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**DATA REQUEST RESPONSE**  
**LIBERTY UTILITIES (LIBERTY)**

Data Request No.: OEIS-P-WMP\_2025-Liberty-010

Requesting Party: Office of Energy Infrastructure Safety

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Subject:

Q01. Regarding Risk Calculations

**Q01. Regarding Risk Calculations:**

a. Liberty reported that the PSPS probability for circuit CEM41 is 12% in its response to OEIS-P-WMP\_2025-Liberty-008 Question 02. However, the step-by-step calculation provided on page 367 of Liberty's 2026-2028 Base WMP (Appendix B) demonstrates that the calculated PSPS probability is 40.53% (or 4.5% with SRP).

i. Provide an explanation regarding the inconsistencies between these reported values for PSPS probability for circuit CEM41.

ii. Explain how Liberty determined the PSPS probability of 12% for circuit CEM41.

b. Provide a detailed explanation of why the wildfire risk and PSPS risk reported in the OEIS-P-WMP\_2025-Liberty-008 Question 02 response differs from the wildfire risk and outage program risks provided in Table 5-6 of Liberty's 2026-2028 Base WMP for circuit CEM41.

c. Table 5-6 of Liberty's WMP shows that circuit MEY3400 has the highest overall utility risk, and that the overall risk is being driven by the calculated outage program risk.

i. Provide a detailed explanation of the calculation procedure for outage risk for circuit MEY3400.

ii. Explain why the outage program risk is substantially higher than the wildfire risk for circuit MEY3400.

**Response:**

a.

i. The difference in reported values is attributable to a change in methodology that took place when Liberty was writing its 2026-2028 Base WMP. The reported PSPS probability for CEM41 of 12% was produced under Liberty's previous methodology for PSPS probability:

$$(\text{Problematic wind gust probability (PSPS)} \times (\text{FFWI}_{50-54} + \text{FFWI}_{55-59} + \text{FFWI}_{60-64} \times \text{FFWI}_{65-69} + \text{FFWI}_{70-PLUS})) \div 100 = \text{Probability of PSPS}$$

The components containing "FFWI" represent the number of days with a Fosberg Fire Weather Index between the listed values. For example,  $\text{FFWI}_{50-54}$  = the number of days with an FFWI between 50 and 54.

The old methodology had three issues:

- The method of calculating event probability needs improvement.
- There was a typo in the formula where " $\text{FFWI}_{60-64}$ " and " $\text{FFWI}_{65-69}$ "

were being multiplied (x) when they should have been added (+), consistent with the rest of the formula.

- The table shown in DRAT documentation section 2.2.2.1.2 is not updated to account for corrections made to these issues.

Under the new methodology, the reported PSPS probability was 40.53% , produced with the following changes in methodology:

**DF:** The number of days with FFWI > 50

**Pw:** The probability of having problematic winds (40 or 50 mph, depending on the presence of SRP)

**Probability of picking no PSPS event:**  $N_{psps} = 1 - P_w$

**Probability of picking a PSPS event for the current year:**  $P(psps) = 1 - N_{psps}^{Df}$

These changes make the following improvements to the methodology:

- This is an improved method of calculating the probability of an event and opens the door the next step of calculating the probability of having x number of events.
- **Probability of picking no PSPS event** should read as **Probability of picking no PSPS event during a FFWI>50 day**
- No errors in the imported data (default value is 0)

ii.

Refer to response 1.a. Liberty used the below old methodology to produce the PSPS possibility of 12%:

- Old methodology formula:  $(\text{Problematic wind gust probability (PSPS)} \times (\text{FFWI}_{50-54} + \text{FFWI}_{55-59} + \text{FFWI}_{60-64} \times \text{FFWI}_{65-69} + \text{FFWI}_{70-PLUS})) \div 100 = \text{Probability of PSPS}$
- Old methodology calculation:  $(1.5 \times (7 + 1 + 0 \times 1 + 0)) \div 100 = \text{Probability of PSPS} = 12\%$

- b. Refer to Liberty's response to 1a. above. The difference in reported risk values is attributable to an update of Liberty's methodology in calculating PSPS risk. A similar correction was also applied to the calculation for SRP:

Probability of SRP =  $1 - (1 - \text{Average Probability of Failure of all equipment} \times \text{Probability of having at least 95}^{\text{th}} \text{ percentile weather})^{\wedge} (\text{Count of Asset})$

c.

i. Liberty used the following formula to calculate the outage program risk for MEY3400.

- Outage Program risk = (PSPS Risk + SRP Risk) / 2

Both PSPS and SRP risk are explained in DRAT documentation sections 2.2.1 through 2.2.5. Liberty reported the average outage program risk over all iterations run.

ii. The main driver in the difference between outage program risk and wildfire risk for circuit MEY3400 is the probability of an event happening – there is a significant difference between the probability of a wildfire and the probability of PSPS. Consequence is also scaled between 0 and 1 for both wildfire and PSPS. The probability of fire is low, driving the wildfire risk down in comparison to PSPS or outage risk.