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October 24-26, 2023
Northampton, MA

Qualification: How to Participate in Forward Capacity Auction

Lesson 3A: Qualification for Forward Capacity Auction and New Capacity Qualification

Forward Capacity Market (FCM 101)



This presentation is based on the current information available for the rules as they are today. The information in this presentation may change based on upcoming decisions made regarding the future of FCA 19 and will be covered in future training.

Jen Engelson

Lead Analyst, Resource Qualification



Some slides or portions of slides may be intentionally hidden in the printed and posted versions of this presentation.

Topics

- Qualification Overview
- New Capacity Qualification Process
- Key Steps in Qualification
- Post-Qualification Notification Activities
- Upcoming Possible and Set Capacity Market Changes



Objectives

- Identify who can participate in Forward Capacity Market (FCM)
- Identify what a resource can do from the qualification through post-qualification
- Locate qualification process references on the ISO New England website
- Understand the upcoming possible and set Capacity Market changes



Common Acronyms

In Order of Appearance

FCM	Forward Capacity Market
FCA	Forward Capacity Auction
FCTS	Forward Capacity Tracking System
FERC	Federal Energy Regulatory Commission
MR 1	Market Rule 1
PP-10	Planning Procedure 10
SOI	show of interest
NCQP	new capacity qualification package

CCP	capacity commitment period
ETU	elective transmission upgrade
QPCRD	qualification process cost reimbursement deposit
QDN	qualification determination notification
CPS	critical path schedule
SA	substitution auction
IR	interconnection request
NCIS	Network Capability Interconnection Standard

CCIS	Capacity Capability Interconnection Standard
ORTP	offer-review trigger price
IMM	internal market monitor
OFP	offer floor price
M&V	Measurement & Verification
FA	financial assurance
CSO	capacity supply obligation
COD	commercial operation date

Disclaimer

This presentation focuses on the Forward Capacity Auction qualification process currently in place for FCA 19

- The training reflects the currently effective and/or filed Tariff rules
- There are possible changes coming up for the FCM that could impact Capacity Resource qualification
 - Discussion of these changes is included towards the end of this presentation

Forward Capacity Market Process

Qualification

- Establish requirements, zones, and demand curves
- **Show of interest and new capacity qualification package submittals for new projects**
- **Set qualified amounts for new capacity resources**
- Submit bids and offers

Qualification

Forward
Capacity
Auction

Forward Capacity Auction

- Conduct primary auction (and substitution auction, as applicable)
- Clear bids and offers (obligations obtained, or not)

Reconfiguration Auctions

Adjust capacity obligation amounts


Reconfiguration
Auctions &
Bilateral
Trading

Capacity
Commitment
Period
(June-May)

Capacity Commitment Period

- June through May of the following year
- Settle payments and charges each month

Who Can Participate in Forward Capacity Market?

Generators	Imports	Demand Capacity Resources
		



Iron in the Ground

or



Plan for Development

What Would These Entities Want to Do?



Increase MW
offered in market

New Qualification Process



Provide same
quantity of MW

Existing Qualification Process



Decrease MW
offered in market

Delisting



Forward Capacity Tracking System (FCTS)

System of record designed for submittal and tracking of information about FCM resources

Welcome to ISO New England's Forward Capacity Tracking System

Forward Capacity Tracking System (FCTS)

Commitment Period

Project

Monitored CPS

FCM Calendar

Commitment Period

CP 2010-11

CP 2011-12

CP 2012-13

CP 2013-14

CP 2014-15

CP 2015-16

CP 2016-17

CP 2017-18

CP 2018-19

CP 2019-20

Customer Events

Create Date

Event

Nothing found to display.



See FCM-related training:
[Participate > Training > Training Materials](#)

FCM Participation Guide



Qualification Process

Learn how to get started in the FCM or how to remove capacity either permanently or for a single capacity commitment period using delist bids. Select your resource type:

New

- Generator
- Import
- Demand Resource

Existing

- Generator
- Import
- Demand Resource



[Markets and Operations > Markets Data and Information > Forward Capacity Market > FCM Participation Guide](#)

Where Can I Find My Qualification Information?

- Qualification information submitted into the Forward Capacity Auction (FCA) for the applicable capacity commitment period can be found in the Forward Capacity Tracking System (FCTS)
- Information is also available in Federal Energy Regulatory Commission (FERC) informational filing, which is made 90 days before the FCA

Where can FERC filing be found?



[FERC website](https://www.ferc.gov)

Existing qualified capacity values
are public at time of FERC filing



[Markets and Operations > Markets Data
and Information > Forward Capacity Market](#)

(check filter box 'FCM FERC Filings')

All data will be available on
ISO website 15 days after the auction

New Qualification Process



What is New Resource Qualification?

New resource qualification is the mechanism through which potential new capacity resources can participate in the Forward Capacity Auction (FCA)

Every potential new resource seeking FCA participation must undergo the qualification process

Qualification process is defined in:

- **Market Rule (MR) 1**, Section III.13.1, Forward Capacity Auction Qualification
- **Planning Procedure 10 (PP-10)**; supports Forward Capacity Market



- [Participate > Rules and Procedures > Transmission, Markets, and Services Tariff > Market Rule 1](#)
- [Participate > Rules and Procedures > Planning Procedures](#)

New Resource Qualification Process

To participate in FCA, project sponsors must submit a show of interest (SOI) form and new capacity qualification package (NCQP)

ISO evaluates information submitted through qualification process

ISO qualifies new resources with a specific MW value for defined capacity commitment period (CCP)

