



# OhmConnect

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**Save Energy. Get Paid.**

**NYISO Price Responsive Load Working Group  
Small Customer Aggregation Proposal  
June 7<sup>th</sup>, 2022**

1. **Background**
2. SCA Request Summary

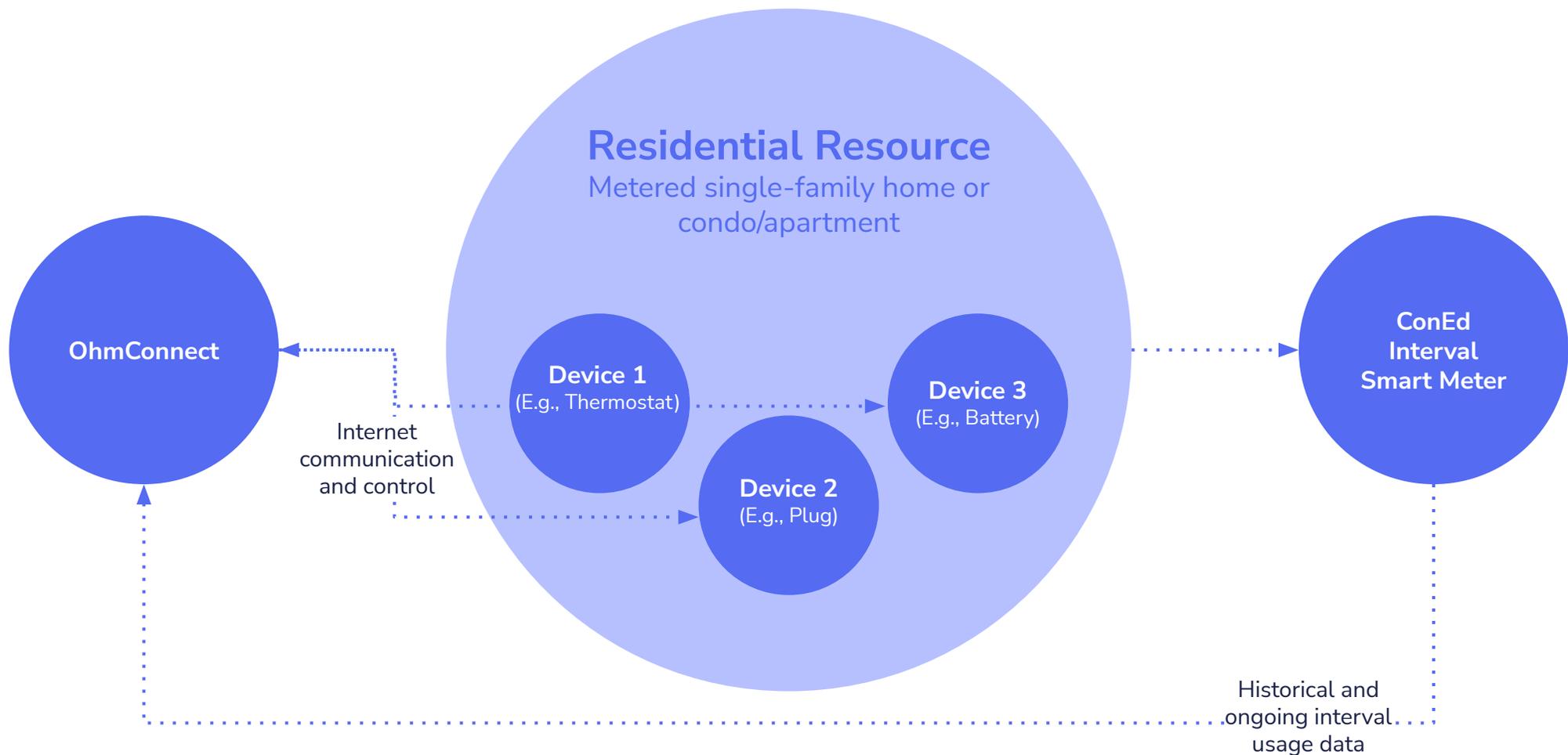
# Background

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# SCA Presentation Summary

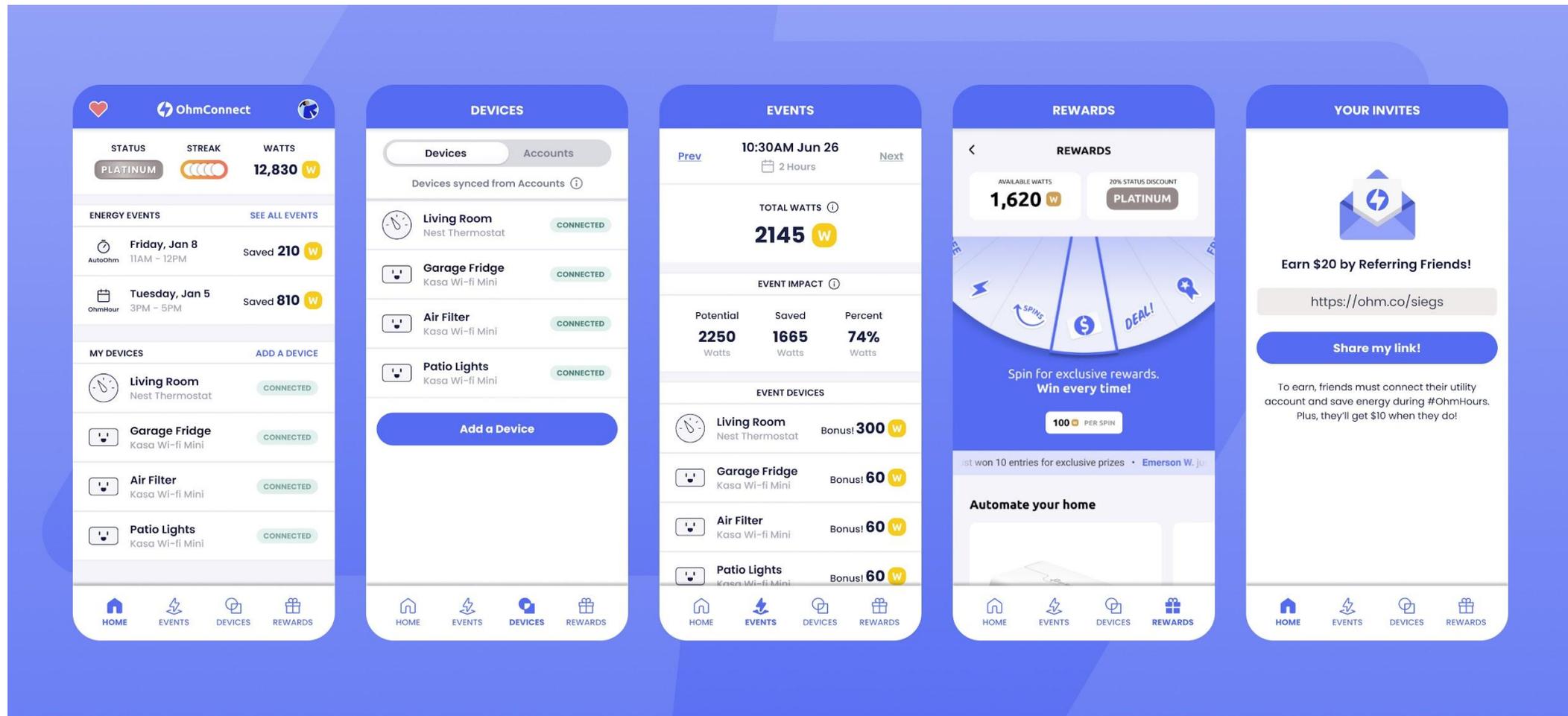
- Per NYISO procedure, OhmConnect is seeking the applicable Chairs' approval of a proposed Small Customer Aggregation (SCA) "metering method" to be applied to multiple new SCAs
  - ◆ OhmConnect's SCAs will consist of curtailment from residential customers for the ICAP-SCR program
  - ◆ OhmConnect intends market participation beginning this summer (2022 Summer Capability Period)
  - ◆ All resources (i.e. residences) will be ConEd customers located in NYISO Zones H, I, or J
  - ◆ Multiple SCAs are needed for each Zone and for grouping over time as more new resources are added
  
