

Seasonal Demand Response Registration Proposal

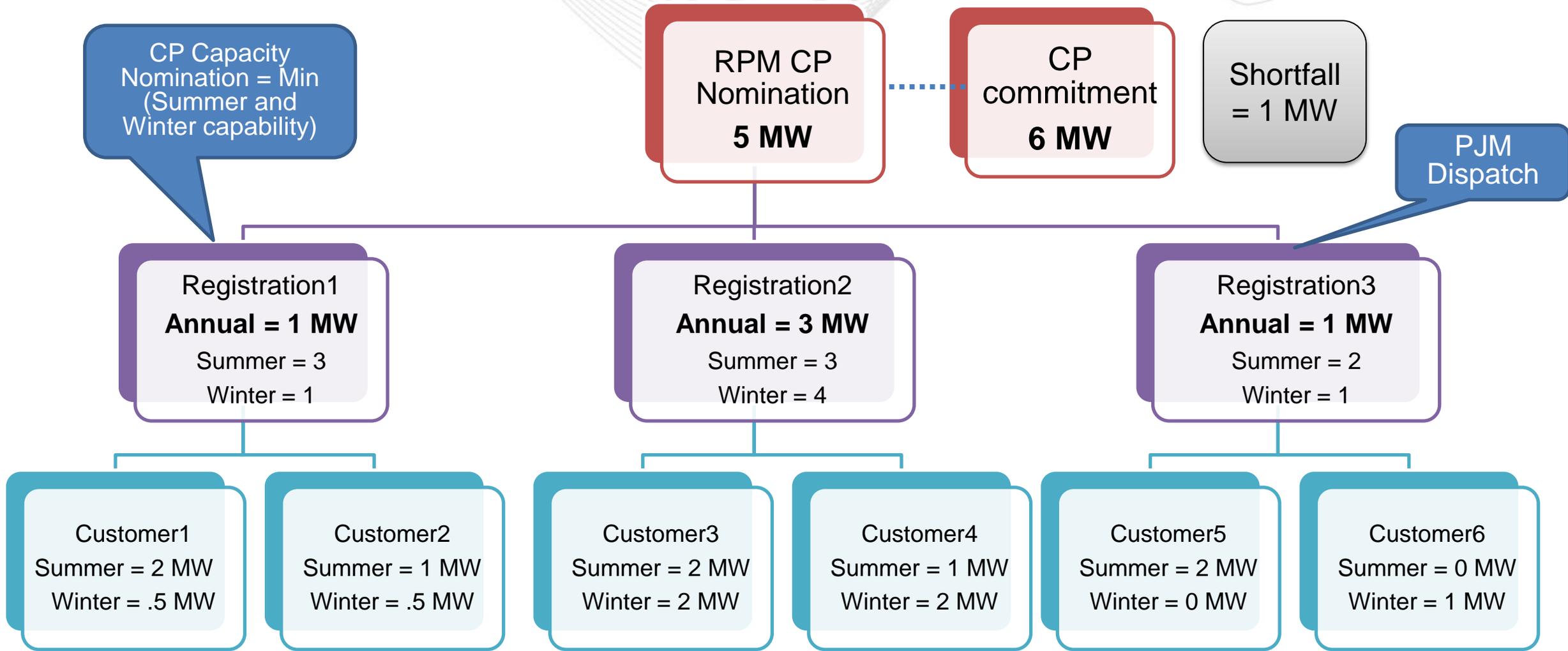
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Market Implementation Committee
July 11, 2018

CSP aggregation of customer summer and winter capability to meet CP requirements

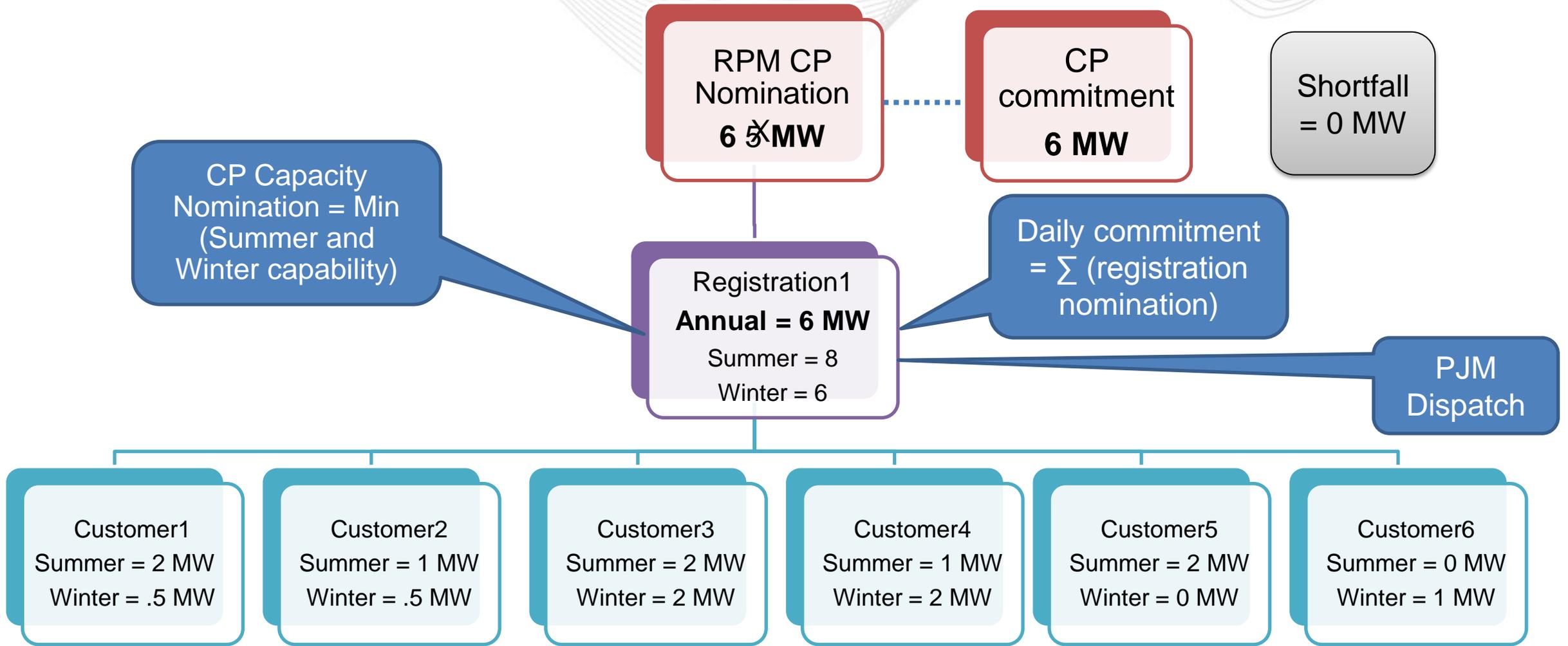
- CSP capacity nomination based on minimum of summer and winter capability on a registration
 - CSP must manage aggregation of customer's on registration to avoid unaccounted for capacity capability
 - Aggregate registrations (more than 1 customer) gives PJM less dispatch flexibility
 - Aggregate registration provide less transparency and only intended to allow market entry for small customers (<100kw)

DRS consensus proposal to sum nominated summer and winter MW at CP resource level and then determine annual capability (from minimum) instead of at registration level

Current Process: DR Seasonal Aggregation



Current Process: Large aggregation to minimize unaccounted for capacity



Proposed Process: DR Seasonal Aggregation

CP Capacity Nomination = Min (RPM CP Resource Summer and Winter capability)

RPM CP Nomination
~~6~~ **8 MW**
 Summer = 8
 Winter = 6

CP commitment
 6 MW

Shortfall
 = 0 MW

PJM dispatch

Registration1
 Annual = ~~.5~~ MW
 Summer = 2
 Winter = .5

Registration2
 Annual = ~~.5~~ MW
 Summer = 1
 Winter = .5

Registration3
 Annual = 2 MW
 Summer = 2
 Winter = 2

Registration4
 Annual = 1 MW
 Summer = 1
 Winter = 2

Registration5
 Annual = 0 MW
 Summer = 2
 Winter = 0

Registration6
 Annual = 0 MW
 Summer = 0
 Winter = 1

Customer1
 Summer = 2 MW
 Winter = .5 MW

Customer2
 Summer = 1 MW
 Winter = .5 MW

Customer3
 Summer = 2 MW
 Winter = 2 MW

Customer4
 Summer = 1 MW
 Winter = 2 MW

Customer5
 Summer = 2 MW
 Winter = 0 MW

Customer6
 Summer = 0 MW
 Winter = 1 MW

- Move calculation of CSP capacity nomination from registration (min of Summer and Winter) to RPM CP Nomination level
 - More effective process for member
 - Reduce administrative burden – one customer per registration unless under 100kW
 - Minimize unaccounted for capability
 - Allows greater PJM dispatch flexibility

