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**California ISO**

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Technical Bulletin

# California ISO Planning Coordinator Area Definition

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## REVISION HISTORY

<b>VERSION NO.</b> (Must match header)	<b>DATE</b>	<b>REVISED BY</b>	<b>DESCRIPTION</b>
1.0	8/4/2014	GDeShazo	Documentation creation
1.01	8/6/2014	GDeShazo	Added Trans Bay Cable to Attachment 1
1.02	5/10/2016	GDeShazo	Changed ISO logo to current standard
1.03	7/28/2016	GDeShazo	Revised URL for Appendix 2
1.04	3/16/2020	GDeShazo	Updated reference to NERC Functional Model which is no longer being supported by NERC; associated edits update document content; removed Appendix 1; revised URL reference to resources of which the ISO is the planning coordinator

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# 1 Purpose

This technical bulletin sets forth the California Independent System Operator’s (ISO) interpretation of its planning authority/planning coordinator area. The purpose of which is to facilitate the ISO’s performance of its planning coordinator responsibilities under the Planning Coordinator function established in applicable NERC Reliability Standards, consistent with the guidance provided in the NERC Rules of Procedure<sup>1</sup>, the NERC Functional Model Version 5.1<sup>2</sup>, and the NERC Functional Model Technical Document (Version 5-1)<sup>3</sup>.

The ISO’s determination of certain facilities to be inside the ISO’s planning coordinator area is based on the nature of the facilities themselves. In this bulletin, the covered facilities are intended to be consistent with the Organization Registration and Certification Manual and the Compliance Registry Criteria in Appendices 5A and 5B, respectively, of the FERC-approved NERC Rules of Procedure as it describes transmission facilities, distribution facilities, generation interconnection facilities and generation facilities or some combination thereof. The relationship between the owner of these facilities and the ISO is also based on the nature of these facilities. The ISO has identified and documented these facilities in the "Resource Category and Phase for All Participating Resource IDs"<sup>4</sup>. To do otherwise would yield a voluminous list that would be subject to excessively frequent updating. The ISO believes that after consideration of the principles presented in this paper, in concert with the provided electrical bus level listing, an owner should be able to determine if their facilities are inside the ISO’s planning coordinator area boundary. Facility owners are encouraged to contact the ISO directly if they have any questions or if there are any differences in understanding about the principles presented in this bulletin and/or the relationship of these facilities to the ISO as a registered Planning Coordinator.

It is important to note that when the functional model was first developed, the term “Planning Authority” was used to define the entity that performed the function of “Planning Reliability”. This was the term in use at the time that the ISO formally registered with NERC for the functions it provides. However, NERC later revised the Planning Authority functional entity to Planning Coordinator, with the functional responsibilities remaining unchanged. As such, while the ISO remains registered as a Planning Authority, for the purposes of this technical bulletin, the term

<sup>1</sup> <http://www.nerc.com/AboutNERC/Pages/Rules-of-Procedure.aspx>

<sup>2</sup>

[https://www.nerc.com/pa/Stand/Functional%20Model%20Advisory%20Group%20DL/Functional\\_Model\\_V5.1\\_clean\\_10082019.pdf#search=reliability%20functional%20model](https://www.nerc.com/pa/Stand/Functional%20Model%20Advisory%20Group%20DL/Functional_Model_V5.1_clean_10082019.pdf#search=reliability%20functional%20model)

<sup>3</sup> [https://www.nerc.com/pa/Stand/Functional%20Model%20Advisory%20Group%20DL/FM\\_Technical\\_Document\\_V5-1\\_clean\\_10082019.pdf#search=reliability%20functional%20model%20technical%20document](https://www.nerc.com/pa/Stand/Functional%20Model%20Advisory%20Group%20DL/FM_Technical_Document_V5-1_clean_10082019.pdf#search=reliability%20functional%20model%20technical%20document)

<sup>4</sup> <http://www.caiso.com/Pages/documentsbygroup.aspx?GroupID=95422303-C0DD-43DF-9470-5492167A5EC5>

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“Planning Coordinator” will be used in this bulletin with the understanding that its meaning is synonymous with “Planning Authority”.

