



**California ISO**  
Shaping a Renewed Future

# **Blackstart and System Restoration**

## **Issue Paper and Straw Proposal**

**March 7, 2012**

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## 1 Executive Summary

On March 17, 2011, the Federal Energy Regulatory Commission (“FERC”) approved three new reliability standards and a new definition of the term “blackstart resource.” These mandatory reliability standards will become effective on July 1, 2013. The ISO proposes to amend its tariff to implement the new standards through a new pro-forma blackstart agreement that would provide standardization to all generators that are included in the power restoration plan and make them subject to the same pro-forma blackstart agreement. The ISO also would clean up its tariff to remove references to certain other blackstart related provisions that would no longer be applicable.

## 2 Stakeholder Process and Next Steps

The ISO will discuss this Issue Paper and Straw Proposal with stakeholders during a teleconference to be held on March 14, 2012. The ISO is seeking comments on the proposal. Stakeholders should submit written comments by March 21, 2012 to [kfernandez@caiso.com](mailto:kfernandez@caiso.com). Based on comments received, the ISO may revise its proposal before it is presented to the ISO Board of Governors at their meeting on May 16-17, 2012. The proposed schedule for this stakeholder initiative is provided below.

Item	Date
Post Issue Paper & Straw Proposal	March 7
Stakeholder Conference Call	March 14
Stakeholder Comments Due	March 21
Post Draft Final Proposal	March 28
Stakeholder Conference Call	April 4
Stakeholder Comments Due	April 11
Board Meeting	May 16-17

## 3 New Mandatory Reliability Standards

On December 31, 2009 NERC petitioned for FERC to approval three (3) reliability standards (EOP 001-1, EOP-005-2, EOP-006-2) and a new definition of the term “blackstart resource”. On November 18, 2010, FERC issued a Notice of Proposed Rulemaking to approve the three reliability standards and the new term definition. On March 17, 2011, FERC approved EOP 001-1, EOP-005-2, EOP-006-2 and a new definition of the term “blackstart resource.” These mandatory reliability standards will become effective on July 1, 2013.

Under the new NERC EOP-005-2, the ISO is required to have the following:

- A restoration plan approved by WECC Reliability Coordinator that allows for restoring the ISO system following a disturbance. The plan should identify and include each blackstart resource within the ISO system. (EOP-005-2 R1) ;
- A blackstart resource testing requirement (EOP-005-2 R9); and
- A written blackstart resource agreement specifying the terms and conditions of t arrangement, including references to the blackstart resource testing requirements (EOP-005-2 R13).

## 4 Background

Currently, under the tariff, the ISO is responsible for ensuring that there are sufficient Ancillary Services available to maintain the reliability of the ISO Control Area consistent with North American Electric Reliability Corporation (“NERC”) and Western Electricity Coordinating Council (“WECC”) reliability standards. These Ancillary Services include blackstart capability of the ISO Control Area. It has been the ISO’s on-going practice to maintain a placeholder in its tariff in the event that it may develop a blackstart market and to enter into interim blackstart agreements with generator owners.

In addition to the tariff requirement, the ISO is also a registered Balancing Authority (“BA”) and Transmission Operator under NERC functional model. As such, there are requirements under NERC Reliability Standards that are applicable to ISO, namely NERC EOP-005.

Initial studies by the ISO indicated that blackstart services are a small, but vital part of the products and services necessary for a reliable operation of the grid. Although the need for this service is clear, its procurement in a deregulated environment is quite varied. Traditionally, blackstart was provided by integrated utilities and the costs were rolled into a broad tariff for cost recovery. The ISO currently rolls the cost of procuring blackstart services into reliability must run (“RMR”) contracts with selected generators or allows the power purchase agreements executed between the generators and the transmission owners to address such costs. RMR contracts are not specifically initiated to provide blackstart, but blackstart capability is considered when making RMR decisions. The total RMR costs are allocated to the participating transmission owner (“PTO”) in whose service territory the RMR units reside. In turn the PTOs file a Reliability Service Tariff with the California Public Utilities Commission and recover these costs from their customers. Thus, the procurement is rolled into RMR contracts or the power purchase agreements between generator and the PTO and the cost allocation is allocated to the PTOs and is not based on load ratio share.

## 5 Straw Proposal

In light of the July 1, 2013 effective date of the new, mandatory reliability standards, specifically, EOP-005-2, the ISO proposes to revise its tariff to create a pro forma blackstart agreement that would be executed by the ISO, transmission operator, and generator operator, and eliminate the placeholder references in the tariff that refer to a blackstart market since a market mechanism will not be used to provide these services..

The ISO proposes to revise its tariff to introduce a pro-forma blackstart agreement that would provide standardization such that all generators that are included in the power restoration plan would be subject to the same pro-forma blackstart agreement.

The blackstart agreement would specify the terms and conditions of the service arrangement including references to the blackstart resource testing requirements. Once the pro-form blackstart agreement is approved by FERC, existing interim blackstart agreements will be terminated and replaced by the pro-forma blackstart agreement to the extent such generating units are included in the power restoration plan. Further, any new generating units identified as part of the power restoration plan will be required to sign the pro-form blackstart agreement. The pro-forma blackstart agreement would be a no-cost agreement. Compensation for blackstart services would be handled through a power purchase agreement between the transmission owners and the generation owners.

Currently, Section 8.2.3.4 of the tariff requires the ISO to ensure blackstart capability is sufficient to restart the system in the event of a disturbance. The tariff requirements include the following three distinct items:

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1. An ISO to study and determination of the amount and location of blackstart units;
2. Procurement for contract on blackstart units;
3. Compliance testing and performance audit of blackstart units.

In accordance with the Reliability Standards Agreement, the ISO will continue to work with its PTOs to maintain compliance to NERC EOP-005-2. The ISO will continue to have a system restoration plan that allows for restoring the ISO system following a disturbance.

The ISO will continue to have the obligation to ensure that blackstart capacity is sufficient through study and simulation. In addition, the ISO will continue to perform compliance testing on the blackstart services provided by the generator.

The tariff has placeholder language in it regarding the potential use at some point in time of a blackstart market. Since blackstart services to comply with the new requirements are not proposed to occur through a market mechanism, the ISO proposes to modify its tariff to eliminate such references.