I. Introduction

On February 13, 2019, the California ISO submitted proposed revision request (PRR) 1139 to amend its Business Practice Manual (BPM) for Outage Management. The amendments clarified the definitions of several outage nature of work categories, including removing a single sentence from the definition of the “Ambient Not Due to Temp” outage type. The BPM defines an Ambient Not Due to Temp outage as follows (with the sentence removed through PRR 1139 reflected in red strikeout):

Non-temperature related unit availability derate that is outside the control of the plant operator. Provides notification of actual physical limitations to fuel availability due to hourly gas burn limitations issued by the natural gas transmission pipeline operator as described in CAISO Operating Procedure 4120. This category of forced outage need not provide substitute resource adequacy capacity to mitigate any potential impact to the original resource adequacy resource’s availability incentive calculation as specified in Section 9.5 of the Business Practice Manual for Reliability Requirements. For resources in the EIM Balancing Authority Areas, this category is to reflect similar physical limitations to fuel availability experienced in their Balancing Authority Areas.

ISO staff proposed removing this sentence to eliminate any possible doubt about when this outage type applies—it is reserved exclusively for gas-fired units that face limitations because of gas system curtailments.

Southern California Edison Co. (SCE) objects to this amendment and appealed PRR 1139 on May 17, 2019. The crux of SCE’s appeal is that hydroelectric generators merit a broad exemption from non-availability charges under the resource adequacy availability incentive mechanism (RAAIM) and removing access to the

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1 SCE also appealed PRR 1017, which similarly amended the Ambient Not Due to Temp definition. There was confusion between the ISO and SCE about whether SCE withdrew and/or abandoned its PRR 1017 appeal. The ISO will treat this as a consolidated appeal of both PRRs. If this appeal were granted, the ISO would revert the definition to the pre-PRR 1017 language. A complete history of the PRRs impacting this outage type is provided in Attachment A.

2 Pacific Gas and Electric Co. submitted an appeal on the same issue but subsequently withdrew its appeal.

3 RAAIM is the ISO’s tariff-based tool to create financial incentives for resources providing resource adequacy capacity to meet their availability obligations.
RAAIM-exempt Ambient Not Due to Temp outage type eliminates an opportunity for such units to avoid RAAIM exposure. ISO staff disagrees with SCE’s arguments and urges the Appeal Committee to reject SCE’s appeal.

II. SCE’s PRR 1139 Appeal

Section 40.9.3.4(d) of the ISO tariff gives the ISO authority to identify RAAIM-exempt outage types in the Outage Management BPM. To be considered for an exemption, the outage type must relate “to an administrative action by the resource owner, a cause outside of the control of the resource owner, or a short-term use limitation . . . .” The Ambient Not Due to Temp outages are exempt under this tariff provision because they are beyond the resource’s control. Outages arising from use-limited resources’ management of the limitations that qualified them for use-limited resource status (i.e., qualifying use limits) are also exempt under this tariff provision because they relate to short-term use limits.

SCE appealed PRR 1139 because it believes that if a hydroelectric generating unit providing resource adequacy (RA) capacity cannot meet its RA obligations because it needs to manage water limitations that are non-qualifying use limits, then that resource should be able to use the RAAIM-exempt Ambient Not Due to Temp outage type, presumably because those limitations are viewed as beyond the resource’s control.

The ISO assesses RAAIM based on how much RA capacity a resource provides compared against how it performed in the market. One logical way of addressing RAAIM exposure for hydroelectric resources that need to manage non-qualifying use limits would be for them to limit the RA capacity they provide in a month to what they
reasonably can provide given anticipated water conditions, rather than up to the resource’s full net qualifying capacity (NQC). During the PRR process and post-appeal discussions, SCE claimed, without pointing to any particular documentation or support, that managing the issue in this manner is not feasible because of regulatory concerns with the California Public Utilities Commission (CPUC). SCE explained its view that not using a resource’s full NQC exposes it to CPUC scrutiny over whether: (a) it is withholding scarce RA capacity from the bilateral RA market to the detriment of other load serving entities; or (b) it should face cost disapprovals for failing to use capacity in the RA showings process it already procured. SCE explained that it is in a “Catch-22” situation where it can face either excessive RAAIM exposure from the ISO or potential negative consequences from the CPUC. In SCE’s view, overturning PRR 1139 on appeal would remove that Catch-22. SCE argues that reversing PRR 1139 is appropriate because the ISO “failed to identify the CAISO source document (policy or operations or otherwise) that authorized the change in treatment of the” Ambient Not Due to Temp outage type.4

III. ISO Response to PRR 1139 Appeal

ISO staff disagrees with SCE for several reasons and recommends the Appeal Committee reject SCE’s appeal. Applying RAAIM to these resources follows the principles supporting RAAIM. Further, ISO staff does not agree that SCE has adequately made a case it faces a Catch-22 situation.

