

GMLC Technical Assistance to States

DER Interconnection Workshop #3

NREL Team: Michael Ingram, David Narang and Katie McMahon

Guest Speakers: Jeff Cook, Nadav Enbar, Tom Key, and Shay Banton

Presented 06/15/2023

NREL/PR-5D00-86603

Agenda: Improving the Interconnection Process



- **Michael Ingram, NREL:** Introduction and Background (5 min)
- **Jeff Cook, NREL:** Strategies for Reducing Timelines (30 min + 15 min Q&A)
- **Nadav Enbar & Tom Key, EPRI:** Strategies for Improving Technical Screens (45 min + 15 min Q&A)
 - 5 min break
- **Shay Banton, IREC:** Strategies for Improving Prospecting Tools (45 min + 15 min Q&A)
- **Michael Ingram, NREL:** i2X Transition and Opportunity (15 min)

Workshop Goals



1. Increase awareness of existing materials & support to help state public utility commissions (PUCs) move forward on distributed energy resource (DER) interconnection activities
2. Connect participants to colleagues with similar challenges (and solutions!)
3. Help the GMLC/NREL project team understand context and implementation challenges.

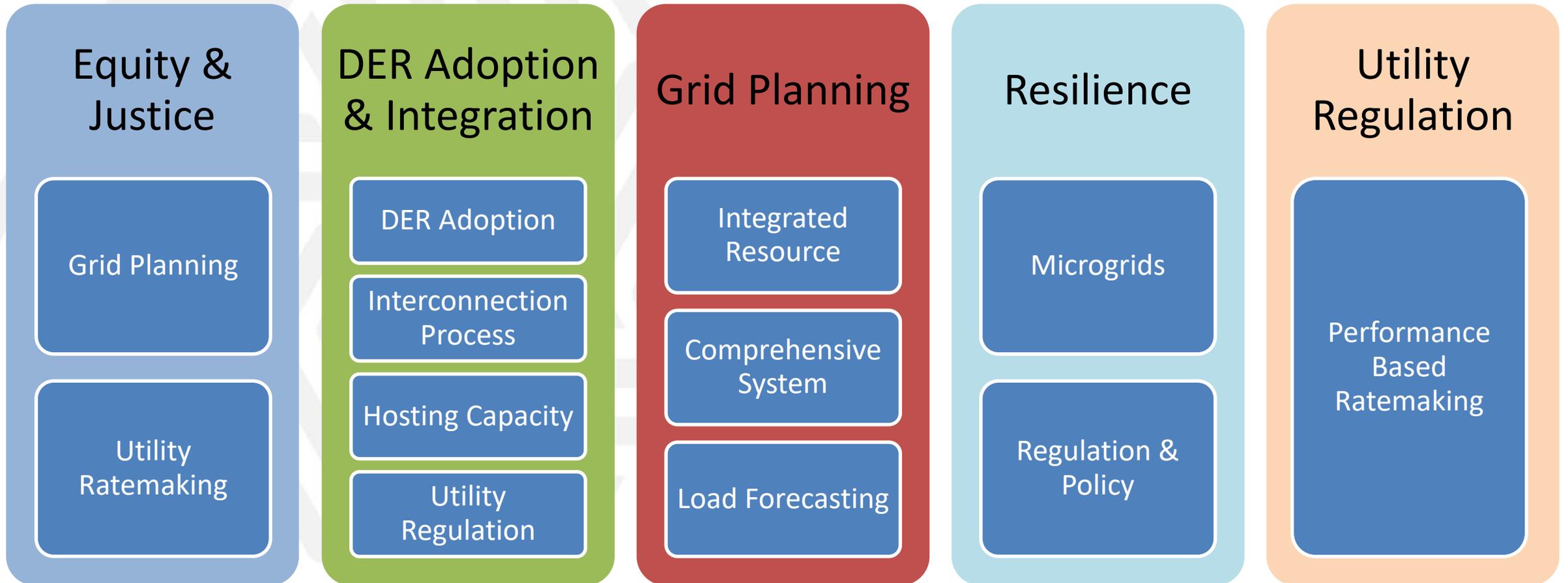
Workshop Origin: GMLC Technical Assistance to State Public Utility Commissions



Purpose: Provide customized support on issues specific to a state's needs and unique situation

Approach: Work with awardees on content and delivery method to maximize the efficacy of the TA

Budget/Scope: \$2.25M across 37 different technical engagements, in over 20 states.



