GRIDWORKS

Summary of the California Public Utilities Commission's Electric Grid Education and Outreach Workshop

August 23, 2022 // 9 a.m. - 4 p.m.

Overview:
On August 23, 2022, Gridworks facilitated a workshop on behalf of the California Public Utilities Commission (CPUC) to kick-off community education and engagement efforts for Track 2 of Rulemaking 21-06-017. The workshop focused on providing interested parties, including community-based organizations, a foundation to better understand distribution planning and the roles and responsibilities of distribution system operator models; to communicate the goals and process for Track 2 of CPUC Rulemaking 21-06-017; and to present and gain feedback on the CPUC's community engagement plan for Tracks 1 and 2 in its exploration a high distributed energy resource future and the distribution system operation models that might support that future. The workshop also discussed CPUC coordination of community engagement and outreach efforts with the California Energy Commission (CEC).

This workshop was developed in response to public feedback requesting the CPUC engage with communities, particularly disadvantaged community participants, following the CPUC's May 3 Track 2 kick-off workshop titled "Evaluating Alternative Distribution System Operator Models for California."

The following summary provides a high-level introduction to the workshop. Party input received through the workshop is highlighted throughout.

Meeting Materials:
- Recording
- Webex Chat Transcript
- Webex Q&A Transcript
- Agenda
- Presentation materials posted at https://gridworks.org/initiatives/california-future-grid-study/
- 220 participants total

Workshop Objectives:

- Provide attendees a foundational understanding of:
    a. How California's investor-owned utilities operate the electric grid;
    b. Why alternative DSO models are being investigated in Track 2 of this proceeding; and
    c. What alternative models for grid operations may be considered in the proceeding's Future Grid Study.
- Present CPUC Draft Track 2 Outreach Plan for feedback and discussion.
- Present an updated High-Distributed Energy Resources proceeding schedule, including a preview of a future workshop series and a staff proposal to develop a scope of work for a Community Engagement Needs Assessment designed to determine what communities want and need from distribution planning.
- Empower attendees to ask questions during and after the workshop.
- Motivate attendees to participate in future listening sessions.
- Inform attendees about opportunities for further engagement and oral and written comment periods.

Workshop Notes:

- As an introduction, CEC and CPUC leaders Vice Chair Siva Gunda and Commissioner Darcie Houck welcomed participants with their guiding principles and goals for community engagement in California's Future Grid Study work. Key takeaways from their guidance include:
    - the importance of community engagement,
    - the need to center customers from the beginning,
    - the need to lean into and learn from conflict, and
    - recognizing that words matter, and communication is key for trust building.

- CPUC staff's presentation re-introduced the CPUC's Order Instituting Rulemaking (OIR) 21-06-017 and resulting three-track proceeding, emphasizing the CPUC's need to:
    - Conduct analysis to improve local engagement in utility distribution planning;
    - Leverage that analysis to better engage with local and tribal governments, Environmental and Social Justice communities, and local developers to

ensure planned loads and developments are factored into utility planning processes and that both address local concerns regarding distribution planning; and
    - Engage community in Track 2's exploration of alternative DSO models and the resulting Future Grid Study.

- CEC staff presented an overview of its Investigation on Distributed Energy Resources in California's Energy Future (22-DER-01), focused on maximizing the potential of DER. CEC staff emphasized the following points:
    - Community engagement is foundational to this work.
    - The proceeding will explore policy options to expand DER.
    - The proceeding will develop DER growth scenarios to use in planning studies.
    - The proceeding will support investments in reliability per Assembly Bill 205.
    - The proceeding will integrate the ongoing supply-side demand response working group.

- California Joint Investor Owned Utilities presented Distribution Grid Operation 101.
    - Objectives were to:
        - Educate attendees on the foundational function and operations of the electric distribution grid in California
        - Enable stakeholders to use this basic understanding of grid operations to engage in the High DER OIR
    - Key takeaways are as follows:
        - Each IOU's distribution grid consists of millions of assets with tens of thousands of grid reconfiguration activities happening yearly to support upgrades, crew management, outage repair, and load management.
        - Distribution operations is not a standalone activity, but rather a suite of integrated functions and systems that have further critical coordination with additional organizations.
        - To respond to emerging challenges and (more importantly) to unlock new opportunities, the IOUs are developing and deploying

new tools and capabilities to maximize the value of DERs and more efficiently and reliably operate the grid.

