



# Resource Adequacy Pre-Market Simulation Training Workshop

Focusing on the following initiatives:

Reliability Services Initiative (RSI)

Capacity Procurement Mechanism (CPM) Replacement

October 21, 2015

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# Objective

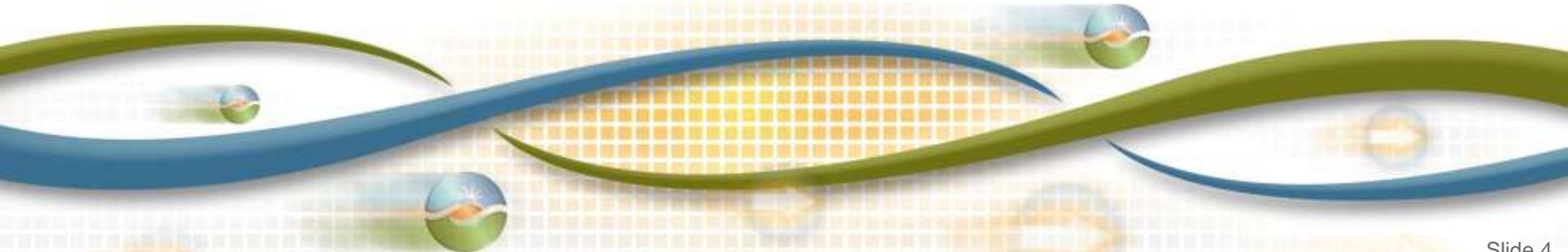
- Prepare market participants for the market simulation to begin on November 9
  - Reliability Services Initiative (RSI)
  - Capacity Procurement Mechanism (CPM) Replacement
- Provide an opportunity for participants of the reliability requirements customer partnership group to discuss topics related to these projects

# Agenda



- Background on CPM and RSI
- Review market simulation scope and schedule
- Scenarios for market simulation #1 (11/9/15 – 12/4/15)
- Reliability requirements customer partnership group (CPG) discussion
  - Review scenarios for session 2
  - Discuss plan for in-person market simulation

## Background on CPM



# Resource Adequacy (RA) & Capacity Procurement Mechanism (CPM) Capacity

**Resource Adequacy Capacity** - This is capacity committed to the ISO to ensure that the demand can be met at all times. The ISO assesses the performance of resource adequacy resources. There are two types of RA – Generic & Flexible.

**Capacity Procurement Mechanism** - Backstop capacity procured by ISO to meet reliability needs

# Capacity Procurement Mechanism (CPM) Replacement

- ISO may procure and price backstop capacity designated under CPM through a competitive solicitation process (CSP)
- CSP provides a solution to replace the current administrative price for backstop capacity
- CSP will be set up to run annually, monthly, and intra-monthly to cover all potential CPM designations with the exception of a risk-of-retirement designation

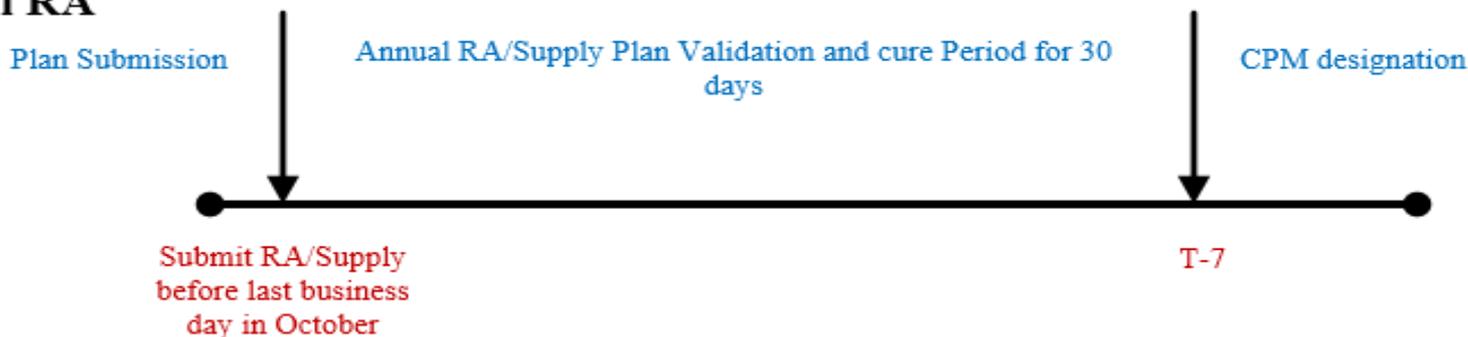
# CSP used for different CPM types

Timeframe	CPM event
Annual	<ul style="list-style-type: none"><li>• Insufficient cumulative local, system, or flexible capacity in RA plans</li><li>• Collective deficiency in local area</li></ul>
Monthly	<ul style="list-style-type: none"><li>• Insufficient cumulative local, system, or flexible capacity in RA plans</li><li>• Insufficient cumulative system capacity due to planned outages</li></ul>
Intra-monthly	<ul style="list-style-type: none"><li>• Significant event</li><li>• Exceptional dispatch</li></ul>

