

Demand Resource Disaggregation

WebEx Conference Broadcast
February 3, 2011

Before We Begin

- Presentation available on the ISO New England (ISO) Web site:
[Support > Training > Training Materials > Demand Resources](#)
- General WebEx Usage
 - Questions & Answers
 - Interactivity
- Evaluation
- Questions & Answers

Disclaimer for Market Training

ISO New England provides training to advance participant and stakeholder understanding of the New England Markets.

Since not all issues and requirements are addressed by the training, participants and other stakeholders should not rely solely on this training for information but should consult the effective Markets, Services and Transmission Tariff (“Tariff”), and the relevant Market Manuals, Operating Procedures and Planning Procedures (“Procedures”).

In case of a discrepancy between training provided by ISO and the Tariff or Procedures, the meaning of the Tariff and Procedures shall govern.

Session Details

- Today's presenter is Kirk Merriam.

Company names and numerical values are to be considered fictitious and are not to be associated with any actual market customer.

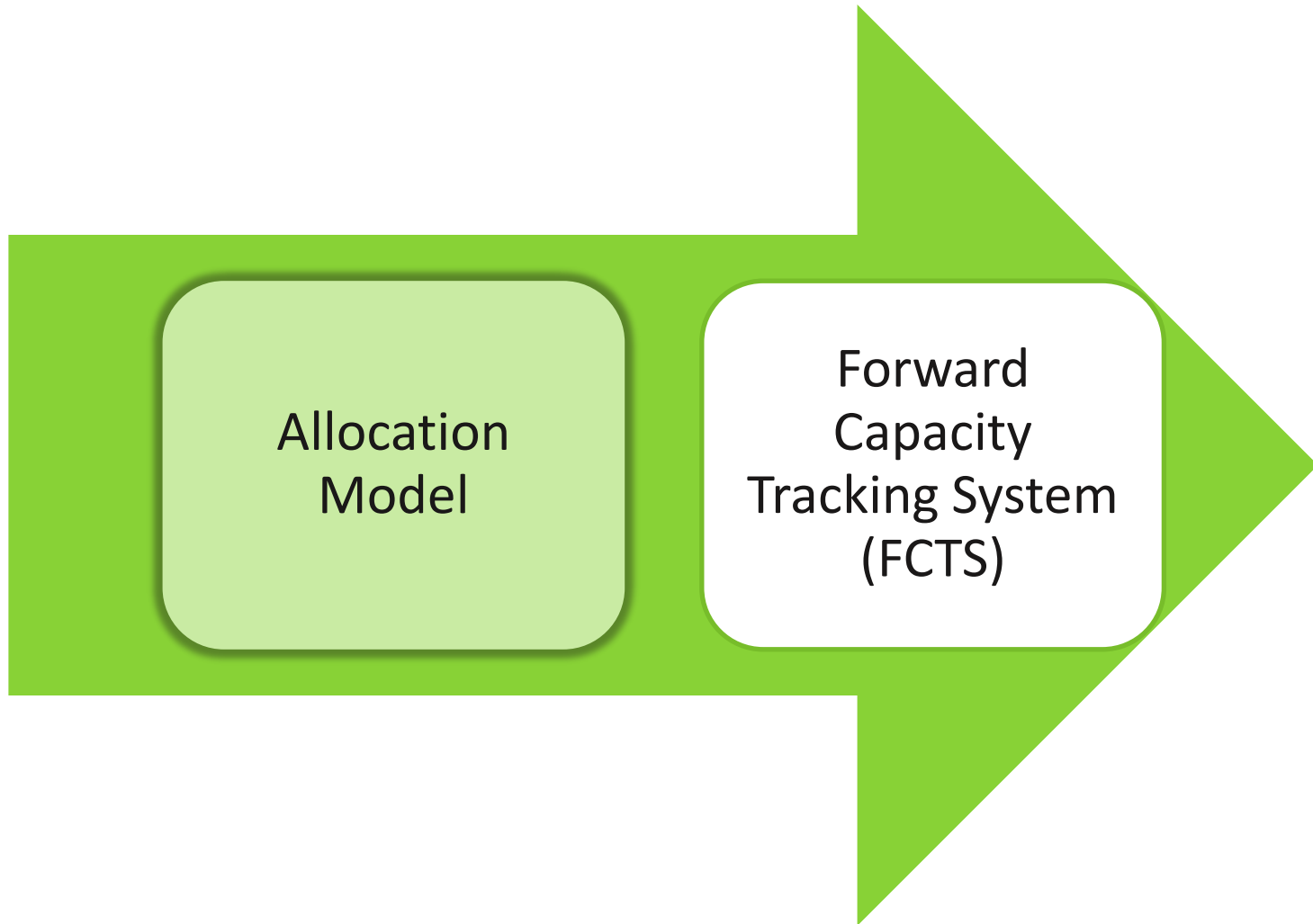
Course Objective

- This WebEx is designed to review the allocation model to be distributed to each Lead Market participant (LP) with at least one active demand resource so that each LP understands the content of the model and information that must be provided to the ISO in order to effect the disaggregation of active demand resources (DRs).
 - Additional information will also be provided with regard to the associated impacts to the Forward Capacity Tracking System (FCTS).

Course Goals

- At the completion of this WebEx you will...
 - Understand how to complete the allocation model
 - Understand the impacts to FCTS

Outline



Allocation Model

Background – Market Rule 1 (MR1)

- Market Rule 1 requires disaggregation (split) of active DRs to Dispatch Zones (DZ) by the start of second Capacity Commitment Period (CCP).
- Relevant MR Sections:
 - RTDR - III.13.1.4.6.2.1.
 - RTEG - III.13.1.4.6.2.2.

Allocation Model

Background – Aggregation

- Aggregation (merge) of commercial and non-commercial DRs can be accommodated for the second CCP.
 - Larger portfolio of demand assets backing each demand resource facilitates partial dispatch of DRs and supports LP strategies to address frequency of customer activations and fatigue.
 - LPs **may not** have the ability to merge their DRs in the future (there are no MR1 provisions to revisit this split/merge beyond this effort).

Allocation Model

Background – Model Purpose & Software Requirement

- Model Purpose
 - LP to communicate to the ISO how resources and relevant data associated with their Permanent De-List Bids (PDBs), proposals, and Critical Path Schedules (CPS) should be assigned to DZ.

Allocation Model

Terminology

Parent

Resource that exists prior to and is input into allocation

Child

Resource that results from allocation

Allocation

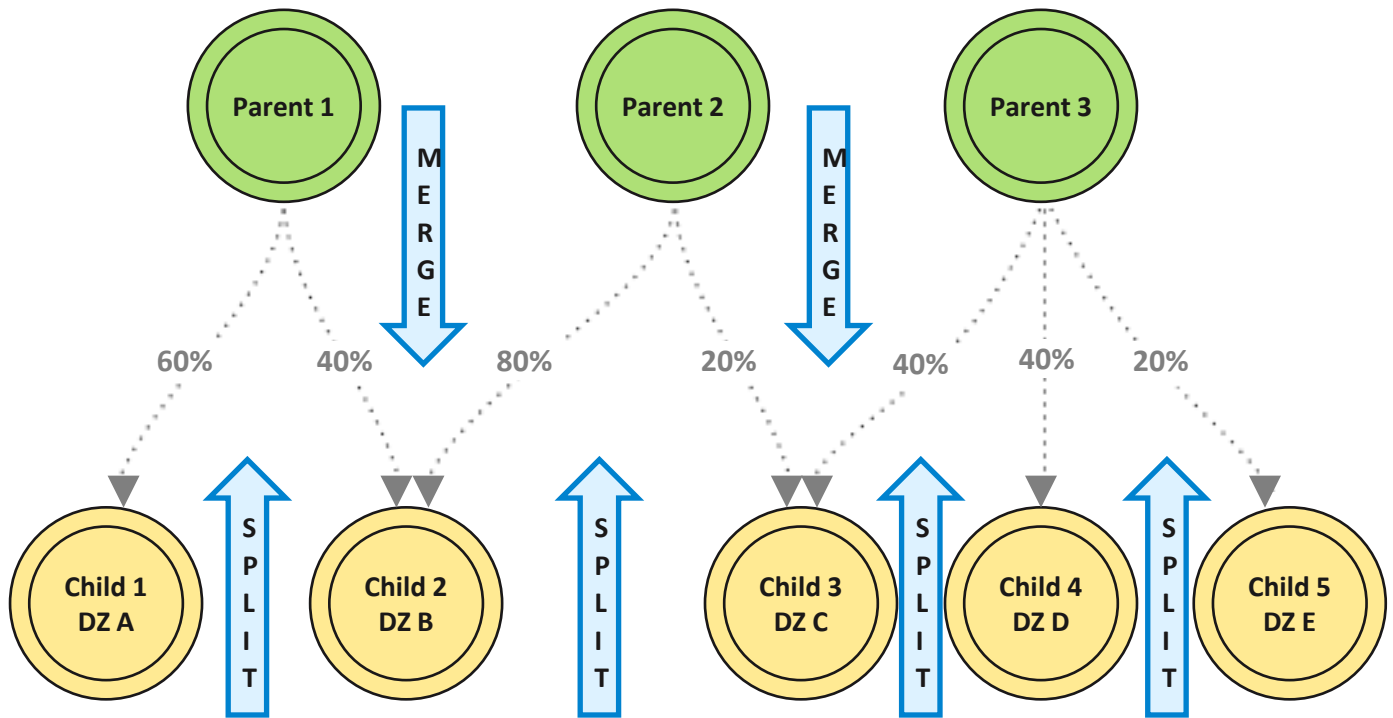
Action of splitting a parent, which yields the creation of several Children, and/or, the action of merging Parents, which yields the creation of one Child

