Water Conservation District (CAWCD) submitted a non-firm load forecast of 252 MW peak in 2021. It is believed this non-firm load will transfer under contract to APS. It has not been included in the APS non-firm load forecast summary above, pending further verification of the program type.

Table 3. California WECC BAs

Reported Information		*Verification Sources (Year of Value)*			*Adjustment*	
BA	**2021 Forecasted Non-Firm Load (NCP)**	**IRP**	**2010 FERC DR Survey**	**Regulatory Filings**	**Recommended Common Case**	Notes
NISO	783	1788 (2020)	311 (2009), 397 (2015; CPP only)	1045 (2014)		FERC DR Survey numbers for 2009 do not include pricing. 2014 request number is event based only. Working with CPUC to understand programs included in LTPP.
SISO	2204	2839 (2020)	1341 (2009; no pricing), 380 (2015, no pricing)	2044 (2014; pricing)		Combined SDG&E and SCE. There is no pricing in SDG&E LTPP. Working with CPUC to understand programs included in LTPP.
LDWP	400	200 (2021)	203 (2009), 120 (2015)		**400**	Used 2010 IRP. IRP plans 200 MW of interruptible by 2014 and 300 MW of additional interruptible by 2030. There is a large C&I TOU program in the FERC Survey Data (200MW) and we are not including TOU in Common Case.
SMUD	201	205 (2009), 456 (2015)			**344**	Includes 32 MW of MID non-firm load. FERC DR Survey forecasted values include CPP with controls. Adjust to include 143 MW of CPP with controls
TIDC	0				**0**	Unable to find verification sources.

Information is pending for NISO, SISO, and SMUD. California Public Utilities Commission (CPUC) staff are providing assistance to break out demand response values in California Investor Owned Utility (IOU) Long Term Procurement Plan forecasts. As such, NISO and SISO do not have enough information to support a recommended value in the Common Case.

Table 4. Rocky Mountain BAs

Reported Information		*Verification Sources (Year of Value)*			*Adjustment*	
BA	**2021 Forecasted Non-Firm Load (NCP)**	**IRP**	**2010 FERC DR Survey**	**Regulatory Filings**	**Recommended Common Case**	**Notes**
IPC	351	351 (2030)	397 (2009)		**351**	Used 2011 IRP. Load as a capacity resource in DR program information submittal but excluded from non-firm forecast. Confirmed with utility staff that program information pertained to EE programs.
PACE	773	786 (2020)	441 (2009), 559 (2015)		**773**	Used 2011 IRP. Forecasted DR survey numbers are DLC only.
PSC	341		304 (2009)		**341**	Interruptible programs ends in March 2021. Confirmed that program continues through 2021.
TPWR	0				**0**	Submitted DR program information stating it has no DR programs.
WACM	1				**1**	Regional BAs do not consider individual utility demand response programs as "firm".