



STATE OF CONNECTICUT

PUBLIC UTILITIES REGULATORY AUTHORITY

CONNECTICUT DISTRIBUTED GENERATION JOINT TECHNICAL AND POLICY WORKING GROUP

REGULAR MEETING AGENDA

Tuesday, July 27, 2021
9:00 AM – 1:00 PM

Mark Kirschbaum or designee to take minutes

Meeting Schedule and Minute Keeping

- Next Technical Meeting – Tuesday, August 24, 2021
 - *Amanda De Vito Trinsey or designee to take minutes*
- Next Policy Meeting – Tuesday, August 31, 2021
 - *Amanda De Vito Trinsey or designee to take minutes*

Attendees

Zak Alexander – Group Facilitator
Joe Bebrin – Meeting Minutes
Lauren Bergman
Christian Fehrenbacher
J.R. Viglione
Dave Thompson
Raagan Wicken
Robert Snook
Eric Annes
Mark Kirschbaum
Joe Folz
Joe Debs
Ion Balan
Erik Anderson
Jean-Paul LeMarche
Carl Nowiszewski
Amanda De Vito Trinsey
Noel Lafayette
Mike Trahan
Chris Lobdell
Keith Radonis
Brad Marszalkowski

Attendance not taken. Additional invitees may have been present.

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9:00 AM – 9:10 AM Introduction

Zak: This is the 1st joint meeting between technical and policy interconnection groups. The goal of the meetings is to address issues that blur the lines between technical and policy issues.

There are some additional items not listed in the formalized agenda that we will be discussing first, including the following fast track items from Best Practices report;

- Hosting Capacity Maps
- Interconnection Ombudsman
- Shared Costs
- Public Queue

Zak (Group Facilitator) will introduce the topic for each group member to give feedback on. The group's conclusion(s) will be drafted into a formal document and circulated among the group. Once all parties agree on the language, the results will be sent to PURA.

9:10 – 9:15 am Hosting Capacity Analysis (HCA)

Zak (intro):

Hosting Capacity Analysis (HCA) portion of best practices displayed on screen

Both Utilities have Hosting Capacity Maps. Eversource has more involved map consisting of secondary and primary circuits. UI has secondary level map (working on Primary Level map). The Utilities are looking to upgrade with a lot of the suggested “best practices”, including monthly updating of data, locations of substations on odd maps, etc.

Zak suggests it might not be necessary to send anything to PURA on this particular issue.

Result:

The CT Solar Community would like the CT Utility Hosting Capacity maps to keep with best practices listed in the document (that are considered best practices around the entire United States). The Utility asks the solar community to identify where their maps differentiate with the best practices.

Solar community requests the Utilities allow outside parties to download hosting capacity data.

Action Items:

Solar Community to come up with list of differences between the current or planned modifications to Hosting Capacity maps with Best Practices. As well as identify the most important Best Practices.

Utilities to investigate security concerns of open source data

Joe Debs to check with Eversource IT folks about security concerns of “open source” GIS data. **Mark Kirschbaum** to check with UI IT team.

Discussion:

Mike Trahan: There is general agreement on keeping with best practices whether it is IREC or other, but not to stray far from what have been identified as best practices in the whole country.

Jean-Paul: The Eversource and UI planned upgrades to their Hosting Capacity maps would make them like SDG&E map however CT utility’s data is not (downloadable) open source.

Mike Trahan: we should come together on what we think on the best practices through email and send our opinions.

9:15 – 9:30 am Interconnection Ombudsperson

Zak (intro)

Displays list of Ombudsperson conflict resolution options

This subject was previously discussed and the working group was leaning towards IREC (out of the Mass, Minn., and IREC procedural guidelines) procedure. Ombudsperson resolves issues in less time than a formal proceeding however it is not binding. If avenue fails then applicant may petition PURA to resolve through formal proceeding. IREC procedure gives developers and utilities flexibility to resolve issues on their own and clear path forward for conflict resolution.

Result:

General agreement between the Utility and Solar Community on going with the IREC solution.

Action Items:

Zak to draft PURA letter to circulate around members of the working group. Some important points that will be included,

The ombudsperson will likely add months to the conflict resolution process however this informal proceeding will take less time than a formalized process. Developers and utilities to exhaust every effort to resolve issues informally.

Discussion:

Carl: I think the key for the whole process to work. As we discussed was that both parties make a concerted effort to resolve things informally with the utility that the utility be open to those discussions

Zak: there is no timeline for informal discussions. Formal time frames don't kick in until there's a formal complaint.

Carl: There is currently no formalized process for conflict resolution.

Mark: Informal route and resolving locally keeps traffic down. As long as both parties have good intent.

9:30 – 9:50 Public Distribution System Interconnection Queues

Zak (intro)

Continuation of tabled discussion from last meeting. There was a lot of back and forth on. Question really came down to whether or not a public distribution queue necessary?

Result:

Generally mixed. No formal resolution yet.

The utilities expressed concerns over privacy and point out the current concierge service. Leaning towards staying with the current process.