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4 SCE appeal, at 1. SCE’s appeal also states that ISO staff committed to review SCE’s concerns and failed to deliver on that commitment. Since SCE submitted its appeal on May 17, the ISO has considered this issue in its own stakeholder processes and in CPUC proceedings. Based on this activity SCE staff represented to ISO staff on a February 3, 2020, teleconference that ISO staff’s commitment to addressing SCE’s concerns is no longer part of its PRR 1139 appeal.
RAAIM’s purpose is twofold. First, it incentivizes resources providing RA capacity to participate in the market to the greatest degree possible. If an RA resource cannot meet a defined performance threshold, it faces non-availability charges. Second, exposure to RAAIM charges helps send signals for load serving entities to include relatively higher performing resources in their RA showings. If a resource expects it will face RAAIM charges, all else being equal, it would need to contract for a higher capacity payment from its load serving entity counterparty to account for the anticipated charges. This makes a lower-performing capacity resource relatively more expensive than a comparable resource that need not factor in expected RAAIM charges in bilateral RA contract negotiations. By making such a resource more expensive in the RA process, RAAIM establishes a signal that the capacity is relatively less helpful towards meeting the ISO’s capacity and reliability needs. ISO staff acknowledges that managing water limitations can be difficult, and RAAIM may not always serve as a performance incentive. RAAIM exposure for hydroelectric resources with non-qualifying use limits does, however, serve the latter goal of sending a signal about the relative capacity value of different generators. For this reason PRR 1139 is consistent with the core RAAIM principles.

In a recent filing with the Federal Energy Regulatory Commission, the ISO explained its philosophy of applying the RAAIM exemption authority it holds under section 40.9.3.4(d). The ISO stated this provision does not: guarantee a RAAIM exemption for every outage beyond the generator’s control. The RAAIM exemption, instead, is tied to specific nature of work categories. In identifying a nature of work as RAAIM exempt, the CAISO needs to be comfortable that every (or virtually every) outage reported in that category meets one of the three factors identified in section 40.9.3.4(d). This parsimony in granting RAAIM exemptions is critical to maintaining the integrity and usefulness of the resource adequacy program as a tool for providing grid reliability. When a resource is shown as providing a certain megawatt value of RA capacity through the RA showings
process, the CAISO counts on that capacity actually being available to meet the CAISO’s reliability needs. Each megawatt of RA capacity permitted to take an outage without RAAIM exposure and without having a substitution requirement increases the likelihood that the CAISO will face reliability concerns even if, from an RA accounting standpoint, the CAISO theoretically had sufficient RA capacity. Creating additional megawatts of RAAIM-exempt capacity also raises equity concerns as to the RA capacity that remains exposed to RAAIM non-availability charges. For these reasons, the CAISO must be judicious and not extend RAAIM exemptions to an outage category when only some outages in that category meet the factors identified in in section 40.9.3.4(d).  

PRR 1139 follows how the ISO has stated it would apply its authority under section 40.9.3.4(d). A critical factor for these exempt outages is the ISO’s ability to verify readily that an outage is beyond the generator’s control. Based on the clarification to the Ambient Not Due to Temp definition created through PRR 1139, the ISO is confident that every outage in this category will be outside the generator’s control, i.e., a gas unit whose access to the gas system is turned off by the gas system operator cannot avoid the generation outage. This is akin to another outage type identified as exempt from RAAIM in the Outage Management BPM – a Transmission Induced outage. This outage type applies where a generator cannot deliver energy to the ISO grid because of a transmission outage. Importantly, in both cases the ISO can readily and objectively verify the cause of the generation outage. In the case of Ambient Not Due to Temp, the triggering event is whether ISO Operating Procedure 4120, which deals with gas system limitations, applied to the situation. The ISO will easily know whether its own operating procedure applied. Likewise, with a Transmission Induced outage, the ISO’s role as grid operator makes it

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straightforward to confirm that a transmission outage occurred that impacted the
generator in question. On the other hand, that same level of external and
objective validation is not feasible with general claims of water limitations for
hydroelectric resources. The ISO does not have an objective and readily
implementable way of confirming that every such outage will be based on factors
outside the generator’s control. PRR 1139 thus follows ISO policies on RAAIM
and exemptions from RAAIM for certain outage types.