- OhmConnect's proposed SCA method does NOT require an "alternative metering method" because we will use meter data provided from newly-installed ConEd revenue-grade interval Smart Meters
  - ◆ NYS PSC supported ConEd Smart Meters, in part relating to REV, in the hope that easy access to quality utility metering would facilitate demand-side resource participation
  - ◆ ConEd shares access to residential interval meter data via ConEd's Share My Data platform
  - ◆ This meter data will be used to directly calculate event performance of resources in an OhmConnect SCA
  - ◆ OhmConnect will only aggregate resources with ConEd Smart Meters
  
- OhmConnect is seeking SCA approval, despite not needing an "alternative metering method", because DRIS does not accommodate individual SCRs with Average Coincident Load (ACL) smaller than 1 kW (e.g. small residences) and NYISO believes participation can be supported within SCAs using existing SCA and SCR procedures

# OhmConnect: Resource Diagram



# OhmConnect: Proven Durable Residential Resources Engagement

- OhmConnect is a residential flexible energy program with over 250,000 participants
- ◆ Operational in CAISO since 2016, Australia since 2019, and ERCOT since 2021



# SCA Request Summary

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1. Background
2. SCA Request Summary

# Basics of Our SCA Request

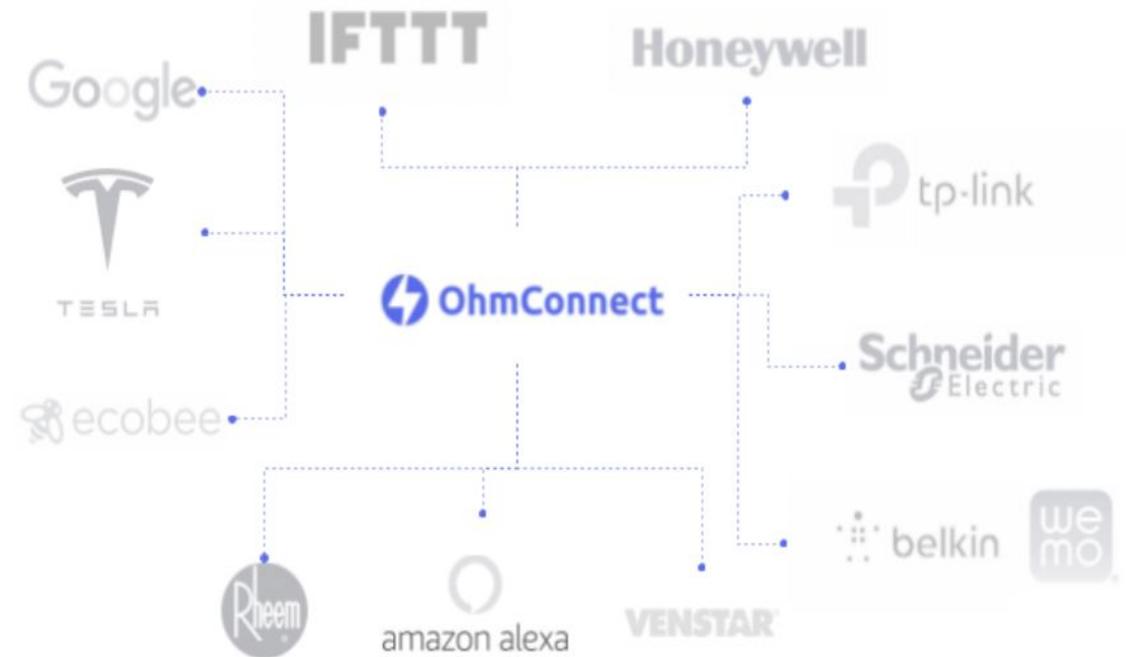
Seeking approval of OhmConnect SCAs of very small resources that have premise-level, utility-provided, and revenue-grade interval metering for quantifying SCR performance.