- Dr. Lorenzo Kristov presented "DSO 101: Designing and Comparing DSO Models." Key takeaways to inform California's process are as follows:
    - DSO—or "distribution system operator"—is not a well-defined concept. DSO is a placeholder term for the future entity to be explored in Track 2 of this proceeding.
    - DSO is not optional. DER growth is happening. High-DER requires upgrading the distribution system and system operator.
    - Roles and functions—the building blocks of a DSO system—must be defined independently of the actors who perform them.
    - A DSO model is an assignment of roles and functions to the DSO and specification of its required interactions with other actors.
    - Alternative DSO models should be evaluated based on how well they serve specified goals and principles.
    - Recommended additional reading includes IESO's "Development of a Transmission-Distribution Interoperability Framework"

- CPUC staff presented a draft Outreach Plan to support communities in participating in Track 2 of the High-DER Proceeding. Staff also presented an updated proceeding workplan and timeline. Key points of the plan include:
    - Staff propose an eight-part series of listening sessions in September and October to engage with Tribes, community-based organizations, and local governments to understand and document their specific needs and perspectives for alternative DSO models prior to conducting the series of technical workshops planned for Future Grid Study development (Slides 23-29).
    - The CPUC values the input of all stakeholders.
    - Listening sessions would complement additional, more traditional stakeholder feedback methods. Listening sessions would not replace these other feedback methods, but would enable more diverse voices and perspectives to be heard to support Future Grid Study development.
    - The Draft Track 2 Outreach Plan may be revised based on discussion and feedback during today's workshop, the formal comments received on August 31, 2022, and Reply Comments received on September 9.

- The Final Track 2 Outreach Plan will be released shortly after formal comments are received.
- **Participant Feedback on CPUC staff's Outreach Plan Proposal:**
  - Consider more digestible ways (other than slideshows and recordings) of presenting information in an outreach context at the listening sessions
  - Provide financial support for community based organizations and others to participate and provide feedback during listening sessions
  - The outreach plan lacks substantive detail (how participants will be identified and recruited, how meetings will be structured and facilitated, and the expected commitments, activities and outcomes from participants) making it difficult to provide input on the plan.
  - Priming participants for listening session discussions is important to their success; particularly need to focus on linking the issues communities talk about to implications for a High-DER future and potential DSO models
  - Feedback from participants will be useful for Track 1 report on community needs
  - DAC Advisory Group should be provided the opportunity to comment on this plan, but would need an extension to at least Sept 16 to accommodate their next meeting
  - Virtual listening sessions may not be accessible to very hard to reach communities and organizers should consider alternative venues/platforms
  - Outreach to educate community on DSO models may not align with recommendations to integrate community needs into the picture first
  - Alignment and balance between Track 1 and Track 2 community engagement will be important and intentions for that balance and alignment are currently unclear
  - Efforts to reach underrepresented areas should be focused and concrete
  - Communities might want to talk about decision-making around related topics, such as avoiding infrastructure expansion and how we get smart grid infrastructure into underserved communities while avoiding unwanted infrastructure. We run the risk of failing to get

input or talk about synergies if we keep too many walls between tracks
    - Community engagement should be a long-term effort that goes beyond listening sessions
    - Disadvantaged and hard-to-reach communities should be specifically prioritized for engagement

- Gridworks facilitated a final discussion to celebrate and acknowledge workshop information exchange, understand participant suggestions, and understand the questions participants still have. The discussion questions and a compilation of participant answers—which took place via the Slido virtual platform—are as follows (full transcripts can be found here):
    - **Question 1: What is one new thing you learned at today's workshop?**
        - It's important to think of benefits of DERs from the outset, and broadly, to ensure that planning is done in a way that will best integrate higher levels of DERs
        - The need for community engagement to understand how communities will use DERs to feed into DSO planning
        - It is critical to create the right market mechanisms at the distribution level to enable a high DER future
        - Education on DSOs and a transition to a better system is going to take time and meaningful engagement; educating the average citizen on DSO models may be more challenging than beneficial.
        - There are many DSO models to choose from, which requires careful and deliberate consideration in a structured way
        - There's a lot of work to connect societal needs and goals clearly in relation to grid planning and operational design
        - The DSO is not fully defined, and there is an opportunity to rethink the layering of our energy system distribution—setting goals for the model is important
        - Learned about how the distribution system operators manage and switch loads as well as how the current grid system works; learned that current distribution operations have less visibility into behind-the-meter resources than assumed.
        - Difficult to separate current distribution system/operator functions
        - Learned about DSO models and DER potential

