



SOUTHWEST POWER POOL, INC.
WEIS RESOURCE ADEQUACY TASK FORCE MEETING
Net-Conference

September 26, 2022 9:00 – 11:00 MDT

AGENDA

1. Call to Order, Anti-Trust, Attendance.....Jon Aust
2. Agenda Review..... Aust
3. Resource Adequacy Integration into WEIS Whitepaper discussion.....Aust/Scholl
4. Open Discussion/General Questions/Comments..... All
5. Summary of Motions, Actions Items, Future Meetings.....Quimby
6. Adjournment Aust

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WRATF 9/26/2022 Attendance

Attending	First Name	Last Name	M,G,S	Company	Title
X	Jon	Aust	M		
	Kent	Scholl			
	Zack	Borton			
X	Darren	Buck	M		
X	Benjamin	Hertz	M		
	Neil	Lindgren			
	Eric	Scherr			
X	Armin	Sehic	M	NMPP Energy	Regulatory Data Analyst
X	Daniel	Strickland	M		
X	Lisa	Tiffen	M		
	Blake	Ward			
X	George	McGuirk	P	Xcel	Proxy for Scholl
X	Ken	Quimby	M	SPP	Staff Sec

X	Tom	Christensen	G	Basin	
X	Steve	Saunders	G	WAPA	
X	John	Olsen	G	Utilicast	
X	Chris	Bultsma	G		
X	Ian	Wren	G		
X	Jason	Mazigian	G		
X	Edwin	Tarzac	G		
X	Robert	Pick	G	NPPD	
X	Kate	Winston	G	S&P Global	
X	Jim	?	G		

X	Charles	Hendrix	S	SPP	
X	Eric	Henderson	S	SPP	

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WEIS RESOURCE ADEQUACY TASK FORCE
September 26, 2022
9:00 to 11:00 MDT
Teleconference and webcast

• **A G E N D A** -

Agenda Item 1 – Call to Order, Attendance

Attendance: Chairman Aust called the meeting to order at 0902. There were 22 persons in attendance: 6 Members, 1 Proxy, 10 Guests, and 5 SPP Staff.

Proxies

George McGuirk for Kent Scholl (Xcel)

Agenda Item 2 –Agenda review

Chairman Aust reviewed the proposed agenda – no additions or corrections. Agenda accepted as published.

Agenda Item 3 – Resource Adequacy Integration into WEIS Whitepaper discussion

Chairman Aust walked the group through the RA Comparison document with the member supplied comments/questions. Good discussion/explanation on a line by line comparison of the WRAP and SPP approaches. Chairman Aust defined the discussion goal to determine if 1) the item is a “Must Have” or “Would be nice to Have” item; and 2) Identify a preferred approach (WRAP, SPP, or New).

Agenda item 4 – Open Discussion/New Business

No new business was brought before the group.

Agenda Item 5 Summary of motions, Action items, Future meetings

Action Items

- Sec Quimby to secure a WPP representative for future meetings.
- Charles Hendrix (SPP) and Sec Quimby to secure representatives to present/discuss implications of the current discussion in light of potential merging with future Markets + or RTO membership.
- Attendee Homework Assignment – Using the RA Comparison document, determine if the item is a Must Have or Nice to Have item, along with preferred methodology to implement (WRAP, SPP, or other).

Future Meeting

- Next WRATF meeting set for 10/17/2022 – 9-11 MDT. Quimby to schedule/announce.

