

# Business Requirements Specification


## Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2)

Document Version: 1.1

Current Version Date: **10/01/2024**

### Revision History

Date	Version	Description
01/31/2024	1.0	Document Created. External BRS subject to change, changes shall be reflected in future External BRS.
10/01/2024	1.1	<p><b>Updated BRQs:</b> 105, 106, 107, 110, 112z, 114, 118, 217, 218, 229, 230, 231, 232, 312, 601, MSIM-008, MSIM-009.</p> <p><b>Added BRQs:</b> 115A, 115B, 124, 131, 218B, 219, 234, 237, 238, 239, 241, 245, 247, 248, 249, 250, 411B, 411C, 411D, 602, MSIM-016, MSIM-017, MSIM-018, MSIM-019, MSIM-20.</p> <p><b>Deleted BRQ:</b> 121</p> <p>Note: Changes in <b>red</b>.</p> <p><b>External BRS shall be reposted in the future with scope items related to CAISO LSEs, OBAALSE, and the Post-HASP process.</b></p>

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2)</b> <b>Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

**Table of Contents**

**1 Introduction .....3**

    1.1 Purpose ..... 3

**2 Details of Business Need/Problem.....6**

    2.1 Description..... 6

**3 Business Impacts.....8**

    3.1 Business Practice Manuals (BPM)..... 8

    3.2 Tariff Business Ownership ..... **Error! Bookmark not defined.**

    3.3 Other ..... 9

**4 Business Requirements..... 11**

    4.1 Business Requirements: Manage Operations Planning – Calculating PWT ATC..... 11

        4.1.1 *Business Requirements*..... 11

        4.1.2 *Process Requirements*..... 20

    4.2 Business Requirements: Manage Day Ahead Market – Awarding PWT ATC to PWT Requests..... 21

        4.2.1 *Business Requirements*..... 21

    4.3 Business Requirements: Manage Real Time Operations – Using PWT Awards in Market Operations ..... 36

        4.3.1 *Business Requirements*..... 36


    4.4 Business Requirements: Manage Market Clearing – Settling PWT Awards and Schedules ..... 37

        4.4.1 *Business Requirements*..... 38

    4.5 Business Requirements: General - Other Work ..... 39

    4.6 Business Requirements: Market/Business Simulation..... 41

        4.6.1 *Business Requirements*..... 41

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2) Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

# 1 Introduction

## 1.1 Purpose

This document describes high level business requirements to support the Transmission Service and Market Scheduling Priorities Phase 2 initiative.

### Overview of this project:

This project aims to present a long-term, durable framework to establish wheeling-through scheduling priorities in the ISO markets that can further evolve with operational experience. The project does not focus on, nor does it change, the processes for wheeling out or exporting from the ISO BAA.

Supply shortfalls across the Western Interconnection are contributing to increased dependence on import generation to serve load reliably. A workable framework for establishing market scheduling priority for wheeling-through the ISO system is a critical issue for external and internal load serving entities.


This project introduces a design to identify Available Transfer Capability (ATC) that can be allocated to Priority-Wheeling-Through (PWT) schedules across the ISO system. This BRS focuses on monthly and daily PWT schedules.

### Scope of this project:

For the “Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2)” project, the following are the key design elements for Priority-Wheeling-Through (PWT):

#### 1. Calculating PWT ATC


- The purpose is to derive PWT ATC, which is an amount of transmission capacity that external entities seek to wheel through the ISO system. According to the PWT ATC, external entities can reserve wheeling-throughs in advance to establish a high scheduling priority equal to the ISO load.
- Data requirements are calculated PWT ATC on ISO interties:
  - Calculate a short-term PWT ATC daily in a rolling forward way on a 7-days horizon;
  - Calculate a mid-term PWT ATC monthly in a rolling forward way on a 12-months horizon.

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2)</b> <b>Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

- In calculating the PWT ATC, need to set aside the amount of transmission capacity for existing commitments, including anticipated native load needs, and load growth, and transmission reliability margins:
  - The native load needs, including load growth, would be estimated based on historical volumes of import supply contracted by ISO LSEs as represented by historical resource adequacy imports and contracted import supply that may not have been shown on resource adequacy plans.
  - Set aside of transmission capacity for uncertainty that may materialize across the different horizons as a Transmission Reliability Margin (TRM).

## 2. Awarding PWT ATC to PWT requests

- PWT ATC on the interties is accessed through a request window process through which parties submit requests to reserve PWT ATC on an intertie to establish wheeling-through scheduling priority.
- Entities requesting the PWT ATC must demonstrate they have a firm power supply contract in place to serve external load (or a power supply contract conditioned upon securing of wheeling-through scheduling priority across the ISO system). At a minimum, PWT ATC requests for a month(s) must be supported by a six day by four hours firm power supply contract for each full week during the month plus the relevant days in any partial week during the month. At a minimum, PWT ATC requests in the day-ahead horizon must be supported by a firm power supply contract of at least four hours for each day during the seven day horizon for which the Scheduling Coordinator seeks PWT ATC or LSE ATC.
- Parties would compete to the extent there are more requests than there is PWT ATC.
- Requests would be submitted during a specified window period, and parties can request PWT ATC across the horizon for which PWT ATC is calculated, both in the monthly horizon and daily horizons.
- If there is not sufficient PWT ATC to accommodate all the requests, the requests will compete with each other based upon the number of hours for which they seek a priority across the horizon for which PWT ATC is calculated.
- Entities securing PWT ATC following this process will receive certainty that they have secured the ATC, and such PWT ATC cannot be taken back or be preempted later (in a future request window).

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2)</b> <b>Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

- Once the PWT ATC is obtained, the design allows the wheeling-through customer the ability to resell the wheeling-through scheduling priority.

### 3. Using PWT awards in market operations


- No change to current post-HASP curtailment trigger process. Only in the input data, some interchange schedules will identified with wheeling-through priorities.
- Retain application of a post-HASP process that effectuates adjustments or curtailments of priority wheeling through transactions and ISO load in specified conditions.
- These curtailments are triggered only in corner case stressed system conditions if:
  - There is a transmission limitation on the intertie, and
  - A power balance infeasibility is triggered due to an inability to serve load.
- In those instances, consistent with current practice, the post-HASP process will curtail, on a pro-rata basis to obtain the necessary relief, scheduled Priority Wheeling-Through transactions and scheduled ISO load transactions.
- To ensure a mere overload on an intertie that is not de-rated does not result in an inappropriate curtailment of high priority transactions, a rule will be adopted whereby the amount of awarded PWT transactions plus the amount of capacity represented as ISO load for the hour (set aside transmission for historical contracted imports, contracted imports securing daily PWT ATC, imports under TRM, and CPM imports to the extent they are supported by PWT ATC or otherwise TRM) cannot exceed the TTC of the intertie for purposes of conducting a post-HASP process.

### 4. Settling PWT awards and schedules

- Entities obtaining PWT pay the Wheeling Access Charges (WAC) for the day(s) or month(s) across which PWT ATC is reserved based upon the energy delivery timeframes of the underlying power supply contract.

For example, an entity seeking wheeling through priority to support delivery of a 6x16 supply contract would pay the WAC on that same basis, whether or not the transaction is actually scheduled on a given day.

- This approach recognizes the value of establishing a wheeling-through scheduling priority equal to load.

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2) Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

## 5. Other items in addition to the scope of this project

In addition to the above scope for the TSMSP2 project, this project also includes the following enhancement related to the prior TSMSP1 project:


- This is an open enhancement from TSMSP1. It only impacts the reporting functionality for transparency purposes.
- Current Implementation: TSMSP1 measures HASP schedule adjustments with respect to those from RUC.
- Proposed Enhancement: HASP schedule adjustments shall be measured with respect to the schedules submitted to HASP, HASP schedule adjustments are reported even though they were not made by HASP, and that created false alarms to participants checking the TSMSP1 reports.

