



STATE OF CONNECTICUT

PUBLIC UTILITIES REGULATORY AUTHORITY
TEN FRANKLIN SQUARE
NEW BRITAIN, CT 06051

DOCKET NO. 17-12-03-RE06 PURA INVESTIGATION INTO DISTRIBUTION
SYSTEM PLANNING OF THE ELECTRIC
DISTRIBUTION COMPANIES – INTERCONNECTION
STANDARDS AND PRACTICES

November 25, 2020

By the following Commissioners:

Marissa P. Gillett
John W. Betkoski, III
Michael A. Caron

DECISION

DECISION

I. INTRODUCTION

A. SUMMARY

In this Decision, the Public Utilities Regulatory Authority (Authority or PURA) is implementing the recommendations provided in the 100-Day Sprint Working Group Report submitted in the above referenced docket on September 4, 2020. Based on its review, the Authority finds that the proposed recommendations are just, reasonable, and in the public interest.

B. BACKGROUND OF THE PROCEEDING

The above referenced docket was initiated to investigate the topic of interconnection standards and practices of the Connecticut electric distribution companies (EDCs) and potential ways to improve the efficiency and effectiveness of the EDCs' current interconnection standards, processes, and procedures. This proceeding was also initiated to explore ways to decrease the costs of the EDCs' interconnection standards and practices for the EDCs, project developers, and all customers.

In the course of the initial investigation, the Authority requested written comments on October 31, 2019 and March 31, 2020, and held Solutions Days on November 21, 2019 and December 10, 2019. In response to the Authority's March 31, 2020 Request for Written Comments, the Authority received responses from the Connecticut Light and Power d/b/a Eversource Energy, United Illuminating Company, Solar Connecticut, Inc., the Office of Consumer Counsel, and the Department of Energy and Environmental Protection. Based on the docket participant and stakeholder input provided at the Solutions Days and through written comments, the Authority identified that a collaborative working group process would be the most productive way to address the objectives of the above referenced docket.

By Notice of Release of Final Requests for Program Design and Proposals dated May 6, 2020, the Authority requested the assignment of Prosecutorial (PRO) Staff in the above referenced docket for the purposes of: 1) establishing a 100-Day Sprint Working Group (Sprint Group) tasked with interviewing existing state and national interconnection working groups and committees to investigate how their groups came together, how they work best, how they create and realize short- and long-term goals, what topics have produced the most benefits to ratepayers, and what policy or regulatory best practices might be considered for fast-track adoption; and 2) authoring a report based on the working group discussions and the information presented to the group participants.

On September 4, 2020, PRO filed the 100-Day Sprint Working Group Report (Report) summarizing the findings of the interview process and identifying the general consensus recommendations from those findings.

C. PARTICIPANTS

The Authority recognized the following as participants to the working group: Office of Consumer Counsel (OCC), Ten Franklin Square, New Britain, CT 06051; EVgo, 11390 W Olympic Blvd, Suite 250, Los Angeles, CA 90064; FuelCell Energy, Inc., 3 Great Pasture Road, Danbury, CT 06810; Acadia Center, 31 Milk Street, Suite 501, Boston, MA 02109; ChargePoint, Inc., 254 E. Hacienda Avenue, Campbell, CA 95008; Solar CT, Inc., P.O. Box 515, Higganum, CT 06441; Vivint Solar, Inc., 1800 Ashton Blvd., Lehi, UT 84043; Northeast Clean Energy Council, 250 Summer Street, Fifth Floor, Boston, MA 02210; CT Fund for the Environment/Save the Sound, 900 Chapel Street, Suite 2202, New Haven, CT 06511; Pace Energy and Climate Center, 78 North Broadway, White Plains, NY 10603; Sunrun, Inc., 225 Bush Street, Suite 1400, San Francisco, CA 94104; Connecticut Industrial Energy Consumers (CIEC), 540 Broadway, P.O. Box 22222, Albany, NY 12201; CT Green Bank, 845 Brook Street, Rocky Hill, CT 06067; Eversource Energy Service Company, P. O. Box 270, Hartford, CT 06141-0270; UIL Holdings Corporation, 180 Marsh Hill Road, MS AD-2A, Orange, CT 06477; The Commissioner of the Department of Energy and Environmental Protection (DEEP), 79 Elm Street, Hartford, CT 06106; and the PURA Prosecutorial Staff.

