GREAT PLAINS INSTITUTE

CT PURA Interconnection Working Group

MSA Subgroup Meeting Summary

January 14, 2025 | 12:30 - 2:30pm EST

MSA Directive

PURA's October 16, 2025 Decision in Docket 24-08-02 contains several Orders pertaining to the use of meter socket adapters (MSAs). Order 26 in that Decision includes specific IX WG directives that the EDCs must meet as they work to authorize and enable the use of MSAs in their service territories.

Order 26 from PURA's October 16, 2024 Decision is provided below for reference.

> *26. No later than March 31, 2025, the EDCs shall file the following for the Authority's review and approval in this proceeding and as a compliance filing in Docket No. 24-08-05:*
>
> > *(1) a liability waiver for solar customers using MSAs;*
> >
> > *(2) a finalized list of restrictions on MSA use, with clear justification for any additional restrictions not previously outlined in the EDCs' Order No. 32 filings;*
> >
> > *(3) clean and redlined Program documents, including updated RRES wiring diagrams, as needed;*
> >
> > *(4) clean and redlined versions of the EDCs' Interconnection Guidelines, as needed;*
> >
> > *(5) an MSA allowance application, to be submitted by an MSA OEM to the EDCs for their review and approval;*
> >
> > *(6) any comments from the State Building Inspector on the EDCs' filing;*
> >
> > *(7) a list of the conditions required for a third-party other than the EDC to install, maintain, and service an MSA; and*
> >
> > *(8) a proposed date for an MSA training webinar, to be held in conjunction with Tesla, ConnectDER, municipal inspectors, and other relevant stakeholders.*
>
> *The EDCs shall consult with Tesla, ConnectDER and the Interconnection Working Group in developing the liability waiver and list of MSA use-case restrictions before submitting their filing for the Authority's approval.*

In advance of the January 14, 2025 MSA Subgroup meeting, ConnectDER sent the EDCs a list of potential areas of agreement and potential areas of disagreement/further discussion with respect to MSAs. On January 14, 2025, the MSA Subgroup discussed these topics along with other aspects necessary to meet Order 26 requirements on the established timelines. This summary provides an overview of the group's discussions.

Potential Areas of Alignment

In their letter to the EDCs, ConnectDER proposed the following potential areas of alignment, informed by materials filed by parties in the docket. A summary of IX WG discussion regarding these topics is provided below.

During the meeting, the EDCs did not express any disagreement that they, ConnectDER, and Tesla were in alignment regarding the following items:

- *Liability Waiver:* Customers will assume responsibility for damages to utility-owned equipment arising from the use of customer-owned MSAs.
- *Training:* Training sessions should be scheduled in collaboration with ConnectDER, Tesla, and municipal inspectors. [MSA manufacturers] support UI's recommendation for in-person training to enhance comprehension and implementation quality.
- *Review Process:* Newly introduced MSA models must undergo review, and a public list of approved models should be maintained.
- *Timeline Compliance:* As established in PURA's final ruling, MSA installations shall begin no later than September 1, 2025. For future models of MSAs that are presented to EDCs for approval, there will be a 90 day timeline for review and updating service guides and/or approved equipment lists accordingly.

The EDCs expressed general agreement with the following item, but indicated a need for further specificity regarding voltage and socket types, as described below.

- *Specifications:* MSAs will be permitted for use on services up to 200A and in single-position sockets only.
    - EDCs stated that in addition to only being allowed on services up to 200A with single-position sockets, MSAs should only be allowed to be used in 120/240 volt sockets.
    - ConnectDER offers a product that is 12s-compatible. Asked if there are single-family homes with 12s service, or if all single-family homes are 2s.
        - EDCs confirmed that single-family homes are primarily 2s services, but there are some 12s single-family homes.
        - ConnectDER requested that this point be amended to account for both 12s and 2s services.
        - EDCs concerned about fault current; want to look into all possible orientations

Potential Areas of Difference

In their letter to the EDCs, ConnectDER proposed the following potential areas of difference, informed by materials filed by parties in the docket. During the meeting, the parties discussed the details of their differing views on these issues, as summarized below.

Meter Accuracy Testing or Investigation for Tampering: **ConnectDER and Tesla maintain that a meter accuracy test can still be performed, but it requires use of different equipment than the adapter Eversource currently uses to perform this function. Likewise,**

nothing about an MSA install precludes a tampering investigation. The customer liability waiver could incorporate specific provisions to address tampering concerns.

- Patrick Fam (Eversource) would like examples of how other utilities conduct onsite testing with an MSA in place.
- Joe Marinaccio (UI) expressed concern regarding adding multiple adapters in a single socket—this lengthens the overall arm, contributing to an increased risk of the MSA falling out of socket, flash/arc concerns, etc.
    - Potential solution: If customers request tests, UI would conduct the test meter at the meter shop rather than onsite (one free test per year). This would effectively eliminate the witness test, meaning that the customer would not be able to see the test performed in front of them.
- Jon Knauer (ConnectDER) noted that some companies (Probewell, others) make mobile test ports which could be effective, though the MSA is not mounted in the socket during the test. Can provide more information on these devices.

