Liberty Utilities (CalPeco Electric) LLC
933 Eloise Avenue
South Lake Tahoe, CA 96150
Tel: 800-782-2506
Fax: 530-544-4811

April 12, 2021

DATA REQUEST RESPONSE

LIBERTY UTILITIES (CALPECO ELECTRIC) LLC
2021 WMP Update

Data Request No.: WSD-Liberty-2021WMP-01
Subject Matter: 2021 Wildfire Mitigation Plans
Originator: Ryan Arba
Due Date: April 12, 2021

REQUEST NO. 1:

Does Liberty have a program that addresses each of the following initiatives? If yes, describe the program, including progress and future improvements, and provide references to other sections of the 2021 WMP where this information is located (section and page number). If no, discuss whether Liberty anticipates developing a program including details on the current level of development and a timeline of developmental milestones.

a. 7.3.1.2 Climate-driven risk map and modeling based on various relevant weather scenarios
b. 7.3.1.3 Ignition probability mapping showing the probability of ignition along the electric lines and equipment
c. 7.3.1.4 Initiative mapping and estimation of wildfire and PSPS risk-reduction impact
d. 7.3.1.5 Match drop simulations showing the potential wildfire consequence of ignitions that occur during the electric lines and equipment

RESPONSE TO REQUEST NO. 1:

As indicated in Liberty's 2021 WMP Update, the initiatives listed in Request No. 1 are addressed as part of the WMP initiative 7.3.1.1. Risk Assessment and Mapping.

a. Liberty does not have a program that addresses climate-driven risk mapping and does not anticipate developing a program in the near future. Liberty will look into the feasibility of this as more data and research studies become available.
b. Liberty has compiled a circuit-by-circuit analysis that tracks each ignition-related event (sparking, smoldering, melting, arcing, burning, etc.) by its corresponding circuit number. Liberty has attached its circuit analysis and wildfire risk worksheet as requested.
c. Liberty's wildfire mitigation initiative wildfire risk-reduction impact can be found in Attachment C, Table C-1. The RSEs for the average and tail-case for each scored initiative are in the second column.

d. Reax Engineering's fire spread propagation model forms an overall wildfire risk map of Liberty's overhead lines that combines the segmented areas' (polygons) consequential estimates (structural damages, sensitive habitat affected, commercial timber lost, population affected, etc.). Liberty can provide the overall fire risk map in .shp file format upon request.

REQUEST NO. 2:

Where (section and page number) in Liberty's WMP is a list that identifies, describes, and prioritizes all wildfire risks, and driver for those risks, throughout the electrical corporation's service territory, as described in Public Utilities Code Section 8386(c)(11). If not included in Liberty's WMP, provide the listed information.

RESPONSE TO REQUEST NO. 2:

The circuit-by-circuit analysis and wildfire risk worksheet is attached.

REQUEST NO. 3:

Describe the key program targets Liberty uses to track how it is minimizing scale, scope and frequency.

RESPONSE TO REQUEST NO. 3:

Liberty uses the PSPS metrics listed in Table 8-1 of its 2021 WMP Update (pp. 143-144). The program targets include number of customers affected by PSPS events, frequency of PSPS events, scope (number of events multiplied by number of circuits targeted for de-energization), and duration of events (customer hours).

REQUEST NO. 4:

Explain how information from Liberty's enhanced fire weather forecasting tool, as described in Section 8.3 (WMP page 150-151), is used to reduce the scope, scale, and frequency of PSPS. Quantify the expected reduction to scale, scope, and frequency of PSPS.

RESPONSE TO REQUEST NO. 4:

Liberty's fire weather forecasting tool is designed to provide real-time as well as forecasted fire weather data that can assist with operational decision making and determination of need for PSPS events. The tool is not designed to reduce the scope, scale, and frequency of PSPS events. In some circumstances, having accurate forecasted and accurate real-time weather information can help to reduce PSPS impacts by:

- Allowing for more advanced notice to customers and Public Safety Partners;
- Pre-staging resources to assist with restoration;

- Using more granular forecasts to focus de-energize smaller areas depending on sectionalization capabilities.

REQUEST NO. 5:

Describe how the major programs in each of the following initiative categories is expected to reduce scale, scope, and frequency of PSPS events. Provide a quantitative estimate of the expected reduction of PSPS scope, scale, and/or frequency for the near-term (within the next year) and long-term. Where the quantified expected reduction of scope, scale, and frequency are zero or unobtainable, explain why it is zero or unobtainable and describe how the major programs are expected to reduce PSPS impact over the near-term (within the next year) and long-term.

a. Risk Assessment and Mapping
b. Situational Awareness
c. Grid Design and System Hardening
d. Asset Management and Inspections
e. Vegetation Management and Inspections
f. Grid Operations and Operating Protocols
g. Emergency Planning and Preparedness
h. Stakeholder Cooperation and Community Engagement

RESPONSE TO REQUEST NO. 5:

As explained in Liberty's 2021 WMP Update, Liberty has had only one PSPS event in its history and sets the baseline for risk reduction to near zero historic occurrences to measure quantitative performance metrics against. Liberty has taken many steps to establish a formal PSPS program through the development of protocols, procedures, and the identification of specific PSPS event thresholds that are detailed throughout Chapter 8 of its 2021 WMP Update. The PSPS work over the last two years, in combination with an anticipated increase in fire weather events (*i.e.*, red flag warnings, longer fire season, high winds, etc.), may lead to more frequent use of PSPS over the next 10 years, although the scale and scope of the potential events are unknown and can only be qualitatively assessed.

Liberty anticipates the following programs will reduce the likelihood and impacts of PSPS events in the future and include the Customer Resiliency Program (Attachment B of Liberty's 2021 WMP Update), situational awareness tools and FPI monitoring efforts in conjunction with installation of sectionalizing grid operation equipment (pages 81-86 of Liberty's 2021 WMP Update), microgrids (pages 52-53 of Liberty's 2021 WMP Update), covered conductor (pages 87-89 of Liberty's 2021 WMP Update), undergrounding (pages 96-97 of Liberty's 2021 WMP Update), and customer and community outreach and engagement efforts (pages 130-141 of Liberty's 2021 WMP Update). The main quantitative metric that Liberty plans to use to estimate the expected reduction in PSPS impact is the expected reduction in the number of customers impacted by a potential PSPS event.

While all of the programs listed above are expected to reduce PSPS impact, in the near-term (within the next year), there are no quantitative metrics available to demonstrate or measure reductions to the scale, scope and frequency of PSPS events. The expected reductions in scale, scope and frequency of PSPS events cannot be quantified at this point because Liberty would be estimating expected reductions based on almost zero actual PSPS occurrences and because the programs listed above are either ongoing or not yet started.[1] For instance, Liberty's Customer Resiliency Program, as described in Attachment B of its 2021 WMP Update, will mitigate customer impacts of PSPS. The quantitative impacts of the resiliency efforts are unknown at this point but, in the future, PSPS events and impacts to customers can be quantitatively tracked with performance metrics by resiliency corridor or sectionalizing efforts.

Liberty is committed to working with the CPUC, WSD, other utilities and other interested stakeholders to develop quantitative metrics to estimate the expected reduction of PSPS scope, scale, and/or frequency over the long-term timeframe. Given that Liberty will be estimating expected reductions in PSPS scale, scope and/or frequency based on almost zero actual PSPS occurrences, Liberty is exploring methodologies that would rely on benchmarking statistics from the other IOUs in California with more PSPS experience.

If you have any questions or require any additional information, please contact me at:

Dan Marsh
Manager, Rates and Regulatory Affairs
Liberty Utilities (CalPeco Electric) LLC
Dan.Marsh@libertyutilities.com
Phone: (530)721-2435

[1] An exception is the Sagehen Microgrid Project, which was completed in 2020. This solar plus battery storage microgrid project will allow Liberty to completely de-energize approximately four miles of distribution lines during wildfire season, which will reduce the potential of a PSPS event impacting the customer served by this line.