

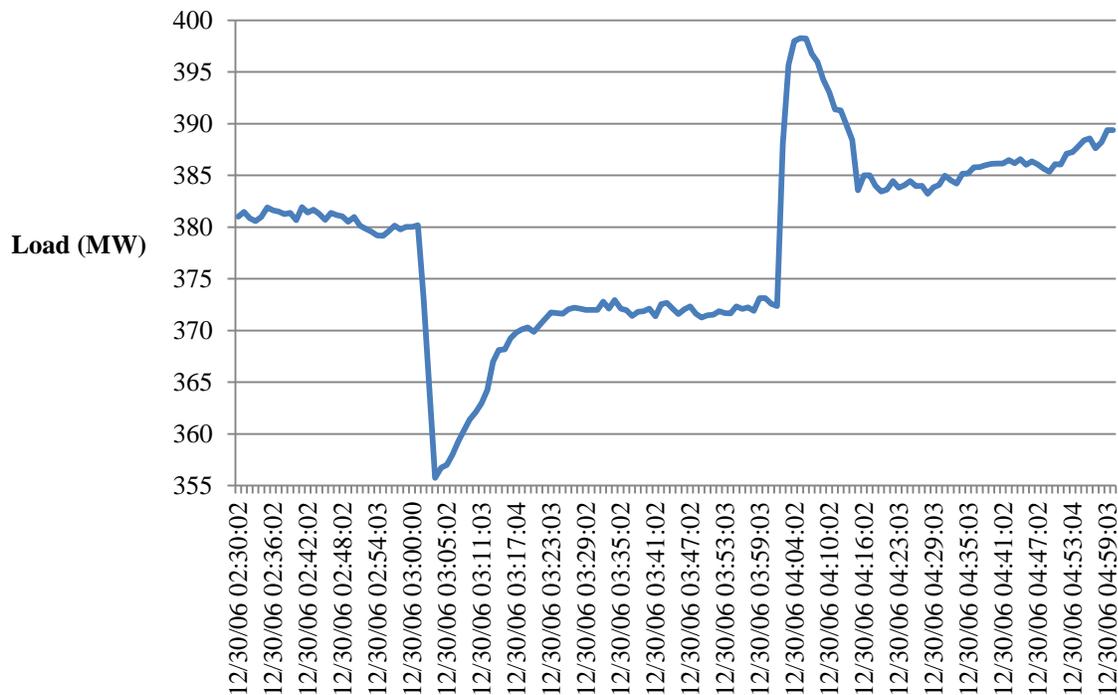
1 **Q. Please provide information showing what is the “half-life” of Newfoundland**
2 **Power’s demand reduction by voltage reduction.**

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4 **A.** In the context of a demand reduction that can be realized through voltage reduction,
5 Newfoundland Power considers “half-life” to mean the amount of time it takes for the
6 immediate load reduction brought on by voltage reduction to be reduced by half.

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8 On December 30, 2006 Newfoundland Power conducted a voltage reduction test whereby
9 electrical load was monitored while voltage was reduced by 5% for a period of one hour.¹

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11 Chart 1 shows the results of the December 30, 2006 voltage reduction test.

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Chart 1
Voltage Reduction Test, December 30, 2006



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16 During the voltage reduction test of December 30, 2006, when voltage was reduced at
17 3:00 am the load reduced from approximately 380 MW to approximately 355 MW
18 representing an immediate load reduction of 25 MW. The half-life for load reduction
19 would therefore occur when the load increased by 12.5 MW to between 367 MW and

¹ See the response to Request for Information PUB-NP-088 for more information on Newfoundland Power’s December 30, 2006 voltage reduction test.

- 1 368 MW. Based on the results in Chart 1, the half-life of Newfoundland Power's
2 demand reduction is approximately 15 minutes.