

# FAQs: Overview of Expanded Modeling Requirements for CAISO Generators

January 2019

In August 2018, the CAISO added a new Section 10 of its Business Practice Manual (BPM) for Transmission Planning Process (the "CAISO TPP BPM") to impose new generator modeling requirements. This updated BPM has created questions for participating generators concerning applicability, scope, and schedule, as well as the relationship of the CAISO TPP BPM requirements to the NERC Standards. These FAQs are designed to provide generators in the CAISO footprint with a high-level understanding of how these new requirements may apply. If you want more information on how these requirements impact your organization, GridSME can assist you in understanding them and putting together a project plan to support ongoing compliance and minimize your risk.

**Q:** What does the CAISO TPP BPM require generators to do? How does this differ from NERC?

**A:** The CAISO TPP BPM imposes various data modeling and validation requirements on participating generators that must be met to support the CAISO's transmission planning process. It identifies five categories of operational generating units, based on nameplate capacity and voltage connection; each category has specific requirements that must be satisfied on a phased-in schedule. For those larger generators (e.g., Category 1), they must provide more data and on an accelerated schedule.

The relevant NERC Modeling (MOD) Standards collectively include specific model verification and data requirements to be performed by registered Generator Owners ("GOs") with applicable facilities (specifically, the current versions of MOD-025, MOD-026, MOD-027, and MOD-032).



**Q:** Do these modeling requirements apply to the same generators as the NERC MOD Standards?

**A:** No. The CAISO TPP BPM applies to generators within the CAISO footprint that are bound by the terms of a Participating Generator Agreement. Each set of requirements in the CAISO TPP BPM applies to a category of generators based on their nameplate capacity (for individual generating units or aggregate resources) and connected voltage.



The CAISO TPP BPM's lower voltage and capacity thresholds pull into scope a much more expansive set of generating units than the NERC MOD Standards, which generally apply to registered GOs with Bulk Electric System (BES) facilities. The participating generators are subject to the terms of the CAISO Tariff, which is separate from NERC's regulatory oversight.

GridSME has worked with organizations that control both generating units subject to the NERC MOD Standards and other units that are not, which requires careful project planning on their part to identify the activities required to meet multiple timelines under the CAISO TPP BPM.

CAISO TPP BPM	NERC MOD STANDARDS
<p>Establishes 5 categories of participating generators based on the capacity and voltage:</p> <ul style="list-style-type: none"> <li>• <b>Category 1:</b> individual nameplate capacity &gt;20 MVA/aggregate nameplate capacity &gt;75 MVA; connected to the BES (100 kV or higher)</li> <li>• <b>Category 2:</b> individual nameplate capacity &gt;10 MVA/aggregate nameplate capacity &gt;20 MVA; connected at 60 kV and above</li> <li>• <b>Category 3:</b> individual nameplate capacity less than 10 MVA/aggregate nameplate capacity less than 20 MVA; connected &gt;60 kV</li> <li>• <b>Category 4:</b> non-Net Energy Metered (non-NEM) generators connected to non-BES below 60 kV; explicitly modeled as individual generating unit in transmission planning power flow and stability studies</li> <li>• <b>Category 5:</b> non-NEM generators connected to non-BES below 60 kV; modeled as aggregate resource in transmission planning power flow and stability studies</li> </ul>	<p>The definition of Bulk Electric System (BES) typically includes generating resources:</p> <ul style="list-style-type: none"> <li>• Connected at 100 kV or higher; and</li> <li>• With an individual nameplate rating of &gt;20 MVA or gross plant/facility aggregate nameplate rating of &gt;75 MVA</li> </ul> <p>MOD-026/-027 also have specific language on applicable facilities based on Interconnection.</p>

**Q:** Do the CAISO TPP BPM and NERC MOD Standards have overlapping testing and data requirements?

**A:** The CAISO TPP BPM and NERC MOD Standards each have defined requirements for providing test reports and/or modeling data for applicable generators. Certain elements do overlap (for example, many of the modeling data reporting requirements in MOD-032-1), but the CAISO TPP BPM has unique data requirements for each category.

GridSME recommends identifying your specific requirements for each applicable category in the CAISO TPP BPM and mapping them to the NERC MOD Standard requirements for applicable generators.

**Q:** How do I know my specific data submittal deadlines for each generator unit in the CAISO?

**A:** The schedule of phases for submitting the data to the CAISO is based on the category, with the first deadline of May 31, 2019 (Category 1/Phase 1).

The CAISO has made available on its website a spreadsheet identifying the resource category and phase for each generator unit based on its CAISO market Resource ID. The list includes all participating generator resources that have achieved commercial operation as of September 1, 2018. You can find that spreadsheet at [this location](#). If you suspect that the CAISO has left off a generator unit with a CAISO market Resource ID in error or mischaracterized your category and phase, it would be prudent to reach out to the CAISO.

**Q:** What is the format that I need to submit the required data?

**A:** The CAISO has made available on its website a data template and reporting instructions for each category, available at [this location](#). For example, the Category 1 and 2 data template spreadsheet includes tabs to populate general information about the facility; provide equipment data; and complete a validation checklist.

**Q:** Are the timelines different for new generators?

**A:** Yes. Each set of requirements has different timelines for new applicable generating units to submit data based on the commercial operation date ("COD"), with the CAISO timeline shorter than the NERC MOD Standards:

CAISO TPP BPM	NERC MOD STANDARDS
Generating units that achieve commercial operation after 9/1/18 must submit the required generator modeling data within <b>120</b> calendar days of achieving COD in the CAISO market.	GOs must perform MOD-025 verification within <b>12 calendar months</b> of COD, and MOD-026/MOD-027 initial verification for new units within <b>365</b> days after commissioning date.

**Q:** What happens if I do not comply on time with the CAISO TPP BPM or NERC requirements?

**A:** It depends on the requirements. Under the CAISO Tariff, scheduling coordinators for participating generators will be subject to a \$500/day penalty for a failure to make a timely initial submission or resubmit requested data during a cure period.

Any failure to satisfy the requirements in the NERC MOD Standards will subject registered GOs to NERC's penalty authority and mechanisms to resolve potential non-compliance under its Compliance Monitoring and Enforcement Program.