webDADS Overview
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Project Manager

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Webcast

Trade Secret
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Agenda

• webPortal Architecture
• Company Hierarchy
• Reporting Periods
• Checklist
• Data Entry and Validations
• Graphical User Interface (GUI) features
• Completing the Checklist
• Online Help Pages
• Reports
• Double Counting

Previous Architecture
**Single Sign-On Architecture**

- **Access Controls (Login)**
- **webPortal**
- **User Management**
- **Company Management**

**webE-GADS** | **webTADS** | **webDADS** | **webSED**

**webPortal Company Types**

- **NERC** reviews and processes Demand Response (DR) data
- **Regional Entities (RE)** review DR data
- **Delegated Reporting Entities (DRE)** report data on behalf of Registered Entities that have delegated to the DRE
- **Registered Entities (FE - Functional Entities)** required to report data. FEs in webDADS must belong to one of the following functions
  - **Balancing Authorities (BA)**
  - **Load-Serving Entities (LSE)**
  - **Distribution Providers (DP)**
  - **Purchasing-Selling Entities (PSE)**
Portal Company Hierarchy Showing Difference Between Sub-Region and Zone

- **NERC** - NERC is at the top of the hierarchy and has access to all data
- **Region** - Within NERC, there are Regions (NPCC, WECC, MRO, etc.)
- **Sub-Region** - Within each Region, there are sub-regions (In NPCC there’s Maritimes, New England, New York, Ontario, and Quebec). These are defined by NERC within webPortal
- **Company** - A Company is uniquely identified using the combination of NERC ID, Region, and Sub-Region. In webPortal (GADS, DADS, TADS, and SED) this will be the Company Code associated to each company (Registered Entity)
- **Zones** - Zones are specific to webDADS. Each webDADS company is assigned a system zone, and companies can create additional zones specific to their company
Reporting Periods (Continued)

- There are two webDADS Reporting Periods per year
  - Summer: April 01 - September 30, 2014
- **Reporting Period:** This is the time period for which the data will be entered
- **FE Cutoff Date:** Registered Entity Users must have all of their data for the Reporting Period entered and completed by this date
- **RE Cutoff Date:** RE must have reviewed the data for the FEs in their Region and completed the checklist by this date. RE can work with the FEs to modify data during this time. The RE needs to make all data updates between the FE and RE Cutoff
- **NERC Reporting Date:** NERC will be able to run reports and metrics on the Reporting Period data on this date

The FE Checklist

- Users should work off of the Checklist
- Set the Reporting Period and Company in the Checklist Filters
- All forms accessed from the Checklist will be filtered to the same Reporting Period and Company

<table>
<thead>
<tr>
<th>Form Name</th>
<th>Form</th>
<th>Status</th>
<th>Reason</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>DADS Statement</td>
<td></td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Contacts</td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>External Entities</td>
<td></td>
<td>Reviewed</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Zones</td>
<td></td>
<td>Reviewed</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Programs</td>
<td></td>
<td>Reviewed</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Program Relationships</td>
<td></td>
<td>Reviewed</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Relationship Registry</td>
<td>1.0</td>
<td>Data Entered</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Registered Program</td>
<td>2.0</td>
<td>Data Entered</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Event</td>
<td>3.0</td>
<td>Data Entered</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Market Participation</td>
<td>4.0</td>
<td>Data Entered</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Ancillary Services</td>
<td>5.0</td>
<td>Data Entered</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>
The FE Checklist (Continued)

- Users complete and exempt forms on the Checklist Entry
- At the beginning of each Reporting Period, a new checklist is created
- Towards the end of the reporting period and before the FE cutoff date, all forms must be set to “Completed” or “Exempt”

<table>
<thead>
<tr>
<th>Form Name</th>
<th>Form</th>
<th>Status</th>
<th>Reason</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>DADS Statement</td>
<td>Reporting</td>
<td>Reviewed</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Contacts</td>
<td>Reviewed</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>External Entities</td>
<td>Reviewed</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zones</td>
<td>Reviewed</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Programs</td>
<td>Reviewed</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program Relationships</td>
<td>Reviewed</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship Registry</td>
<td>1.0 Data Entered</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Registered Program</td>
<td>2.0 Data Entered</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Event</td>
<td>3.0 Data Entered</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market Participation</td>
<td>4.0 Data Entered</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ancillary Services</td>
<td>5.0 Data Entered</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Checklist Forms