- Learned about similarities and differences between the CEC and CPUC proceedings and that while the CPUC proceeding does not take the position that a High DER future is inevitable, the transition to a DSO model is
- Learned about the metering data authority concept

- **Question 2: What is one suggestion you would offer your colleagues?**
  - It's unrealistic to assume community engagement will succeed absent a mechanism to provide financial support—everything else in this proceeding is funded, except for community-based knowledge
  - We should be focusing on creating benefits for all customers
  - Link DSO model discussion to on-the-ground issues that touch on community sustainability, resilience, and equity.
  - Change is inevitable, but equity is not—keep community in mind even through all the technical, "in-the-weeds work."
  - Consider the complexity and accessibility of information—education may need more than one session; consider using fewer acronyms
  - This is a shared journey, and we are all in it together—take a broader view than your own silo.
  - Focus on the desired end state and how the grid needs to change to meet those goals—check back with the community regularly to keep broad goals in mind.
  - Listen to to seek information, to understand, to learn, and to incorporate your learning into your planning.
  - Folks may be thinking of different things when we talk about "distributed energy resources" and of different problems that DSO is intended to fix.
- **Question 3: What is one question you'll take with you following this workshop?**
  - Considering who wasn't in this room and why—how can this proceeding break the mold of what has been done and disrupt a historical process that is inherently inequitable? How can we fund and support community engagement and participation with

disadvantaged communities? How can we create space for active and self-directed participation from DACs?
    - Can this proceeding determine a DSO model and a pathway for achieving that model without valuing societal benefits of resilience, GHG reduction, land use, and so on? How can we identify the range of societal goals the electricity system must support and the direction the electricity system should take to support these goals?
    - How might different DSO models impact what happens on the ground, in terms of equitable and sufficient DERs on the grid, and how will that offset the need for new utility scale generation and transmission line investments?
    - How can we shift power to communities in shaping an equitable, safe, clean, and reliable electrical grid of the future? How do we incorporate many divergent and contradictory interests while trying to reach an outcome that best serves collective needs and diverse communities?
    - How will the importance of being involved in this effort be articulated to communities to understand the importance of participating?
    - How do we move beyond vague goals/desires for a DSO into a deeper discussion of meeting those goals/desires? What if our process is outrun by the actual energy transition?
    - How can we find the best way to integrate DERS while minimizing the cost/risk for ratepayers?
    - How can DERs be aggregated to preserve their highest locational value and benefit within the distribution grid? How can we make best use of DERs as grid assets and resources?
    - What is the minimum level of technical understanding that is required to meaningfully participate in the technical conversations? How do we ensure those who want to gain that understanding have the opportunity to do so? How many people actually want to put in the time to gain that understanding?
    - How can we ensure the community listening sessions are successful?
- Open discussion:

    - Without resources to level the playing field, it's unlikely that we can educate community leaders, DACs, and environmental justice communities on DSOs to the extent they could propose a specific model. Resources should instead be spent on figuring out what community energy needs are and how DERs might be a solution for DAC and climate goals. Too much focus on bringing communities "up to speed" with the DSO model conversation, in all of its technical details, may discourage engagement. Encourage full DAC Advisory Group input on the engagement plan for listening sessions.
    - To the extent possible, when talking to communities it would be good to offer up representative situations and opportunities that people can see visually and identify with. That will help connect abstract concepts to aspects of their communities that participants can relate to. Encourage expressing questions/education in terms of the experience community members will receive from this new system, how it will work, and how they can be a part of that. People need to see their role and function to really become motivated and excited to become part of the solution.

- Throughout the workshop, Gridworks compiled a list of terms that would be helpful to define and explain to participants in future workshops/listening sessions. This list is not exhaustive, but rather a starting point. These terms include:
    - Proceeding and tracks
    - Distributed energy resources
    - Federal Energy Regulatory Commission
    - North American Electric Reliability Corporation
    - Western Electricity Coordinating Council
    - Power quality
    - Substation
    - Voltage irregularities
    - Operational flexibility

- Next steps following the workshop include:

- Summarize party input from the workshop and issue to stakeholders (Gridworks) – Complete through this document.
- Determine how Track 2 stakeholder engagement process may be improved based on public feedback due August 31 (reply comments due Sept. 9) and workshop input – Under consideration
- CPUC ruling to adopt Final Track 2 Outreach Plan to follow in September
- Create Supporting Documents and final plans for September/October listening sessions – Under consideration