Meeting Notes: Bidirectional EV Working Group – Meeting 4 – Cross-Program Participation

Date: May 7, 2026 | **Time:** 9:00 AM ET

On May 7, 2026, Customized Energy Solutions (CES) facilitated the fourth meeting of the Bidirectional EV Working Group (Bidirectional EV WG). The meeting was held via Microsoft Teams. This memo summarizes the major topics of discussion, questions, and comments raised by participants.

1 Why Cross-Program Participation Matters

CES opened the meeting by framing the purpose of the session: understanding how incorporating bidirectional EVs into the Energy Storage Solutions (ESS) Program may interact with other Connecticut programs and policies applicable to EVs. CES noted that the Public Utilities Regulatory Authority's (PURA's) directive explicitly asks the working group to address potential overlap in ratepayer benefits and existing Distributed Energy Resource Management System (DERMS) functionality across programs. CES identified several additional dimensions worth examining: conflicting program goals, eligibility definitions, or dispatch signals; gaps in the programs for certain vehicle types or participant types; gaps in what is being incentivized along the overall investment chain; and customer experience implications, including enrollment complexity and the experience of participating in multiple programs simultaneously.

CES emphasized that the working group's charge – and the scope of the report to PURA – is focused on recommendations for ESS. While other programs may benefit from future refinement, the group was asked to take the overall design of those programs largely as given and focus on what can be addressed within ESS.

CES briefly oriented participants to the landscape of Connecticut programs relevant to bidirectional EVs: CHEAPR (purchase incentive for the vehicle itself); electric distribution company (EDC) electric vehicle supply equipment (EVSE) and make-ready rebate programs; the EDC Managed Charging program (incentives for shifting and curtailing charging); commercial EV charging tariffs (rate design for commercial EV charging accounts); and the ESS program (incentives for discharging back to the grid). CES noted that the meeting would focus most heavily on managed charging, given the clearest potential for interactions with ESS, and that the remaining programs would be addressed more briefly.

2 Managed Charging Programs

2.1 Program Overview

Representatives from Eversource and UI provided an overview of the EDCs' Managed Charging programs for participants who may have had less familiarity with the program design. The Managed Charging

program has two main components for residential customers: a make-ready side providing rebates for Level 2 smart chargers and wiring upgrades (which, as of 2026, are income-eligible only), and managed charging incentives available to any residential customer meeting eligibility criteria. On the commercial side, a light-duty fleet Managed Charging program which is offered as a more traditional event-based, demand response program, is available at commercial sites, with managed charging required for sites that receive make-ready funds for non-public plugs.

CES asked how customers actually interact with the program – specifically, what it looks like to set a charging schedule. Representatives explained that residential customers enrolled through EV.Energy download an app through which they set their target state of charge and the time by which they need it. Customers enrolled through ChargeScape interact through original equipment manufacturer (OEM)-native interfaces. For customers in the advanced tier, utilities and their technology partners are able to actively optimize when within the off-peak window charging actually occurs, based on real-time state of charge.

A participant from UI clarified that visibility into vehicle state of charge is what differentiates the two participation tiers: the baseline tier requires only that 80% of charging occur during off-peak hours, and does not require real-time state-of-charge data from the vehicle; the advanced tier involves more active management and requires that the program partners have access to state of charge information. A participant from an OEM asked who specifically holds the control switch for managing charging under the advanced tier. The response was that the utilities set the off-peak window parameters and customer constraints, while the technology platform providers (EV Energy, ChargeScape) actively manage charging schedules within those parameters using automated control algorithms.

On the design rationale for the residential versus fleet programs, a participant from UI explained that the key driver is the availability of integrations: the EDCs have established technology integrations with a number of residential platforms, which enables active management on the residential side. Those same integrations do not exist for commercial chargers in fleet settings, which is why the fleet program is structured around demand response event notifications rather than continuous active management. An EDC representative noted that PURA has also signaled a preference for continuous load shifting over discrete event-based demand response, which is a further reason the residential program has moved in the direction of off-peak rewards rather than discrete demand response (DR) events. For Eversource, 2026 is the final year in which demand response events will also be layered into the residential program; UI has already discontinued DR events.

