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 if Newfoundland Power has a System Operations staffing succession plan.

A. 1. System Control Center Structure

Newfoundland Power's System Control Center ("SCC"), operates a supervisory control and data acquisition system that monitors and controls Newfoundland Power's transmission, subtransmission, distribution operations as well as dispatching work to power line technician crews outside of normal operating hours.[1] The SCC is staffed 24 hours a day, every day of the year.

System Operations at the SCC are the responsibility of Power System Operators. A breakdown of the Power System Operator roles is shown in Table 1.

Table 1
SCC Power System Operators

Position	Employees
Power System Operator – Lead Hand	4
Power System Operator	6
Power System Operator – In Training	2

The Power System Operators are supported by the Superintendent of System Control and Electrical Maintenance, the Supervisor of System Control, the Team Lead of SCADA Operations, and the SCADA Technologist.

[1] Over the past few years, Newfoundland Power has deployed mobile computing in all of its line trucks, implemented a computerized operations dispatch system, and expanded its use of geographic information systems for its vehicles and electrical system assets. To leverage this technology and to improve line crew scheduling and efficiency Newfoundland Power has established a Central Dispatch team to manage scheduling during regular working hours. During regular working hours, the SCC also has the ability to dispatch work to line crews on a priority basis to address safety or other high-priority issues. The SCC maintains full control of dispatching work to line crews outside of normal working hours unless large storms or electrical system events warrant after hours use of the Central Dispatch team.

2. System Control Centre Operations

The SCC operates with four separate shifts. Each shift consists of a Power System Operator – Lead Hand who has overall responsibility for the functions completed by the shift team. Each shift also contains up to two Power System Operators or a Power System Operator and a Power System Operator – In Training.[2]

Overall support and guidance for the System Operation teams is provided by the Supervisor of System Control and the Superintendent of System Control and Electrical Maintenance. In order to provide additional after hours support for large storms or major system events, Newfoundland Power maintains a System Control Centre on-call rotation. The on-call rotation consists of 13 Senior Engineers and Technologists.

3. Power System Operator Experience

Newfoundland Power has an experienced contingent of Power System Operators. Table 2 shows the average years of experience for each of the three categories of Power System Operators.

Table 2
SCC Power System Operators

Position	Average SCC Experience (years)
Power System Operator – Lead Hand	25
Power System Operator	11
Power System Operator – In Training	2

Newly hired Power System Operators are required to have an Electrical Engineering Technology diploma.

4. Power System Operator Succession Planning

Newfoundland Power has a Power System Operator Apprenticeship Program ("the Program") to facilitate its succession planning at the SCC. The Program was specifically designed for Newfoundland Power's operating environment and consists of a 3-year training period. The minimum requirement for entering the Program is the completion of a 3-year Electrical Engineering Technology Diploma.

[2] The minimum shift requirement for the SCC is one Power System Operator – Lead Hand and one Power System Operator.

The Program consists of 6 Month, 12 Month, Year-2 and Year-3 training objectives. Individual assessment and examinations are conducted at each of these training milestones. The actual functions performed by a Power System Operator In-Training are tied directly to their progression within the Program and an assessment of their abilities. Once an employee has successfully completed the Program they are then considered a Power System Operator.

When Newfoundland Power determines the retirement of a Power System Operator – Lead Hand or Power System Operator is likely within 1 year, the Company will accept applications for the Power System Operator Apprenticeship Program to ensure appropriate staffing levels are maintained.