



TESCO METERING

TRAINING SYSTEMS

TESCO's *Meter School*

TESCOOL

July 19-22, 2026

Date July 21, 2026

3:15 PM – 4:30 PM

John Williams, TESCO

- Plan your training
 - Who, what, how?
 - Equipment planning
 - Selling your plans
- Execution
 - Communications
 - Preparing for class
- Keeping up with the future



- To produce the best training plan, start with the basics, then deal with the details after.
- The first questions you have to ask is “Who am I training”.
 - Meter installers and technicians are critically important to utility operations



- Who else should you be training?
- What is the best way to group the trainees?
- Are there any incentives for completing courses? Should there be?

- The next question you have to ask is “What?”
 - Most training plans either include whole sections on Safety or incorporate safety throughout every course.
 - Personal Safety – Keeping the employees safe and operating safely is always a critical.
 - Site Safety – It is imperative that training dictate safe operations at a customer site. Not only to maintain personal safety, but to ensure that the customer location is safe throughout the service visit and kept that way after the tech leaves.
 - How are your technicians organized?
 - Single phase vs. polyphase?
 - Self-contained vs. transformer rated?
 - Levels....1,2,3?
 - All these factors should inform what you should be training



- Training Equipment must be tailored to your training plan.
- Make sure the equipment you have is flexible. Think of having a single station being able to train multiple services for instance.
- Make sure that the equipment is future proof, being easy to add more meter sockets, services, or fault conditions when you consider program expansion.
- Make sure that you can cover all the different levels of trainees.



- Types of equipment – Simple
 - Multiple sockets.
 - Typically a combination of single or polyphase services, derived from wall power.
 - Manual switches will configure fault conditions at each of the socket locations.
 - Each socket location can be configured to look like the actual metering service in the field.
 - No computer or software required.
 - Least expensive option.





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TRAINING EQUIPMENT



- Types of Equipment – Digital Power Source
 - Can be configured with a single control point and multiple independent single socket stations.
 - Can be configured with multiple sockets on a single unit (like simple version)
 - Digital power source allows for far more configurable faults or field conditions.
 - Each station can be configured with a central controller or a company computer.