Generation

New Capacity Eligibility

New Generating Capacity

New generator that has never previously obtained an obligation in FCA

Modification to Existing Generating Capacity

Modification to existing generating capacity resources that

- Is as a result of certain minimum investment (\$/kW), and/or
- Results in an increase in output

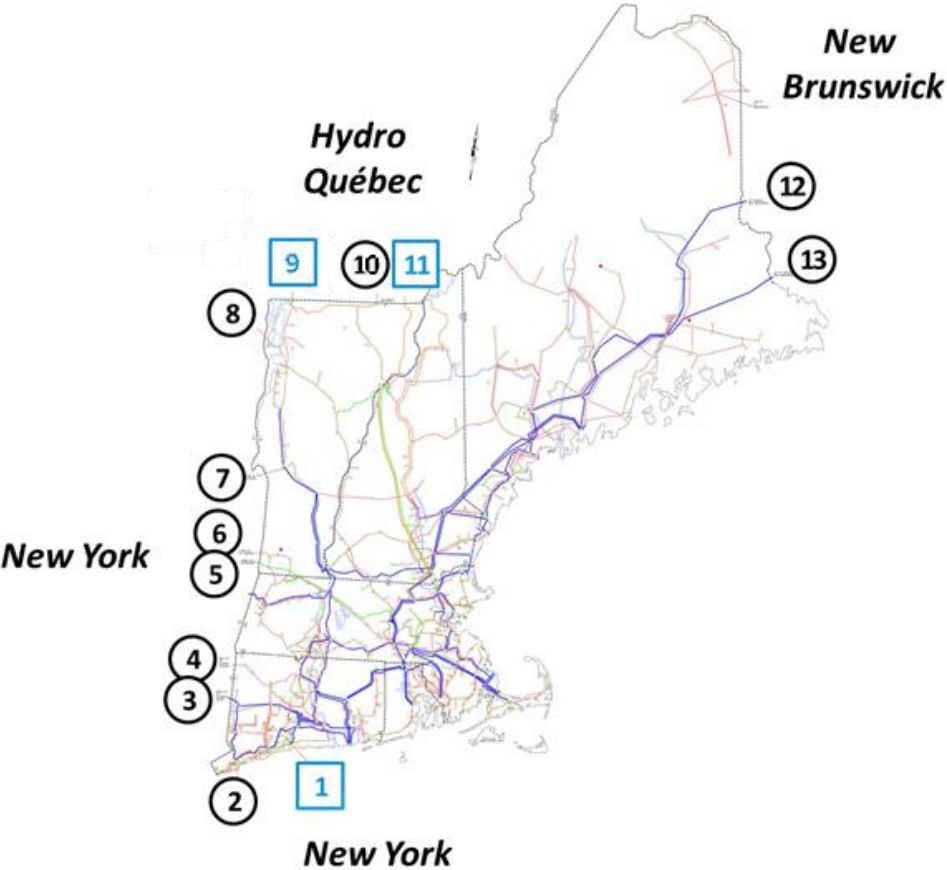


MR 1, Section III.13.1.1

Import

New Capacity Eligibility

New Import Capacity	
Import resource that utilizes new contract to provide capacity into New England either over existing interface or an external elective transmission upgrade (ETU)	
ETU	Existing Interfaces
New transmission facility proposed to interconnect New England control area to an external control area	Existing transmission facility interconnecting New England control area to an external control area



Demand Capacity Resources

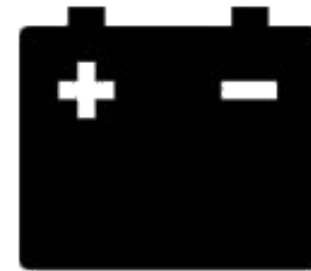
New Capacity Eligibility

New Demand Capacity

- Active demand capacity resource that has never previously obtained an obligation in FCA
- Passive demand capacity resource that has not been in service before the existing capacity qualification deadline **(unless otherwise specified in the Tariff)**

Increment to Existing Demand Capacity

New increment to existing demand capacity resource



Which of the following is a new capacity resource?

- ✓ A. An existing generator with a 20 MW upgrade
- B. An active demand resource that has previously obtained an obligation in FCA
- C. An import resource that utilizes an existing multi-year contract backed by an external commercial generator delivered over existing NY interface
- D. None of the above

