

- 1   **Q: Reference: *Review of Newfoundland and Labrador Hydro Power Supply***  
2   ***Adequacy and Reliability Prior to and Post Muskrat Falls Final Report, Page 36.***  
3  
4       *"Experience from other bipolar HV de systems shows that most modern HVdc*  
5       *schemes do not experience bipole trips (simultaneous loss of both poles) very*  
6       *frequently -- only every few years. "*  
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8       **Please provide the source reference for the above statement.**  
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11   **A.** Cigre has not undertaken a formal analysis concerning bipole outages declining with  
12    operation. The statement is Dr. Andersen's personal opinion, which is based on  
13    observing performance of HVdc schemes over 40 years. The performance of  
14    reporting HVdc schemes is published every 2 years by Cigre at the Session in Paris.  
15    See also the response to NLH-PUB-004.