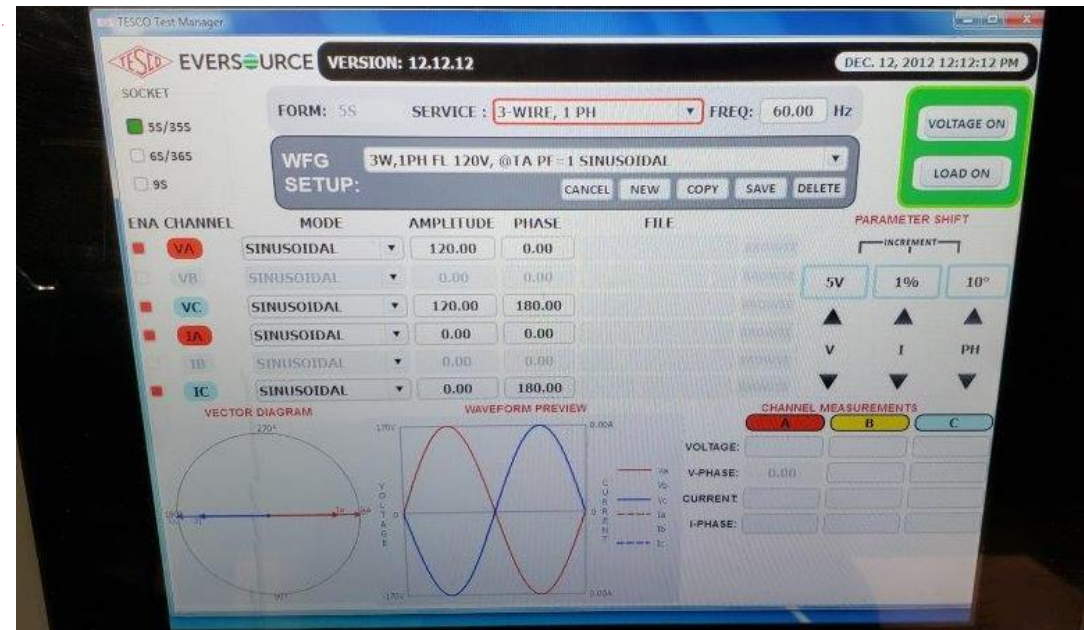


- Each station is plugged into a standard NEMA 5-15 plug
- Can be expanded to additional sockets, faults, and services.
- Good mix of affordability, expandability



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TRAINING EQUIPMENT



- Types of Equipment – Complex

- Configured with a single control point and multiple independent single socket stations.
- Each station has independent computer screen for customized instructions, including information on the sources and even safety
- Software setup with independent logins and a database for tracking trainees and courses completed.
- Digital power source allows for far more configurable faults or field conditions.



- Stations can be configured in local wireless network to allow the trainer to use a laptop or notepad and walk around the room.
- Each station is plugged into a standard NEMA 5-15 plug
- Can be expanded to additional sockets, faults, and services.
- Highly customizable and expandable

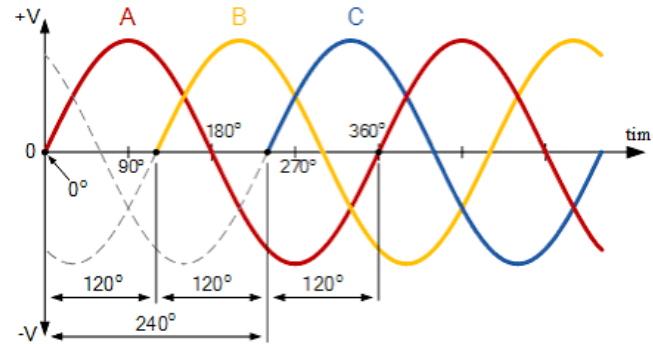


Other Considerations:

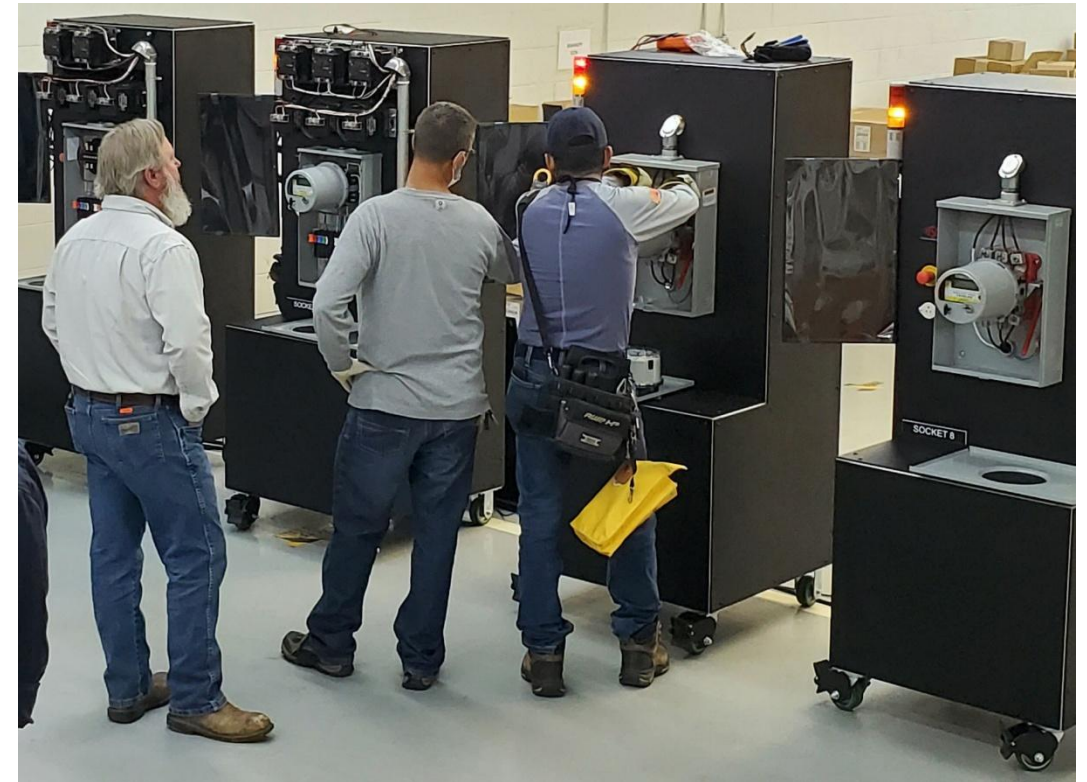
1. Transformer testing
2. Usage of site tools (site analyzers, DVMs, etc)
3. Consider the level of complexity of the controls for the system and how easy and quickly you want the trainer to work.