## 2 Background

Prior to 2018, the NERC Functional Model framework provided guidance for defining the reliability functions such that any organization involved in ensuring reliability could identify the functions they perform, and register with NERC as one or more of the functional entities identified in the functional model. Following the Energy Policy Act of 2005, entities who engaged as owners, operators, or users of the Bulk Electric System (as defined by NERC) were required to register, as applicable, with NERC as one or more of the functions listed in the functional model. Registration is mandatory and has been pursued by NERC since its implementation in January 2006. The ISO registered in 2007 as a Planning Authority, Balancing Authority, Transmission Operator, and Transmission Service Provider.

However, in late 2018 the NERC Standards Committee elected to retire the NERC Functional Model and NERC Functional Model Technical Document as historical documents that provide context and guidance to Standards Drafting Teams during Reliability Standards development. As of October 2019, these documents were no longer being actively maintained. The criteria by which a Bulk-Power System user, owner, or operator must register with NERC, and therefore be subject to applicable NERC Reliability Standards, are described in the Organization Registration and Certification Manual and the Compliance Registry Criteria in Appendices 5A and 5B, respectively, of the FERC-approved NERC Rules of Procedure<sup>5</sup>.

That said, it remains that the functional model requires that organizations involved in ensuring reliability will define the areas over which their functional responsibilities apply, and that through coordination with neighboring entities who have similarly defined their areas of functional responsibilities, gaps or areas of overlapping responsibility can be identified and eliminated. Therefore, it is important that functional areas are well-defined to ensure compliance with Reliability Standards is clearly defined. As such, the principles presented in this technical bulletin remain unchanged in that the functional model building block for defining areas for the functional entities that operate and plan the BES remains an electrical individual BES asset. That is, the building blocks are the individual transmission, generation and customer equipment assets that collectively constitute the BES. This enables any given BES asset to be associated with a single organization, with respect to any particular function or functional entity established in the Standards. An asset-specific approach to establishing a functional entity’s responsibilities facilitates the clear assignment of responsibility for managing the potential reliability impacts of

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<sup>5</sup> See footnote 1

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the asset and is helpful to avoid potential gaps in coverage across functional entities responsible for overlapping or adjacent facilities.

### 3 Why This Technical Bulletin is Necessary

As noted earlier, the ISO is registered with NERC as a Planning Authority, which is synonymous with Planning Coordinator. A Planning Coordinator coordinates and integrates transmission facility and service plans, resource plans, and protection system plans among the Transmission Planner(s), Resource Planner(s), and Distribution Provider(s) within its area of purview. These activities range from review and integration of reinforcement and corrective action plans developed by the functional entities (i.e., Planning Authority, Transmission Planner, and Resource Planner), whose area of responsibility is within the planning authority’s area, with respect to established reliability needs, to providing procedures, protocols, modeling and methodology software, etc. for consistent use within its area.

As a Planning Coordinator, the ISO provides the Planning Coordinator functions set forth in the Reliability Standards to NERC registered Transmission Planners, Resource Planners, and Distribution Providers that are connected to the transmission network under ISO operational control provided they meet the principles discussed below in this bulletin. Based on inquiries received by the ISO from non-PTO entities about whether or not the ISO is their Planning Coordinator, the ISO has determined that publishing a technical bulletin that details the precise scope and coverage of its planning coordinator area would be useful to provide clarity in this area as well as providing a vehicle for addressing differences in understanding of the ISO’s responsibilities as a planning coordinator. This technical bulletin documents the principles that delineate the ISO’s planning coordinator area boundary, and consistent with those principles, identifies those entities whose facilities are currently within the ISO’s planning coordinator area.

### 4 ISO Operational Control

The framework under which the California ISO bases its definition of planning coordinator area boundary is the transmission network that is under ISO operational control. In addition to the Transmission Owner facilities that are under ISO operational control, facilities of Distribution Providers and Generator Owners connected to that network are also inside that boundary and in the ISO’s Planning Coordinator area. To ensure consistency with NERC’s Compliance Registry Criteria<sup>6</sup>, for this technical bulletin the term ISO operational control is intended to refer only to transmission lines and associated facilities that are owned by a Participating Transmission Owner (PTO) of the ISO or by an affiliate of a PTO and that have been placed under the ISO’s

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<sup>6</sup>NERC Rules of Procedure. Appendices 5A and 5B

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operational control as described in the Transmission Control Agreement (TCA)<sup>7</sup>. In cases where a PTO has placed scheduling rights under ISO operational control that are on a particular transmission facility owned by a non-PTO, the transmission facility itself is not under ISO operational control and is not part of the ISO’s planning coordinator area.