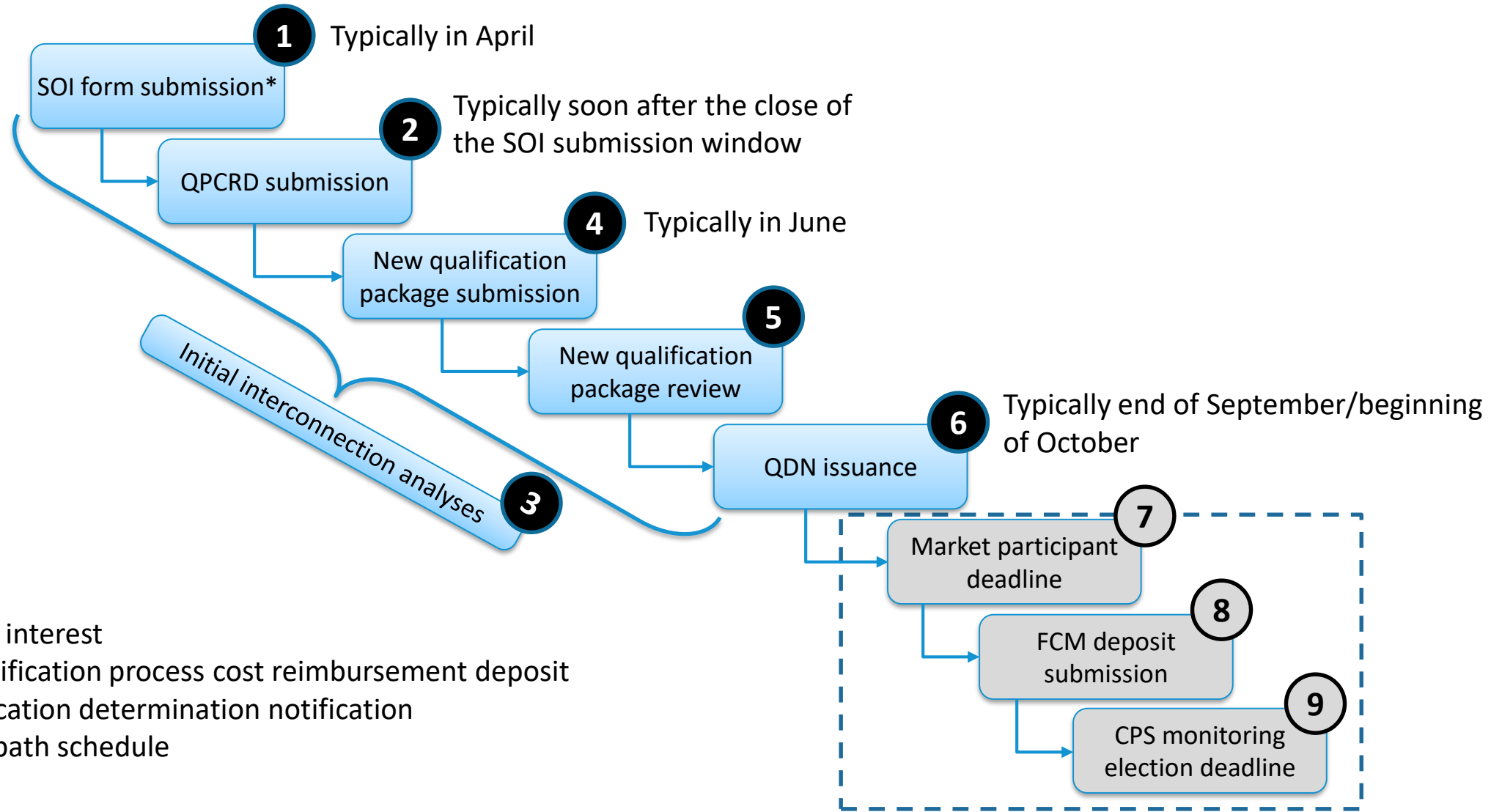




Questions

Key Steps in Qualification

Key Steps in Qualification Process



*Generation and elective transmission upgrades (ETUs) must also submit a valid interconnection request

Step 1 – Show of Interest Form Submission

1

- Show of interest (SOI) form:
 - SOI submission window typically occurs in April
 - Submitted by all interested project sponsors seeking qualification
 - Contains all necessary project information including project type, proposed MW, interconnection point, and necessary attachments, including a project description form for demand capacity resources
 - Submitted using Forward Capacity Tracking System (FCTS)
- A generation resource's SOI form will be declared deficient and deemed withdrawn if it fails to include documentation demonstrating
 - Site control, and/or
 - A valid interconnection request (IR)

MR 1, Section III.13.1.1.2.1



[Participate > Training > Training Materials > FCM Show of Interest Training](#)

Step 1 – Show of Interest Form Submission

Generation Resources – Interconnection Request and Site Control

1

- Project sponsor must achieve, prior to a show of interest (SOI) form submission, control of the project site for the duration of the relevant capacity commitment period (CCP)
- Project sponsor must have in place a valid and active interconnection request (IR) consistent with the project described in the SOI form, at the time of the SOI form submission
 - For projects subject to the ISO's interconnection process, the IR should be valid and active in the ISO's interconnection process
 - For projects subject to the a state's interconnection, the IR should be valid and active in the local transmission owner's interconnection process
- Final implementation of FERC Order No. 2023 may impact these requirements

MR 1, Section III.13.1.1.2.1



[Participate > Applications and Status Changes > Interconnection Process Guide](#)

- Schedule 22, Large Generator Interconnection Procedures
- Schedule 23, Small Generator Interconnection Procedures
- Schedule 25, Elective Transmission Upgrade Interconnection Procedures

Step 2 – Qualification Process Cost Reimbursement Deposit Submission

2

- Qualification process cost reimbursement deposit (QPCRD) is:
 - Submitted by all project sponsors who have submitted a show of interest (SOI) form
 - Mechanism to recover costs incurred during qualification process
 - Dependent on type and size of project
- ISO sends invoice for payments a few weeks after SOI submission window
 - Payment deadline typically soon after the close of the SOI submission window
 - Payment is due in accordance with ISO New England billing policy



Step 3 – Initial Interconnection Analyses

3

- Initial interconnection analyses are performed by ISO to identify effect of new project on New England transmission system
- These analyses, applicable to all generation resources and elective transmission upgrades (ETUs), include:
 - Direct connect review (including site control review/verification)
 - Network Capability Interconnection Standard (NCIS) test:
The ability to minimally interconnect a resource in accordance with the Network Capability Interconnection Standard (NCIS)
 - Overlapping Interconnection Impact analysis:
The ability of a resource to provide incremental capacity in accordance with the Capacity Capability Interconnection Standard (CCIS)
 - **Note:** This analysis applies to active capacity demand resources