Allocation Model

Split and Merge Depicted

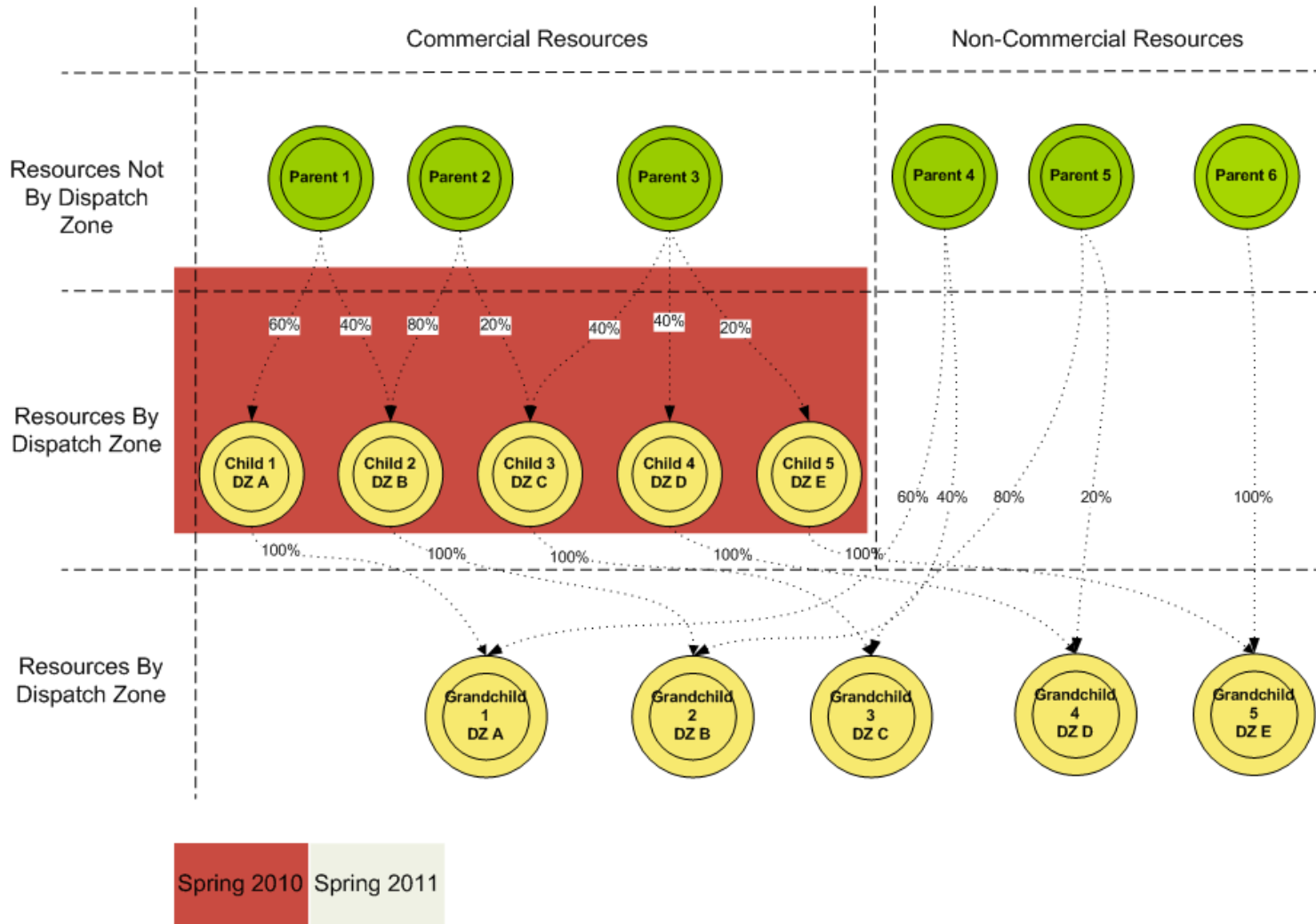
Resources Not
by Dispatch
Zone

Resources by
Dispatch Zone



Allocation Model

Split and Merge Depicted



Allocation Model

Factors Explained

- **Non-Show of Interest (SOI) Factor**
 - Defined by resource which is used to allocate capacity that did not enter the Forward Capacity Market (FCM) through an SOI.
 - Example: Resources that were created as a result of a Load Response Program asset
- **SOI Factor**
 - Defined by SOI, which is used to allocate relevant proposal and CPS data related to the SOI
 - Factors must be provided for SOIs that either cleared or had CPS monitoring elected.
- **De-List Bid Factor**
 - Defined by de-list bid, which is used to allocate the given de-list bid
 - Only PDBs are applicable.

Allocation Model

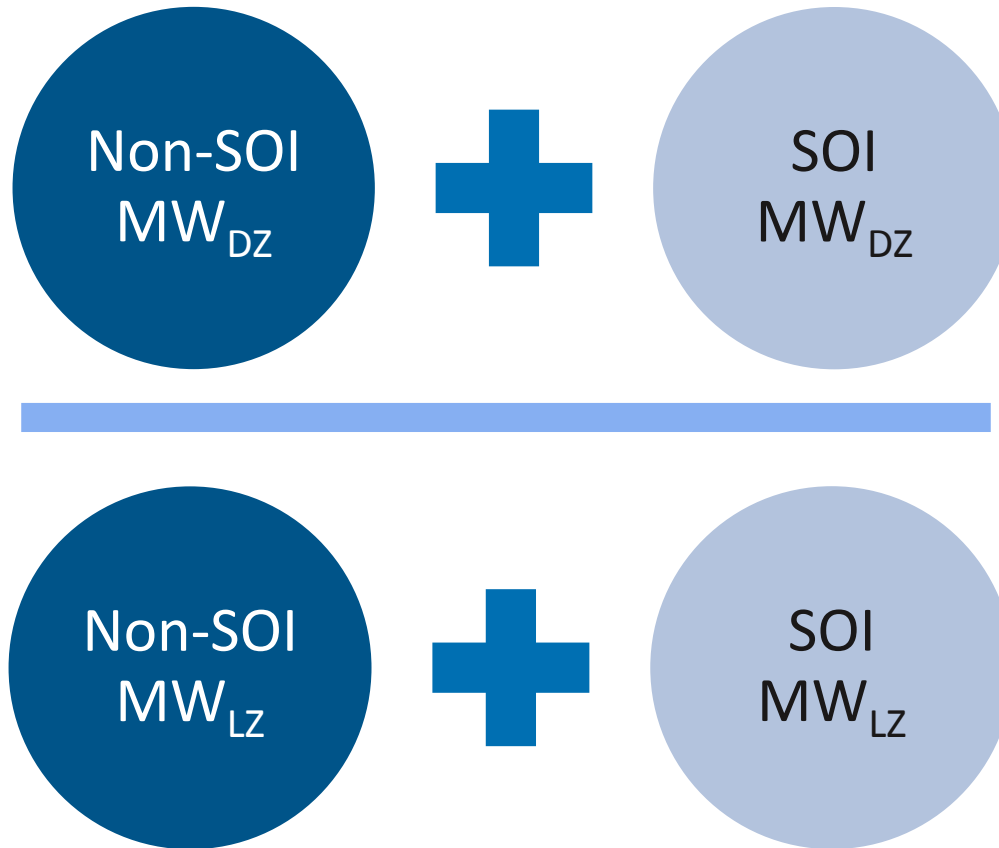
Resource Factor

- Defined by resource and CCP, which is calculated by the model using Non-SOI and SOI data
- Used to allocate:
 - Quantitative resource attributes (e.g., Existing Capacity Max MW)
 - Capacity Supply Obligations (CSO)
 - Future qualification calculation input data

Non-SOI MW and SOI MW values are included for all CCPs up through, and including, the given CCP that the Resource Factor is being calculated for.

Allocation Model

Resource Factor Calculation



Non-SOI MW and SOI MW values are included for all CCPs up through, and including, the given CCP that the Resource Factor is being calculated for.

Allocation Model

Factor Example: Capacity Commitment Period 1

- Existing resource qualified at 10 MW
 - Capacity not proposed via SOI
- Non-SOI Factor = 50% to DZ A and 50% to DZ B

	DZ A	DZ B
Non-SOI MWs	5 MW (50%)	5 MW (50%)
Total	5 MW	5 MW
Resource Factor	5/10 = 50%	5/10 = 50%

Allocation Model

Factor Example: Capacity Commitment Period 2

- Same resource, 10 MW increment
- SOI Factor = 0% to DZ A and 100% to DZ B

	DZ A	DZ B
Non-SOI MWs	5 MW (50%)	5 MW (50%)
SOI MWs (New Increment)	0 MW (0%)	10 MW (100%)
Total	5 MW	15 MW
Resource Factor	$5/20 = 25\%$	$15/20 = 75\%$

Allocation Model

Contents

Tab Names	Tab Description
Instr & Elect	Instructions link and merge election
In - No SOI - No DZ	Input – No associated SOI and no DZ assignment
In - SOI - No DZ	Input – SOI, but no DZ assignment
In - De-List Bids - No DZ	Input – De-list bids
In – CSO by DZ	Input – CSO for resources already defined by DZ
In - Asset Data	Input – Asset Data
In - Adv Proj Alloc	Input – Advisory Project allocation factors
Result - CSO (No Merge)	Result – CSO allocation with no merging
Result - CSO (Merge)	Result – CSO allocation with merging

Allocation Model

Merge Election Selections

From the drop-down, elect either “Merge” or “Do Not Merge.”

