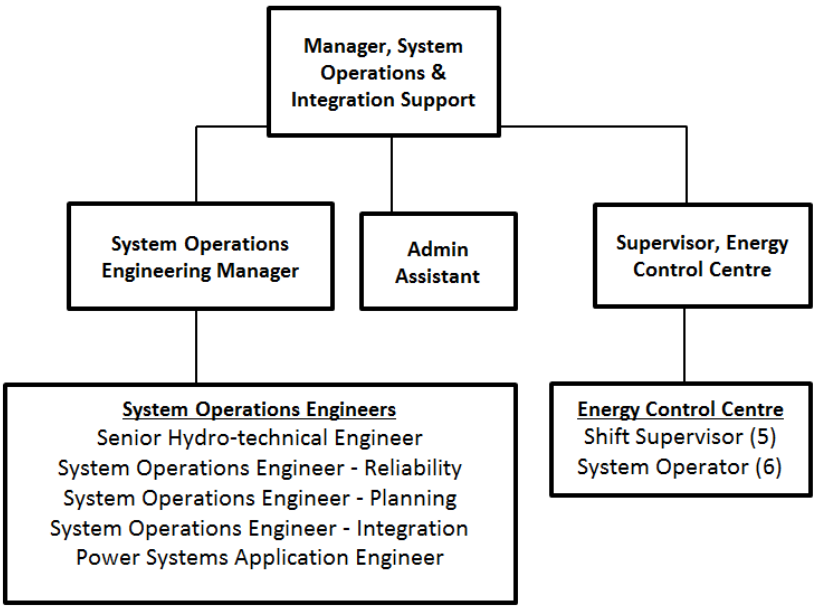
Q. Please state the numbers and titles of personnel responsible for Transmission System Operations, including personnel who provide technical assistance. Describe the type of previous experience System Operations personnel typically have before becoming Operators and state whether Hydro has a System Operations staffing succession plan.

A. The System Operations department has 20 employees who are directly responsible for the safe, efficient, reliable and environmentally responsible operation of the interconnected power systems on the Island of Newfoundland and in Labrador, including both generation and transmission. Led by the Manager, System Operations and Integration Support, the department consists of two groups: Energy Control Centre (ECC) and System Operations Engineering. The following organization chart provides the titles of all positions within the department.



Energy Control Centre

The Supervisor, Energy Control Centre is responsible for the Energy Control Centre and its 11 shift personnel, made up of five ECC Shift Supervisors and six System Operators. At a given point in time, one ECC Shift Supervisor and one System Operator manage and operate the power system. 11 shift personnel are employed to provide adequate shift coverage in a 24 X 7 environment, allowing time for training, support and various leave types. The ECC staff uses an Energy Management System (EMS) to monitor and control the power system and associated assets within their reliability and design criteria. The ECC is the Controlling Authority[1] for the transmission system, 46 kV and higher.

System Operations Engineering

The System Operations Engineering Manager has a team of five Engineers that provides guidance and technical support to the ECC in the management and operation of the power system and supports the integration of new assets into the Newfoundland and Labrador power systems. The team consists of the following positions:

- Senior Hydro-technical Engineer;
- System Operations Engineer – Reliability;
- System Operations Engineer – Planning;
- System Operations Engineer – Integration; and
- Power Systems Application Engineer.

[1] Controlling Authority is a person assigned by Management who is responsible for the control of specific equipment and associated devices. This responsibility includes performing, directing or authorizing changes in the condition or in the position of the equipment or devices.

Staffing

To qualify for a System Operator position in the ECC, a candidate must have completed a three-year electrical technology program from a recognized technical institute, a journeyperson certification as a hydro plant operator (two years), and previous experience as a hydro plant operator. Once recruited into the ECC from either of the staffed hydro plant locations[2], the candidate will complete a six-month formalized training program as a System Operator Trainee before being placed in the ECC shift schedule as a System Operator.

ECC Shift Supervisors are recruited from the pool of six System Operators. Thus, the ECC Shift Supervisor has the qualifications as stated above for the System Operator position supplemented with a minimum of five years' experience as a System Operator in the ECC.

For succession planning in the ECC, System Operations is prepared to deal with attrition with its 11 shift personnel, three more than what is required to run a 24 X 7 shift schedule. Further, System Operations relies on Hydro's plan for all operator positions, including hydro plant operators and System Operators in the ECC. This plan targets to have sufficient hydro plant operator apprentices in the system to meet future operator requirements under expected attrition rates.

[2] Hydro plant locations that are staffed include Bay d'Espoir, Cat Arm, Hinds Lake, Upper Salmon, Exploits and Churchill Falls.