

TO: Ben Elsey, SPS  
CC: Jay Griffin, Gridworks  
FROM: Cynthia Mitchell, PRC Staff Consultant  
RE: Follow-up clarification questions SPS presentations  
DATE: July 10, 2023

#### June 14, 2023 Slide Deck System Overview Recap

1. “Existing SPS Generating Resources”: shows 522 MW wind 20-year PPAs expiring 2024 – 2027, and an additional 889 MW of solar and wind 20-year PPAs expiring 2031 – 2041.

Q. What is the likelihood of all or a portion of these PPAs being renewed? To clarify (again), these projects are required to go through SPS’ RFP process?

A. SPS anticipates existing purchased power agreements will bid into future competitive solicitations (RFPs). It is impossible to know whether existing purchased power agreements will be successful in a future competitive solicitation as it would be highly dependent on many factors, including, but not limited to, the cost of the project and the cost of possible alternative projects (i.e., other bids).

#### June 14, 2023 Slide Deck Action Plan Update

2. “2022 RFP Bid Selection”: SPS is continuing to explore battery energy storage proposals.

Q. Are any of the ES proposals co-located?

A. Yes. All battery energy storage proposals received in the 2022 request for proposals were ‘co-located’. Stated differently, each battery was either paired with a new solar generator or located at an existing wind facility.

3. “Load vs Current and Recommended Future Resources Balance”

Q. It appears with the addition of the 2022 RFP selected resources, SPS is not capacity short until 2028 (minimally), and 2029 (significantly).

A. The resources selected in the 2022 RFP will resolve SPS’s 527 MW capacity need through 2027. However, I respectfully disagree that this will result in SPS’s capacity need in 2028 being ‘minimal’. As shown on slide 3 of the referenced presentation, SPS capacity need increases by 614 MW from 2027 – 2028. In my opinion, this is a significant increased capacity need. I completely agree with the characteristic that SPS’s capacity need in 2029 is significant.

#### July 6, 2023 Slide Deck Modeling Results Demonstration Purposes

4. “For Demonstrative Purposes”: updating several inputs to EnCompass including NREL.

Q. When complete, could SPS provide us with a list of the +/- cost changes?

A. SPS is currently conducting this comparison and will provide this information as it becomes available.

Note: The 2022 NREL data was published before passage of the Inflation Reduction Act. Therefore, any changes will be largely impacted by federal tax reform as opposed to changes to the underlying assumptions.

5. “Selecting the MCEP”: EnCompass will solve for the MCEP that meets or exceeds SPS’ PRM...new generation may be acquired years in advance of a retiring generator.”

Q. Will SPS please show us where in the scenarios this occurs?

A. SPS will provide this information as the modeling is finalized.

6. “SPS’ Capacity Need – Planning Forecast”, Level 0 slide 12 and Level 1 slide 15.

Q. Both slides are Effective Capacity? In either the Level 0 or 1 scenarios, does EnCompass add new generation in excess of SPS’PRM?

A. Both are accredited capacity. Recently, most of SPS’s EnCompass analyses have added more new generation than needed to meet the Summer PRM. However, EnCompass typically does not add new generation that exceeds the Winter PRM – (at least in the first 10 years). This is demonstrated on Slide 18 of the referenced presentation. In scenarios in which only relatively short-duration batteries are selected (e.g. 4 hours batteries), when conducting further reliability review of the portfolio, SPS may need to add additional batteries to solve expected emergency energy (“EUE”). Solving for EUE will likely result in capacity above the PRM.

\*EUE occurs when there is not enough Generation + Market Purchases + DR to meet the expected load in any given hour.

SPS can provide this information for actual scenarios as the modeling is finalized.

7. “Expansion Plan” slide 17: Level 1 shows an additional 7,275 MW of storage than Level 0.

Q. Is it reasonable to interpret the results as Storage (and some Solar) being the primary alternative to firm peaking CTs?

A. Generally speaking, yes, that is a fair interpretation. I would add, as more solar generation is added to the system, firm and dispatchable resources, such as CTs and Storage are increasingly used to meet the system peak net of renewables.

1. For the Base Case, Level 0, could SPS please provide a loads and resources table for the forecast period, listing all existing and new resources? For all resources, please provide MW capacity by nameplate and effective capacity, and output by GWh.

A. SPS will provide this information as the modeling is finalized.

2. 1050 MW of new firm load obligation is projected in the 2023 load forecast relative to the 2021 IRP. How much of the new load is attributable to the O&G sector and High Tech sector?

A. SPS is due to release a new load forecast before our next stakeholder meeting. In the interest of providing the 'latest' information, SPS will provide a response when the new load forecast is released.