# 2 Details of Business Need/Problem


## 2.1 Description

Business needs are listed as follows:

<b>Business Opportunity/Problem Statement:</b>	
<b>What:</b>	This project entails the following: <ol style="list-style-type: none"> <li>1. Calculating PWT ATC</li> <li>2. Awarding PWT ATC to PWT requests;</li> <li>3. Using PWT awards in market operations; and</li> <li>4. Settling PWT award and schedules;</li> </ol>
<b>Why do we have this opportunity/problem:</b>	The issue arises from the following reasons: <ul style="list-style-type: none"> <li>• Evolving conditions across the western grid necessitate developing a durable framework for establishing wheeling-through priority across the ISO BAA.</li> <li>• Supply shortfalls across the Western Interconnection are contributing to increased dependence on import generation to serve load reliably.</li> <li>• For both external and internal LSEs, it is an important issue to establish market scheduling priority for wheeling-through schedules.</li> </ul>

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2)</b> <b>Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

<b>Business Opportunity/Problem Statement:</b>	
	<ul style="list-style-type: none"> <li>• A durable wheeling priority framework will support robust inter-regional trades that benefit everyone in the Western Interconnection.</li> </ul>


 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2) Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

## 3 Business Impacts

### 3.1 Business Practice Manuals (BPM)

<b>BPM</b>	<b>Description of Impact(s)</b>
<b>BPM Change Management</b>	N/A
<b>Candidate CRR Holder Registration</b>	N/A
<b>Compliance Monitoring</b>	N/A
<b>Congestion Revenue Rights</b>	N/A
<b>Credit Management and Market Clearing</b>	N/A
<b>Definitions and Acronyms</b>	N/A
<b>Demand Response</b>	N/A
<b>Direct Telemetry</b>	N/A
<b>Distributed Generation for Deliverability</b>	N/A
<b>Energy Imbalance Market</b>	Not Impacted
<b>Generator Interconnection and Deliverability Allocation Procedures</b>	<u>N/A</u>
<b>Generator Interconnection Procedures</b>	N/A
<b>Generator Management</b>	N/A
<b>Managing Full Network Model</b>	N/A
<b>Market Instruments</b>	<u>BPM impact:</u> <ul style="list-style-type: none"> <li>• MF Changes.</li> <li>• SIBR Changes</li> </ul>
<b>Market Operations</b>	<u>BPM impact:</u> <ul style="list-style-type: none"> <li>• ITS Changes</li> <li>• DAM Changes</li> <li>• RTM Changes</li> <li>• Request Window Process</li> </ul>
<b>Metering</b>	N/A
<b>Outage Management</b>	N/A
<b>Reliability Coordinator Services</b>	N/A
<b>Reliability Requirements</b>	<u>BPM impact:</u> <ul style="list-style-type: none"> <li>• Internal System Changes</li> </ul>
<b>Rules of Conduct Administration</b>	N/A
<b>Scheduling Coordinator Certification and Termination</b>	N/A
<b>Settlements and Billing</b>	<u>BPM impact:</u>




 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2) Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>


<b>BPM</b>	<b>Description of Impact(s)</b>
	<ul style="list-style-type: none"> <li>• Settlements Changes</li> </ul>
<b>Transmission Planning Process</b>	Not Impacted

### 3.2 Other

<b>Impact</b>	<b>Description (optional)</b>		
<b>Market Simulation</b>	Yes		
<b>Market Participant Impact</b>	Other impact:		
	<b>External Participant Type</b>	<b>Impacted ?</b>	<b>Notes</b>
	Demand Response Entity	<b>No</b>	
	Financial Entity	<b>No</b>	
	Forecast Service Provider (FSP)	<b>No</b>	
	Government/Regulatory Agency	<b>No</b>	
	Reliability Coordination (RC) Customer	<b>No</b>	
	Scheduling Coordinator (SC)	<b>Yes</b>	Access, reserve and settle ATC
	Transmission Owner (TO)	<b>Yes</b>	For long term ATC transmission upgrades.
	WEIM Entity	<b>No</b>	
	Adjacent BA	<b>Yes</b>	OBAALSE PWT
	Other	<b>Yes</b>	Annual stakeholder meeting
<b>External Bid Publication</b>	No		
<b>User Acceptance Testing (UAT)</b>	Yes		

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2)</b> <b>Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

Impact	Description (optional)
<b>Customer Readiness Impact</b>	See below.
<ul style="list-style-type: none"> <li>• <b>External Communication Needed</b></li> </ul>	Yes, External BRS.
<ul style="list-style-type: none"> <li>• <b>External Onboarding and Maintenance</b></li> </ul>	Yes
<ul style="list-style-type: none"> <li>• <b>External Training</b></li> </ul>	Yes
<ul style="list-style-type: none"> <li>• <b>External Computer Based Training</b></li> </ul>	Shall be disclosed during training if necessary.
<b>Policy Initiative</b>	Yes

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2) Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

## 4 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.

### 4.1 Business Requirements: Manage Operations Planning – Calculating PWT ATC


This section describes business requirements for calculating PWT Available Transmission Capability (PWT ATC). The calculated PWT ATC is intended for use by PWT requests only.

#### 4.1.1 Business Requirements


ID#	Business Feature	Requirement Type	Potential Apps Impacted
TSMSP2-BRQ100	<p><b>System to retrieve the Resource to Scheduling point Mapping from Masterfile</b></p> <p>For every registered resource, the system shall retrieve the scheduling point (Pnode) associated with that resource. This information will be used for the historic Native Load Calculation on the intertie.</p>	Core	CIRA
TSMSP2-BRQ101	<p><b>System to retrieve the Resource to tie Mapping from Masterfile</b></p> <p>For every registered resource, the system shall retrieve the tie that the resource is associated with, this information will be used to translate the impact of the resource RA holding to the ISL. Note: tie associated with resource is only valid for tieGen, iTie, eTie, for all other resource this value is null.</p>	Core	CIRA
TSMSP2-BRQ102	<p><b>System to retrieve all ITC and ISL to Tie mapping definition from Mastrfile</b></p> <p>The system shall retrieve the defined ISL and ITC for CAISO BA.</p>	Core	CIRA
TSMSP2-BRQ103	<p><b>System to retrieve all Scheduling point to ITC mapping from Masterfile.</b></p> <p>This will create a mapping between the resource to scheduling point and scheduling point to ITC, to be used for the NLN impact to ITC.</p>	Core	CIRA
TSMSP2-BRQ104	<p><b>For all resource classified as Native Load Needs (NLN) resources, the system shall identify the ITC or ISL that the resource impact.</b></p> <p><b>Note:</b> NLN is broken up by 2 types</p>	Core	CIRA

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2) Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>


ID#	Business Feature	Requirement Type	Potential Apps Impacted
	NLN1: This is known as “shown RA contracts”. The data is currently maintained in CIRA NLN0: This is known as “firm non-Resource Adequacy import supply contract”. The data will be implemented in CIRA – reference SMSP2-BRQ112z		
TSMSP2-BRQ112z	<p><b>System shall be enhanced to collect two type of NLN1 (shown RA contracts) and NLN0 data (firm non-Resource Adequacy import supply contract):</b>            LSEs shall submit non-RA contract data into CIRA, This data is noted as <b>NLN0</b>.</p> <p>The firm non-Resource Adequacy import supply contract data, noted as <b>NLN0</b>, shall be managed as follows:</p> <ul style="list-style-type: none"> <li>• Store <b>NLN0</b> data (not-shown or non-RA data) in a similar format as the <b>NLN1</b> data (shown RA contracts). Both <b>NLN0</b> and <b>NLN1</b> are used by the Internal System application to calculate ATC.</li> <li>• Where possible, store the <b>NLN0</b> data in a way that has no impact to existing applications that read <b>NLN1</b> data.</li> </ul>	Core	<b>CIRA</b>
TSMSP2-BRQ105	<p><b>Non RA Native Load Need Submission Window</b>            System shall have the capability to configure when LSEs can submit Non RA NLN data and for what period they may submit for <b>Future NLN0</b>:</p> <p>Note: During the submission window, participants shall have the ability to submit non RA contracts for M+1 and M+13.</p> <p>Example: the submission windows of <b>Future</b> non RA contracts (NLN0) for November 2024 are two windows as follows:</p> <ul style="list-style-type: none"> <li>• M+12 <b>3</b>: During the request window 12 <b>3</b> months in advance of the target month: 9/18/2023 to 10/2/2023</li> <li>• M+1: And then again during the month ahead request window: 9/18/2024 to 10/2/2024</li> </ul>	Core	<b>CIRA</b>
TSMSP2-BRQ115A	<p><b>System shall be enhanced to collect historical Native Load Needs NLN0 data (firm non-Resource Adequacy import supply contract):</b></p> <p>LSEs shall submit <u>historical</u> NLN0 non-RA contract data into CIRA (for last two years of data aligned with NLN0 calculation).</p> <p>Note: Stored on rolling two year basis.</p>	Core	<b>CIRA</b>
TSMSP2-BRQ115B	<p><b>Determine Historical NLN0</b>            System shall calculate <u>historical</u> NLN0 using the following logic:</p>	Core	<b>CIRA</b>

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2)</b> <b>Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>