II. SPRINT GROUP RECOMMENDATIONS

The Sprint Group recommends that PURA establish two standing working groups: a policy working group (PWG) and a technical working group (TWG), which could form sub-groups as necessary to address discrete tasks and objectives. The PWG would conduct a review of interconnection guidelines and application forms and work to improve transparency in the interconnection process. The TWG would conduct a review of interconnection guidelines and technical criteria/screens, monitor IEEE-1547 developments and identify areas that need investigation, continue to evaluate ways to improve hosting capacity maps, and identify ways to establish a formal technical regional working group.

The Sprint Group further recommends that PURA staff member(s) qualified in policy and/or technical expertise should be assigned to each working group and should take on the role of a neutral facilitator; such PURA staff members would not vote or take a position on the issues. Additional recommendations include that each group have the minimum membership listed: CIEC, The Bureau of Energy and Technology Policy (PWG only), EDCs, OCC, developers, and third-party technical experts (TWG only). The Sprint Group suggested, however, that other entities be permitted to join as available. Further, all working group meetings should be open to the public and publicly noticed via a working group website and an agenda posted on the group's webpage prior to each meeting.

The Sprint Group anticipates that PURA approval will be required for most policy and technical changes. For some broad consensus policy and technical recommendations, the Sprint Group recommends that PURA establish a process wherein these recommendations can be quickly incorporated into existing interconnection policies and guidelines. Similarly, and in the case where PURA must more carefully deliberate on recommendations such as where there is no broad consensus, there should be an

established process to review and consider recommendations and summary reports by the PWG and TWG.

Additionally, the Sprint Group recommends that the Authority establish initial tasks for the newly established working groups, and identifies other items that it recommends to the Authority for immediate adoption.

The Authority acknowledges the complete list of recommendations outlined in the Report, attached hereto as Appendix A.¹

III. AUTHORITY ANALYSIS

The Authority has reviewed the Report and finds that the proposed recommendations are just, reasonable, and in the public interest. The Authority identifies and approves the fast track items for immediate adoption, subject to the following clarifications.

First, the Authority confirms that staff assigned to its Office of Education, Outreach, and Enforcement (EOE) are empowered to provide services through the mediation unit that correspond to the functionalities envisioned in the Report with respect to the role of the Authority Ombudsperson. Report at 5. The role of the Authority Ombudsperson as described in the Report is vested in the Director of EOE, whom may delegate the functionalities to his or her assigned staff as appropriate. The Authority also clarifies that the PURA staff member assigned as the neutral facilitator for the PWG and TWG will be under the direction of the Director of EOE, or their designee, for the purposes of such assignment.

Second, the Authority acknowledges that urgent matters must be resolved by the PWG and TWG in the coming weeks, months, and years if the state is to realize the Mission Statement articulated in the Report and adopted herein. Report at 2. However, the Authority shares the sentiment captured by the Sprint Group in its Report, specifically that, “[t]ransparency and clarity are critical for the success of both working groups.” *Id.* at 3. Thus, the Authority is first tasking EOE with developing an initial set of bylaws and processes that will govern the administration and implementation of the workings groups, prior to the launch of either. While EOE should consult the members of the Sprint Group and strive for consensus in crafting the proposed materials, consensus is not a prerequisite to the filing of such a proposal for the Authority’s consideration. Due to the urgency of launching the working groups, the Authority directs EOE to file the materials no later than January 8, 2021. After providing for a one-week comment period from any interested stakeholders, the Authority will issue a determination on the proposal.

As part of the above-described proposal, the bylaws and accompanying processes should memorialize items addressed in the Report, such as: the group structure, meeting group process, voting process, and processes and parameters for PURA consideration of fast-track versus non-consensus technical and policy changes. Any processes and

¹ The Authority has not included any of the appendices or attachments of the Report in this decision, but is incorporating them by reference.

parameters for PURA consistation of non-consensus technical and policy changes must include a process for EOE to provide the Authority with a comprehensive brief on the relevant issues. Any proposed bylaws and processes should also include a process for any PWG and TWG meeting minutes to be made public.

