



Business Requirements Specification

Coordinated Transmission Agreement (CTA) with BPA 2018

Document Version: 1.0

Date Created: 8/29/2018

 California ISO	Technology	Template Version:	4.3
		Document Version:	1.0
Coordinated Transmission Agreement (CTA) with BPA 2018 Business Requirements Specification - Planning		Date Created:	8/29/2018

Disclaimer

All information contained in this draft Business Requirements Specification (BRS) as provided by the California Independent System Operator Corporation (ISO) is prepared for discussion and information purposes only. The draft BRS is provided “as is” without representation or warranty of any kind, including, without limitation, a representation or warranty as to accuracy, completeness, or appropriateness for any particular purpose. The draft BRS shall be revised as the development and review of the business requirements progresses. The ISO assumes no responsibility for the consequences of any errors or omissions. The ISO may revise or withdraw all or part of this information at any time at its discretion without notice.

 California ISO	Technology	Template Version:	4.3
		Document Version:	1.0
Coordinated Transmission Agreement (CTA) with BPA 2018 Business Requirements Specification - Planning		Date Created:	8/29/2018

Table of Contents

TABLE OF CONTENTS	3
1 INTRODUCTION.....	4
1.1 PURPOSE	4
2 DETAILS OF BUSINESS NEED/PROBLEM	5
2.1 DESCRIPTION.....	5
2.2 BUSINESS PRACTICE MANUAL (BPM)	5
2.3 OTHER.....	7
3 BUSINESS REQUIREMENTS.....	8
3.1 BUSINESS PROCESS: MANAGE REAL TIME OPERATIONS – MAINTAIN BALANCING AREA (MMG LII)	8
3.1.1 <i>Business Requirements</i>	8

 California ISO	Technology	Template Version:	4.3
		Document Version:	1.0
Coordinated Transmission Agreement (CTA) with BPA 2018 Business Requirements Specification - Planning		Date Created:	8/29/2018

1 Introduction

1.1 Purpose

The purpose of this document is to capture and record a description of what the Users and Business Stakeholders of the project wish to obtain by providing high-level business requirements. This document establishes the basis for the agreement between the initiators and implementers of the project. The information in this document serves as input to determining the scope of projects and to all Business Process Modeling and System Requirements Specifications efforts.

Business requirements are what must be delivered to provide value for the Users and Business Stakeholders. Systems, software, and processes are the ways (how) to delivery, satisfy or meet the business requirements (what).

Phase 3 – August 2018

1. Relief Obligation functionality

The ISO shall enhance the EIDE adapter to receive a new account code to indicate a market flowgate and an EIM Total Flow limit from BPA reflecting any required relief MW. The market system will dispatch the participating EIM resources to reduce the EIM Total flow of the indicated flowgate based on the most up to date received EIM Total Flow limit from BPA.

To support Phase 3 (Package 2) CAISO will introduce

- EIDE adapter will update the submit functionality to handle a new account code
- Market changes to enforce the EIM Total Flow limits
- Market change to broadcast the EIM Total Flow limits of the flowgate used by market as an echo back
- New EIDE to broadcast a new account code to BPA to communicate amount of EIM Total flow outside the limit during the market run

 California ISO	Technology	Template Version:	4.3
		Document Version:	1.0
Coordinated Transmission Agreement (CTA) with BPA 2018 Business Requirements Specification - Planning		Date Created:	8/29/2018

2 Details of Business Need/Problem

2.1 Description

- When BPA experiences transmission limit constraints, BPA uneconomically reduces tagged intertie schedules into and out of the BPA system (which affects all EIM entities).
- Provide more communication between BPA and CAISO for greater transmission path monitoring.

2.2 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	N/A
Settlements & Billing	N/A
Credit Management	N/A
Candidate CRR Holder	N/A
Transmission Planning Process	N/A

Owner: Owens, Andrew

Program Office

California ISO INTERNAL USE. For use by all authorized California ISO personnel. Do not release or disclose outside the California ISO.

 California ISO	Technology	Template Version:	4.3
		Document Version:	1.0
Coordinated Transmission Agreement (CTA) with BPA 2018 Business Requirements Specification - Planning		Date Created:	8/29/2018

BPM	Description of Impact(s)
Direct Telemetry	N/A
Distributed Generation for Deliverability	N/A
Energy Imbalance Market (EIM)	Yes, define the behavior of the EIM Total Flow and EIM Incremental Flow constraint.
Generator Interconnection Procedure (GIP)	N/A
Generator Interconnection and Deliverability Allocation Procedures	N/A
Generator Management	N/A
Managing Full Network Model	N/A

Owner: Owens, Andrew

Program Office

California ISO INTERNAL USE. For use by all authorized California ISO personnel. Do not release or disclose outside the California ISO.

