

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

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5 A. Hydro is interpreting “half-life” as the time to reach one-half of the total demand  
6 reduction that is realized through supply voltage reduction. The impact of this  
7 strategy is difficult to determine due to the dynamics of the power system.

8 However, in a review of two voltage reduction events in the period leading up

9 January 2, 2014, the following is observed:

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Date	Time	NLH System Demand prior to Voltage Reduction (MW)	NLH System Demand after Voltage Reduction (MW)	Reduction in Demand (MW) <sup>1</sup>	Approximate Time to Reach Reduced Demand
December 29, 2013	16:50	1,408	1,383	25	Approx. 1 min
January 1, 2014	17:00	1,438	1,420	18	Approx. 2 min

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12 The decay from the initial demand to the reduced demand appears to be linear in  
13 nature, but may be impacted by the timing of operator actions.

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<sup>1</sup> The reduction in demand realized by the voltage reduction strategy may be offset by the normal load changes that would otherwise take place during that time.