ID#	Business Feature	Requirement Type	Potential Apps Impacted
	<p>1. For the calculated month and intertie, compare the total NLNO value for the past two years, and select the year with the highest amount. Note: Take the total value of all ties and then use that year for each intertie.</p> <p>2. For each tie, use the NLNO value from the year selected in the previous step.</p> <p>E.g. For historic contract for past two years, if submission for Sept. 2022 is higher than Sept. 2023 then system shall take the greater of the two.</p> <p><u>Example:</u> For a Dataset where M+ 1 is Jan-24 and M+12 is Dec-24, then Historical NLNO data can be submitted from Jan 2022 to Dec 2023.</p> <p><u>Note:</u> During the same and different submission periods, If a historical MW already exists for the same month and intertie, then it will be totaled MW for that specific Intertie and Month. If same LSE submits data for the same Tie, then CIRA to total the MW for all submissions. This can happen during the same or different submission periods.</p> <p><u>Example:</u> For the target month of Dec-24, during submission window in Jan-22 10MW is submitted for MEAD230 and another submission of 5MW for the same intertie during submission window in Feb-22, system to add up 10MW and 5MW and use for Target month of Dec-24 for the same intertie.</p> <p>This would apply to NLNO Future data as well.</p>		
TSMSP2-BRQ106	<p><b>Submit Future Non RA Native Load Need Data</b> LSEs with Non RA contracts to serve load shall have the ability to submit NLN data and provide the following information.</p> <ul style="list-style-type: none"> <li>• Attestation of a power contract to serve load</li> <li>• Contract Month</li> <li>• Contract Hours</li> <li>• Intertie</li> <li>• Contracted MW</li> </ul> <p>When submitting Non RA NLN Data, participants shall identify the following:</p> <ol style="list-style-type: none"> <li>1) Brand new contract</li> <li>2) Replace existing RA contract</li> </ol>	Core	CIRA

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2)</b> <b>Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

ID#	Business Feature	Requirement Type	Potential Apps Impacted
	<p>Note: contract hours submitted on the UI will not be considered for the NLN calculation.</p> <p>Note: NLN0 data submitted for a specific month (i.e.M+12) will be reused in future calculations</p>		
TSMSP2-BRQ124	<p><b>Submit Historic Non RA Native Load Need Data</b>  <i>LSEs with Non RA contracts to serve load shall have the ability to submit Historic NLN data and provide the following information.</i></p> <ul style="list-style-type: none"> <li>• <i>Attestation of a power contract to serve load</i></li> <li>• <i>Contract Month and Year based on Submission period</i></li> <li>• <i>Intertie</i></li> <li>• <i>Contracted MW</i> <ul style="list-style-type: none"> <li>• <i>LSE/SCID</i></li> </ul> </li> </ul>	Core	<b>CIRA</b>
TSMSP2-BRQ107	<p><b>Update Historical RA data for NLN calculation</b>            When a non-RA native load need submission is a replacement of an existing RA contract, they must provide the following:</p> <ul style="list-style-type: none"> <li>• Replacement Intertie</li> <li>• Replacement MW</li> </ul> <p>System shall reduce the <b>replacement MW from the M+12 month's NLN 1 value at the specified intertie</b> - NLN 1 value at the specified intertie for the previous 2 years.</p>	Core	<b>CIRA</b>
TSMSP2-BRQ108	<p><b>Calculate Monthly Native Load Need (NLN) Data</b>            System shall have the ability to automatically or on demand calculate a monthly Native Load Need (NLN) value at each intertie constraint and for the 13 month horizon.            The monthly NLN value shall be the sum of all intertie resources that have RA and non-RA contracts at the intertie constraint, plus applicable load growth amount.            For the next month (M+1) the system shall use RA resources submitted during the Monthly RA process to calculate NLN1 and use submitted non-RA contracts to calculate NLN0.            For the subsequent 11 months (M+2 thru M+12) the NLN value shall be the sum of NLN1 and NLN0 where:            NLN1 = Historical NLN1 plus growth factor            NLN0 = submitted non RA contract values</p> <p>Implementation note: CIRA UI must show all NLN calculation details.</p> <p>Implementation Note: By default, the system will be scheduled to calculate the NLN values once a month.            *- An intertie constraint can be a ITC or ISL.</p>	Core	<b>CIRA</b>
TSMSP2-BRQ109	<p><b>Determine Historical NLN1</b>            System shall calculate historical NLN1 using the following logic:</p>	Core	<b>CIRA</b>


 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2) Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

ID#	Business Feature	Requirement Type	Potential Apps Impacted
	<ul style="list-style-type: none"> <li>For the calculated month, compare the total NLN1 value for the past two years, and select the year with the highest amount.</li> <li>For each tie, use the NLN1 value from the year selected in the previous step.</li> </ul>		
TSMSP2-BRQ110	<p><b>Growth Factor Amount</b> System shall calculate the growth factor amount at each intertie for the relevant month:</p> <p>a) Calculate forecasted growth amount For the calculated month, take the largest difference comparing the load forecast for the previous two years, and the future period load forecast.</p> <p>b) Determine Import RA ratio: For each forecasted month, calculate the import ratio as the proportion of RA imports over <b>Total RA (includes GEN, TG and ITIES). <del>load forecast.</del></b></p> <p>c) RA import growth amount For the relevant month, multiply the highest RA import ratio with the forecasted growth amount.</p> <p>d) Intertie growth amount For each tie multiply the pro-rata share of RA import at the tie with the RA import growth amount.</p> <p><b>Note: must include NLN0 historical data.</b></p> <p><del>Implementation note: Monthly Load Growth calculation shall be utilized for the daily calculation.</del></p>	Core, Business Process	<b>CIRA</b>
TSMSP2-BRQ116	Once a month, <del>after submission period ends on the first day of the month</del> , the system shall calculate the total NLN impact for each ITC and ISL, provided as a single value per month.	Core	<b>CIRA</b>
TSMSP2-BRQ117	Once a month, after the total NLN impact for each ITC and ISL is calculated the system shall broadcast/report this value to downstream systems.	Core	<b>CIRA</b>
TSMSP2-BRQ118	Scheduling coordinator of <del>supplier &amp;</del> Load Serving entity, and internal ISO user must have the capability to submit NLN0 & NLN1 data for historic RA Replacement.	Core	<b>CIRA</b>
TSMSP2-BRQ119	System (CIRA) must have a monitor/log to detect any failure in automated NLN Calculation & Monthly Publish it to Internal System.	Core	<b>CIRA</b>


 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2) Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

ID#	Business Feature	Requirement Type	Potential Apps Impacted
TSMSP2-BRQ120	System to receive and process monthly NLN impact to tie constraint data.	Core	<b>INTERNAL SYSTEM</b>
<del>TSMSP2-BRQ121</del>	<del>System to receive and process daily NLN impact to tie constraint data.</del>	<del>Core</del>	<del><b>INTERNAL SYSTEM</b></del>
TSMSP2-BRQ111a	<p>For every defined ITC and ISL System must calculate Monthly PWT ATC and ETComm calculation:</p> <ol style="list-style-type: none"> <li>1. <u>WT ATC calculated for the next 12 months (or rolling 13 months, including current month)</u> <ul style="list-style-type: none"> <li>• Timeline: <ul style="list-style-type: none"> <li>- Execution frequency: <b>Daily</b></li> <li>- Start time: <b>The first day in the month;</b></li> <li>- End time: <b>By COB of same day</b></li> </ul> <p>For example, MPs shall submit PWT requests for monthly process between T-45 and T-30. Once the submission window closes then PWT ATC calculation is completed on the first day of the month prior to the target month. See webWheel™ BRQ212c for technical details.</p> </li> <li>• Data: <ul style="list-style-type: none"> <li>- Data horizon: <b>Next 12 months (rolling 13 months, including current month)</b></li> <li>- Data resolution: <b>Monthly</b></li> </ul> <p>For each month's data, this monthly PWT ATC is calculated as the minimum of 30 to 31 daily PWT ATC values in each month.</p> </li> </ul> </li> </ol> <p>Note: In <b>PWT_ATC</b> calculated for the next 12 months, outage information is not available, making <b>TTC</b> a constant value over the months. However, RA contract data is of daily resolution, making <b>NLN</b> of daily variant. Thus, naturally-calculated <b>PWT ATC</b> (without aggregation) has 30 to 31 values in each month.</p>	Core	<b>INTERNAL SYSTEM</b>
TSMSP2-BRQ122a	System to receive the monthly PWT awards Note: The monthly PWT awards are used to adjust /calculate any future PWT-ATC	Core	<b>INTERNAL SYSTEM</b>
TSMSP2-BRQ111b	<p><b>For every defined ITC and ISL System must calculate Daily PWT ATC:</b></p> <p>For the purpose of PWT requests, calculate PWT ATC in two new processes as follows:</p> <ol style="list-style-type: none"> <li>1. <u>PWT ATC calculated for the current day + next 7 days:</u></li> </ol>	Core	<b>INTERNAL SYSTEM</b>




 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2) Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>


