

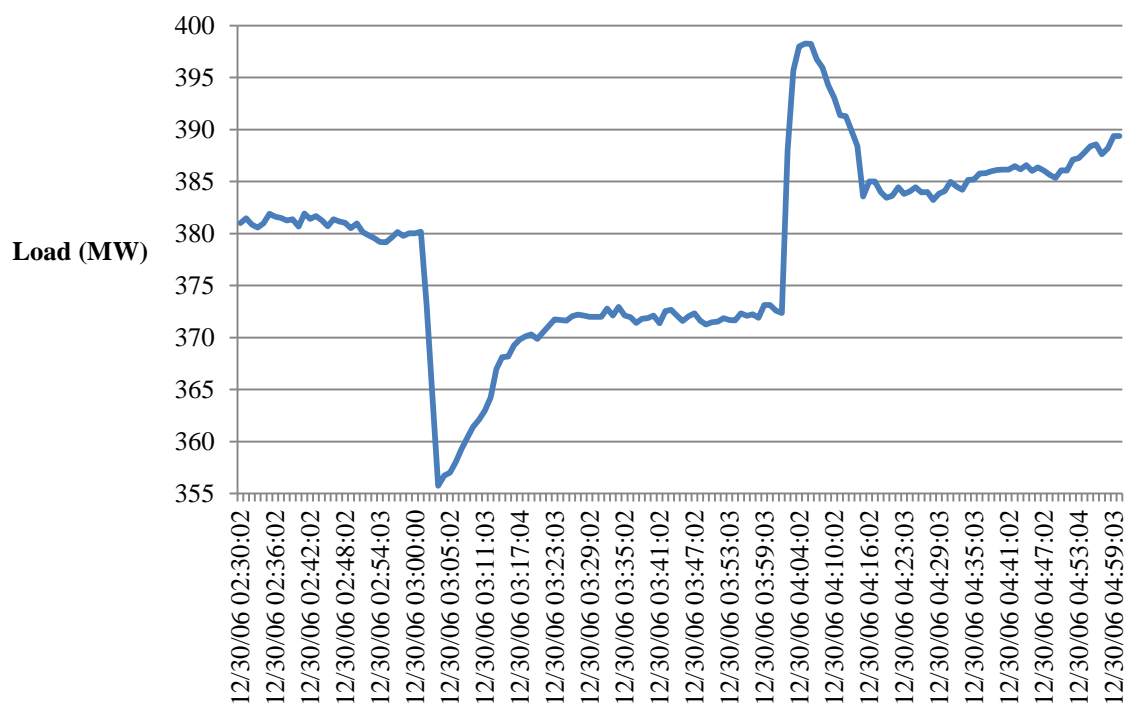
1 **Q. Please provide information showing what is the “half-life” of Newfoundland**  
2 **Power’s demand reduction by voltage reduction.**

3  
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.

7  
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.<sup>1</sup>

10  
11 Chart 1 shows the results of the December 30, 2006 voltage reduction test.  
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13

**Chart 1**  
**Voltage Reduction Test, December 30, 2006**



14  
15  
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

<sup>1</sup> 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.