Select whether you want to merge all Resources, wherever possible:

Merge	▼
Merge	
Do Not Merge	

Allocation Model

Instructions Link and Merge Election

- Merge Election
 - Children in the model will be merged wherever DZ assignments are the same **and** DR types are the same.
- Resources with DR type changes are only permitted to merge with other resources with like DR type changes.
- Do Not Merge Election
 - Children in the model will be kept separate.
- Includes link to this training presentation

Allocation Model

Input – No Associated SOI and No DZ Assignment

Capacity That Did Not Qualify Via an SOI									
Customer ID	Parent Resource ID	Parent Resource Name	DR Type	Load Zone ID	Load Zone Name	FCA CCP ID	Effective CCP ID	FCA QC MW (DRY, Pre-Prorated)	Advisory Allocation Method
1	123	Parent Resource 1	RTEG	4006	SEMA	1	1	10.000	Across DZ[s]

- LP does not enter any data in these columns.
- Record for each resource that did not qualify via an SOI and does not have a DZ assignment

Allocation Model

Input – No Associated SOI and No DZ Assignment (cont.)

FCA CCP
First CCP in which the given resource qualified.

FCA Qualified Capacity (QC)
Pre-prorated, Demand Reduction Value (DRV)
QC MW

Capacity That Did Not Qualify Via an SOI						FCA CCP ID	Effective CCP ID	FCA QC MW (DRV, Pre-Prorated)
Customer ID	Parent Resource ID	Parent Resource Name	DR Type	Load Zone ID	Load Zone Name			
1	123	Parent Resource 1	RTEG	4006	SEMA			

Effective CCP
First CCP for which the given resource was available to provide capacity (for these resources, always CCP 1)

Allocation Model

Input – No Associated SOI and No DZ Assignment (cont.)

Capacity That Did Not Qualify Via an SOI						
Customer ID	Parent Resource ID	Parent Resource Name	DR Type	Load Zone ID	Load Zone Name	FCA CCP ID
1	123	Parent Resource 1	RTEG	4006	SEMA	1

Advisory Allocation Method

Across DZ(s)

- *Advisory Allocation Method* column
 - Informational; provides methodology used to derive the advisory allocation factors.

Allocation Model

Input – No Associated SOI and No DZ Assignment (cont.)

Capacity That Did Not Qualify Via an SOI						
Customer ID	Parent Resource ID	Parent Resource Name	DR Type	Load Zone ID	Load Zone Name	FCA CCP ID
1	123	Parent Resource 1	RTEG	4006	SEMA	1

Advisory Allocation Method

Across DZ(s)

- Advisory allocation factors are determined as follows:
 1. If at least one asset is mapped to it, the DZ(s) of the currently mapped asset(s), weighted as follows:
 - If Summer Claimed Capability < 20% of Maximum Interruptible Capacity (MIC), then use 80% of the MIC.
 - Else, use Summer Claimed Capability.
 2. Else, evenly distribute across all DZs in the LZ.

Allocation Model

Input – No Associated SOI and No DZ Assignment (cont.)

	Dispatch Zone %																			
Total	Eastern CT	Northern CT	Norwalk - Stamford	Western CT	Boston	North Shore	SEMA	Lower SEMA	Western MA	Springfield MA	Central MA	New Hampshire	Seacoast	Northwest Vermont	Vermont	Bangor Hydro	Maine	Portland Maine	Rhode Island	
100.000%							50.000%	50.000%												

- Advisory Non-SOI Factors are provided in the *Dispatch Zone %* columns but must be overwritten by LP, if desired.
 - To do so, select the given cell, then type in the correct factor.
 - For example, if an advisory allocation factor is 50% for a given DZ, but 40% is desired, select the cell, then type 40.
 - Allowable precision to the one thousandth of a percentage point
- Resources that have only had winter QC will have advisory allocation factors = 0% to each DZ. They'll need to be overwritten with actual allocation factors.

Allocation Model

Input – No Associated SOI and No DZ Assignment (cont.)

Total	Dispatch Zone %																
	Norwalk - Stamford	Western CT	Boston	North Shore	SEMA	Lower SEMA	Western MA	Springfield MA	Central MA	New Hampshire	Seacoast	Northwest Vermont	Vermont	Bangor Hydro	Maine	Portland Maine	Rhode Island
100.000%					50.000%	50.000%											

- Model prevents entering factors for DZs that are not within the resource's LZ.
- LP must verify that the *Total* column = 100%; cell turns yellow if < 100% and red if > 100%.

Allocation Model

Input – No Associated SOI and No DZ Assignment (cont.)

FCA Qualified Capacity MW Allocation to Dispatch Zone																		
Eastern CT	Northern CT	Norwalk - Stamford	Western CT	Boston	North Shore	SEMA	Lower SEMA	Western MA	Springfield MA	Central MA	New Hampshire	Seacoast	Northwest Vermont	Vermont	Bangor Hydro	Maine	Portland Maine	Rhode Island
-	-	-	-	-	-	5,000	5,000	-	-	-	-	-	-	-	-	-	-	-

- LP does not enter any data in these columns.
- Displays *FCA Qualified Capacity MW Allocation to Dispatch Zone*
- Calculation:



Allocation Model

Input – SOI, but No Dispatch Zone Assignment

Proposal Allocation (For SOIs submitted on Resources that were not already defined at the DZ level)

Customer ID	Parent Resource ID	Parent Resource Name	DR Type	Load Zone ID	Load Zone Name	FCA CCP ID	Effective CCP ID	Project ID	Proposal ID	CPS ID	Project Type	CSO Type	FCA CSO MW (DRY, Pre-Prorated)	Original On Monitoring MW (DRY, Pre-Prorated)	FCA QC MW (DRY) (For CP 5 SOIs)	Total MW	Advisory Allocation Method
1	123	Parent Resource 1	RTEG	4006	SEMA	2	2	10	10	5	EXISTING DR	NCO	10,000	-	-	10,000	Across DZ(s)

- LP does not enter any data in these columns.
- Record for each SOI associated with a resource that does not have a DZ assignment

Allocation Model

Input – SOI, but No Dispatch Zone Assignment (cont.)

Effective CCP

First earlier of the FCA CCP, Proposed Commercial Operation Date (CODp) CCP, Actual COD (CODa) CCP

FCA CSO

Pre-prorated, Demand Reduction Value (DRV) CSO MW

Proposal Allocation (For SOIs submitted on Resources that were not already defined at the DZ level)																	
Customer ID	Parent Resource ID	Parent Resource Name	DR Type	Load Zone ID	Load Zone Name	FCA CCP ID	Effective CCP ID	Project	Proposal ID	CPS ID	Project Type	CSO Type	FCA CSO MW (DRV, Pre-Prorated)	Original On Monitoring MW (DRV, Pre-Prorated)	Total MW	Advisory Allocation Method	
1	123	Parent Resource 1	RTEG	4006	SEMA	?	?		10	10	5	EXISTING DR	NCO	10.000	-	10.000	Across DZ(s)

FCA CCP

First CCP in which the given resource qualified

Original On-Monitoring MW

Pre-prorated, DRV MW; quantity of FCA QC MW that exceeds FCA CSO MW; only applicable when CPS monitoring is elected

Allocation Model

Input – SOI, but No Dispatch Zone Assignment (cont.)

Proposal Allocation (For SOIs submitted on Resources that were not already defined at the DZ level)

Customer ID	Parent Resource ID	Parent Resource Name	DR Type	Load Zone ID	Load Zone Name	FCA CCP ID	Effective CCP ID	Project ID	Proposal ID	CPS ID	Project Type	CSO Type	FCA CSO MW (DRY, Pre-Prorated)	Original On Monitoring MW (DRY, Pre-Prorated)	FCA QC MW (DRY) (For CP 5 SOIs)	Total MW	Advisory Allocation Method
1	1231	Parent Resource 1	RTEG	4006	SEMA	2	2	10	10	5	EXISTING DR	NCO	10.000	-	-	10.000	Across DZ(s)

- CCP 5 FCA QC MW
 - Pre-prorated, DRV FCA QC MW
 - Only populated for CCP 5 SOIs
- LP must consider that SOIs for CCP 5 have not cleared yet.
 - Even if an SOI does not clear in full, or does not elect CPS monitoring, the weighting of that SOI on the Resource Factor for CCP 5 will be based on the SOI's **full Qualified MW**.

Allocation Model

Input – SOI, but No Dispatch Zone Assignment (cont.)

Proposal Allocation (For SOIs submitted on Resources that were not already defined at the DZ level)

Customer ID	Parent Resource ID	Parent Resource Name	DR Type	Load Zone ID	Load Zone Name	FCA CCP ID	Effective CCP ID	Project ID	Proposal ID	CPS ID	Project Type	CSO Type	FCA CSO MW (DRY, Pre-Prorated)	Original On Monitoring MW (DRY, Pre-Prorated)	FCA QC MW (DRY) (For CP 5 SOIs)	Total MW	Advisory Allocation Method
1	123	Parent Resource 1	RTEG	4006	SEMA	2	2	10	10	5	EXISTING DR	NCO	10.000	-	-	10.000	Across DZ(s)

- Example:

- SOI for CCP 1 for 10 MW which is allocated 100% to the **lower SEMA DZ**
 - As a result, the Resource Factor for CCPs 1 through 4 is 100% to the lower SEMA DZ.
- Approved SOI for CCP 5 for 10 MW:
SOI Factor = 100% to the **SEMA DZ**
- Resource Factor for CCP 5 =
50% to the lower SEMA DZ and 50% to the SEMA DZ

Allocation Model

Input – SOI, but No Dispatch Zone Assignment (cont.)

