

## **Goals and Progress of Battery Workforce Initiative Webinar**

### **January 15, 2025**

The goal of BWI is to support the development and success of the workforce, which is indispensable to the success and competitiveness of a growing domestic industry.

#### **Betony Jones – DOE Office of Energy Jobs**

- Project started in 2022 with the question: how do we ensure a highly skilled workforce to address the growing needs in the battery industry?
- U.S. was behind global competitors.

#### **Austin Brown – DOE Office of Vehicle Technologies**

- DOE has a long standing investment in R&D. Batteries are a generational opportunity so we should figure out how to create high quality jobs.
- DOE has done a substantial amount of work to build the pipeline and we want to continue to scale this.

#### **Betony Jones**

- Provided an overview of the webinar agenda which included:
  - Progress made
  - Preview education/training curriculums
  - Highlight impacts to address needs
  - Engage audience in a discussion
- DOE has been called on to tackle this challenge in a systematic way. It is hard to do things that haven't been done before, thank you to the companies, educators and SMEs that helped. Also, please think about the opportunities to deepen collaboration.

#### **Brad Markell – DOE Office of Loan Guarantee Program**

- BWI was launched in late 2022 in Dearborn, MI as an opportunity for the workforce to grow and sustain the battery industry. It is a sectoral strategy that never had a credential.
- The BWI's mission is to drive collaboration, build trust, meet demands. We aimed our guidelines to industry needs, did a deep dive with employers, trainers, unions to create a superior way of doing things.

- This approach takes the high road, workers involved in their workplace, this adds quality and helps an employee grow and stay in the job.
- In the past, we have not used this sectoral approach in manufacturing. The unions know how to train and by developing a standard we are able to incorporate health and safety, worker and company needs and build a consensus across employers.
- Getting feedback from partners is very important.

#### **Ken Mall – EDSI**

- Collaborating with industry has been a key part of developing the Job Task Analysis (JTA). The BWI worked with employers (slide 8), this also helps define career pathways for workers.
- With the employers sharing their insights we were able to establish National Guideline Standards (with USDOL) for machine operator.
- Industry (cell manufacturing) believed this training could highlight the industry and importance of safety and health in training.

#### **Julie Deibel-Pundt – ITLC**

- ITLC took the machine operator JTA and designed a curriculum which has 120 hours of instruction.
- There two specific areas to mention, overview of the industry – SME feedback has been very important in developing the curriculum , it pertains to everyone creating lithium batteries, then paths depending on type of battery (cylindrical, pouch, prismatic).
- NATBATT and OSHA SMEs were very helpful on specific topic areas such as safety.
- It is important to get the instructors familiar with the curriculum, 80-85% of it is the same for all companies, but they will need to tailor the remaining curriculum to address company specific needs.
- The training modules provide many details to guide the instructors including when to provide handouts that support an activity, note taking to retain information, and best practices for adult learners.
- The machine operator curriculum was finished in late summer 2024 and is now being validated by working with four companies on pilots.
- ITLC was very hands on in helping the locations get started, traveled to the training sites, built in time to review curriculum and make sure examples were relevant to the site.
- Feedback from this was very helpful, trainees ranged in years of experience (1 to 29) and specifically mentioned the importance of having an overview of the battery industry.

- Looking forward to further results from the pilots and helping the industry at large.

## **Betony Jones**

### Discussed Lessons Learned:

- Trying to do something that hasn't been done before – how do we develop this broad industry collaboratively?
- SME participation is very important, they help identify where the gaps are and what is going on in the factories.
- Improving the free flow of information will help improve US competitiveness
- The industry is rapidly evolving. This is not a one and done effort.
- DOE has the convening power, it has the ability to convene a diverse set of stakeholders and to facilitate discourse.

### What are the next steps:

- BWI continues to look at other occupations in the areas of machine repair and recycling. We plan to distribute materials to employers, and community colleges, while finalizing the standards for machine operator.

## **Q&A and Discussion**

### **John Van Citters, Lyten**

- Lyten is a start up in the Bay area, manufacturing lithium sulphur batteries and is participating as a BWI pilot.
- Train the trainer was very helpful for training purposes since engineers and junior engineers generally aren't natural instructors.
- Trainees appreciated getting crosstrained on each process.

### **Engin Tuncer, Lyten**

- Agreed **that** the train the trainer was an important part of the pilot process because providing direction on how to teach was very important and help keep trainees attention
- The curriculum content is very solid, ready to go
- Overall participation in the pilots has been a very good experience. Lyten is looking forward to finishing the pilot

### **Les Alexander – Battery Innovation Center (BIC)**

- He is very supportive of the BWI's efforts to help standardize training across the industry.

- He also thinks it is a good idea to allow companies to use the curriculum and tailor it to their specific needs.

### **Betony Jones**

Moving to the quality side, cell modules and packs, improving efficiencies – what opportunities might there be to work with UAW and IBEW?

### **Priyanka Mohanty – United Autoworkers Center for Manufacturing a Green Economy**

- The UAW can use many of these principles as part of recruitment strategy in a pre-employment program.
- National Guideline Standards provide the framework to see if we can develop a registered apprenticeship program.
- The curriculum will be helpful in leveraging and accelerating cell manufacturing training.
- Encourage employer partners to reach out to work together is important.

### **Micah Mitrosky – IBEW International Rep, 9<sup>th</sup> District**

- IBEW is looking at how to bring best practices into manufacturing (already established in construction), BWI's materials should be very helpful.
- IBEW may be able to leverage existing electrical training centers and curriculum for advanced manufacturing as well as for employers.
- IBEW has been talking to both existing and new employers about implementing this training at their facilities.

### **Betony Jones**

- There is a process to ensure this gets out in the field and is used (not for profit use) by companies and other organizations.
- JTAs address quality and safety concerns and develops comprehensive training for a very automated industry.
- Not millions of new jobs, probably 10,000+ - don't want to over promise.
- Also looking for feedback, is this meeting the needs?

### **Celina Mikolajczak – Lyten**

- The curriculum has taught engineers how to be teachers.
- Crosstraining is very important, having a curriculum to follow was very helpful and also important for senior staff.
- Trainees want certificates, a credential. and a skill that is portable.

### **Betony Jones – Concluding Remarks**

- A rising tide lifts all boats!
- Please continue to be engaged with the BWI. DOE's leadership will change but the BWI will continue to move forward with activities.