- Main categories:
 - Service issues:
 - Low phases
 - High phases
 - Wrong service for meter
 - Connection issues (Pre-set of self-contained meter)
 - Phase connection issues
 - Neutral connection issues
 - Swapped phases
 - Rotated phases
 - Ground fault
 - Backfeed
 - Hidden jumpers



- Main categories:
 - Pre/Post Set meter – Transformer rated
 - Cross phase connection from CT secondaries
 - Cross phase connection from PT secondaries
 - Mislabeled CT nameplate (wrong ratio)
 - Missing phase
 - Missing neutral
 - Reversed CT primary



- In order to sell you plan to get funding for your training project, consider the following arguments
 - What is your budget, but more importantly, what is the ROI vs lost time incidents, multiple truck rolls to solve a problem, site equipment damage, etc.



- Consider the lost opportunity cost. Waiting on the implementation is going to cost you more and add more risk to everyday work.
- Consider quality of new personnel and the “advertising” a good training program would have.

Once your plans are complete and the equipment is in place, it's time to get down to business

- Communicate your capabilities
 - Make sure that all those to be trained know about it. The more you get the word out to trainees and their supervisors, the more participation you will get.
 - Create training schedules, with clear definitions of who, what, when, and where. Post the schedules to make it easier to plan personnel .
 - If incentives are a part of the program, make sure they are communicated. If supervisors are aware of the incentives, it could help with personnel reviews, motivating employees, and a stronger workforce.

- Preparing for class
 - Space – Make sure that there is enough room for the number of people in the class.
 - Environment – Make sure that the area is clean, well lit, and if possible, has good acoustics.
 - Equipment – Always pre-check the equipment to make sure that it is in good working order and the power and communications to the equipment are working.
 - Efficiency – Make sure that you have arranged the equipment and any other materials so that there is no time wasted.
 - Effectiveness – Work to give the proper attention to each trainee, working on individual instruction if possible.
 - Feedback – Make sure that you get feedback (preferably anonymously) to improve future classes
 - Record-keeping - Whether it's a part of the equipment or just on paper, keep records for each trainee, even if it's just to transfer to another system later.

- Updating your plans
 - After each class, review the feedback to see where you can make changes to make it more efficient, meaningful, or up to date with the latest processes and procedures
 - Confer with operations and engineering to stay on top of any new technology being employed that will require training.
- Updating your equipment
 - Based on feedback (see above), determine whether additional or updated equipment is required.
 - If your original plan was limited because of budget, review yearly to determine if it's time to expand
- Always listen to the best and worst experiences
 - All feedback is good feedback that can better your program

- What type of training plans does your company currently use?
- Is safety built into all training, or separately handled?
- Do you currently have dedicated training equipment and if so, what does that look like?
- If you currently attend in-house training, how large are the classes?
- Does your utility incentivize training?



John Williams

VP Engineering

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This presentation can also be found under Meter Conferences and Schools on the TESCO website: tescometering.com

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