WRAP FORWARD SHOWING INSTRUCTION MANUAL

ENGINEERING DATA SUBMISSION TOOL

By SPP Staff

Published on 01/13/2026

Version 2.4

REVISION HISTORY

DATE OR VERSION NUMBER	AUTHOR	CHANGE DESCRIPTION	COMMENTS
1.x	SPP Staff		Initial creation and updates as needed for submitting Excel FS Workbooks.
2.0	SPP Staff	Manual updated for FS Submittals using the Engineering Data Submission Tool.	
2.1	SPP Staff	Update to Contracts & Obligations, “POR for TSR Mapping”. “Document Types and Associated Pages” section added.	
2.2	SPP Staff	Updates to Contracts & Obligations, “Selling Entity” and “Purchasing Entity”; Facility Management, “Must take”; Forms & Attestation Documents, “Document Types and Associated Pages”. “JCAF” section added to Appendix 2: Shared Resource Form Information.	
2.3	SPP Staff	Information regarding Winter Capability tests added.	

		Update to TSR (OASIS) Information “OASIS Ref Number”. “Cure Period” section added. Added new Participants. Removed Participant no longer submitting.	
2.4	SPP Staff	Update to Facility Management “Facility Name”. Updated Document Types and Associated Pages, added Instructions column to the table.	

CONTENTS

ENGINEERING DATA SUBMISSION TOOL OVERVIEW

DISCLAIMER

The information in this document is designed to provide a helpful guide on use of the Engineering Data Submission Tool (EDST). The data used and displayed in figures are fictitious data created for development of this user manual. SPP disclaims liability for any inaccuracies or omissions that may have occurred. The data submitted in EDST is confidential and proprietary information. Distribution of this data should first be approved through WPP and SPP Staff.

OVERVIEW

The Engineering Data Submission Tool (EDST) is a web-based application for storing, coordinating, and facilitating data for multiple departments in the SPP Engineering Department. The application provides an effective, controlled, and reliably secure process for data submitters and SPP staff to share and review detailed information.

The purpose of this document is to provide WRAP Participant data submitters a guide on how to use EDST to manage data and materials needed for meeting Forward Showing Submittal requirements as outlined in the Tariff and Business Practice Manuals. The required data is to be submitted by Load Responsible Entities (LREs).

For easy navigation through this document, it is suggested to use the “Navigation Pane” under the View section of Microsoft Word. Once selected, a menu on the left side will display section-heading links for easy access and navigation.

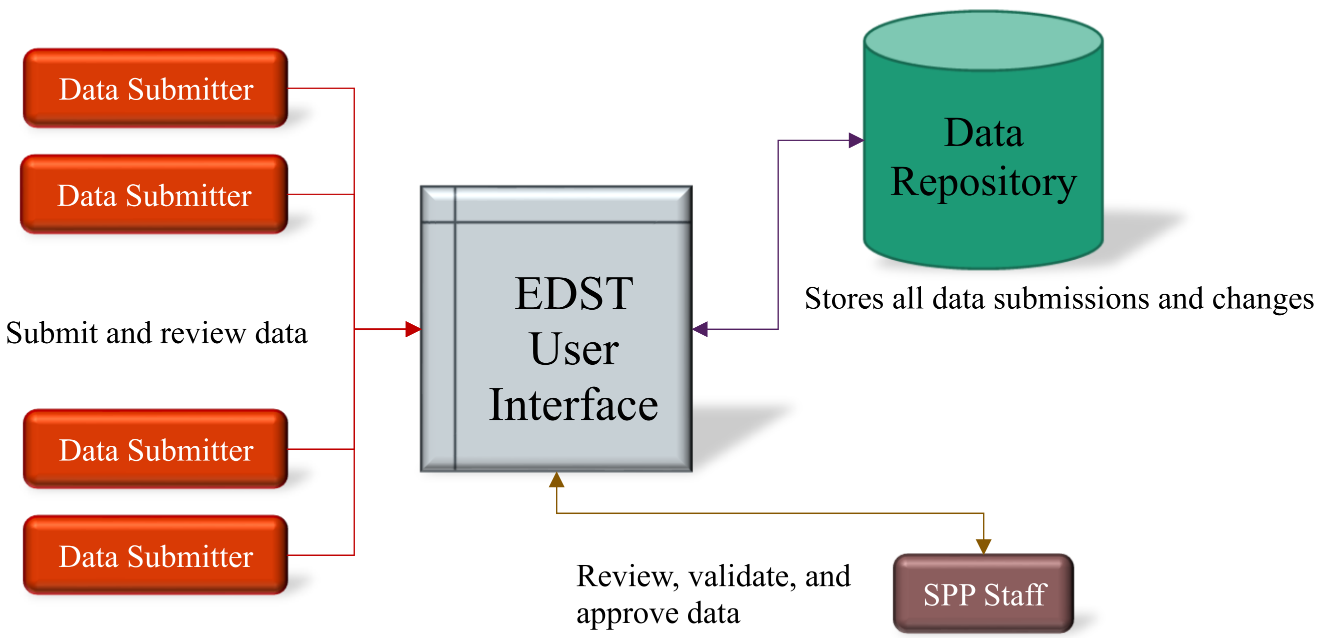
Google Chrome web browser is preferred for accessing EDST.

Capitalized terms shall refer to the defined terms of the WRAP Tariff or the designation of the specific terms as referenced and utilized in EDST.

INTRODUCTION

The purpose of EDST is to provide one location for submitting the data and supporting materials needed for FS Submittals as outlined in BPM 108. as well as the other features listed below.

The diagram below shows a high-level representation of EDST’s architecture and flow for reviewing and submitting data. A data submitter reviews and submits data using EDST’s user interface. The associated changes are then stored in the data repository. SPP Staff utilizes EDST's user interface to review, validate, and approve data changes.



The application allows the creation of new database records, modification of existing database records, and the termination of existing database records. Once a change is submitted and approved by SPP Staff, the details of the change are reflected in the database and can be reviewed by SPP Staff and other permitted users. EDST currently supports the following data sets for WRAP FS:

- Load information
- Facility Management data entry
- Resources data entry
- Contracts & Obligations data entry
- TSR (OASIS) Information data entry
- TSR Mapping data entry
- Additional Planned Outages data entry
- Forward Showing Summary report
- Storage Hydro Forced Outages data entry
- Advance Assessment Results read only data
- Forms & Attestation Documents document upload
- Generator Test Results data entry

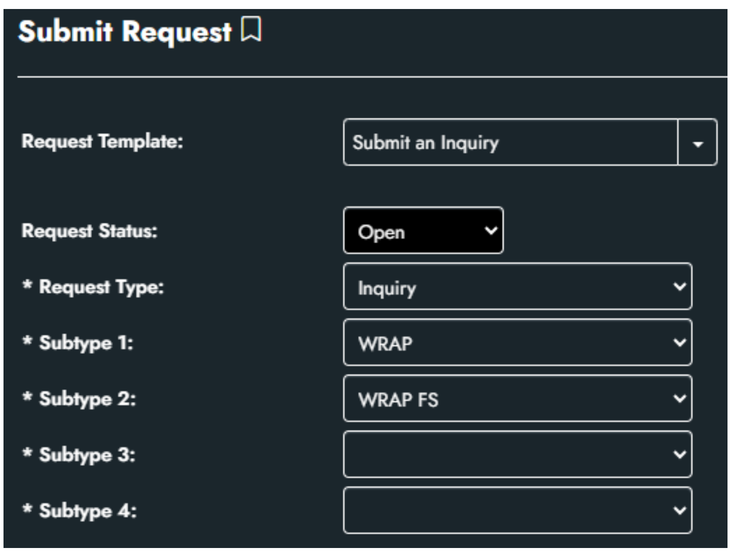
TIMELINE

The submission timeline for the Winter and Summer Seasons are shown separately below leading up to the applicable binding season.

- Winter Season Forward Showing Submissions (Binding Seasons) –
  - Forward Showing submittal deadline – March 31st of each calendar year
  - Deficiency notices provided by Program Operator – May 31st of each calendar year
  - Forward Showing cure deadline – July 31st of each calendar year
- Summer Season Forward Showing Submissions (Binding Seasons) –
  - Forward Showing submittal deadline – October 31st of each calendar year
  - Deficiency notices provided by Program Operator – December 31st of each calendar year
  - Forward Showing cure deadline – February 28th of each calendar year

CURE PERIOD

Feedback from SPP for edits made during the cure period may be requested before the end of the cure period by submitting an RMS ticket using the ticket type shown below.



PARTICIPANTS

PARTICIPANT	PARTICIPANT SHORTNAME
Arizona Public Service	APS1

Avista Corporation	AVA
Bonneville Power Administration	BPAP
Calpine Energy Solutions	CESR
Chelan County Public Utility District	CHPD
Clatskanie People's Utility District	CLSK
Constellation NewEnergy, Inc.	NEI1
Eugene Water & Electric Board	EWEB
PUD No 2 of Grant County	GCPD
Idaho Power Company	IPC
Northwestern Energy	NWDS
NV Energy	NVE
PacifiCorp	PAC
Portland General Electric Company	PGEM
Public Service Company of New Mexico	PNM
Powerex	PWX
Puget Sound Energy	PSEM
Salt River Project	SRP
Seattle City Light	SCL
Shell Energy	CORP

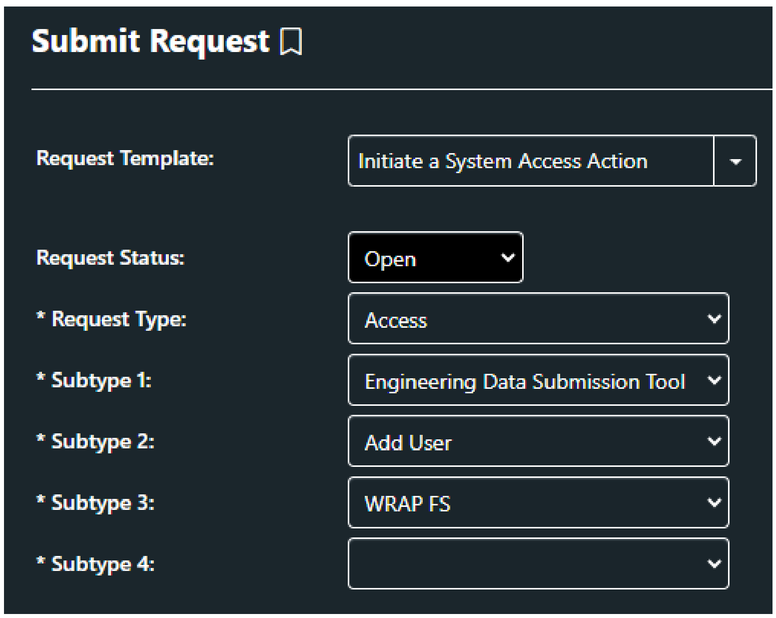
Tacoma Power	TPWR
The Energy Authority	TEA
Tucson Electric Power	TEPC

GETTING STARTED

This section provides a high-level overview of new user registration, basic login process, resetting a password, and technical support for EDST.