1. The Smart Meter data that OhmConnect receives from ConEd is sufficient for SCR participation as individual resources; however, technical limitations of DRIS prevent very small resources with Average Coincident Loads (ACLs)  $< 1$  kW from enrolling as individual SCRs.
  - i. Many of OhmConnect's residential resources have ACLs  $< 1$  kW
  - ii. OhmConnect resources with ACLs  $> 1$  kW will be enrolled individually in DRIS and will not be included in SCAs
2. NYISO Staff has indicated to OhmConnect that software changes to DRIS to enable enrollment of SCRs with ACLs less than 1 kW are not possible in the near term.
  - i. NYISO therefore has advised OhmConnect to utilize SCAs to accommodate participation of these very small resources, but to utilize the utility interval metering available as would be done for other SCRs with the same utility metering available
3. This SCA proposal is NOT made because of sites' lack of utility interval meter data.
  - i. OhmConnect has secured data-sharing authorizations from 1000s of residential resources in Zones H, I, and J
  - ii. OhmConnect already has Smart Meter interval data for its ConEd residential resources
  - iii. ConEd customers without Smart Meters will not be enrolled in a OhmConnect SCA

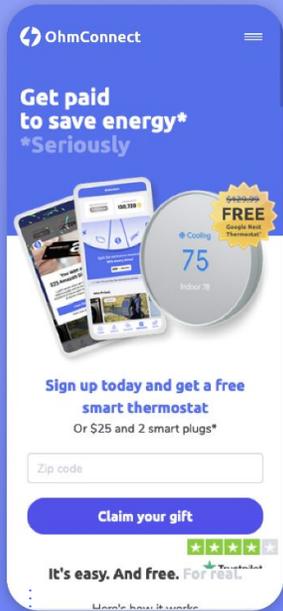
# Curtailement Control & Automation

Automation, convenience, customer engagement and control enable reliable resource performance and has been extensively validated elsewhere in 3<sup>rd</sup>-party curtailment program evaluations. OhmConnect has conservatively forecasted smaller baselines and curtailments in New York compared to other regions in which the company operates.

- **Automation:** OhmConnect sends curtailment events directly to high-load devices in homes. We have built some of the largest BYOD flexible energy programs in the nation.
- **Control:** A common customer criticism of traditional DR programs is lack of control of devices' participation in grid events. Air conditioner "switches" operated by the program administrator with resident opt-out can leave customers dissatisfied. OhmConnect permits event or device-by-device opt-outs; however, due to high customer satisfaction, we observe ~1% opt-out rate per event.