# Annual CSP

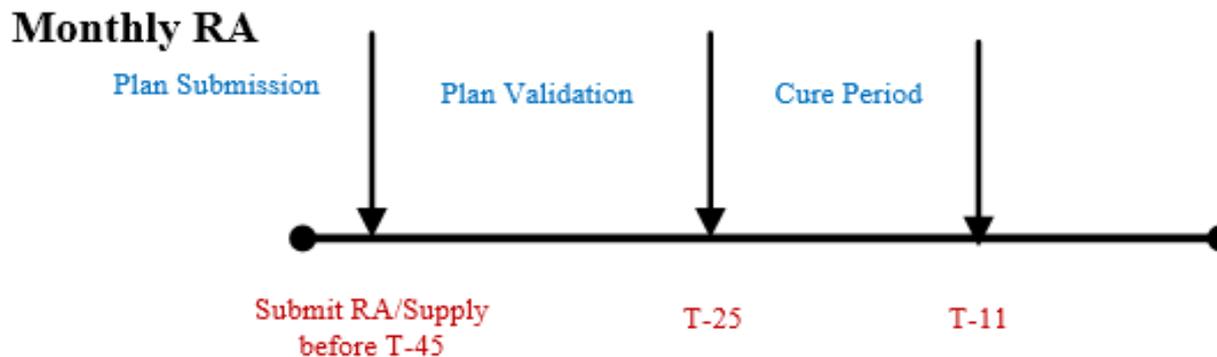


## Annual RA



Note: T stands for RA compliance year

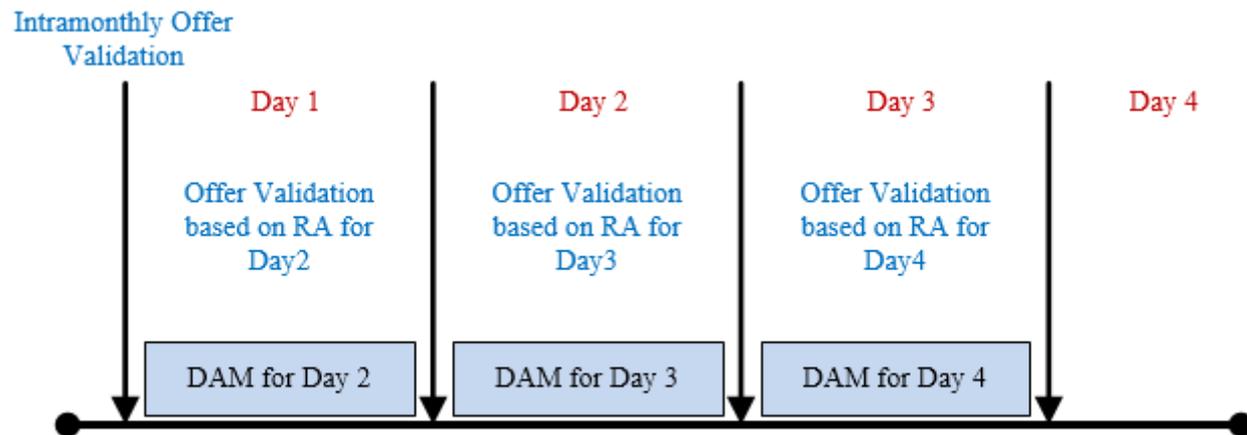
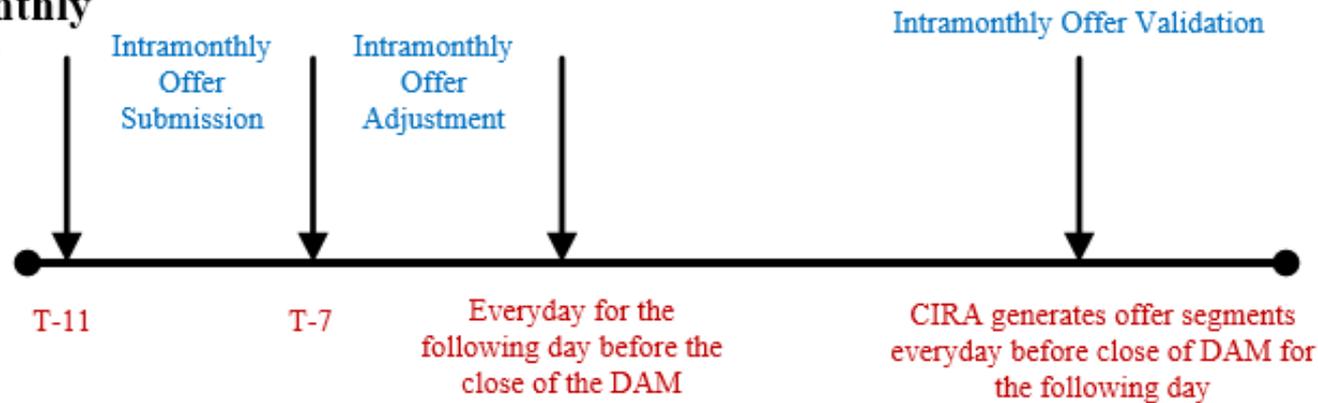
# Monthly CSP