Step 4 – New Qualification Package Submission

4

- New Capacity Qualification Package submission window typically occurs in June
- Required for all projects to continue in qualification process
- Contains:
 - **Critical path schedule (CPS)** - detailed information on CPS of project
 - **Intermittent data** (for intermittent resources)
 - Buyer-side market power review documentation (if applicable)
 - Election selections
 - Additional required information based on generation project type
 - Ownership or proof of control documentation (import resources only)
 - Customer Acquisition Plan (demand capacity resources only)
 - Source of Funding Plan (demand capacity resources only)
 - Measurement and Verification (M&V) Plan (demand capacity resources only)
 - Substitution auction (SA) supporting documentation
- Submitted by project sponsor using Forward Capacity Tracking System (FCTS)



Step 4 – New Qualification Package Submission

Critical Path Schedule

4

- Critical path schedule (CPS) is a schedule that must be provided with sufficient details to support the development of the project being built
- At a minimum, CPS should include the milestones as described in Market Rule 1, Section III.13.1.1.2.2.2, Critical Path Schedule
- CPS will be assessed by ISO to determine:
 - Feasibility of project, as well as
 - Achievability of all milestones by start of relevant capacity commitment period (CCP)



View Critical Path Schedule Monitoring self-paced training and videos:

- [Critical Path Schedule Monitoring \(self-paced training\)](#)
- [Critical Path Schedule: How to Elect CPS Monitoring in FCTS \(video\)](#)
- [Critical Path Schedule: How to Submit a Full CPS Report Using FCTS \(video\)](#)
- [Critical Path Schedule: How to Submit a Simple CPS Report Using FCTS \(video\)](#)

Step 4 – New Qualification Package Submission

Intermittent Data

4

- Not qualified at nameplate
- Qualification is based on:
 - Expected site-specific performance data during reliability hours, and
 - Equipment characteristics



[Markets and Operations > Markets Data and Information > Forward Capacity Market > ISO-NE Forward Capacity Market Intermittent Resources Forms and Guidelines](#)

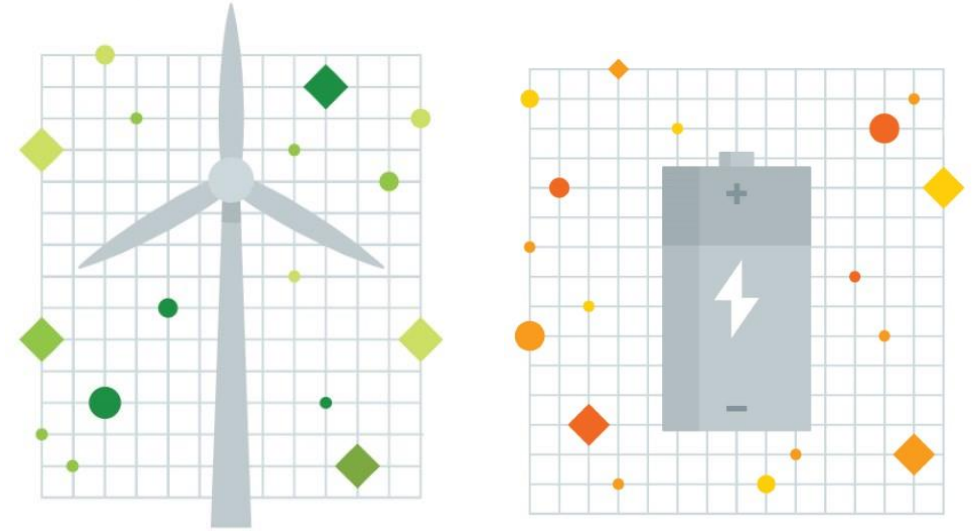
Step 4 – New Qualification Package Submission

Additional Data for Storage Co-located with Intermittent Resource

4

Qualification is based on:

- Equipment characteristics
- Characteristics of the co-located facility
- Expected site-specific performance data during reliability hours
- Charging configuration for the storage



- [Additional Data for New Generating Stand-Alone or Co-Located Storage Facilities](#)
- [Additional Data Request for PV and Storage Demand Capacity Resources](#)

Step 4 – Buyer-Side Market Power Mitigation

4



Addresses concerns that buyers of capacity may have the ability and incentive to suppress prices below competitive levels through subsidizing new entry



Prevents new resources from entering the market at prices below their costs

Beginning in FCA19:

- Minimum Offer Price Rule (MOPR) eliminated
- Buyer-side market power review reformed

Step 4 – New Qualification Package Submission

Buyer-Side Market Power Review

New for
FCA 19

4

- Starting with FCA 19, the ISO will perform a narrow buyer-side market power review with three “review lanes”

Lane 1 - “No Assessment” Lane

- Resources with Qualified Capacity ≤ 5 MW; or
- Seasonal Peak Demand and On Peak Demand Resources

Lane 2 - “Limited Assessment” Lane

- Certify Resource Meets the Sponsored Policy Resource Definition; or
- Certify Absence of a Load Serving Entity Relationship/Agreement

Lane 3 - “Full Assessment” Lane

All other resources that do not Meet the Conditions of Lanes 1 and 2

FCA

Step 4 – New Qualification Package Submission

Buyer-Side Market Power Review

4

- Documentation related to the Lane 2 (“Limited Assessment” lane) and Lane 3 (“Full Assessment” lane) is submitted during the New Capacity Qualification Package submission window. Lane 3 resources must submit:
 - 1) the lowest price at which it requests to offer capacity in the FCA
 - 2) Supporting cost workbooks to allow the IMM to conduct its review
- The IMM shall review the requested lowest offer prices from Lane 3 resources for the potential exercise of buyer-side market power
 - If the IMM calculates a higher offer floor price than requested by the resource, the IMM’s price will supersede the requested value
 - Unless the Project Sponsor can demonstrate that it lacks the incentive to exercise buyer-sider market power (i.e., “incentive rebuttal”)



