webDADS Overview

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Webcast

Trade Secret

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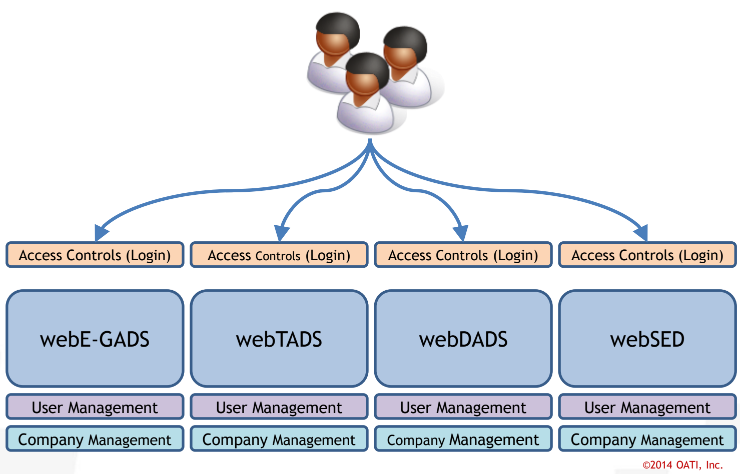
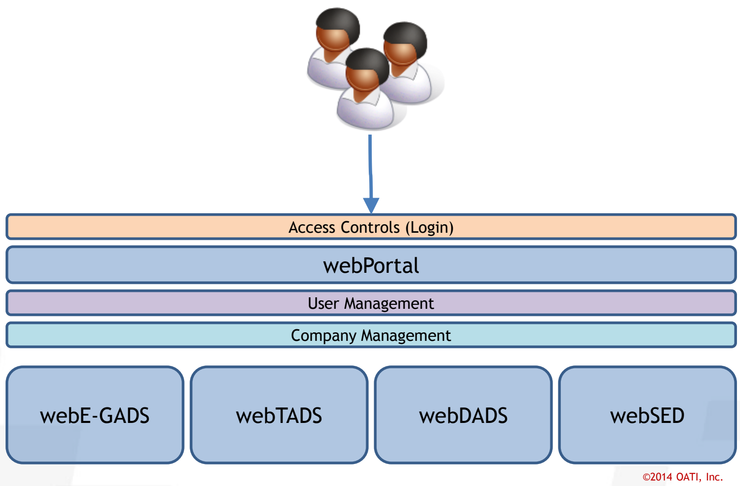
Agenda

- 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



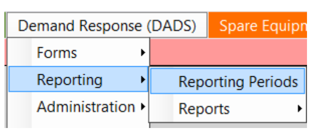
webPortal Company Types

- **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



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Reporting Periods

Code	Reporting Period: Start Date	Reporting Period: End Date	Cutoff Dates: FE Cutoff Date	Cutoff Dates: RE Cutoff Date	NERC Reporting Date
2014 WINT	10/01/2014	03/31/2015	05/01/2015 00:00 CPT	06/30/2015 00:00 CPT	08/03/2015
2014 SUM	04/01/2014	09/30/2014	10/31/2014 00:00 CPT	11/01/2014 00:00 CPT	12/12/2014
2013 WINT	10/01/2013	03/31/2014	06/30/2014 00:00 CPT	07/31/2014 00:00 CPT	08/01/2014
2013 SUM	04/01/2013	09/30/2013	12/16/2013 21:00 CPT	01/15/2014 21:00 CPT	02/14/2014
2012WINT	10/01/2012	03/31/2013	06/01/2013 00:00 CPT	07/31/2013 00:00 CPT	08/31/2013
2012S	04/01/2012	09/30/2012	12/17/2012 21:00 CPT	05/15/2013 21:00 CPT	06/15/2013
2011WIT	10/01/2011	03/31/2012	05/15/2012 21:00 CPT	07/15/2012 21:00 CPT	08/15/2012
2011S	04/01/2011	09/30/2011	12/15/2011 21:00 CPT	01/16/2012 21:00 CPT	02/15/2012
2010W-TEST	10/01/2010	03/31/2011	06/19/2013 20:00 CPT	09/30/2013 20:00 CPT	12/01/2013
2010S	04/01/2010	08/01/2010	12/08/2011 01:00 CPT	12/09/2011 01:00 CPT	12/10/2011

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Reporting Periods (Continued)