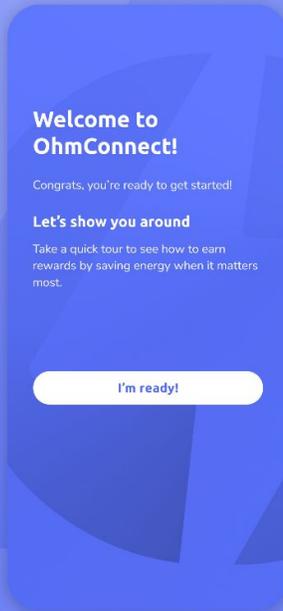


# OhmConnect Customer Enrollment Process: As SCR vs. SCA



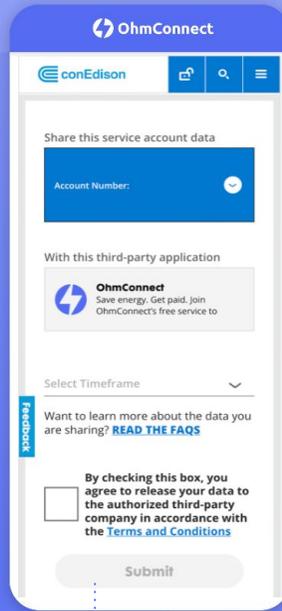
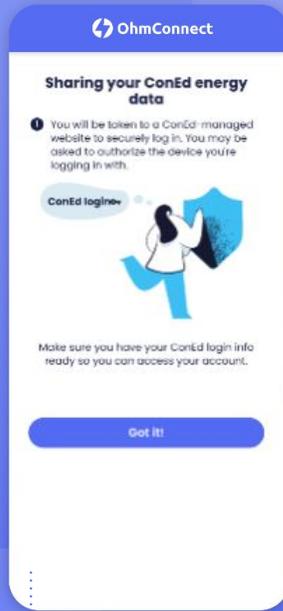
## Step 1

Customer navigates to OhmConnect website, creates an account, and indicates their location.



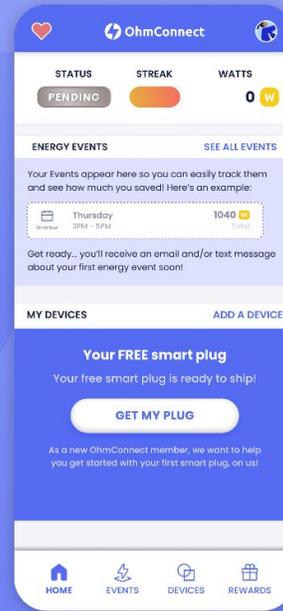
## Step 2

To improve conversion rates, OhmConnect preps customer for following ConEd authentication steps.



## Step 3

Customer authenticates to ConEd and authorizes sharing of their data with OhmConnect, including service account number and historical / ongoing interval usage data.



## Step 4

OhmConnect uses the customer data provided by ConEd in step 3 to enroll the customer in the ICAP-SCR program. Specifically, the ConEd data is used to populate the DRIS SCR Enrollment File (if ACL ≥ 1 kw) or is compiled for SCA submission in DRIS (if ACL < 1 kW).

# SCA Enrollment & Event Response

OhmConnect's proposed SCA method adheres to existing SCR-related tariff provisions and practices

- When compiling SCA-level enrollment and event response data for submission to DRIS, OhmConnect will treat customers within each SCA the same as customers whose ACLs are large enough to permit their direct enrollment in DRIS as individual SCRs.
- OhmConnect will use revenue-grade ConEd interval meter data for each of its individual customers in the SCA to calculate the following aggregate values for the SCA:
  - ◆ Average Coincident Load (ACL)
  - ◆ Declared Value (DV) (i.e. load curtailment capability in a Mandatory or Test Event)
  - ◆ Customer Baseline Load (CBL) for each Mandatory or Test Event
  - ◆ Metered Load (ML) for each Mandatory or Test Event

# Recap of OhmConnect's SCA Request of the Applicable Chairs

OhmConnect requests approval from the applicable Chairs for its SCA method (w/o need for an alternative metering method) for resources with ACLs < 1 kW to be applied to multiple OhmConnect SCAs. As such, OhmConnect respectfully requests to:

1. Organize its residential curtailment resources whose ACLs are smaller than 1 kW into SCAs for the purpose of enrolling them in the ICAP-SCR program as one SCA resource via DRIS.
2. Use performance calculations as described in slide 10 of this document.
3. Establish SCAs for Zones H, I, and J, with multiple SCAs per Zone. Multiple SCAs per Zone are needed to enable the enrollment of newly-acquired customers in the ICAP-SCR program periodically (e.g., monthly, seasonally, etc.) while avoiding making changes to the resources within an existing/active SCA.
4. Establish approval for this SCA method to be applied to multiple SCAs (as suggested by NYISO) to spare NYISO DRO Staff, Stakeholders and the applicable Chairs from having to repeatedly reconvene to consider requests for additional SCAs that are methodologically identical to those in this initial request.

# Appendix

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# Event Timeline & Dispatch Detail

OhmConnect will initiate the following sequence of actions upon notification from NYISO of a mandatory or test ICAP-SCR event to commence at hour  $T$  and with duration of  $N$  hours:

