GE Energy

EX2100* Digital Front-End Controls-Only Upgrade

fact sheet

Upgrade your plant's existing excitation control system to GE Energy's state-of-the-art EX2100* system, in less time and at a lower cost than you may have thought possible.

The EX2100 Digital Front-End (DFE) is a controls-only retrofit package that enables customers with GE Energy's vintage, analog Busfed or Shunt SCR excitation systems to upgrade to the fully digital EX2100 platform at a fraction of the time and cost of a tradition excitation retrofit. By retaining existing power conversion bridges, customers can upgrade to a state-of-the-art control platform and protective functions, while meeting reliability, outage, and budgetary goals.

A dependable, high performance excitation control system is a key component of successful power plant operation – learn how the EX2100 DFE Controls-Only Upgrade may be your path to improved reliability and enhanced ROI.

The EX2100 DFE retrofit is more than just updated hardware. The system can be purchased with a set of engineered field installation instructions, providing a detailed survey of the unit, and a complete set of demolition and installation prints. The upgrade can also be purchased as a total scope installation, with GE Energy providing a single source for the entire project, enabling a turnkey, easy to manage upgrade.

Benefits

- Scalable control system upgrade provides cost and operational flexibility
- Minimal hardware replacement to reduce installation time
- Simplified system configuration based on the Windows* operating system
- Improved reliability with redundant control options
- Enhanced data capture and analysis tools
- Complete design engineering and retrofit services available
- Elimination of old circuit cards and power supplies
- Added features and protective functions:
  - autotracking regulators
  - PT failure throw-over
  - temperature biasing
  - volts per hertz limit
  - over excitation limit
  - under reactive ampear limit
  - under excitation limit
- New digital field ground detector which located field grounds on the AC and DC sides of the system

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Functionality & Reliability of a Modern Control System

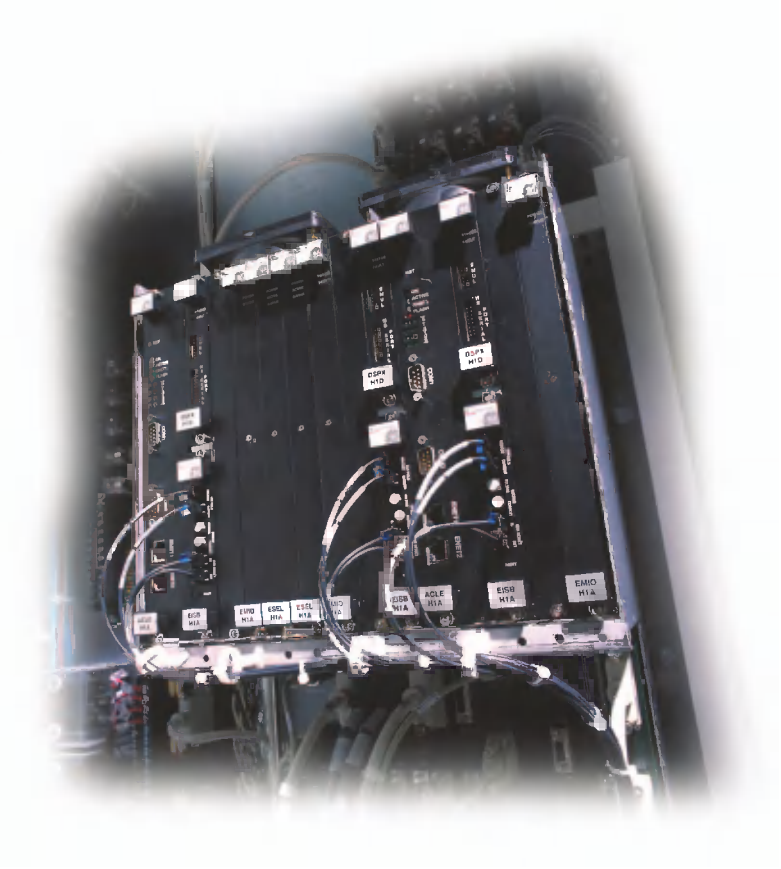
The EX2100 excitation control system is GE Energy's latest control offering for steam, gas, and hydro exciters. A flexible system to meet today's excitation challenges, the EX2100 can be customized with simplex or triple modular redundant controls, simplex or redundant power conversion bridges (from 20 to 8000 amps), and advanced software features, such as a Power System Stabilizer.

The new digital front-end delivers all the benefits of a modern control while minimizing the physical impact on plant cabinetry and wiring. Upgrade benefits include: eliminated thermal drift and analog control alignments; enhanced operational modes, alarm management, advanced protective functions; and, increased availability of spare parts. Existing operator controls can be retained, replaced, or augmented with a variety of color touch-screen operator stations, or integrated into an existing GE turbine control or plant-wide control platform.

Set-up and troubleshooting are simplified with the user-friendly, Windows*-based, ToolboxST* maintenance and configuration tool. Advanced features like self-diagnostics, active system graphics and schematics, programmable trend recorders, and high-resolution ocillography deliver a broad range of excitation and generator data at your fingertips. Flexible communication architectures enable connectivity to other plant controls systems through standard protocols and connections.

Increase the reliability and stability of your generator with GE Energy's EX2100, while minimizing cost and installation time. And, with all of the EX2100 products, site engineering, installation, and commissioning services are available to ensure a high quality installation and start-up.

Contact GE Energy today to learn more about the EX2100 DFE Controls-Only Upgrade.



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