A participant from Eversource shared program performance data from the prior year, noting that the program produced approximately a 7 percentage point reduction in on-peak charging (from roughly 22% to 16% of total charging occurring during peak hours), and that at roughly 7,000 enrolled vehicles, this translated to approximately 3.5 MW of shifted load.

2.2 Interactions with ESS: Benefits, Conflicts, and Baselines

CES described the key dimensions along which Managed Charging and ESS may interact. On load profile effects, CES noted that ESS participation implicitly affects charging behavior even beyond explicit dispatch signals: a vehicle that is expected to discharge during ESS events is also strongly incentivized not to charge during those windows, given the significant opportunity cost; and because participating vehicles are exporting energy they must subsequently re-import, their aggregate consumption increases, which

changes the baseline from which Managed Charging benefits are evaluated. CES also noted the potential for timer peak effects on both the charging and discharging sides: without active management, ESS resources may all begin discharging simultaneously at the start of an event, and may all begin charging again as soon as an event concludes.

On benefit counting, CES presented a proposed framework: Managed Charging provides incentives for shifting or curtailing charging, with no compensation for discharging; ESS provides incentives for discharging, with no direct compensation for when charging occurs, except that charging during an ESS event period counts negatively against the participant's average performance calculation. CES suggested that under this framework, the two programs are not compensating the same kilowatts: Managed Charging claims load-shift benefits, while ESS claims discharge-event performance. CES acknowledged, however, that the programs are claiming the same categories of benefit (capacity value, transmission and distribution value, etc.), and that the interaction between them creates baselining challenges, particularly for the Managed Charging program.

A participant from ChargeScape raised a concern about double penalization: if charging during an ESS event reduces ESS compensation, and the same charging is also penalized under the Managed Charging program, a customer could face overlapping negative consequences. CES agreed this was a valid concern worth working through. Another participant added that customer compensation under ESS should never go negative – the floor should be zero, not a bill to the customer. A participant from Eversource confirmed that this is consistent with how the utilities operate in analogous demand response programs: performance that falls short does not generate a bill.

A participant from UI raised a broader policy concern: PURA is simultaneously signaling to the EDCs that it wants Managed Charging programs to extract more value from EVs – including potentially through localized approaches targeting constrained feeders – while the Bidirectional WV working group is developing recommendations for an ESS program that will add complexity to that objective.

CES summarized the group's sense on benefit counting: there was no strong argument that the two programs would be double-counting the same kilowatts, though the interaction between them introduces legitimate baselining complexity. CES suggested that the scale of this issue should be kept in perspective – bidirectional-capable EVs will represent a small fraction of total Managed Charging enrollment in the near term.

2.3 Implementation: Coordination, Customer Experience, and Stacking

CES asked participants to discuss what co-participation would actually look like in practice: *How would a customer enroll in both programs? How would conflicting signals be resolved? What are the metering implications?*

A participant from UI described the implementation challenge in direct terms: coordinating two programs running in parallel on the same asset requires real-time communication between their respective technology platforms, visibility into what the vehicle is doing at any given moment, and a way to give the customer coherent visibility into their participation across both.

A participant raised a specific coordination problem: if an EVSE-side aggregator is managing a vehicle for ESS dispatch, and separately an OEM-side aggregator (e.g., ChargeScape) is managing the same vehicle for Managed Charging, there is currently no clear mechanism for those two to coordinate. The participant

suggested one possible approach: limiting co-participation in ESS to the Managed Charging Baseline tier only, as this would reduce the number of aggregators involved and provide more flexibility to meet the ESS schedule. However, the participant acknowledged this approach has its own tradeoffs.