Proposal Allocation (For SOIs submitted on Resources that were not already defined at the DZ level)

Customer ID	Parent Resource ID	Parent Resource Name	DR Type	Load Zone ID	Load Zone Name	FCA CCP ID	Effective CCP ID	Project ID	Proposal ID	CPS ID	Project Type	CSO Type	FCA CSO MW (DRY, Pre-Prorated)	Original On Monitoring MW (DRY, Pre-Prorated)	FCA QC MW (DRY) (For CP 5 SOIs)	Total MW	Advisory Allocation Method
1	1231	Parent Resource 1	RTEG	4006	SEMA	2	2	10	10	5	EXISTING DR	NCO	10,000	-	-	10,000	Across DZ(s)

- Consider:
 - If the SOI for CCP 5 **does not clear and did not elect CPS monitoring**, 50% of the Parent’s quantitative attributes (for CP 5 and beyond), CSO (for CP 5), and future Qualification calculation input data (for CP 5 and beyond), will still go to the **Child in the SEMA DZ** and the other 50% will go to the Child in the lower SEMA DZ.

Allocation Model

Input – SOI, but No Dispatch Zone Assignment (cont.)

Proposal Allocation (For SOIs submitted on Resources that were not already defined at the DZ level)

Customer ID	Parent Resource ID	Parent Resource Name	DR Type	Load Zone ID	Load Zone Name	FCA CCP ID	Effective CCP ID	Project ID	Proposal ID	CPS ID	Project Type	CSO Type	FCA CSO MW (DRY, Pre-Prorated)	Original On-Monitoring MW (Pre-Prorated)	Total MW	Advisory Allocation Method
1	123	Parent Resource 1	RTEG	4006	SEMA	2	2	10	10	5	EXISTING DR	NCO	10,000		10,000	Across DZ(s)

Total MW
Final quantity allocated to DZ.

- **For CCPs 1-4:**
FCA CSO MW + Original On-Monitoring MW
- **For CCP 5:**
CCP 5 FCA QC MW

Advisory Allocation Method:
Informational; provides methodology used to derive the advisory allocation factors

Allocation Model

Input – SOI, but No Dispatch Zone Assignment (cont.)

Proposal Allocation (For SOIs submitted on Resources that were not already defined at the DZ level)

Customer ID	Parent Resource ID	Parent Resource Name	DR Type	Load Zone ID	Load Zone Name	FCA CCP ID	Effective CCP ID	Project ID	Proposal ID	CPS ID	Project Type	CSO Type	FCA CSO MW (DRY, Pre-Prorated)	Original On Monitoring MW (DRY, Pre-Prorated)	FCA QC MW (DRY) (For CP 5 SOIs)	Total MW	Advisory Allocation Method
1	123	Parent Resource 1	RTEG	4006	SEMA	2	2	10	10	5	EXISTING DR	NCO	10,000	-	-	10,000	Across DZ(s)

- Advisory allocation factors are determined as follows:
 1. If the associated LP provided a non-binding DZ(s) assignment(s), this non-binding DZ assignment(s) is used (these were submitted for CCPs 3 thru 5).
 2. If at least one asset is mapped to it, the DZ(s) of the currently mapped asset(s) is weighted as follows:
 - If Summer Claimed Capability < 20% of Maximum Interruptible Capacity (MIC), then use 80% of the MIC
 - Else, use Summer Claimed Capability.
 3. Else, evenly distribute across all DZs in the Load Zone (LZ).

Allocation Model

Input – SOI, but No Dispatch Zone Assignment (cont.)

Total	Dispatch Zone %																			
	Eastern CT	Northern CT	Norwalk - Stamford	Western CT	Boston	North Shore	SEMA	Lower SEMA	Western MA	Springfield MA	Central MA	New Hampshire	Seacoast	Northwest Vermont	Vermont	Bangor Hydro	Maine	Portland Maine	Rhode Island	
100.000%							0.000%	100.000%												

- Advisory SOI Factors are provided in the *Dispatch Zone %* columns, but must be overwritten by LP, if desired.
 - Allowable precision to the one thousandth of a percentage point
- Resources that have only had winter QC will have advisory allocation factors = 0% to each DZ. They'll need to be overwritten with actual allocation factors.

Allocation Model

Input – SOI, but No Dispatch Zone Assignment (cont.)

Total	Dispatch Zone %																			
	Eastern CT	Northern CT	Norwalk - Stamford	Western CT	Boston	North Shore	SEMA	Lower SEMA	Western MA	Springfield MA	Central MA	New Hampshire	Seacoast	Northwest Vermont	Vermont	Bangor Hydro	Maine	Portland Maine	Rhode Island	
100.000%							0.000%	100.000%												

- Model prevents entering factors for DZs that are not within the resource's LZ.
- LP must verify that the *Total* column = 100%; cell turns yellow if < 100% and red if > 100%.

Allocation Model

Input – SOI, but No Dispatch Zone Assignment (cont.)

FCA CSO MV Allocation to Dispatch Zone																		
Eastern CT	Northern CT	Norwalk - Stamford	Western CT	Boston	North Shore	SEMA	Lower SEMA	Western MA	Springfield MA	Central MA	New Hampshire	Seacoast	Northwest Vermont	Vermont	Bangor Hydro	Maine	Portland Maine	Rhode Island
-	-	-	-	-	-	-	10.000	-	-	-	-	-	-	-	-	-	-	-

Monitored MV Allocation to Dispatch Zone																		
Eastern CT	Northern CT	Norwalk - Stamford	Western CT	Boston	North Shore	SEMA	Lower SEMA	Western MA	Springfield MA	Central MA	New Hampshire	Seacoast	Northwest Vermont	Vermont	Bangor Hydro	Maine	Portland Maine	Rhode Island
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

FCA Qualified Capacity MV for CP 5 Allocation to Dispatch Zone																		
Eastern CT	Northern CT	Norwalk - Stamford	Western CT	Boston	North Shore	SEMA	Lower SEMA	Western MA	Springfield MA	Central MA	New Hampshire	Seacoast	Northwest Vermont	Vermont	Bangor Hydro	Maine	Portland Maine	Rhode Island
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CSO MV, On-Monitoring MV, and FCA QC MV for CP 5 only by Dispatch Zone																		
Eastern CT	Northern CT	Norwalk - Stamford	Western CT	Boston	North Shore	SEMA	Lower SEMA	Western MA	Springfield MA	Central MA	New Hampshire	Seacoast	Northwest Vermont	Vermont	Bangor Hydro	Maine	Portland Maine	Rhode Island
-	-	-	-	-	-	-	10.000	-	-	-	-	-	-	-	-	-	-	-

LP does not enter any data in these columns.

Allocation Model

Input – SOI, but No Dispatch Zone Assignment (cont.)

FCA CSO MW Allocation to Dispatch Zone																		
Eastern CT	Northern CT	Norwalk - Stamford	Western CT	Boston	North Shore	SEMA	Lower SEMA	Western MA	Springfield MA	Central MA	New Hampshire	Seacoast	Northwest Vermont	Vermont	Bangor Hydro	Maine	Portland Maine	Rhode Island
-	-	-	-	-	-	-	-	10.000	-	-	-	-	-	-	-	-	-	-

- Displays allocated data elements:
 - FCA CSO MW Allocation to Dispatch Zone,
 - Monitored MW Allocation to Dispatch Zone,
 - FCA Qualified Capacity MW for CP5 Allocation to Dispatch Zone, and
 - Total MW Allocation to Dispatch Zone.
 - Total MW is calculated as:
 - For CPs 1-4: FCA CSO MW + Monitored MW
 - For CP 5: FCA Qualified Capacity MW

Allocation Model

Input – SOI, but No Dispatch Zone Assignment (cont.)

FCA CSO MV Allocation to Dispatch Zone																		
Eastern CT	Northern CT	Norwalk - Stamford	Western CT	Boston	North Shore	SEMA	Lower SEMA	Western MA	Springfield MA	Central MA	New Hampshire	Seacoast	Northwest Vermont	Vermont	Bangor Hydro	Maine	Portland Maine	Rhode Island
-	-	-	-	-	-	-	-	10.000	-	-	-	-	-	-	-	-	-	-

Calculation:



Allocation Model

Input – De-List Bids

Cleared Administrative Export, Export, and Permanent De-List Bid Allocation									
Customer ID	Parent Resource ID	Parent Resource Name	Load Zone ID	Load Zone Name	CP ID	De-List Bid ID	De-List Bid Type	De-List Bid Segment	De-List Bid MW (DRV, Pre-Prorated)
1	123	Parent Resource 1	4006	SEMA	4	250	Permanent	1	-20

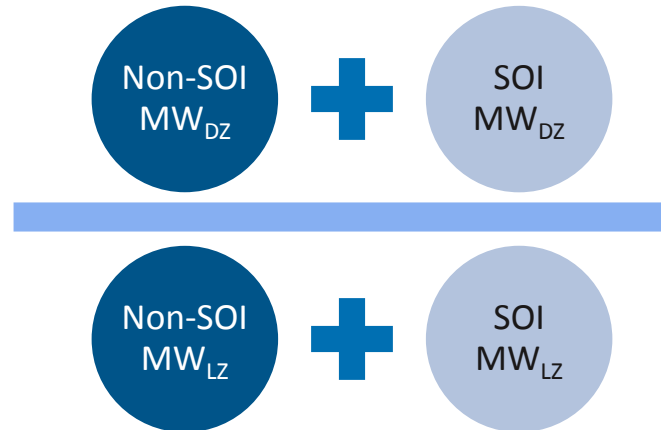
- LP does not enter any data in these columns
- Includes only PDBs
- De-List Bid MW (DRV, Pre-Prorated), DRV De-List Bid Quantity MW
 - De-list bid quantity is the quantity **removed** from the FCM, not the quantity remaining.