IV. CONCLUSION AND ORDERS

A. CONCLUSION

Based on a review of the above described record, the Authority finds the Sprint Group's recommendations are just, reasonable, and in the public interest. The Authority hereby approves the recommendations reached by the Sprint Group.

B. ORDERS

For the following Orders, the Company shall file an electronic version through the Authority's website at www.ct.gov/pura. Submissions filed in compliance with the Authority's Orders must be identified by all three of the following: Docket Number, Title and Order Number. Compliance with orders shall commence and continue as indicated in each specific order or until the Company requests and the Authority approves that the Company's compliance is no longer required after a certain date.

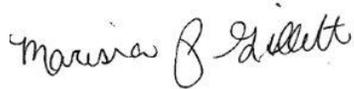
1. No later than January 1, 2021, the EDCs shall establish or designate a person as fulfilling an official role within their respective organizations – the EDC Interconnection Facilitator (described as the EDC Ombudsperson in the Report) – whom is empowered to facilitate timely dispute resolutions regarding interconnection issues and to address a majority of issues that emerge during the interconnection process.
2. No later than January 1, 2021, the EDCs shall notify the Authority of the dates they intend to host interactive webinars or seminars for the developer community. Beginning in 2021 and every year thereafter, the EDCs shall hold at least two interactive webinars or seminars per year: one specifically tailored to large project developers and one specifically targeted to small residential developers and individual customers. The meetings shall cover the basics of application requirements and the interconnection process, with a focus on technical standards and requirements. Content, media, and frequency should subsequently be included for review by the TWG and adapted as needed going forward.
3. No later than January 8, 2021, EOE shall propose bylaws and processes that will govern the administration and implementation of the PWG and the TWG.
4. No later than January 15, 2021, all interested stakeholders shall file written comments regarding the proposal filed by EOE in compliance with Order No. 5.
5. No later than February 26, 2021, EOE shall provide a status report to the Authority regarding the launch of the PWG and the TWG, as well as a proposed timeline for

meetings and deliverables associated with the immediate assignments delegated to the respective working groups as detailed in the Report.

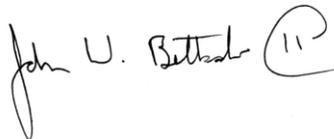
6. Beginning July 1, 2021, and to the extent that it is not already required by the Interconnection Guidelines, distributed energy resource applicants must provide proof of ownership or of a lease agreement for the land on which the project is to be constructed contemporaneous with their interconnection queue applications. By June 30, 2021, the TWG and/or PWG, as appropriate, shall establish rules and standard practices associated with providing proof of ownership or of a lease agreement, including requirements for the EDCs to notify a DER applicant in the event that an application fails to adequately meet such rules.
7. All other recommendations made in the Report are hereby incorporated by reference in this order, including but not limited to: the adoption of the mission statement articulated therein, as well as the immediate assignments delegated to the PWG and to the TWG.

**DOCKET NO. 17-12-03-RE06 PURA INVESTIGATION INTO DISTRIBUTION
SYSTEM PLANNING OF THE ELECTRIC
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INTERCONNECTION STANDARDS AND
PRACTICES**

This Decision is adopted by the following Commissioners:



Marissa P. Gillett



John W. Betkoski, III



Michael A. Caron

CERTIFICATE OF SERVICE

The foregoing is a true and correct copy of the Decision issued by the Public Utilities Regulatory Authority, State of Connecticut, and was forwarded by Certified Mail to all parties of record in this proceeding on the date indicated.



Jeffrey R. Gaudiosi, Esq.
Executive Secretary
Public Utilities Regulatory Authority

November 25, 2020

Date



STATE OF CONNECTICUT
PUBLIC UTILITIES REGULATORY AUTHORITY
PROSECUTORIAL

**DOCKET NO. 17-12-03RE06 PURA INVESTIGATION INTO DISTRIBUTION
SYSTEM PLANNING OF THE ELECTRIC
DISTRIBUTION COMPANIES – INTERCONNECTION
STANDARDS AND PRACTICES**

