



## **ELECTRICAL ENGINEER**

### **For Eastern Interconnection States' Planning Council**

#### **Summary Description**

The EISPC Engineer will provide the engineering support for the 39-state Eastern Interconnection States' Planning Council (EISPC), in its effort to form the foundation for a more coherent and comprehensive approach to planning for our nation's long-term electric power needs. Among other duties, the Engineer will provide technical input for transmission and resource planning scenarios and the associated analyses, and will direct and participate in various aspects of related studies.

#### **Background**

The U.S. Department of Energy has allocated \$60 million to stimulate Interconnection-wide studies and planning. This funding creates an opportunity that previously existed only in concept: an Interconnection-wide sharing of assumptions, data, scenarios and modeling efforts, with the potential for coordinated activities that plan and use of existing and future infrastructure cost-effectively. The goal is infrastructural decisionmaking that (a) results in electric service at lowest reasonable delivered cost, (b) enhances electric reliability, (c) deploys new technologies, renewable energy and energy efficiency options cost-effectively, and (e) addresses increasing environmental requirements.

EIPSC is the organization of 39 state jurisdictions east of the Rockies formed to receive a \$14 million portion of this DOE award. EISPC will work with industry representatives (who have formed their own group, the Eastern Interconnection Planning Collaborative ("EIPC" -- also known as the "Topic A" group)) to make continual improvements in long-term planning processes, analytical techniques, planning tools, processes, and databases. EISPC, in concert with EIPC, will also create a structure to ensure continued Interconnection-wide studies, planning tools and processes, and databases.

EISPC's five work priorities are: (a) identifying zones for low- or no-carbon electricity generation; (b) conducting studies (through contractors) on planning options; (c) developing

assumptions, scenarios and inputs for industry analyses; (d) providing insight into the economic and environmental implications of the alternative electricity supply futures and their associated transmission requirements; and (e) creating consensus-building and coordination mechanisms with the industry, government agencies and stakeholders.

The EISPC technical staff will be employees of the National Regulatory Research Institute (NRRI). The National Association of Regulatory Utility Commissioners (NARUC) will be the recipient of the DOE funds. NARUC will enter into a subcontract with NRRI. The EISPC staff will be a unit within the NRRI expert staff, accountable to the EISPC Executive Committee. NRRI's headquarters are in Silver Spring, Maryland, adjacent to Washington, DC.

The DOE funding for this initial phase will be for four (4) years. The States intend to continue this effort beyond the initial four years.

## **Responsibilities**

From an engineering perspective, --

1. work with EISPC state commissioners and staff to develop assumptions and scenarios for the EIPC's transmission planning work.
2. guide and assist states in gathering data from their jurisdictional utilities and organizing a central data base.
3. assess the EIPC's planning studies to ensure appropriate use of planning tools, data, assumptions and scenarios.
4. make the technical work of EIPC, and EISPC consultants, accessible to the EISPC constituents.
5. oversee and/or produce the 6-8 studies and up to eight "White Papers" that EISPC is required to perform.
6. work with EIPSC director to develop work plans, presentations, budgets, and productive relationships with federal agencies and stakeholders.

## **Qualifications**

Bachelor's degree in Power or Electrical Engineering. An advanced degree in Power or Electrical Engineering is desirable. An advanced degree in other disciplines such as: operations research, statistics, mathematics, finance, economics, or public administration is desirable.

A Professional Engineering license in Power or Electrical Engineering is desirable.

## **Expertise and Experience**

**Required:** Five years experience in transmission planning or related planning process. Knowledge of electric theory as it relates to transmission planning concepts and transmission system operations; ability to prepare both written and oral summaries/reports of the studies and activities for a broad audience ranging from laymen to experts; experience with power flow models and planning studies, including their data requirements, assumptions and scenarios; high-level understanding of the transmission-related reliability standards enforced by NERC and its Regional Reliability Organizations; familiarity with the DOE, the FERC, and state commissions' jurisdictional issues.

**Highly desirable:** Training in other aspects of utility operations, construction, and/or elements of utility planning processes, and the use of state-of-the-art planning tools; knowledge of and experience with the integration of all resource planning into a comprehensive plan; past participation in one or more regional transmission studies, such as performing power flow analysis, transfer analysis, voltage stability analysis, transient stability analysis, tabulating and analyzing run results; experience in using other planning tools such as PROMOD and other capacity expansion models; experience with production costing, forecasting, and statistical applications; familiarity with "Smart Grid" and other transmission technologies as well as integration of renewable resources; experience with Excel and other Microsoft tools including programming skills.

**Residence:** Residence in the D.C. area is strongly preferred.

U.S. Citizenship required.

## **How to Apply**

Send cover letter and resume to [employment@nrri.org](mailto:employment@nrri.org). NRRI is an equal opportunity employer. The application process will remain open until we fill this position. The next screening date is July 15, 2010.