Allocation Model

Input – De-List Bids (cont.)

Cleared Administrative Export, Export, and Permanent De-List Bid Allocation									
Customer ID	Parent Resource ID	Parent Resource Name	Load Zone ID	Load Zone Name	CP ID	De-List Bid ID	De-List Bid Type	De-List Bid Segment	De-List Bid MW (DRY, Pre-Prorated)
1	123	Parent Resource 1	4006	SEMA	4	250	Permanent	1	-20

- Advisory allocation factors are determined as follows:
(for instance, Resource Factor for the CCP that the de-list bid applies to)



Allocation Model

Input – De-List Bids (cont.)

Total	Dispatch Zone %																		
	Eastern CT	Northern CT	Norwalk - Stamford	Western CT	Boston	North Shore	SEMA	Lower SEMA	Western MA	Springfield MA	Central MA	New Hampshire	Seacoast	Northwest Vermont	Vermont	Bangor Hydro	Maine	Portland Maine	Rhode Island
100.000%							25.000%	75.000%											

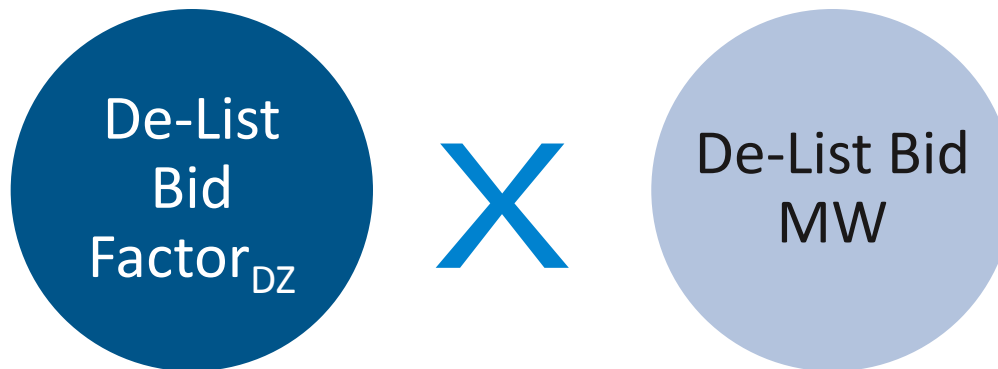
- Advisory De-List Bid Factors are provided in *Dispatch Zone %* columns, but must be overwritten by LP, if desired.
 - Allowable precision to the one thousandth of a percentage point.
- Model prevents entering factors for DZs that are not within the resource's LZ.
- LP must verify that the *Total* column = 100%, cell turns yellow if < 100% and red if > 100%.

Allocation Model

Input – De-List Bids (cont.)

Cleared Administrative Export Bid, Export Bid and Permanent De-List Bid MW Allocation to Dispatch Zone																		
Eastern CT	Northern CT	Norwalk - Stamford	Western CT	Boston	North Shore	SEMA	Lower SEMA	Western MA	Springfield MA	Central MA	New Hampshire	Seacoast	Northwest Vermont	Vermont	Bangor Hydro	Maine	Portland Maine	Rhode Island
<input type="text" value="0.000"/>	<input type="text" value="0.000"/>	<input type="text" value="0.000"/>	<input type="text" value="0.000"/>	<input type="text" value="0.000"/>	<input type="text" value="0.000"/>	<input type="text" value="-5.000"/>	<input type="text" value="-15.000"/>	<input type="text" value="0.000"/>	<input type="text" value="0.000"/>	<input type="text" value="0.000"/>	<input type="text" value="0.000"/>	<input type="text" value="0.000"/>	<input type="text" value="0.000"/>	<input type="text" value="0.000"/>	<input type="text" value="0.000"/>	<input type="text" value="0.000"/>	<input type="text" value="0.000"/>	<input type="text" value="0.000"/>

- LP does not enter any data in these columns.
- Calculation:



Allocation Model

Input – De-List Bids (cont.)

Cleared Administrative Export Bid, Export Bid and Permanent De-List Bid MW Allocation to Dispatch Zone																		
Eastern CT	Northern CT	Norwalk - Stamford	Western CT	Boston	North Shore	SEMA	Lower SEMA	Western MA	Springfield MA	Central MA	New Hampshire	Seacoast	Northwest Vermont	Vermont	Bangor Hydro	Maine	Portland Maine	Rhode Island
0.000	0.000	0.000	0.000	0.000	0.000	-5.000	-15.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

- Example:
 - If the resource in the SEMA Load Zone has a Resource Factor in CCP 4 of 100% to the **lower SEMA DZ**, a positive De-List Bid Factor to the **SEMA DZ** would be inappropriate
 - Should be **100%** to the **lower SEMA DZ**.

Allocation Model

Input – CSO for Resources Already Defined by DZ

CSO For Resources already defined at the DZ level

Customer ID	Parent Resource ID	Parent Resource Name	DR Type	DR Type Change	Load Zone ID	Load Zone Name	Dispatch Zone ID	Dispatch Zone Name	CP ID	CSO Type	FCA CSO MW (Grossed-up for Losses and Reserves, Post-Proration)
1	456	Parent Resource 2 (B4 DZ)	RTEG		4006	SEMA	7511	Lower SEMA	4	NCO	20,000
1	789	Parent Resource 3 (B4 DZ)	RTEG		4006	SEMA	7512	SEMA	4	NCO	5,000

- LP does not enter any data in this tab.
- Data is factored into the *Result – CSO Allocation With Merging* tab, but only if “Merge” is elected.
- FCA CSO MW (Grossed-up for Losses and Reserves, Post-Proration)

Allocation Model

Result – CSO Allocation With No Merging

Results - CSO Allocation (No Merge)

Customer ID	Parent Resource ID	Parent Resource Name	Child Resource Name	DR Type	DR Type Change	Load Zone ID	Load Zone Name	CP ID	CSO Type	If MRECO, Original CCP ID	Actual CSO MW (Grossed-up for Losses and Reserves, Post-Proration) (June 1st)
1	123	Parent Resource 1	RTEG 1 Lower SEMA (7511) - 123	RTEG		4006	SEMA	1		0	
1	123	Parent Resource 1	RTEG 1 Lower SEMA (7511) - 123	RTEG		4006	SEMA	2	ECO	0	12
1	123	Parent Resource 1	RTEG 1 Lower SEMA (7511) - 123	RTEG		4006	SEMA	2	NCO	0	12
1	123	Parent Resource 1	RTEG 1 Lower SEMA (7511) - 123	RTEG		4006	SEMA	3	ECO	0	24
1	123	Parent Resource 1	RTEG 1 Lower SEMA (7511) - 123	RTEG		4006	SEMA	4	ECO	0	0
1	123	Parent Resource 1	RTEG 1 Lower SEMA (7511) - 123	RTEG		4006	SEMA	5		0	

- LP does not enter any data in this tab.
- Tab calculates and displays the final Resource Factor per CCP.
- Again, Resource Factor per CCP is used to allocate:
 - Quantitative resource attributes (e.g., Existing Capacity Max MW)
 - Actual CSO MW (Grossed-up for Losses and Reserves, Post-Proration)
 - Future qualification calculation input data

Allocation Model

Result – CSO Allocation With No Merging (cont.)

Results - CSO Allocation (No Merge)

Customer ID	Parent Resource ID	Parent Resource Name	Child Resource Name	DR Type	DR Type Change	Load Zone ID	Load Zone Name	CP ID	CSO Type	If MRECO, Original CCP ID	Actual CSO MW (Grossed-up for Losses and Reserves, Post-Proration) (June 1st)
1	123	Parent Resource 1	RTEG 1 Lower SEMA (7511) - 123	RTEG		4006	SEMA	1		0	
1	123	Parent Resource 1	RTEG 1 Lower SEMA (7511) - 123	RTEG		4006	SEMA	2	ECO	0	12
1	123	Parent Resource 1	RTEG 1 Lower SEMA (7511) - 123	RTEG		4006	SEMA	2	NCO	0	12
1	123	Parent Resource 1	RTEG 1 Lower SEMA (7511) - 123	RTEG		4006	SEMA	3	ECO	0	24
1	123	Parent Resource 1	RTEG 1 Lower SEMA (7511) - 123	RTEG		4006	SEMA	4	ECO	0	0
1	123	Parent Resource 1	RTEG 1 Lower SEMA (7511) - 123	RTEG		4006	SEMA	5		0	

- Records begin with CCP 1:
 - If no CSO for Parent, one record per Parent, per CCP
 - If CSO exists, one record per Parent, per CCP, per CSO record

Allocation Model

Result – CSO Allocation With No Merging (cont.)

