



WESTERN ENERGY IMBALANCE SERVICE MARKET

EXTERNAL STAKEHOLDER DATA
POINTS

By SPP Information Technology Department

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REVISION HISTORY

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INTRODUCTION

External stakeholders interacting with Southwest Power Pool's (SPP) Western Energy Imbalance Service (WEIS) market are required to provide data to and accept data from SPP systems. This document provides an inventory of data points per system and information on the methods used for exchange of the data.

Note: In this document, the term "external stakeholders" refers to any and all stakeholder types which could include Market Participants, members, customers, Transmission Owners/Operators, Transmission Customers, Meter Agents, Generators, Load Serving Entities, vendors, etc. Not all data points are accessible by all types of external stakeholders. Please contact Customer Relations for more information. For regulatory purposes, SPP may exchange data with agencies not considered "stakeholders" in the context of this document (i.e., FERC, state commissions, etc.).

External stakeholder data points are accessed using the interface types listed and illustrated below.

- User Interfaces (web-based UI)
- Web Services (programmatic API)
- FTP (File Transfer Protocol)
- ICCP

For each data point in the Data Point Inventory, the following information is specified:

- Data Point: The name/description of the data point
- Interface Type: The type of interface used for data exchange. The following interface types are utilized.
 - User Interface (UI) – Graphical user interface allowing stakeholders to interface with WEIS systems
 - Programmatic (API) – Programmatic interfaces (web services) allowing stakeholders to interface with WEIS systems.
 - Inter-Control Center Communications Protocol (ICCP) – Inter-utility real-time data exchange method
 - File Browser – UI-based file browsing/download
 - File Transfer Protocol (FTP) – Programmatic access to data files via the standard FTP protocol used for the transfer of computer files between a client and server
 - Request Management System (RMS) – UI allowing stakeholders and SPP to capture requests, questions, suggestions or problems. The RMS allows users to view issues, submit requests and search or look up submitted requests.
 - Email

- Stakeholder Action
 - Receive – SPP provides the data point to the stakeholder
 - Submit – Stakeholder provides the data point to SPP
 - Query – SPP publishes the data point for Stakeholder retrieval

The data points per system/category are inventoried below.

DATA POINT INVENTORY

BALANCING

DATA POINT	INTERFACE TYPE	STAKEHOLDER ACTION
Energy Imbalance NSI Offset	ICCP	Receive
Contingency Reserve Deployed	ICCP	Submit
Contingency Reserve Required	ICCP	Submit
Contingency Reserve Available	ICCP	Submit
Dynamic NSI	ICCP	Submit
Conforming Load Data (Actual Load)	ICCP	Submit
Wind Farm Weather Data	ICCP	Submit
Non-Conforming Load Data (Estimated Load)	ICCP	Submit

CREDIT

DATA POINT	INTERFACE TYPE	STAKEHOLDER ACTION
Credit Limit Report	Portal UI, Credit Limit Report, API	Query

MARKETS

ENERGY DATA

DATA POINT	INTERFACE TYPE	STAKEHOLDER ACTION
Energy Dispatch	Markets UI, Markets API	Receive
Mitigated Resources	Markets UI, Markets API	Receive
Commitment Status Conflict with Outage Management System	Markets UI, Markets API	Receive
Energy Override	Markets UI, Markets API	Receive
DRR Load Forecast	Markets UI, Markets API	Submit
Resource Offer	Markets UI, Markets API	Submit
Energy Offer	Markets UI, Markets API	Submit
Mitigated Offer	Markets UI, Markets API	Submit

Mitigated Resource Offer	Markets UI, Markets API	Submit
Energy Audit Data	Markets UI, Markets API	Query
Qualification Status	Markets UI, Markets API	Query
Resource Forecast (Wind & Icing – Short-term, Mid-term, Long-term)	Markets UI, Markets API	Query

LOAD FORECAST DATA

DATA POINT	INTERFACE TYPE	STAKEHOLDER ACTION
Load Forecast	Markets UI, Markets API	Submit

MARKET DATA

DATA POINT	INTERFACE TYPE	STAKEHOLDER ACTION
Market Message (Used to notify AOs of significant, usually planned, market events)	Markets UI, Markets API	Receive
Market Timeline Event	Markets UI, Markets API	Receive
Violation Relaxation Limits	Markets UI, Markets API	Receive
Real-Time Approval Status	Markets UI, Markets API	Query
Binding Limits	Markets UI,	Query

	Markets API	
LMP Summary by Settlement Location	Markets UI, Markets API	Query
Settlement Locations and Nodes	Markets UI, Markets API	Query

NOTIFICATION LISTENER DATA

DATA POINT	INTERFACE TYPE	STAKEHOLDER ACTION
Notification Listener Ping	Markets UI, Markets API	Submit
Register Notification Listener	Markets UI, Markets API	Submit

RESERVE DATA

DATA POINT	INTERFACE TYPE	STAKEHOLDER ACTION
Resource Offer	Markets UI, Markets API	Submit

TRANSACTION LOG DATA

DATA POINT	INTERFACE TYPE	STAKEHOLDER ACTION
Transaction Log	Markets UI, Markets API	Query
Transaction Log Summary	Markets UI, Markets API	Query