Effective for 2019/2020 Delivery Year

- Proposed revisions to RAA, OATT, and PJM Capacity Market Manual (M-18)
- Includes:
 - Revisions related to Seasonal DR Registration Aggregation
 - Clean-up revisions

Registration(s)
linked to a
Demand Resource

- Summer Nominated Value based on summer data
- Winter Nominated Value based on winter data
- Annual Nominated Value = lesser of Summer or Winter Nominated Value

Limited DR
Extended Summer DR
Annual DR (non-CP)
Base DR

Daily Nominated DR Value of Demand Resource =

- Sum of Summer Nominated Values of registrations linked to DR

Capacity Performance
DR

Daily Nominated DR Value of Demand Resource =

- Sum of Annual Nominated Values of registrations linked to DR (2017/2018 & 2018/2019 DY)
- Lesser of (a) sum of Summer Nominated Values or (b) sum of Winter Nominated Values of registrations linked to DR (2019/2020 DY)
- Sum of Summer Nominated Values of registrations linked to DR (Effective starting 2020/2021 DY for summer period)
- Lesser of (a) sum of Summer Nominated Values or (b) sum of Winter Nominated Values of registrations linked to DR (Effective starting 2020/2021 DY for non-summer period)

Add definition for Demand Resource Registration, Capacity Only Option, and Full Program Option

- RAA Article 1-Definitions
- Manual 18, Attachment A: Glossary of Terms

Distinguish between Demand Resource and Demand Resource Registration when appropriate

- RAA Schedule 6 (OATT Attachment DD-1)
- OATT Attachment K Appendix Sections 8.5, 8.6, 8.8, & 8.9; OATT Attachment DD, Section 11
- Manual 18, Section 4.3, 4.7.2, 8.7, 11.4, Attachment C

Define how summer/winter/annual Nominated Values for FSL and GLD registrations are calculated

- RAA Schedule 6 (OATT Attachment DD-1)
- Manual 18, Sections 4.3 & 11.4

Define how daily Nominated DR Value is calculated for different Demand Resource product-types

- RAA Schedule 6 (OATT Attachment DD-1)
- Manual 18, Sections 4.3, 4.7.2, & 11.4

Describe how summer Nominated DR Value is used in calculation of Existing MWs

- Manual 18, Section 4.3

Remove language that is no longer effective (e.g., Legacy Direct Load Control provisions)

- RAA Schedule 6 (OATT Attachment DD-1)
- OATT Attachment DD, Section 11
- Manual 18 - Sections 4.3, 8.7.2, 11.4, Attachment A, & Attachment C

Clarify that LM Event Compliance is netted by Compliance Aggregation Area

- RAA Schedule 6 (OATT Attachment DD-1)

Add how compliance is netted and determined for DR in an Emergency Action Area for a PAI

- RAA Schedule 6 (OATT Attachment DD-1)

Include missing charge rates for FRR Entities for LM Event Compliance and LM Test Failure

- RAA Schedule 8.1G

Correct when add-backs occur and add actual load reduction calculation for non-summer period

- OATT Attachment K Appendix, Section 8.9

Clarify that DR Event Compliance Penalty Charge does not apply to Base Capacity Demand Resources

- OATT Attachment DD, Section 11

Correct effective date for the elimination of DR Factor in calculation of UCAP value of DR/EE committed to FRR Capacity Plan to 2019/2020 DY

- Manual 18 - Section 11.4

- First Read
 - DRS: May 21, 2018 - Completed
 - MIC: June 6, 2018 - Completed
 - MRC: June 21, 2018 - Completed
 - MC: July 26, 2018

- Endorsement
 - DRS: June 22, 2018 - Completed
 - MIC: July 11, 2018
 - MRC: July 26, 2018
 - MC: Sept 27, 2018
 - Board Approval: Oct 3, 2018