Results - CSO Allocation (No Merge)											
Customer ID	Parent Resource ID	Parent Resource Name	Child Resource Name	DR Type	DR Type Change	Load Zone ID	Load Zone Name	CP ID	CSO Type	If MRECO, Original CCP ID	Actual CSO MW (Grossed-up for Losses and Reserves, Post-Proration) (June 1st)
1	123	Parent Resource 1	RTEG 1 Lower SEMA (7511) - 123	RTEG		4006	SEMA	1		0	
1	123	Parent Resource 1	RTEG 1 Lower SEMA (7511) - 123	RTEG		4006	SEMA	2	ECO	0	12
1	123	Parent Resource 1	RTEG 1 Lower SEMA (7511) - 123	RTEG		4006	SEMA	2	NCO	0	12
1	123	Parent Resource 1	RTEG 1 Lower SEMA (7511) - 123	RTEG		4006	SEMA	3	ECO	0	24
1	123	Parent Resource 1	RTEG 1 Lower SEMA (7511) - 123	RTEG		4006	SEMA	4	ECO	0	0
1	123	Parent Resource 1	RTEG 1 Lower SEMA (7511) - 123	RTEG		4006	SEMA	5		0	

- **Child Resource Name:**

- If “Do Not Merge” is elected, Child Resource Name is populated.
 - Convention is: <DR Type>_<LP Customer Load ID>_<DZ Name>_<DZ ID> - <Parent Resource ID>
- Else, “Not applicable as Merge” elected; *Result - CSO (Merge)* tab is displayed.
- Names can be updated by making a request with Customer Support, after resource disaggregation effort is complete in the FCTS.

Allocation Model

Result – CSO Allocation With No Merging (cont.)

Allocation % Total	Final Resource Allocation %																			
	Easter n CT	Northe rn CT	Norwal k - Stamford	Wester n CT	Boston	North Shore	SEMA	Lower SEMA	Wester n MA	Springf ield MA	Central MA	New Hampsh ire	Seacoa st	Northw est Vermo nt	Vermo nt	Bangor Hydro	Maine	Portlan d Maine	Rhode Island	
100.000%							50.000%	50.000%												
100.000%							25.000%	75.000%												
100.000%							25.000%	75.000%												
100.000%							25.000%	75.000%												
100.000%							25.000%	75.000%												
100.000%							25.000%	75.000%												

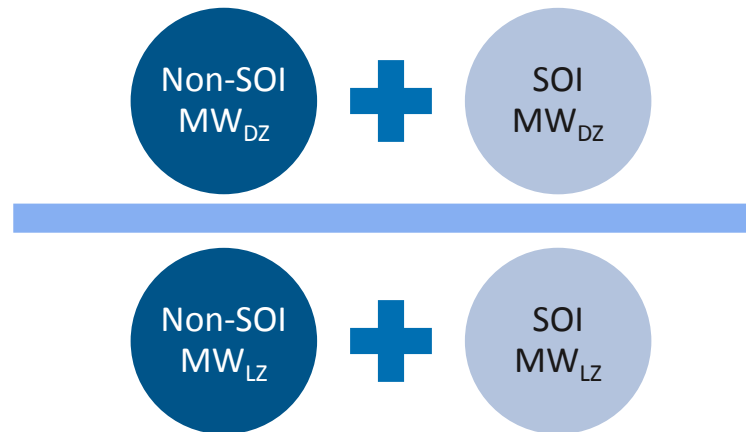
If CSO type = MRECO, the CSO allocation is performed using the Resource Factor from the original CCP in which that capacity cleared as *New*.

Allocation Model

Result – CSO Allocation With No Merging (cont.)

Allocation % Total	Final Resource Allocation %																				
	Easter n CT	Northern CT	Norwalk - Stamford	Western CT	Boston	North Shore	SEMA	Lower SEMA	Western MA	Springfield MA	Central MA	New Hampshire	Seacoast	Northwest Vermont	Vermont	Bangor Hydro	Maine	Portland Maine	Rhode Island		
100.000%							50.000%	50.000%													
100.000%							25.000%	75.000%													
100.000%							25.000%	75.000%													
100.000%							25.000%	75.000%													
100.000%							25.000%	75.000%													

Reminder. The Resource Factor by CCP calculation is:



Allocation Model

Result – CSO Allocation With No Merging (cont.)

Dispatch Zone CSO MW (Representative): Redistributed																			
Eastern CT	Northern CT	Norwalk - Stamford	Western CT	Boston	North Shore	SEMA	Lower SEMA	Western MA	Springfield MA	Central MA	New Hampshire	Seacoast	Northwest Vermont	Vermont	Bangor Hydro	Maine	Portland Maine	Rhode Island	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	3,000	9,000	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	3,000	9,000	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	6,000	18,000	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- Calculates and displays the representative CSO allocated to each DZ
- Calculation:



Allocation Model

Result – CSO Allocation With No Merging (cont.)

Dispatch Zone CSO MW (Representative): Redistributed																			
Eastern CT	Northern CT	Norwalk - Stamford	Western CT	Boston	North Shore	SEMA	Lower SEMA	Western MA	Springfield MA	Central MA	New Hampshire	Seacoast	Northwest Vermont	Vermont	Bangor Hydro	Maine	Portland Maine	Rhode Island	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	3,000	9,000	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	3,000	9,000	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	6,000	18,000	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- CSO MW (Grossed-up for Losses and Reserves, Post-Proration)
- Rounding can cause CSO reported on this tab to be different from official CSO values contained in FCTS.
 - FCTS is the official source of record.

Allocation Model

Result – CSO Allocation With Merging

Results - CSO Allocation (Merging)									
Customer ID	Child Resource Name	DR Type	Load Zone ID	Load Zone Name	Dispatch Zone ID	Dispatch Zone	Obligation Type	CCP	CSO MW (Grossed-up for Losses and Reserves, Post-Proration)
1	RTEG 1 Lower SEMA (7511)	RTEG	4006	SEMA	7511	Lower SEMA	ECO	2	9
1	RTEG 1 Lower SEMA (7511)	RTEG	4006	SEMA	7511	Lower SEMA	NCO	2	9
1	RTEG 1 Lower SEMA (7511)	RTEG	4006	SEMA	7511	Lower SEMA	ECO	3	18
1	RTEG 1 Lower SEMA (7511)	RTEG	4006	SEMA	7511	Lower SEMA	NCO	4	20
1	RTEG 1 SEMA (7512)	RTEG	4006	SEMA	7512	SEMA	ECO	2	3
1	RTEG 1 SEMA (7512)	RTEG	4006	SEMA	7512	SEMA	NCO	2	3
1	RTEG 1 SEMA (7512)	RTEG	4006	SEMA	7512	SEMA	ECO	3	6
1	RTEG 1 SEMA (7512)	RTEG	4006	SEMA	7512	SEMA	NCO	4	8

- LP does not enter any data in this tab.
- Records begin with CCP 2.
- Child Resource Name:
 - If “Merge” is elected, Child Resource Name is populated.
 - Convention is: <DR Type>_<LP Customer ID>_<DZ Name>_<DZ ID>
 - Else, “Not applicable as Merge” not elected; Results – CSO (No Merge) tab is displayed.

Allocation Model

Result – CSO Allocation With Merging (cont.)

Results - CSO Allocation (Merging)									
Customer ID	Child Resource Name	DR Type	Load Zone ID	Load Zone Name	Dispatch Zone ID	Dispatch Zone	Obligation Type	CCP	CSO MW (Grossed-up for Losses and Reserves, Post-Proration)
1	RTEG 1 Lower SEMA (7511)	RTEG	4006	SEMA	7511	Lower SEMA	ECO	2	9
1	RTEG 1 Lower SEMA (7511)	RTEG	4006	SEMA	7511	Lower SEMA	NCO	2	9
1	RTEG 1 Lower SEMA (7511)	RTEG	4006	SEMA	7511	Lower SEMA	ECO	3	18
1	RTEG 1 Lower SEMA (7511)	RTEG	4006	SEMA	7511	Lower SEMA	NCO	4	20
1	RTEG 1 SEMA (7512)	RTEG	4006	SEMA	7512	SEMA	ECO	2	3
1	RTEG 1 SEMA (7512)	RTEG	4006	SEMA	7512	SEMA	NCO	2	3
1	RTEG 1 SEMA (7512)	RTEG	4006	SEMA	7512	SEMA	ECO	3	6
1	RTEG 1 SEMA (7512)	RTEG	4006	SEMA	7512	SEMA	NCO	4	5

- Rounding can cause CSO reported on this tab to be different from official CSO values contained in FCTS.
 - FCTS is the official source of record.
- Displays representative allocation of CSO to Children; includes CSO from resources that are already defined by DZ from the *In - CSO by DZ* tab.

Allocation Model

Result – CSO Allocation With Merging (cont.)

Results - CSO Allocation (Merging)									
Customer ID	Child Resource Name	DR Type	Load Zone ID	Load Zone Name	Dispatch Zone ID	Dispatch Zone	Obligation Type	CCP	CSO MW (Grossed-up for Losses and Reserves, Post-Proration)
1	RTEG 1 Lower SEMA (7511)	RTEG	4006	SEMA	7511	Lower SEMA	ECO	2	9
1	RTEG 1 Lower SEMA (7511)	RTEG	4006	SEMA	7511	Lower SEMA	NCO	2	9
1	RTEG 1 Lower SEMA (7511)	RTEG	4006	SEMA	7511	Lower SEMA	ECO	3	18
1	RTEG 1 Lower SEMA (7511)	RTEG	4006	SEMA	7511	Lower SEMA	NCO	4	20
1	RTEG 1 SEMA (7512)	RTEG	4006	SEMA	7512	SEMA	ECO	2	3
1	RTEG 1 SEMA (7512)	RTEG	4006	SEMA	7512	SEMA	NCO	2	3
1	RTEG 1 SEMA (7512)	RTEG	4006	SEMA	7512	SEMA	ECO	3	6
1	RTEG 1 SEMA (7512)	RTEG	4006	SEMA	7512	SEMA	NCO	4	6

- If “Merge” is elected, CSO MW column displays CSO MW (Grossed-up for Losses and Reserves, Post-Proration).
- Else, displays “N/A”
- If CSO type = MRECO, the CSO allocation is performed using the Resource Factor from the original CCP in which that capacity cleared as *New*.