Step 5 – New Qualification Package Review

Generators	Imports	Demand Capacity Resources
<ul style="list-style-type: none">• Critical path schedule (CPS) review to ensure project can achieve all its CPS milestones by the capacity commitment period (CCP) start date• Lane 2 or Lane 3 reviews for narrow buyer-side market power review• Intermittent review to determine reduced claimed capability for intermittent resources• Threshold review to determine costs associated with upgrades to existing resources	<ul style="list-style-type: none">• CPS review to ensure non-commercial import project or elective transmission upgrade (ETU) can achieve all its CPS milestones by CCP start date• Lane 2 or Lane 3 reviews for narrow buyer-side market power review• Documentation review to determine ownership or proof of control of external resource and determine capacity capability	<ul style="list-style-type: none">• CPS review to ensure project can achieve all its CPS milestones by CCP start date• Lane 2 or Lane 3 reviews for narrow buyer-side market power review• Source of funding review to determine project’s financial capability• Customer acquisition plan review to assess ability of project sponsor to recruit customers• Measurement and Verification (M&V) Plan review to ensure compliance with ISO’s requirements

Step 6 – Qualification Determination Notification Issuance

6

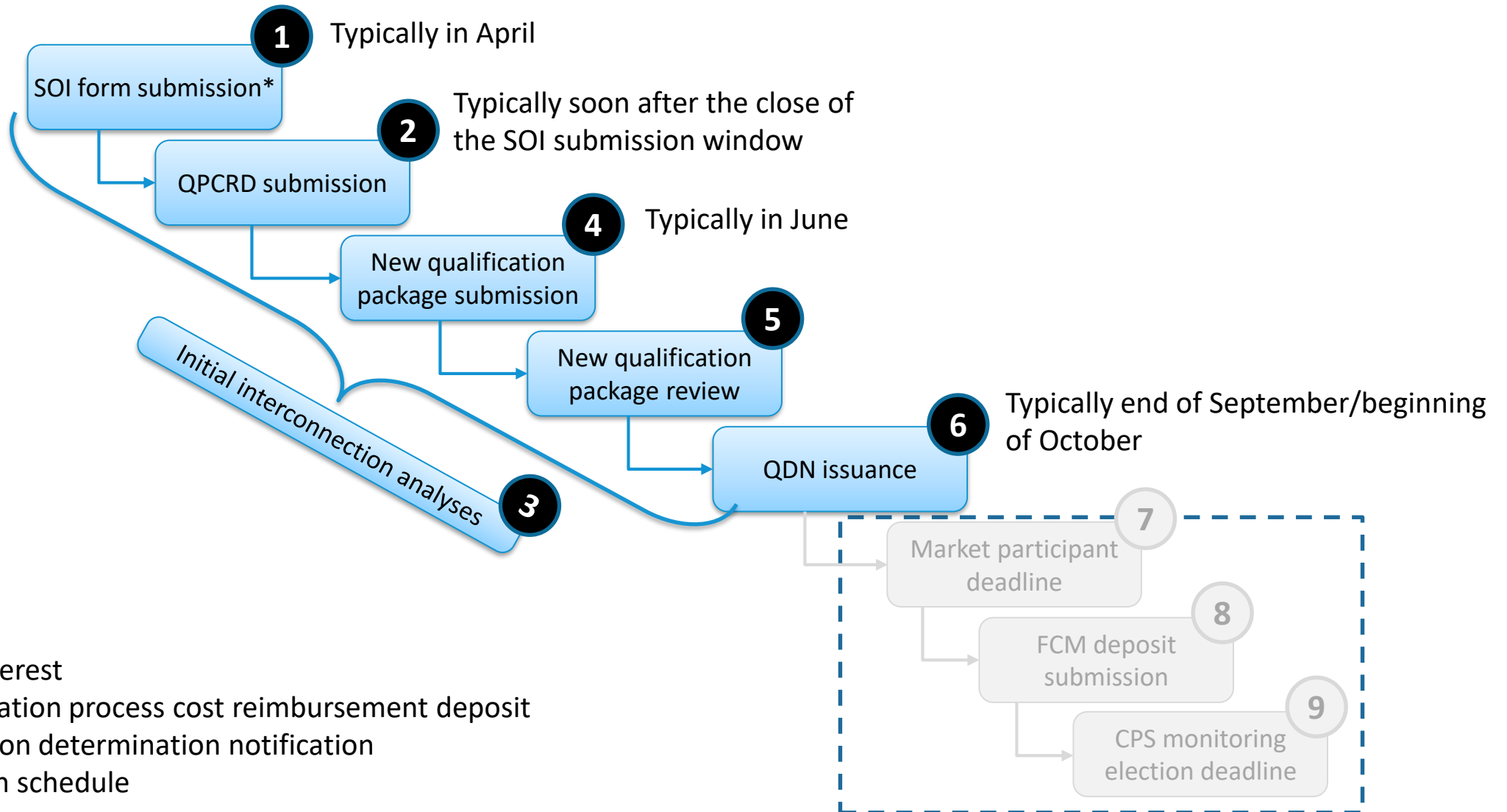
- Two separate qualification determination notifications (QDNs) may be issued:
 - System planning
 - Internal market monitor (for narrow buyer-side market power review determinations, as applicable)
- QDN:
 - Typically published at the end of September/beginning of October
 - Published to each project sponsor via Forward Capacity Tracking System (FCTS)
 - Indicate whether participation in the primary auction of the Forward Capacity Auction is accepted or denied
 - Based on reviews and analyses performed between Steps 3-5



MR 1, Section III.13.1.



