



# Business Requirements Specification

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## FERC 841- Requested Adjustments

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## Revision History

Date	Version	Description
4/01/2020	1.0	Initial document release
4/20/2020	1.1	Revised following BRQs <ul style="list-style-type: none"> <li>• BRQ038</li> <li>• BRQ045</li> </ul> Edited FERC841RA- MKTSIM-010

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# 1 Introduction

## 1.1 Purpose

In November 2019, FERC responded to CAISO’s compliance filing for FERC Order 841. FERC generally accepted the filing, but took exception to certain proposed provisions.

In response to FERC’s directives, the CAISO has responded with a further compliance filing on January 21, 2020 to address three (3) issues as noted below.

1. Reflecting storage resources’ physical and operational characteristics in the CAISO tariff
2. Lowering the minimum capacity requirements for storage resources to provide ancillary services from 500 kW to 100 kW
3. Ensuring that the CAISO’s metering practices allow for storage resources to participate in the retail and wholesale markets

As a result of the further compliance filing, this new FERC 841 – Requested Adjustments Project has been initiated.

Note that the scope of this Project is separate and apart from the scope and implementation of the previous FERC 841 – NGR Model Project which was implemented in 2019.

All of the above is subject to change based on FERC’s review of the CAISO’s further compliance filing.

## 1.2 References

Information related to this FERC Order 841 filing can be found on the following CAISO web page at:

<http://www.caiso.com/rules/Pages/Regulatory/RegulatoryFilingsAndOrders.aspx>

Information for this initiative can be found under Fall 2020 Releases located on the following CAISO web page at:

<http://www.caiso.com/informed/Pages/ReleasePlanning/Default.aspx>

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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.

The CAISO retains all intellectual property rights for the content of this Business Requirements Specification.

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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. Contact the Legal Department if you have any questions regarding intellectual property.

### 2.2 Checklist

No new intellectual property will be involved with this project.

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### 3 Acronym Definition

Acronym	Definition
BCR	Bid Cost Recovery
GRDT	Generator Resource Design Template
NGR	Non-Generator Resource
MWh	MegaWatt Hour
TEE	Total Expected Energy
UDC	Utility Distribution Company

### 4 Details of Business Need/Problem

Based on FERC’s response to CAISO’s submittal in November 2019, the CAISO has submitted a further compliance filing on January 21, 2020. As a result of this compliance filing, there are four (4) items being addressed by this FERC 841 – Requested Adjustments Project.

1. CAISO has included in the Tariff operational and technical constraints for storage resources which are currently identified in the Master File and Market Instruments BPM. (No changes)
2. CAISO has lowered its minimum capacity requirements for ancillary services from 500 kW to 100 kW for storage resources. (Tariff - Appendix K revised)
3. CAISO’s current metering and accounting practices as specified in the Metering BPM do allow for simultaneous participation in both retail and wholesale markets. (No changes)
4. To avoid duplicative billing where a UDC or retail utility is unable or unwilling to separate wholesale and retail charges, the CAISO will exempt a storage resource from wholesale charges for negative energy used for charging.

This item requires the following basic changes:

- Administrative changes to allow an NGR to be classified in the Master File as being exempt from CAISO charges for negative energy (charging)
- System changes to remove CAISO charges for negative energy for NGRs that are classified as exempt from such charges in the Master File

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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	Yes Attachmnet B - Adding new attribute in Master File and GRDT
Outage Management	N/A
Reliability Requirement	N/A
Market Operations	N/A
Compliance Monitoring	N/A
Metering	Yes – Will include description of the process and requirements for assigning new classification to NGRs for exemption of charges for “charging energy”
Scheduling Coordinator Certification & Termination	N/A
Rules of Conduct Administration	N/A
BPM Change Management	N/A
Definitions & Acronyms	N/A
Settlements & Billing	Yes – Configuration changes to exempt NGRs having the new classification for exemption of charges for “charging energy”
Credit Management	N/A
Candidate CRR Holder	N/A
Transmission Planning Process	N/A
Direct Telemetry	N/A
Distributed Generation for Deliverability	N/A
Energy Imbalance Market (EIM)	N/A
Generator Interconnection Procedure (GIP)	N/A

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<b>BPM</b>	<b>Description of Impact(s)</b>
<b>Generator Interconnection and Deliverability Allocation Procedures</b>	N/A
<b>Generator Management</b>	N/A

## 5.2 Other

<b>Impact:</b>	<b>Description: (optional)</b>
<b>Market Simulation</b>	<b>Yes</b>
<b>Market Participant Impact</b>	<b>Yes</b>
<b>External Training</b>	<b>Yes</b>
<b>Policy Initiative</b>	<b>No</b>
<b>Tariff Appendix K</b>	Allows energy storage resources of 100kW or greater to participate in Ancillary services:  <b>Appendix K:</b> A.1.1.1 => Regulation B.1.1.1 => Spinning Reserve C.1.1.1 => Non-Spinning Reserve

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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 New NGR Classification

For any Non-Generator Resource (NGR) where the Utility Distribution Company or retail utility verifies in writing to the CAISO that it is unable or unwilling to net out from its retail billing any energy purchases associated with the NGR's charging pursuant to CAISO settlement, the NGR resource can request a classification that will provide an exemption from CAISO charges for negative energy.

