



Business Requirements Specification

Black Start and System Restoration Phase 2

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1. Introduction

1.1 Status of Document

Sections one through six shall be completed as part of the Initial BRS.

The following items shall be added to the content of the Initial BRS as the basis for the Final BRS:

- Context Diagram
- Data Integration/Web Services Requirement
- Security Requirements

1.2 Purpose

Black Start and System Restoration Phase 2 Overview:

The California ISO is proposing to change its current practice regarding procurement and compensation for black start services. This proposal includes a process to procure this capability and allocate costs of that procurement.

Pursuant to NERC reliability standard EOP-005-2, transmission operators must have approved plans for system restoration following widespread outages. Based on the ISO's review of the timelines associated with the ISO and utilities' system restoration plans, the ISO requires additional black start resources to ensure service restoration in the greater San Francisco Bay area in a manner that is reasonably consistent with other major population centers in the state. To secure this additional capability, the ISO proposes to adopt a selection and procurement process.

Additionally, the ISO proposes the following revised RFP (Request for Proposal) process steps;

1. The ISO, in consultation with the applicable participating transmission owner, will develop a black start technical specification document that defines requirements and key selection criteria.
2. The ISO will conduct an onsite meeting to review the technical requirements and selection criteria and answer interested parties questions.
3. The ISO will issue a request for proposals for incremental black start resources.
4. The ISO will apply the technical criteria and evaluate the proposals. The ISO will consult with the applicable participating transmission owner with respect to how each offer meets the technical requirements.
5. The ISO will apply its selection criteria and select the most technically and commercially viable offer based on the technical and cost data submitted.
6. The ISO will initiate a contracting process with the black start resource that will be a three party agreement between the ISO, the participating transmission owner and the black start resource.

Also, the ISO is proposing to maintain the cost allocation approach identified in its final proposal to allocate the incremental costs of black start services to the respective participating transmission owner in which the incremental black

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start capability is located. The CAISO would invoice the PTO (Participating Transmission Owner) for incremental black start capability costs as a reliability services cost. The PTO would recover these costs through its reliability services tariff.

The ISO is also proposing to evaluate potential black start service providers based on a cost of service model. The ISO anticipates that the black start service provider would submit these costs to FERC under Section 205 of the Federal Power Act.


1.3 References

All references represent external requirements documents or stakeholder requests developed and submitted by the Business Units.

1. Project Plan and other relevant documents that precede the BRS are located in

Draft Proposal:

http://www.caiso.com/Documents/DraftFinalProposal_BlackStart_SystemRestorationPhase2.pdf

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2. Intellectual Property Ownership

Intellectual property covers a broad array of information and materials, including written works, computer programs, software, business manuals, processes, symbols, logos, and other work products. Determining ownership of intellectual property is very important in preserving rights of the California ISO and helps to avoid intellectual property infringement issues. In considering the business requirements or service requirements to be performed, the business owner of the project must determine intellectual property Ownership.

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2.1 Guidelines


Intellectual property ownership must be considered by all applicable stakeholders before the services are performed. The level of analysis is two-fold. One, the business owner must determine if the intellectual property necessary to perform the services is owned by the California ISO or whether it must be obtained from a third party. Once it has been determined that the California ISO has secured the proper intellectual property rights to perform the services (i.e., the intellectual property is owned by the California ISO or we have licensed it from a third party), then the second step in the analysis is to consider whether new intellectual property will be created as a result of the business requirements or service requirements to be performed and how that intellectual property will be owned and protected by the California ISO. In order to assist the business owner in the analysis previously described, refer to the California Intellectual Property Policy available at <http://www.caiso.com/rules/Pages/LegalPoliciesNotices/Default.aspx>, which provides a brief tutorial on what Intellectual Property is and how the California ISO can go about protecting its intellectual property. Please contact the Legal Department if you have any questions regarding intellectual property.

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2.2 Checklist

There are no impacts to intellectual property based on the requirements stated in this document.

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3. Acronyms and Definitions

Acronym	Definition
AS	Ancillary Services
BAA	Balancing Authority Area
CAISO	California Independent System Operator Corporation
FERC	Federal Energy Regulatory Commission
NERC	North American Reliability Corporation
PTO	Participating Transmission Owner
RTD	Real-Time Dispatch
SC	Scheduling Coordinator

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4. Details of Business Need/Problem

4.1 Description

In order to secure additional black start capability, the California ISO is proposing to change its current practice regarding procurement and compensation for black start services. This proposal includes a process to procure this capability and allocate costs of that procurement. The ISO requests stakeholder feedback on this draft final proposal.


Today, pursuant to NERC reliability standard EOP-005-2, transmission operators must have approved plans for system restoration following widespread outages. Based on the ISO's review of the timelines associated with the ISO and utilities' system restoration plans, the ISO requires additional black start resources to ensure service restoration in the greater San Francisco Bay area in a manner that is reasonably consistent with other major population centers in the state. To secure this additional capability, the ISO proposes to adopt a selection and procurement process. In addition, while the incremental cost for the provision of this service is relatively small compared to the overall cost of electricity supply, fair cost allocation is an important consideration.

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5. Business Process Impacts

5.1 Business Practice Manual (BPM)

BPM	Description of Impact(s)
Managing Full Network Model	N/A
Congestion Revenue Rights	N/A
Market Instruments	N/A
Outage Management	N/A
Reliability Requirement	N/A
Market Operations	N/A
Compliance Monitoring	N/A
Metering	N/A
Scheduling Coordinator Certification & Termination	N/A
Rules of Conduct Administration	N/A
BPM Change Management	N/A
Definitions & Acronyms	Revision of following definitions to match Tariff language: <ul style="list-style-type: none"> • Ancillary Services (AS) • Black Start Generator • Black Start Generating Unit • Interim Black Start Agreement • Reliability Services Costs
Settlements & Billing	Pending Settlements review. Revisions will be directly based on Tariff changes.
Credit Management	N/A
Candidate CRR Holder	N/A
Transmission Planning Process	N/A
Direct Telemetry	N/A
Distributed Generation for Deliverability	N/A

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BPM	Description of Impact(s)
Energy Imbalance Market (EIM)	N/A
Generator Interconnection Procedure (GIP)	N/A
Generator Interconnection and Deliverability Allocation Procedures	N/A
Generator Management	N/A
Managing Full Network Model	N/A

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6. Business Requirements

The sections below describe the Business Processes and the associated Business Requirements involved in the project. These may represent high level functional, non-functional, reporting, and/or infrastructure requirements. These business requirements directly relate to the high level scope items determined for the project.

6.1 Business Process: Manage Black Start Settlements

6.1.1 Business Requirements

ID#	Business Feature	Requirement Type	Potential Application(s) Impacted
BSTC-BRQ030	The system shall calculate the Black Start energy payment user-rate based on the sum of Black Start energy payments, including any exceptional dispatch instructed imbalance energy for Black, in the applicable settlement period divided by Measured Demand, excluding exports to neighboring BAAs.	(Existing)	Settlements
BSTC-BRQ040	The system shall calculate the monthly Black Start payments based on the annual contract amount.	Core	Settlements
BSTC-BRQ050	The system shall pay the scheduling coordinator of the Black Start Generator the monthly Black Start payment amount.	Core	Settlements
BSTC-BRQ060	The System shall allocate the Monthly Black Start Payment to the associated PTO.	Core	Settlements
BSTC-BRQ070	The system shall check if the Black Start Generator was certified in Master File to provide Black Start for the first day of the Trade Month in order to pay the Monthly Black start payment for that Trade Month.	Core	Settlements