A participant from ChargeScape offered a different framing: from the perspective of OEM-integrated platforms, the EV is a single asset that can be managed holistically for both programs simultaneously. The participant suggested a sequential enrollment model in which customers first enroll as EV users in Managed Charging (since transportation is the primary use case), and then access ESS as an add-on layer for those who are eligible. The participant emphasized that requiring customers to actively manage two separate program enrollments would be a significant customer experience burden, especially in the early years when bidirectional-capable EVs are rare and customers will need meaningful support.

A participant from an EV manufacturer noted that for some manufacturers, existing software can co-optimize across multiple programs and customer preferences simultaneously. The participant suggested that the Advanced Managed Charging tier may actually be more compatible with ESS co-participation than the Baseline tier, because the active state-of-charge management in the Advanced tier can be co-optimized with a discharge schedule in a way that a passive timer-based approach cannot. The same participant emphasized that customer opt-out capability is a critical safeguard: as long as the customer can override what external systems are telling their vehicle to do, the core customer experience – that the vehicle is available when needed – can be protected. However, the participant also acknowledged that these capabilities are not uniformly available across all technology combinations, and that cross-platform coordination remains a real challenge.

A participant from Eversource noted that from the utility perspective, caution is warranted at the outset: given the experience of even well-designed programs encountering edge-case enrollment issues, moving slowly and getting it right for an initial cohort is preferable to creating a poor experience that damages the program's reputation early.

CES summarized the group's position: from a policy and benefit-counting perspective, co-participation in Managed Charging and ESS appears feasible. From an implementation perspective, however, there is substantial work to do to make it work well for customers. CES also flagged one specific interaction to flag in the report: to the extent that receiving a make-ready rebate currently requires participating in Managed Charging, the group would want to ensure that ESS participation does not inadvertently disqualify a customer from accessing make-ready funding.

3 Other Relevant Programs

3.1 CHEAPR

CES briefly described CHEAPR as a point-of-sale rebate for new or used EV and plug-in EV purchases, administered by the Department of Energy and Environmental Protection (DEEP), with current eligibility focused on income-qualified customers and those in environmental justice communities, and a vehicle manufacturer's suggested retail price (MSRP) cap of $50,000. CES noted that CHEAPR does not appear to involve specific benefit claims that would create double-counting concerns with ESS. Representatives from DEEP on the call were invited to correct that characterization if inaccurate. No conflicts or interactions were identified by participants.

3.2 EVSE and Make-Ready Rebates

CES noted that the EDC EVSE and make-ready rebate programs – including both utility-side and customer-side make-ready investments – had been substantially covered in the Managed Charging discussion. CES flagged the key interaction already noted: some make-ready rebates carry a requirement to participate in Managed Charging, which means care will be needed to ensure that ESS participation does not unintentionally create a barrier to customers accessing make-ready funding.

A participant from an EVSE manufacturer raised a related point from the prior meeting's discussion on qualified product lists: while the working group reached rough consensus that ESS should not impose particularly stringent forward-looking interoperability requirements (given that the relevant standards are not yet finalized), make-ready programs may have different incentives to push toward interoperability standards, given the upfront capital involved. The participant flagged this as a potential surface for inconsistency if an EVSE is on the make-ready qualified product list (QPL) but faces different or additional requirements under ESS. CES acknowledged the point, noted it did not appear to be a significant practical barrier given its review of the make-ready QPLs, but agreed it was worth flagging in the report.

3.3 Commercial EV Charging Tariffs

CES described the commercial EV charging tariffs offered by the EDCs, which apply to commercial accounts only. CES explained that these tariffs appear designed primarily to make low-load-factor EVSE installations financially viable by adjusting volumetric and demand charges based on load factor, rather than to actively shift behavior. CES noted one potential ESS interaction: because low-load-factor EVSE installations face higher volumetric rates under these tariffs, the economics of cycling a battery (i.e., importing energy to charge and then exporting it during ESS events) are somewhat worse for those installations, which is relevant when thinking about ESS incentive levels. No other conflicts were identified. CES noted that these tariffs use the gross vehicle weight rating (GVWR) definition for light-duty versus medium/heavy-duty classification (8,500 lbs threshold), consistent with the EDC definitions discussed in prior meetings.