Lever Bypass Concerns: **Notify customers in advance via the liability waiver that load-dropping via the main breaker may be required during installation. Utilities already have protocols for homes without lever bypasses, which can serve as a foundation for MSA installations.**

- Patrick Fam (Eversource): Eversource's primary concern is future meter exchanges—after the MSA is installed but during the product's lifetime (for net metering, rate changes, solar installation, communications issues, technology updates, etc.). Liability waiver takes installation into account but not potential future meter exchanges.
    - Eversource is looking into recommended procedures for conducting normal/necessary work with an MSA installed
    - Jordan Graham (Tesla): Extending the liability waiver beyond installation and into meter replacements is reasonable. Also worth discussing potential alternative methods that would allow for use of lever bypass.
    - Emily Peck (ConnectDER): Logical to incorporate future meter exchanges into liability waiver, though full meter exchanges are unlikely to be common.
    - Potential solution: Incorporate language pertaining to future meter exchanges into the liability waiver.
- Chris Kellogg (Eversource): Lever bypass exchanges do not require interruption, but load dropping via the main breaker may be disruptive, can require appointments, etc. Eversource has a mix of customers that do/don't have lever bypass.
    - Potential solution: Tesla and ConnectDER to identify if there are methods that would not require load dropping.
- Carl Nowiszewski (Eversource) inquired about the expected life of an MSA device.
    - Jon Knauer (ConnectDER): Product has a 10-year product warranty, will follow up to provide actual product life.

Ringless vs. Ring Type Sockets: **Instead of restricting MSAs to ringless sockets, require electricians to inspect the meter socket before installation and submit photographic evidence to the utility.**

- Patrick Fam (Eversource) noted that many of the ringed sockets in Eversource's service territory are aged; any ringed socket in territory is beyond lifespan of its use and should be updated to newer sockets. Keeping the old meter socket when installing the MSA presents safety concerns—MSA adds additional torque not present with the meter alone. Customer owns the socket itself.
    - Lever bypass exists only on ring-type sockets
    - DER interconnection requires a working socket; if a socket is in poor condition, customer is asked to replace it.
    - Meter is typically pulled "blind"—do not know condition of equipment behind the meter, so the worker cannot assess the hazard in advance by the exterior.
        - Particularly of concern with older underground services without a slip joint.
        - Must hire an electrician if it's in bad condition.
    - Emily Peck (ConnectDER): If a visual inspection protocol exists, could that protocol be used for MSAs as well as the meter swaps?
- Jon Knauer (Tesla): Level bypass socket is much more expensive and has availability issues. Interested in further understanding NEMA guidance, which could be included in MSA installation procedures.
    - Don't want to create impression to potential applicants that having a ring-type socket means that they are ineligible when they could replace the socket for a few hundred dollars.
    - New Jersey has many older homes with ring-type sockets, have not encountered issues.
- Nora Lardner (ConnectDER): Ring-type sockets most likely to be on old homes in lower income areas. Purpose of an MSA is to enable more homeowners to get solar at the same cost as homes that are newer-build. If the socket is deemed safe, is there a good reason why an MSA could not be installed?
- Parties to look into inspection approaches in other jurisdictions.
    - Jordan Graham (Tesla) noted that the devices can be installed in ringed and ringless sockets, but the ringed vs. ringless distinction does not always pertain to socket age as seems to be the case in Connecticut. Concern pertains less to socket type and more to socket age.
    - Potential solutions: EDC inspects meter to ID suitability, EDC consultation prior to install, electrician and EDC present together
- Jordan Graham (Tesla) asked the EDCs to outline the point in the process and circumstances at which they'd conduct an inspection.
- Jeremy Bredickas (Electrician, SunRun) has installed ConnectDER devices in several states. Only licensed electricians (including solar installers) should do installs and are qualified to assess meter socket condition for safety.

    - Emily Peck (ConnectDER): In other states, the solar installer conducts the socket inspection. Qualifications could be included in the list of conditions required for third parties to install, maintain, service MSAs.
- EDCs emphasized importance to understand costs associated with impacts to EDC processes, expanded inspections/site visits, etc.

Approval from State Electrical Inspector and State Building Officials: **Electrical inspectors could provide general guidance on MSAs rather than maintaining a list of approved models or overseeing individual installations.**

- Patrick Fam (Eversource): Two separate lists would not be necessary. Rather than a list of general requirements for all MSAs, would building officials have some say in terms of what is/isn't used. Some manufacturers could require separate training from the one developed by ConnectDER and Tesla.
- Jon Knauer (ConnectDER) sought clarification regarding the relationship between the state building inspector and AHJs. In New Jersey, the Department of Community Affairs provides oversight for building officials, electrical code, etc. and issued guidance to all state AHJs regarding MSAs. Seems like that would be best practice if feasible in CT.
    - Jeremy Bredickas (Electrician, SunRun): State CT office oversees AHJ. If electrician has issue and isn't in agreement with AHJ, they can go to the state inspector who can make an overall general ruling, overruling the local AHJ.
    - EDCs would value guidance from the state inspector and thinks that the state inspector should provide input on this topic.
- Jon Knauer (ConnectDER): New Jersey does not have an approved list but restated some requirements for code compliance. Referred to utility website/lists.
- Emily: Looking for guidance on whether state officials need to give any input
- State Building Inspector contact: Omarsy Vasquez
    - Phone: 860-713-5900
      Mobile: 860-712-2512

Next Steps

- Next IX WG MSA Subgroup meeting to be held Tuesday, February 28, 1–2pm EST
    - Additional meetings in late February and early March are likely
- Eversource will work with legal team to develop liability waiver
- Tesla and ConnectDER will identify and (if possible) provide example liability waivers and use case restriction lists from other jurisdictions
- Parties will be prepared to share materials next meeting