



WORKFORCE DEVELOPMENT

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Purpose, Objectives, & Scope

The Workforce Development Tiger Team will be actively assessing challenges and roadblocks facing a broad range of LDES technologies and developing consensus-based recommendations to identify and educate a skilled LDES workforce.

- Assess the availability of an LDES workforce and establish collaborations between industry and educational institutions to facilitate workforce development, focusing on known or anticipated gaps. *What's out there? What's missing?*
- Assess the challenges and roadblocks to the availability of an appropriately skilled workforce across the technical fields necessary for LDES commercialization. *What are the obstacles?*

Challenge #3 Recommendations

Recommendation 3.1: Perform a study of current and anticipated future needs for workers in the LDES space.

Needed: a study that includes a gap analysis of current workforce studies, a focus group of LDES companies, a review of current publicly-posted job openings in this space.

Recommendation Recipients: DOE, Department of Labor, and/or Economic Development Administration should fund such a study.

Recommendation 2: Increase communication between LDES industry, academia/training providers, and communities with high unemployment or underemployment should be facilitated to increase the ways in which shared knowledge can be leveraged to improve workforce training specific to LDES technologies.

Rationale: The LDES industry must provide clear signals and definition to the labor market and to training institutions so workers can prepare for available jobs. Specifically, this group recommends that interactive webinars or other sessions be conducted to enable discourse between labor departments, community organizations, training & academic organizations, labor-management committees, and industry hiring representatives; these conversations should result in codified pathways into employment opportunities.

Recommendation Recipients: At the state level, this recommendation is to state departments of labor. At the Federal level, which is more likely appropriate as LDES workforce is a nation-wide issue, this recommendation could be to the Federal DOL or to DOE.

Recommendation 3: Develop policy framework for state/local/federal entities to connect J40 communities to jobs

Rationale: Without a policy framework to create connections between relevant stakeholders, the status quo tends to revert to excluding those who could benefit most from clean energy job opportunities.

Recommendation Recipients: Collaboration between DOE, Dept of Labor, Dept of Commerce

Challenge Identified in the Liftoff Report:

Challenge #3: The specific needs related to LDES workforce training (i.e., skills and training) are presently not well defined.



New Challenges & Recommendations

- **New Challenge #1:** There is a need for a diversity of avenues into LDES employment, from technician to executive levels. Traditional classroom education where students choose their careers at the beginning of their studies are not sufficient.
 - **Recommendation:** Increased availability/knowledge of apprenticeship programs, community college certificate programs, high school shop classes targeting specific industries (LDES), CBOs performing training in communities (e.g. Goodwill), other nontraditional sources of knowledge.
 - *Wrap-around sources are needed, e.g., money for time, transport, childcare, etcetera.*
- **New Challenge #2:** There is a need for a business ecosystem to develop both endogenous and exogenous talent in the LDES space, particularly for senior-level positions: for instance, giving entrepreneurial-minded individuals a physical or virtual gathering space to draw them into LDES world on the cutting edge of technology and/or business approaches.
 - **Recommendation:** Create online communities to match jobs and job-seekers, as well as to exchange ideas. Highlight LDES at industry/academic events that are already taking place (e.g., IEEE Power & Energy Society conference, solar industry conferences, etc.)
 - More events like this one 😊



New Challenges & Recommendations

- **New Challenge #3:** Long-entrenched obstacles (trust, structural/institutional barriers, loss of economic resources, etcetera) in marginalized communities (including Native American, POC, etcetera) make it difficult to recruit workers from these communities, encourage entrepreneurship in these communities, or introduce novel technologies in the LDES space. Additional costs associated with community engagement in disenfranchised communities, especially a challenge for start-ups.
 - Status quo: “Hi, we’re with the government. We’re here to help.”
 - Not an easy question! Lots of ideas, few evidence-backed replicable models.
 - We would love to hear about your successes! corsairhj@ornl.gov