Note: T stands for RA compliance month

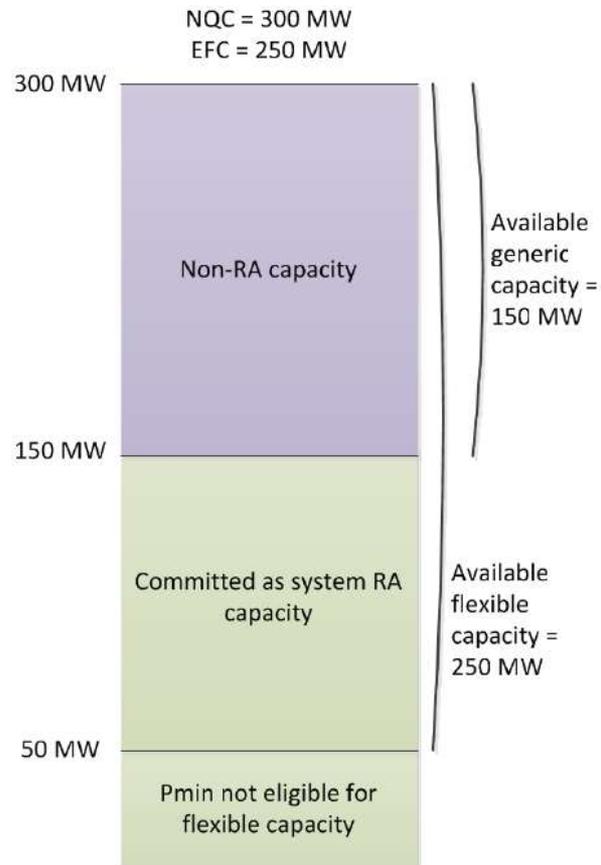
# Intra-monthly CSP

## IntraMonthly CSP

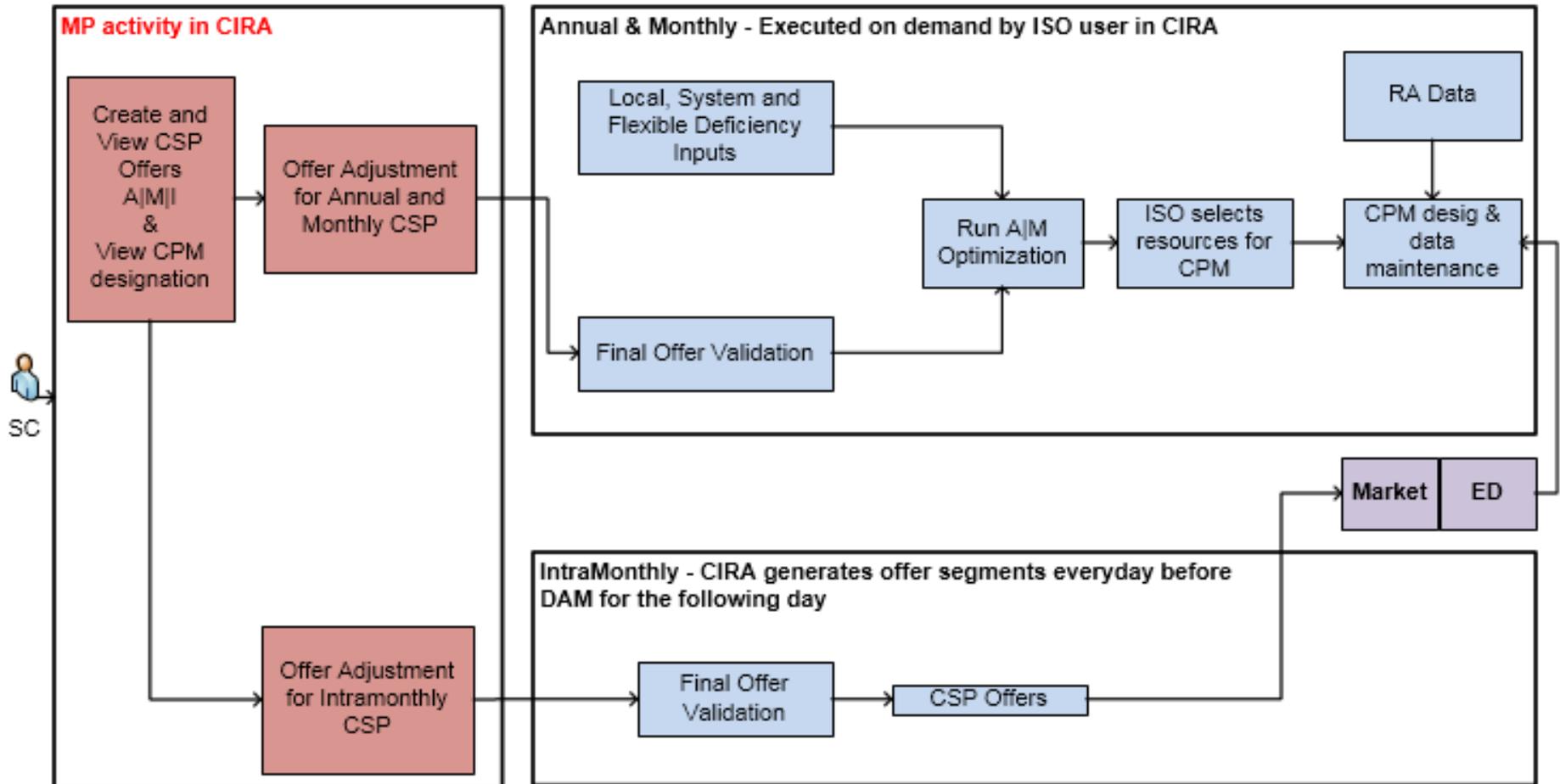


Note: T stands for RA compliance month

# Offer Validation



# CSP Process



## Offer Validation – Annual and Monthly

- Submitted offers must have a Price (\$/kW-month) and have a Capacity (in MW) amount per resource ID
- CIRA will validate that offers do not overlap with RA on a supply plan or approved replacement or substitute capacity during offer finalization
- As long as the resource has sufficient non-RA capacity, the capacity is eligible to participate in CSP

## Offer Validation – Annual and Monthly

- Capacity MW can be Generic and/or Flexible.
- If offer has flexible MW then user must choose a flex category
  - Cat 1 resource can be used in cat 1, 2 or 3.
  - Cat 2 resource can be used in cat 2 or 3
  - Cat 3 resource can be used only in category 3

# Offer Validation

Sample offer:

Resources	Generic MW	Flexible MW	Flex Category	Price (\$/kW-month)
ResA	65	20	1	\$2
ResB	30			\$3
ResC		25	2	\$5

# Offer Validation

Example, 100 MW resource:

- 35 MW RA
  - 5 MW “S” replacement RA for 10 days during the month
- 
- How much can SC offer in to Monthly CSP?
  - How much can SC offer in to Intra-monthly CSP?

# Offer Validation

- Offer Adjustment for Annual and Monthly CSP
  - Offer may be adjusted down in price
  - Offer may be adjusted down in MW
  - Offer may be withdrawn/cancel

## Offer Validation – Intra-monthly CSP

- Single price for a MW value of generic capacity
- Offer Adjustment for Intra-monthly
  - Offers adjusted up and down from previously adjusted price/MW but capped at initial submittal or withdrawn/cancel

Resources	Generic MW	Price
ResA	20	\$2
ResB	30	\$3
ResC	25	\$5

## Background on RSI

# Reliability Services Initiative (RSI)

- RSI is a multi-year effort to address the ISO's rules and processes surrounding resource adequacy (RA)
- Enhancements to must offer obligation and bidding rules
- Enhancements to generic RA substitutions and new flexible substitution
- New performance monitoring framework for generic and flexible RA resources called RA availability incentive mechanism (RAAIM)
  - The framework changes from a forced outage metric to a bid based metric

# Resource Adequacy (RA) & Substitution Capacity

**Resource Adequacy Capacity** - This is capacity committed to the ISO to ensure that the demand can be met at all times. The ISO assesses the performance of resource adequacy resources. There are two types of RA – Generic & Flexible.

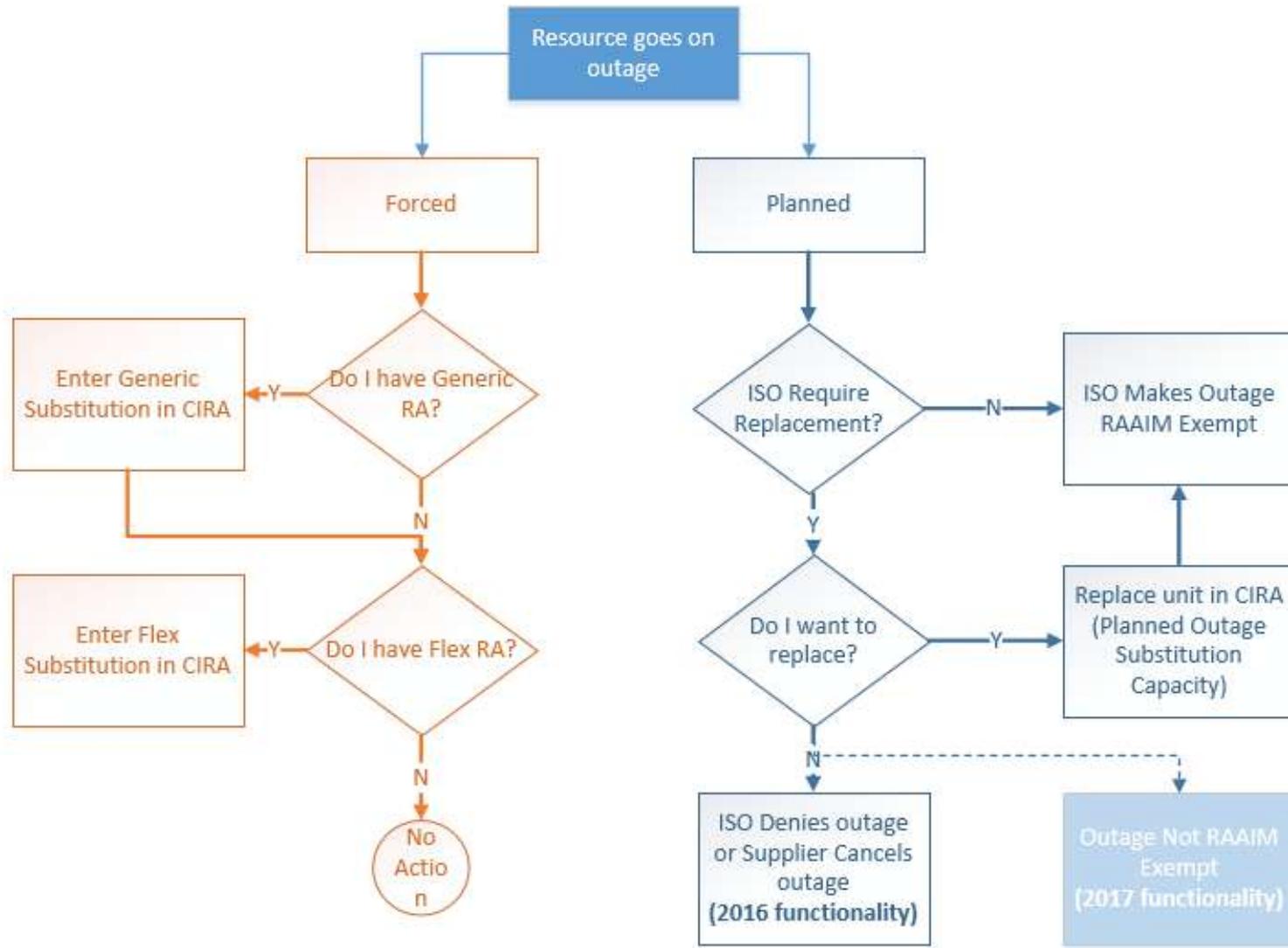
**Substitution Capacity** - Capacity used to mitigate the impact of forced outages on resource adequacy capacity in the performance assessment.