Review of Key Steps in Qualification Process



SOI = show of interest

QPCRD = qualification process cost reimbursement deposit

QDN = qualification determination notification

CPS = critical path schedule

*Generation and Elective Transmission Upgrades must also have submitted a valid interconnection request



Questions

Post-Qualification Determination Notification Activities



Step 7 – Becoming a Market Participant

7



A project sponsor must become a market participant no later than 30 days prior to financial assurance deposit deadline

- To become a market participant, project sponsors must submit:
 - a completed membership application
 - other documentation as required
- Process could take **up to three months** to complete

MR 1, Section III.13.1

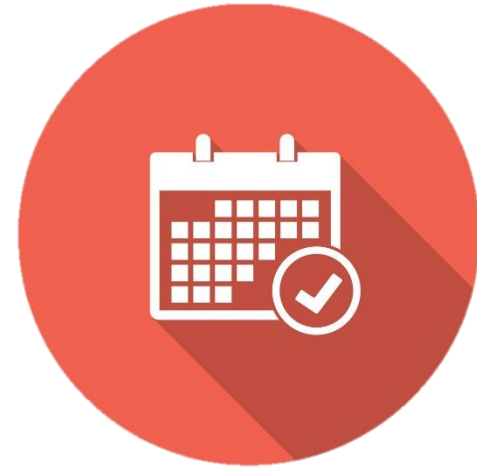


View membership information:

[Participate > Applications and Status Changes > Participant Registration](#)

Project Sponsor Withdrawal Deadline

- To withdraw from qualification process, project sponsors must:
 - Withdraw any time prior to **three business days** before submission of financial assurance deposit
 - Submit withdrawal notification via [Ask ISO](#)
- Reconciliation of qualification process cost reimbursement deposit (QPCRD) associated with project is done at withdrawal

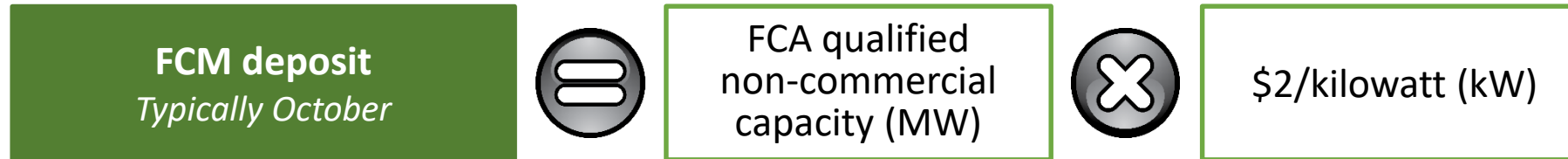


Any withdrawal will be irrevocable

Step 8 – FCM Deposit Submission

8

All qualified non-commercial projects eligible to participate in Forward Capacity Auction (FCA) must post financial assurance (FA) as follows:



FCM deposit is added into participant's FCM financial assurance requirement by **8:00 a.m., Eastern Standard Time, on fifth business day** after notification of qualification capacity



- **Proposed changes to FA being reviewed at NEPOOL Committee:**
[Non-Commercial Financial Assurance Improvements](#)
- **View FA requirements:**
[Exhibit IA – ISO New England Financial Assurance Policy](#)
- **View FA self-paced training:**
[Financial Assurance Basics](#)
[Financial Assurance for the Forward Capacity Market](#)

Step 9 – Critical Path Schedule Monitoring Election Deadline

9

- Critical path schedule (CPS) monitoring election request must be made via FCTS no later than five business days after FCM deposit deadline regardless of commercial status
- Election allows resource to be considered for qualification in reconfiguration auctions for prior capacity commitment periods (CCPs)
 - A new import capacity resource backed by existing external resource(s) seeking to qualify must elect CPS monitoring
- ISO monitors resource's compliance with its CPS until it achieves FCM commercial operation
- Once election is made, it is irrevocable



View Critical Path Schedule Monitoring self-paced training and videos:

- [Critical Path Schedule Monitoring \(self-paced training\)](#)
- [Critical Path Schedule: How to Elect CPS Monitoring in FCTS \(video\)](#)
- [Critical Path Schedule: How to Submit a Full CPS Report Using FCTS \(video\)](#)
- [Critical Path Schedule: How to Submit a Simple CPS Report Using FCTS \(video\)](#)

MR 1, Section III.13.3.1.1

FCA Participation

- Qualified new projects participate in Forward Capacity Auction (primary and, as applicable and up to and including FCA 18, the substitution auction)
- Projects that clear the auction:
 - Obtain capacity supply obligation (CSO)
 - Will have their financial assurance (FA) adjusted accordingly
- ISO begins CPS monitoring of the project to ensure that it achieves FCM commercial operation by the start of the CCP
- FA and QPCRD balance is returned to the project once it achieves FCM commercial operation



The FCM path of a non-intermittent generator ...



New Proposed Generator

- Proposed Summer MW = 190
- Proposed Winter MW = 195

The FCM path of an intermittent generator ...



New Proposed Generator

- Proposed Summer MW = 2.6
- Proposed Winter MW = 0

The FCM path of a demand capacity resource...