September 4, 2020

100-DAY SPRINT WORKING GROUP REPORT

I. Background

By Notice dated May 6, 2020, in the above-captioned proceeding, the Public Utilities Regulatory Authority (Authority or PURA) established a 100-Day Sprint Working Group (Sprint Group) to interview existing state and national interconnection working groups and committees. The purpose of the interviews was to investigate how the groups came together, how they work best, how they create and realize short and long-term goals, what topics have produced the most benefits to ratepayers, and what policy or regulatory best practices might be considered for fast-track adoption. The Sprint Group was then tasked with making recommendations to PURA on establishing a standing work group structure, comment on existing interconnection technical and policy standards outlined in the Notice, and to make recommendations for PURA to fast track any interconnection-related policies. The report herein summarizes the findings of the interview process and the general consensus recommendations from those findings.¹ Where no consensus was reached, this report illustrates the area of disagreement.

The make-up of the working group included the minimum participants as outlined in the Notice. The group members represented the electric distribution companies (EDCs), various distributed energy resource developers, the Office of Consumer Counsel (OCC), the Department of Energy and Environmental Protection Bureau of Energy and Technology Policy (BETP), and the Connecticut Industrial Energy Consumers (CIEC), and PURA prosecutorial staff. The membership details are listed in Appendix A.

The Working Group interviewed the following existing state and national-level working groups:

- Electric Power Research Institute (EPRI) on June 25 at 3 PM;

¹ Attached as Appendix B is a report on Interconnection Best Practices prepared by Shute, Mihaly and Weinberger LLP, on behalf of Solar Connecticut. That report also includes several attachments, one of which is the 2019 IREC Model Interconnection Procedures.

- Interstate Renewable Energy Council (IREC) on July 7 at 1 PM;
- New York Public Service Commission Interconnection Technical Working Group (NY ITWG) and Interconnection Policy Working Group (NY IPWG), on July 23 at 2 PM;
- Minnesota Public Utilities Commission Distributed Generation Workgroup (MN DGWG) on July 29 at 10 AM; and
- California Smart Inverter Working Group (CA SIWG), 7/29 at 4 PM;

The report makes the following recommendations to PURA about (1) standing working group structure, (2) fast track items for immediate adoption, and (3) immediate tasks for newly established work groups.

II. Recommendations for Standing Working Group(s):

a. Mission Statement

The Sprint Group recommends an overarching mission statement be adopted for establishing the overall guiding principles of the standing working group(s). The Sprint Group recommends the following Mission Statement:

Mission Statement

To accelerate safe, reliable and economical interconnections of distributed energy resources in Connecticut, through a transparent and informal public forum where technical and policy stakeholders openly share their experience, knowledge and challenges, on common ground, where solutions and recommendations to policy makers strive for consensus, so that renewable energy in Connecticut can flourish, while leading the nation through an example of mutual respect and collaboration.

b. Group Structure

The Sprint Group recommends that PURA establish two standing working groups: a policy working group (PWG) and a technical working group (TWG). The working groups may form subgroups as necessary to address discrete tasks and objectives.

Working groups are most successful when the state agency, in this case PURA, has the capacity and expertise to lead the working group process. The PURA staff member(s) assigned to each working group should take on the role of a neutral facilitator and should not vote or take a position on the issues. A well-qualified facilitator should have the expertise required to facilitate discussions and help maintain the professional conduct and focus of the group. Working Group success depends on a few factors. First, staff assigned as lead must devote a significant time to the role to properly perform his or her duties. Second, assigned staff must have the policy/technical expertise (or are able to develop relevant expertise) to act as a facilitator and group leader.

The Sprint Group recommends that each group have the minimum membership listed below, however, other entities may be free to join as they are available.

- CIEC
- BETP (PWG only)
- Developers
- EDCs
- OCC
- Third-party technical expert, e.g., EPRI, RAP, etc. (TWG only)

It is recommended that the group lead be in charge of group membership and limit active membership to as few members of each stakeholder group (two recommended to start) as practically possible.

While we do not recommend having membership tied to individual stakeholder representatives, each of the CIEC, Developers, EDCs, and OCC should strive to have consistency amongst their representative(s) who attend these meetings in order to facilitate efficient discussion, form relationships with other members, and to develop technical and policy expertise.

c. Meeting Group Process

Transparency and clarity are critical for the success of both working groups. Generating schedules with milestone and deliverable dates is also important. Working group meetings should be scheduled monthly at first, although meetings may be shifted to semi-monthly or quarterly after the working group has been established and initial tasks identified and mapped out. Meeting frequency will ultimately depend on the schedule that is most appropriate, as determined by the working groups.

All working group meetings should be open to the public and publicly noticed via a working group website² and an agenda posted on the group's webpage prior to each meeting. The website should be updated quickly and consistently after meetings with meeting minutes of each of the meetings and related action items. Members should be required to complete their action items prior to the next meeting and all documents on the agenda should be posted prior to each meeting. The responsibility that these actions be taken and completed falls ultimately on the PURA staff assigned as lead. Not all of these actions must be undertaken solely by the group lead, but the lead should have adequate authority to ensure they are completed. It is recommended that upon establishment of standing working group, these actions are listed as requirements and that group lead have the authority and ability to ensure these are completed. As these actions may require substantial time investment,

d. Consensus and Recommendations

It is a little unclear at this time about how the PWG and TWG will achieve consensus and make recommendations to PURA for policy or technical revisions to the interconnection process. Some working groups have a more formalized process while

² Ideally, the working group website would run on SharePoint to take advantage of that platform's integrated scheduling and task assignment features; however, some working group members have company policies that prohibit connecting to SharePoint, so the site may have to be run off of PURA's ct.gov website.

others are more informal. As stated above, the goal of these working groups is to reach unanimous consensus prior to presenting an idea to the Authority. The Sprint Group believes that a properly led group needs no formal charter or voting structure, and consensus is best achieved not by a rigid hierarchy with voting, but through a collaborative approach led by a capable and involved group lead.

The PWG, especially, should focus its efforts on issues where there is a possibility of consensus among stakeholders. The PWG should endeavor to reach unanimous consensus and, in the event such consensus cannot be obtained, dissenting members should articulate their specific reasons and provide alternative solutions where appropriate.

The Sprint Group expects that PURA approval will be required for most policy and technical changes. For some broad consensus policy and technical recommendations, PURA should establish a process where these recommendations can be quickly incorporated into existing interconnection policies and guidelines. Similarly, and in the case where PURA must more carefully deliberate on recommendations where there is no broad consensus, there should be an established process to review and consider recommendations and summary reports by the PWG and TWG.

e. TWG Considerations

Due to the limited number of technical experts in the interconnection sphere and because the technical issues are mostly the same across the New England states, the ideal situation would be to have a regional technical working group. This is addressed below in the recommended items for review for the TWG. However, until such a time, the Connecticut-specific TWG should continue to meet.

III. Fast Track Items

a. EDC Ombudsperson³

The Sprint Group recommends that each EDC designate a person with the authority to facilitate timely dispute resolutions regarding interconnection issues.⁴ Eversource currently has a Manager of DER Customer Care, separate from engineering, to facilitate communication and resolution of DER customer concerns and disputes, including escalating issues when required. The Sprint Group recommends that the Authority direct the EDCs to work together to establish this person as an official role within their organization. The purpose of this role will be to address a majority of issues that emerge during the interconnection process. This should be formalized in the Interconnection Guidelines as part of the informal dispute resolution provision. It should

³ Eversource suggests this role be called "Customer Advocate" as "Ombudsperson" is not appropriate to the role.

⁴ There is some disagreement here as to whether the ombudsperson should have enough authority to resolve all disputes or the majority of disputes. Eversource currently has a Manager who is able to resolve the majority of disputes and is able to elevate questions to those with greater authority as needed. There were no specific complaints raised regarding this process, but some parties worry about issues going forward. The second recommendation should alleviate this.

be seen as an initial attempt to amicably and informally resolve disputes. The EDCs should be given until January 1, 2021, to review their existing organizational structure and make appropriate changes to formalize this type of role. The changes should be reflected in the Interconnection Guidelines and they should specify that if this informal dispute resolution process fails, then the recommendation below should be undertaken before formal dispute resolution provision is initiated.