ID#	Business Feature	Requirement Type	Potential Apps Impacted
	<ul style="list-style-type: none"> <li>• Timeline: <ul style="list-style-type: none"> <li>- <u>Execution frequency</u>: <b>Every day</b>;</li> <li>- <u>Start time</u>: <b>Early morning</b>;</li> <li>- <u>End time</u>: <b>Early morning, by 6am</b></li> </ul> For example, MPs must submit daily PWT requests between 6am and 8am. See BRQ212c for technical details. </li> <li>• Data: <ul style="list-style-type: none"> <li>- <u>Data horizon</u>: Current day + <b>next 7 days</b></li> <li>- <u>Data resolution</u>: <b>Daily</b></li> </ul> For each day's data, this daily PWT ATC is calculated as the minimum of the hourly PWT ATC values from 6am to 10pm. </li> </ul>		
TSMSP2-BRQ131	INTERNAL SYSTEM must apply the default value of 6% in the computation of the default PWT TRM value for applicable Path.	Core	<b>INTERNAL SYSTEM</b>
TSMSP2-BRQ113a	<p><b>Output calculated Monthly PWT ATC values:</b></p> <p>Output PWT ATC results at the end of both processes:</p> <ol style="list-style-type: none"> <li>1. <u>PWT ATC calculated for the next 12 months.</u> Outputting calculated ATC shall be done on COB of the first day in the month.</li> </ol> <p>In outputting ATC results, broadcast the following data payload to the integration bus:</p> <ul style="list-style-type: none"> <li>• <b>PWT ATC</b> as well as its components: <b>TTC, ETC, NLN, PWT, and TRM</b>. This data payload is intended for OASIS to receive (see BRQ114)</li> <li>• <b>PWT ATC</b> only: This data payload is intended for the new application to receive (see BRQ214).</li> </ul>	Core	<b>INTERNAL SYSTEM</b>

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2) Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

ID#	Business Feature	Requirement Type	Potential Apps Impacted
TSMSP2-BRQ113b	<p><b>Output calculated daily PWT ATC values:</b></p> <p><u>System (INTERNAL_SYSTEM) must broadcast calculated PWT ATC to downstream systems.</u></p> <p>Implementation note: See BRQ111 for calculation of PWT ATC. Calculated and broadcasted prior to DAM process.</p> <p>Implementation note: If market participant submits after 6am, then PWT requests shall be calculated the next day.</p> <p>In outputting ATC results, broadcast the following data payload to the integration bus:</p> <ul style="list-style-type: none"> <li>• <b>PWT ATC</b> as well as its components: <b>TTC, ETC, NLN, PWT,</b> and <b>TRM</b>. This data payload is intended for OASIS to receive (see BRQ114)</li> <li>• <b>PWT ATC</b> only: This data payload is intended for the new application to receive (see BRQ214).</li> </ul>	Core	<b>INTERNAL SYSTEM</b>
TSMSP2-BRQ122	<p><b>System must receive the Monthly PWT ATC value.</b></p> <p>Implementation note: This is one value for the entire month. One value for the start to the end of the month.</p> <p>Implementation note: Retention for this report must be consistent with existing OASIS data retention period.</p>	Core	<b>OASIS</b>
TSMSP2-BRQ123	<p><b>System must receive the Daily PWT ATC value.</b></p> <p>Implementation note: This is one value for the day. One value for the start to the end of the day.</p> <p>Implementation note: Retention for this report must be consistent with existing OASIS data retention period.</p>	Core	<b>OASIS</b>


 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2)</b> <b>Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

ID#	Business Feature	Requirement Type	Potential Apps Impacted
TSMSP2-BRQ114	<p><b>Publishing PWT ATC data on OASIS for market participants to access</b></p> <p>From the output of the INTERNAL SYSTEM application (BRQ113a and BRQ113b), receive calculated PWT ATC and its components <b>TTC, ETC, NLN, PWT</b> and <b>TRM</b>.</p> <p>Publish the PWT ATC data onto OASIS, where the display shall show the ATC data as follows:</p> <ol style="list-style-type: none"> <li>1. <u>PWT ATC calculated for the next 7 days:</u> Add a new display titled "ATC in the next 7 days for PWT requests".</li> <li>2. <u>PWT ATC calculated for the next 12 months:</u> Add a new display titled "ATC in the next 12 months for PWT requests".</li> </ol>	Core	<b>OASIS</b>

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2)</b> <b>Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

#### 4.1.2 Process Requirements

ID#	Business Feature	Requirement Type	Potential Apps Impacted
TSMSP2-BRQ121	<p><b>Stakeholder process to discuss PWT ATC data</b></p> <p>Shall run an annual stakeholder process before summer (May-October) to discuss and preview of calculated PWT ATC and its components.</p> <p>The stakeholder process shall hold at least one stakeholder meeting annually.</p>	Process	N/A


 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2) Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

## 4.2 Business Requirements: Manage Day Ahead Market – Awarding PWT ATC to PWT Requests


This section describes business requirements regarding how calculated PWT ATC is allocated to Priority-Wheeling-Through (PWT) requests by market participants (MPs), i.e. scheduling coordinators (SCs). At the core, a new application, named Priority-Wheeling-Through Allocator (aka webWheel™), conducts award and release of the PWT ATC.

### 4.2.1 Business Requirements


ID#	Business Feature	Requirement Type	Potential Apps Impacted
TSMSP2-BRQ210a	<p><b>PWT registration (Part 1 of 2): Register resource ID</b> Market Participants shall register their PWT resource IDs in the Master File with the following data items:</p> <ol style="list-style-type: none"> <li>1. Resource Name (ID);</li> <li>2. Direction</li> <li>3. Tie-point</li> <li>4. Scheduling Point</li> </ol> <p>Note:</p> <ul style="list-style-type: none"> <li>• Such a registration required 11 days in advance to start, pursuant to the current process with Master File.</li> </ul>	Core	Master File
TSMSP2-BRQ204	<p><b>Security will be expanded to create new role to allow Scheduling Coordinators access to the webWheel™ rule</b></p> <p>This role will be used to register contract obligation to serve external load, ability to request PWT reservation, ability to update PWT sale information to reflect out of system sales</p>	Business Process	Internal System
TSMSP2-BRQ223	<p><b>System shall receive and process Masterfile resource definition.</b></p>	Core	webWheel™
TSMSP2-BRQ224	<p><b>System shall receive and process Masterfile scheduling coordinator definition.</b></p>	Core	webWheel™

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2)</b> <b>Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

ID#	Business Feature	Requirement Type	Potential Apps Impacted
TSMSP2-BRQ225	<b>System shall receive and process Masterfile ITC to scheduling point definition</b>	Core	<b>webWheel™</b>
TSMSP2-BRQ226	<b>System shall receive and process Masterfile ISL to tie mapping definition</b>	Core	<b>webWheel™</b>
TSMSP2-BRQ227	<b>System to receive and process user identity and user role information.</b>	Core	<b>webWheel™</b>
TSMSP2-BRQ228	<b>System shall receive and process INTERNAL SYSTEM PWT-ATC data.</b>	Core	<b>webWheel™</b>


 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2) Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

ID#	Business Feature	Requirement Type	Potential Apps Impacted
TSMSP2-BRQ210b	<p><b>PWT registration (Part 2 of 2): Register contract information</b></p> <p>Market Participants shall register their contract-related information in <b>webWheel™</b> with the following data items:</p> <ol style="list-style-type: none"> <li>1. Import Resource name (ID);</li> <li>2. Export Resource Name (ID)</li> <li>3. Contract start-dates (yyyy-mm-dd) and capacities (MW);</li> <li>4. Contract end-date;</li> <li>5. Contract service days (start-day and number-of-days);</li> <li>6. Contract service hours (start-hour and number-of-hours in each day);</li> <li>7. Attestation check (as affirmation).</li> </ol> <p>After the contract information is registered by market participant, if a contractual occurs later on, the market participant is allowed to update the contract information. Examples:</p> <ul style="list-style-type: none"> <li>• If the contract is terminated, the market participant shall change the <i>Contract period</i> by updating the <i>end-date</i> via entering the contract's termination date.</li> <li>• If the contract capacity is reduced, e.g. from 300 MW to 200 MW, the market participant shall update the <i>Contract period</i> by setting the <i>end-date</i> to the end date of 300 MW. Then, enter a new contract record with the <i>start-date</i> set to the beginning date of 200 MW.</li> </ul> <p>Such a registration process, newly introduced in this TSMSP2 project, allows market participant to self-register contract information via a user interface in <b>webWheel™</b> (BRQ211a).</p> <p>Note:</p> <ul style="list-style-type: none"> <li>• For data item 2 (<i>Contract start-dates and capacities</i>) and data item 3 (<i>Contract end-date</i>), market participant can specify a profiled MW for the contract validity period.</li> <li>• For data item 4 (<i>Contract service days</i>), market participant can specify start-day and numbers-of-hours (aka. blocks). For example, (Mon, 5) means Monday-to-Friday; and (Mon, 7) means Monday-to-Sunday</li> <li>• For data item 5 (<i>Contract hours</i>), registered PWT contract hours can be any period in the 24 hours during the day.</li> <li>• For data item 6 (<i>Attestation check</i>), the attestation check serves as an affirmation that the market participant's the submitted contract information is true.</li> <li>• For user interface requirement, see BRQ211a.</li> </ul>	Core	<b>webWheel™</b>


 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2) Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

