

**COMMENTS OF THE PUBLIC ADVOCATES OFFICE ON THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR’S DRAFT 2021-2022 TRANSMISSION PLANNING PROCESS UNIFIED PLANNING ASSUMPTIONS AND STUDY PLAN (DRAFT 2021-2022 STUDY PLAN) AND THE FEBRUARY 25, 2021 PRESENTATION ON THE DRAFT 2021-2022 STUDY PLAN**

**INTRODUCTION**

The Public Advocates Office at the California Public Utilities Commission (Cal Advocates) is the California’s independent consumer advocate with a mandate to obtain the lowest possible rates for utility services, consistent with reliable and safe service levels, and the state’s environmental goals.<sup>1</sup> On February 25, 2021 the California Independent System Operator (CAISO) requested comments on its Draft 2021-2022 Transmission Planning Process Unified Planning Assumptions and Study Plan (Draft 2021-2022 Study Plan) be served by March 11, 2021. Cal Advocates provides the following comments and recommendations by the specific topic covered in the CAISO on the Draft 2021-2022 Study Plan.

**RECOMMENDATIONS AND COMMENTS**

**A. Request for Additional Information on Special Protection Schemes**

Cal Advocates requests information on the reasons for the existing installed special protection schemes (SPS) on the CAISO-controlled grid, as well as the impacts of the SPS. Cal Advocates seeks to understand the issues that the SPS are addressing and to understand if existing SPS drop generation and/or load when deployed. The Draft 2021-2022 Study Plan includes an appendix with general information on existing installed SPS by participating transmission owners (PTOs) in tables A6-1 to A6-3.<sup>2</sup> These tables provide information on only the CAISO planning area and the names for the installed SPS. Cal Advocates requests the CAISO provide expanded SPS information tables that include the reasons for each installed SPS, as well as the costs and impacts of SPS on

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<sup>1</sup> Cal. Pub. Util. Code § 309.5.

<sup>2</sup> *CAISO Draft 2021-2022 Transmission Planning Process Unified Planning Assumptions and Study Plan*, February 18, 2021, pp. A-10-A-13.

transmission system operations in the final 2021-2022 Study Plan or on the CAISO Transmission Planning Process (TPP) web page. Table 1. below serves as a SPS information table template.

**Table 1 - CAISO Grid Special Protection Schemes (SPS) Template**

<b>Participating Transmission Owner</b>	<b>Area</b>	<b>SPS Name</b>	<b>SPS Justification(s)</b>	<b>Cost for SPS in \$</b>	<b>Drops Generation and/or Load in MW</b>	<b>System Impact in \$ &amp; Other Impacts in \$</b>
PG&E	Central Cost/Los Padres	Mesa & Santa Maria Undervoltage SPS				

With the requested information in a publicly accessible location such as the suggested final 2021-2022 Study Plan or on the CAISO TPP web page, stakeholders will be able to refer to it when specific SPS are cited in the TPP to better understand existing and proposed mitigations.

**B. Requests for refinements to the proposed Wildfire Mitigation Assessment for Southern California**

Background

The Draft 2021-2022 Study Plan states that the CAISO intends to conduct studies “to assess the potential risks of de-energizing” transmission lines in Southern California Edison Company (SCE) and San Diego Gas & Electric Company’s (SDG&E) service territories.<sup>3</sup> The CAISO will develop scenarios that involve de-energizing some transmission lines in High Fire-Threat Districts and will consult with SCE and SDG&E to identify areas “that have been prone to past [Public Safety Power Shutoff] or wildfire events.”<sup>4</sup>

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<sup>3</sup> Draft Study Plan, p. 69.

<sup>4</sup> Draft Study Plan, p. 70.

The proposed Wildfire Mitigation Assessment for southern California can provide useful information, if it examines a range of scenarios that may plausibly occur.

1. CAISO's assessment of the transmission system should acknowledge that de-energization of distribution circuits reduces load on the transmission system.

Turning off distribution circuits for de-energization events will substantially diminish the load on the transmission system, reducing the likelihood of transmission congestion or overloads. Therefore, in considering any de-energization scenario, it is essential to account for the load reduction on the transmission system due to distribution-level shutoffs.