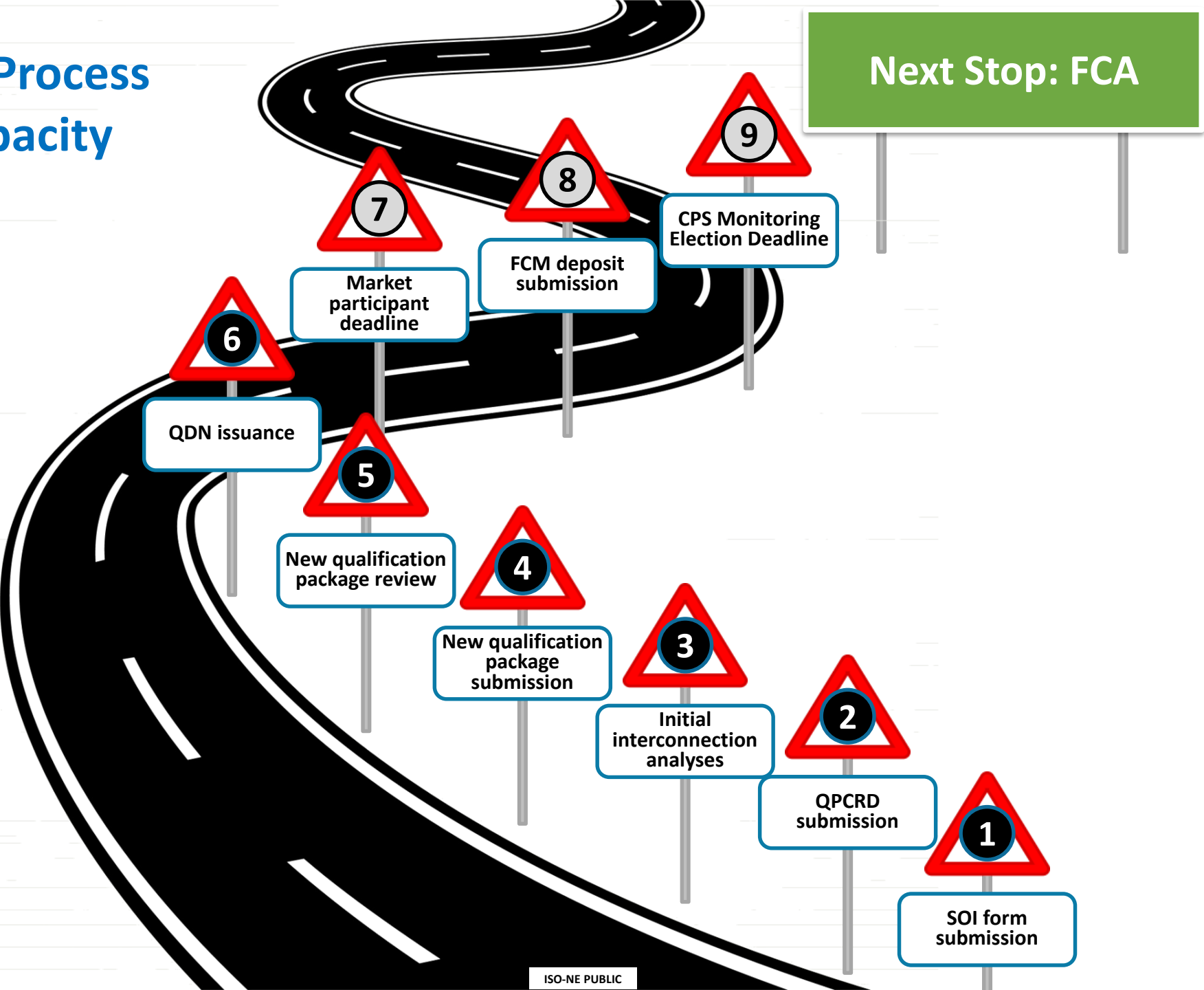


New Proposed Demand Capacity Resource

Requests to be on CPS monitoring with an early commercial operation date (COD)

- Proposed Summer MW = 2
- Proposed Winter MW = 2

Qualification Process For New Capacity



The FCM path of a non-intermittent generator ...



New Proposed Generator

- Obtains an obligation in auction
- For next FCA, these cleared MW will be treated as *existing* (discussed in next lesson)

The FCM path of an intermittent generator ...



New Proposed Generator

- Obtains an obligation in auction
- For next FCA, these cleared MW will be treated as existing (discussed in next lesson)

The FCM path of a demand capacity resource...



New Proposed Demand Capacity Resource

- Does ***not*** obtain an obligation in auction
- Was qualified with an early commercial operation date (COD) and elected to be on CPS monitoring
 - Can participate in reconfiguration auctions

Changes to the Capacity Market



Upcoming Expected and Possible Capacity Market Changes

There are expected changes and possible changes coming up for the FCM that could significantly impact New Capacity Resource qualification

The following slides summarize these upcoming expected and possible capacity market changes