MARKET MONITORING PORTAL

DATA POINT	INTERFACE TYPE	STAKEHOLDER ACTION
Plant Delivery Cost	Market Monitoring Portal UI	Submit
Opportunity Cost Calculation	Market Monitoring Portal UI	Submit (input data), Query (calculated cost adder)
Generator Detail Parameters	Market Monitoring Portal UI	Submit
Generator Detail Costs	Market Monitoring Portal UI	Submit
Mitigated Offer Development Methodology	Market Monitoring Portal UI	Submit

MARKET SETTLEMENTS

DATA POINT	INTERFACE TYPE	STAKEHOLDER ACTION
Meter Data	Settlements UI, Settlements API	Submit
Meter Report Card	Settlements UI, Settlements API	Query
Calibration Report	Settlements UI, Settlements API	Query
Interchange Report	Settlements UI, Settlements API	Query
Settlement Invoice	Settlements UI, Settlements API	Query
Settlement Statement	Settlements UI, Settlements API	Query
Determinant Report	Settlements UI, Settlements API	Query

Market Participant Summary Data	Settlements UI, Settlements API	Query
Settlement XML Notification Registration	Settlements UI	Submit
Settlement Payout Report	Settlements UI	Query
Meter Agent Miscellaneous Data	Settlements UI	Query
Market Participant Miscellaneous Data	Settlements UI	Query

MODELING

DATA POINT	INTERFACE TYPE	STAKEHOLDER ACTION
Commercial/Market Model Data	Model Change Submission Tool UI	Submit Query
Reliability Model Data	Model Change Submission Tool UI	Submit Query
Modeling Contact Information	Model Change Submission Tool UI	Submit Query
Model Status Change Notifications	Email	Receive
EMS Read-Only Data/Displays	Replicated Data Server UI	Receive
Network Model Equipment Rating (Ratings Submission Tool)	Ratings Submission Tool UI	Submit Receive
Real-Time Contingency Analysis Data	FTP	Query
Current & Next Day Study Cases	FTP	Submit Query
EMS Models	FTP	Query

Model Data Files/Reports	FTP	Submit Query
State Estimator Cases	FTP	Query
Asset Owner/Meter Agent Reports	Portal File Browser, FTP	Query

ONBOARDING

DATA POINT	INTERFACE TYPE	STAKEHOLDER ACTION
Onboarding Materials Request	Request Management System (UI)	Receive
LSA Setup Information	Request Management System (UI)	Submit

OUTAGE MANAGEMENT

DATA POINT	INTERFACE TYPE	STAKEHOLDER ACTION
Transmission and Generation Outages	CROW UI, CROW API	Submit
Outage Request Information	CROW UI, CROW API	Query
Equipment/Station List	CROW API	Query
Transmission Outage Report	Portal File Browser, FTP	Query

PUBLIC DATA

MARKETS PUBLIC DATA

DATA POINT	INTERFACE TYPE	STAKEHOLDER ACTION
Real-Time Balancing Market Binding Constraints	Portal File Browser, FTP	Query
Real-Time Balancing Market Fuel on Margin	Portal File Browser, FTP	Query
Real-Time Balancing Market Locational Marginal Price by Bus	Portal File Browser, FTP	Query
Real-Time Balancing Market Locational Marginal Price by Settlement Location	Portal File Browser, FTP	Query
Historical Real-Time Balancing Market Energy Offers	Portal File Browser, FTP	Query
Generation Mix Historical	Portal File Browser, FTP	Query
Hourly Generation Capacity by Fuel Type	Portal File Browser, FTP	Query
Hourly Load	Portal File Browser, FTP	Query
System Wide Hourly Load Forecast (Mid-Term Load Forecast) vs. Actual	Portal File Browser, FTP	Query
Mid-Term Resource Forecast	Portal File Browser, FTP	Query
System Wide Short Term Load Forecast vs. Actual	Portal File Browser, FTP	Query
Short Term Resource Forecast	Portal File Browser, FTP	Query
Historical Tie Flow	Portal File Browser, FTP	Query

Real-Time Balancing Market Locational Marginal Price Trend	Portal File Browser, FTP	Query
Forecast Summary	Portal File Browser, FTP	Query

SETTLEMENTS PUBLIC DATA

DATA POINT	INTERFACE TYPE	STAKEHOLDER ACTION
Settlement Calendar Market	Portal File Browser, FTP	Query
Zonal Uplift Report	Portal File Browser, FTP	Query
Resource Uplift (RNU) Report	Portal File Browser, FTP	Query
Revenue Neutrality Uplift (RNU) Report	Portal File Browser, FTP	Query

RELIABILITY

DATA POINT	INTERFACE TYPE	STAKEHOLDER ACTION
Current Day Reliability Reports	Globalscape UI, FTP	Submit Query
Real-Time Contingency Analysis	Globalscape UI, FTP	Query
Flowgate Details	Globalscape UI, FTP, OASIS	Query
Operating Guides	Globalscape UI, FTP	Query
Various EMS Data Points	Replicated Data Server UI	Receive

SCHEDULING

DATA POINT	INTERFACE TYPE	STAKEHOLDER ACTION
Member Input Tag Data	OATI UI	Submit
Disposition of Tag (Approved, Denied, Implemented, Adjusted, Curtailed)	OATI UI	Receive