



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

Interconnection Workforce and Training

08/08/23

An initiative spearheaded by the Solar Energy Technologies Office and the Wind Energy Technologies Office

The first half of this Teams call is being recorded and may be posted on DOE's website or used internally. If you do not wish to have your voice recorded, please do not speak during the call. If you do not wish to have your image recorded, please turn off your camera or participate by phone. If you speak during the call or use a video connection, you are presumed consent to recording and use of your voice or image.

Meeting Notes

Notes synthesizing keys points, insights and questions from the meeting can be found here: [Box Link](#)

Agenda

- Introduction to i2X Solution e-Xchanges
- Initial Feedback on Interconnection Workforce Solutions
- Potentially Applicable Solutions from Clean Energy Workforce Development
- Panel Discussion



Interconnection Innovation e-Xchange (i2X)

Mission: To enable a simpler, faster, and fairer interconnection of clean energy resources while enhancing the reliability, resiliency, and security of our distribution and bulk-power electric grids



Stakeholder Engagement

Nation-wide engagement platform and collaborative working groups



Data & Analytics

Collect and analyze interconnection data to inform solutions development



Strategic Roadmap

Create roadmap to inform interconnection process improvements



Technical Assistance

Leverage DOE laboratory expertise to support stakeholder roadmap implementation



Key Outcomes from Our e-Xchange Meetings



- Inform and formulate a **publicly available**, strategic roadmap for interconnection
 - Topical challenges and issues
 - Practical solutions to implement and scale
 - Knowledge and data gaps and new solutions to pilot
 - Success goals and measures of success
- Summary documentation for each meeting regarding ideas discussed and opportunities for targeted stakeholder action
- Provide platform for ongoing engagement before and after meetings
- **Longer term vision** → Solution e-Xchanges to continue building a national forum for all stakeholders as a community of practice, excellence, and innovation



i2X Solution e-Xchange Topic Areas



- **Queue Management and Cost Allocation**
 - Technology, regulation, administration, and organizational change focus
 - *What innovative interconnection solutions exist?*
- **Grid Engineering Practices and Standards**
 - Engineering and technology focus
 - *How can proposed solutions be executed?*
- **Equity and Energy Justice**
 - Multidisciplinary
 - *Who is impacted by and benefits from proposed solutions?*
- **Data Transparency**
 - Multidisciplinary
 - *What transparency concerns must be addressed?*
- **Interconnection Workforce and Training**
 - Multidisciplinary

Additional subjects, like capacity maps, cross these topics and will be addressed from these different perspectives. Follow the schedule of events on the i2X website.



Upcoming Solution e-Xchanges to Consider Joining

1. August 11, 3-4:30 p.m. ET: Electric Vehicle Charging Station: New Service and Interconnection Processes for Connecting High Power Electric Vehicle Charging Stations into the Power System
2. August 15, 12-2 p.m. ET: Continuing to Identify and Prioritize Solutions to Equitably Scaling the Interconnection Workforce Through Hiring, Retention, and Training

Follow the schedule of events on the i2X website.

<https://www.energy.gov/eere/i2x/i2x-solution-e-xchanges>

Virtual Meetings Code of Conduct



- 1. Assume good faith and respect differences*
- 2. Listen actively and respectfully*
- 3. Use "Yes and" to build on others' ideas*
- 4. Please self-edit and encourage others to speak up*
- 5. Seek to learn from others*



Mutual Respect . Collaboration . Openness

Speaker Introductions



Introductions

- Cynthia Finley: Interstate Renewable Energy Council, Workforce Program Vice President
- Radina Valova: Interstate Renewable Energy Council, Regulatory Program Vice President
- Kelly Ann DeCurtis: Pepco Holdings, Director of Talent Management
- Midhat Mafazy: Interstate Renewable Energy Council, Regulatory Program Engineer

Initial Feedback on Interconnection Workforce Solutions



Considerations for Developing Solutions

- Improving hiring, retention, and training for the interconnection workforce will require both long-term and near-term solutions
 - “Long-term” can mean both a longer time frame for implementation, as well as longer-lasting impacts
 - “Near-term” can mean both easier-to-implement solutions, as well as more temporary actions that address immediate needs
- Solutions development and implementation, both for long- and near-term actions, will require time and effort and national leadership
- Some solutions span multiple disciplines – for example, automating the interconnection process can reduce the need for personnel hours (and, thus, workforce constraints), but is an interconnection policy and implementation issue

Considerations for Developing Solutions

- Both long- and near-term solutions development will require coordination between multiple stakeholders:
 - Employers (i.e., PUCs, utilities, DER and large-scale clean energy developers, and others)
 - Unions
 - K-12 education institutions
 - Higher education institutions
 - Accreditation and licensing bodies, continuing education providers, and professional associations
 - Industry associations
 - Standards organizations
 - And others



What are potential near-term solutions to hiring, retaining, and training the interconnection workforce?

Upskill staff engaged on interconnection through targeted training and education to increase speed and efficiency

Establish best practices for safely automating steps / activities in the interconnection process

Attract more professionals to interconnection-related work through outreach and education that highlights the role of interconnection in the clean energy transition



What are potential long-term solutions to hiring, retaining, and training the interconnection workforce?

