Seasonal Demand Response Registration Proposal

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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

**CP Capacity Nomination** = Min (Summer and Winter capability)

**RPM CP Nomination** = 5 MW

**CP commitment** = 6 MW

**Shortfall** = 1 MW

**Registration1**
- Annual = 1 MW
  - Summer = 3
  - Winter = 1

**Customer1**
- Summer = 2 MW
  - Winter = 0.5 MW

**Registration2**
- Annual = 3 MW
  - Summer = 3
  - Winter = 4

**Customer2**
- Summer = 1 MW
  - Winter = 0.5 MW

**Registration3**
- Annual = 1 MW
  - Summer = 2
  - Winter = 1

**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

**CP Commitment Nomination** = Min (Summer and Winter capability)
Current Process: Large aggregation to minimize unaccounted for capacity

CP Capacity Nomination = Min (Summer and Winter capability)

RPM CP Nomination
6 MW

CP commitment
6 MW

Daily commitment = \(\sum\) (registration nomination)

Registration1
Annual = 6 MW
Summer = 8
Winter = 6

Shortfall = 0 MW

PJM Dispatch

Customer1
Summer = 2 MW
Winter = 0.5 MW

Customer2
Summer = 1 MW
Winter = 0.5 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
Proposed Process: DR Seasonal Aggregation

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

RPM CP Nomination
- Summer = 8 MW
- Winter = 6 MW

CP commitment
- 6 MW

Shortfall = 0 MW

PJM dispatch

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

Customer1
- Summer = 2 MW
- Winter = .5 MW

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

Customer2
- Summer = 1 MW
- Winter = .5 MW

Registration3
- Annual = 2 MW
- Summer = 2 MW
- Winter = 2 MW

Customer3
- Summer = 2 MW
- Winter = 2 MW

Registration4
- Annual = 1 MW
- Summer = 1 MW
- Winter = 2 MW

Customer4
- Summer = 1 MW
- Winter = 2 MW

Registration5
- Annual = 0 MW
- Summer = 2 MW
- Winter = 0 MW

Customer5
- Summer = 2 MW
- Winter = 0 MW

Registration6
- Annual = 0 MW
- Summer = 0 MW
- Winter = 1 MW

Customer6
- Summer = 0 MW
- Winter = 1 MW

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Key Points

• Move calculation of CSP capacity nomination from registration level (min of Summer and Winter) to RPM CP Nomination level (min of Summer and Winter)
  – 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
Seasonal DR Registration Aggregation Proposal

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 =
- 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)
Summary of Proposed Revisions for Seasonal DR Registration Aggregation

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
Summary of Clean-up Revisions

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
Stakeholder Timeline

• First Read
  – DRS: May 21, 2018
  – MIC: June 6, 2018
  – MRC: June 21, 2018
  – MC: July 26, 2018

• Endorsement
  – DRS: June 22, 2018
  – MIC: July 11, 2018
  – MRC: July 26, 2018
  – MC: Sept 27, 2018