# Resource Adequacy (RA) - Substitutions

## **How do we get the substitute capacity in the first place?**

1. An RA Resource takes a forced outage
2. The SC makes a request to substitute capacity to cover the impact of the forced outage
  - a. Generic RA
    - I. Day Ahead Substitution
    - II. Real Time Substitution
  - b. Flexible RA
    - I. Day Ahead Substitution
    - II. Real Time Substitution

# Substitution Process Flow



# Substitution Matrix for Generic RA – Real time

## Real Time

Resource that is in an outage				Submission Time Restriction	Substitute Resources		Resource Compatibility required?	3rd Party Approval required before cutoff ?
ID	Location	Dispatchable	Is it a 3rd Party request ?		Location	Dispatchable		
1	Local Capacity Area	Yes	No	120 minutes before the start of the trading hour	Same Local Capacity Area	Yes	Yes	N/A
2	Local Capacity Area	Yes	Yes	120 minutes before the start of the trading hour	Same Local Capacity Area	Yes	Yes	Yes
3	Local Capacity Area	No	No	120 minutes before the start of the trading hour	Same Local Capacity Area	Any	Yes	N/A
4	Local Capacity Area	No	Yes	120 minutes before the start of the trading hour	Same Local Capacity Area	Any	Yes	Yes
5	Non-Local Internal	Yes	No	120 minutes before the start of the trading hour	Any Local or Non-Local Internal	Yes	N/A	N/A
6	Non-Local Internal	Yes	Yes	120 minutes before the start of the trading hour	Any Local or Non-Local Internal	Yes	N/A	Yes
7	Non-Local Internal	No	No	120 minutes before the start of the trading hour	Any Local or Non-Local Internal	Any	N/A	N/A
8	Non-Local Internal	No	Yes	120 minutes before the start of the trading hour	Any Local or Non-Local Internal	Any	N/A	Yes
9	Non-Local External	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10	Non-Local External	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11	Non-Local External	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12	Non-Local External	N/A	N/A	N/A	N/A	N/A	N/A	N/A

# Substitution Matrix for Generic RA – Day Ahead

## Day Ahead

Resource that is in an outage				Substitute Resources				
ID	Location	Dispatchable	Is it a 3rd Party request ?	Submission Time Restriction	Location	Dispatchable	Resource Compatibility required?	3rd Party Approval required before cutoff ?
13	Local Capacity Area	Yes	No	By 8AM for the following trade day	Same Local Capacity Area	Yes	N/A	N/A
14	Local Capacity Area	Yes	Yes	By 8AM for the following trade day	Same Local Capacity Area	Yes	N/A	Yes
15	Local Capacity Area	No	No	By 8AM for the following trade day	Same Local Capacity Area	Any	N/A	N/A
16	Local Capacity Area	No	Yes	By 8AM for the following trade day	Same Local Capacity Area	Any	N/A	Yes
17	Non-Local Internal	Yes	No	By 8AM for the following trade day	Any Local or Non-Local Internal	Yes	N/A	N/A
18	Non-Local Internal	Yes	Yes	By 8AM for the following trade day	Any Local or Non-Local Internal	Yes	N/A	Yes
19	Non-Local Internal	No	No	By 8AM for the following trade day	Any Local or Non-Local Internal	Any	N/A	N/A
20	Non-Local Internal	No	Yes	By 8AM for the following trade day	Any Local or Non-Local Internal	Any	N/A	Yes
21	Non-Local External	N/A	No	By 8AM for the following trade day	Any Local or Non-Local Internal or Non - Local External	N/A	N/A	N/A
22	Non-Local External	N/A	Yes	By 8AM for the following trade day	Any Local or Non-Local Internal or Non - Local External	N/A	N/A	Yes
23	Non-Local External	N/A	No	By 8AM for the following trade day	Any Local or Non-Local Internal or Non - Local External	N/A	N/A	N/A
24	Non-Local External	N/A	Yes	By 8AM for the following trade day	Any Local or Non-Local Internal or Non - Local External	N/A	N/A	Yes

# Substitution Matrix for Flexible RA – Real Time

## Real Time

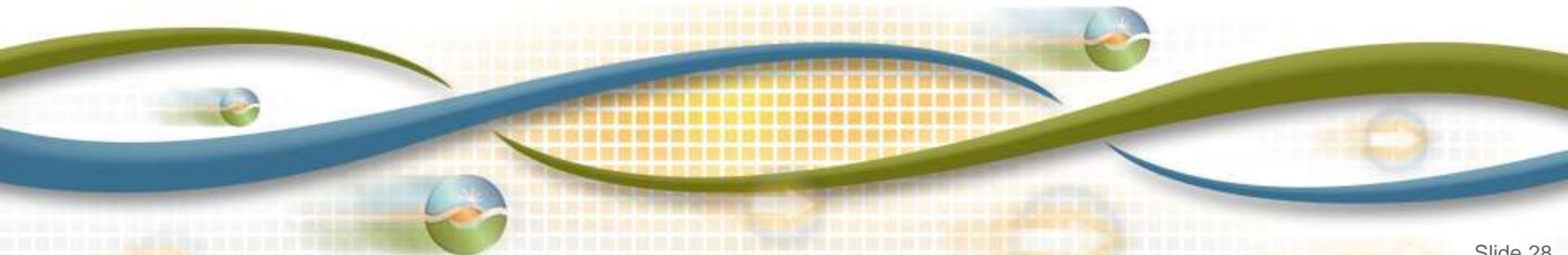
Resource that is in an outage				Submission Time Restriction	Substitute Resources		Dispatchable	Resource Compatibility required?	3rd Party Approval required before cutoff ?
ID	Location	Dispatchable	Is it a 3rd Party request ?		Location				
1	Local Capacity Area	Yes	No	120 minutes before the start of the trading hour	Any Local or Non-Local Internal		Yes	Yes	N/A
2	Local Capacity Area	Yes	Yes	120 minutes before the start of the trading hour	Any Local or Non-Local Internal		Yes	Yes	Yes
3	Local Capacity Area	No	No	120 minutes before the start of the trading hour	Any Local or Non-Local Internal		Any	Yes	N/A
4	Local Capacity Area	No	Yes	120 minutes before the start of the trading hour	Any Local or Non-Local Internal		Any	Yes	Yes
5	Non-Local Internal	Yes	No	120 minutes before the start of the trading hour	Any Local or Non-Local Internal		Yes	N/A	N/A
6	Non-Local Internal	Yes	Yes	120 minutes before the start of the trading hour	Any Local or Non-Local Internal		Yes	N/A	Yes
7	Non-Local Internal	No	No	120 minutes before the start of the trading hour	Any Local or Non-Local Internal		Any	N/A	N/A
8	Non-Local Internal	No	Yes	120 minutes before the start of the trading hour	Any Local or Non-Local Internal		Any	N/A	Yes
9	Non-Local External	N/A	N/A	120 minutes before the start of the trading hour	Any Local or Non-Local Internal		N/A	N/A	N/A
10	Non-Local External	N/A	Yes	120 minutes before the start of the trading hour	Any Local or Non-Local Internal		N/A	N/A	Yes
11	Non-Local External	N/A	N/A	120 minutes before the start of the trading hour	Any Local or Non-Local Internal		N/A	N/A	N/A
12	Non-Local External	N/A	Yes	120 minutes before the start of the trading hour	Any Local or Non-Local Internal		N/A	N/A	Yes

