## The Power & **Utilities Skill Gap**

Industries nationwide face a critical shortage of skilled workers, and the power and utility industries are no exception. Demand for workers in these industries remains strong. but finding new workers to replace the many workers ready to retire is a substantial challenge.

If the power and utilities skills gap is to be bridged, organizations must find a way to effectively provide safe, hands-on training to equip current and future workers with the critical skills they need to fill frontline positions as quickly as possible.

The industry will need 105,000 new workers in the smart grid and electric utility industry by 2030. - U.S. Department of Energy (DoE) Quadrennial Energy Review (QER)

# **Training Solutions for** Linemen, Power, and Energy

### **Electrical Power Distribution Training System**

Amatrol's Electrical Power Distribution Training System (85-MT7B) teaches a broad range of electrical skills, such as installing, maintaining, and troubleshooting modern power distribution systems that require skills ranging from setting up basic raceways to selecting appropriate over-current protection for sensitive equipment.

#### **Learning Topics:**

- · Conduit Bending, Installation, Sizing, & Selection
- · IMC, EMT, & Flexible Conduit
- · Bus Plug Installation
- · Wire Sizing
- · Circuit Protection
- Disconnect Selection & Installation
- · Fitting Types & Selection
- System Layout
- Schematic Interpretation





### Hands-On **Trainers**

Hands-on training allows learners to be actively engaged with immediate practice in their new skill, which is essential to information retention.

## **Virtual** Reality

VR allows learners to interact with virtual scenes and hazards in a safe space. VR is an excellent tool for experiential learning in complex topics that are otherwise too expensive or dangerous.

### e-learning Curriculum

Eye-popping graphics, 3D simulations, videos, and complete explanations combine with strong interactivity to develop technical skills.









#### **Transformer Connections**

DAC Worldwide's Transformer Connections Training System (491-000) replicates the conditions and circumstances that a utility worker encounters when making common transformer connections in the field. Using this trainer, learners will explore the skills that an operator must master in order to confidently operate modern generating equipment, such as the paralleling of generators and connecting to a larger power grid.

#### **Practice Hands-On Electrical Skills for Various Applications**

A wide variety of activities can be performed at reduced voltages for safety (A 208 VAC, 3-phase source is stepped down, creating a 41 VAC, 3-phase system). Both three-phase and single-phase applications are provided. Using banana jacks, ground connections, primary connections, and secondary connections are easily made.

Standard accessories include patch cords, fourteen transformers, a panel-mounted voltmeter and phase rotation meter, and a Student Training Manual. It also requires a 208 VAC, 3-phase, 60 Hz, 4-wire connection.

The training aid provides a safe, inexpensive, efficient, yet realistic alternative to paper-based learning and full-voltage field experience.

#### Student Training Manual Enhances Learning Process

Sourced from the Exercises and Learning Activities, the Student Training Manual takes the technical content contained in the learning objectives, and combines it into one perfectly-bound book.





### **Basic Electrical Machines**

Amatrol's Basic Electrical Machines Learning System (85-MT2) teaches electric machines commonly found in industrial, commercial, and residential applications: single-phase AC motors, three-phase AC electric motors, and DC electric motors. Learners practice industry-relevant skills, including operation, installation, analyzing performance, industrial motor wiring, and selecting electric machines for various applications.





### **VR Safety Training**

Every company knows it is important to be compliant with OSHA protocols, but most are not aware of how to efficiently train their employees.

Virtual reality can help quickly familiarize learners with updated safety protocols while saving time and money.

Employees trained in realistic, virtual environments will be familiarized with extreme heights, live wires, complex machinery, and more, helping them build muscle memory and retain pertinent information vital to on-the-job success. Using VR as a training and assessment tool can give management a new perspective on improving their safety training.



### **Digger Derrick Simulator**

The Training Pack is the only solution that accurately replicates machine stability and engine behavior, reducing the likelihood of accidents due to tipping. Designed to support training for specialized techniques such as drilling and setting poles, the learning path guides trainees through increasingly challenging tasks and includes exercises to prepare for the crane certifications exams, such as EICA.











