

1 Q. (Re: November 2013 Report to Board on Holyrood Black Start Analysis, page 7)  
2 Hydro states “there is expected to be some discrepancy between predicted  
3 electrical behaviour and the real world system behaviour”. Has Hydro been able to  
4 calibrate modeling results to the real world in an effort to provide greater comfort  
5 that the diesel plant solution will indeed work in the real world system?  
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8 A. Hydro has had success comparing the modeled motor inrush current with measured  
9 values. Hydro's application stated:

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11 *The station service voltage must be maintained during motor start, as a*  
12 *severe voltage drop may cause other thermal plant equipment to cease*  
13 *operation during a critical motor starting event. The voltage must not drop*  
14 *below 81 percent during a motor start. However, given the fact that there is*  
15 *expected to be some discrepancy between the model predictions and the real*  
16 *world observations, any solution which only marginally meets this*  
17 *requirement must be studied in greater detail before final acceptance of the*  
18 *solution.*

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20 The diesel plant solution does not show marginal results. Therefore, the analysis of  
21 the diesel units can be confidently relied upon to demonstrate that such units will  
22 be able to start the boiler feed pump motors.