

1 **Q. Further to the reply to CA-NP 169, how does NP determine if its losses are**
2 **reasonable and if capital or O&M expenditures are justified to improve or maintain**
3 **current levels of losses?**
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5 A. Losses are related to the electrical characteristics of the power system. Therefore, the
6 determination of the level of losses on the system is an integral part of the system design
7 process. In designing a least cost electrical system, system planners aim to achieve a
8 balance among all cost factors, including capital costs, operating and maintenance costs,
9 and the cost of losses.

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11 Where applicable, infrastructure designs are prepared with losses taken into
12 consideration. Further, the Company's engineering procedures incorporate the
13 consideration of losses into the selection of materials used in constructing and
14 maintaining the electrical system. For example, loss evaluation is a normal step in the
15 selection of transformers.

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17 Consideration of losses is also incorporated into ongoing reviews of system performance.
18 Newfoundland Power periodically conducts system load reviews to identify system
19 performance issues. These reviews consider the impact of load growth and system
20 growth in light of such factors as equipment capacity ratings and conductor sizing. As a
21 result of such reviews, least cost projects are proposed through the capital budget process
22 that may include measures affecting system losses, including conductor upgrades, voltage
23 conversion and other system modifications.