## 5 ISO Planning Coordinator Area

### 5.1 General Definition

As described above, a planning coordinator area is represented through the individual transmission, generation and customer equipment assets that collectively constitute the entirety of the BES that the Planning Coordinator is coordinating; in the ISO’s case this is the transmission network that is considered BES facilities that are under ISO operational control. Commensurate with NERC’s compliance registry criteria, guidance from the NERC Functional Model describes the “boundaries for the Planning Coordinator area are basically defined by the location of the Bulk Electric System (BES) facilities under the purview of the Planning Coordinator, i.e. those facilities for which the Planning Coordinator coordinates and evaluates and recommends reinforcement and corrective plans resulting from studies and analysis of system performance and interconnection of facilities. The BES facilities under its purview are generally contiguous and cover in aggregate the same areas as the Transmission Planners it coordinates.”<sup>8</sup>

The ISO interprets this to mean that our planning coordinator area boundaries are defined by transmission facilities that are under our operational control and include certain non-transmission facilities connected to ISO controlled transmission facilities as well. The structure of the ISO’s planning coordinator area boundary is illustrated in Figure 1.

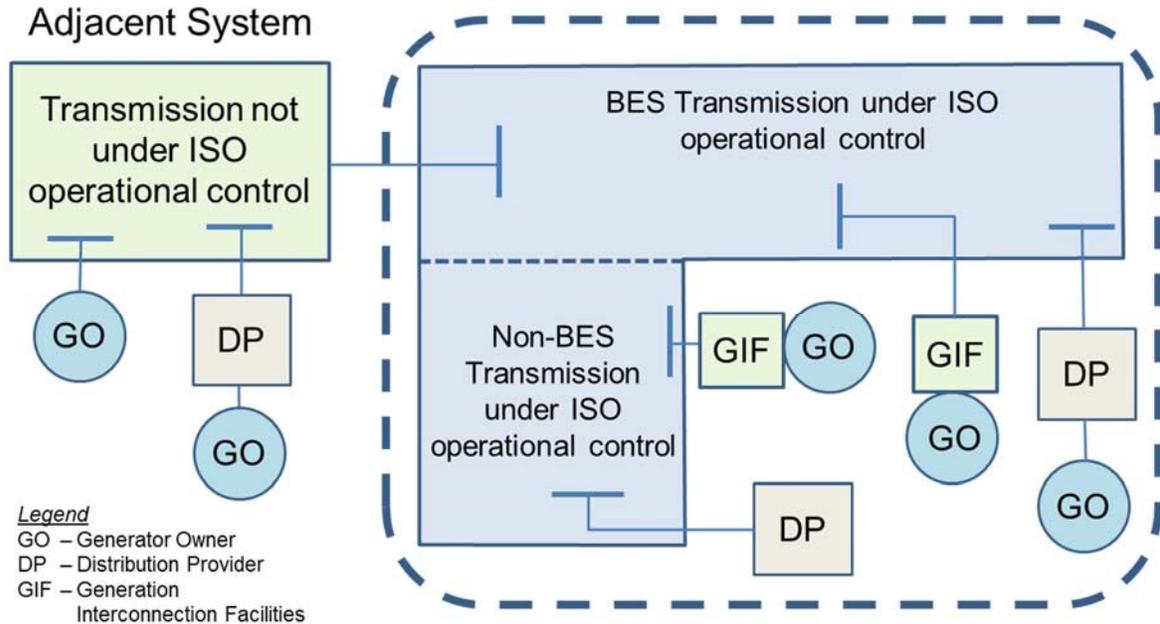
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<sup>7</sup> [ISO Transmission Control Agreement](#)

<sup>8</sup> NERC Reliability Functional Model Technical Document, Version 5.1 at Pg10

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Figure 1: ISO Planning Coordinator Area Boundary



Based on the merits of the various factors involved, the ISO has determined that its planning coordinator area boundary will be defined under the following principles of understanding:

## 5.2 Principle 1 – ISO Planning Coordinator Responsibility

The ISO will provide Planning Coordinator services to facilities inside the ISO’s planning coordinator area boundary. These may be BES and/or non-BES facilities. In certain instances a single owner may have facilities inside and outside the ISO’s planning coordinator area boundary. In such cases and consistent with this principle, only those facilities inside the ISO’s planning coordinator area boundary will be considered under the purview of the ISO for planning coordinator services.