- The DADS Statement will be “No” if the checklist is not yet complete. The DADS Statement will be “Yes” if all items on the checklist are complete (see slides on Completing the Checklist)
- Non-Reporting Period Forms are for Supporting DR information (Contacts, External Entities for Program Relationships, etc.). The data in these forms do not necessarily change from Reporting Period to Reporting Period, but they need to be Reviewed at the beginning of each Reporting Period
  - An email notification is sent requesting Users to log into the system to review this information and update if needed
  - The Non-Reporting Period Forms need to be reviewed before Reporting Period Forms can be filled out
- Reporting Period Forms are for the DR data for the Reporting Period. This is MWs and Resources for the Registered Programs, Events, etc.
Non-Reporting Period Forms

• Contacts
  – *Contacts are used by NERC, REs, and other Registered Entities to contact the Company. A company’s contacts may or may not be a webDADS User*

• External Entities
  – *External entities need to be defined in order to specify external Program Relationships. Program Relationships are used to avoid double counting DR data for programs that belong to multiple entities. The Program Relationship will be defined through the Program Relationship form*

• Zones
  – *Zones are used for reporting DR data for each program*

Non-Reporting Period Forms (Continued)

• Program Data
  – *Program Data is where Registered Entities enter their DR programs. The programs will be used later to report DR data. These programs can also be linked to other programs through a Program Relationship, both internally within the same company or externally with another company*

• Program Relationships
  – *Program Relationships are used to avoid double counting. Program Relationships can be internal (between two internal programs) or with an external entity (an internal program and a program belonging to an external entity)*
Reporting Period Forms

- There are five Reporting Period Forms
  - Relationship Registry
  - Registered Program
  - Event
  - Market Participation
  - Ancillary

- Data can be entered for each Month/Program/Zone combination
- Data is reported after the fact
  - Future data cannot be entered
- See following slides for data entry and validation specific for each Reporting Period Form (Event, Market Participation, Ancillary)

Relationship Registry

- The Relationship Registry display is a Grid Entry display
- Each row is the combination of Registered Month and Program Relationship
- The user enters the Jointly Enrolled Resources and Capacity (MW) between the programs
- All cells must be filled out in order to complete this form on the checklist. Zero is a valid entry
**Registered Program**

- The Registered Program display is a Grid Entry display
- Each row is the combination of Registered Month/Program/Zone
- Users enter the number of Registered Resources and Capacity (MW)
- Blank (null) is a valid entry. Zeros will be considered null values

**Events**

- There are two types of Events
  - **Timeline Event**
    - Events are considered Timeline Events if a Capacity or Energy (Non-Emergency) Program is selected
  - **Non-Timeline Event**
    - Events are considered Non-Timeline Events if a Reserves or Energy - Emergency Program is selected
**Timeline Events**

- Timeline Events will have a grid on the top right for the hours of event (not hours of day)
- The grid will be for Dispatched (MW), Realized Demand Reduction (MW) and Realized Energy Reduction (MWh)

**Non-Timeline Events**

- Non-Timeline Events
  - *The Dispatched (MW) and Realized (MW) will be captured through two fields on the Event Entry page*
Non-Timeline Events (Continued)

• Non-Timeline Events
  – The Event Duration information for Non-Timeline Events will be captured at the bottom of the entry page
  – DR Event (Duration of Event) >= Deployment Period + Recovery Period
  – Deployment Period >= Ramp Period + Sustained Response Period

Event Data (Reserves/Emergency DR)

<table>
<thead>
<tr>
<th>Demand Response Event (Duration of Event)</th>
<th>05:00:00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deployment Period</td>
<td>04:00:00</td>
</tr>
<tr>
<td>Ramp Period</td>
<td>00:00:00</td>
</tr>
<tr>
<td>Sustained Response Period</td>
<td>04:00:00</td>
</tr>
<tr>
<td>Recovery Period</td>
<td>01:00:00</td>
</tr>
</tbody>
</table>

Event Validations

• Warnings are displayed to warn of potential data issues. Users can still submit after a warning is displayed

The same warnings are in data import
Event Validations (Continued)

- Errors are displayed when data does not follow prescribed rules. Users must change the data before submitting.