GAINING ACCESS TO EDST

In RMS, please submit a ticket using the "Initiate a System Access Action" Request Template, "Engineering Data Submission Tool (EDST)" Subtype 1, and the appropriate Subtype below to add, update, or remove a user for WRAP FS EDST.

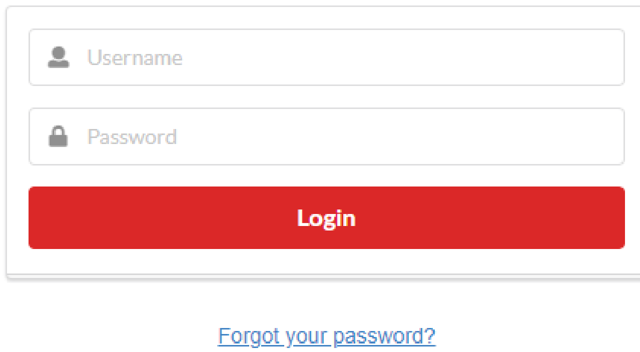


To have a new user added, include the following information in the ticket's Full Description:

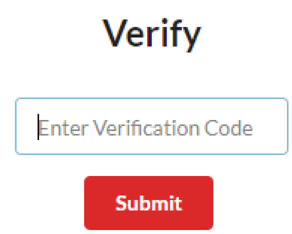
- User's First Inititial + Last Name
- Full Name (first and last)
- Email
- Phone Number
- Participant Shortname
- Participant Longname

LOGGING IN

When your account is created, you will receive two emails – one with the EDST URL and your username, and another with your password. Navigate to the [SPP Engineering Data Submission Tool](), then enter your username and password.



After clicking "Login", you will receive an email with a verification code. Enter the code and click "Submit".

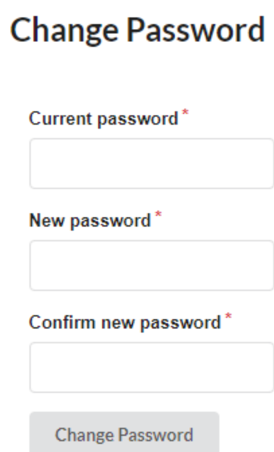


Tip: Reset your password to one of your own choosing after logging in for the first time.

RESETTING A PASSWORD

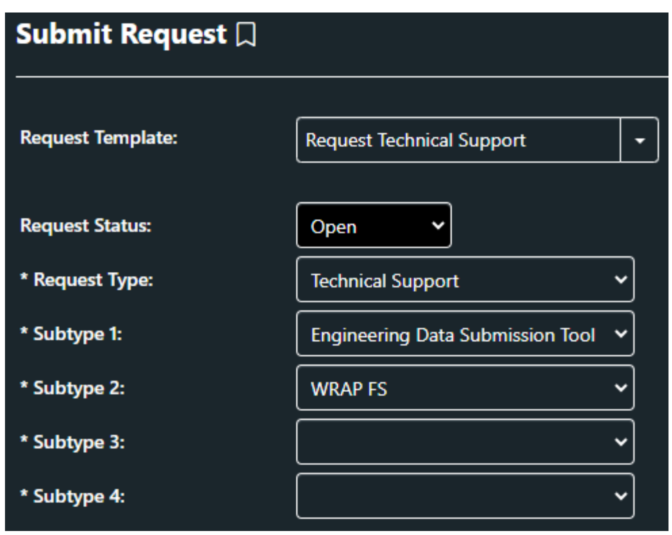
If you have forgotten your password, click Forgot your password? on the login page and follow the prompts to receive a password reset email.

To change your password after logging in, click the “Hello username!” button at the top right of the menu bar and follow the prompts.



TECHNICAL SUPPORT

In RMS, please submit a ticket using the "Request Technical Support" Request Template, "Engineering Data Submission Tool (EDST)" Subtype 1 and “WRAP FS” Subtype 2. Include steps to recreate the issue, screenshots of the error and relevant data, and any files needed for SPP to test for the error.



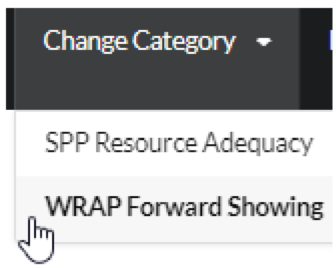
USER INTERFACE AND LAYOUT

HOME PAGE

The Home page displays a dashboard containing informational postings and a summary of validation messages by grid name.

CATEGORIES

Most users will not have different category options. However, if you do see the "Change Category" menu in the top right corner of the Home page, select "**WRAP Forward Showing**" after logging in.



MENU BAR

HOME

Click here to navigate to the Home page.

WRAP FORWARD SHOWING

See "WRAP Forward Showing" section.

WRAP ADMINISTRATION

See "WRAP Administration" section.

POSTINGS

Click here to see a full-window view of Postings.

EVENTS

Click here to see a calendar view of Postings.

NOTIFICATIONS

Please disregard for WRAP FS. This is used in other areas of EDST and is part of the default menu bar.

HELLO USERNAME!

Click on the button in the top right that says “Hello!” to your username, and then fill in your password reset information. See the “Resetting a Password” section for more details.

LOG OFF

Click here to log off.

POSTINGS SUMMARY

A summary of informational postings is on the left side of the Home page.

VALIDATION MESSAGES SUMMARY

A summary of currently triggered validation messages broken out by grid name and season is on the right side of the Home page.

GENERAL LAYOUT FOR DATA ENTRY PAGES

REQUIRED COLUMNS

Required columns are designated in EDST with an asterisk (*).

COMMON COLUMNS

These columns are present in all data entry grids and are not editable by Participants.

Tip: These columns should always be left blank when using the import function to add new records to a grid from Excel.

SPP VERIFIED

This column indicates whether a record has passed Program Operator validations. After validations are complete, a “NO” in this column means that the record needs more attention, whether it is an issue with the data entered or documentation linked. Work with the Program Administrator and Program Operator to correct these records during the cure period.

RECORD KEY

Combined with the season and grid, this is a unique identifier for each record entered by data submitters.

MODIFIED BY

This column shows the name of the user who last modified a record.

MODIFIED DATE

This column shows the date and time when a record was last modified.

VERIFIED BY

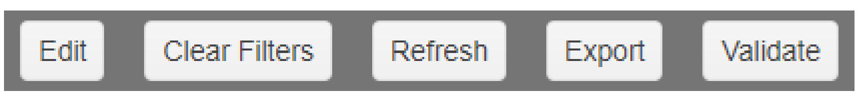
This column shows the username of the Program Operator staff who changed the "SPP Verified" column to "Yes" for a record.

VERIFIED DATE

This column shows the date and time when Program Operator staff changed the "SPP Verified" column to "Yes" for a record.

DATA ENTRY

Every data entry grid uses the same mechanics and has these buttons at the top right.



EDIT

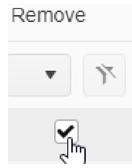
Clicking "Edit" will allow you to make changes to existing records in this grid, or take any of these other actions:

ADD

Click this button to add a blank record to the grid.

REMOVE

Click this button to select records that you would like to remove from the grid.



After selecting all records that need to be removed, click Delete and then Confirm.

Tip: Once a record is deleted, it cannot be recovered and the record key associated with it cannot be used again. Create an export of the grid as a backup before removing any records. This way any records that are mistakenly removed can be added back to the grid as new records.

SAVE

Click this button to save updates to data in the grid.

Tip: If the save operation is being blocked because of missing data, look at the “Validation Error” grid that appears below the data entry grid for information regarding which columns need data.

CANCEL

Click this button to cancel all changes made since the “Edit” button was clicked.

CHOOSE FILE

Click this button to select an Excel file to import.

Tip: For a successful import, use an export of the grid as a starting point to import new records or changes to existing records.

IMPORT

Click this button to import the data in the selected file to the grid.

Tip: The full import process is:

1. Export the grid to use as a template, and be sure to maintain formatting that is consistent with the exported grid.
2. Make updates to existing records or add new records to the exported Excel file.
3. Save the Excel file.
4. In the grid, click “Edit, then “Choose File”.
5. Select the file you just edited and saved, then click “Import”.
6. If everything in the grid looks like you expect it to after importing, click “Save”.

CLEAR FILTERS

Click this button to clear all filters applied to the grid.

Tip: If you aren't sure why all of your data isn't visible, try clicking this button to see if a filter is still being inadvertently applied.

REFRESH

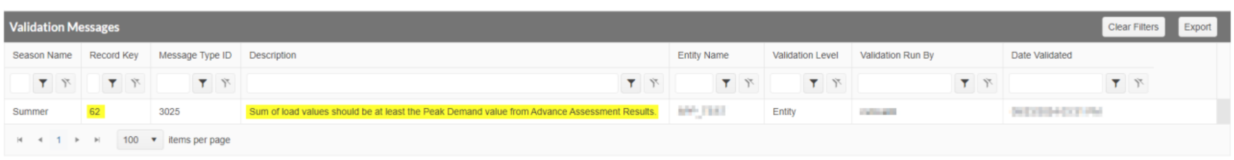
Click this button to refresh the data in the grid.

EXPORT

Click this button to export the data in the grid to Excel.

VALIDATE

Click this button to run automated validations on the data in the grid. If any validations are triggered, a new "Validation Messages" grid will appear below that contains information about which record is causing the message and what the issue is. This grid can be exported and filtered for easier viewing.



DOCUMENT LINKING

In each grid where document records can be linked to data records, the rightmost column is called "Linked Documents".

Click Documents to map a document to this record and view any existing document links.

CREATE NEW DOCUMENT LINK

To create a new link between document and data records, click Add Document Link. Select the appropriate season and then select the document you want to link.

Document record links to data records are retained from year to year, so users only need to upload new files to the document records as updates are needed.

Troubleshooting tip: Documents available to link to records on each data entry page are limited by "Document Type". For example, a Joint Contract Accreditation Form (JCAF) should be linkable to records in the Facility and Contracts & Obligations grids. Open an RMS ticket and provide as much information as possible if a document is not selectable for a record where you need to create a link.

VIEW EXISTING DOCUMENT LINKS

If any document links exist for this record, information about that document can be seen in the "Documents Associated with Record" grid. See the "Forms & Attestation Documents" section for directions on how to view all records that a document is associated with.