Eversource does not agree that a deadline should be set for the establishment of this position. This is largely due to the Company already having this role in place. PRO does not want to change a successful program or create unnecessary work. However PRO does deem it important that the position be consistent across EDCs and made official in the interconnection guidelines to the benefit of customers and developers. There is therefore at least some coordination necessary between the EDCs to make this happen.

b. Authority Ombudsperson

The Sprint Group also suggests that the Authority consider a secondary expedited dispute resolution process for interconnection disputes that are unable to be resolved using the EDCs' ombudspersons. This process would require the designation of a member of the Authority's staff as the PURA Ombudsperson. The PURA Ombudsperson would help track and facilitate the efficient and fair resolution of disputes between customers and utilities that are not resolved by the EDC Ombudsperson. Authority staff filling this role would ensure that the PURA Ombudsperson is independent from the EDC. It would help the Authority and the PWG and TWG to track informal complaints, understand how well the utility is responding to informal requests for resolution, and provide visibility into what policies are confusing and therefore in need of clarification. Ideally, the PURA Ombudsperson would be a member of the PWG or TWG to help facilitate information sharing. This method may be of particular help in resolving disputes about timelines, and may provide an accelerated timeline for the consideration of timeline-related disputes. The EDCs should make this second-level dispute resolution process explicit in the Interconnection Guidelines. PURA should provide the EDCs any necessary information to establish this process.

c. Proof of Project Ownership or Lease of Real Property Requirement

The Sprint Group suggests that, to the extent it is not already required by the Interconnection Guidelines, DER applicants must provide proof of ownership of/a lease agreement for the land on which the project is to be constructed. It is crucial that this requirement be enforced so that speculative projects that are in the queue do not hold back other projects in the queue. This was a major reason for interconnection queue backlogs in other jurisdictions. Such a requirement would ensure that the projects that are ready to be completed are not unnecessarily delayed by projects that are more speculative or tentative in nature.

d. EDC Technical Webinars for Developers

The EDCs should host interactive webinars or seminars for the developer community. There should be two offerings with each one held at least once per year: one

meeting aimed for large project developers and one meeting targeted at small residential developers and individual customers. The meetings should begin in 2021. The meetings should cover the basics of application requirements and the interconnection process, with a focus on technical standards and requirements (such as the new UL1741-SA standard). The EDCs may develop the initial content and format of the sessions. Content, media and frequency should subsequently be included for review in the TWG and adapted as needed going forward.

IV. Immediate Assignments for Standing Working Group

Our discussions with existing groups identified a number of areas that are ripe for further consideration by a standing working group. Those areas are identified below for each proposed working group with a brief discussion about recommended starting points for further investigation. Consistent with the approach described in the Working Group Structure, it is crucial to establish scope of each item, deliverables, deadlines, and transparency. Since it was identified above that PURA staff is best suited to manage each group and that the lead role is ultimately responsible for ensuring progress this will largely fall to PURA staff to set out initial path forward. The Sprint Group recommends that first meetings of each group be to establish scope, deadlines and deliverables for each item below. The Sprint Group makes no recommendations for deadlines at this time.

a. Policy Working Group

Conduct review of interconnection guidelines and application forms. The PWG should always consider existing interconnection guidelines and forms with the goal of identifying areas for improvement. A starting point would be to review IREC's Model Interconnection Procedures (attached) to identify areas for improvement. This should be an ongoing process.

The Sprint Group identifies below specific areas for review.

Improve Transparency in Interconnection Process. One of the main areas recommended by almost all work groups interviewed was to improve interconnection process transparency.

The following areas have been identified for potential improvements, but require further investigation to ensure necessary confidentiality and privacy protocols are maintained.

- Make public distribution system interconnection queues. Developers find it extremely useful to receive in a downloadable spreadsheet an updated queue. Frequency of updates should be monthly. Information provided in the public queue should follow method outlined in IREC's Model Interconnection Procedures. Some information includes: list of projects in queue by location, timelines of interconnection studies for larger projects, because much of this information would require additional data management efforts by the EDCs, further discussion is needed

to ensure that whatever data is collected and made public provides sufficient value to warrant the additional cost. Confidentiality protocols must not be compromised in public queues.

