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2 Q. What is the approximate cost estimate increase to design the overland HVDC line to  
 3 a 1-in-100 year return period?

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6 A. Table CA.2 of CAN/CSA-C22.3 No. 60828:06 reproduced below indicates that an  
 7 increase from 50 to 100 year return period would increase design wind speeds by  
 8 approximately 7% and glaze ice thickness by approximately 10%.

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CAN/CSA-C22.3 No. 60826:06

Design criteria of overhead transmission lines

**Table CA.2**  
**Factor  $\alpha$  to modify the 50-year-return period weather**  
**variable to any other return period T**  
 (See Clause CA.3.)

Return period (years)	Weather variable	
	$\alpha_w$ (wind speed)	$\alpha_i$ (ice thickness)
25	0.95	0.95
50	1.0	1.0
100	1.07	1.10
150	1.10	1.15
200	1.14	1.20
400	1.18	1.25
500	1.20	1.30

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12 This change is expected to increase the cost of the overland HVdc line by  
 13 approximately \$100 million. This estimate is based on an initial view of the  
 14 proportion of the cost of the overhead line structures in the Labrador – Island Link  
 15 estimate and a scaling of that cost.