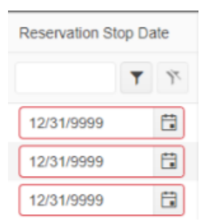
Click on the hyperlink in the "File" column to download the document.

Click Remove Link to unlink a document with this record.

COLOR CODING

Green shading indicates columns that can be edited, not necessarily required. For dates, the date format in the textbox and the date picker indicated that they can be edited.

A red border indicates a date value that is out of range, but this is informational and will not block saving records.



EMAIL NOTIFICATION FOR CHANGES TO SHARED RECORDS

Records may be shared between Participants on the Facility Management and Contracts & Obligations pages. When one Participant updates a shared record, the other Participant(s) will receive an email notification noting all shared records that have been updated in the previous day. These emails are sent out daily at 5:00 PM PT and cover the previous 24 hours.

FS SUBMITTAL PROCESS IN EDST

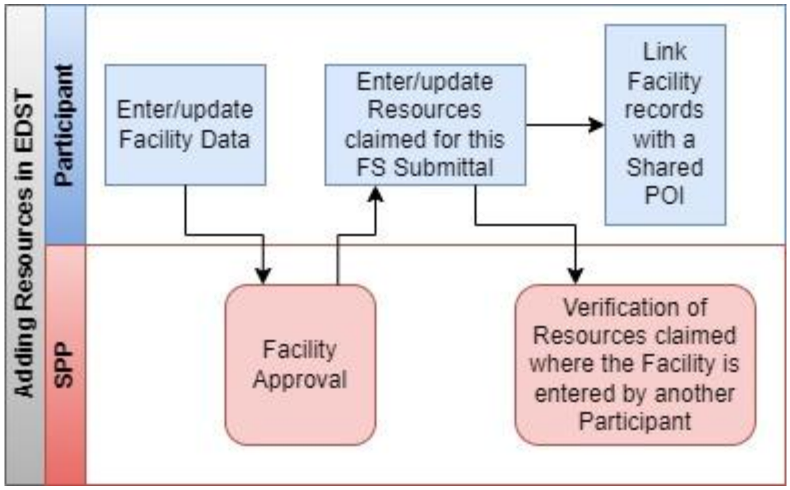
RECOMMENDED SUBMITTAL ORDER

1. Load and TSR Information
    a. Start here to master data entry mechanics in EDST.
    b. Data entered on these pages is referenced on other pages listed below.
2. Facility Management and Resources (see more information in "Process for Adding Resources" section)
    a. Data entered on these pages is referenced on other pages listed below.
3. Remaining Data Entry Pages
    a. Additional Planned Outages
    b. Contracts & Obligations
    c. Generator Test Results
    d. Storage Hydro Forced Outages
    e. TSR Mapping
4. Forms & Attestation Documents upload and mapping

For a full overview of the submittal and validation process, see Appendix 1.

PROCESS FOR ADDING RESOURCES

Facility information that does not change based on season or resource ownership is entered on the Facility Management page, while the season and Participant-specific information is entered on the Resources page. In order to protect data confidentiality and avoid duplication of efforts by Participants who share ownership of a Resource, coordination with SPP is necessary when adding Facility records or claiming part ownership of a Jointly Owned Unit (JOU).

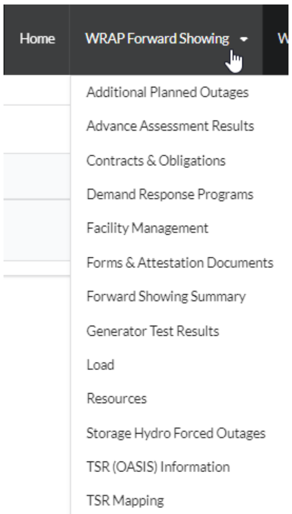


Follow these steps to enter resource information in EDST:

1. Add a record to the Facility grid for each resource that will be submitted for QCC in the FS Submittal.
2. Open an RMS ticket to let the SPP FS team know that there are Facility records ready for approval.
3. Once SPP staff have approved the new Facility records, they may be used to create records in the Resources grids where monthly QCC values are entered. Hybrid/collocated resources may now be linked together in the Facility Linking grid on the Facility Management page.
4. Any Resources records that use the “Facility Name” from a Facility record entered by another Participant must be verified by SPP before the Facility record can be viewed. Open an RMS ticket to let the SPP FS team know if you need access to Facility information that was entered by another Participant.

WRAP FS PAGES

WRAP FORWARD SHOWING



ADDITIONAL PLANNED OUTAGES

This page is used to submit Additional Planned Outages not reported on the Resources page.

ADDITIONAL PLANNED OUTAGES SUMMER AND WINTER GRIDS

LAST MODIFYING PARTICIPANT

Select the Participant you are submitting data for.

FACILITY NAME

Select the facility you are entering a planned outage for. This dropdown menu is populated with facilities in your Facility grid where “Approved” = “Yes”.

MONTHLY PLANNED OUTAGE QCC VALUES

Enter the monthly QCC value of the planned outage for each month of the applicable season. As an example, if Facility A has a 100 MW QCC value entered on the Resources page, and there is a 25 MW planned derate for the month of January, then 0 MW can be entered in these columns for all months except January, which will be populated with 25 MW to account for the planned derate.

ADVANCE ASSESSMENT RESULTS

Participants can use this page to view the Advance Assessment Results provided by SPP for the current submittal season.

MONTHLY QCC RESULTS GRID

PARTICIPANT

Shows your account's Assigned Entity/Entities.

RESOURCE ID

Shows the "Record Key" from your Entity's record for this facility on the Resources page.

Note that "Record Key" is not shared between Resources records. All Recourses records have their own unique "Record Key", regardless of whether they are in the Summer or Winter Resources grids or reference the same Facility record.

FACILITY

Shows the "Facility Name" from the associated record in the Facility grid.

PRIME MOVER

Shows the "Prime Mover" from the associated record in the Facility grid.

ENERGY SOURCE

Shows the "Energy Source" from the associated record in the Facility grid.

FUEL TYPE

Shows the "Fuel Type" from the associated record in the Facility grid.

NAMEPLATE CAPACITY

Shows the "Nameplate or Max Capacity (MW)" from the associated record in the Facility grid.

MONTHLY QCC RESULTS

Shows the max QCC that can be claimed for this facility for this month, accounting for decremented amounts where "Insufficient Outage Data" = "YES".

INSUFFICIENT OUTAGE DATA

A "YES" in this column indicates that not enough historical data were submitted to receive full accreditation for this facility, and QCC values have been decremented per BPM 105.

SEASONAL QCC RESULTS GRID

PARTICIPANT

Shows your account's Assigned Entity/Entities.

RESOURCE ID

Shows the "Record Key" from your Entity's record for this facility on the Resources page.

Note that "Record Key" is not shared between Resources records. All Recourses records have their own unique "Record Key", regardless of whether they are in the Summer or Winter Resources grids or reference the same Facility record.

FACILITY

Shows the "Facility Name" from the associated record in the Facility grid.

PRIME MOVER

Shows the "Prime Mover" from the associated record in the Facility grid.

ENERGY SOURCE

Shows the "Energy Source" from the associated record in the Facility grid.

FUEL TYPE

Shows the "Fuel Type" from the associated record in the Facility grid.

SUMMER/WINTER MAX CAPACITY

Shows the seasonal Max Capacity reported for this facility in the Advance Assessment.

SUMMER/WINTER EFOF %

Shows the seasonal EFOF% calculated during the Advance Assessment, or the class average if applicable.

SUMMER/WINTER QCC

Shows the max QCC that can be claimed for this facility for any month during the selected season, accounting for decremented amounts where "Insufficient Outage Data" = "YES".

INSUFFICIENT OUTAGE DATA

A "YES" in this column indicates that not enough historical data were submitted to receive full accreditation for this facility, and QCC values have been decremented per BPM 105.

P50 PEAK DEMAND GRID

PARTICIPANT

Shows your account's Assigned Entity/Entities.

MONTHLY PEAK DEMAND VALUES

Shows the monthly P50 values calculated during the Advance Assessment.

PRM RESULTS GRID

PARTICIPANT

Shows your account's Assigned Entity/Entities.

MONTHLY PRM VALUES

Shows the monthly PRM value used to calculate the Forward Showing Capacity Requirement.

CONTRACTS & OBLIGATIONS

This page is used to submit Contracts and Obligations between the submitting Participant and any other Participant or external Entity for purposes of meeting the Forward Showing Capacity Requirement. The transactions would need to be for anything within or during the dates of the applicable Binding Season. Contracts beyond those dates may be omitted for the applicable season and be provided in future FS Submittals. Resource Specific purchases from a non-Participant should be entered in the Resources page, since the resource will need to be registered to receive QCC values. Sales should be entered on this page as well but will not be required for demonstrating transmission service.

INTERNAL CONTRACTS & OBLIGATIONS RECORDS

Contracts & Obligations records where the Seller and Purchaser are both Participants ("WRAP Footprint Ref" = "Internal") are shared between these Participants. This means that Contracts &

Obligations records added by one Participant will be added to the counterparty's Contracts & Obligations grid(s).

Contracts & Obligations records where both "Selling Entity" and "Purchasing Entity" are Participants should be added by the Participant who is responsible for submitting the JCAF.

CONTRACTS & OBLIGATIONS SUMMER AND WINTER GRIDS

TRANSACTION TYPE

Select the appropriate Transaction Type for each record.

- Resource Specific
- System
- RA Transfer
- Contingency Reserve
    - Select this contract type to count the MW values in this row toward the Contingency Reserves Adjustment – Load value in the Forward Showing Summary report page per BPM 103.

SELLING ENTITY

Select the selling WRAP Participant's name for this transaction. If the seller is not a WRAP Participant, select "Non-WRAP", and add a note to the "Comments" field with, at a minimum, the name of the Non-WRAP counterparty and the source Balancing Authority Area (BAA) of the transaction. For example: "Counterparty is Big Fans, LLC and VER resource is located in ....'s BAA".. Other details may also be added as necessary.

PURCHASING ENTITY

Select the purchasing WRAP Participant's name for this transaction. If the purchaser is not a WRAP Participant, select "Non-WRAP", and add a note to the "Comments" field with, at a minimum, the name of the Non-WRAP counterparty and the sink BAA of the transaction. For example: "Counterparty is City of Smallville located in located in ....'s BAA". Other details may also be added as necessary.

CONTRACT IDENTIFIER

This column is used to assign an individual identity to each contract being submitted. It uses a combination of the Transaction Type, Selling Participant, Purchasing Participant, and Record Key. The Contract Identifier will be used in the TSR Mapping page when mapping purchases to load through any Transmission Paths. This field should not be edited by the Participant as it is automatically populated.

WRAP FOOTPRINT REF

Select the WRAP Footprint Reference.