- **There are two webDADS Reporting Periods per year**
  - *Summer: April 01 - September 30, 2014*
  - *Winter: October 01, 2014 - May 31, 2015*
- **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

Checklist

Company: **Demo FE 1 (DMOD0006 | DEMO)**
Reporting Period: **2013 WINT (10/01/2013 - 03/31/2014)**

FE Forms Checklist for 2013 WINT

Form Name	Form	Status	Reason	Completed
DADS Statement		Reporting		**No**
Contacts		Reviewed		Yes
External Entities		Reviewed		Yes
Zones		Reviewed		Yes
Programs		Reviewed		Yes
Program Relationships		Reviewed		Yes
Relationship Registry	1.0	Data Entered		**No**
Registered Program	2.0	Data Entered		**No**
Event	3.0	Data Entered		**No**
Market Participation	4.0	Data Entered		**No**
Ancillary Services	5.0	Data Entered		**No**

11/03/2014 **15:01:16** CPT **Page 1 of 1** Records 1–11 of 11

Update Checklist or Completion Status | Close

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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”

Non-Reporting Period Forms (Supporting data)

Reporting Period Forms (Data Reporting)

Form Name	Form	Status	Reason	Completed
DADS Statement		Reporting		No
Contacts		Reviewed		Yes
External Entities		Reviewed		Yes
Zones		Reviewed		Yes
Programs		Reviewed		Yes
Program Relationships		Reviewed		Yes
Relationship Registry	1.0	Data Entered		No
Registered Program	2.0	Data Entered		No
Event	3.0	Data Entered		No
Market Participation	4.0	Data Entered		No
Ancillary Services	5.0	Data Entered		No

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

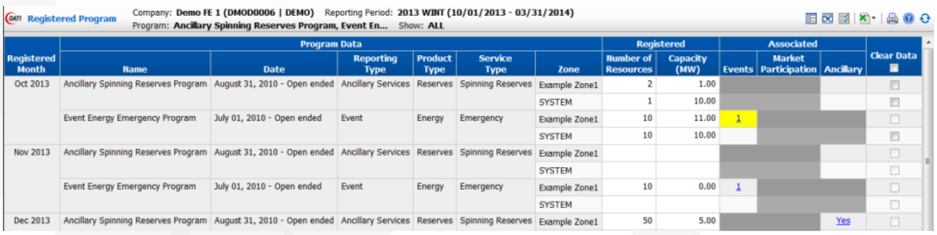
- The Relationship Registry display is a Grid Entry display
- Each row is the combination of Registered Month and Program Relationship
- The user enters the Jointly Enrolled Resources and Capacity (MW) between the programs
- All cells must be filled out in order to complete this form on the checklist.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

Program Relationship Registry Company: **Demo FE 1 (DMOD0006 | DEMO)** Reporting Period: **2013 WINT (10/01/2013 - 03/31/2014)**

Registration Month	Registered Program Data					Jointly Enrolled			
	Name	Date	Reporting Type	Product Type	Service Type	Total Nbr of Resources	Total Capacity (MW)	Type	Name
Oct 2013	Ancillary Spinning Reserves Program	August 31, 2010 - Open ended	Ancillary Services	Reserves	Spinning Reserves	15	15.00	External	Event Load as Capacity Re
								Internal	Event Reserves Program
								Internal	Summer Capacity Progra
	Event Energy Emergency Program	July 01, 2010 - Open ended	Event	Energy	Emergency	4	4.00	Internal	Event Reserves Program
	Market Participation Capacity Program I	July 08, 2010 - November 30, 2014	Market Participation	Capacity	Critical Peak Pricing w/Control	4	4.00	External	Event Pgm
Nov 2013	Ancillary Spinning Reserves Program	August 31, 2010 - Open ended	Ancillary Services	Reserves	Spinning Reserves	3	3.00	External	Event Load as Capacity Re
								Internal	Event Reserves Program
								Internal	Summer Capacity Progra
	Event Energy Emergency Program	July 01, 2010 - Open ended	Event	Energy	Emergency			Internal	Event Reserves Program

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



Registered Program

Company: Demo FE 1 (DMOD0006 | DEMO) Reporting Period: 2013 WINT (10/01/2013 - 03/31/2014)
Program: Ancillary Spinning Reserves Program, Event En... Show: ALL

