SITE C CLEAN ENERGY PROJECT

SITE C: COMPARING THE OPTIONS

As part of its long-term planning process, BC Hydro undertook a comprehensive comparison of alternative resource options that could be built instead of Site C (e.g., wind, run-of-river hydro, biomass and natural gas). These findings were detailed in BC Hydro's Integrated Resource Plan, the Site C Environmental Impact Statement, and the Site C Business Case Summary.

Key findings

BC Hydro found that Site C provides the best combination of financial, technical, environmental and economic development attributes, compared to alternatives.

- Lowest cost: Site C will provide the most affordable clean power compared to alternatives. An independent Joint Review Panel stated: "Site C would be the least expensive of the alternatives, and its cost advantages would increase with the passing decades as inflation makes alternatives more costly."
- Energy and capacity: Site C will provide both energy and capacity for the BC Hydro system. Many renewables such as wind, solar and run-of-



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river hydro — are intermittent. This means they are not always available to generate electricity and may not be available at times of peak demand (e.g., when the wind is not blowing, the sun is not shining or the river is not running). Large hydroelectric projects like Site C are always available to provide electricity when needed.

- **Fewer greenhouse gas emissions**: Site C will have the lowest greenhouse gas emissions, per gigawatt hour, compared to other electricity generation options. The Joint Review Panel concluded: *"Site C, after an initial burst of expenditure, would lock in low rates for many decades, and would produce fewer greenhouse gas emissions per unit of energy than any source save nuclear."*
- **Economic development**: Site C has additional benefits compared to other resource options, including contributing more to GDP during construction and providing a higher number of construction jobs than alternative resource options.

With Site C, BC Hydro is taking an essential step to ensure a secure and reliable source of electricity to meet future customer needs. Once in operation, Site C will provide clean, reliable and affordable electricity for more than 100 years.