- Internal
  - Both Seller and Purchaser are WRAP Participants.
- External
  - Either the Seller or Purchaser are not WRAP Participants.

FACILITY NAME (RESOURCE SPECIFIC)

Required for Resource Specific contracts, select the name of the facility that the sale is for.

PERFORMANCE OR OUTAGE RISK ASSUMED BY PURCHASER

Select "Yes" if the monthly transaction MW values (VER resources) or Forced Outage MW (Thermal or Storage Hydro resources) from the resource(s) included in this contract should be transferred to the Purchaser's Operations performance calculations.

CONTINGENCY RESERVE OBLIGATION ASSUMED BY PURCHASER

Select "Yes" to exclude contracts from the "Contingency Reserves Adjustment – Gen" calculation in the Forward Showing Summary report. Submitters should consider "Yes" to be the default selection unless they know a contract should be included in Contingency Reserve adjustment calculations.

START DATE

Provide the start month and year for the contract or agreement. This assumes that the first day of the contract is the first day of the month entered.

END DATE

Provide the end month and year for the contract or agreement. This assumes that the last day of the contract is the last day of the month entered, or at least the last day of the Binding Season for March and September.

POR FOR TSR MAPPING

Enter the Point of Receipt on the transmission system for where a purchase is sourced from. This **should reflect the POR from the purchaser's perspective** since this column will be used to verify the purchasing contract mapped in the TSR Mapping page matches the Point of Receipt of the first Transmission Path in order to complete a Transmission Path from the purchase to the load. This column should reflect OASIS information if possible.

CONTRACTED CAPACITY (MW)

The Contracted Capacity submitted should reflect the contracted MW listed in the agreement. This information should be supported by the JCAF and will be verified by the PO.

MONTHLY AMOUNT (MW)

Enter the monthly transaction amount of the contract submitted in the workbook. If applicable, these values should reflect the QCC values of the contract. This information should be supported by the JCAF and will be verified by the PO.

COMMENTS

Enter, if applicable, any additional comments about the submitted information.

FACILITY MANAGEMENT

This page is used to enter facility-level data that does not change based on ownership share, planned outages, etc.

FACILITY APPROVAL GRID

This grid is used by SPP staff to identify and approve newly added Facility records. This both provides an initial check for Facility records and helps to ensure that JOUs do not have more than one Facility record.

All records added to the Facility grid will show in the Facility Approval grid until SPP approves the new records. Once approved, the value in the "Approved" column in the Facility grid will change to "Yes", and this facility will be available in the dropdown menus on other pages that consist of approved facilities.

FACILITY GRID

Note: Only enter data for facilities that your Entity can submit testing information for. To see if a JOU has already been entered by another Participant, add a Resources record and search for the JOU name in the "Facility Name" dropdown. If you see the JOU, then it is already in the system. If you do not see the JOU and can submit testing information for it, then you can create the Facility record that will be referenced by the other Participant owners.

LAST MODIFYING PARTICIPANT

Select the Participant you are submitting data for.

FACILITY NAME

This column identifies the facility name of the resources. If possible, utilize the EIA-860 Plant Name given for US resources. Since Facility Name needs to be a unique value, part or all of the Generator ID can be appended to the Facility Name to avoid errors when adding Facility records. The latest list of EIA-860 information can be found at this location: https://www.eia.gov/electricity/data/eia860/

PLEASE NOTE: FOR RESOURCES WHERE YOUR ENTITY IS **NOT** THE SOLE OFFTAKER, IT IS RECOMMENDED TO FIRST CHECK IF THE FACILITY RECORD HAS ALREADY BEEN CREATED BY ANOTHER PARTICIPANT. YOU CAN DO THIS BY ATTEMPTING TO CREATE A RESOURCES RECORD. IF YOU SEE THE FACILITY NAME AS AN OPTION IN THE NEW RESOURCES RECORD, THEN THERE IS NO NEED TO CREATE A NEW FACILITY RECORD FOR THIS RESOURCE.EIA PLANT CODE

This column identifies the resource EIA-860 Plant Code. Use the latest list of EIA-860 information linked to in the Facility Name section.

EIA GENERATOR ID

This column identifies the resource EIA-860 Generator ID(s). Use the latest list of EIA-860 information linked to in the Facility Name section.

NAMEPLATE OR MAX CAPACITY (MW)

For Thermal resources report Max Capability, and Nameplate capacity for all other resources. This should reflect the entire amount of the facility, not just the portion owned or submitted for qualification in the workbook. For reference, the EIA-860 nameplate capacity should be used utilized as applicable for resources located in the US.

For Demand Response programs, report the max MW amount claimed for any month for this program.

STATUS

Select “Existing”. This is a holdover from design in another area of EDST and will be updated for WRAP in a future release.

INITIAL OPERATION DATE

Provide the month and year of the original effective date that the facility became operational (If possible, the operating year used in EIA-860 should be submitted for all resources within the US). For planned resources, enter the month and year the resource is projected to become operational.

PROJECTED RETIREMENT DATE

Provide the month and year for facilities that have been either formally announced or marked for retirement. Examples may include:

- Reliability, must run status and other issues may conflict with this proposed/requested retirement or conversion.
- Resources that have submitted a request for a generator deactivation request that have either been approved or waiting on approval.
- Resources expected to retire based on the result of a generator survey or resource adequacy study.

SUBREGION

Select the WRAP subregion that the facility is located in.

STATE OR TERRITORY

Enter the state acronym where the resource is physically located. For resources in Canada, enter the province or territory.

RESOURCE TYPE

This column identifies a resource's type as outlined in BPM 105. This is also how resources are grouped when calculating FS values for Operations. Options include:

- Thermal
- Storage Hydro
- Run of River
- Wind
- Solar
- Energy Storage
- Demand Response
    - Select this option for Demand Response Programs that are being submitted to count towards qualified capacity. Demand Response Programs submitted this way will be counted as a Resource.
    - Please indicate the program name in the "Facility Name" column.
- Other
    - Select this option for any resource type not covered in the rest of the list, such as Microgrids.

PRIME MOVER

Select from the predetermined dropdown list of EIA-860 Prime Mover identifiers located in Appendix 3. If specified as “Other (OT)” please explain the reasoning in the comments section.

ENERGY SOURCE

Utilize the predetermined dropdown list of fuel types used as the primary energy source to power the facility.

FUEL TYPE

This column identifies the type of generation for the facility based on the primary energy source entered. This field is not edited by the submitter, as it is automatically populated based on the selections for Prime Mover and Energy Source.

DR DURATION

For Demand Response programs, enter the program duration.

STORAGE DURATION

For Energy Storage Resources, enter the duration rating in hours.

IS LONG DURATION STORAGE

For Energy Storage Resources, this column automatically populates based on what the submitter enters for Storage Duration.

- Storage Duration < 8 hours
    - Is Long Duration Storage = “No”
- Storage Duration >= 8 hours
    - Is Long Duration Storage = “Yes”

SHARED POI

This will automatically change to “Yes” for each facility that is linked to other facilities in the “Facility Linking” grid.

IS HYBRID

Select “YES” if this is part of a hybrid facility as defined in BPM 105.

FACILITY LINKING

This will automatically populate with each Facility Name selected to link to this facility in the Facility Linking grid.

POI (MW)

This will automatically populate with the POI value entered in the Facility Linking grid for the group of linked facilities that include this facility.

TEST DATE

Automatically populated with the latest Capability Test date for the facility entered in the Generator Test Results page.

TEST NET (MW)

Automatically populated with the latest Capability Test Net MW of the facility entered in the Generator Test Results page. This is also the maximum capability a resource can be claimed as a QCC value. The Test Net MW should reflect the entire amount of the facility, not just the portion owned or submitted for qualification in the workbook.

NERC GADS AVAILABLE

Select "Yes" if the resource is registered with and reports data to NERC. This indicates that a Capability Test is required for thermal and long duration storage resources per BPM 105.

MUST TAKE

Select "Yes" to identify a resource as "must take" per BPM 105, Section 4.8.2. For thermal resources, this will exclude the resource from forced outage calculations and indicates that their QCC values are calculated by historical output on Capacity Critical Hours and not based on outage rates (see Option 1 in Section 4.2.3 of BPM105). If a Participant chooses Option #2 in BPM105 Section 4.2.3 for the determination of QCC for a must take thermal resource, this value should be set to "No".

COMMENTS

Enter, if applicable, any additional comments about the submitted information.

APPROVED

Indicates whether a Facility record has been approved by SPP staff in the Facility Approval grid above.

FACILITY LINKING GRID

Use this grid to link groups of hybrid or collocated resources behind a single Point of Interconnection (POI).

Note: Only Facility records where your Entity is the "Last Modifying Participant" and that have an associated Resources record can be linked. This is due to automated validations on the Resources page that reference the information entered in this grid.

PARTICIPANT

Select the Participant you are submitting data for.

FACILITIES

Select all facilities that are connected behind a single POI.

POINT OF INTERCONNECTION

Enter the MW value for the POI the selected facilities are located behind.

FORMS & ATTESTATION DOCUMENTS

This page is used to upload all supporting documents and materials required for an FS Submittal. For instructions on linking these documents to individual records, see the "Document Linking" section.

SELECT SUBMITTAL YEAR AND SEASON

Use the dropdown menus on the right-hand side of this section to select the season and year you would like to upload documents for.

PARTICIPANT OWNED DOCUMENTS

This grid contains all document records created by users with your Participant entity.

PARTICIPANT

Select the Participant you are submitting data for.

DOCUMENT NAME

Enter a descriptive name for the file you are about to upload. This does not have to be the exact name of the uploaded file, and will be what shows in the document linking dropdown menus.

Troubleshooting tip: When a new document record is saved, the "File Name" column concatenates "Document Name", "Participant", and Season-Year. If a new record is not saving correctly, try shortening the "Document Name" to avoid running into a character limit in the "File Name" column.

FILE NAME

This column automatically populates with a concatenation of "Document Name", "Participant", and Season-Year.

FILE OPERATIONS

Click Upload to upload a document to this record.

Click Remove to remove the file currently uploaded for this record

LAST UPLOADED

This reflects the date and time when a document was last uploaded for this record.

DOCUMENT TYPE

Select the appropriate document type for this record. This column determines which pages the document is available in for linking. See the "Document Types and Associated Pages" section below for more details.

COMMENTS

Enter, if applicable, any additional comments about the submitted information.

LINKED RECORDS

Click here to see which records this document have been linked to. The combination of Submittal Year, Season, Data Set, and Record Key points to each individual linked record.

ACCESSIBLE READ-ONLY DOCUMENTS

This grid contains all document records created by users with a different Participant entity that have been linked to a record shared by both their Participant entity and yours. Records and documents that show here can be viewed, but not edited.

