

1 Q. Please explain what the inertia requirements would be during the permanent loss  
2 of a pole on the Labrador Island Link while operating in bipolar operation at  
3 maximum power.

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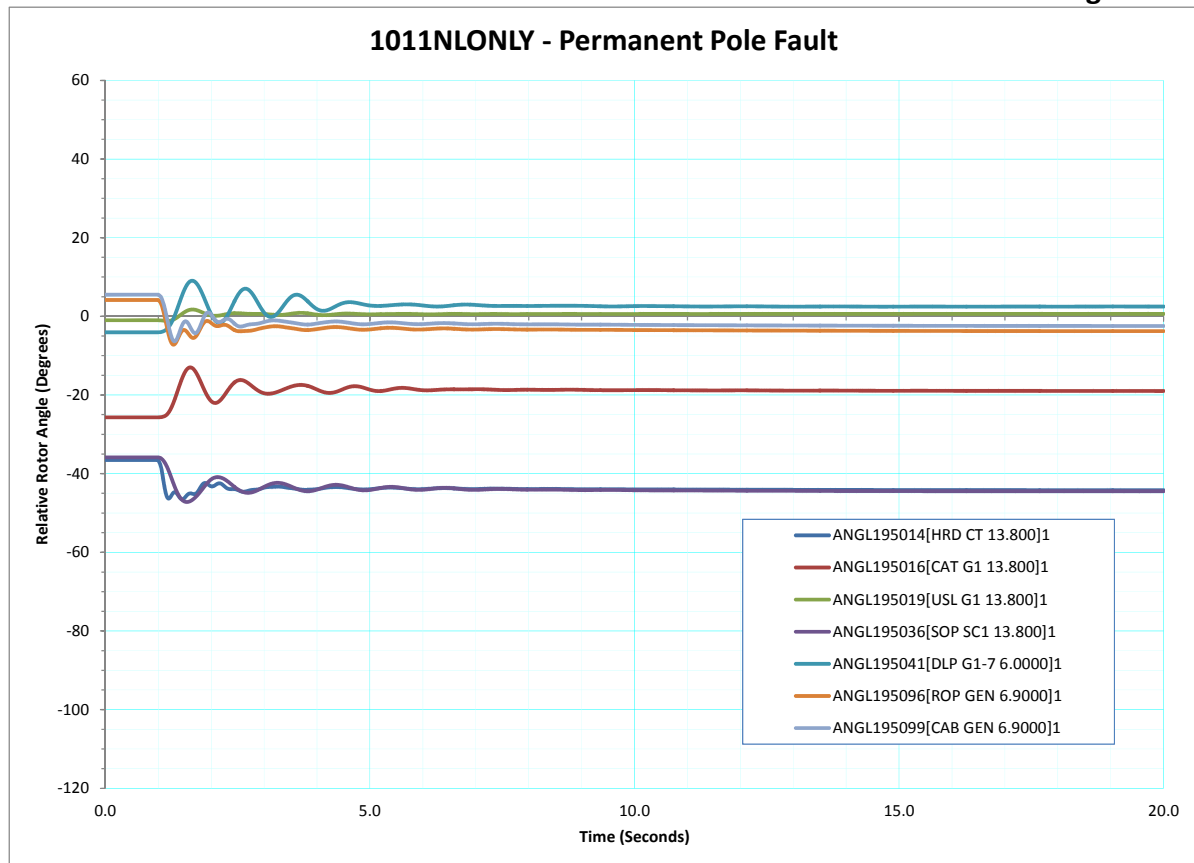
6 A. While operating in bipolar operation at maximum power, inertia requirements are  
7 met by two high-inertia synchronous condensers at Soldiers Pond, Unit 3 at  
8 Holyrood operating as a synchronous condenser, and a new nominal 120 MVAR  
9 synchronous condenser in the Holyrood/Soldiers Pond area.

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11 In this case (peak load with the Labrador-Island Link loaded to 900 MW), the  
12 permanent loss of the pole results in the cross-tripping of Maritime Link export. This  
13 ensures that there is no under frequency load shedding within the Island  
14 Interconnected System.

