Q. (Reference Application, 3.1 Gander-Twillingate Transmission System Planning Study) With respect to the alternatives, were traditional generation alternatives considered such as diesel sets or combustion turbines? Are there any potential small hydro sites in this region?

A. Traditional generation alternatives were considered to be cost prohibitive due to the magnitude of capacity that would be required to mitigate the undervoltage condition, in conjunction with costs associated with replacing system power transformer GAN-T2 and Transmission Line 108L.[1] Newfoundland Power is not considering developing new hydro projects at this time.

Newfoundland Power's *2025-2029 Capital Plan* includes the proposed replacement of thermal generation units at Wesleyville and Greenhill, which would provide material voltage support to the central 138 kV transmission system that supplies the Gander - Twillingate area. However, these unites would be insufficient to mitigate the observed voltage violation. See part a) of the response to Request for Information NLH-NP-017 for more information.

[1] Additional generation on the order of 10 MW would be required to mitigate the voltage violation. Newfoundland Power's latest costs for procuring suitable gas turbines capable of mitigating the undervoltage condition are in excess of $27 million.