Agenda Item 7 – Adjournment

Chairman Aust adjourned the meeting at 10:32 MDT

Respectfully submitted by

Ken Quimby, SPP Staff/WRATF Secretary

RA Characteristic	Description	WRAP - Forward Showing	SPP	Observation
Reliability Metric	Target level of system reliability	1 event-day in 10 years (0.00417 days/yr LOLE)	1 day in 10 years (0.1 days/yr LOLE)	Certain practitioners believe that "industry standard" is 0.00417 days/yr; others 0.1 days/yr. Important that PRM and ELCC studies be conducted consistently with either measure.
Showing	How does entity show compliance?	Workbook showing compliance 7 months prior to each Summer and Winter season. Participant provides monthly peak loads for each binding season calculated pursuant to WRAP prescribed methods. WRAP provides monthly PRMs. Resources are assigned capacity credit based on WRAP calculations.	Workbook showing balance between peak upcoming summer and winter (?) loads and resource accredited capacity calculated pursuant to SPP prescribed methods plus system-wide planning reserve margin (PRM).	Is generation flexibility an additional measure of reliability in an imbalance market paradigm?
Forecast Period	For what planning period is RA determined?	Upcoming Summer or Winter season (7 months in advance)	Upcoming Summer and Winter seasons	From Armin: I'm more familiar with SPP's concept than WRAP. SPP has a 10 year look ahead in their construct but

Commented [DS1]: What are the pros/cons between "event-day" vs "day"? Wouldn't the reliability standard be based on the greater risk, i.e., event-day?

From Armin – Does either study affect the outcome significantly?

Commented [DS3]: I would agree, especially as intermittent resources become more prevalent. Does ramp need to be a reliability metric to ensure a MP can cover lost renewable gen?

Commented [DS2]: I feel the intent of the WRAP forward showing program is more in-line with the spirit of RA

				deficiency is only required for the upcoming summer season (for now).
Entity Conducting LOLE Evaluations (PRM, ELCC)		SPP as the Program Operator	SPP as the Transmission Provider	
Annual or Seasonal PRM/ELCC Calculations		Monthly within Summer and Winter seasons	Annual, currently. Evaluating summer/winter seasonal calculations.	
Regional or System Wide?		Allows for subregion level, monthly PRMs	System wide PRM (PRM _{SPP}). Applied to both summer and winter net peak loads.	To ensure reliability in an imbalance market paradigm, a <u>utility-specific PRM</u> may be more appropriate than a <u>system-wide PRM</u> .
Compliance Entity		Participant	Market Participant representing LRE	
Deficiency Payments		Deficiency payments for failing to meet Forward Showing Capacity requirements in workbook; payment based on CONE (gas-fired CT)	Deficiency payments for failing to show accredited capacity to meet net load plus PRM during Summer season in workbook; payment based on CONE (gas-fired CT)	From Armin: I'm ok with either.

Commented [DS4]: What is the notable difference between SPP acting at Program Operator vs Transmission Provider? If WEIS adopts WRAP, will it conduct LOLE as Transmission Provider?

Commented [DS5]: Agreed

From Armin: If we go the route of utility-specific PRM how would this apply when several utilities are involved under a single BA?

Commented [DS6]: Would WRAP be willing to accept compliance reporting from the MP representing LRE? I feel SPP's method allows for greater variability in reporting entities.

Commented [DS7]: I prefer the WRAP dual peaking approach, which is more fitting, especially with electrification moving winter heat from NG to electricity

Transmission Deliverability		Firm or conditional firm transmission to meet 75% of monthly P50 net load + PRM	Net peak load must be met with firm transmission service from resource; PRM (i.e., 12% of net peak load) may be met with Deliverable Capacity. Deliverable Capacity for a resource is determined through SPP BAA transmission model to determine deliverability to SPP BAA. Deliverable Capacity may be bought/sold for RA compliance.	From Armin: The SPP approach is more appealing to me.
Fuel Supply		Not required to document firm or backup fuel supply for capacity accreditation.	Not currently required to document firm or backup fuel supply for capacity accreditation. However, 7.1.5 of Planning Criteria states "Assurance of having desired generating capacity depends, in part, on the availability of an adequate and reliable fuel supply.	From Armin: I'd think firm fuel contracts would need to be required as evidence. I guess for coal, gas, diesel etc. Not sure how to approach the renewables i.e wind, solar hydro.