## 5.3 Principle 2 – ISO Operational Control

For the determination of the ISO planning coordinator area boundary, ISO operational control will mean the right of the ISO under the TCA and ISO Tariff to direct the Participating TOs how to operate their transmission lines and facilities and other electrical plant affecting the reliability of those lines and facilities. While certain Participating TOs have included their right to use particular transmission facilities owned by another nonaffiliated non-PTO entity as an Entitlement in the TCA thereby establishing a scheduling right for those facilities for the ISO, the underlying

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transmission facilities associated with this Entitlement, which are owned by another entity not affiliated with the PTO, are not within the ISO’s planning coordinator area.

This definitional approach is consistent with NERC’s Compliance Registry Criteria and the BES, as established by NERC’s approved definition of BES facilities. Therefore, while the ISO may have operational control of certain Participating TO Entitlements for scheduling purposes, the ISO does not control, with respect to planning, the underlying facilities over which those Entitlements exist.

### **5.4 Principle 3 – Non-Transmission Facilities Connected to Facilities under ISO Operational Control**

Numerous types of assets are connected to the transmission network under ISO operational control. These assets may be transmission, generation, or distribution related. In defining the ISO’s planning coordinator area, the following non-transmission facilities are included:

- Generators (and their interconnections) connected directly to ISO controlled facilities;
- Generator interconnection facilities (generator asset only)
- Distribution Providers (facilities less than 100 kV) connected directly to ISO controlled facilities; and
- Generators or Distribution Providers connected radially to a Distribution Provider who is directly connected to ISO controlled facilities.

### **5.5 Principle 4 – Adjacent Systems**

There are certain transmission facilities or systems that through BES facilities are connected to the transmission network that is under ISO operational control. These transmission facilities or systems are referred to as an adjacent system. These adjacent systems may have generation owners and distribution providers that are connected to them. Adjacent systems are not considered to be within the ISO’s planning coordinator area boundary and therefore, the ISO is not their Planning Coordinator.

### **5.6 Principle 5 – Generation Interconnection Facilities**

A power producing resource’s connection to the transmission network that is under ISO operational control can range from simple, single generator tie lines to complex transmission networks such as those associated with dispersed power producing resources that aggregate to a total capacity of generation to a common point of interconnection to the transmission network that is under ISO operational control. Whether simple or complex the transmission network is defined as a generation interconnection facility.

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Existing power producing resources and generator interconnection facilities that are connected to the transmission network under ISO operational control are considered to be inside the ISO's planning coordinator area boundary as generator assets only. Transmission facilities that constitute generation interconnection facilities are not treated as Transmission Owner assets in connection with the ISO's performance of its Planning Coordinator function.

### **5.7 Principle 6 – Distribution Provider Facilities**

Distribution Provider facilities are those facilities that are less than 100kV, cannot be classified as BES, and are connected directly to the transmission network under ISO operational control. Distribution Provider facilities are within the ISO planning coordinator area boundary. As such, Distribution Providers are solely responsible for determining if any portion of their facilities is qualified as BES under the current BES definition. Should BES facilities exist within a Distribution Provider's area, those BES facilities must be represented by a registered Transmission Owner, Transmission Operator, and Transmission Planner, and the BES facilities' owner must either be registered as, or establish an appropriate relationship with a registered Planning Coordinator unless deemed otherwise by the Regional Entity.

In certain circumstances, power producing resources may be connected to a Distribution Provider that is directly connected to the transmission network under ISO operational control. Such power producing resources and Distribution Providers are also within the ISO planning coordinator area boundary.

## **6 Coordination with Identified Facility Owners**

In addition to the clarification provided in this technical bulletin, the ISO will continue to pursue communication with individual functional entities to clarify the facilities subject to the ISO's planning coordinator function.