

Published on *American Geosciences Institute* (https://www.americangeosciences.org) Home > Interdisciplinary Engineer (Civil/ Mechanical/ Electrical)

#### Interdisciplinary Engineer (Civil/ Mechanical/ Electrical)

Department of Energy

### Job Summary

This position is located in Strategy and Program Management (TPO), Planning and Asset Management (TP), Transmission Services (T). The purpose of this TPO position is to serve as a program manager and technical expert and authority for one of Transmission Services' major asset categories: steel transmission lines; wood transmission lines; AC substations; DC substations; access roads; land rights; power system control; system protection & control; system telecommunications.

## **Major Duties**

#### As a Interdisciplinary: Civil Engineer, Mechanical Engineer, Electrical Engineer, you will be:

- Serve as a program manager and technical expert and authority for one of Transmission Services' major asset categories, and develops and implements a course of action (strategies and risk mitigation) and associated Asset Plan to replace, refurbish and/or sustain transmission system assets.
- Perform research and benchmarking to identify and apply best practices for asset management.
- Determine system needs and provide a comprehensive multi-year analysis and strategy to meet replacement program and operational requirements to eliminate, mitigate or manage risk throughout the asset's life-cycle.
- Develop a comprehensive, strategic plan that supports replacement program objectives and includes design and construction methods, technical requirements, applicable standards, and material procurement.
- Provide technical analysis of transmission system assets and coordinates with technical advisory groups and end users on requirements and priorities for replacements, and RCM and Criticality, Health and Risk experts regarding condition assessments, asset performance and cost trends.
- Review and coordinate capital additions with other program managers to assure adequacy, service reliability, and consistency with replacement program.

## Qualifications

#### **BASIC REQUIREMENT**

A. Degree: Engineering. To be acceptable, the program must: (1) lead to a bachelor's degree in a school of engineering with at least one program accredited by ABET; or (2) include differential and integral calculus and courses (more advanced than first-year physics and chemistry) in five of the following seven areas of engineering science or physics: (a) statics, dynamics; (b) strength of materials (stress-strain relationships); (c) fluid mechanics, hydraulics; (d) thermodynamics; (e) electrical fields and circuits; (f) nature and properties of materials (relating particle and aggregate structure to properties); and (g) any other comparable area of fundamental engineering science or physics, such as optics, heat transfer, soil mechanics, or electronics.—OR—B. Combination of Education and Experience -- college-level education, training, and/or technical experience that furnished (1) a thorough knowledge of the physical and mathematical sciences underlying engineering, and (2) a good understanding, both theoretical and practical, of the engineering sciences and techniques and their applications to one of the branches of engineering. The adequacy of such background must be demonstrated by one of the following:Professional Registration or Licensure -- Current registration as an Engineer Intern (EI), Engineer in Training (EIT), or licensure as a Professional Engineer (PE) by any State, the District of Columbia, Guam, or Puerto Rico.—OR—Written Test -- Evidence of having successfully passed the Fundamentals of Engineering (FE) examination or any other written test required for professional registration by an engineering licensure board in the various States, the District of Columbia, Guam, and Puerto Rico.—OR—Specified Academic Courses -- Successful completion of at least 60 semester hours of courses in the physical, mathematical, and engineering sciences and that included the

courses specified in the basic requirements under paragraph A. The courses must be fully acceptable toward meeting the requirements of an engineering program as described in paragraph A.—OR—Related Curriculum -- Successful completion of a curriculum leading to a bachelor's degree in an appropriate scientific field, e.g., engineering technology, physics, chemistry, architecture, computer science, mathematics, hydrology, or geology, may be accepted in lieu of a bachelor's degree in engineering, provided the applicant has had at least 1 year of professional engineering experience acquired under professional engineering supervision and guidance. Ordinarily there should be either an established plan of intensive training to develop professional engineering competence, or several years of prior professional engineering-type experience, e.g., in interdisciplinary positions. (The above examples of related curricula are not all-inclusive.)

SPECIALIZED EXPERIENCE REQUIREMENTSA qualified candidate's online application and resume must demonstrate at least one year of specialized experience equivalent to the next lower grade level (GS-12) in the Federal service.

Specialized experience for this position is defined as: Perform project management and engineering functions including (1) develop and implement a course of action and asset planning, (2) preparing proposed plans, milestones, and schedules, (3) and other activities including budget, cost-benefit analysis, planning and evaluating, requirements analysis, and risk management. There is no substitution of education for experience at the GS-13 level.

Your application and resume should demonstrate that you possess the following knowledge, skills, abilities and competencies (KSACs). Do not provide a separate narrative written statement. Rather, you must describe in your application how your past work experience demonstrates that you possess the KSACs identified below. Cite specific examples of employment or experience contained in your resume and describe how this experience has prepared you to successfully perform the duties of this position. GeneralEngineering - Knowledge of the concepts, principles, and theories of engineering and their practical applications. Influencing and Negotiating -Persuades others to accept recommendations, cooperate, or change their behavior; works with others towards an agreement; negotiates to find mutually acceptable solutions.

Oral Communication - Expresses information (for example, ideas or facts) to individuals or groups effectively, taking into account the audience and nature of the information (for example, technical, sensitive, controversial); makes clear and convincing oral presentations; listens to others, attends to nonverbal cues, and responds appropriately.

Partnering -Develops networks and builds alliances; collaborates across boundaries to build strategic relationships and achieve common goals.

Planning and Evaluating - Organizes work, sets priorities, and determines resource requirements; determines short- or long-term goals and strategies to achieve them; coordinates with other organizations or parts of the organization to accomplish goals; monitors progress and evaluates outcomes.

Problem Solving -Identifies problems; determines accuracy and relevance of information; uses sound judgment to generate and evaluate alternatives, and to make recommendations.

Project Management - Knowledge of the principles, methods, or tools for developing, scheduling, coordinating, and managing projects and resources, including monitoring and inspecting costs, work, and contractor performance.

Written Communication -Writes in a clear, concise, organized, and convincing manner for the intended audience. "Experience" refers to paid and unpaid experience. Examples of qualifying unpaid experience may include: volunteer work done through National Service programs (such as Peace Corps and AmeriCorps); as well as work for other community-based philanthropic and social organizations. Volunteer work helps build critical competencies, knowledge, and skills; and can provide valuable training and experience that translates directly to paid employment. You will receive credit for all qualifying experience, including volunteer experience. Time-in-Grade: Current Federal employees must meet time-in-grade requirements by the closing date of this announcement to receive consideration. CTAP/ICTAP candidates: To be considered "well qualified" you must meet all of the requirements as described in this section. You must meet all qualifications and eligibility requirements by the closing date of this announcement.

# Pay Range

\$109.915.00 - \$132.919.00

More information...

# **End Date:**

Wednesday, December 11, 2019