Develop training and education programs to retrain professionals in relevant fields who want to transition into interconnection (e.g., chemical engineering; environmental law)

Apply best practices from clean energy workforce development to increase the number of students entering fields of study that can lead into interconnection (e.g., electrical engineering; energy law)

Make interconnection-related positions more competitive with other professions that require similar credentials through improved compensation and benefits

Potentially Applicable Solutions from Clean Energy Workforce Development



Considerations for Developing Solutions



Stated simply - good clean energy policy, program design, and planning integrate workforce considerations from the ground up.

Using Data

- Labor Market Analysis
- Trends
- Projected Needs
- Timing
- Cost
- Knowledge –Skills-Abilities Required

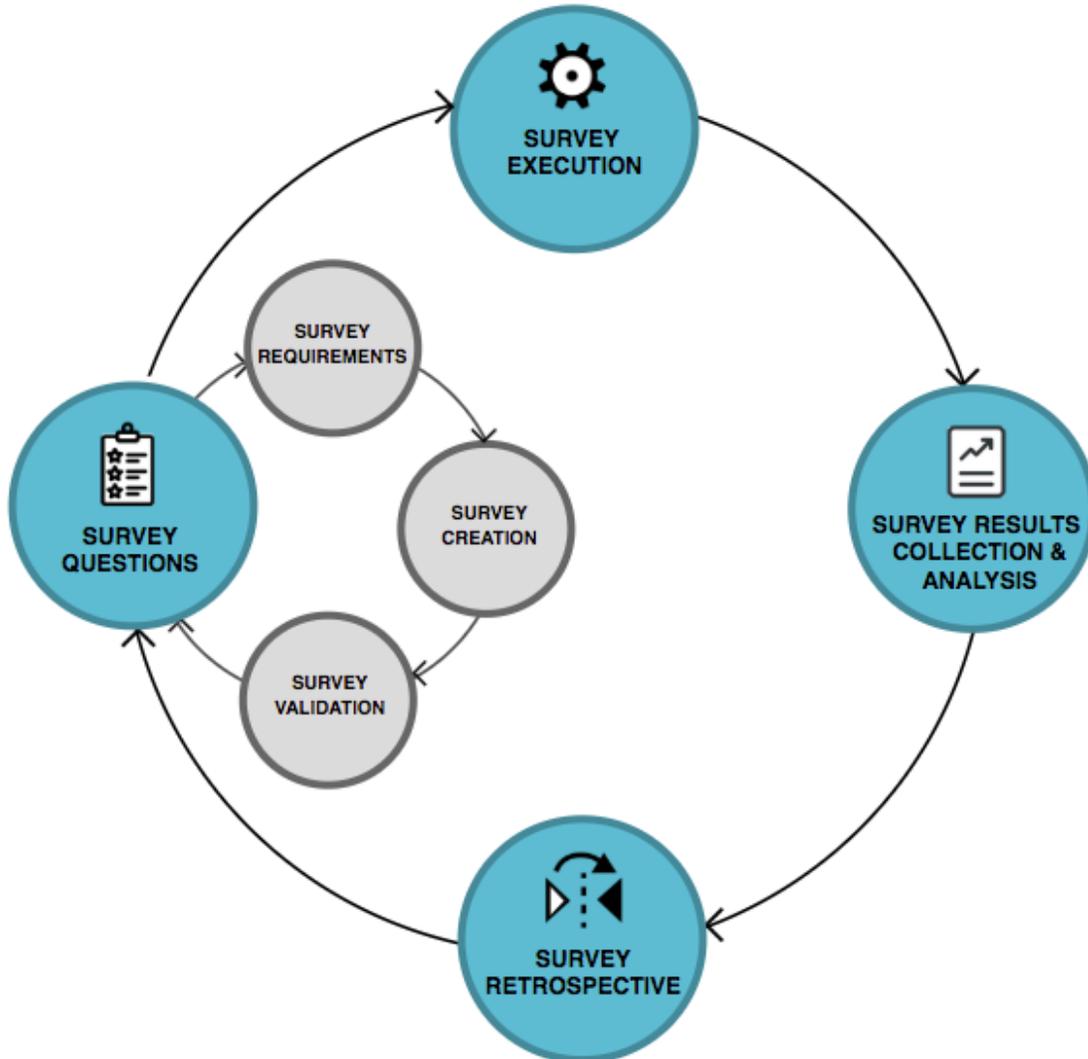
Gap Analysis

- Current Capacity to Meet the Needs
- Training
- Curriculum
- Timing (graduation rates)
- Awareness of Employment Options

Partnership Infrastructure

Considerations for Developing Solutions

SMALL vs. LARGE SCALE SCRUM SURVEY PROCESS



Using Data

- **What is the process**
 - Projected Needs
 - Timing
 - Knowledge –Skills-Abilities Required

Gap Analysis

- **Current Capacity to Meet Process Demand**
 - Training
 - Timing (graduation rates)
 - **Awareness of Employment Options**

Partnership Infrastructure

Questions?

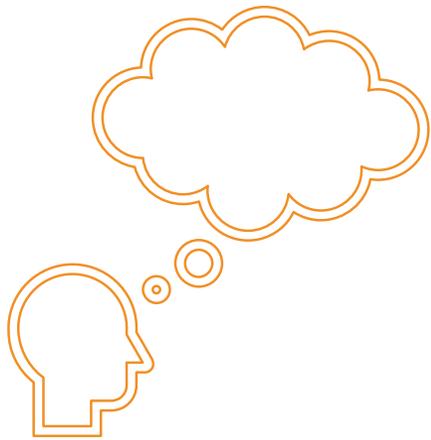


Panel Discussion



Discussion Questions





Questions for You!