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**Sent:** July 9, 2019 3:48 PM  
**Subject:** West Kelowna Transmission Project: Delegation Follow Up

Mayor Milsom and council,

At our last delegation to council regarding the West Kelowna Transmission Project, council asked if BC Hydro had considered alternative generation options that could meet local electricity needs. As part of the early planning process for the project, BC Hydro screened a range of non-wire alternatives that could supply the load in West Kelowna's Westbank Substation (WBK). This included combined cycle gas turbine generators, simple cycle gas turbine generators and other non-intermittent generating sources such as geothermal, biomass, biogas and battery storage. Wind turbine generators and run-of-river hydro units were not considered because of their intermittent nature and are not considered a dependable alternative for redundancy of electricity supply.

The option for local generation through combined cycle and simple cycle gas turbine generators would install generators near Westbank Substation and would provide full redundancy of supply at WBK. This means that if the existing transmission line between Nicola Substation and Westbank Substation experienced an outage, these sources of generation would be able to reliably supply West Kelowna and Peachland with electricity. While this alternative could provide a similar level of reliability as a new transmission line, it's anticipated that it would cost significantly more than the transmission line alternatives. Also, this alternative does not align with the Province's *Clean Energy Act* which aims to reduce greenhouse gas emissions as a key objective.

The expected capital costs and risks for all of the non-wire resource alternatives were assessed as part of our process. High capital costs are anticipated for the range of non-wire alternatives. From a risk perspective, the non-wire alternatives offer varying levels of supply redundancy. Non-intermittent resources such as geothermal and biomass offer limited dependable generation capacity and battery storage offers a limited duration of supply (4-6 peak hours).

Given the anticipated high capital costs and the varying level of supply redundancy mentioned above, we have no plans to continue to study any non-wire alternatives. Our efforts are focused on the redundancy alternatives for a new transmission line and the resiliency alternative. As we've discussed with council, given the increase in the estimated cost to build the new secondary transmission line, we're currently undertaking a detailed review of the costs for the redundancy alternatives (new transmission line). We understand that redundancy is a priority for council and want to confirm that the redundancy alternatives are still being considered. At this time, we're also studying the resiliency alternative that focuses on improving the resiliency of the existing transmission line to minimize the risk of outages resulting from forest fires and geotechnical events. We expect to complete our review of costs for all the alternatives this fall. We'll provide council with an update at that time.

Thank you for your ongoing engagement with this project. Please let us know if you have any follow up questions.

Regards,  
Sabrina

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