NREL at-a-Glance



2,926



More than
900

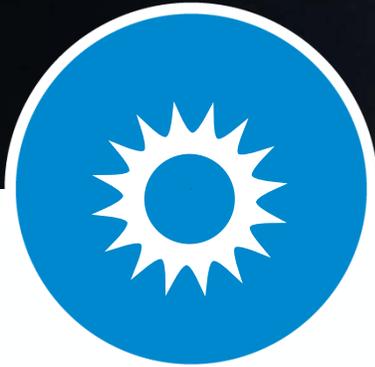
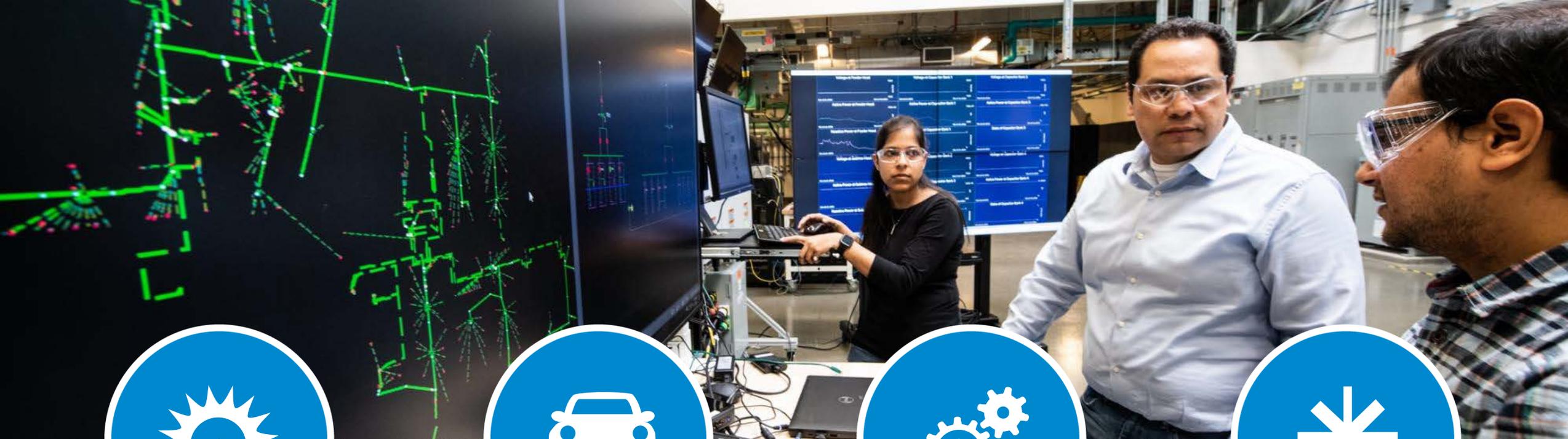


Workforce, including
219 postdoctoral researchers
60 graduate students
81 undergraduate students

World-class
facilities, renowned
technology experts

Partnerships
with industry,
academia, and
government

Campus
operates as a
living laboratory



Renewable Power

Solar
Wind
Water
Geothermal



Sustainable Transportation

Bioenergy
Vehicle Technologies
Hydrogen



Energy Efficiency

Buildings
Advanced Manufacturing
Government Energy Management



Energy Systems Integration

Grid Integration
Hybrid Systems
Security and Resilience

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**INTERCONNECTION
INNOVATION e-XCHANGE**
U.S. DEPARTMENT OF ENERGY

Website:
energy.gov/i2X

an EERE collaboration between SETO & WETO

i2X Interconnection Technical Assistance Opportunities

Goal: To provide access to various interconnection technical assistance opportunities to support our partners in their implementation of developed reforms.

- **Interconnection office hours on Fridays:**
 - Direct access to i2X leadership
 - **Consultation phone calls available to any interconnection stakeholder.**
- **Solution e-Xchanges**
 - Facilitated open dialog among diverse stakeholders
 - <https://www.energy.gov/eere/i2x/i2x-solution-e-xchanges>
- **i2X Technical Assistance Solicitation**
 - 2023 round complete, currently in project selection and scoping
 - <https://www.energy.gov/eere/i2x/i2x-technical-assistance>
- **Group Technical Assistance Cohorts**
 - Kicking off the “Shared ISO Experience” cohorts

Interconnection Technical Assistance Cohorts

Shared ISO Experience

Planned Scope

- Focus on regulatory and policy considerations (e.g., PUC and energy office staff)
- Peer-to-peer dialog on cohort-selected and prioritized topics
- Enhance understanding of the standards and processes established by the independent system operator (ISO) in which jurisdictional utilities participate
- Identify and discuss “best-practice” elements of interconnection processes and requirements
- Identify and discuss specific provisions that should be considered during future interconnection rule development that could make interconnections simpler, faster, or fairer
- Initial cohorts being planned for jurisdictions served by **ISO-NE** and **MISO**

Interconnection Technical Assistance Cohorts

“Suggest-a-Cohort”

1: Identify membership

- “Core cohort” entities
- Potential members (pending further dialog)

2: Identify assistance needs

- What are the topics of interest for the cohort members?

3: Identify planned outcomes

- What would be meaningful for the cohort members but could also be utilized by a broader audience?

4: Submit your proposal

- to: NREL DER Standards [der-standards@nrel.gov]
- Let us know if you need help developing your ideas

NREL's IEEE 1547-2018 Resources Website

nrel.gov/grid/ieee-standard-1547

[Join the mailing list](#) to receive updates on new resources and more learning opportunities on DER interconnection.

Or [contact us directly](mailto:der-standards@nrel.gov) at der-standards@nrel.gov.



Illustration by Fred Zietz, NREL

NREL's well-catalogued and publicly accessible online platform includes **presentations, industry white papers, and topic-specific NREL technical reports** for utilities, states, solar developers, transmission operators, and other stakeholders.

Thank You

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Photo: Dennis Schroder

Discussion

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