Q. (Reference Schedule B, King's Bridge Substation Power Transformer Replacement) It is stated (page 53) that "*The King's Bridge Substation Power Transformer Replacement project will mitigate risks to the delivery of reliable service …*" .
a) Would the replacement of any power transformer on NP' s system mitigate risks to the delivery of reliable service to customers?
b) What is the value of having spare transformers and portable substations if they will not be used during power transformer outages?
c) Given the long lead times associated with procurement of new transformers, is NP embarking on a program to replace all transformers on its system?

A. a) Yes, replacing any power transformer on Newfoundland Power's system would mitigate risk to the delivery of reliable service to customers. The level of risk mitigated by a transformer replacement will depend on the probability of failure and the consequence of failure. Replacing deteriorating transformers reduces the risk of in-service failures that could lead to significant reliability impacts.

b) Portable substations are used as an immediate response to power transformer failures and subsequent outages.[1] A portable substation can be deployed to restore service to customers within 24 to 36 hours of a transformer failure.[2] Typically, portable substation installations are intended for short-term usage. Portable substations are also utilized to support substation maintenance activities, capital projects and for responding to emergency in-service equipment failures.

Spare power transformers provide medium to long-term solutions following a power transformer failure.[3] The availability of a suitable spare transformer following the failure of a power transformer can significantly reduce the duration that a portable substation is required to be in service. Without the availability of a spare power transformer, a portable substation that is deployed in response to a transformer failure can, in certain conditions, be required to remain in service for up to 36 months.

Extended use of portable substations reduces their availability for other emergencies. Redeploying a portable substation that is already in service may not be possible or may require four or more days to uninstall, redeploy and restore service to customers. It also impacts the Company's ability to execute its annual capital and maintenance programs.

---

1 See Newfoundland Power's *2026 Capital Budget Application*, report *2.2 Substation Power Transformer Strategy, Section 2.2 Portable Substation Fleet*, for additional details on the purpose of Newfoundland Power's portable substation fleet.

2 See Newfoundland Power's *2026 Capital Budget Application*, report *2.2 Substation Power Transformer Strategy,* Appendix B, for a list of power transformer failures that utilized a portable substation installation.

3 See Newfoundland Power's *2026 Capital Budget Application*, report *2.2 Substation Power Transformer Strategy, Section 2.3 Spare Power Transformer Inventory*, for additional details on the purpose of Newfoundland Power's spare power transformer inventory.

Portable substations and spare transformers are an essential component of Newfoundland Power's emergency response strategy to power transformer failures.

c) No, Newfoundland Power is not embarking on a program to replace all transformers on its system. A significant number of Newfoundland Power's power transformers are operating beyond or nearing the end of their expected service life. This aging profile, combined with extended procurement lead times and current emergency response resources, presents a risk to customers.

Proactively replacing power transformers through a risk-based assessment while also enhancing emergency response capabilities enables the Company to manage asset replacements in a controlled manner, ensuring system reliability while proactively reducing the risk of costly failures and minimizing the potential for customer outages.