DOCUMENT TYPES AND ASSOCIATED PAGES

DOCUMENT TYPE	REFERENCE	ASSOCIATED PAGES	INSTRUCTIONS
Attestation for 100% Off Take, Must Take Resources	BPM 106, Appendix D	Facility Management	Link to each Facility record where the "Must-Take" column is marked "YES" and the "Percent Owned" column is 100% .
Attestation in lieu of an Annual JCAF	BPM 106, Appendix C	Contracts & Obligations, Facility Management	Link to applicable Facility records that are not owned by the Participant or any Contracts & Obligations record that has a JCAF from a previous Season that is still applicable.
Catastrophic Resource Failure Exception Attestation	BPM 108, Appendix B	Facility Management	Link to applicable Facility records.
Contract & Non-NERC Resource Accreditation Worksheet	BPM 105	Facility Management	Link to each Facility record where the "NERC GADS Available" column is marked "NO" - Link to each Facility record where associated Resources records use the QCC values calculated by this worksheet
Demand Response Attestation	BPM 108, Appendix H	Facility Management	Link to each Facility record where "Demand Response" is selected in the "Resource Type" column.
Enduring Constraint Additional Attestation	BPM 108, Appendix D	TSR (OASIS) Information	Link to all TSR (OASIS) Information records where this attestation applies.
FS Demonstration Attestation	BPM 108, Appendix A	N/A	Upload to the Forms and Attestation Documents page.
JCAF	BPM 106	Contracts & Obligations, Facility Management	Link to applicable Facility records that are not owned by the Participant or any Contracts & Obligations record that does not have a Attestation in lieu of an Annual JCAF linked to it.
Load Exclusion Senior Official Attestation	BPM 103, Appendix B	Load	Upload to the Forms and Attestation Documents page.

			SPP suggests leaving a comment in the "Comments" column on the Load page for the associated Load record
Miscellaneous	Various BPMs	Contracts & Obligations, Facility Management, Additional Planned Outages, TSR (OASIS) Information, Capability Test Results, Operational Test Results	This document type can be linked to all records on all pages where linking is allowed in order to support a record.
Non-GADS QCC Calculation Attestation	BPM 108, Appendix F	Facility Management	Link to each Facility record where the associated Resources records get QCC from the Contract & Non-NERC Resource Accreditation Worksheet
Operational Test Results	BPM 105	Operational Test Results	Link Operational Test evidence documents to each Operational Test Results record for both Summer and Winter Seasons.
P50 Load Forecast Modifications Senior Official Attestation	BPM 103, Appendix A	Load	Upload to the Forms and Attestation Documents page. SPP suggests leaving a comment in the "Comments" column on the Load page for the associated Load record
Senior Official Attestation – ETD	BPM 109, Appendix A	N/A	Upload to the Forms and Attestation Documents page.
Senior Official Attestation – No-JCAF Option	BPM 109, Appendix B	Facility Management, Contracts and Obligations	Link to any Resource or Contracts & Obligations record where a legacy agreement applies.
Planned Outages Attestation Form	BPM 108, Appendix E	Additional Planned Outages	Link to all Additional Planned Outages records.
Storage Hydro Attestation	BPM 108, Appendix I	Facility Management	Link to each Facility record where Storage Hydro is selected in the "Resource Type" column.
Storage Hydro QCC	BPM 105	Facility Management	Link to each Facility record where Storage Hydro is selected in the "Resource Type" column in order to have correct

			QCC values in the Advance Assessment page
Transmission Exemption Form	BPM 108, Appendix C	TSR (OASIS) Information	Link to all TSR (OASIS) Information records where the "Exception Requested" column is marked "Yes".
Transmission Rights Attestation	BPM 108, Appendix J	TSR (OASIS) Information	Link to all TSR (OASIS) Information records where the "OASIS Ref Number" column does not contain an AREF that can be looked up in OASIS or in a NITSA provided by the Participant.
Combined Attestation	BPM 103, BPM 106, BPM 108, BPM 109	Load, Facility Management, Contracts and Obligations, Additional Planned Outages, TSR (OASIS) Information	Link to all records on all pages where a supporting Attestation contained in this document is required.

FORWARD SHOWING SUMMARY

The information shown on this page demonstrates if the Participant has met the FS Capacity Requirement for each month of the applicable Binding Season.

RUN FS SUMMARY REPORT

1. In the top right corner of the page, select your Participant, then the year and season for which you would like to view the FS Summary report.
2. Click Show Report to view the report on the page.
3. Click Export to export the report as a PDF.

CHARTS (CAPACITY AND OBLIGATION SUMMARY; TRANSMISSION DEMONSTRATION SUMMARY)

These charts are a graphical representation of the data in the grids on the page below.

CAPACITY SUMMARY

RESOURCES

The total QCC of all facilities provided for this season on the Resources page by month.

DEMAND RESPONSE (DR) PROGRAMS

The total QCC of all Demand Response programs provided for this season on the Resources page by month.

CONTRACT PURCHASES AND SALES

The total amount of purchases or sales for this season from the Contracts & Obligations page by month. The types of contracts considered in the calculation are listed below.

- Resource Specific
- System

RA TRANSFER PURCHASES AND SALES

The total amount of RA Transfer purchases or sales for this season from the Contracts & Obligations page by month.

ADDITIONAL PLANNED OUTAGES

The total QCC of planned outages of all facilities provided for this season on the Additional Planned Outages page by month.

TOTAL PORTFOLIO QCC

The total QCC calculation summarizes all values under the Capacity Summary section. The values considered and the associated equation is as follows:

- Adds: Resources, Demand Response (DR) Programs, Contract Purchases, RA Transfer Purchases
- Subtracts: Contract Sales, RA Transfer Sales, Additional Planned Outages

LOAD SUMMARY

LOAD

The summation of all non-exempt loads for this season provided on the Load page by month.

DEMAND RESPONSE (DR) PROGRAMS

This line is a holdover from design based on a draft version of BPM 106. Until it can be updated in a future release, this line will always show a value of “0”.

TRANSMISSION DEMONSTRATION SUMMARY

FS CAPACITY REQUIREMENT

This row reflects the “FS Capacity Requirement” values shown in the Requirements Summary grid.

TRANSMISSION DEMONSTRATED (COMPLETED PATHS)

The summation of all paths marked complete for this season in the TSR mapping page by month.

TRANSMISSION EXCEPTION REQUESTED

The summation of all Transmission Exception requested for this season in the TSR mapping page by month.

% TRANSMISSION DEMONSTRATION OF FS CAPACITY REQUIREMENT

The amount of Transmission Demonstrated calculated as a percentage of the Load + PRM by month.

% TRANSMISSION DEMONSTRATION INCLUDING EXCEPTIONS

The amount of Transmission Demonstrated calculated as a percentage of the Load + PRM by month while including Transmission Exceptions.

TRANSMISSION DEMONSTRATION REQUIREMENT (%)

The minimum percentage of the “FS Capacity Requirement” that must be demonstrated with firm transmission service. Currently, the program requirement is 75%.

TRANSMISSION REQUIREMENT MET

A validation of the “% Transmission Demonstration Including Exceptions” compared to the “Transmission Demonstration Requirement (%)”. If the percentage demonstrated is greater than or equal to the requirement, then the value will be “Yes”. If less than the requirement, the value will be “No”.

REQUIREMENTS SUMMARY

PROGRAM MONTHLY PRM (PLANNING RESERVE MARGIN)

The program's monthly PRM for the applicable Participant and season.

If your Forward Showing Summary report appears to have the incorrect monthly PRM percentages or if your entity is using Tariff section 14.2.1.2 to claim different monthly PRM percentages, please open an RMS ticket to request an update.

FS CAPACITY REQUIREMENT – UNADJUSTED

"Load" multiplied by 1 plus the monthly PRM requirement (addition of the PRM requirement).

CONTINGENCY RESERVES ADJUSTMENT – GEN

Considers the adjustment of Contingency Reserves in the "FS Capacity Requirement". For Resource Specific and System contracts where "Contingency Reserve Obligation Assumed by Purchaser" is "Yes", 3% is multiplied by the Participant's internal sales less all purchases from the Contracts and Obligations page. If the Participant has a positive net value, it means the Participant is a net exporter and 3% of the net amount will be added to their obligation. If the Participant has a negative net value, the Participant is a net importer and 3% of the net value will be subtracted from their obligation.

CONTINGENCY RESERVES ADJUSTMENT – LOAD

The total amount of Contingency Reserve Contract Purchases or Sales (usually for load obligations) from the Contracts & Obligations page by month. If the Participant has a positive value, the Participant is selling (providing) load CR and the resulting value will be added to their obligation. If the Participant has a negative value, the Participant is purchasing (obtaining) load CR and the resulting value will be subtracted from their obligation since the selling Participant has the contractual load CR obligation.

OPS CR REQUIREMENT (INFORMATIONAL)

The summation of "Load" multiplied by 6%, "Contingency Reserves Adjustment – Gen" and "Contingency Reserves Adjustment – Load". This is an informational field for Operations and is neither added nor subtracted to any other values in the FS Summary report.

FS CAPACITY REQUIREMENT

The summation of "FS Capacity Requirement – Unadjusted", "Contingency Reserve Adjustment – Gen", and "Contingency Reserve Adjustment – Load" by month.

SURPLUS/DEFICIENT CAPACITY

The difference between the “Total Portfolio QCC” and the “FS Capacity Requirement” by month. If the “Total Portfolio QCC” is greater than the obligation, the value will show a surplus and the Participant has met the requirement. If less than the “FS Capacity Requirement”, the value will show as deficient, and the Participant has not met the requirement.

FORWARD SHOWING REQUIREMENT MET

A validation to verify if the Participant has met both the “Transmission Demonstration Requirement (%)” and the “FS Capacity Requirement”. If one or both are not met, this value in this field will state “No”. Once both requirements are met, the value will state “Yes”.

GENERATOR TEST RESULTS

This page is used to submit Capability Test and Operational Test values for each Facility record that the Participant is claiming QCC for.

OPERATIONAL TEST RESULTS SUMMER AND WINTER GRIDS

LAST MODIFYING PARTICIPANT

Select the Participant you are submitting data for.

FACILITY NAME

Select the facility you are entering test results for. This dropdown menu is populated with facilities in your Facility grid where “Approved” = “Yes”.

RESOURCE TYPE

Automatically populated with the “Resource Type” in the Facility record for the “Facility Name” selection.

FUEL SOURCE

Automatically populated with the “Fuel Source” in the Facility record for the “Facility Name” selection.

OPERATIONAL TEST NET MW

Enter the Operational Test Net MW results for this facility based on the 12-month period prior to the FS Submittal due date.

