



# Memorandum

**To:** ISO Board of Governors

**From:** Neil Millar, Vice President of Infrastructure and Operations Planning

**Date:** December 9, 2021

**Re:** Clarifications to the reliability must-run designation process

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*This memorandum does not require Board action.*

## EXECUTIVE SUMMARY

The ISO has conducted a stakeholder process to evaluate the appropriateness of the designation type and resulting cost allocation, and capacity credit allocation for reliability must-run resources when both local and system reliability concerns exist. The review was conducted to address stakeholder questions and concerns regarding the current ISO practices. The ISO has concluded that the current designation process remains appropriate and is not recommending any tariff changes at this time. For clarity, the ISO is only proposing changes to the reliability requirements business practice manual in order to clarify that the local reliability designation is considered the primary reliability must-run designation type when more than one reliability reason for designation exists.

In conducting this review, the ISO examined a range of principles, incentive benefits and other considerations in evaluating if local or system needs should be designated as the primary reliability need or if a new hybrid designation should be developed in order to best address the reliability must-run designation type when more than one reliability need exists.

By assessing comprehensively the principles, incentives and other related issues in Table 1, the ISO has concluded that local needs continue to be the basis for the designation as the primary reliability need when more than one need exists and that reliability must-run cost allocation and resource adequacy credit allocation follow the same principle as dictated by ISO Tariff sections 41.9 and 41.8.

**Table 1: Comparison among alternatives**

<b>Principle (P) Incentive (I) Other (O)</b>	<b>Local as primary</b>	<b>System as primary</b>	<b>Hybrid method</b>
Cost Causation (P)	Second best	Third best	Best
RA credits (local, system and flex) (P)	Best	Third best	Second best
Building transmission (I)	Best	Third best	Second best
Procuring resource as RA (I)	Best	Third best	Second best
Conversion of current RMR contracts (O)	Best	Second best	Second best
Assumed mitigation time (O)	Best	Second best	Second best
Implementation cost (O)	Best	Second best	Third best
Complexity and timeline (O)	Best	Second best	Third best

The local as primary reliability need type of designation is consistent with cost causation principles and it is the only alternative that allows all paying load serving entities to fully utilize their reliability must-run provided resource adequacy credits, including in particular the local resource adequacy credits that are the most valuable. It provides the highest level of incentives to the participating transmission owner in building new local transmission in order to eliminate the local need and also provides the highest level of incentives to load serving entities in order to procure this resource under a resource adequacy contract. It is the only alternative that does not require either reliability must-run cost allocation change or the conversion of the legacy reliability must-run contract for Oakland into the new type of reliability must-run contract. It is simple and can continue to be implemented by the ISO quickly and at low costs.

The ISO conducted the stakeholder process from August until November 2021. The stakeholder process included three rounds of papers, meetings and calls, and stakeholder comments. The stakeholder participation was light. After each round of stakeholder engagement the ISO has only received an average of about 3 sets of written comments and stakeholder views were not aligned – they ranged from firmly supporting the ISO’s recommended approach to disagreeing with the approach.

## DETAILED DISCUSSION OF PRINCIPLES, INCENTIVES AND OTHER ISSUES

### Principles:

#### Cost Causation

The ISO can designate a resource as reliability must-run for any single reliability need, either for local needs or on system wide basis. When both local and system reliability needs are present one of them can be considered primary without distorting the cost causation principle.

A few stakeholders suggested that the reliability must-run contract represents resource adequacy capacity. The ISO wants to be clear that the reliability must-run contract is a rate based contract for all costs incurred by the resource (including energy) and that the ISO is precluded from using the reliability must-run contract to meet a resource adequacy capacity showing shortfall. The reliability must-run contract is to be used exclusively to meet reliability standards and its main purpose is to prevent outages to firm load.

Generally the numbers of hours of expected need, in meeting mandatory standards and implicit ratepayer benefit, is comparatively high for local reliability requirements when local requirements exist, in the range of tens-hundreds-thousands of hours per year, and generally low for system wide reliability needs, in the range of tens of hours per year.

#### Allocate costs in a manner that reflects benefits received

Load serving entities paying for the reliability must-run contract receive, as a secondary benefit, resource adequacy credits (local, system and flex – if applicable) that go along with the main benefit given by the number of hours of expected usage in order to assure firm load reliability in mitigating mandatory reliability standards.