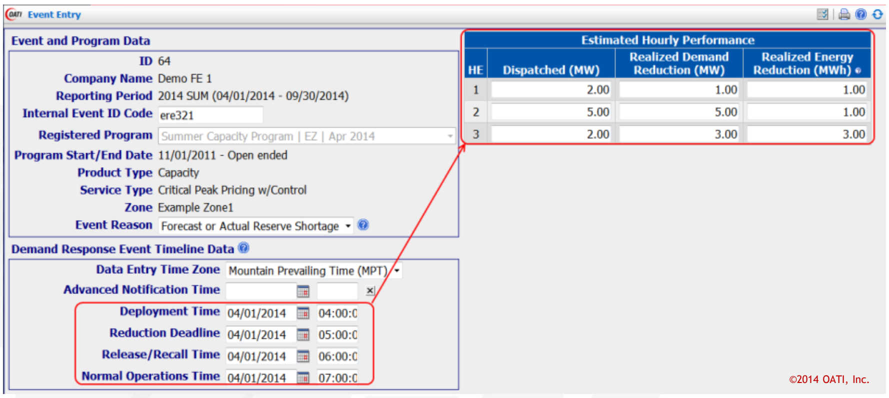
	Program Data						Registered		Associated			
Registered Month	Name	Date	Reporting Type	Product Type	Service Type	Zone	Number of Resources	Capacity (MW)	Events	Market Participation	Ancillary	Clear Data
Oct 2013	Ancillary Spinning Reserves Program	August 31, 2010 - Open ended	Ancillary Services	Reserves	Spinning Reserves	Example Zone1	2	1.00				
						SYSTEM	1	10.00				
	Event Energy Emergency Program	July 01, 2010 - Open ended	Event	Energy	Emergency	Example Zone1	10	11.00	1			
						SYSTEM	10	10.00				
Nov 2013	Ancillary Spinning Reserves Program	August 31, 2010 - Open ended	Ancillary Services	Reserves	Spinning Reserves	Example Zone1						
						SYSTEM						
	Event Energy Emergency Program	July 01, 2010 - Open ended	Event	Energy	Emergency	Example Zone1	10	0.00	1			
						SYSTEM						
Dec 2013	Ancillary Spinning Reserves Program	August 31, 2010 - Open ended	Ancillary Services	Reserves	Spinning Reserves	Example Zone1	50	5.00			Yes	

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*

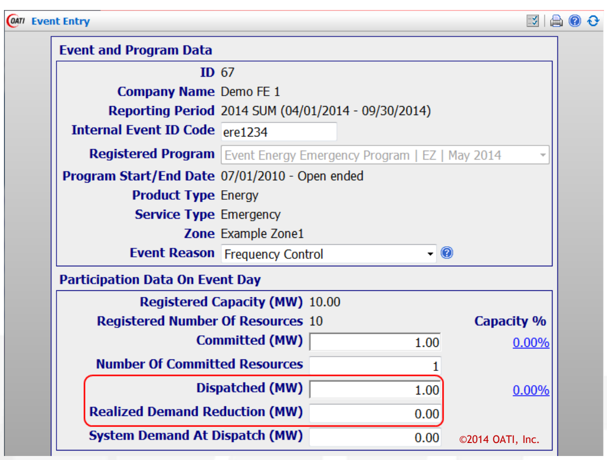
Timeline Events

- 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) ©2014 OATI, Inc.

Demand Response Event (Duration of Event)		
05:00:00		
Deployment Period		
04:00:00		
Ramp Period	Sustained Response Period	Recovery Period
00:00:00	04:00:00	01:00:00

Event Validations

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

Message from webpage

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Warning:

Realized Demand Reduction (MW) or Realized Energy Reduction (MWh) is zero.

You are about to modify an event for 2014 SUM (04/01/2014 - 09/30/2014).

Do you want to continue?