Allocation Model

Process

- Recap of data that must be provided by the LP:
 - Election to merge or not
 - For resources without a DZ assignment, the following **factors**, each totaling 100%:
 - Non-SOI
 - SOI
 - De-list bid (only for PDBs)
- Models must be emailed to custserv@iso-ne.com by **close of business on Wednesday, February 16, 2011.**
- ISO-NE will analyze data returned in the allocation models and consult with LPs, if necessary.

Allocation Model

Process (cont.)

- If LP does not return a completed model, or if the returned model contains inconsistent data and the LP fails to correct the data,
 - ISO will split the LP's DRs according to the advisory allocations and will merge the LP's DRs.
- Asset-to-resource mappings for Parents will be transferred to Children.
 - Subject to the DZ and DR type being the same for the asset and the Child
- Resource-to-Demand Designated Entities (DDE) mappings and Resource-to-Remote Terminal Units (RTU) mappings for Parents will be transferred to Children.

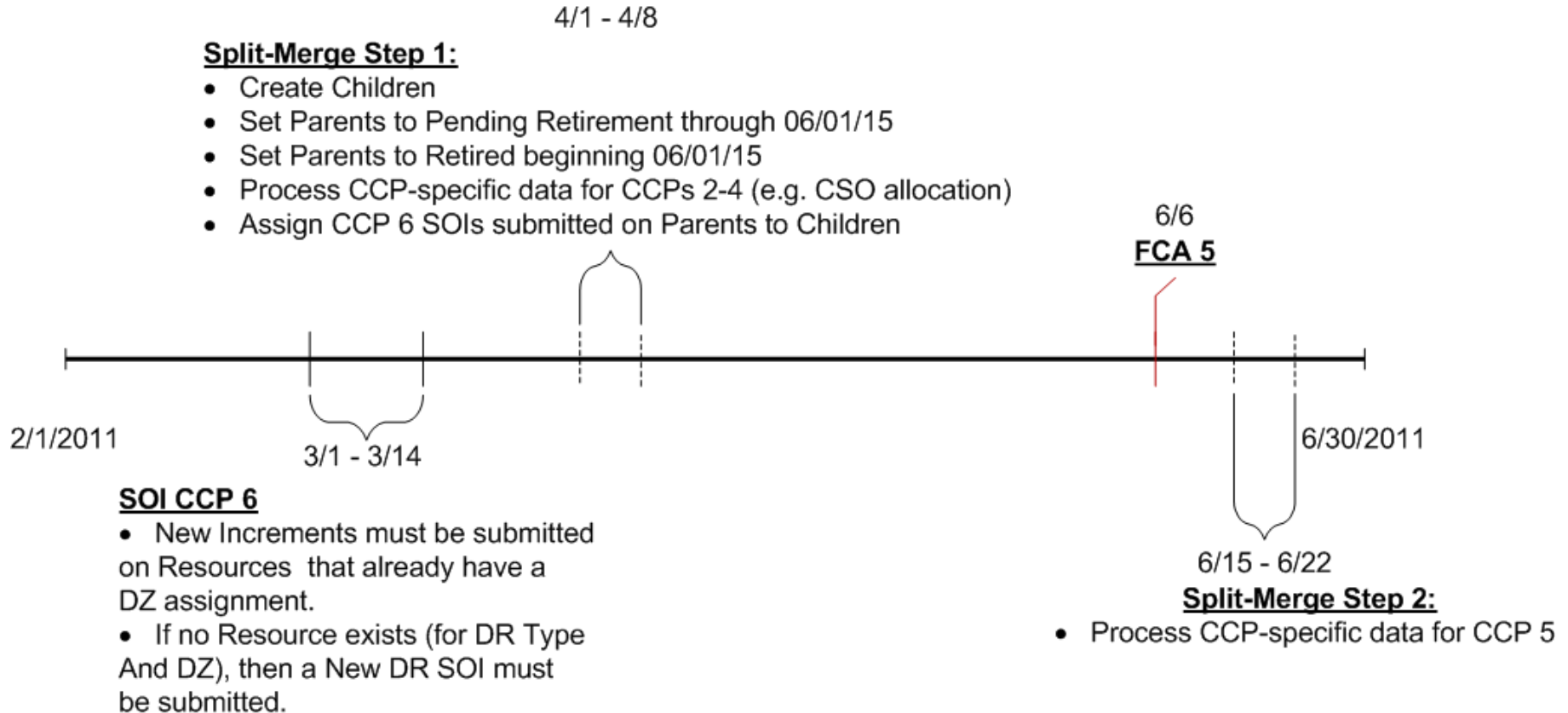
Allocation Model

Resources Participating in Future FCAs

- FCA 5
 - Set of DRs that exist today
 - In other words, Parents of the April 2011 disaggregation (and aggregation) will participate in FCA 5, while Children will not participate in FCA 5.
- FCA 6 and future FCAs
 - Set of DRs that exist today
 - Minus Parents of the April 2011 split/merge
 - Plus Children resulting from the April 2011 split/merge
- SOIs submitted on Parents for CCP 6 will be transferred to Children in April 2011.

Allocation Model

Overall Timeline



Allocation Model

Related Considerations

- Merging will not adversely impact Financial Assurance (FA) obligations on the non-commercial components of a merged demand resource provided the demand resource is compliant with MR1, Section 13.3 (CPS monitoring).
 - See FA examples in the [December '10 DRWG Resource Split and Merge presentation](#).
- Merging DRs **shall not change** the qualified capacity or CSO obligation of the DRs which are merged.

Allocation Model

Related Considerations (cont.)

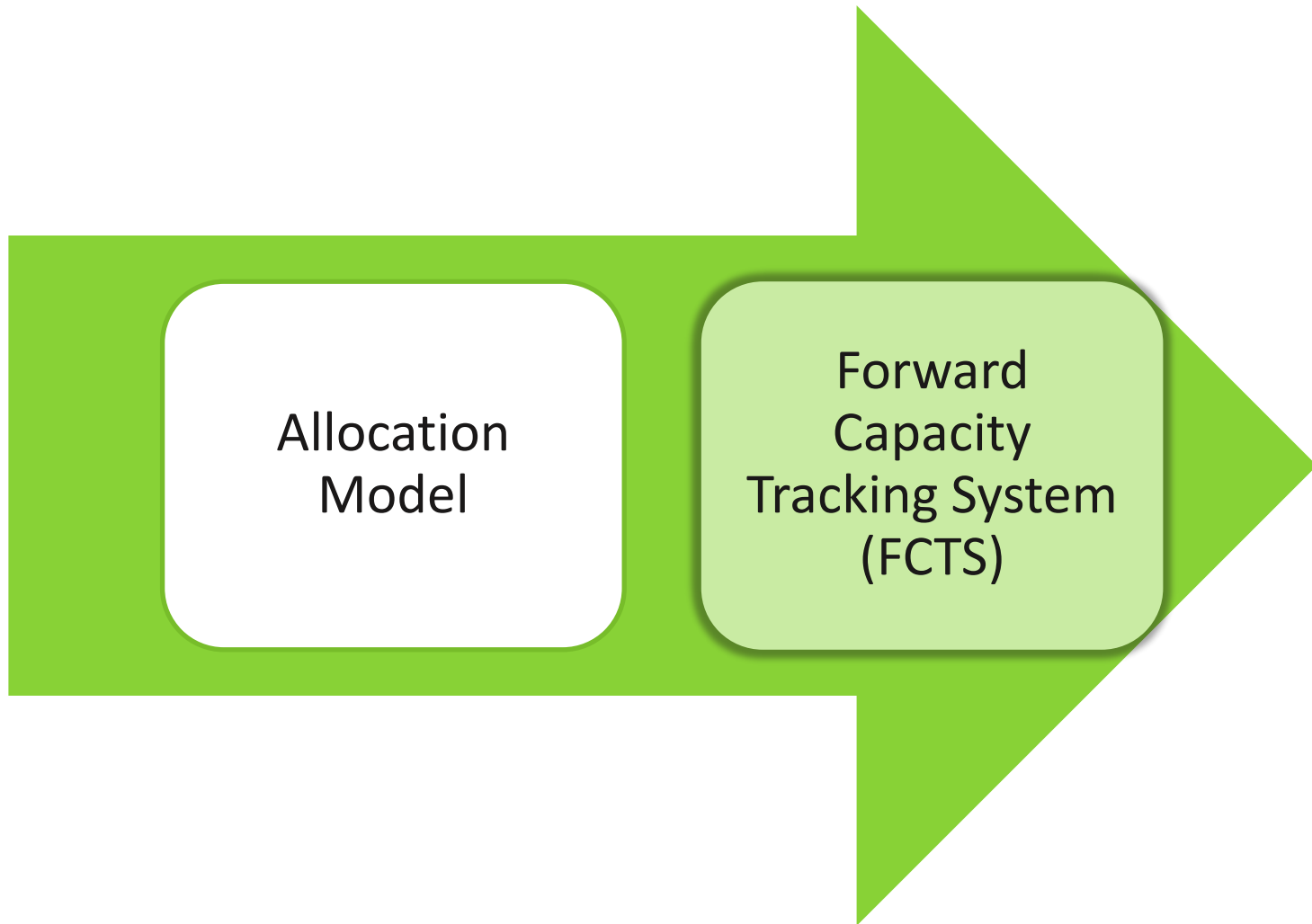
- Under certain scenarios, particularly where non-commercial capacity **does not meet** its obligation to deliver by the proposed Commercial Operation Date (COD), and consequently is not declared commercial, i.e., no CODa:
 - Combined Maximum Supply Offer value for the Monthly Reconfiguration auction (or Maximum Acquiring Capacity for bilaterals) can be impacted as the non-commercial capacity is excluded during the monthly qualification process until it is declared commercial (CODa) and the total CSO is evaluated.