ISO staff also does not believe SCE has demonstrated clearly and
adequately that it is in a Catch-22 situation. Facing hypothetical regulatory
scrutiny, on the one hand, or financial charges for non-performance, on the other,
does not create an inescapable dilemma due to mutually conflicting conditions.
The ISO is unaware of any express CPUC policy, and SCE cites none, that
CPUC-jurisdictional load serving entities may not consider managing RAAIM
exposure as part of the RA showings process. Even if such a CPUC policy
existed, the best that could be said is that the CPUC directive imposes
compliance costs in the form of RAAIM charges. Perhaps SCE wishes to avoid
the inconvenience of having to explain its actions to its regulator or is concerned
that the CPUC will not fairly consider all relevant factors in exercising its
regulatory oversight. Neither of these two factors justifies granting a PRR appeal
that would undercut justified and established RAAIM policies and create
inequitable treatment for generators that meet their RA obligations without
special rules or exemptions.
IV. Potential Changes to the Hydroelectric Qualifying Capacity Methodology

Although ISO staff strongly opposes SCE’s appeal, the ISO agrees with SCE’s higher-level concern that the method for calculating the qualifying capacity value, and thus NQC value, for hydroelectric resources should be updated to account for possible dry hydro conditions. This specific issue is in scope of the CPUC’s ongoing RA proceeding for the 2021 and 2022 RA compliance year. In that regard, on February 12, 2020, the ISO and SCE co-chaired a hydroelectric resource counting workshop as part of that proceeding. In its February 21, 2020, filing in that proceeding, the ISO stated it “is largely aligned with SCE’s hydro counting approach [which] sets qualifying capacity values based on a historical-year weighted average assessment.” In that same filing, the ISO also stated that “if the Commission were to set qualifying capacity values for hydro resources in a way that accounts for low hydro conditions . . ., then the CAISO would strongly consider making a further tariff amendment filing to exempt hydro resources whose qualifying capacity is set under the methodology now under discussion.” Until those events unfold, it is appropriate for hydroelectric resources that need to manage non-qualifying use limits to face RAAIM charges when they fail to meet RA obligations.

6 CPUC Docket No. R.19-11-009.
Attachment A – History of the “Ambient Not Due to Temp” Outage Definition

1. **PRR 783 – Submitted October 2, 2014 – Effective December 11, 2014**

   The Ambient Not Due to Temp definition was first included in the Outage Management BPM in late 2014 as part of PRR 783. This PRR was part of the ISO implementing its new outage management system. The outage was defined solely as: “Non-temperature related unit availability derate that is outside the control of the plant operator.”

2. **PRR 967 – Submitted February 8, 2017 – Effective April 17, 2017**

   PRR 967 primarily covered amendments to the outage management BPM needed to implement the then-new NERC Interconnection Reliability Operations and Coordination standard 17. It also changed the definition for the Ambient Not Due to Temp outage as part of accommodating gas system constraints created by limited availability from the Aliso Canyon natural gas storage facility in Southern California.

   The definition as updated through PRR 967 was:

   Non-temperature related unit availability derate that is outside the control of the plant operator. Provides notification of actual physical limitations to fuel availability due to constraints such as gas delivery system outages or curtailments. This category does not include resource unavailability due to economic consequences of managing unanticipated fuel market conditions.

3. **PRR 1017 – Submitted September 6, 2017 – Effective November 13, 2017**

   After PRR 967 went into effect, the ISO realized its intent for the Ambient Not Due to Temp outage to apply for gas system constraints was not reflected sufficiently. To address this concern and make its intent clearer, the ISO submitted PRR 1017 in September 2017 (i.e., seven months later). The definition became:
Non-temperature related unit availability derate that is outside the control of the plant operator. Provides notification of actual physical limitations to fuel availability due to hourly gas burn limitations issued by the natural gas transmission pipeline operator as described in CAISO Operating Procedure 4120. This category of forced outage need not provide substitute resource adequacy capacity to mitigate any potential impact to the original resource adequacy resource’s availability incentive calculation as specified in Section 9.5 of the Business Practice Manual for Reliability Requirements. For resources in the EIM Balancing Authority Areas, this category is to reflect similar physical limitations to fuel availability experienced in their Balancing Authority Areas.

4. **PRR 1088 – Submitted September 17, 2018 – Effective December 14, 2018**

The ISO submitted PRR 1088 as part of implementing phase three of its Commitment Costs Enhancements initiative. Most revisions dealt with the use-limited resource outage types. PRR 1088 also made a formatting update to the Ambient Not Due to Temp outage definition.

5. **PRR 1139 – Submitted February 13, 2019 – Effective May 17, 2019**

The ISO submitted PRR 1139 in February 2019 primarily to clarify the use-limited resource outage types. It also proposed to delete the following sentence from the Ambient Not Due to Temp outage type: “Non-temperature related unit availability derate that is outside the control of the plant operator.” After PRR 1139, the definition is:

Provides notification of actual physical limitations to fuel availability due to hourly gas burn limitations issued by the natural gas transmission pipeline operator as described in CAISO Operating Procedure 4120. This category of forced outage need not provide substitute resource adequacy capacity to mitigate any potential impact to the original resource adequacy resource’s availability incentive calculation as specified in Section 9.5 of the Business Practice Manual for Reliability Requirements. For resources in the EIM Balancing Authority Areas, this category is to reflect similar physical limitations to fuel availability experienced in their Balancing Authority Areas.