OK Cancel

- The same warnings are in data import

Import History Company: **Demo FE 1 (DMOD0006 | DEMO)** Reporting Period: **2014 SUM (04/01/2014 - 09/30/2014)** Form: **Event**
Import: **283 - Inspected - Warnings - ErikaE - 11/03/2...** Show Full Description: **Yes**

Import ID	Action	Result: Row	Column Name	Description	Type	Count	User	Date	Statu
283	View	+		6 row(s) will be Updated	Valid	6	ErikaE	11/03/2014 14:17:58 CPT	Inspected - \
		+	Realized Demand Reduction MW	2 row(s) have Realized Demand Reduction MW equal to 0	Warning	4			
		+	Realized Demand Reduction MW 03	1 row(s) have Realized Demand Reduction MW 03 equal to 0					
		+	Realized Energy Reduction MWh 03	1 row(s) have Realized Energy Reduction MWh 03 equal to 0					

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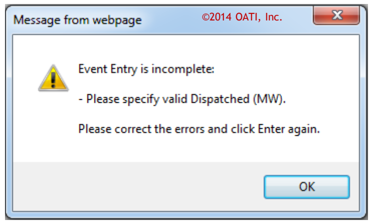
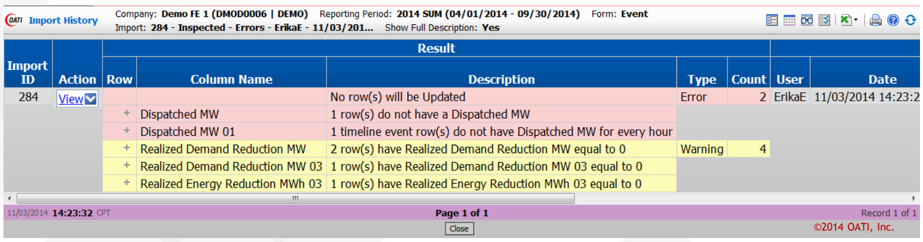
Continue With Import... Cancel ©2014 OATI, Inc.

Event Validations (Continued)

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

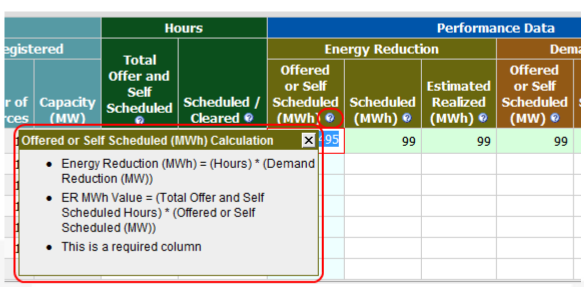




Import ID	Action	Row	Column Name	Description	Type	Count	User	Date
284	View			No row(s) will be Updated	Error	2	ErikaE	11/03/2014 14:23:2
		+	Dispatched MW	1 row(s) do not have a Dispatched MW				
		+	Dispatched MW 01	1 timeline event row(s) do not have Dispatched MW for every hour				
		+	Realized Demand Reduction MW	2 row(s) have Realized Demand Reduction MW equal to 0	Warning	4		
		+	Realized Demand Reduction MW 03	1 row(s) have Realized Demand Reduction MW 03 equal to 0				
		+	Realized Energy Reduction MWh 03	1 row(s) have Realized Energy Reduction MWh 03 equal to 0				

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



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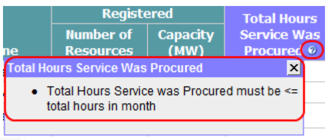
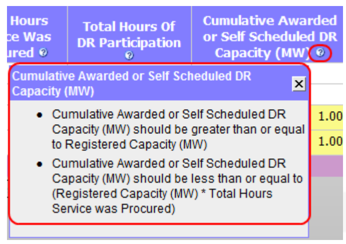
Ancillary Services

- 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



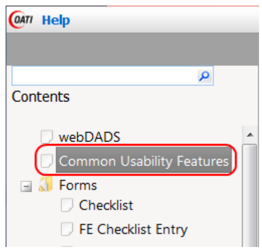


Grid Entry Display Usability

- 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”



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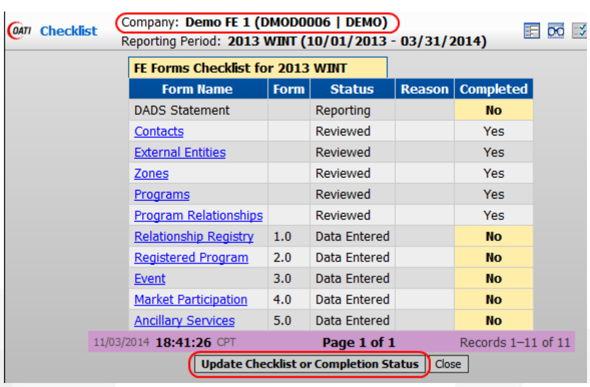
Completing the FE Checklist