- **Identify Best Uses of Hosting Capacity Maps.** Using and improving Hosting Capacity maps was recommended as a best practice by almost all groups interviewed. While Hosting Capacity maps are traditionally considered a technical matter, there are important policy considerations. Both Connecticut EDCs publish some form of hosting capacity maps. The policy group is ideal for reviewing existing hosting capacity maps and identifying desired use cases of the maps. The policy group should also consider other policy-related matters such as frequency with which maps are updated and whether maps should be made consistent across EDCs. This information should then be fed to the technical working group in an iterative process that balances feasibility with the identified use cases. A starting point for reviewing the current best practices with hosting capacity maps is Southern California Edison's Hosting Capacity Maps, which was recommended by IREC as a "gold standard."
- **Establish and Make Public Reporting Requirements.** IREC's Model Interconnection Procedures (Attachment 9) recommends that the EDCs collect and make public a set of data about the interconnection process, including various timelines of applications in queue, project information, study and screening data, construction information, etc. The benefit of making this data available is to identify issues or interconnection bottlenecks before they become catastrophic. The type of data to be collected must be reviewed by a standing working group to ensure that the quality of the data and value provided to stakeholders is worth the extra resources necessary to manage and report the data. The PWG must also consider frequency of reporting.
- **Investigate cost allocation methodologies.** Almost all jurisdictions follow cost-causation principle for allocating infrastructure upgrade costs. NY and CA either limit or totally waive interconnection upgrade costs for net metering projects under 25kW in NY and 1MW in CA (see attached report submitted by SolarConn). Policies like these result in fast interconnections, but at a certain cost. The Sprint Group is not in a position at this time to recommend this as a fast track item, but this should nevertheless be considered by the standing working group. Certain jurisdictions such as CA and MA, are considering at this time large project cluster studies to allocate costs across multiple projects. The PWG should similarly consider ways to improve existing interconnection cost allocation for all types of projects.
- **Review of (LREC/ZREC) Program Solicitations on Interconnection Process.** LREC/ZREC program solicitations can result in surges in applications as complex projects and developers rush to meet deadlines. This often complicates the interconnection process that affects all interconnection applications. Programs that impact the interconnection process should be reviewed by the working group with a

goal to offer guidance to PURA about the how these programs may introduce complications into the interconnection process.

b. Technical Working Group

Conduct review of interconnection guidelines and technical criteria/screens. The technical group should always consider existing interconnection guidelines and technical screens with the goal of identifying areas for improvement. This should be an ongoing process. The areas below are recommended as specific areas for immediate review.

Monitor IEEE-1547 and identify areas that need investigation. IEEE-1547 is an existing standard and is considered in current interconnection guidelines and process. However, it is a new standard and there exist applications of the standard that are either unexplored or must be continually refined. The group should consult IREC's publication "Making the Grid Smarter" to identify IEEE-1547 technical issues that need to be addressed. At a minimum, the following should be reviewed:

- Review of existing inverter settings required in the interconnection guidelines for applicability and modifications.
- Review of how the standard impacts energy storage. The interaction between IEEE-1547 and energy storage operational requirements requires review to identify whether the standard properly takes advantage of energy storage potential.

Continue to evaluate ways to improve hosting capacity maps. As described above in the policy section, there should be a process to constantly consider ways to improve existing Hosting Capacity maps. This should be an iterative process that includes feedback between the policy and technical groups. An initial review by the technical working group should examine the ability of the existing EDC maps to provide the following:

- Basic distribution system data that is independent of modeling; and
- Modeled results that show available capacity at a specific location.

The review should consider what level of the above information is provided and make recommendations for improvement.

Identify ways to establish a formal technical regional working group. There are a multitude of reasons to establish a regional working group, ranging from the desire to make technical screens similar across regions for ease of understanding and use to foster the ability to address bulk power flow issues with ISO-NE and transmission planners. There exist groups, such as the Massachusetts Interconnection Technical Working Group that can be leveraged to begin discussions. All means for establishing a regional group or even formal/informal communication process should be considered. Prior to the establishment of a regional working group, the TWG should endeavor to include a member of ISO-NE as an active member of the group.

Begin to consider specific cybersecurity requirements. All working groups interviewed are beginning to address cybersecurity requirements in interconnection procedures. There are no current best practice recommendations for managing cybersecurity in the DER interconnection realm except for stating that it is prudent to address the issue now. The technical working group would be ideally suited to identify any existing cybersecurity vulnerabilities in the interconnection process and to make technical recommendations.