The process for requesting such a classification for an individual NGR resource will be included in the Metering BPM.

#### 6.1.1 Business Requirements

ID#	Business Feature	Requirement Type	Potential Application(s) Impacted
FERC841RA-BRQ001	System to add a new generator attribute for designating NGRs as eligible for exemption from CAISO wholesale charges	Core Tariff 10.1.3.4	Master File
FERC841RA-BRQ005	Update GRDT to include Read-Only access for new generator attribute identified in FERC841RA-BRQ001	Core Tariff 10.1.3.4	Master File GRDT

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## 6.2 Business Process: Manage Settlement Adjustments for NGRs

For any Non-Generator Resource (NGR) where the Utility Distribution Company or retail utility verifies in writing to the CAISO that it is unable or unwilling to net out from its retail billing any energy purchases associated with the NGR’s charging pursuant to CAISO settlement, the NGR resource will not incur CAISO settlement charges for negative energy related to “charging.”

### 6.2.1 Business Requirements

ID#	Business Feature	Requirement Type	Potential Application(s) Impacted
FERC841RA-BRQ035	For NGRs having the new generator attribute indicating the NGR is not to be assigned CAISO charges for negative energy, system to “zero out” LOAD meter data for each settlement interval where MWh is <0	Core Tariff 10.1.3.4	Settlements
FERC841RA-BRQ038	For NGRs having the new generator attribute the NGR is not to be assigned CAISO charges for negative energy, system to “zero out” expected energy (EE) received from MQS/PCA for each settlement interval where LOAD meter data MWh is <0	Core Tariff 10.1.3.4	Settlements
FERC841RA-BRQ040	For NGRs having the new generator attribute indicating the NGR is not to be assigned CAISO charges for negative energy, system to “zero out” energy payment/charges for each settlement interval where MWh is = or <0	Core Tariff 10.1.3.4	Settlements
FERC841RA-BRQ045	For NGRs having the new generator attribute indicating the NGR is not to be assigned CAISO charges for negative energy, system to “zero out” flexible ramp forecasted movement payment/charges for each settlement interval where meter value is less than or equal to 0	Core	Settlements
FERC841RA-BRQ050	System to ensure bid cost recovery (BCR) is not received by NGR resources where LOAD meter data for each settlement interval where MWh is <0	Core	Settlements

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## 6.3 Business Process: Market/Business Simulation

The following Identifiers are used as a guide to indicate the reason for Potential Structured or Unstructured Scenarios.

1. **Rule Impacts:** *Generalized changes in market rules, bidding rules, settlements rules, market design changes, or other business rules.*
2. **Interface changes:** *Changes that impact templates (e.g. the Resource Adequacy (RA) supply plan), user interface (UI), and application programming interface (API) (e.g. retrievals of new shadow settlement data).*
3. **New application/report:** *Changes that cause addition/modification of market software or reports, especially when market data input is required by the market participant.*
4. **New system process:** *Modification of data flow in systems, especially if the new process requires the market participant to demonstrate proficiency prior to production.*
5. **New/Modified model data:** *Addition or substantial modification of model data as a market solution provided by the ISO (e.g. BANC split into SMUD and non-EIM BAAs, PowerEx Overlapping Resource Aggregation).*
6. **New user role:** *The addition or modification of access permissions for a user role applied to specific business units within an EIM entity or market participant organization (e.g. Load Serving Entity (LSE) as a Local Regulatory Authority (LRA) role). Structured Scenarios would be beneficial for market participants taking on a new function or process within their organization.*

### 6.3.1 Business Requirements

ID#	Guidance on Market Participant Impacts	Source System	Sink System	Reason for Potential Scenario
FERC841RA-MKTSIM-000	Verify Market Participants can view new classification for NGR resources via GRDT	Master File	GRDT	1-Rule Impacts 2-Interface changes
FERC841RA-MKTSIM-005	Verify Market Participants cannot edit new classification for NGR resources via GRDT	Master File	GRDT	1-Rule Impacts 2-Interface changes
FERC841RA-MKTSIM-010	Verify no CAISO charges are assessed NGRs for negative energy	Market	Settlements	1-Rule Impacts

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<b>ID#</b>	<b>Guidance on Market Participant Impacts</b>	<b>Source System</b>	<b>Sink System</b>	<b>Reason for Potential Scenario</b>
FERC841RA-MKTSIM-015	Verify LOAD data is submitted by Market Participants	MRI-S	Settlements	1-Rule Impacts