

1 **Q: With respect to the development of marginal cost estimates, does the difference**  
2 **in location prices necessarily suggest congestion within transmission networks**  
3 **and the direction of flows?**

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5 A. Page 92 of the report (lines 1-7) states:

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7 “To investigate the potential magnitude and timing of transmission congestion in  
8 the geographic area most relevant to Hydro were it to purchase capacity from ISO-  
9 NE, we examined the LMP separation (price separation) between the Maine zone  
10 in ISO-NE and the Salisbury node in ISO-NE. The Salisbury node is the node  
11 connecting to the New Brunswick network while the Maine zone is the zone closest  
12 to the south of Salisbury. As the table below shows for 2017 and 2018, LMPs tend  
13 to be lower in Salisbury than in the Maine zones. This implies that there is  
14 congestion from north to south.”

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16 Locational Marginal Prices (LMPs) reflect the lowest cost of energy available at  
17 different points within the electric system subject to network constraints. If a  
18 network were to be unconstrained (i.e., power could flow freely without losses  
19 across all points in the system), the LMPs across the system would be uniform  
20 reflecting the same marginal cost of energy. Thus, at a high level, differences in  
21 LMPs reflect constraints (i.e., congestion) in the network. In general, an area with  
22 higher LMPs will be import constrained, indicating that congestion exists for power  
23 flows into that area and preventing the importing of less expensive power.