The system and flex resource adequacy credits can be useful to all load serving entities, however the local resource adequacy credits are only useful to the load serving entities with load in the transmission access charge area where the resource is located. As such if local is considered the primary reliability need (when more than one need exists) then all resource adequacy credits are useful to all paying load serving entities. If system is considered as the primary reliability need or if a hybrid methodology (where both local and system needs are accounted for in some predetermined percentage) is applied then the majority of the load serving entities will have no use for the local resource adequacy credit given. (Example: A load serving entity with load in SCE, SDG&E or VEA transmission access charge areas has no use of local resource adequacy credits in the PG&E transmission access charge area).

All public data available in the CPUC provided yearly resource adequacy reports, shows that local resource adequacy capacity is generally at a premium cost over system wide resource adequacy capacity cost. The resource adequacy value of the local resource adequacy credits is the highest among all types of resource adequacy credits provided and it can only be fully utilized when local is considered the primary reliability need. In any other situation

the majority of the load serving entities will be unable to use the local resource adequacy credits which are the most valuable type of resource adequacy credit.

### **Incentives:**

#### Participating transmission owner incentive to build transmission in order to eliminate the local need

The responsible utility, within the transmission access charge areas bearing the reliability must-run costs, has the incentive to invest in the needed infrastructure in order to eliminate the local reliability need. The incentive to invest in infrastructure to address local issues that drive local designations is the highest when local designation is considered primary reliability need because the reliability must-run costs are divided only among those ratepayers. This incentive is reduced for a hybrid cost allocation and is even lower when the system need is considered the primary reliability need.

#### Load serving entities incentive to procure the needed resource under a resource adequacy contract

Load serving entities have the highest incentive to procure the resource under a resource adequacy contract when their share of the cost allocation is the highest. Therefore the load serving entities that pay for the reliability must-run contract have the highest incentive to sign the resource under a resource adequacy contract when local is considered the primary reliability need. This incentive is highly diminished under hybrid cost allocation and even lower when the system need is considered the primary reliability need.

### **Other issues to consider:**

#### Existing reliability must-run contract conversions

There is no need to change the existing reliability must-run cost allocation or to convert the Oakland legacy reliability must-run contract to a new reliability must-run contract if local is considered the primary reliability need.

For a hybrid cost allocation or if system is considered the primary reliability need there is a need to change the cost allocations for certain existing reliability must-run contracts. The Oakland legacy reliability must-run contract needs to be converted to a new type of reliability must-run contract because its costs are currently recouped by the participating transmission owner in the transmission access charge area where the local need exists and therefore the participating transmission owner cannot recoup or allocate costs to load serving entities outside its service territory (for system wide reliability reasons).

Certain stakeholders have suggested, during the stakeholder call and in their comments, that the ISO should leave intact all old reliability must-run contracts and only use the hybrid or system first designation for new reliability must-run contracts. The ISO disagrees with these views because that would result in discriminatory treatment based on the start date of the reliability must-run contract and its original designation and would not reflect the reliability

needs of the current system. The ISO has to run the evaluation of need (local and system) every year in order to evaluate if extension of the reliability must-run contract is necessary and for what reasons; ignoring new reliability needs for some but not all needed resources would result in an unfair cost and resource adequacy credit allocation.

#### Expected mitigation time in order to eliminate the need

In order to eliminate (or reduce) local reliability problems generally new transmission projects are required. On average new transmission projects require long lead times in range of 5-10 years before they become operational. This includes time for the ISO and participating transmission owner approval, the CPUC environmental review and approval as well as time for construction.

In order to eliminate system wide reliability needs generally new resources are required. On average resources can become operational in 2-3 years from the time the system reliability need has been identified. The ISO has a high number of resources in the ISO queue with studies complete that can be built in a few years after procurement contracts are signed.

#### ISO implementation costs and timelines

Implementation of either the local or system as being the primary reliability need can be accomplished rather quickly and at low cost because current ISO software is already configured to accept such designations.

Implementation of the hybrid allocation methodology will take longer and will have a higher cost because a new methodology needs to be approved and ISO software modifications need to be completed in order to implement such hybrid allocation.

#### Timing and complexity of hybrid designations

Development of a complex hybrid model would entail lengthy development efforts, debate as to the basis of allocations between system and local needs, and, if the path was ultimately adopted, complex software modifications that could reasonably only lead to implementation for 2024 or later designations. The ultimate usefulness of the hybrid model is then expected to be limited, as the ISO expects that the need for system reliability must-run designations will wane in the future. The ISO had not identified a system wide reliability need for reliability must-run resources before 2021 and does not expect that to happen again after resource procurement that has already been authorized – or in the process of being authorized – by the CPUC comes into service.