3.3.2 Charlottetown

Unit 2034 has been in service for 22 years. During the 22 years of service life the unit has been overhauled six times. In 2018 the unit is forecast to have incurred over 100,000 hours of operation. Historically operating plants beyond 100,000 has resulted in reduced reliability of the plant.

Table 4 summarizes the existing and proposed generating station configuration, nameplate ratings, and firm generation capacity.

Table 4: Charlottetown Diesel Plant Generating Capacity Summary

Diesel Generators	Unit #	Existing Installed Capacity (kW)	Unit #	Proposed Installed Capacity (kW)
G2	2087	500	2087	500
G3	NEW**	725	NEW**	725
G4	2034	300	NEW*	300
Mobile	2089	725	2089	725
Mobile	2088	910	2088	910
Total Generation Capacity		3,160		3,160
Firm Generation		2,075		2,075

*NEW, refers to the proposed genset in this proposal.
**NEW, refers to new gensets currently being installed.

3.3.3 Reliability Performance

The intent of the isolated generation planning criteria is to avoid outages as a result of the load exceeding the available generating capacity. The planning criteria is intended to maintain at least a minimum level of system reliability by setting a threshold level of generating capacity in a diesel plant, as it is, and does not specifically target to improve the reliability of the existing equipment within a given system. There may be reliability improvements achieved if the capacity increase is performed by replacing an unreliable unit with a new unit, or if the increase is achieved by adding another generating unit to the system, as the duration of outages would