The developers advocate moving to a public queue (potentially keep concierge service to supplement). Although the current concierge service does work well, it may not work with the rapidly changing DER environment. Cite concerns over increased amount of technology risk of bottlenecking the concierge process, also point out many other utilities have public queues.

Action Items:

Differences between stakeholder's opinion. Solar community (developers) to draft formal verbiage on why a public queue is a necessity in preparation for final discussion on the topic.

Discussion:

Noel: I believe that a public queue is *absolutely necessary*. As developers we need to allocate customers dollars quickly and efficiently. Need information to make choices in real time. IREC model is fine, keeping aspects of it (with a public queue) balances privacy with what we need to know.

Carl: Current concierge service is real time something that might not be offered by a queue that isn't frequently updated.

Noel: Look at the volume moving forward. Concierge service works well but how well is it going to work going forward. Not good for volume, not scalable, new technologies moving forward.

Mark: UI hasn't run into bottlenecking issues as of today. It's a smaller territory and the vast majority of installations are solar. Privacy issues with queue a concern. Additional work needs to be done regarding privacy and technical ability of publishing queue.

Noel: Never been an issue for UI on volume (agrees with mark) but PURA can't make separate rules for 2 utilities. One ruling for all of CT. Don't want to make black and white issue. Queue helps avoid the ombudsman. Want to take responsibilities away from EDC and codify it.

Zak: Don't think we ever agreed to ombudsperson performing role of matchmaker.

Noel: Agrees with Zak. what we are trying to avoid is appearance of subjectivity

Carl: Working on a problem that doesn't exist. Public Queue not a problem. Necessary information provided by utility.

Noel: Problem doesn't exist? All other states have public queue chances are we will or eventually will need a queue. Not necessarily just PV, more technologies to come. Utilities and developers are public-private partnership.

Amanda: Supports transparency as part of private-public partnership

Noel: If homeowners can get 80% of the information off the public queue means less time the EDC has to spend on the phone.

9:50 – 10:00 am Mass Working Group Representation

Discussion on having some of the CT members working group members participate in the Mass working group or form a regional working group. Knowledge sharing beneficial to all parties. Mass tech group is the most advanced, and talking with them will benefit groups who aren't as far ahead, Other states have been doing solar longer and have already been down this road before. We might have information to share with them as well.

Action Items:

Mike Trahan Noel volunteer to reach out to/engage with the Mass working group.

Joe, Mark and Brad agreed to help out with connections and introductions.

Anyone that would like to join or help facilitate to email Zak or Mike.

Brian M, will help coordinate.

Discussion:

Suggestion was made to keep the participating members from ISO-NE (No New York members)

The Massachusetts working group is open only to developers that do work in Massachusetts closed off to others.

10:00 – 10:33 am Sharing distribution System Upgrade Costs

Zak (intro): Last issue that was identified in the Solar Connecticut report and this is a big part of why we wanted the joint technical policy group. Cost sharing, citing of resources. Cost of installing DERs and system upgrades. Who should pay for them? Who is benefitting?

Action Items:

Mike and Noel working on written proposal for (Residential and ≤ 1 MW) cost sharing based on work in other states. Soon to come.

Mike and Noel to provide rate basing vs fee basing recommendation.

Discussion:

Mike Trahan: Not ready to address < 1 MW yet. Within a week we (Noel and Mike Trahan) will have something written on the topic.

Noel: ≥ 1 MW. Separate out residential and ≤ 1 mw. Large issues > 1 MW. Big issue with connection costs. Larger stuff has a lot of issues moving forward. Only 10% of Connecticut served by 3-phase lines. Can't put all costs on the back of projects. New successor program. Smaller projects shouldn't be too hard to determine now. Massachusetts docket regarding cost sharing scheme being tracked now to help save time. Current payout system from utilities doesn't work. Connectivity problem in CT. Need to do a bit more studying on.

Mark: discussion needs to get beyond this Working Group. 2 issues: reduce cost of electricity and hopefully implement decreases in cost of greater repayment. Need to weigh costs of increasing penetration benefit of solar. We (this group) can talk about it but need a larger audience

Noel: Agrees. Needs study on value of (policy determining) DER study.

Zak: move on to residential **solar distribution costs**

Mike Farrell couldn't make it. Mike and Noel working on written proposal for (Residential and ≤ 1 MW) cost sharing based on work in other states. Soon to come.

Zak: Fee based vs rate based discussion. Mentions California where there are no costs for upgrades below 1 mw. New York upgrade costs for systems ≤ 25 kw capped at \$350. Rhode Island utility has put forth a cost sharing formula for new applicants. Should states be rate based or fee based? If we go fee based how do we calculate it?

Carl: thought flat fee was the better decision and decided on just a matter of calculation.

Mike Trahan: Working on written proposal based on work in other states. Soon to come. Rate basing issues acceptable. other states: rate base has higher net benefit to customers according to other states.

Zak: Identify whether the rate basing was result of legislation or commission action. Rate base harder sell than fee.

Noel: keep in mind costs. Net zero is expensive.

David Thompson: narrative to customers' needs to change about costs of green technology. Customers care about their bills. Can't turn blind eye to rate base impacts.

Continued Discussion between **David Thompson and Noel** about assessing cost on rates vs fees concerns. Noel recommends quantitative cost shift study to determine impact on rates. David claims rate cases show distribution kwh costs transferred to customers.

Zak: Table discussion for cost sharing of ≥ 1 MW. Following Massachusetts Docket on the subject.

10:38 – 10:47 AM Discussion of DER Location vs Load Center

Zak (Intro)

What causes costs to begin with? Not a lot of 3 phase and the DER location. It is difficult for large DER deployments to be sited near load centers because generally the cost of land is prohibited.

- Technical Challenges
 - Developing infrastructure near load centers vs. at longer distances
 - Current infrastructure vs. future needs
 - Others?

- Policy Challenges
 - o Land uses/affordability, ease of development, zoning
 - o Others?

Discussion:

Zak: Can technical challenges be resolved by policy decisions?

Noel: 2 big problems in CT. DEEP is in the process of coming up with preferred citing based on environmental concerns and 10% 3 phase.

Noel Identifies possible solution: Other states have used Community choice aggregation to offset some of the real estate costs. The closer the DG is to the load center the higher the incentive is.

Zak asks about whether or not there are differences in costs that impact development (rooftop vs agricultural) choice ?

Noel: Estimated costs: Rooftop: 2 – 2.25 \$/watt, Agricultural: 1.40 – 1.80 \$/watt (can vary w/ scale)

Agricultural has the advantages of economies of scale but disadvantages of costs of planning and zoning, permitting, environmental, site work (clearing drainage), etc.

Zak: Is market saturation a concern?

Noel: Market not saturated. It's about system size. Suburban Buildings can only hold so much solar. Other issues such as roof age limit the number of projects available. Developers won't touch 10+ year old roofs.

Noel identifies a possible solution: legislation to incentivize solar + roof replacement promotes multifamily/urban installation.

10:47 AM – 11 AM Discussion of Programs/Incentives in Other Jurisdictions

Intro:

Members discuss their experiences with other states programs. What would make sense to bring to CT. Plan to eventually come up with formal recommendations for PURA.

The MA SMART Program (Solar Massachusetts Renewable Target) is one program the group discussed to possibly emulate certain aspects.

Discussion of Incentives and Program Components

- Current challenges and needs
- What incentives are beneficial for CT?

- Land use and siting criteria
- Adders/subtractors

Action Items:

Mike Trahan to bring in experts with experiences in other states for discussion on program design and incentive structure. Working Group interest in hearing from someone with “boots on the ground” experience.

Discussion:

Jean-Paul: Company did some development under the MA SMART Program (Solar Massachusetts Renewable Target). Agree with the incentive to try to control where the projects are initiated were marginally successful. Most developers chose to game the economic incentive, by either using the community solar adder or the energy storage adder, because they were able to game the economic power adder, without having limitations placed on the location. Agricultural criteria were too restrictive. Requirements not realistic. Seldom used.

Noel: Community solar in CT is very different. Other states sign up the off takers, you negotiate power prices, etc. In CT the EDC's buy at low bid and redistribute. Something to keep in mind.

Zak to Jean-Paul: What were the issues in Mass? Incentives too low? Program design?

Jean-Paul: Not certain. Suggests the adders didn't make purchasing land for development worth it.

Zak: Open to ideas or suggestions of addressing these issues in a more public session to formally provide to PURA

Christian: looking for ideas/experience on adders in other states programs.

Mike Trahan: Willing to bring in other experts with experience in other states for other meetings.

11:00 AM – 11:20 AM New Matters/Open Discussion

Summary:

Developers advocate for an audit of interconnection costs. EDC's request clarity on what the audit entails.

Action Items:

Zak requests Solar Connecticut (SC) draft a document outline their audit recommendations. Would like SC outline in writing breaking down specifics of exactly what/why they are looking for.

Discussion:

Noel: Solar CT would like to ask for PURA to do an audit of interconnection costs every year. Current process has no transparency for the developers into the Utilities costs. Potentially double-dipping. Cites public-private partnership. Points out that audits would Protects EDC's as well. Provides the example of spiking material costs, and how an audit results would explain overall cost increase.

Carl: asks for examples of double dipping

Noel: Upgrade costs get charge during interconnection but then included in rates later. Uses the example of paying for a substation upgrade during the interconnection process but then years later the cost makes it into the rate. Emphasizes this is just a hypothetical scenario. There is no evidence to suggest this has happened.

David Thompson: Utilities have bucket for related plans that get audited during the rate case. Warns **Noel** be very careful discussing this subject.

Amanda supports audit idea for more transparency

Noel: we need to know what came in from private costs. Recloser example of costs increases.

David Thompson: Audits take place on increased costs

In general, there is a lot of back-and-forth between members of the utilities and the solar community. Zak request formal write-up from developers detailing outlining their recommendations.