Commented [DS8]: Wouldn't the 25% of non-firm be the limiting factor in strained operating conditions?

Commented [DS9]: While this would add a layer of complexity, would it be more attainable to "prove" acquired fuel capacity? (firm transport, coal inventory, etc.)

			Where contractual or physical arrangements permit curtailment or interruption of the normal fuel supply, sufficient quantities of standby fuel shall be provided."	
Resource Accreditation	What capacity accreditation methodology is used to determine resource contributions to RA in workbook?			
Thermals		UCAP (ICAP * 1-EFOR _d). Outage rates calculated during system-wide Capacity Critical Hours.	Currently, based on operational test results conducted per Planning Criteria. Transitioning to UCAP in 2024.	UCAP calculations require access to GADS data for owned and purchased power generation resources. IPPs typically will not provide such information to IOUs.
Wind		Capacity credit for "VER types" (e.g., wind, solar) based on ELCC calculations for existing resources within "VER Zones". Specific VER Types in a VER Zone receive	Wind resources assigned to three Tiers; wind resources in each Tier receive Tier average ELCC. Tier 1 resources evaluated first and receive highest ELCC	For SPP, legacy wind and solar generators receive higher ELCCs than incremental generators in workbook calculations by their inclusion in Tier 1.

Commented [DS10]: How could we ensure confidentiality? Would this provision sit with the market monitor?
From Armin: I like SPP's approach.

Commented [DS11]: Doesn't this go against the purpose of RA? A generator shouldn't be given priority tier just because of its age.
From Armin: The WRAP approach seems to be fair.

		an average ELCC based on type-zonal ELCC; ELCC for a specific generator is adjusted for generator's historical performance during Capacity Critical Hours.	credit. Wind MW in Tier 1 limited to lesser of firm transmission MW or 35% of seasonal peak load over previous three years.	
Solar			Solar resources assigned to three Tiers; solar resources in each Tier receive Tier average ELCC. Tier 1 resources evaluated first and receive highest ELCC credit. Solar MW in Tier 1 limited to 20% of seasonal peak load over previous three years	
Run-of-River Hydro		Capacity credit based on the monthly average performance of such resource during Capacity Critical Hours	Capacity credit determined "using historical hydrological data on a monthly basis".	From Armin: Either approach would be okay.
Storage Hydro		10-year historical operation subject to potential energy storage and current operational constraints	Capacity credit determined "taking into consideration the reservoir storage program and any restrictions imposed by governmental agencies and shall be	

Commented [DS12]: I feel capacity critical hours are far more important for RA

Commented [DS13]: WRAP would seem more appropriate, as I assume "current operational constraints" would include "restrictions imposed by governmental agencies..." as specified in the SPP program.

			based on median hydro conditions".	
Storage (e.g., battery, pumped hydro)		Capacity credit calculated using ELCC similar to VERs. Resources with < 4 hour duration, modeled as derated 4 hour resources.	Storage resources assigned to two Tiers; tier 1 resources evaluated first and receive highest ELCC credit. Sub-tiers for 4, 6, and 8 hour duration resources. Resources with < 4 hour duration, modeled as derated 4 hour resources.	
Demand Response		Register as either load reduction or as capacity resource. Capacity resources with < 5 hour duration, modeled as derated 5 hour resources.	Accredited as load reduction subject to operational test results; 4-hour minimum call duration	From Armin: Might need to start with WRAP's approach and maybe transition to SPP's later on.
BTM Meter Renewable Generation		Register as either load reduction or as capacity resource	Treated as load reduction (?).	From Armin: It would be easier to treat it as load reduction to begin with.
Opt out of workbook exercise for showing compliance with state or federal RA requirements (e.g., state PUC IRP)?		No	No	

Commented [DS14]: WRAP approach appears to allow greater variety in how a MP can operate its resources

Commented [DS15]: While the WRAP is the more prudent approach, the SPP method would be the easier for MPs to implement