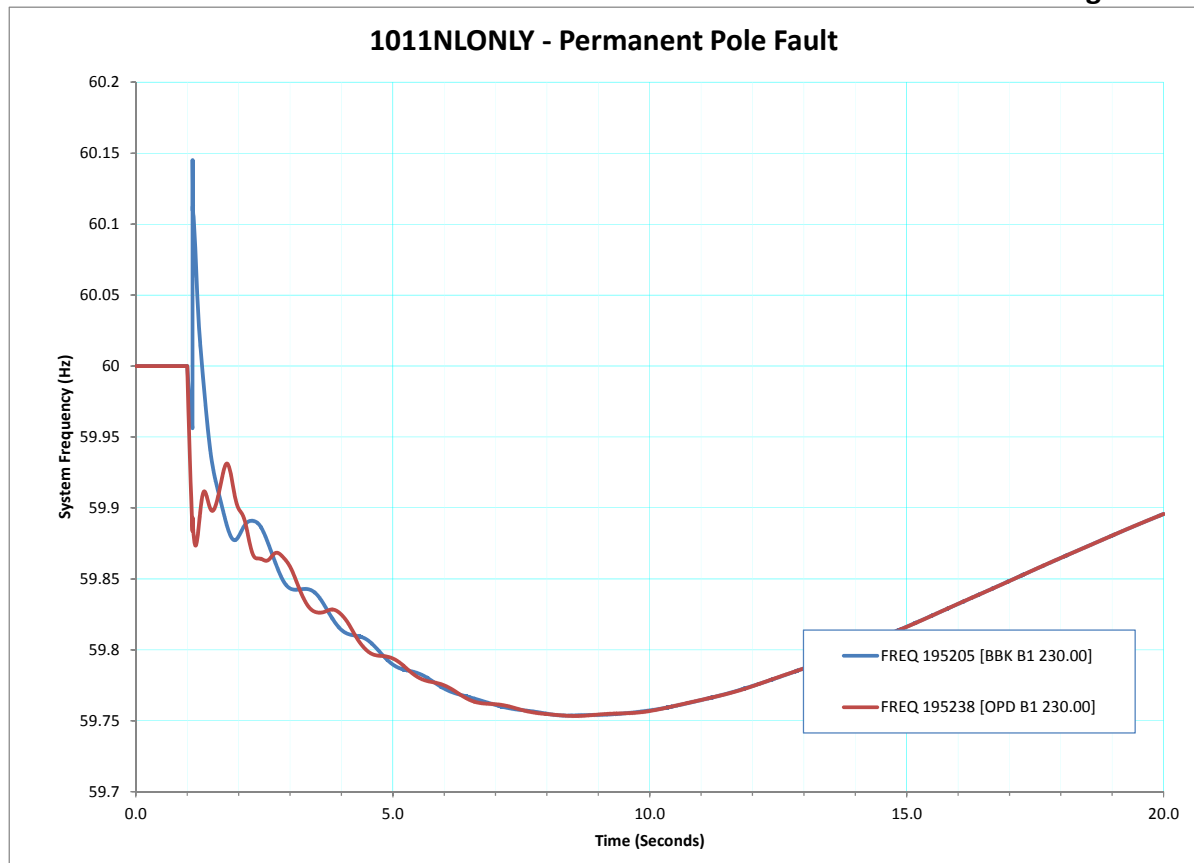
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16 The results of a simulation of this event are provided in the figures below.



