

AEIC Load Forecasting Workshop Series

Session 5: Virtual Blocks, June 25, 2026

Virtual · Three standalone blocks · Workshop Results Report

One of seven documents in the 2026 series package. Session 0 carries the outline, the background and how to read these reports.

The finding

Utilities can meter what is installed. They cannot see what it will do.

Storage, electric vehicles, virtual power plants and large load look like four separate forecasting problems. They are one problem wearing four costumes. In every case the utility knows the nameplate and cannot observe the behaviour, which leaves the assumption that matters most as the one with nothing behind it.

That is data absence, not data quality, and the difference decides what you do on Monday. Better methods will not recover a measurement nobody took.

What this session was

Three standalone one-hour blocks, built so a practitioner could attend one, two or all three. The day ran the practitioner workbook through the room, brought the series sponsor in on methods, and put a live research survey in front of the cohort.

Block	Time (ET)	Subject
1	11:00	The Work So Far
2	12:30	The Forecasting Hour, with Integral Analytics
3	14:00	Large Load and the Systems

41 utility practitioners from 24 member utilities took part across the day, alongside the AEIC host and the research partner bench from the National Laboratory of the Rockies.

Per block: Block 1 drew 37 people from 22 utilities. Block 2 drew 40 from 19. Block 3 drew 34 from 20 and ran long, to an hour and thirty-four minutes, because the survey discussion kept going.

Who was represented

The 24 utilities in the room:

APS, Ameren, Arkansas Electric Cooperative, Austin Energy, ComEd, Con Edison, DTE Energy, Duke Energy, Duquesne Light, Eversource, FirstEnergy, Hawaiian Electric, JEA, LG&E and KU, Minnesota Power, OGE Energy, Oncor, Orange and Rockland, Salt River Project, SDG&E, Southern Company, Tampa Electric, Tucson Electric Power, and Xcel Energy.

Attended all three blocks: APS, ComEd, JEA, FirstEnergy, Oncor, Eversource, Hawaiian Electric, Salt River Project, Arkansas Electric Cooperative, Austin Energy, Southern Company and Tampa Electric, with Con Edison and Orange and Rockland each carrying one person through all three.

Research partner in the room: the National Laboratory of the Rockies, on Block 3. Block 2 was a one-hour vendor methods session delivered by the series sponsor, Integral Analytics, under methods-only editorial guardrails.

Attendance held nearly the full hour in each block joined.

What was discussed

Block 1, The Work So Far. Opened with introductions and became a genuine peer exchange. The substance landed on storage and emerging loads.

One utility asked how the industry builds battery load shapes without shifting, or creating, a new peak, and described work to strip customer-sited paired storage out of historical load shapes. Another can pull battery counts and kilowatts but not kilowatt-hours, and has no good read on how customers actually discharge, which leaves discharge assumptions unanchored. A third is furthest along, actively load-shaping battery and electric vehicle charging using AMI data and clustering across customer load profiles to build representative shapes by rate plan, and offered to present once further along. Virtual power plants were flagged as the next concern, aggregations of small units acting in tandem on the same feeder.

Block 2, The Forecasting Hour. A single one-hour methods session from the series sponsor, sharing patterns seen across many utilities.

Block 3, Large Load and the Systems. The National Laboratory of the Rockies administered a live large-load survey and the room worked the results in real time.

What came out of it

The large-load survey returned thirteen responses from eleven utilities. Individual responses are held in confidence and everything published from them is aggregated and anonymized.

The room named five follow-ups: a presentation from the member furthest along on battery and electric vehicle load shaping, a working session on customer battery discharge assumptions, a connection between the three members working storage inside historical load shapes, virtual power plant forecasting as a topic for the fall, and one peer introduction between two members working the same forecasting question.

Discussion and gaps

Storage forecasting is where large load was eighteen months ago. Three utilities were working it, none had a full approach, and each was doing it alone.

Electric vehicle and virtual power plant forecasting is earlier still. Named as coming, claimed by nobody.

The survey exposed the cohort's top request and its precondition. Practitioners wanted a materialization number, meaning how much announced large load actually shows up. It did not exist, because it required utilities to contribute their own actual-against-forecast history and several had no variance tracking to contribute.

Where this feeds the guide and the workbook

The large-load survey run in Block 3 is the evidentiary base for the whole large-load half of the AEIC Load Forecasting Reference Guide, including **The State of Large-Load Practice**, **The Speculative-Load Problem**, and **The Large-Load Research Agenda**. It is Appendix D of that guide. The block summaries are Appendix E.

Knowledge of one is the knowledge of all.