ID#	Business Feature	Requirement Type	Potential Apps Impacted
TSMSP2-BRQ229	<p><b>After the contract is registered the system shall generate a PWContractID.</b></p> <p>This contract ID will be used when publishing the PWT allocated MW to downstream systems</p> <p>Note: this ID will be used when scheduling against the PWT contract</p>	Core	<b>webWheel™</b>
TSMSP2-BRQ211a	<p><b>External user interface for market participants (Part 1 of 3): PWT registration for contract information</b></p> <p>System (<b>webWheel™</b>) must have an interface for the Market Participant to self-register their contract information.</p> <ul style="list-style-type: none"> <li>• See BRQ210b for required data fields.</li> <li>• In addition to the required data, the interface shall have an exclamation language asking the market participant to attest that the entered contract data is true and legally binding.</li> </ul> <p>Note: The external interface used to provide Market Participant the ability view registered information, will be able to view the generated contractID</p>	Core	<b>webWheel™</b>
TSMSP2-BRQ211b	<p><b>External user interface for market participants (Part 2 of 3): For submitting PWT requests</b></p> <p>System (<b>webWheel™</b>) must have an interface for the Market Participant to submit their PWT requests and receive PWT awards. See BRQ214 for descriptions of data.</p> <p>Note: the request will consist of</p> <ul style="list-style-type: none"> <li>• Import and export resource ID Set</li> <li>• PWT Request start-dates (yyyy-mm-dd) and capacities (MW);</li> <li>• PWT Request end-date;</li> <li>• PWT Request service days (start-day and number-of-days);</li> <li>• PWT Request service hours (start-hour and number-of-hours in each day);</li> </ul> <p>Note the request date and time must be within the contract date time</p>	Core	<b>webWheel™</b>
TSMSP2-BRQ211c	<p><b>External user interface for market participants (Part 3 of 3): For viewing PWT awards</b></p> <p>Provide an interface for the Market Participant to receive PWT awards.</p>	Core	<b>webWheel™</b>




 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2)</b> <b>Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>


ID#	Business Feature	Requirement Type	Potential Apps Impacted
TSMSP2-BRQ212c	<p><b>Internal user interface for the operator: For running and monitoring the webWheel™ application</b></p> <p>Shall allow the operator (internal user) to define submission windows for monthly and daily PWT requests.</p> <p>Shall allow the operator (internal user) to configure the time to run the <b>webWheel™</b> automatically to make PWT awards following the PWT request windows.</p>	Core	<b>webWheel™</b>

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2) Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>


ID#	Business Feature	Requirement Type	Potential Apps Impacted
TSMSP2-BRQ214	<p><b>Receive and validate PWT requests</b></p> <p>The <b>webWheel™</b> application receives PWT requests to acquire additional PWT ATC. (The requests are submitted by market participants via <b>webWheel™</b> user interface described in BRQ211b.) A PWT request shall include but not be limited to the following data items:</p> <ol style="list-style-type: none"> <li>1. Import Resource name (ID);</li> <li>2. Export Resource name (ID)</li> <li>3. PWT MW to increase (position to add);</li> <li>4. Service hours (start-hour and number-of-hours in each day);</li> <li>5. Process ID (“M” for Monthly process and “D” for Daily process);</li> <li>6. Option if pro-rata is allowed;</li> <li>7. Option if partial award is allowed.</li> </ol> <p>Note: The Process ID, being either “M” (Monthly process) or “D” (Daily process), can be assigned by the ISO automatically depending on which request window is used. Such details will be determined during the implementation stage.</p> <p>For data item 2 (<i>PWT MW</i>) and data item 3 (<i>Service hours</i>), the market participant can specify a profile of MW values and service hours over the requested time horizon:</p> <ul style="list-style-type: none"> <li>• In the daily process, for the request horizon (D+1, D+2, ..., D+7), the market participant can specify different MW and different service hours for different days.</li> <li>• In the monthly process, for the request horizon (M+1, M+2, ..., M+12), the market participant can specify different MW and different service hours for different months.</li> </ul> <p>The <b>webWheel™</b> application shall validate each PWT request against the registered PWT resource name in the Master File (see BRQ210a) and registered PWT contract data in <b>webWheel™</b>(see BRQ210b):</p> <ol style="list-style-type: none"> <li>1. For data item 1 (<i>Resource name</i>), make sure the resource name is a registered in the <b>webWheel™</b> (same as registered in the Master File).</li> <li>2. For data item 2 (<i>PWT MW</i>), make sure the requested PWT MW plus prior-awarded PWT MW do not exceed the registered contracted PWT MW.</li> <li>3. For data item 3 (<i>Service hours</i>), make sure the requested PWT service hours does not exceed the registered service hours. Also, make sure the service hours is at least four (4) hours for each day.</li> <li>4. For data item 2 (<i>PWT MW</i>) and data item 3 (<i>Service hours</i>), in the daily process, make sure the requested days are within the contracted service days.</li> </ol> <p>If the PWT request meets the above criteria, accept the request; otherwise reject it.</p>	<p>Core</p> <p>BPM</p>	<b>webWheel™</b>

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2)</b> <b>Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>


ID#	Business Feature	Requirement Type	Potential Apps Impacted
TSMSP2-BRQ215	<p><b>Award PWT ATC to PWT requests</b></p> <p>This functionality can be called “<b>webWheel™</b> awarder”.</p> <p>In awarding PWT ATC to PWT requests (i.e. increasing PWT positions), the following rules apply:</p> <ol style="list-style-type: none"> <li>1. Award the maximum possible PWT ATC to PWT requests.</li> <li>2. Make sure the volume of PWT requests does not exceed PWT ATC at every tie-point. If a PWT ATC value is negative, use zero as the limit.</li> <li>3. Make for PWT position (total awarded capacity) shall not exceed the resource’s contract capacity.</li> <li>4. At a same priority level, curtailment of PWT requests shall be done on a pro-rata basis.</li> </ol> <p>In addition, the following special rules also apply:</p> <ol style="list-style-type: none"> <li>5. At every ITC (Intertie Transmission Constraint), do not consider counter-flows. That is, at an import ITC, the sum of PWT request for imports (not including exports) shall not exceed the import PWT ATC. Likewise, at an export ITC, the sum of PWT request for export (not including imports) shall not exceed the export PWT ATC.</li> <li>6. PWT ATC shall be first awarded to those PWT requests who have longer service hours (higher priority) before those who have shorter service hours (lower priority).</li> </ol> <p>The <b>webWheel™</b> shall output the following results:</p> <ol style="list-style-type: none"> <li>8. Resource name;</li> <li>9. MW quantity awarded.</li> </ol> <p>The <b>webWheel™</b> application runs at the following time:</p> <ol style="list-style-type: none"> <li>1. In the monthly process to award PWT ATC for M+1, M+2, ..., M+12, <b>webWheel™</b> runs no later than three (3) Business Days after the request window closes.</li> <li>2. In the daily process to award PWT ATC for D+1, D+2, ..., D+7), <b>webWheel™</b> runs no later than two (2) hours after the daily request window closes and at least one (1) hour before the Day-Ahead Market runs.</li> </ol>	Core	<b>webWheel™</b>

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2)</b> <b>Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>


ID#	Business Feature	Requirement Type	Potential Apps Impacted
TSMSP2-BRQ219	<p>An ETC or TOR rights holder has the ability to resell or transfer ETC or TOR capacity if it is permitted to do so in their underlying contract and such sale or transfer is supported by any applicable TRTC instructions.</p> <p>Note: This is an existing ISO business process where ETC and TOR rights holders submit TRTC instructions detailing what ETC and TOR rights they're selling or transferring and to whom. No automation or impacts needed to webwheel.</p> <p>Note: For a SC to use a TOR or ETC to support a Wheeling Through Priority the SC needs to submit the wheeling through priority request in webWheel and accompany that with a CIDI submission notifying CAISO of the TOR/ETC the SC wants to use to support it.</p>	Business Process	N/A

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2)</b> <b>Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>


ID#	Business Feature	Requirement Type	Potential Apps Impacted
TSMSP2-BRQ217	<p><b>Release certain amount of PWT ATC caused by contract reduction</b></p> <p>This functionality can be called as a “forced releaser” due to contract reduction.</p> <p>In releasing PWT ATC back to the market (i.e. decreasing PWT positions), the following rules apply:</p> <ol style="list-style-type: none"> <li>1. If it found that the contracted MW becomes less than the awarded PWT MW positions, then forcefully reduce the awarded PWT MW positions to the contracted MW.</li> <li>2. If it is found that the contracted service hours become shorter than the awarded PWT service hours, then forcefully cut short the PWT positions to fit the new contracted service hours.</li> <li>3. If it found that the contracted duration (from start-date to end-date) becomes shorter than the awarded PWT, then forcefully cut short the PWT positions to fit the new contract period.</li> </ol> <p>Note that releasing PWT ATC only applies to PWT awards for the future time horizon, i.e. not-yet-executed market timeline. It is not applicable to release PWT ATC for the already-executed PWT awards, i.e. in the market time that has already passed.</p> <p>For forced release due to reduction or termination of contract, market participant, i.e. SC, must notify ISO no later than 11 days before the start of the changed contract. Once contract updated, <b>webWheel™</b> shall check PWT positions and re-adjust them any violations.</p> <p>Such a release of PWT ATC shall be processed by <b>webWheel™</b> immediately or as soon as possible when contract reduction is detected in PWT contract registry within <b>webWheel™</b> (see BRQ210b). This will make sure in the next round of PWT ATC calculation, the remaining PWT ATC can be communicated to the market participant timely and accurately.</p>	Core	<b>webWheel™</b>

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2) Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

ID#	Business Feature	Requirement Type	Potential Apps Impacted
TSMSP2-BRQ218	<p><b>Publish data payload of PWT positions for market operations to use</b></p> <p>Every day, when <b>webWheel™</b> completes its allocation of PWT ATC to market participants' requests, the <b>webWheel™</b> shall publish PWT positions (i.e. total PWT awards) in a data payload for the downstream market operations system to use.</p> <p>The data payload shall include the following items per hourly record:</p> <ol style="list-style-type: none"> <li>1. <b>startEffectiveDate</b></li> <li>2. <b>endEffectiveDate</b></li> <li>3. Resource name (High-Priority Export);</li> <li>4. Import Resource name (counter resource)</li> <li>5. SC name;</li> <li>6. PWT position (MW).</li> <li>7. ContractID</li> </ol> <p>The data payload shall be hourly data for the next seven days (D+1, D+2, ..., D+7).</p>	Core	<b>webWheel™</b>
TSMSP2-BRQ218B	<p><b>Publish data payload of PWT positions for market operations to use</b></p> <p>System (<b>webWheel</b>) must broadcast two additional fields:</p> <ol style="list-style-type: none"> <li>1. Original Award (MW)</li> <li>2. Purchaser (Y/N)</li> </ol> <p>Note: Every day, when <b>webWheel™</b> completes its allocation of PWT ATC to market participants' requests, the <b>webWheel™</b> shall publish PWT positions (i.e. total PWT awards) in a data payload for the downstream market operations system to use.</p> <p>The data payload shall be hourly data for the next seven days (D+1, D+2, ..., D+7).</p>	Core  Phase 3	<b>webWheel™</b>
TSMSP2-BRQ230	<p><b>Publish PWT awards impact to limits after monthly process</b></p> <p>System shall broadcast the impact of awards to market constraints for the period that was just processed and include all previous or modified awards that impact market constraints.</p> <ol style="list-style-type: none"> <li>1. Startdate</li> <li>2. End date</li> <li>3. Limit Name (ITC/ISL)</li> <li>4. Total impact by Monthly awarded PWT</li> </ol>	Core	<b>webWheel™</b>


 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2) Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

ID#	Business Feature	Requirement Type	Potential Apps Impacted
TSMSP2-BRQ231	<p><b>Publish PWT awards impact to limits after daily process</b></p> <p style="color: red;">System shall broadcast the impact of awards to market constraints for the period that was just processed and include all previous or modified awards that impact market constraints.</p> <ol style="list-style-type: none"> <li>1. Startdate</li> <li>2. End date</li> <li>3. Limit Name (ITC/ISL)</li> <li>4. Total impact by daily awarded PWT</li> </ol>	Core	webWheel™
TSMSP2-BRQ220	<p><b>PWT registration: Contract registration no longer required in the Master File.</b></p> <p>In the TSMSP2 design, PWT registration is split into two parts:</p> <ul style="list-style-type: none"> <li>• Register resource ID (BRQ210a); and</li> <li>• Register resource contract (BRQ210b).</li> </ul> <p>Therefore, the process needs to be updated where PWT contract registration is no longer required in the Master File.</p>	Core, Business Process	<b>Master File</b>
TSMSP2-BRQ233	<p>System (<b>webWheel</b>) must retain all data and reports for at least 2 years.</p> <p>Note: Daily, Monthly, Yearly Reports.</p>	Core	webWheel™
TSMSP2-BRQ221	<p><b>Manually enter the PWT award produced in the yearly process</b></p> <p>If the yearly LTWTP process produces any PWT award</p> <ul style="list-style-type: none"> <li>• Register the PWT resource (see BRQ210a and BRQ210b); and</li> <li>• Manually enter the PWT award into the <b>webWheel</b>™ application, facilitated by the user interface</li> </ul>	Business Process	webWheel™


 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2)</b> <b>Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

ID#	Business Feature	Requirement Type	Potential Apps Impacted
TSMSP2-BRQ232	<p><b>webWheel™ must support resale of PWT awards and validation of resources.</b></p> <p>System (webWheel™) must have the capability for SCs to submit resale or assignment information:</p> <ul style="list-style-type: none"> <li>• Entity Reselling (Selling Entity/Assignor)</li> <li>• Entity Resold to (Purchasing Entity/Assignee)</li> <li>• MW Reservation Resold or assigned (monthly priority)</li> <li>• Effective Timeframe of Resale or assignment (start and stop date)</li> <li>• Price of Resale (\$/MW)</li> <li>• Export location (import and export POR/POD or similar)</li> <li>• Import Resource ID</li> <li>• Export Resource ID</li> <li>• Resale/Assignment Reason (justification) [drop downs]</li> <li>• Seller.Assignor Attestation</li> </ul> <p>Note: Justifications are drop downs, option other is free text.</p> <p>Note: Functionality must have the capability to support resale to different export location.</p> <p>Note: Resale/Assignment Reason must be a list of pre-defined drop downs with the last drop down as “other” for free text input. These are categories that an SC may select for resale justifications.</p> <p>Note: Price of Resale is not mandatory for an SC submission to be completed. If nothing is entered the submission shall have a null value for Price of Resale field, or SCs can submit a 0 MW value.</p> <p>Note: The Wheeling Through Priority Reseller must notify the CAISO 8 days before the effective date of the resale. The default of 8 days before the effective date but is a configurable parameter in webWheel.</p>	<p>Core</p> <p>BPM: Market Operations</p>	<p>webWheel™</p>




 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2) Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>


ID#	Business Feature	Requirement Type	Potential Apps Impacted
TSMSP2-BRQ248	<p>System (webWheel™) must have validation to ensure resales/assignments submitted are either:</p> <ul style="list-style-type: none"> <li>• For full month</li> <li>• For the remainder of the month (to the end of the month)</li> <li>• To the end of the term of the original award (also to end of the month)</li> </ul> <p>Note: Original entity that holds duration is responsible for the wheeling charge. Original entity can sell full amount or portion of the amount to different entities.</p>	<p>Core</p> <p>Phase 3</p>	webWheel™
TSMSP2-BRQ249	<p>System (webWheel™) must have validation to ensure submitted resale/assignment is equal to the original contract hours, and cannot exceed original MW or term of original award.</p>	<p>Core</p> <p>Phase 3</p>	webWheel™
TSMSP2-BRQ250	<p>System (webWheel™) must have attestation that Seller fills out and submits for resale.</p> <ul style="list-style-type: none"> <li>• <i>“I, (Name, Title) with my knowledge and experience given my position with (Organization) attest that this submission meets the applicable attestation requirements of CAISO tariff Section 23. I declare under penalty of perjury pursuant to 28 U.S.C. 1746 and the laws of the State of California that I have reviewed these requirements and the foregoing is true and correct.”</i></li> <li>• <i>Electronic Signature (full name)</i></li> </ul>	<p>Core</p> <p>Phase 3</p>	webWheel™
TSMSP2-BRQ245	<p>System (webWheel™) must have the capability for internal user to update Reason Code (Justification) for BRQ232 for Resale, and BRQ241 for Forced Release.</p> <p><b>Set Resale Reason Codes to Defaults:</b></p> <ol style="list-style-type: none"> <li>1. Contract termination or modification (drop down)</li> <li>2. Resource outage or unavailability (drop down)</li> <li>3. Other (drop down, free text)</li> </ol> <p><b>Set Forced Release Reason Codes to Defaults:</b></p> <ol style="list-style-type: none"> <li>1. Contract termination (drop down)</li> <li>2. Contract modification (drop down)</li> <li>3. Other (drop down, free text)</li> </ol>	<p>Core</p> <p>Phase 3</p>	webWheel™

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2) Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

ID#	Business Feature	Requirement Type	Potential Apps Impacted
TSMSP2-BRQ234	<p>System (webWheel™) must display SC submitted resale information (see BRQ232) and have downloadable report.</p> <p>Note: This UI and report shall be utilized by new internal webWheel™ user.</p>	<p>Core</p> <p>Phase 3</p>	webWheel™
TSMSP2-BRQ237	<p><b>System (OASIS) must display resale information on UI and have downloadable report:</b></p> <ul style="list-style-type: none"> <li>• Which parties resold (Seller/Assignor)</li> <li>• Which parties resold to (Purchaser/Assignee)</li> <li>• Reservation being resold (MW)</li> <li>• Effective Date/Time of resale</li> <li>• Duration of resale</li> <li>• Price of resale</li> </ul>	<p>Core</p> <p>Phase 3</p>	webWheel™
TSMSP2-BRQ238	<p>System (webWheel™) must have validation to check that resale is at same import point for resale.</p> <p>Note: may vary the export point if there is capacity to support it.</p>	<p>Core</p> <p>Phase 3</p>	webWheel™
TSMSP2-BRQ247	<p>System (webWheel™) must have validation to ensure there is capacity to support export point for resale.</p> <p>Note: Import point must stay the same but export point may vary.</p>	<p>Core</p> <p>Phase 3</p>	webWheel™
TSMSP2-BRQ239	<p>Entities must pre-register their Import ResourceIDs in MasterFile in order to participate in resales/assignments.</p>	<p>Existing, Business Process</p> <p>Phase 3</p>	webWheel™

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2)</b> <b>Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

ID#	Business Feature	Requirement Type	Potential Apps Impacted
TSMSP2-BRQ241	<p style="color: red;">System (webWheel™) must display Forced Released Information (see BRQ217) and have downloadable report.</p> <ul style="list-style-type: none"> <li>• Entity forced to release (SC)</li> <li>• MW change or cancellation.</li> <li>• ContractID</li> <li>• Forced Release Justification [drop downs]</li> </ul> <p style="color: red;">Note: contract modification/termination is the reason for release of priority prior to the start date of the webWheel™ reservation. Entity would need to explain in free text the reason for this release associated with the contractual reasons. Cannot release if contract modification or changes notified after start of webWheel™ request (11 business days prior to start of webWheel™ reservation and if don't provide this notice by then have obligations for duration of the reservation).</p>	<p style="color: red;">Core</p> <p style="color: red;">Phase 3</p>	<p style="color: red;">webWheel™</p>

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2) Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>


### 4.3 Business Requirements: Manage Real Time Operations – Using PWT Awards in Market Operations

This section describes business requirements how accepted Priority-Wheeling-Through (PWT) requests are used in market operations.

#### 4.3.1 Business Requirements

New requirements for system development are specified as follows.


ID#	Business Feature	Requirement Type	Potential Apps Impacted
TSMSP2-BRQ311a	<p><b>Inputting PWT awards from the webWheel™ (Priority-Wheeling-Through Awarder) system</b>            The System shall receive PWT Awards from the upstream <b>webWheel™</b> system.            See details in BRQ218 for the <b>webWheel™</b>-published data to be used by the market operations system (specifically SIBR and Settlement).</p> <p>The data shall include:</p> <ul style="list-style-type: none"> <li>• Resource name (ID); (High-Priority Export)</li> <li>• Import Resource name (ID); (counter resource)</li> <li>• SC name;</li> <li>• PWT position (MW).</li> </ul> <p>The data should be received minimum once daily and include 7 days' worth of data starting with the next trading day.  <i>(i.e. data sent at 1am on 8/3 will include data for 8/4 – 8/10 for each hour)</i>  <i>(Can be one payload for all 7 days or 7 payloads - 1 for each day) depends on size.</i></p> <p>PWT resources must be valid registered imports and export resources already existing in the Master File.</p> <p>PWT export resources do not name a supporting resource when submitting a PT Self-Schedule.</p> <p>PWT resources PT Self-Schedules must not exceed the PWT MW identified with the resource for specified hour.</p>	Core	SIBR
TSMSP2-BRQ311b	<p><b>Inputting PWT awards from the webWheel™ (Priority-Wheeling-Through Awarder) system</b>            PWT resources must be valid registered imports and export resources already existing in the Master File.</p>	Core	SIBR

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2)</b> <b>Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

ID#	Business Feature	Requirement Type	Potential Apps Impacted
TSMSP2-BRQ311c	<p><b>Inputting PWT awards from the webWheel™ (Priority-Wheeling-Through Awarder) system</b></p> <p>PWT export resources do not name a supporting resource when submitting a PT Self-Schedule.</p>	Core	SIBR
TSMSP2-BRQ311d	<p>PWT Exports must use the PWT Import named for the PWT Position associated with that hour as the Counter Resource in the Wheeling Transaction.</p> <p><i>There can be a one to many association for Export to Import with a PWT position MW. The Export and Import together per hour in the record are unique.</i></p> <ul style="list-style-type: none"> <li>• <i>ExportA with ImportB for 45MW</i></li> <li>• <i>ExportA with ImportC for 25MW</i></li> <li>• <i>ExportB with ImportA for 30MW</i></li> <li>• <i>ExportC with ImportB for 10MW</i></li> </ul> <p><i>There can only be one counter resource per Wheeling Transaction for the trading hour.</i></p> <p><i>ExportA can use either ImportB or ImportC but not both for a trade hour.</i></p>	Core	SIBR
TSMSP2-BRQ311e	<p><b>Inputting PWT awards from the webWheel™ (Priority-Wheeling-Through Awarder) system</b></p> <p>PWT resources PT Self-Schedules must not exceed the PWT Position MW identified with the export resource and counter import resource for specified hour.</p>	Core	SIBR
TSMSP2-BRQ312	<p><b>Clearing PWT schedules in HASP</b></p> <p>No impact.</p> <p>Clearing PWT schedules are conducted with existing practice, where all schedules are cleared together based on their assigned priorities.</p> <p>Here, the only difference is that in the input data of HASP, Priority-Wheeling-Through (PWT) schedules are assigned with a same priority as the ISO load.</p>	<del>Existing-Core</del>	HASP

#### 4.4 Business Requirements: Manage Market Clearing – Settling PWT Awards and Schedules


This section describes business requirements how awarded Priority-Wheeling-Through (PWT) capacity are compensated in the settlement system.

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2)</b> <b>Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

#### 4.4.1 Business Requirements

New requirements for system development are specified as follows.

ID#	Business Feature	Requirement Type	Potential Apps Impacted
TSMSP2 -BRQ411	<b>Consume awarded PWT positions from upstream webWheel™ system.</b>	Core	<b>Settlements</b>
TSMSP2 - BRQ411 B	System (Settlements) must receive the following from webWheel: <ul style="list-style-type: none"> <li>Original Award (MW)</li> <li>Purchaser data (Y/N)</li> </ul>	Core  Phase 3	<b>Settlements</b>
TSMSP2 - BRQ411 C	System (Settlements) must have two new columns in order to receive the data in BRQ411B: <ul style="list-style-type: none"> <li>Original Award (MW)</li> <li>Purchaser (Y/N)</li> </ul> <p>Note: Settlements needs these two new fields in order to receive this data in order to determine what was the original award versus the resold MW.</p>	Core  Phase 3	<b>Settlements</b>
TSMSP2 - BRQ411 D	System (Settlements) must be able to determine the resale MW and update entity records.  <p>Note: Wheel through is only being charged to the original contract holder and not the entity the PWT ATC was resold to.</p>	Core  Phase 3	<b>Settlements</b>
TSMSP2 -BRQ412	<b>Settle for PWT</b>  Entities obtaining PWT pay the Wheeling Access Charges (WAC) for period across which PWT ATC is reserved, i.e. awarded.  Same as any other wheeling-through, a PWT has an import (at POD tie-point) and an export (at POR tie-point). The WAC is charged at the export as usual by following the current practice.  For an entity with a PWT: <ul style="list-style-type: none"> <li>If the entity's actual schedule (aka "usage") is less than the awarded PWT capacity, then the entity would pay WAC on the awarded <u>capacity</u>, rather than its actual schedule. This is a new requirement that WAC is charged against wheeling-through <u>capacity</u>, if its schedule is less.</li> </ul>	Core	<b>Settlements</b>


 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2)</b> <b>Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

ID#	Business Feature	Requirement Type	Potential Apps Impacted
	<ul style="list-style-type: none"> <li>If the entity’s actual schedule (aka “usage”) is greater than the awarded PWT capacity, then the entity would pay WAC on actual schedule. It is a current practice that WAC is charged against wheeling-through schedules.</li> </ul> <p>In combination of the new requirement and the current practice, the entity should pay the maximum of the two: (1) PWT’s awarded capacity, and (2) the PWT’s actual schedule.</p>		


## 4.5 Business Requirements: General - Other Work

This section describes business requirements of some other enhancements that are not in the TSMSP2 scope. However, for these enhancements, their implementations are bundled with the TSMSP2 project.

ID#	Business Feature	Requirement Type	Potential Apps Impacted
TSMSP2-BRQ601	<p><b>Reporting HASP schedules</b></p> <p>This is not a TSMSP2 requirement. Rather, this is an enhancement to the prior TSMSP1 project.</p> <p>Currently, TSMSP1 measures HASP schedule adjustments with respect to those from RUC. HASP schedule adjustments are reported even though they were not made by HASP. This created false alarms to participants checking the TSMSP1 reports. In this change requirement, HASP schedule adjustments shall be measured with respect to the schedules submitted to HASP.</p>	Existing Core	HASP
TSMSP2-BRQ602	<p><b>Hourly Intertie Review UI</b></p> <p>System (RTM) Hourly Intertie Review UI must have Pro-rata Adjustment column with values reflecting the NET change across each ITC.</p> <p>Note: The total should reflect the NET TOTAL across all ITCs.</p> <p>Note: No impacts to BAAOP for this enhancements (no expected impacts to WEIM).</p>	Core	HASP

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2)</b> <b>Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>



 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2) Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

## 4.6 Business Requirements: Market/Business Simulation

This section shall provide a basis for the development of the Market/Business Simulation Scenarios. These requirements will provide guidance on the market participant impacts, inputs into the Scenarios, endpoints to the Scenarios and reasons for potential Scenarios. The guidance on market participant impacts shall be gathered from the requirements that impact rules, interfaces, applications/reports, new system processes, new/modified data models, and new user roles. The source and sink systems shall be determined through the development of the system context diagram and the web service requirements. The *Reason for the Potential Scenario* column will be to offer guidance regarding what potential scenarios, and their context, may be needed for this project. This section applies to all policy development projects, market enhancements, technology enhancements, operation enhancements, Energy Imbalance Market (EIM) implementations, and Reliability Coordination (RC) service implementations. If the project team has deemed that no structured testing is needed, an end-to-end test case must be specified.

In the Reason for Potential Scenario column, select one or more of the following reasons:

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 or export provided by the ISO.
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). Scenarios are beneficial for market participants taking on a new function or process within their organization.

### 4.6.1 Business Requirements



ID#	Guidance on Market Participant Impacts	Source System	Sink System	Reason for Potential Scenario
MSIM - 001	<p><b>Unstructured Market Sim</b></p> <p>LSEs with Non RA contracts to serve load shall have the ability to submit NLN data.</p> <p>Note: See BRQ106.</p>	N/A	CIRA	Modified Data
MSIM - 002	<p><b>Unstructured Market Sim</b></p> <p>When a non-RA native load need submission is a replacement of an existing RA contract, SCs of supplier and LSEs.</p> <p>Note: See BRQ107, BRQ118.</p>	N/A	CIRA	Modified Data
MSIM - 003	<p><b>End-to-End</b></p> <p>Market Participants shall register their PWT resource IDs in the Master File.</p> <p>Note: See BRQ210a.</p>	N/A	MF	Modified Data, New Process
MSIM - 004	<p><b>End-to-End</b></p> <p>Security will be expanded to create new role to allow Scheduling Coordinators access to the <b>webWheel™</b> rule.</p> <p>Note: See BRQ204.</p>	N/A	Internal System	New Process



ID#	Guidance on Market Participant Impacts	Source System	Sink System	Reason for Potential Scenario
MSIM – 005	<p><b>Unstructured Market Sim, End-to-End</b> Market Participants shall register their contract-related information in <b>webWheel™</b>.</p> <p>Note: See BRQ210b, BRQ211a.</p>	N/A	<b>webWheel™</b>	New Process, New Data
MSIM – 006	<p><b>Unstructured Market Sim, End-to-End</b> Market Participant to submit their PWT requests, view and receive PWT awards for daily process.</p> <p>Note: See BRQ211b, BRQ211c, 214, 215, 217, 218, 230.</p>	N/A	<b>webWheel™</b>	New Process, New Data
MSIM – 007	<p><b>Unstructured Market Sim, End-to-End</b> Market Participant to submit their PWT requests, view and receive PWT awards for monthly process.</p> <p>Note: See BRQ211b, BRQ211c, 214, 215, 217, 218, 231.</p>	N/A	<b>webWheel™</b>	New Process, New Data
MSIM – 008	<p><b>Unstructured Market Sim, End-to-End</b> Market Participant to view their PWT ATC awards for daily process.</p> <p>Note: See <b>BRQ121</b>, BRQ114.</p>	INTERNAL SYSTEM	OASIS	New Process, New Data, New User Interface




ID#	Guidance on Market Participant Impacts	Source System	Sink System	Reason for Potential Scenario
MSIM – 009	<p><b>Unstructured Market Sim, End-to-End</b> Market Participant to view their PWT ATC awards for monthly process.</p> <p>Note: See BRQ122a, BRQ114.</p>	INTERNAL SYSTEM	OASIS	New Process, New Data, New User Interface
MSIM – 010	<p><b>Unstructured Market Sim, End-to-End</b> PWT Awards sent from <b>webWheel™</b> to SIBR.</p> <p>Note: See 218, BRQ311.</p>	<b>webWheel™</b>	SIBR	New Process, New Data
MSIM – 011	<p><b>Unstructured Market Sim, End-to-End</b> PWT Awards sent from <b>webWheel™</b> to Settlements.</p> <p>Note: See 218, BRQ411.</p>	<b>webWheel™</b>	Settlements	New Process, New Data
MSIM – 012	<p><b>Unstructured Market Sim, End-to-End</b></p> <p>Entities obtaining PWT pay the Wheeling Access Charges (WAC) for period across which PWT ATC is reserved</p>	N/A	Settlements	New Process, New Data



ID#	Guidance on Market Participant Impacts	Source System	Sink System	Reason for Potential Scenario
MSIM – 014	<p><b>End-to-End</b> Internal ISO operator to view received PWT requests and produced PWT awards.</p> <p>Note: See BRQ212b.</p>	N/A	webWheel™	New Process, New Data
MSIM – 015	<p><b>End-to-End</b> Internal ISO operator to define submission windows for monthly and daily PWT requests. Shall allow the operator (internal user) to configure the time to run the <b>webWheel™</b> automatically to make PWT awards following the PWT request windows.</p> <p>Note: See BRQ212c.</p>	N/A	webWheel™	New Process, New Data
MSIM – 016	<p><b>Unstructured Market Sim:</b> SCs must have the capability to submit, view, and download their resale information.</p> <ul style="list-style-type: none"> <li>• Seller/Assignor</li> <li>• Purchaser/Assignee</li> <li>• MW Reservation Resold (monthly priority)</li> <li>• Effective Timeframe of Resale (start and stop date)</li> <li>• Price of Resale (\$/MW)</li> <li>• Export location (import and export POR/POD or similar)</li> <li>• Import Resource ID</li> <li>• Export Resource ID</li> <li>• Resale Reason (justification) [drop downs]</li> <li>• Seller Attestation</li> </ul> <p>Note: See BRQ232, BRQ248, BRQ249, BRQ250.</p>	N/A	webWheel™	New Process, New Data



ID#	Guidance on Market Participant Impacts	Source System	Sink System	Reason for Potential Scenario
MSIM – 017	<p>SCs performing resale must attest that the information entered therein for resale is as follows:</p> <ul style="list-style-type: none"> <li>• <i>“I, (Name, Title) with my knowledge and experience given my position with (Organization) attest that this submission meets the applicable attestation requirements of CAISO tariff Section 23. I declare under penalty of perjury pursuant to 28 U.S.C. 1746 and the laws of the State of California that I have reviewed these requirements and the foregoing is true and correct.”</i></li> <li>• <i>Electronic Signature (full name)</i></li> </ul> <p>Note: see BRQ250.</p>	N/A	webWheel™	New Process, New Data
MSIM – 018	<p><b>Unstructured Market Sim:</b></p> <p>Market Participants must have the capability to view the following resale information:</p> <ul style="list-style-type: none"> <li>• Seller/Assignor</li> <li>• Purchaser/Assignee</li> <li>• Reservation being resold (MW)</li> <li>• Effective Date/Time of resale</li> <li>• Duration of resale</li> <li>• Price of resale</li> </ul> <p>Note: See BRQ237.</p>	webLineR	OASIS	New Process, New Data
MSIM – 019	<p><b>End-to-End</b></p> <p>Internal ISO operator must have the capability to update reason code for submitted resales and Forced Releases.</p> <p>Note: See BRQ232 for Resale, and BRQ241 for Forced Release.</p>	N/A	webWheel™	New Process, New Data

 <b>California ISO</b>	<b>Technology</b>	<b>Template Version:</b>	<b>6.8</b>
		<b>Document Version:</b>	<b>1.1</b>
<b>Transmission Service and Market Scheduling Priorities - Phase 2 (TSMSP2)</b> <b>Business Requirements Specification - Planning</b>		<b>Date Created:</b>	<b>4/11/2023</b>

ID#	Guidance on Market Participant Impacts	Source System	Sink System	Reason for Potential Scenario
MSIM – 020	<p><b>Unstructured Market Sim:</b> SCs must have the capability to submit, view, and download their Forced Release information.</p> <ul style="list-style-type: none"> <li>• Entity forced to released (SC)</li> <li>• MW change or cancellation.</li> <li>• ContractID</li> <li>• Forced Release Justification [drop downs]</li> </ul> <p>Note: See BRQ241.</p>	N/A	webWheel™	New Process, New Data