OPERATIONAL TEST DATE

Enter the Operational Test Date that corresponds to the "Operational Test Net MW" value entered.

OPERATIONAL TEST DURATION (MIN 1 HR)

Enter the Operational Test Duration that corresponds to the "Operational Test Net MW" value entered. Test duration should be at least 1 hour.

COMMENTS

Enter, if applicable, any additional comments about the submitted information.

CAPABILITY TEST RESULTS SUMMER AND WINTER GRIDS

Test results should be recorded in the grid that corresponds to the season that the test was conducted. Capability Test results recorded in the "Capability Test Results Summer" grid will be used by Winter validations unless a facility has a Winter test result recorded in the "Capability Test Results Winter" grid. See BPM 105 for more details on Capability Test requirements.

LAST MODIFYING PARTICIPANT

Select the Participant you are submitting data for.

FACILITY NAME

Select the facility you are entering test results for. This dropdown menu is populated with facilities in your Facility grid where "Approved" = "Yes".

RESOURCE TYPE

Automatically populated with the "Resource Type" in the Facility record for the "Facility Name" selection.

FUEL SOURCE

Automatically populated with the "Fuel Source" in the Facility record for the "Facility Name" selection.

CAPABILITY TEST NET MW

Enter the Capability Test Net MW results for this facility.

ADJUSTED CAPABILITY TEST NET MW (SUMMER GRID ONLY)

Shows “Capability Test Net MW” value adjusted for a “Capability Recorded Dry-Bulb Temp” value between 10 – 20 degrees below the “ASHRAE Rated Ambient Temp” value, if applicable per BPM 105.

CAPABILITY TEST DATE

Enter the Capability Test Date that corresponds to the “Operational Test Net MW” value entered.

CAPABILITY TEST DURATION (MIN 1 HR)

Enter the Capability Test Duration that corresponds to the “Operational Test Net MW” value entered. Test duration should be at least 1 hour.

CAPABILITY RECORDED DRY-BULB TEMP

Enter the ambient dry-bulb temperature recorded during the Capability Test.

ASHRAE RATED AMBIENT TEMP

Enter the station ASHRAE Rated Ambient Temperature applicable to this Capability Test. At the time of testing, the most recent version of the ASHRAE Fundamentals Handbook shall be utilized.

WEATHER STATION NAME

Enter the name of the station referenced for “ASHRAE Rated Ambient Temp”.

TEST PERFORMED BY (INITIAL)

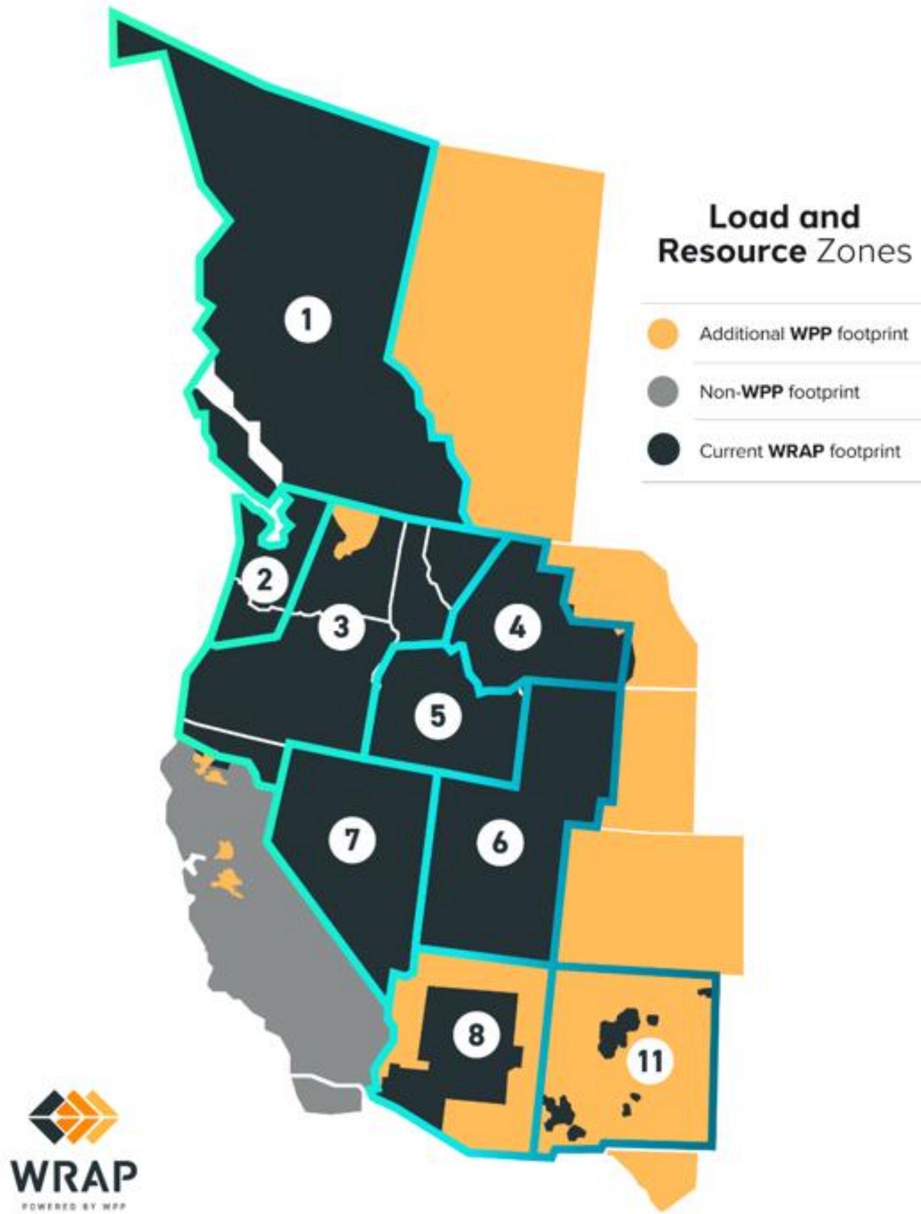
Enter the initials of the person who performed the Capability Test.

COMMENTS

Enter, if applicable, any additional comments about the submitted information.

LOAD

This page is used to submit values for each Load that the Participant is responsible for serving.



Zone designation	General description	Participants located in zone	Transmission paths identified as constraints to imports and exports
Zone 1	British Columbia	PWX	Path 3
Zone 2	Western Washington, Northwest Oregon	BPAP, CESR, CLSK, EWEB, NEI1, PACW, PGEM, PSEM, SCL, Shell, SNPD, TPWR	Path 4, Path 5, Dixonville
Zone 3	Eastern Washington and Oregon, Southwest Oregon, Northern Idaho	AVA, BPAP, CESR, CHPD, GCPD, IPC, PACW, PSEM, Shell, TEA	Path 3, Path 4, Path 5, Dixonville, Path 66, Path 76 Path 14/75, Path 8
Zone 4	Montana	BPAP, NWDS, Shell	Path 8, Path 18, Path 80
Zone 5	Southern Idaho	BPAP, IPC, PACE	Path 14/75, Path 16, Path 18, Path 19, Path 20
Zone 6	Wyoming, Utah	BPAP, PACE	Path 19, Path 20, Path 29, Path 80
Zone 7	Nevada	BPAP, NVE, Shell	Path 16, Path 29, Path 76
Zone 8	Arizona	APS, SRP, TEPC	Various paths separating Arizona from the rest of the WRAP footprint
Zone 11	New Mexico	PNM	Various

LOAD SUMMER AND WINTER GRIDS

PARTICIPANT

Select the Participant you are submitting data for.

LOAD NAME

Enter the Load Name. Load within different WRAP Load and Resource Zones must be entered as separate records for the purposes of TSR mapping across the identified constraints.

The name assigned to the load is for identification purposes. This name will be used in the TSR Mapping page to demonstrate transmission service by mapping the load to one or multiple resources using the transmission reservation information from the TSR(OASIS) Information page. If the total amount of network load under a Network Integrated Transmission Service Agreement is being entered for a line item, the delivery point and load name can be identified as "[entity name] Network Load" as an identifier.

SUBREGION

Select the WRAP subregion that the load is located in.

ZONE

Enter the Load Zone number that the load is located in.

BALANCING AUTHORITY

Enter the balancing authority area for which the load is located. This information can be reported as an acronym of the BA or spelled out.

DELIVERY POINT FOR TRANSMISSION MAPPING

The delivery point on the transmission system for where the load is located. This column will be used to verify that the last leg mapped to the load in the TSR Mapping page matches the delivery point of the last Transmission Path in order to ensure a complete a transmission path from the resource (or multiple resources) to the load has been demonstrated. This column should reflect OASIS Information. If the total amount of network load under a Network Integrated Transmission Service Agreement is being entered for a line item, the delivery point and load name can be identified as "[Participant name] Network Load" as an identifier.

EXEMPT

Select "Yes" to exclude loads with an attestation per BPM 103.

MONTHLY PEAK DEMAND

Peak Demand (Forecasted): The seasonal forecast demand as determined by the Load Forecasting methodology will be used for the LRE's peak month. The off-peak month's forecast will be determined using the load forecast ratio provided by the Program Operator.

COMMENTS

Enter, if applicable, any additional comments about the submitted information.

RESOURCES

Resources entered on this page should include all plants and resources fully or partially owned by the reporting LRE that are planned to be used for meeting the Forward Showing Capacity Requirement. This page should only contain resources projected to be utilized for the applicable Binding Season. All future resources beyond the Binding Season should not be included until it comes time to use these resources for the applicable Binding Season.

Long term Power Purchase Agreements (PPAs) for facilities or smaller resources not directly owned by the LRE should be included in this page as well. As examples, a smaller behind the meter resource from an individual city, Qualifying Facility (QF), multi-year PPA for capacity on a wind or solar facility, etc. Resource Specific contracts with another Participant and all System purchases and sales of capacity should be entered on the Contracts & Obligations page.

For hybrid resources, resource components should be entered separately, matching the Facility grid (i.e. solar a separate line item from a battery), and the facility limitation (POI) should be considered when submitting the QCC for each component.

RESOURCES SUMMER AND WINTER GRIDS

PARTICIPANT

Select the Participant you are submitting data for.

FACILITY NAME

Use the dropdown menu to select the facility you want to claim QCC for. This menu contains all approved facilities in the system, including those entered by other Participants.

Once SPP staff verify Resources records that claim an ownership share of facilities submitted by other Participants, those facilities will display in the submitter's Facility grid.

OWNERSHIP COMPANY

Enter the company name for the portion of the facility being submitted on the Resources page. For reference, the EIA-860 information should be used utilized as applicable for resources located in the US.