Allocation Model

Related Considerations (cont.)

- LPs should coordinate closely with their DDEs because this effort can result in significant changes to the June communication front-end model.
- Call for DDEs is scheduled for **February 7, 2011** at 10:00 AM.

Outline



Resource Information

Basic Info

Reallocation Information			
Parent Resource(s)			
Resource (ID)	Summer %	Winter %	Date Processed
Parent Resource 1	50%	50%	04/06/2011 5:00 PM

- *Reallocation Information* section below the basic resource
- Information links to either the *Parent* or *Child* resource(s)

Qualified Capacity

Child Resource

- Existing
 - *Existing Capacity Qualification* tab will display the following message:
 - “No existing capacity details exist for this Commitment Period” for all periods prior to the effective date of the split/merge
- New
 - Qualification data that was only relevant when the capacity was first qualified is still available on the Parent, but will not be available on the Children.
 - For example, Offers < 0.75 x CONE

Monitored Critical Path Schedule (CPS) Search

New search filters allow for search of CPS and submitted updates.

Forward Capacity Tracking System (FCTS)

Commitment Period | Project | **Monitored CPS** | FCM Calendar

Monitored CPS Summary Filter

Resource Attributes

Name (ID)

Resource Type

Resource Sub-Type

Load Zone

Dispatch Zone

Interface

Submittal Attributes

Reporting Period*

Submittal Status

Monitored Critical Path Schedule (CPS) Screens

- For each resource, the *Monitored CPS* tab lists each CPS and corresponding *CPS Status*.
- CPS that was created as part of a split/merge will have a CPS status of “Reallocated.”

The screenshot shows the 'Monitored CPS' tab selected. The 'CPS Status' dropdown is set to 'Complete'. The 'Proposed COD' is 10/01/2008. The 'Actual COD' is 05/31/2010. The 'Reporting Frequency' is Quarterly. The 'Monitored Summer Capacity MW' is 8.147. The 'Monitored Winter Capacity MW' is 8.147. The 'Monitored Summer DRV MW' is 6.600. The 'Monitored Winter DRV MW' is 6.600.

Current Approved Information

Submittal Details | Submittal History | Origination

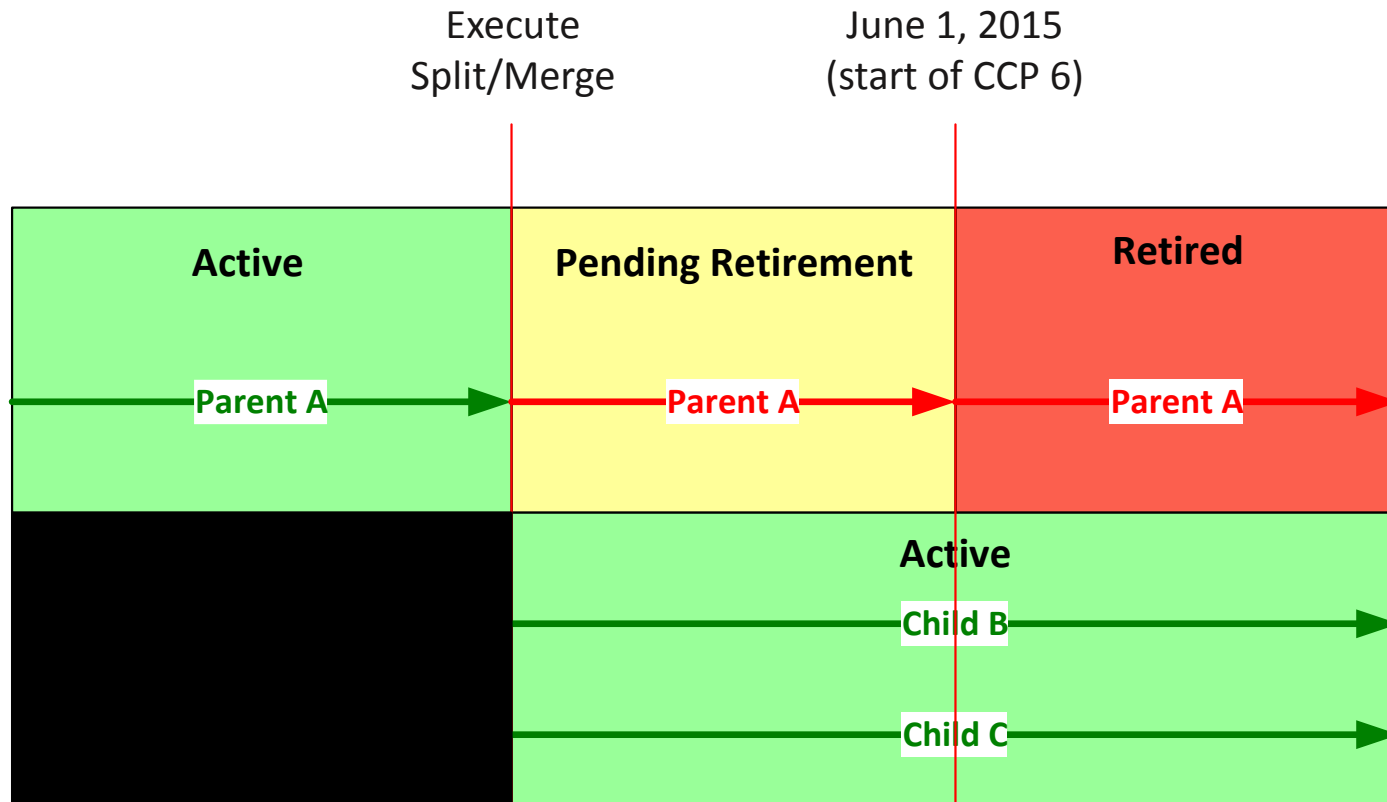
Last Approved Quarter/Month: Q2 2010

Milestone	Milestone Date	Summer MW	Winter MW
Target Date 1	11/03/2008	8.300	8.300
Target Date 2	08/31/2009	8.300	8.300
Commercial Operation Date	10/01/2008	8.300	8.300

Additional Information

Resource Statuses Explained

Example: Parent A splits to become Child B and Child C

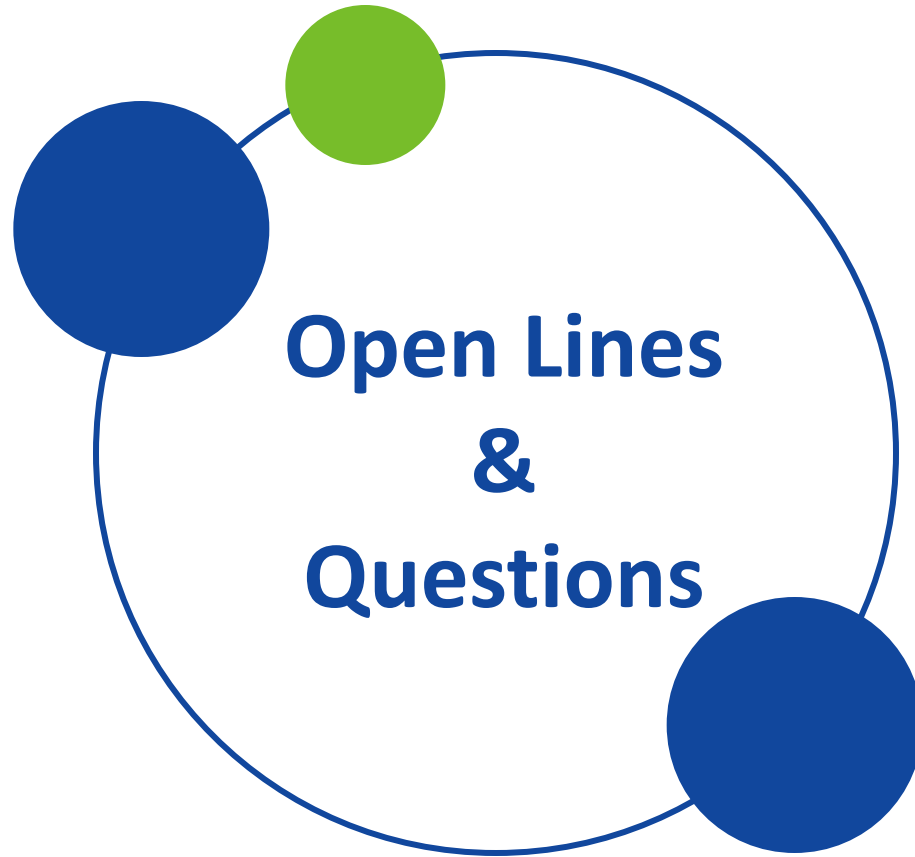


Please submit your evaluation of today's session



The Demand Resource Disaggregation broadcast has ended.
The recorded WebEx will be available within 5 business days here:

[Support > Training > Training Materials > Demand Resources](#)



Open Lines & Questions