3.4 Medium and Heavy-Duty EV Program

CES briefly noted the recently launched medium and heavy-duty (MHD) EV program. CES noted that this program includes a demonstration component for electric school buses. No material conflicts with ESS were identified. Participants were invited to raise any concerns; none were raised.

4 Broader Policy Considerations

A participant from UI offered a broader observation: the working group is operating under a PURA directive from the ESS docket, which asks the group to consider how bidirectional EVs can participate in ESS. But the more fundamental policy question – whether EVs should be treated as stationary batteries, or as mobile distributed energy resources (DERs) that provide multiple benefits and serve as someone's primary means of transportation – is one that PURA has not yet resolved. The participant noted that trying to fit an EV into a battery program, without accounting for those significant differences, is part of what makes the cross-program coordination so complex. The participant suggested that a policy determination from PURA on this framing question could substantially reduce the implementation complexity.

CES acknowledged the tension: the Bidirectional EV working group's charge comes from the ESS docket, but the report can both make specific ESS recommendations and note the larger policy question the participant raised.

5 Action Items and Next Steps

CES indicated that a Microsoft Form will be circulated to working group members in advance of Meeting 5 to collect votes on the straw proposals developed during Meeting 3 (device enrollment, QPL structure, and standards and certifications). Members will be asked to indicate support or non-support for each proposal, and to provide alternative language if they do not support a proposal. CES noted that where consensus is not clear from the written responses, proposals will be revisited at the final working group meeting.

CES indicated that Meeting 5 will focus on bidirectional EV incentive structure – specifically, the rationale for incentive levels, whether the ESS incentive should differ for bidirectional EVSE versus stationary storage, and incremental cost considerations. CES noted it would be reaching out to participants in advance to request any available data on the incremental cost of going from a charge-only EV to a fully V2G-capable system.

6 Attendee List

An attendee list is provided below. Organizational information was not collected; information collected below is based on CES' best attempt at associating individuals' names with the appropriate organization.

Name	Organization
Eric Annes	DEEP
Walter Barozi	DEEP
Prabisha Bhandari	OCC
Kevin Boughan	Eversource Energy
Leah Brams	Highland Electric Fleets
Max Clarke	EV Energy
Aileen Cole	Great Plains Institute (IXWG Rep)
Michael Crowley	United Illuminating
Amy Findlay	ChargeScape
Madeline Frierson	Customized Energy Solutions
Dominic Gatti	Tesla
Tiffany Hammond	First Student
Sara Harari	Connecticut Green Bank
Kipling Haviland-Hack	EnergyHub
Steve Letendre	Vehicle Grid Integration Council (VGIC)
Mark Moniz	Eversource Energy
Brian Morris	United Illuminating

Kevin Moss	Connecticut Green Bank
Benjamin North	DEEP
Katie Peterson	The Mobility House
Sara Pyne	Connecticut Green Bank
Rick Rosa	United Illuminating
Ella Roseman	EnergyHub
Jennifer Runyon	Eversource Energy
Lidia Ruppert	DEEP
Nachum Sadan	GridEdge Networks
Nitin Satish	Zum
Nikhon Schuler	Eversource Energy
Mark Scully	People's Action for Clean Energy
Brendan Smith	Connecticut Green Bank
Devin Sorgi	Uplight
Amanda Stevens	Eversource Energy
Logan Taricani	United Illuminating
Sean Tully	Eversource Energy
Alex Wang	OCC
Emmett Werthmann	World Resources Institute
Robert Whelan	United Illuminating
Stephan Wollenburg	Customized Energy Solutions
Ann Yu	Customized Energy Solutions