Upcoming Expected and Possible Market Changes, continued

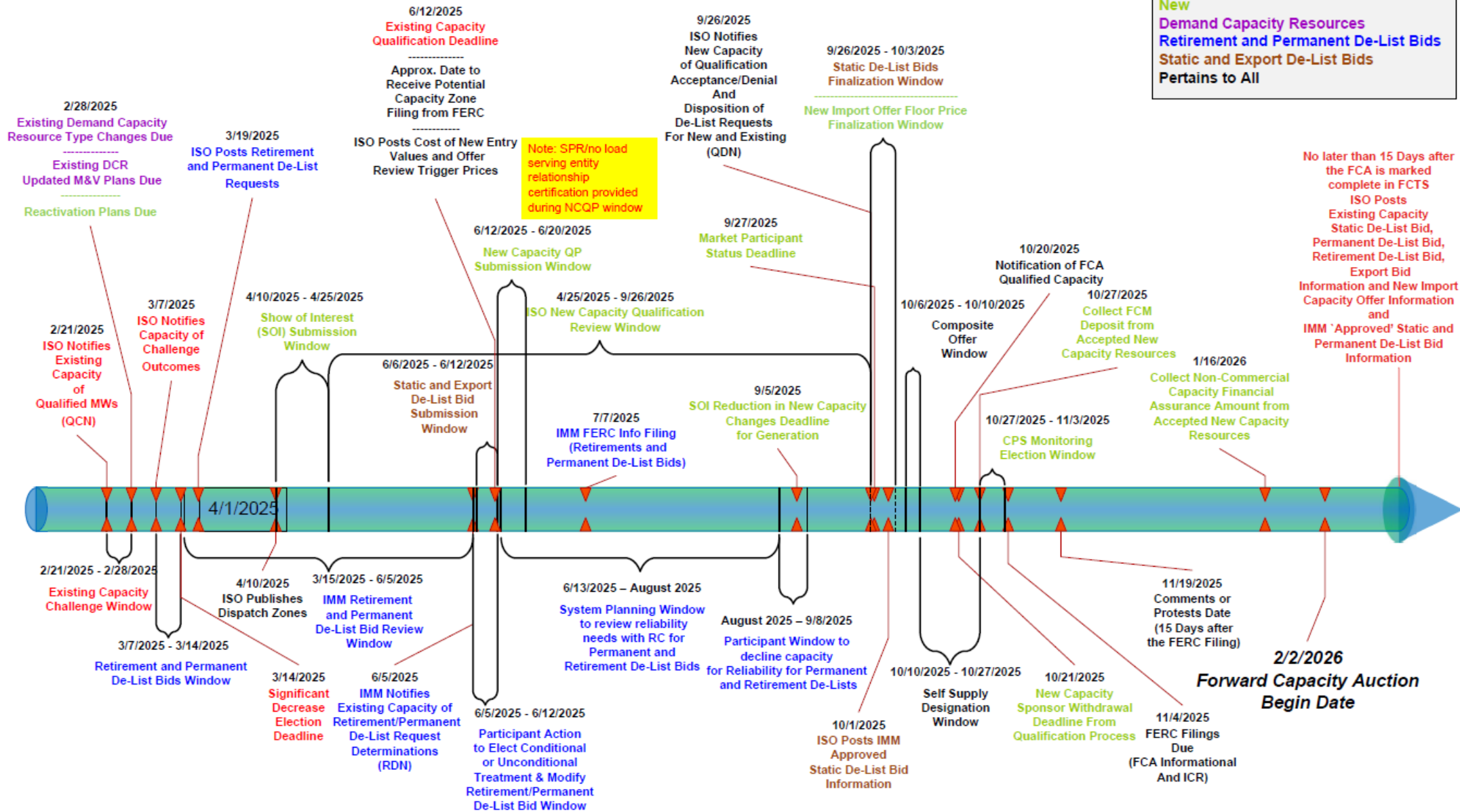
Timing of FCA 19

- The ISO has recommended a one year delay to FCA 19 activities to accommodate the implementation of resource capacity accreditation reforms
 - The ISO is currently moving this proposal through the stakeholder review process, with plans to file any needed Tariff changes with the FERC before end of Q4 2023
- The next slide presents a possible delayed FCA 19 schedule the ISO shared during the stakeholder review process
 - Market Participants should review the ISO website and the effective version of the Tariff as approved by FERC for the applicable dates

Draft - Forward Capacity Auction 19 Schedule

Capacity Commitment Period: 2028-2029

Key:
Existing
New
Demand Capacity Resources
Retirement and Permanent De-List Bids
Static and Export De-List Bids
Pertains to All



Upcoming Expected and Possible Capacity Market Changes, continued

FERC Order 2222

- **Current status:**
 - Initial rules approved by FERC
 - Additional filings (implementation timeline and rule adjustments) are pending/under development
- **Implementation timing:** Expected for FCA 19
- **Summary of impacts:**
 - Introduces a new capacity resource type
 - **Distributed Energy Capacity Resource** - supports the aggregation of Distributed Energy Resources



Upcoming Expected and Possible Capacity Market Changes, continued

FERC Order 2023

- **Current status:**
 - Pro-forma rules approved by FERC
 - Filings (rule adjustments) are under development
- **Implementation timing:** Expected for FCA 19
- **Summary of impacts:**
 - Replaces the serial interconnection study approach with a cluster study approach
 - Potential to remove the overlapping interconnection impacts analysis from being imbedded in the FCA qualification process

Upcoming Expected and Possible Capacity Market Changes, continued

FCM Retirement Reforms - Return to Service

- **Current status:** Stakeholder review process in progress
- **Implementation timing :** Possible for FCA 19
- **Summary of impacts:**
 - Modifies the FCM reentry cost thresholds rules



Upcoming Expected and Possible Capacity Market Changes, continued

Resource Capacity Accreditation

- **Current status:** In the stakeholder review process
- **Implementation timing :** Possible for FCA 19, but discussions on timing are underway
- **Summary of impacts:**
 - Introduces methodologies to more accurately reflect resource contributions to resource adequacy in the capacity market
 - Has the potential to significantly impact the construct and timing of capacity auction qualification activities



Upcoming Expected and Possible Capacity Market Changes, continued

Alternative FCM Commitment Horizons

- **Current status:** Internal assessments and exploratory discussions with stakeholders in progress
- **Implementation timing :** To be determined
- **Summary of impacts:**
 - Possible option – **Prompt Auction:** Results in the replacement of the Forward Capacity market construct (where the main auction is run approximately three years before the start of the applicable CCP) with a prompt auction construct (where the main auction is run closer to the applicable CCP)
 - Possible option – **Seasonal Auction(s):** Contemplates capacity auction(s) that distinguish summer and winter CCPs
 - Has the potential to significantly impact the construct and timing of capacity auction qualification activities

Summary

In this lesson, you learned:

- Who can participate in the Forward Capacity Market
- What a resource can do from qualification through post-qualification process
- How to locate qualification sources on the ISO New England website
- Upcoming possible and set Capacity Market changes





Questions