

*Southern California Edison*

*WSD-011 – Resolution implementing the requirements of Public Utilities Code Sections 8389(d)(1), (2) and (4) related to catastrophic wildfire caused by electrical corporations subject to the Commission’s regulatory authority*

**DATA REQUEST SET Cal Advocates - SCE - 2021 WMP - 14**

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**Response Date: 6/10/2021**

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**Question 003:**

On pages 618 and 619 of the revised 2021 WMP Update (redlined), SCE states that the aggregated RSE for Community Resource Centers (CRC) and Community Crew Vehicles (CCV) is 188. Similarly, SCE states that Critical Care Battery Backup (CCBB) has an RSE of 22. SCE also mentions that CCBB does not reduce wildfire risk or consequence but does reduce the consequence of PSPS.

- a) When calculating the RSE for Customer Care programs, what historical counts are used as a forecast baseline per the process SCE describes on page 66 of its revised 2021 WMP Update (redlined)?
- b) What is the mitigation effectiveness of the CRC, CCV, and CCBB programs?
- c) Describe how the mitigation effectiveness of the CRC, CCV, and CCBB programs is determined.
- d) Describe all other factors or metrics used in the calculation of RSE for CRC, CCV, and CCBB programs.

**Response to Question 003:**

- a) The Customer Care programs reduce PSPS risk through consequence mitigation, as the provided resources alleviate the impact of de-energizations on customers. As such, the RSE is quantified in part by calculating PSPS risk reduction on all HFRA PSPS circuits.

To calculate the baseline PSPS risk, SCE uses the risk bowtie framework to calculate the relative risk of PSPS impacts. On the left hand of the bow tie is the probability of de-energization which is based on a 10-year back casting of historical wind and weather conditions to estimate the annual frequency and duration of de-energization events, using the current PSPS de-energization protocols. On the right side of the bowtie, SCE estimates the safety, reliability, and financial consequences to the customers due to a PSPS de-energization. The PSPS risk calculated by the risk bowtie approach serves as the basis for risk reductions and is therefore used in RSE calculations.

- b) CRCs/CCVs are estimated to have a 1% mitigation effectiveness on all safety, reliability, and financial components of PSPS MARS consequence.

CCBB has mitigation effectiveness percentages which vary depending on the circuit under consideration. For all components (financial, reliability, safety) of PSPS consequence, there is a 33% mitigation effectiveness which is further multiplied by 25% (the estimated enrollment rate) and the proportion of medical baseline customers of all customers on the circuit. The safety component is further multiplied by the circuit's access and functional needs (AFN) multiplier since that considers the target population of the program.

- c) For CRC/CCV, Subject Matter Expert (SME) judgment was used to determine the mitigation effectiveness. Based on the intent to cover all of HFRA, a broad geographic area, it was reasonable to conclude that these resources will have a net positive benefit when deployed during a PSPS event and will mitigate the consequence of PSPS events on the community, but difficult to precisely quantify given the limited data available.

The mitigation effectiveness of CCBB is driven by two main factors, the number of batteries supplied and the duration benefit of each battery. For purposes of calculating the RSE as part of its 2021 WMP Update, SCE assumed that approximately 25% of total eligible customers would choose to enroll in the program. The batteries on average have an 8-hour battery life, based on an analysis of total usage hours in over 300 customer assessments,<sup>1</sup> which estimates coverage of about 33% over the normal duration of a PSPS event (a PSPS event is assumed to last 24 hours on average).

- d) In addition to utilizing the baseline PSPS risks and applying the mitigation effectiveness percentages to the entire HFRA for CRC/CCV and to all circuits with medical baseline customers who live in HFRA for CCBB, the useful life of each mitigation is also considered to calculate the net present value (NPV) of the risk reduction. The NPV of risk reduction is divided by the cost forecast to arrive at the RSE for each mitigation. The useful life of CRC/CCV is 1 year since these resources are only available to customers around/during the time of the de-energization. The useful life of CCBB is 3 years because the program provides a 3-year warranty for the battery and solar panel kit.

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<sup>1</sup> Actual battery life is dependent on the size of the battery and power load of the medical device(s) at a customer's site.