Ensure Compliance with Power-I FAC-008 Conductor Measurement Tool

Accurate Conductor Measurement with Precision AI + Drone Technology

Why it Matters:

FAC-008 is a critical NERC reliability standard that requires transmission and generation owners to establish accurate facility ratings based on the most limiting components within a facility. For overhead transmission lines, this means the size, type, and physical characteristics of the conductor must be precisely measured and documented. Inaccurate or outdated conductor data can lead to overestimated ratings, potential equipment failure, fires, or widespread outages.

Our Solution:

The Power-I FAC-008 Conductor Measurement Tool leverages computer vision AI and camera technology (ie. Drone, Go-Pro, Phone) to capture high-resolution imagery of conductors that need to be measured. Upon receiving images, Power-I uses AI to automatically detect both the reference object (ie. bolt) and conductors within the scene. These images are then analyzed to accurately map conductor dimensions to standard sizes such as KCM/MCM and IPS AL and then are geotagged with GPS coordinates to provide a clear visual representation of the asset's location.

Quickly and easily measure conductors at heights difficult to reach from the ground.

The process concludes with the generation of a comprehensive FAC-008 Compliance Inspection Report, ensuring traceability, accuracy, and regulatory alignment.

Key Benefits:

- Ensures compliance with FAC-008 standards
- Avoids taking outages and reduces field equipment needs - no bucket trucks or manual measurement tools required
- Faster data collection and review
- Enhances employee safety
- Maintains audit trail with GPS, timestamps, and inspector information
- Mitigates compliance penalties and fines
- Customizes inspection workflows to fit operational needs

How it Works:

1. CAPTURE:

Take a photo that consists of the conductor to be measured and an object of known size within the image field of view.

2. UPLOAD:

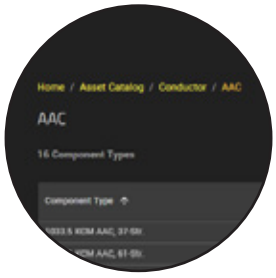
Use Power-I + Skydio Cloud API Integration or the built-in Manual Image Upload Tool to access images inside Power-I.

3. REFERENCE:

Enter measurement value for the AI-provided bolt reference line, or create a new reference line measurement on a known object of your choice.

4. MEASURE:

Use reference line to scale and measure the conductor.



5. MAP:

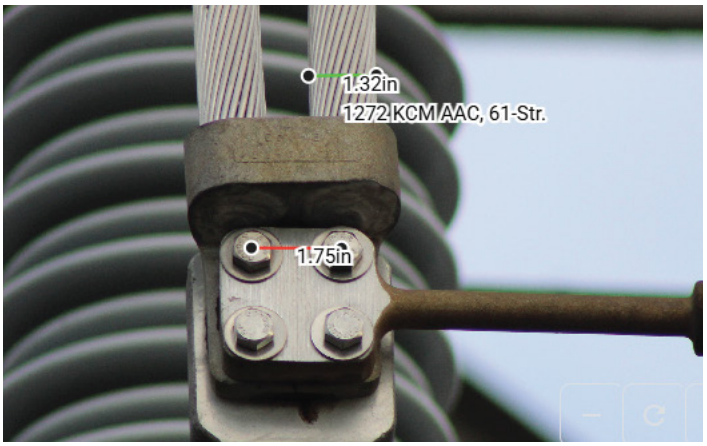
Match measurement to correlated component size in the Power-I Asset Catalog.

6. VERIFY:

Utilize dual independent verification workflow to validate.

7. REPORT:

Generate report with measurement data, GPS coordinates of photo capture, date/time, and inspector/verifier information.



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