To illustrate this point, based on Pacific Gas and Electric Company's (PG&E) responses to Cal Advocates' data requests, it appears that PG&E de-energized about 10 miles of distribution circuits for each mile of transmission circuit affected during large de-energization events.<sup>5</sup> Additionally, based on three large de-energization events from 2019, only 20 to 35 percent of load loss was solely attributable to the de-energization of PG&E transmission lines in fire weather.<sup>6</sup> The CAISO or Cal Advocates should be able to obtain equivalent data from SCE and SDG&E for use in the proposed Wildfire Mitigation Assessment for southern California.

2. CAISO's assessment should develop realistic scenarios based on past events.

The CAISO should develop realistic scenarios by considering the geography and load impact of past de-energization events. SDG&E conducted significant de-energization events in the past four years, with the largest occurring in 2020. SCE also conducted several large de-energization events in 2019 and 2020, as well as small events in 2017 and 2018.<sup>7</sup> These events should provide an adequate historical record to develop scenarios that identify the specific transmission facilities that are likely to be turned off during extreme weather events. For example, SDG&E triggered its largest de-energization event on December 2-4, 2020. During this event, 43 SDG&E weather

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<sup>5</sup> *Comments of the Public Advocates Office on the California System Operator's 2020-2021 Transmission Planning Process – September 23-24, 2020 Presentations and Stakeholder Meetings*, October 8, 2020, p. 6.

<sup>6</sup> *Comments of the Public Advocates Office on the California System Operator's 2020-2021 Transmission Planning Process – November 17, 2020 Presentations and Stakeholder Meetings*, December 1, 2020, pp. 3-4.

<sup>7</sup> *SDG&E and SCE 2021 Wildfire Mitigation Plans*, submitted February 5, 2021, Table 11.

stations registered record high winds and 126 weather stations (out of 220)<sup>8</sup> registered wind speeds at the 99<sup>th</sup> percentile for its location.<sup>2</sup> Therefore, it is reasonable to view this event as representing an outer bound of extreme wind in SDG&E’s service territory.

A reasonable approach to the study is to base scenarios on the three largest or longest de-energization events that each utility has executed. The CAISO should obtain data from each utility on the dates of these events, the specific circuits affected, and the typical load on each circuit. For scenarios that are based on 2019 de-energization events, it is also important to account for recent grid hardening and sectionalization measures. Recent and planned wildfire mitigation measures will continue to narrow the scope of de-energization events in the future.

3. CAISO’s assessment should not assume that extreme fire weather will occur uniformly across a service territory or that de-energization events will be applied simultaneously to all High Fire-Threat Districts.

The CAISO should bear in mind that de-energization events vary in their geographic scope, depending on weather patterns. The extreme winds that drive utilities’ de-energization decisions are often highly localized: specific mountain slopes or canyons can have much stronger winds than surrounding areas. Therefore, each event is unique. The study scope should include several scenarios with different geographical scopes, based on the expectation that extreme fire weather conditions may occur in various parts of southern California, but are unlikely to occur everywhere simultaneously.

Scenarios that assume all transmission facilities in High Fire-Threat Districts are de-energized simultaneously are not realistic and should be avoided in the assessment.<sup>10</sup>

4. CAISO’s Assessment should use common terms.

Finally, to avoid confusion, the CAISO should attempt to use terminology that is consistent with the language used in California Public Utility Commission (Commission) proceedings. For example, the Draft 2021-2022 Study Plan and the accompanying presentation refer to “High Fire Risk Areas,” whereas “High Fire-Threat Districts” is the correct term. The map shown in the Draft 2021-2022 Study Plan presentation is also the

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<sup>8</sup> *SDG&E 2021 Wildfire Mitigation Plan*, submitted February 5, 2021, pp. xii, 140 and 153.

<sup>9</sup> SDG&E presentations on its 2021 Wildfire Mitigation Plan at CPUC Wildfire Safety Division Workshop, February 23, 2021 and at Wildfire Safety Advisory Board Meeting, March 3, 2021.

<sup>10</sup> *Comments of the Public Advocates Office on the California System Operator’s 2020-2021 Transmission Planning Process – September 23-24, 2020 Presentations and Stakeholder Meetings*, October 8, 2020, pp. 5-7.

Commission's High Fire-Threat District (HFTD) Map, which the Commission adopted in Rulemaking 15-05-006.

Please contact Kanya Dorland if you have any questions on these comments at [kanya.dorland@cpuc.ca.gov](mailto:kanya.dorland@cpuc.ca.gov).