# Substitution Matrix for Flexible RA – Day Ahead

## Day Ahead

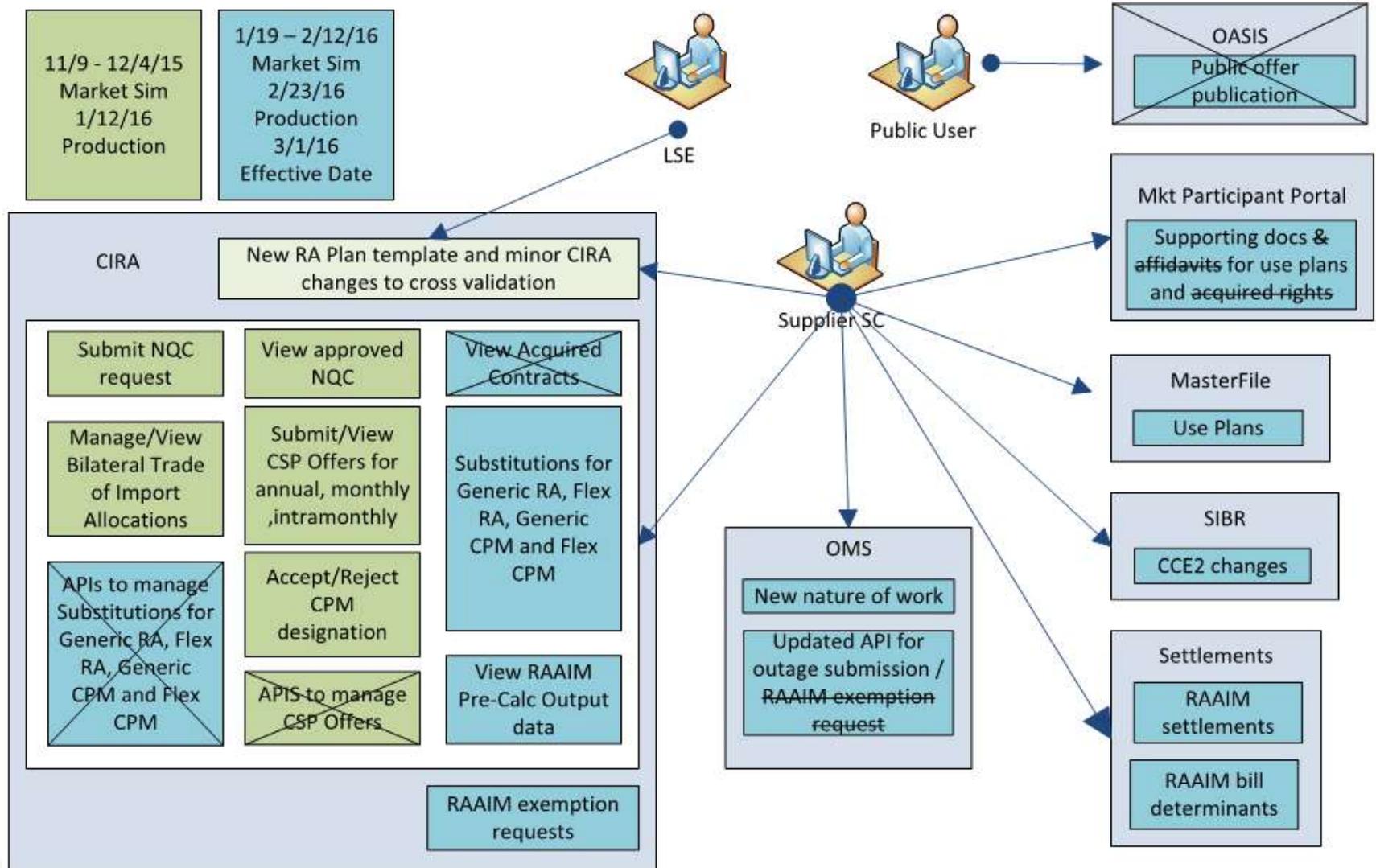
Resource that is in an outage					Substitute Resources			
ID	Location	Dispatchable	Is it a 3rd Party request ?	Submission Time Restriction	Location	Dispatchable	Resource Compatibility required?	3rd Party Approval required before cutoff ?
13	Local Capacity Area	Yes	No	By 8AM for the following trade day	Any Local or Non-Local Internal	Yes	N/A	N/A
14	Local Capacity Area	Yes	Yes	By 8AM for the following trade day	Any Local or Non-Local Internal	Yes	N/A	Yes
15	Local Capacity Area	No	No	By 8AM for the following trade day	Any Local or Non-Local Internal	Any	N/A	N/A
16	Local Capacity Area	No	Yes	By 8AM for the following trade day	Any Local or Non-Local Internal	Any	N/A	Yes
17	Non-Local Internal	Yes	No	By 8AM for the following trade day	Any Local or Non-Local Internal	Yes	N/A	N/A
18	Non-Local Internal	Yes	Yes	By 8AM for the following trade day	Any Local or Non-Local Internal	Yes	N/A	Yes
19	Non-Local Internal	No	No	By 8AM for the following trade day	Any Local or Non-Local Internal	Any	N/A	N/A
20	Non-Local Internal	No	Yes	By 8AM for the following trade day	Any Local or Non-Local Internal	Any	N/A	Yes
21	Non-Local External	N/A	No	By 8AM for the following trade day	Any Local or Non-Local Internal or Non - Local External	N/A	N/A	N/A
22	Non-Local External	N/A	Yes	By 8AM for the following trade day	Any Local or Non-Local Internal or Non - Local External	N/A	N/A	Yes
23	Non-Local External	N/A	No	By 8AM for the following trade day	Any Local or Non-Local Internal or Non - Local External	N/A	N/A	N/A
24	Non-Local External	N/A	Yes	By 8AM for the following trade day	Any Local or Non-Local Internal or Non - Local External	N/A	N/A	Yes

# Market Sim Scope and Schedule



# CPM & RSI Market Sim Sessions

## LEGEND



# Market Simulation #1

# System Access

- CIRA users (SCs and LSEs) need to contact their POCs and ask to be self-provisioned for one of the following new external roles prior to November 9, 2015. These new roles enable users to access CSP offer information.

Application	Business Role	Comments	Entity Type
CIRA	External Offer Read-Write	Suppliers able to submit capacity offers (new role)	SCID
CIRA	External Offer Read Only	Suppliers able to view capacity offers (new role)	SCID

# Market Simulation #1 Schedule

- Scenarios planned for 11/09/2015 to 12/04/2015
- The environment will be open for participants to test additional unstructured scenarios through 12/04/2015

# Market Simulation #1 Scenarios

- Timelines
  - Scenario 1A: NQC (11/9 – 11/11)
  - Scenario 2A: CIRA functional enhancements (11/9 – 11/13)
  - Scenario 3A: Import allocation (11/16 – 11/17)
  - Scenario 4A: CSP offer submission (11/17 -11/19)
  - Regression testing (11/23 – 12/4)

# Scenario 1A – NQC

Scenario Number	NQC: 11/09/2015 - 11/11/2015	
1A	Description	Submit NQC Request in CIRA
	ISO Market Participant Action	<p>SC may submit NQC requests through CIRA user interface using the new NQC template.</p> <p>SC may submit NQC requests for different resources.</p> <p>Resource IDs need to be modeled in master file and should have a PMAX value to be used for simulation.</p>
	ISO Actions	Validate and approve/reject the NQC requests. ISO will populate the area, queue number and other resource reference data in CIRA. An email will be sent out once the requests is processed in CIRA.
	Expected Outcome	SC may view the NQC results in CIRA UI

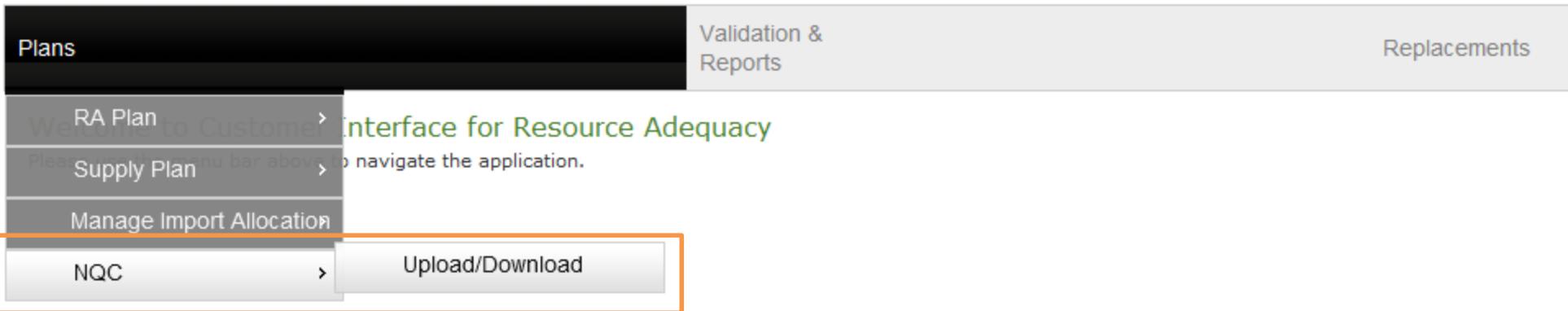
Note: Make sure to test for different fuel types

# Sample NQC Template

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
	Effective Date (MM/DD/YYYY)	RESOURCE_ID	Queue#/WDAT#	Local Regulatory Authority	Historical Based NQC Calculation (Y/N)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1																	
2	7/1/2015	N_SOLAR	SOLR	LCAISO	Y	0.52	4.37	9.98	39.89	42.32	52.82	53.06	49.4	48.21	31.87	1.64	0.88
3	7/1/2015	B_WIND	WIND	LCAISO	Y	4.55	8.46	21.9	24.5	31.82	27.99	17.47	15.7	9.43	7.4	4.54	4.62
4	7/1/2015	C_BIOM	BIOM	LCAISO	Y	21.54	22.11	21.59	18.95	20	22.43	23.28	22.97	22.78	21.9	21.61	22.65
5	7/1/2015	G_GEOT	GEOT	LCAISO	Y	63.18	63.49	61.32	59.85	61	58.47	58.58	58.3	58.61	58.81	60.32	61.87
6	7/1/2015	R_WATR	WATR	LCAISO	Y	7.54	6.66	8.14	9.41	10.9	10.68	10.95	9.68	8.48	5.96	5.77	5.82
7	7/1/2015	K_GAS	GAS	LCAISO	N	59	59	59	59	59	59	59	59	59	59	59	59
8																	
9																	

- New NQC template is posted on the reliability services page on the ISO website

# Submit NQC Request



Plans Validation & Reports Replacements

RA Plan > interface for Resource Adequacy

Supply Plan > to navigate the application.

Manage Import Allocation

NQC > Upload/Download

- New item added to Plans menu

# Submit NQC Request

Plans

Validation &  
Reports

Replacements

## Upload Submit NQC Request Form

SCID

-Select- ▼

Select SCID

NQC Request Form

Browse...

Browse for file



Upload

Click Upload

# View NQC Request

Plans Validation & Reports Replacements

## Upload Submit NQC Request Form

SCID   Select SCID

NQC Request Form

 Upload  View  Click View

# View NQC Request(s)

Plans

Validation &  
Reports

Replacements

## Upload Submit NQC Request Form

SCID

NQC Request Form

## Download Submit NQC Request Form

<input type="checkbox"/>	Id	SCID	File Name	Version	View Details
<input type="checkbox"/>	647		_2015-01-Net-Qualifying-Capacity.xls		 
<input type="checkbox"/>	528		_2015-01-Net-Qualifying-Capacity.xls	ISO	 
<input type="checkbox"/>	527		_2015-01-Net-Qualifying-Capacity.xls	ISO	 
<input type="checkbox"/>	454		_2015-01-Net-Qualifying-Capacity.xls		 
<input type="checkbox"/>	453		_2015-01-Net-Qualifying-Capacity.xls	ISO	 

View file contents

Download file

1 | 2 | 3 | 4 | 5 | 6 | Next |

Max: 10

# Scenario 2A – CIRA Functional Enhancements

Scenario Number	CIRA Enhancements: 11/9/2015 - 11/13/2015	
2A	Description	Validate CIRA Enhancements
	ISO Market Participant Actions	Submit RA (use new template) and supply plans and view cross validation results for January 2016 compliance month  <b>Submittal Criteria:</b> <ol style="list-style-type: none"> <li>1. LSE submit RA plans that are deficient in RA</li> <li>2. Supplier submit supply plans have a mismatch in RA capacity</li> </ol>
	ISO Actions	Run cross validation
	Expected Outcome	<ol style="list-style-type: none"> <li>1. Validate and view the deficiency results</li> <li>2. View cross validation results</li> <li>3. Validate and view obligation screen in CIRA</li> <li>4. SC can view the plan submittal timestamp on the plans download page</li> <li>5. CIRA will send out email notification when the CV and replacements are published and SC may resubmit plans irrespective of plan status between T-45 and T-11</li> <li>6. LSE and Supplier resubmit to fix errors</li> </ol>

# Upload RA Plan



California ISO

Customer Interface for Resource Adequacy

Plans

Validation &  
Reports

Replacements

RA Plan >

Template

Supply Plan >

Upload application.

Manage Import Allocation

Download

NQC >

dequacy

# Upload RA Plan

Plans

Validation &  
Reports

Replacements

## Upload RA Plan

Submittal Type

Month Ahead

Select Month Ahead

Target Period

January

Month

2016

Year

Select Jan 2016

SCID

-Select-

Select SCID

Upload File

Browse...

Browse for file

Upload

Click Upload

# Upload Supply Plan

<b>Plans</b>	Validation & Reports	Replacements
RA Plan >	Customer Interface for Resource Adequacy	
Supply Plan >	Template Application	
Manage Import Allocation	Upload	
NQC >	Download	

# Upload Supply Plan



California ISO

Customer Interface for Resource Adequacy

Plans

Validation &  
Reports

Replacements

## Upload Supply Plan

Submittal Type

Month Ahead

Select Month Ahead

Target Period

January

Month

2016

Year

Select Jan 2016

SCID

-Select-

Select SCID

Upload File

Browse...

Browse for file

Upload

Click Upload

# View Cross Validation Results



California ISO

Customer Interface for Resource Adequacy

Plans

Validation &  
Reports

Replacements

Welcome to Customer Interface for Resource Adequacy

Please use the menu bar above to navigate the application.

Validations >

View Results >

Validation Run

View Flex Analysis Results

Tac Results

Peak Results

Obligation

View Outage Impact

View Outage Availability

View Committed RA Capacity

View SC Transfer Details





# View Cross Validation Results



California ISO

Customer Interface for Resource Adequacy

Plans

Validation &  
Reports

Replacements

## Cross Validation Supply Details

Submittal Type	M	Plan Month	01	Plan Year	2016
Run Num	10385	Plans Effective as of	10/17/2015 01:00:00	Run Comments	
SCID	-Select- ▼	Resource ID	<input type="text"/>		
Detail Type	<ul style="list-style-type: none"><li>Supply Plans ▼</li><li>Supply Plans</li><li><b>RA Plans</b></li><li>LSE Obligations</li></ul>				

View Reset

Select Detail Type





# LSE Obligation Cross Validation



California ISO

Customer Interface for Resource Adequacy

Plans

Validation &  
Reports

Replacements

## Cross Validation LSE Obligation Details

Submission Type	M	Plan Month	01	Plan Year	2016
Run Num	10186	Plans Effective as of	10/10/2015 07:13:00	Run Comments	
Detail Type	LSE Obligations				

View Reset

Validation Status	LSE	Effective Start Date	Effective End Date	Validation Type	Obligation Status	Obligation MW	Plan RA MW	Short/Long (MW)	TAC
Warning				Peak Demand	Short	20,130.23	14,212.52	5,917.71	
Passed				LCR By Tac	Long	308.85	322.05	13.2	
Passed				LCR By Tac	Long	7,721.51	8,323.3	601.79	

- New columns added:
  - Obligation MW
  - Plan RA MW

# Obligation Report

Plans

Welcome to Customer Interface for Resource Adequacy

Please use the menu bar above to navigate the application.

Validation &  
Reports

Validations >

View Results >

Replacements

Validation Run

View Flex Analysis Results

Tac Results

Peak Results

Obligation

View Outage Impact

View Outage Availability

View Committed RA Capacity

View SC Transfer Details



# Scenario 3A – Import Allocation

Scenario Number	Import Allocation: 11/16/2015 - 11/17/2015	
3A	Description	Manage/View bilateral trades of Import Allocation
	ISO Market Participant Actions	SC to submit bilateral trades and view net import allocation <ul style="list-style-type: none"> <li>• Bilateral trades must be submitted in CIRA using the new user interface</li> </ul>
	ISO Actions	N/A
	Expected Outcome	View net import allocation and bilateral trades in CIRA

# Manage Import Allocation



California ISO

Customer Interface for Resource Adequacy

Plans

Validation &  
Reports

Replacements

RA Plan >

Supply Plan >

Manage Import Allocation

NQC >

Customer Interface for Resource Adequacy

Please use the menu bar above to navigate the application.

View SC Import Allocation

Submit Bilateral Trades

View Bilateral Trades



# Submit Bilateral Trade



California ISO

Customer Interface for Resource Adequacy

Plans

Validation &  
Reports

Replacements

## Submit Bilateral trades

Transferor SC

-Select-

Select SCID

Transferee SC

Input SCID of Transferee

Import Group

-Select-

Select Import Group

Price

Price is \$/kW month

Term

01/01/2016

TO

01/31/2016

Minimum term is 1 month

Quantity

2

MW value

Submit Transfer

Click Submit Transfer

# View Import Group Allocation from Bilateral Trade Screen



California ISO

Customer Interface for Resource Adequacy

Plans

Validation &  
Reports

Replacements

## Submit Bilateral trades

Transferor SC

Select SCID

Transferee SC

Import Group

Select Import Group

Price

Term

01/01/2015 TO 12/31/2015

Minimum term is 1 month

Quantity

Submit Transfer

View Current Allocation

View Current Allocation

Import Group	Start Date	End Date	Current Allocation (MW)
	01/01/2015	12/31/2015	100

Download Screen Results

# View Bilateral Trades



California ISO

Customer Interface for Resource Adequacy

Plans

Validation &  
Reports

Replacements

## View Bilateral Trades

Transferor  Transferee  Import Group  StartDate:  EndDate:

View

Transaction ID	Transferor	Transferee	Import Group	MW Transferred	Start Date	End Date	Price	Transaction Date	Status
35					09/01/2015	12/31/2015		08/11/2015	REJECTED
42					09/01/2015	09/30/2015		08/28/2015	

Download Screen Results

- Note: Bilateral trade results can be downloaded

# Scenario 4A – CSP Offer Submission

Scenario Number	Annual CSP – 11/17/2015, Monthly CSP – 11/18/2015, Intra-monthly CSP – 11/19/2015	
4A	Description	Manage CSP offers in CIRA
	ISO Market Participant Actions	<ol style="list-style-type: none"> <li>1. Market participants to submit Annual, Monthly and Intra-monthly CSP offers               <ul style="list-style-type: none"> <li>• Annual Offers for 2016 compliance year</li> <li>• Monthly Offers for January 2016 compliance month</li> <li>• Intra-monthly Offers for January 2016 compliance month</li> </ul> </li> <li>2. Modify CSP offers and view final offer set               <ul style="list-style-type: none"> <li>• Adjust offers in MW and price</li> </ul> </li> <li>3. Participants may use CIRA UI to submit and view offers</li> </ol>
	ISO Actions	Run offer validation - TBD
	Expected Outcome	View CSP offers in CIRA

# View/Submit CSP offers



California ISO

Customer Interface for Resource Adequacy

CSP Offers

View/Submit CSP Offer Set

Customer Interface for Resource Adequacy

Please use the menu bar above to navigate the application.

- New functionality added to CIRA

# Submit CSP Offers



California ISO

Customer Interface for Resource Adequacy

CSP Offers

## Create and Submit CSP Offers

Select:       Load Offers

- Offer Type-
- IntraMonthly
- Monthly
- Yearly

## Search Resources

Resource:



Click search to view resources

Search

Show/Hide

- Annual offers for 2016 compliance year
- Monthly offers for January 2016 compliance month
- Intra-monthly offers for January 2016 compliance month

# CSP Offer Submission – Annual



California ISO

Customer Interface for Resource Adequacy

CSP Offers

## Create and Submit CSP Offers

Select: Yearly  -Trade Month- 2016   Load Offers

## Search for available Resources

Resource:   Physical  Ities Area: -Select- FlexCategory: -Select-

<input type="checkbox"/>	ResourceID	PMAX	PMIN	FlexCategory	Area	StartMonth	EndMonth	GenMW	FlexMW	Price	FlexCat
<input checked="" type="checkbox"/>						-Start Month-	-End Month-	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="checkbox"/>						-Start Month-	-End Month-	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input checked="" type="checkbox"/>						-Start Month-	-End Month-	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="checkbox"/>						-Start Month-	-End Month-	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input checked="" type="checkbox"/>						-Start Month-	-End Month-	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Use checkbox to select resources

Choose start/end month

Add MW value and price

Select Add Resource

1 2 3 4 5 6 7 8 9 10 .. 36 Next 10

# CSP Offer Submission – Annual

## CSP Offers

January February March April May June July August September

View offers by month on annual submission

<input type="checkbox"/>	Resource	NQC	EFC	GenMW	FlexMW	OfferPrice	FlexCat	OfferStatus	Comments
<input type="checkbox"/>	History			<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>
<input type="checkbox"/>	History			<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>
<input type="checkbox"/>	History			<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>

Delete

**Submitter Details**

First Name:  Last Name:

SC Email 1:  SC Email 2:

SC Description:

- Scroll to lower portion of screen to view offers.
- Submit button will submit the offer, save button will save the work, but not submit.

# View Offers

CSP Offers

Create and Submit CSP Offers

Select: Monthly [ ] January 2016 [View] [ ] Load Offers

Search for available Resources

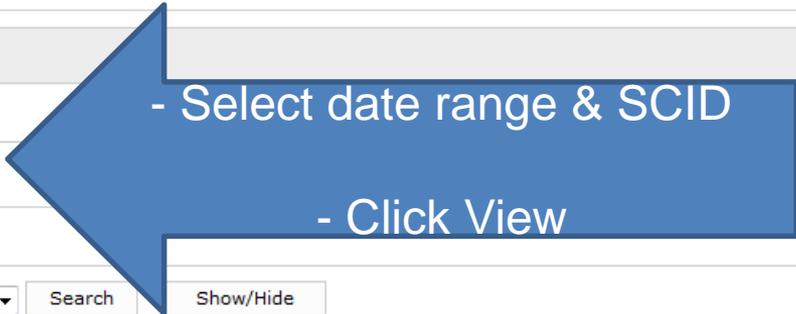
Resource: [ ] Physical [ ] Ities Area: -Select- FlexCategory: -Select- Search Show/Hide

CSP Offers

Resource	NQC	EFC	GenMW	FlexMW	OfferPrice	FlexCat	OfferStatus	Comments
[ ] [ ] History	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	ACCEPTED	[ ]

Delete

CSV EXCEL PDF



- **Note:** Offers will display to the screen and can be downloaded

# CSP Offer Submission – Monthly & Intra-monthly View

CSP Offers

## Create and Submit CSP Offers

Select: Monthly   January 2016   Load Offers

## Search for available Resources

Resource:   Physical  Ities Area: -Select- FlexCategory: -Select-

<input type="checkbox"/>	ResourceID	PMAX	PMIN	NQC	EFC	FlexCategory	Area
<input type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input type="checkbox"/>							
<input checked="" type="checkbox"/>							
<input type="checkbox"/>							
<input checked="" type="checkbox"/>							

1 2 3 4 5 6 7 8 9 10 .. 36 Next 10

# CSP Offer Submission – Monthly & Intra-monthly View

CSP Offers

<input type="checkbox"/>	Resource	NQC	EFC	GenMW	FlexMW	OfferPrice	FlexCat	OfferStatus	Comments
<input type="checkbox"/>				<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>
<input type="checkbox"/>				<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>
<input type="checkbox"/>				<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>

**Submitter Details**

First Name:  Last Name:

SC Email 1:  SC Email 2:

SC Description:

- Scroll to lower portion of screen to view offers.
- Submit button will submit the offer, save button will save the work, but not submit.

**Questions?**

# Reliability Requirements Customer Partnership Group

# Announcements

- For the use limit plans, use the current template, not the new template, for 2016 submission which is due the last business day of October
- Current use limit plans will be submitted via CIDI ticket not via email (emergency PRR 868 submitted for this process change)
- Starting 1/12/16, use new RA plan template for March 2016 RA compliance month submission

# Use Limit Plan Data Template (ULDT) Example

	A	B	C	D	E	F	G	H	I
1	Resource ID	Use Limit Type	Granularity	Effective Start Date	Effective End Date	Limitation Number	Minimum Capacity Level	Maximum Capacity Level	Documentation Name
2	RES_ID	USE_LIMIT_TYPE	GRANULARITY	PLAN_STRT_DT_TM	PLAN_END_DT_TM	LIMITATION	MIN_USE_LIMIT	MAX_USE_LIMIT	DOC_NAME
	(An existing active resource provisioned to the SC uploading the ULDT)	(START, RUNHOURS, ENERGY, OTHER)	The period over which the limitation applies (DAILY, MONTHLY, ANNUALLY, OTHER)	When this submitted use limit plan becomes effective. (Must be 5 business days in the future.)	When this submitted use limit plan "expires". This date must be provided.	The number or amount of limitation over the granularity. (For example, number of starts over the year.)	Minimum capacity level for which the limitation applies. (optional)	Maximum capacity level for which the limitation applies. (optional)	TBD
3									
4									
5									
6									

Instruction | Definition | Code | **Use Limit Plan** | +

READY | 100%

- New template is posted to release planning page
- New template will be uploaded via master file UI (after functionality is implemented for 3/1/16)

# References

- 2015-2016 RSI & CPM market simulation plan:
  - [http://www.caiso.com/Documents/2015-2016\\_ReliabilityServices-CapacityProcurementMechanismReplacementMarketSimulationPlan.xls](http://www.caiso.com/Documents/2015-2016_ReliabilityServices-CapacityProcurementMechanismReplacementMarketSimulationPlan.xls)
- Reliability services page:
  - <http://www.caiso.com/informed/Pages/StakeholderProcesses/ReliabilityServices.aspx>
  - Contains links to NQC template, RA plan template, use limit plan data template, and links to slides from previous workshops
- Capacity procurement mechanism replacement:
  - <http://www.caiso.com/informed/Pages/StakeholderProcesses/CapacityProcurementMechanismReplacement.aspx>
- Reliability requirements BPM:
  - <http://bpmcm.caiso.com/Pages/BPMDetails.aspx?BPM=Reliability%20Requirements>