

# **On-Site Power Generation Systems**

The Single-Source Solution for Advanced Electrical Power and Control Systems



Simply Reliable Power Solutions

# For Over 30 Years, IEM Power Systems has Specialized in Power Control Systems for the On-Site Power Generation Industry

IEMPS specializes in the design and build of power control systems for low and medium voltage paralleling switchgear. We have been a leader in complex and innovative applications where custom design and engineering are required. Our custom designed systems can encompass a wide variety of configurations and control schemes for ultimate equipment reliability and peak performance to meet all the demanding power requirements of todays world.

Our flexible approach allows for various configurations of equipment and controls. All specially designed systems can include multiple generators with gas or diesel reciprocating engines, gas or steam turbines, hydraulic turbines, or wind turbines as prime movers. The systems may be single or three-phase, 50 or 60 cycles, and range up to 15kV. We are qualified to build products that meet or exceed the standards of all major electrical regulatory bodies and associations.

## **Application Capabilities:**

- Emergency Standby
- Prime Power
- Base Load
- Peak Shaving
- Co-Generation
- Resource Recovery

## Various Integrated Configurations:

- Utility Paralleling
- Data Acquisition
- Generator Paralleling
- Touch Screen PC/PLC Control
- Status Annunciation
- Systems Integration
- Instrumentation





# Telegauge Remote Monitoring Software

Telegauge<sup>™</sup> is an end-to-end monitoring and trending system that communicates with a wide range of devices, meters, and equipment, providing data locally or over internet in a format easy to use for facility managers and technicians via any web connection extending to today's technology of mobile devices. Telegauge is the most versatile and customizable monitoring system available on the market today. Users are able to effectively monitor and control the health of their facility with customized tools to store and export data for reporting, alarming and trending.



# Low and Medium Voltage Paralleling Systems

## **Emergency Standby**

Emergency Standby systems typically consist of one or more generators with an automatic starting system and a transfer switch to connect the generator(s) to the load.

The generators are utilized only when commercial power fails. Many owners are realizing that this "standby" equipment can be put into more constant service and save thousands of dollars in utility costs.

Ask how IEMPS can help you turn a fixed asset into a cost-saving or even a revenue-producing asset.

### **Prime Power**

Prime Power systems provide all the power for a given installation. There is no normal connection with commercial power. In some cases the utility might serve as emergency standby to the on-site prime power system. IEMPS can provide the basic controls required for this relatively simple system.

#### **Base Load**

Base Load systems use the on-site power generation equipment to provide for the constant, essential, and continuous loads. Commercial power is imported to handle peak and variable loads.

IEMPS synchronizing and paralleling switchgear along with import/export controls and utility protective relaying provide a fully integrated and reliable system.

#### **Peak Shaving**

Peak Shaving applications use the on-site power generation equipment to handle variable loads above a given maximum level or peak. This helps the customer avoid costly "demand" charges from the utility company.

IEMPS synchronizing and paralleling switchgear along with import / export controls and utility protective relaying provide a fully integrated and reliable system.

#### **Co-generation**

Co-generation systems may use the electrical power in any of the above arrangements and they recover useful heat energy from the prime movers exhaust and cooling systems. This heat may be used directly in a manufacturing process, space heating and air conditioning, or to drive additional electric generating equipment.

#### **Resource Recovery**

Resource Recovery systems capture an otherwise wasted fuel source such as landfill or digester gases to run electrical generating equipment. Generated power is used to run the plant itself with surplus power being exported to the commercial grid.



#### Service and Support

IEMPS take pride in the quality of our equipment and our responsiveness to the market. Our complete service from pre-sales technical support, commissioning and after-sales care will ensure that your equipment is installed and operating to your requirements. We encourage customers to participate in factory testing to confirm that equipment is performing to specification before it leaves the factory.

IEMPS provides the following services:

- Factory Systems Integration Test
- Control System Training and Support
- Site Coordination with Customers, Contractors and other Suppliers
- Installation
- On-Site Testing
- Start-up and Commissioning
- Technical Support
- Service and Warranty

### **Retrofitting Services**

IEMPS understands the needs of facilities to upgrade their power systems and the costs associated with fully replacing outdated, inefficient, and non-reliable legacy equipment. Our retrofitting services provide a full range of custom options from component upgrades to full system integration while minimizing downtime.

Our experienced technicians will evaluate your existing site equipment and develop a custom solution for you to get your facility upgraded and operating reliably and efficiently with today's demanding power requirements.



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