RESOURCE IDENTIFIER

This column is used to assign an individual identity to the resource being submitted. It automatically populates with a combination of the facility name and ownership company. This column will be used in the TSR Mapping page when mapping resources to load through any Transmission Paths. If there is a need for using a Transmission Group Name for transmission mapping purposes, the group name will be used in the TSR Mapping page instead of the Resource Identifier.

PERCENT OWNED

Enter the percentage owned or contracted of the facility. This should also include any Power Purchase Agreements where the Participant has fully contracted for the capacity from a facility but not include short term Power Purchase Agreements with another Participant. For example, if the Participant has a PPA with a wind developer, solar developer, or city that has local generation for an extended period of time (i.e. 15 years or life of the facility) then that percentage should be listed here.

PERFORMANCE OR OUTAGE RISK IN CONTRACT

Select “Yes” if the over/under performance (VER resources) or forced outage (Thermal or Storage Hydro resources) calculations using this resource should be adjusted because of a Sale on the Contracts & Obligations page. Selecting “Yes” indicates that the selling Participant wishes to adjust the “over/under” performance or forced outage calculations in the Operations Program for at least a percentage of this resource. The exact percentage of the adjustment for this resource should be noted in the Shared Resource Form (see Appendix 2 for more information).

POINT OF RECEIPT

The POR on the transmission system for where the facility is located. This column will be used to verify the facility mapped in the TSR Mapping page matches the POR of the first transmission path in order to complete a Transmission Path from the resource (or multiple resources) to the load. This column should reflect OASIS Information. If the facility is chosen to be grouped with other facilities for the purposes of transmission mapping, for reasons of Network Integrated Transmission Service Agreement or other reasons, the POR for all resources grouped together should be the same.

TRANSMISSION RESOURCE GROUP

This column is used for the TSR Mapping page and is optional if a Participant chooses to combine multiple facilities together for sales and transmission mapping purposes. For facilities grouped together, they should contain the same POR and same Resource Group Name.

MONTHLY QCC

Enter the monthly Qualify Capacity Credit (QCC) of the resource being submitted. The QCC value should reflect the percentage owned or contracted from a facility. For example, for a Participant that owns 20% of a 100 MW QCC facility, the amount entered for the Monthly QCC value would be 20 MW. For facilities that have a seasonal QCC value, the same QCC value can be entered for all months. Outages or derates should be entered on the Additional Planned Outages page.

QCC values will be provided by the Program Operator for Thermal resources, Variable Energy Resources, and Run of River hydro resources. For Storage Hydro resources, the LRE will calculate the QCC monthly values using the hydro QCC methodology workbook and upload for the PO to review (see “Forms & Attestation Documents” section).

COMMENTS

Enter, if applicable, any additional comments about the submitted information.

STORAGE HYDRO FORCED OUTAGES

This page is used to submit Storage Hydro Forced Outage values for the Forward Showing data provided to Operations.

STORAGE HYDRO FORCED OUTAGES SUMMER AND WINTER GRIDS

LAST MODIFYING PARTICIPANT

Select the Participant you are submitting data for.

RESOURCE IDENTIFIER

Select the Resource Identifier for the Resources record you want to submit Forced Outage values for.

PERCENT OWNED

Automatically populated with the “Percent Owned” value from the Resources grids based on the “Resource Identifier”.

MONTHLY FORCED QCC MW VALUES

Enter the Forced QCC MW values from the Storage Hydro Workbook for this facility.

Note: These values should reflect the Forced QCC MW for the entire facility, regardless of your ownership share.

"OWNED" MONTHLY FO QCC MW VALUES

The calculation in these columns adjusts "Monthly Forced QCC MW Values" for "Percentage Owned".

COMMENTS

Enter, if applicable, any additional comments about the submitted information.

STORAGE HYDRO FORCED OUTAGES TOTALS SUMMER AND WINTER GRIDS

Note: These grids are read only.

PARTICIPANT NAME

Shows your Participant shortname.

MONTHLY FO QCC MW VALUES

This calculation shows the submitter's total Forced Outages for their Storage Hydro resources for each month.

TSR (OASIS) INFORMATION

This page is used to submit the transmission service reservation information from OASIS that will be used to meet the firm transmission service requirement of the program. Only reservations pertaining to the Binding Seasons visible on the page should be provided here. Future reservations should be provided in future FS Submittals.

LAST MODIFYING PARTICIPANT

Select the Participant you are submitting data for.

OASIS REF NUMBER

Enter the Ref or OASIS reservation number, if available, for the reservation. This column will be used in the TSR Mapping page to demonstrate the complete service path from the Resource(s) to the Load(s). If the Network Integrated Transmission Service Agreement is being entered for a line item, the assigned reference name can be “[entity name] Network Service” as an identifier. Multiple OASIS reservations can be combined into one line item if the TSP, POR, POD, Source, Sink, NERC Priority, Service Type, and Path are all the same and the reservation start or end time does not begin or end during the middle of the applicable binding season which the data is being provided.

EXCEPTION REQUESTED

Identifies if there is a program exception requested for the transmission service path. Exceptions will need to be requested to and validated by the PO using the Transmission Exception Request Form.

TSP

Enter the Transmission Service Provider listed in the OASIS Reservation.

POR

Enter the Point of Receipt listed in the OASIS Reservation.

POD

Enter the Point of Delivery listed in the OASIS Reservation.

SOURCE

Enter the Source listed in the OASIS Reservation.

SINK

Enter the Sink listed in the OASIS Reservation.

NERC PRIORITY

Select from:

- 7F
- 7FN
- 6NN

SERVICE TYPE

Automatically populates based on "NERC Priority" selection.

- 7F priority = PTP Service Type
- 7FN priority = NITS Service Type
- 6NN priority = NITS Service Type

PATH

Enter the Path listed in the OASIS Reservation.

RESERVATION START DATE

Enter the Reservation Start Date listed in the OASIS Reservation.

RESERVATION STOP DATE

Enter the Reservation Stop Date listed in the OASIS Reservation.

MONTHLY RESERVATION AMOUNT (MW)

Enter the Reservation Amount listed in the OASIS Reservation.

TSR MAPPING

The TSR Mapping page is used to demonstrate a complete firm transmission service path from the Resource, Transmission Resource Group, or contract to the entity's Load. When a path is identified as "complete", it will be counted as part of meeting the transmission demonstration requirement of the program. The verifications of meeting the program requirements are outlined in the Forward Showing Summary report.

TSR MAPPING SUMMER AND WINTER GRIDS

PARTICIPANT

Select the Participant you are submitting for.

RESOURCE OR CONTRACT ID

Select the resource(s) or contract that needs to be mapped to a Load.

The “Resource Identifier” from the Resources page is combined with the “Contract Identifier” from the Contracts & Obligations page to provide the submitter with a drop-down list of options to choose from. If the “Transmission Resource Group” is used for a record on the Resources page, then the “Transmission Resource Group” name will appear instead of the “Resource Identifier”.

LOAD NAME

Select the Load to map transmission to with this record.

RESOURCE OR CONTRACT POR

Automatically populates with the POR associated with the resource(s) or contract selected for “Resource or Contract ID”.

LOAD DELIVERY POINT

Automatically populates with the “Delivery Point for Transmission Mapping” associated with the selected “Load”.

PATH 1-6

Select the “OASIS Ref Number” from the drop down list to complete the path from the resource(s) or contract to the Load. In order to populate the dropdown list of options, the TSR(OASIS) Information grid for the same Binding Season must be completed first. The POD of the first path should match the POR of the second path, and so on until the path is complete until the POD of the load.

POR

Automatically populated based on the “OASIS Ref Number” selected for “Path 1”, this is the Point of Receipt of the first transmission path.

POD 1-6

Automatically populated based on the “OASIS Ref Number” selected for “Path 1” – “Path 6”, this is the POD of each transmission path selected.

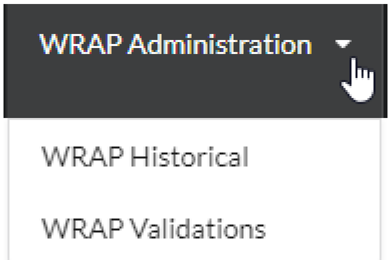
MONTHLY TRANSMISSION SERVICE ASSIGNED (MW)

Enter the Monthly Transmission Service Assigned to the path for each month. As an example, if the path has a reservation amount of 100 MW identified on the TSR (OASIS) Information page, but the resource QCC is 90 MW, then it is possible that only 90 MW may need to be assigned to the resource instead of the full 100 MW. These values will also be used in the validations provided on the TSR(OASIS) Information page to verify the path is not being over allocated.

COMMENTS

Enter, if applicable, any additional comments about the submitted information.

WRAP ADMINISTRATION



WRAP HISTORICAL

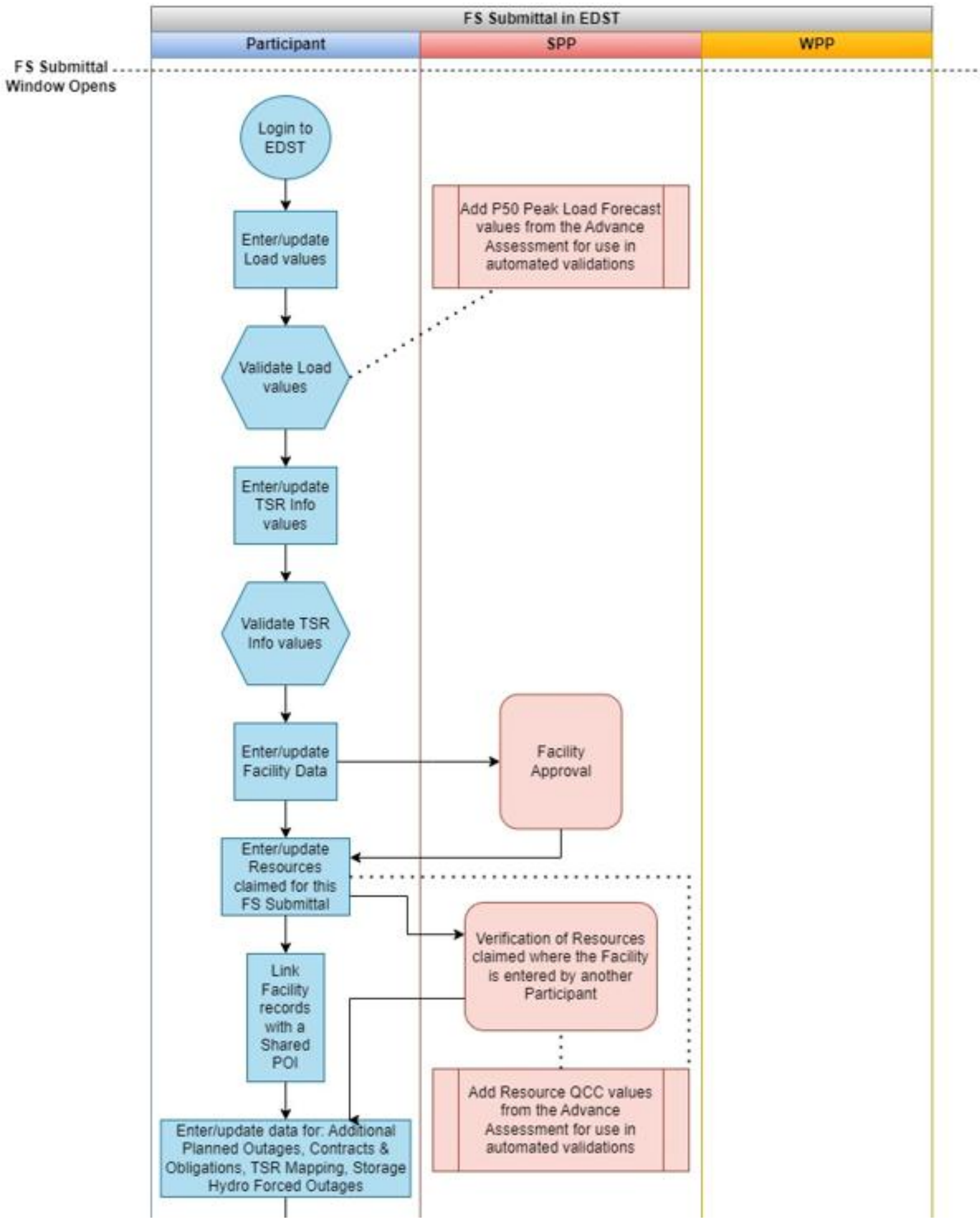
EDST stores all historical FS Submittal data from previous submissions in EDST for reference and compliance purposes. After selecting the applicable Submital Year, Season, and Data Set, click **Show History** to display the historical data in a grid form on the page. From here you may filter data in the grid or export it to an Excel spreadsheet.

