

**B.C. Utilities Commission
Public Consultation - Victoria, B.C. October 11, 2017
Victoria Convention Centre**

**K.W. Putt, P.Eng., FCAE, FCSSE, FEC, FEIC, FGC
Sooke, B.C.**

©

Thank you for this opportunity to participate in the B,C, Utilities Commission (BCUC) Public Engagement process. My name is Ken Putt, spelled P-U-T-T.

First, let me say that my comments will be qualitative, not quantitative.

Just to get my biases clear at the outset; I believe that green hydro power development from the proposed Site 'C' location on the Peace River represents a strategic resource for British Columbians.

It has been said that, "economists may know the cost of everything but the value of nothing." That seems quite apparent when it comes to their discussion of Site 'C'. For example, while the costs of the proposed project are known fairly well and the various risks have been assessed, the demand for Site 'C's green electric power is still inevitably a big uncertainty. Edward Chancellor, in his "Capital Returns" book reveals that, 'it is much easier to predict the supply side of an industry than the demand side.' This is particularly true for Site 'C' power. Electric vehicle demand is an example. While currently, penetration is limited by high cost, limited range, charging infrastructure, battery technology, even battery material availability, let alone the low current price of gasoline, that electricity demand factor could change quickly,

even between now and the projected 2024 Site 'C' startup. Recently, the People's Republic of China contemplated only allowing electric vehicles in the future to address their atmospheric issues. California is contemplating a similar electric vehicle mandate. In Europe, Shell is undertaking a 'pilot project' to establish electric vehicle 'quick charging' stations in their gas stations. The electric vehicle market is but one example that may induce global warming responsive 'disruptive change.'

Yes, the climate IS changing!. North of us, it's warming faster. South of us, California just ended a five-year drought that almost drained even their largest hydro reservoirs. Increasingly heated arguments over scarce water use priorities occurred; use for state-wide farm irrigation, or for hydro electrical generation to 'feed' their voracious electrical demand.

In the past, B.C. attracted heavy industry such as Alcan's aluminum smelter at Kitimat through inexpensive hydro power from the Kemano hydro development. Since Alcan had proprietary electric power rights, even they cut power to their Kitimat smelters to export electricity during California's time of desperate need and the even higher than normal market prices they necessarily paid for urgent power imports.

In the future, we will be able to attract high tech firms with our new, incremental green hydro-powered electricity. During the long lifetime of Site 'C', we will likely be able to attract high tech industry such as the 'server farms' from Silicon Valley and elsewhere used in 'Cloud Computing.' Don't listen to 'false prophet' consultants from the U.S. , as they will be our competitors both in selling surplus electricity

to California and attracting such future clean power demand-based growth.

Site 'C' will benefit the people of British Columbia for a century and provide legacy low-cost green power for clean economic development and high tech jobs for year's to come. Stopping Site 'C' will waste billions of dollars with no economic or future legacy benefits, while only increasing future power costs and making the Province less competitive in the future.

Thank you for this opportunity to share my thoughts with the Commission.

K.W. Putt

October 11, 2017