- 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



Checklist
Company: **Demo FE 1 (DMOD0006 | DEMO)**
Reporting Period: **2013 WINT (10/01/2013 - 03/31/2014)**

FE Forms Checklist for 2013 WINT

Form Name	Form	Status	Reason	Completed
DADS Statement		Reporting		**No**
Contacts		Reviewed		Yes
External Entities		Reviewed		Yes
Zones		Reviewed		Yes
Programs		Reviewed		Yes
Program Relationships		Reviewed		Yes
Relationship Registry	1.0	Data Entered		**No**
Registered Program	2.0	Data Entered		**No**
Event	3.0	Data Entered		**No**
Market Participation	4.0	Data Entered		**No**
Ancillary Services	5.0	Data Entered		**No**

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Update Checklist or Completion Status | Close

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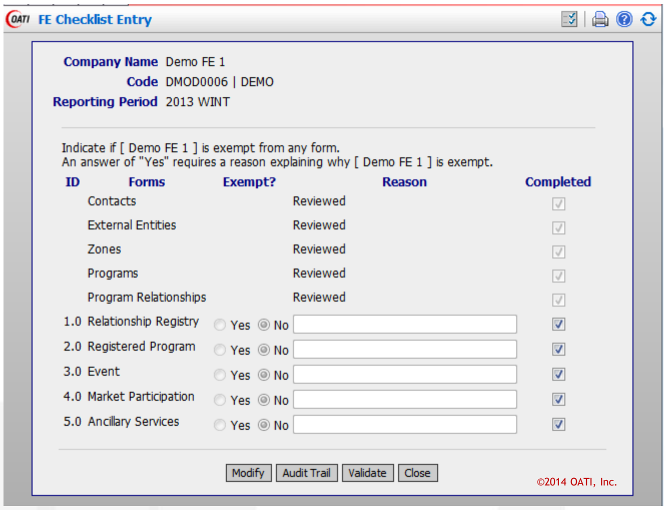
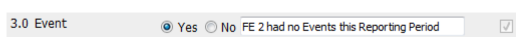
Completing the FE Checklist (Continued)

- The FE Checklist Entry page will open



Completing the FE Checklist (Continued)

- 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



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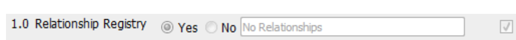
- Program Relationship Registry must have values in all cells in order to complete the form. Zero is a valid value
  - *If the company has no Program Relationships, the form will be automatically exempt*



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Completing the FE Checklist (Continued)

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

Form(s)	Message
1.0	Relationship Registry form is incomplete
Contacts	Contacts need to be reviewed
External Entities	External Entities need to be reviewed
Zones	Zones need to be reviewed
Programs	Programs need to be reviewed
Program Relationships	Program Relationships need to be reviewed
2.0	No programs have Registered Program information

RED = Fatal Errors

YELLOW = Warnings

Modify | Audit Trail | Validate | Close

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- 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

OATI Checklist Company: **Demo Region (RE)**
Reporting Period: **2013 WINT (10/01/2013 - 03/31/2014)**

RE's FE Checklist for 2013 WINT

Name	Status	Reviewed	FE Completed	RE Completed
Demo Distribution Provider * (DMO00008 | DEMO)	Reporting FE	Yes	**No**	No
Demo FE 1 (DMOD0006 | DEMO)	Reporting FE	Yes	Yes	Yes
Demo FE 2 (DMO00007 | DEMO)	Reporting FE	0%	**No**	No
Demo FE 3 (DMO00009 | DEMO)	Reporting FE	Yes	**No**	No
Demo FE 4 (DMO00004 | DEMO | ADSR)	Reporting FE	0%	**No**	No
Demo FE Company (NERC Test 03) (DMO003NT | DEMO)	Reporting FE	0%	**No**	No
Demo FE Company 1 * (DMOD0001 | DEMO)	Reporting FE	Yes	**No**	No
Demo FE Company 2 * (DMOD0002 | DEMO)	Reporting FE	Yes	**No**	No
Demo FE Company 3 (DMOD0003 | DEMO)	Reporting FE	0%	**No**	No
Demo FE Company Q0001 (DMOQ0001 | DEMO)	Reporting FE	0%	**No**	No
Demo Testing WP Company 01 (DMO006NT | DEMO)	Reporting FE	0%	**No**	No
Fake Demo Region (FCR00015 | DEMO | FSR1)	Reporting FE	0%	**No**	No
Minneapolis Gas and Electric (DMO00011 | DEMO | ADSR)	Reporting FE	0%	**No**	No
Test FE Company CA (DMO00021 | DEMO)	Reporting FE	0%	**No**	No
Test FE Company US (DEMO1234 | DEMO)	Reporting FE	0%	**No**	No

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Update Checklist or Completion Status | Close

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Completing the RE Checklist (Continued)

- The RE Checklist Entry page will open

RE Checklist Entry

Region Demo Region(DEMO)
Reporting Period 2013 WINT

FE Companies	FE Completed	Completed ☐
Demo Distribution Provider * (DMO00008 | DEMO)	No	☐
Demo FE 1 (DMOD0006 | DEMO)	Yes	☑
Demo FE 2 (DMO00007 | DEMO)	No	☐
Demo FE 3 (DMO00009 | DEMO)	No	☐
Demo FE 4 (DMO00004 | DEMO | ADSR)	No	☐
Demo FE Company (NERC Test 03) (DMO003NT | DEMO)	No	☐
Demo FE Company 1 * (DMOD0001 | DEMO)	No	☐
Demo FE Company 2 * (DMOD0002 | DEMO)	No	☐
Demo FE Company 3 (DMOD0003 | DEMO)	No	☐
Demo FE Company Q0001 (DMOQ0001 | DEMO)	No	☐
Demo Testing WP Company 01 (DMO006NT | DEMO)	No	☐
Fake Demo Region (FCR00015 | DEMO | FSR1)	No	☐
Minneapolis Gas and Electric (DMO00011 | DEMO | ADSR)	No	☐
Test FE Company CA (DMO00021 | DEMO)	No	☐
Test FE Company US (DEMO1234 | DEMO)	No	☐
Twin Cities Electric (DMO00010 | DEMO | ADSR)	No	☐
name of company (TST00001 | DEMO)	Yes	☑

Modify | Audit Trail | Close

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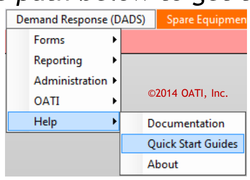
Completing the RE Checklist (Continued)

- 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

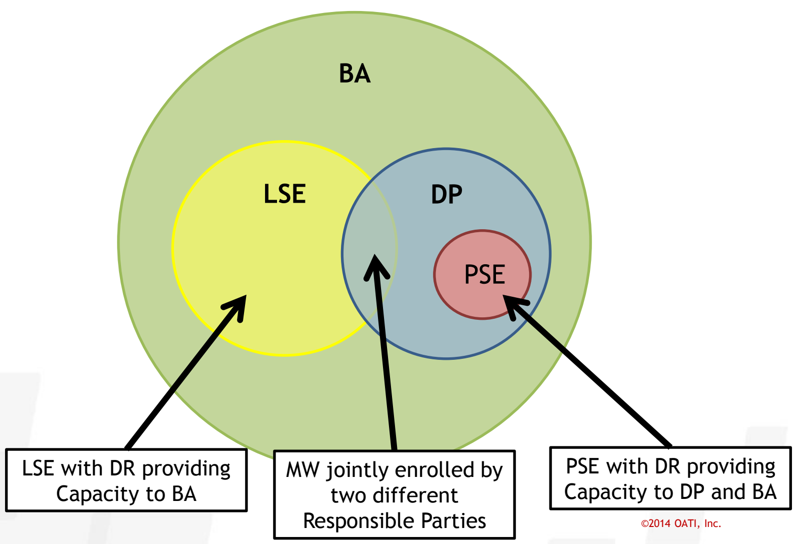
Access to Reports

Report Name	RE System Admin	RE Reporting	DRE System Admin	FE System Admin	FE Data Entry	DRE Data Entry
Implemented Programs	R	R	-	R	R	-
Frequency of Use	R	R	-	R	R	-
Events Report	R	R	-	-	-	-
Event Zone Report	R	R	-	-	-	-
DR Capacity Committed	R	R	-	-	-	-
Trend of Enrolled MW	R	R	-	-	-	-
Events Roll Up	R	R	-	-	-	-
Enrollment Metrics						
Programs	R	R	-	R	R	-
Zones	R	R	-	R	R	-

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



Questions

Thank You

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