

EVALUATION and ENHANCEMENT STUDY

For Your Generator Excitation and Voltage Regulator Systems

Determining Your Needs

Which of the following concerns apply to your facility:

- ✓ *Is in-house expertise available?*
- ✓ *Can the manufacturer still supply the expertise?*
- ✓ *VAR support problems?*
- ✓ *Are replacement parts available? Cost prohibitive?*
- ✓ *Mechanical maintenance dependency for voltage control?*
- ✓ *Automatic Regulator out of service, making Load Control inoperable?*
- ✓ *Are excitation limits restricting the Unit's VAR capacity?*
- ✓ *Is maintaining voltage control dependent on the reactions of the Operator?*
- ✓ *What are all of our alternatives to problems caused by the older Excitation Control Systems?*

The Challenge... Today, power supply is of utmost concern. Increases in demand continue to burden power suppliers – emphasizing the critical importance of maximum efficiency and reliability.

Utilities continue to strive for ways to maintain their generation capacity. Most have established “Life Management Programs” to extend the life expectancy of the turbines and generators.

Units twenty or more years old are expected to be in operation for another twenty years. However, many utilities neglect to consider the Excitation Control Systems. Are they keeping up with today's demands of voltage support throughout the system?

The Solution... Evaluation and Enhancement Study of your Excitation Control Systems – an inspection and appraisal of each System, compiling a Life Assessment Analysis including all retrofits options and short/long term recommendations with regard to the operation of each System.

The Source... E² Power Systems, LLC offers technical consultation and a demonstrated expertise with regard to Generator Excitation and Voltage Regulator Systems. Our background includes many years of experience with a large manufacturer of steam, gas, and hydro turbine-generators.

E² Power Systems, LLC has experience on systems ranging in size from 70kW to 1,300 MW.

Evaluation and Enhancement Studies of the Excitation Control System by E² Power Systems, LLC include the following general work scope:

1. Site inspection and appraisal of each System.
2. Review of data files on each System.
3. Engineering Study at our Littleton, Colorado, office.
4. Submittal and presentation of the Final Report, which will include:
 - ✓ Project Summary
 - ✓ Project Recommendation on a priority basis.
 - ✓ Detailed reports on each System including a summary, recommendation, and all of the data compiled
 - ✓ Report Appendix



Call us at E² Power Systems, LLC to further discuss the expert engineering services that we can perform on your Excitation Control System, independent of all excitation equipment manufacturers. References provided at your request.



8115 Shaffer Pkwy
Littleton, CO 80127
303.988.6659

Visit us at
www.e2powersystems.com