





## Heavy-Duty & Aeroderivative Field Engineering Services



Comprehensive Power Generation Controls System Maintenance & Upgrades



# **Full Service Power Generation Maintenance Provider**

### **Field Engineering Services**

Our OEM-trained Field Service Engineers are highly experienced in control system maintenance & upgrades.

TC&E - A Division of AP4 Group & AP4 Power Services - A Division of AP4 Group provide expert support in all turbine and generator control systems.

### **Equipment We Support**

**Turbine Controls** 

- Gas, Steam, and Aeroderivatives
- GE Speedtronic MVI MKVI
- GE MKVe MKVIe •
- **Emerson** Ovation
- DLN 1, 2.0, & 2.6 Tuning •
- Aeroderivative DLE Mapping • Toolbox, Cimplicity, and IDOS •
- Fanuc 90-30/90-70 •
- Woodward 500/50X .
- Netcon 5000
- Mirconet / Micronet+

### **Services We Provide**

**Controls Services** 

- Startup Support
- Troubleshooting & Repair
- **Operator Training**
- **TIL Implementation** •
- **Customized Logic** .
- NERC Testing MOD-027 •
- **Owner's Engineer** •
- New Unit Commissioning
- Loop Checks & Calibrations .
- **Bently Nevada Support** .

#### **Other Services**

- **Control System Upgrades & Retrofits**
- **HMI Upgrades**
- **Operations & Maintenance**
- **Operator Training**

- Excitation
- **GE Industrial Analog SCT/PPT**
- Shunt BUS-FED
- GE Industrial Digital EX2000, EX2100, & EX2100e
- Basler DECS 200-400
- Basler DECS 2100
- Brush A12, A30, & A32

#### Exciter Services

- **Reliability Assessments**
- Troubleshooting
- NERC Testing MOD-025-026
- Technician Training
- Upgrade Recommendations
- **Owner's Engineer**
- Commissioning & Testing Support

#### Generator Controls

- Generator Protection Panels
- Protection Relay Upgrades & Calibration Services

#### LCI Controls

- **GE Legacy LCI**
- **GE Innovation LCI**
- GE LS2100
- TMEIC LCI

#### LCI Services

- **Reliability Assessments**
- Null Bias Offset Calibration
- **Troubleshooting & Repair**
- Water Cooled Bus Bar Replacement
- 89 Switch Maintenance •
- **Technician Training**
- Upgrade Recommendations
- **Owner's Engineer**
- **Commissioning & Testing Support**
- Borescope
  - Aero GT & Generator Alignment
  - Aero Engine Removal & Installation

#### Our talented field engineers are ready to assist you 24/7/365 anywhere in the world.

Performance Checks

Upgrades



Electromechanical GCV, SRV, & IGV

Package Inspections and Calibration

#### **AP4 Group Operating Divisions**







## We have experts in every part of the world, ready to support any request.

**Corporate Headquarters** 7060 Havertys Way, Lakeland, FL 33805 +1-855-823-2875 services@ap4.com ap4.com

**ABB** Unitrol