

As an independent system operator, the AESO leads the safe, reliable and economic planning and operation of Alberta's interconnected power system. The AESO also facilitates Alberta's fair, efficient and openly competitive wholesale electricity market, which in 2009 had about 200 participants and approximately \$5 billion in annual energy transactions.

Position Title: ENGINEER - FORECASTING

Position Summary:

The Forecasting Engineer must have the ability to work independently and be accountable for timely results. The position requires application of mature engineering knowledge in loss factor theory, overall system operations, understanding of the tariff, and accountability to coordinate difficult assignments. Assigned problems may make it necessary to design unique solutions to changing processes, devise new business practices, document and authenticate existing practices, apply existing criteria in new manners, and draw conclusions from comparative situations.

Specifically, the position will involve supporting the 2006 and beyond loss factor methodology; calculating loss factors using inputs from solved PSSE cases and utilizing the methodology software; responding to information requests on the GTA; providing ongoing support of Rider 'E'; validating solved PSSE base cases for adequate topology, voltage profiles, power flows, appropriate project content, and load/generation levels; developing, providing analysis, and completing the annual Generic Stacking order; extracting and analyzing historic data for generators, DOS, ISD's, and import/export levels; and providing further innovative services for AESO internal and external customers in the context of our loss factor program.

Accountabilities and Responsibilities:

- Advanced understanding of the power system allowing the ability to review the power system load flow base cases to enable calculation of loss factors for interconnected generators, opportunity service loads and import/export schedules;
- Annual calculation of loss factors (raw, normalized) and Rider 'E', for new and existing generators, including all system changes;
- Calculation of the calibration factor and related data gathering and development activities
- Calculation of loss factors for opportunity service loads and import/export schedules as required;
- Maintaining appropriate documentation of all methods, policies, procedures, and practices involving the loss factor calculation process;
- Interfacing with customers to address loss factor calculation issues and be prepared to explain methodologies involving loss factor calculations;
- Development of new methods to improve efficiency and accuracy of loss factor calculations;
- Coordinate loss factor calculation efforts, including GSO development, with various departments within the AESO, including Regulatory, Commercial, Engineering, Customer Service, and Operations;

- Providing technical support related to system loss factor and losses calculations to other AESO departments, including information request (IR's) analysis as required; and
- To provide mentorship and training to professional engineers and staff within the AESO and to assist and support the manager to achieve business goals.
- Development of a forecast methodology for the Net-To-Grid (NTG) amount.
- Development of a process to monitor the actual NTG amount with the forecasted NTG.
- Implementation of Raw Loss Factor (RLF) based loss forecasting.

Education:

- Minimum B.Sc. In Electrical Engineering with focus on power systems (post-graduate degree is preferred)
- Appropriate certification for professional designations

Knowledge, Skills Abilities and Experience Required:

- Eight to ten years experience in power system analysis and operation (can be relaxed with a post graduate degree in Electrical Engineering)
- Power flow study execution (for example - PTI PSS/E, GE PSLF, etc) utilizing power system analysis software; Knowledge in programming languages (Fortran, Matlab etc.), data tools (PI), as well as in MS Office, spreadsheets, and commercial database tools.
- Experience in DBA is an asset
- Load, loss, and operational forecasting
- Understanding and application of a commercial energy market with tariff implications

If you are interested in the above position, please email your resume in confidence to careers@aeso.ca by August 9, 2010 in order to be considered.

The AESO is unable to accept unsolicited agency resumes. Any resumes submitted become the sole property of the Alberta Electric System Operator.

The AESO would like to thank all applicants for their interest however only those candidates selected for interviews will be contacted.

The Alberta Electric System Operator, and its members, officers, employees and agents (collectively, the "AESO") is committed to protecting personal information provided to it. By submitting your personal information to the AESO for the purpose of pursuing employment with the AESO, you hereby consent to the collection, use and disclosure of your personal information by the AESO, in accordance with the provisions of the *Personal Information Protection Act* of Alberta, as amended from time to time.