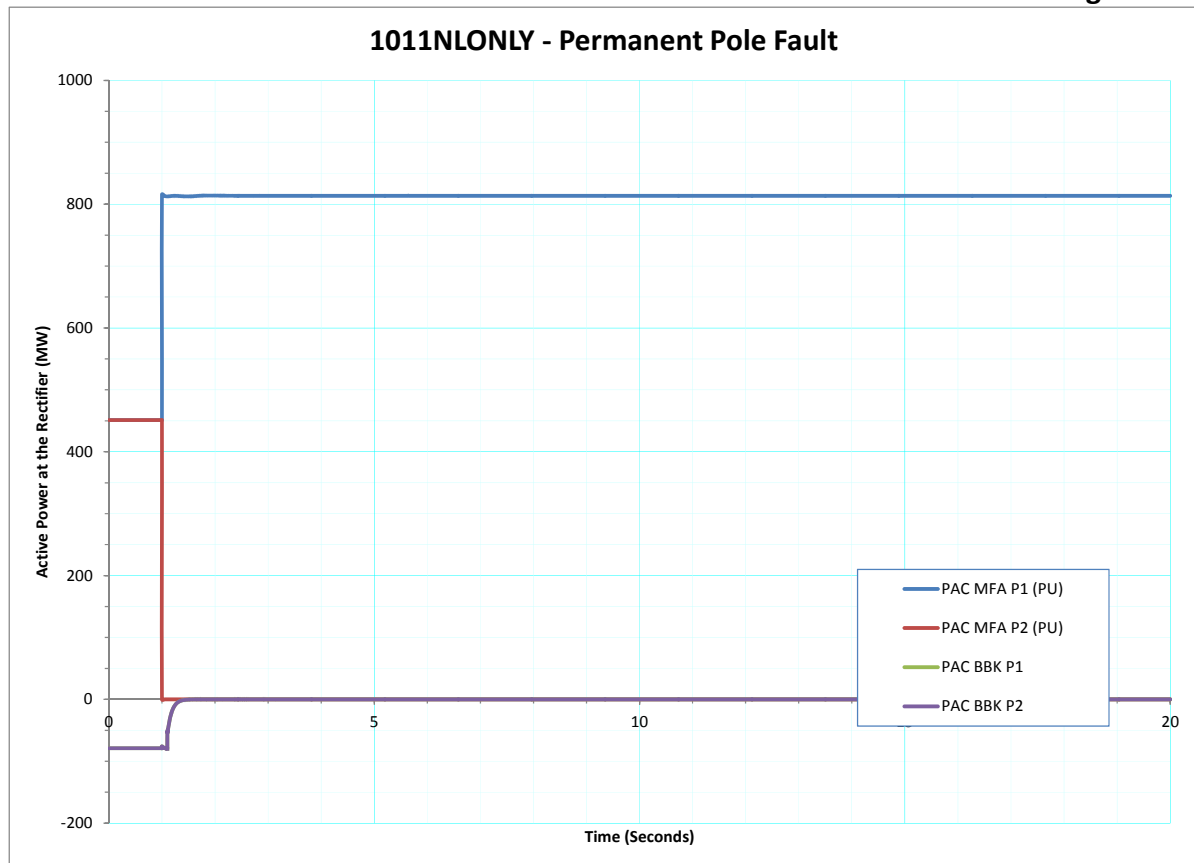
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**Figure 1 - 1011NLONLY - Permanent Pole Fault - Relative Rotor Angle (Degrees)**