 California ISO	Technology	Template Version:	4.3
		Document Version:	1.0
Coordinated Transmission Agreement (CTA) with BPA 2018 Business Requirements Specification - Planning		Date Created:	8/29/2018

2.3 Other

Impact:	Description:
Market Simulation	N/A
Market Participant Impact	N/A
User Acceptance Testing (UAT)	N/A
Internal Training	N/A
External Training	N/A
Policy Initiative	N/A
Vendor	Yes - Siemens
Architectural Framework and Roadmap	N/A

Owner: Owens, Andrew

Program Office

California ISO INTERNAL USE. For use by all authorized California ISO personnel. Do not release or disclose outside the California ISO.

 California ISO	Technology	Template Version:	4.3
		Document Version:	1.0
Coordinated Transmission Agreement (CTA) with BPA 2018 Business Requirements Specification - Planning		Date Created:	8/29/2018

3 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.

3.1 Business Process: Manage Real Time Operations – Maintain Balancing Area (MMG LII)

3.1.1 Business Requirements

ID#	Business Feature	Requirement Type	Potential Application(s) Impacted
CTABPA18-BRQ001	Master File shall define a new constraint type for adjustmentMWs called EIM Total Flow. These must be associated to a defined flowgate (similar to EIM incremental flow).	Core	Master File
CTABPA18-BRQ004	The Congestion Distribution Factor (CDF) of the ETF must be defined.	Core	Master File
CTABPA18-BRQ005	Master File must create “monitor only” flag for all EIF and ETF constraints. This shall indicate to the market to only calculate flow.	Core	Master File
CTABPA18-BRQ006	Market shall retrieve from Master File: <ul style="list-style-type: none"> • definition of ETF • monitor only flag for ETF and EIF 	Core	RTM
CTABPA18-BRQ007	Real Time (RT) Market shall receive the ETF limit from upstream system (EIDE).	Core	RTM
CTABPA18-BRQ008	BPA shall submit the ETF as a new account code to CAISO through the EIDE methodology.	Core	EIDE

 California ISO	Technology	Template Version:	4.3
		Document Version:	1.0
Coordinated Transmission Agreement (CTA) with BPA 2018 Business Requirements Specification - Planning		Date Created:	8/29/2018

ID#	Business Feature	Requirement Type	Potential Application(s) Impacted
CTABPA18-BRQ010	<p>Real Time (RT) market system shall be enhanced to enforce the ETF for EIM participating and non-participating resources, and CISO resources, by constraining the EIM Total Flow from the contributions from all these resources on the corresponding TCOR (BPA flowgate) to the ETF limit.</p> <p>The base schedules from EIM Non-Participating Resources and the energy self-schedules from EIM Participating Resources and CISO Resources shall have constant contributions to the ETF, i.e., the market shall not modify these schedules to satisfy the ETF constraint; if all economic adjustments are exhausted in managing the ETF constraint, the latter shall be violated instead of adjusting base schedules and self-schedules.</p>	Core	RTM
CTABPA18-BRQ012	<p>When EIM Total flow is a constraint, the real time market system must broadcast ConstraintClearing in the following format: EIM_TOT_[flowgate.name] to be reported in OASIS.</p>	Core	RTM; OASIS
CTABPA18-BRQ018	<p>ETF calculations must include the CAISO resources impacts to the ETF defined flow.</p>	Core	RTM
CTABPA18-BRQ019	<p>EIF calculations must include the CAISO resources impacts to the EIF defined flow. Note: For CAISO resources, base is considered the Day-Ahead schedules.</p>	Core	RTM
CTABPA18-BRQ015	<p>EIDE shall broadcast the ETF limit that was broadcasted by the market system back to BPA via EIDE using a new account code.</p>	Core	EIDE
CTABPA18-BRQ020	<p>For ETF Flow calculation the HVDC base flow between non-EIM BAAs should not be part of the ETF calculations. Note: Phase shifter transformer impact will not be considered in the calculation of the ETF.</p>	Core	RTM

Owner: Owens, Andrew

Program Office

California ISO INTERNAL USE. For use by all authorized California ISO personnel. Do not release or disclose outside the California ISO.