Market Participation

- Market Participation is a Grid Entry display
- Each row is a combination of Month/Program/Zone
- Data validations are shown when clicking on the “?” icon
Ancillary Services

- Ancillary Services is a Grid Entry display
- Each row is a combination of Month/Program/Zone
- Data validations are shown when clicking on the “?” icon

Grid Entry Display Usability

- Grid Entry displays are similar to summary pages, however, the data entry is completed directly on the grid entry display
- Warnings are highlighted in yellow. Errors are highlighted in red
- Data can be cleared through the Clear Data checkbox
  - *Except for Program Relationship Registry because every row needs a value (zeros is a valid value for that display)*
- The user can highlight multiple cells. Then the user can enter a value and click on “Enter” to populate the selected cells with that value
  - *Users can highlight the entire column by clicking on the column header*
  - *Users can highlight multiple adjacent cells by clicking on the cells and dragging the cursor*
Summary Page GUI Options

• The trainer will provide a demo of the GUI features
• Users can view the description of these features in the online help pages under “Common Usability Features”

Completing the FE Checklist

• To complete the checklist, the user needs to be filtered to the correct Registered Entity and Reporting Period
• Next the user needs to click on the “Update Checklist or Completion Status” button
Completing the FE Checklist (Continued)

• The FE Checklist Entry page will open

- The user should check off each completed form as Completed
- The user can select Exempt = Yes and enter a reason. This will complete the form

• Program Relationship Registry must have values in all cells in order to complete the form. Zero is a valid value
  - If the company has no Program Relationships, the form will be automatically exempt
Completing the FE Checklist (Continued)

- Clicking on the “Validate” button will show what validations would be triggered upon clicking on the “Modify” button

<table>
<thead>
<tr>
<th>Form(s)</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 Relationship Registry form is incomplete</td>
<td></td>
</tr>
<tr>
<td>Contacts</td>
<td>Contacts need to be reviewed</td>
</tr>
<tr>
<td>External Entities</td>
<td>External Entities need to be reviewed</td>
</tr>
<tr>
<td>Zones</td>
<td>Zones need to be reviewed</td>
</tr>
<tr>
<td>Programs</td>
<td>Programs need to be reviewed</td>
</tr>
<tr>
<td>Program Relationships</td>
<td>Program Relationships need to be reviewed</td>
</tr>
<tr>
<td>2.0</td>
<td>No programs have registered Program information</td>
</tr>
</tbody>
</table>

- The “Validate” button does not save the page
  - The user then needs to save the FE Checklist Entry page by clicking on the “Modify” button

Completing the RE Checklist

- To complete the RE checklist, filter for the Region as the Company
- Next, the User needs to click on the “Update Checklist or Completion Status” button
Completing the RE Checklist (Continued)

• The RE Checklist Entry page will open

• Check the “Completed” checkbox of the FE companies that the Region has reviewed

• Only FE Companies that have completed their checklist can be checked by the Region

• Then click on the “Modify” button to save the modified information
Online Help Pages

• Help pages are available for each display in webDADS and webPortal
  – Users can get to the help pages by clicking on the “?” icon at the top of each page
• The webDADS Bulk Import Quick Start Guide is available in the help pages
  – Follow the path below to get to the Quick Start Guides

• Future Quick Start Guides and additional help guides will be added to the help pages

Access to Reports

<table>
<thead>
<tr>
<th>Report Name</th>
<th>RE System Admin</th>
<th>RE Reporting</th>
<th>DRE System Admin</th>
<th>FE System Admin</th>
<th>FE Data Entry</th>
<th>DRE Data Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implemented Programs</td>
<td>R</td>
<td>R</td>
<td>-</td>
<td>R</td>
<td>R</td>
<td>-</td>
</tr>
<tr>
<td>Frequency of Use</td>
<td>R</td>
<td>R</td>
<td>-</td>
<td>R</td>
<td>R</td>
<td>-</td>
</tr>
<tr>
<td>Events Report</td>
<td>R</td>
<td>R</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Event Zone Report</td>
<td>R</td>
<td>R</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>DR Capacity Committed</td>
<td>R</td>
<td>R</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Trend of Enrolled MW</td>
<td>R</td>
<td>R</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Events Roll Up</td>
<td>R</td>
<td>R</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Enrollment Metrics</td>
<td>R</td>
<td>R</td>
<td>-</td>
<td>R</td>
<td>R</td>
<td>-</td>
</tr>
<tr>
<td>Programs</td>
<td>R</td>
<td>R</td>
<td>-</td>
<td>R</td>
<td>R</td>
<td>-</td>
</tr>
<tr>
<td>Zones</td>
<td>R</td>
<td>R</td>
<td>-</td>
<td>R</td>
<td>R</td>
<td>-</td>
</tr>
</tbody>
</table>
Double Counting

- Double Counting of MWs occurs for two reasons
  - Aggregation occurs up to a BA, multiple enrollments in a program can occur
  - When programs are jointly enrolled
- webDADS Solution
  - Delegating Reporting to one entity
  - Establishing Program Relationships and removing the double counting in metrics and reports

Double Counting Examples

- LSE with DR providing Capacity to BA
- MW jointly enrolled by two different Responsible Parties
- PSE with DR providing Capacity to DP and BA
Questions

Thank You

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