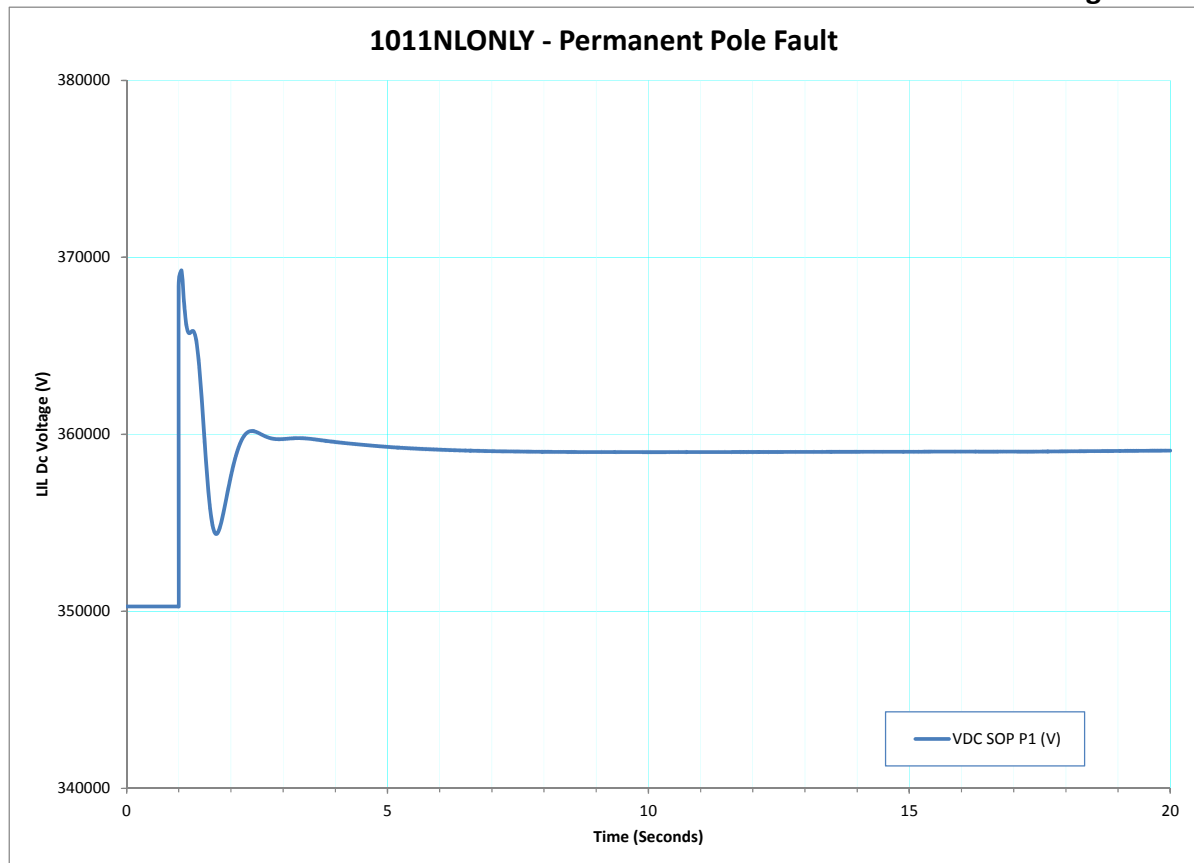


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**Figure 2 - 1011NLONLY - Permanent Pole Fault - System Frequency (Hz)**

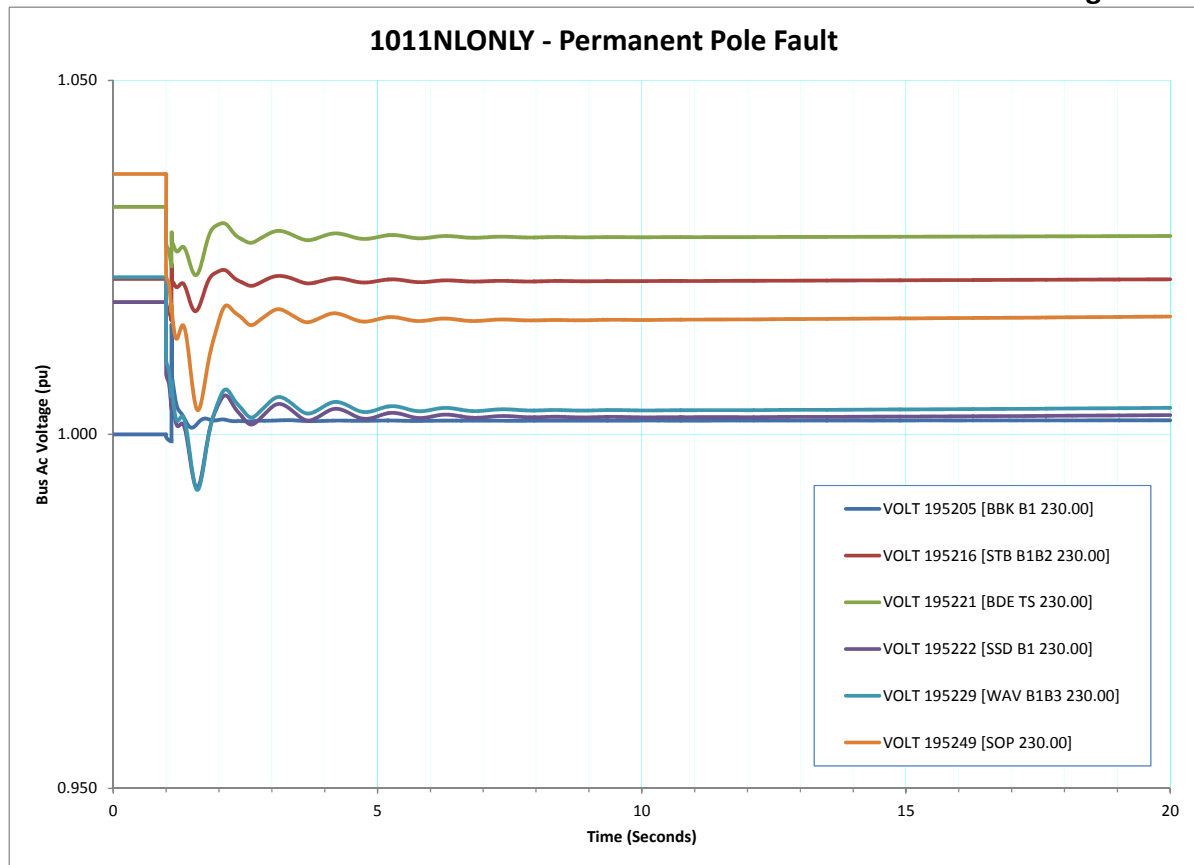


1 **Figure 3 - 1011NLONLY - Permanent Pole Fault - Active Power at the Rectifier (MW)**



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**Figure 4 - 1011NLONLY - Permanent Pole Fault - LIL Dc Voltage (V)**



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**Figure 5 - 1011NLONLY - Permanent Pole Fault - Bus Ac Voltage (pu)**