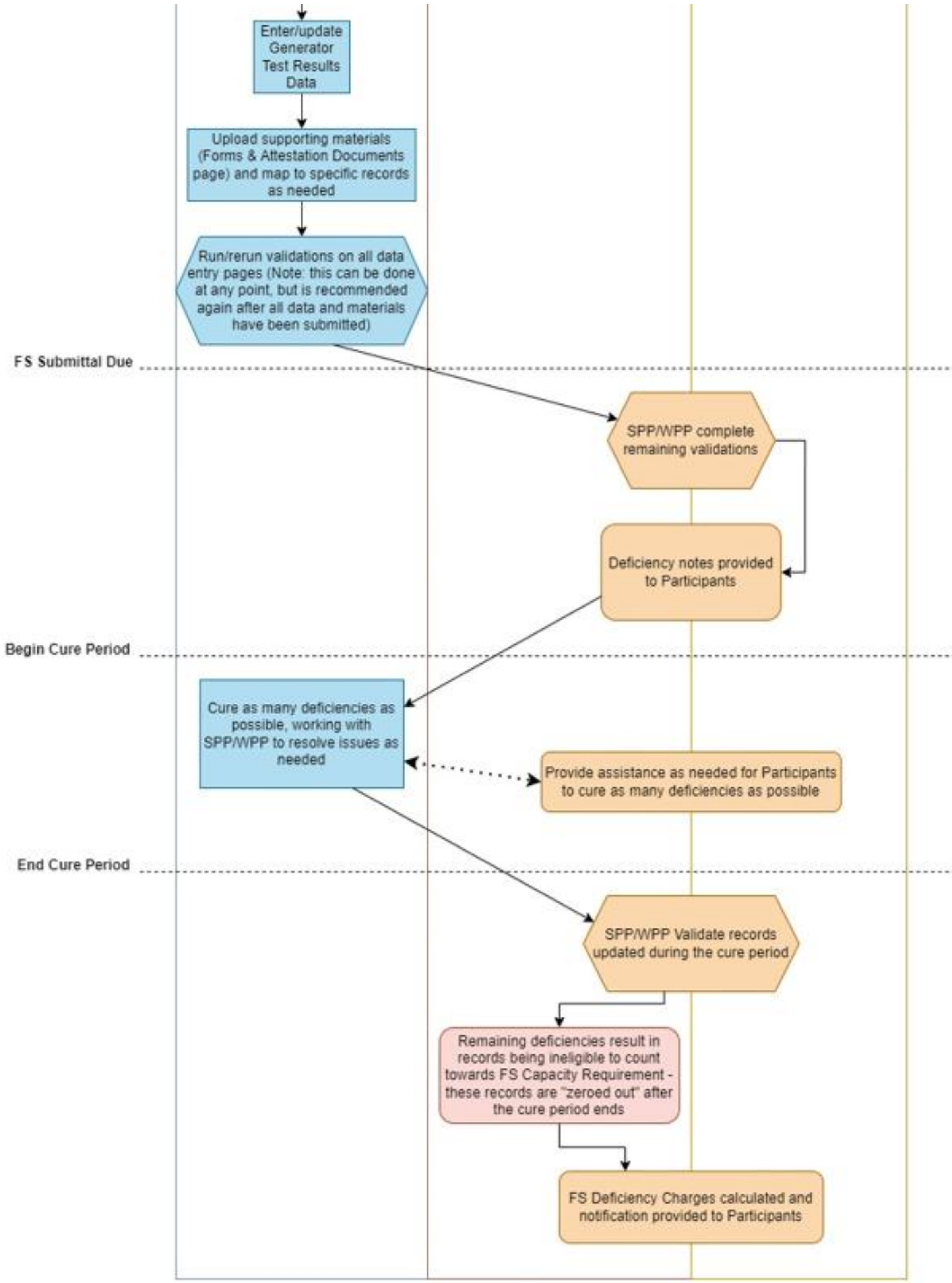
WRAP VALIDATIONS

This page shows all currently triggered validation messages that are viewable to Participants. You may filter data in the grid or export it to an Excel spreadsheet.

Tip: Filter by Season to only see validation messages that pertain to the current submittal season.

APPENDIX 1: SUBMITAL AND VALIDATION PROCESS OVERVIEW




Enter/update Generator Test Results Data
Upload supporting materials (Forms & Attestation Documents page) and map to specific records as needed
Run/rerun validations on all data entry pages (Note: this can be done at any point, but is recommended again after all data and materials have been submitted)
FS Submittal Due
SPP/WPP complete remaining validations
Deficiency notes provided to Participants
Begin Cure Period
Cure as many deficiencies as possible, working with SPP/WPP to resolve issues as needed
Provide assistance as needed for Participants to cure as many deficiencies as possible
End Cure Period
SPP/WPP Validate records updated during the cure period
Remaining deficiencies result in records being ineligible to count towards FS Capacity Requirement - these records are "zeroed out" after the cure period ends
FS Deficiency Charges calculated and notification provided to Participants

APPENDIX 2: SHARED RESOURCE FORM INFORMATION

This form can be found on the WPP RAPC SharePoint and is meant to demonstrate how much of each contracted resource's performance in the operations horizon (i.e. Over/Under Performance of VERs or Forced Outage MW values of thermal or storage hydro resources in the Operations Client) should be transferred to a purchasing Participant because of a contract documented on the Contracts & Obligations page.

This form should only be used for resources on the Resources page that are included in sales contracts (Contracts & Obligations records where your Participant is the "Selling Entity" and "Performance or Outage Risk Assumed by Purchaser" is "YES").

This form is to be filled out by the seller for both the "Seller Information" and "Purchaser Information". The seller will then provide this information to the Program Administrator and Program Operator for the adjustments to FS data that will be provided to the Operations Program for the upcoming season.

JCAF

If the Transaction Type is "System", select "Variable Output System Sale" in Section 2 of the JCAF associated with the Contracts & Obligations record.

SELLER INFORMATION

RESOURCE IDENTIFIER (RESOURCES PAGE)

Paste values from the "Resource Identifier" column in the Resources page for the appropriate season for every resource where "Performance or Outage Risk In Contract" is "YES".

FACILITY NAME (FACILITY MANAGEMENT PAGE)

Paste values from the "Facility Name" column in the Facility Management page, Facility grid, for every associated Resources record where "Performance or Outage Risk In Contract" is "YES".

RESOURCE TYPE (FACILITY MANAGEMENT PAGE)

Paste values from the “Resource Type” column in the Facility Management page, Facility grid, for every associated Resources record where “Performance or Outage Risk In Contract” is “YES”.

TOTAL PERCENTAGE OVER/UNDER PERFORMANCE OR FORCED OUTAGE RISK INCLUDED AS PART OF SALES CONTRACT

This column will calculate the percentage of a resource’s Over/Under Performance or Forced Outage MW values in the Operations program that should be transferred to the purchasing Participants based on the percentages entered in the Purchaser Information section.

PURCHASER INFORMATION

From the dropdown menus in row 2, select each Participant listed in the Contracts & Obligations page in the “Purchasing Entity” column for the appropriate season, where “Performance or Outage Risk Assumed by Purchaser” is “YES”. For each selected Participant, input the percentage of Over/Under Performance or Forced Outage risk included as part of a sales contract that should be moved to that Participant’s Forward Showing data in the Operations Client. Do this for each resource listed.

For sales to entities that are not WRAP Participants, select “External (Non-Participant)” and consolidate the percentage Over/Under Performance or Forced Outage risk included as part of sales contract for each resource listed.

APPENDIX 3: PRIME MOVER CODES

Code	Term
BA	Energy Storage, Battery
BT	Turbines Used in a Binary Cycle (including those used for geothermal applications)
CT	Combined Cycle Combustion Turbine Part (type of coal or solid must be reported as energy source for integrated coal gasification)
CS	Combined Cycle Single Shaft (combustion turbine and steam turbine share a single generator)
CA	Combined Cycle Steam Part
CC	Combined Cycle Total Resource (use only for plants/generators in planning stages, for which specific generator details cannot be provided)
CE	Energy Storage, Compressed Air
GT	Combustion (Gas) Turbine (includes jet engine design)
HB	Hydrokinetic, Wave Buoy
HY	Hydroelectric Turbine
IC	Internal Combustion Engine (diesel, piston, reciprocating)
OT	Other/Unknown (specify in comments section)
PVT	Photovoltaic – Tracking (PVT)
PVS	Photovoltaic – Stationary (PVS)
PS	Energy Storage, Reversible Hydraulic Turbine (Pumped Storage)
ES	Energy Storage, Other (specify in comments section)
ST	Steam Turbine, including nuclear, geothermal and solar steam (does not include combined cycle)
WT	Wind Turbine