

1 **Elenchus Research Associates Inc. Report, August 13, 2021**

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3 PUB-CA-001      **On page 16, lines 20-27 Elenchus states that the validity of the**  
4 **assumption that the grid assets will remain used and useful for the full**  
5 **duration of the expected service life of the asset is “becoming doubtful,**  
6 **however, due to the declining relative cost of behind the meter self-**  
7 **generation and storage, the expanding adoption of behavioural**  
8 **incentives such as demand side management and demand response**  
9 **programs, and increased accessibility to automated load control**  
10 **technologies. These developments reduce both the capacity and the**  
11 **energy requirement for grid-dependent electricity. Put simply, the grid**  
12 **and the utilities that supply customers with electricity through the grid**  
13 **are facing a future where customers have increasingly attractive**  
14 **competitive alternatives to the grid.” What consideration was given to**  
15 **the expressed policy in this province of electrification and the expected**  
16 **increase in the uptake of electric vehicles and other technologies in the**  
17 **coming years?**

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19 RESPONSE:      Elenchus is cognizant of the expectation that the adoption of electric  
20 vehicles is likely to increase the demand for electricity in the next 5 to 10  
21 years, although there is significant debate and uncertainty regarding the rate  
22 of adoption, even with incentives, as well as the persistence of current  
23 government policies that are premised on currently existing technologies  
24 and pricing. The Elenchus Report focusses on the uncertainty of projections  
25 of grid power demand, as distinct from the total electricity demand. The  
26 longer term uncertainty is emphasized, for example, in footnote 28 on page  
27 22, which states:

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29                    *Predicting future demand for grid power, as distinct*  
30 *from the total electricity consumption, is particularly*  
31 *difficult at this time. In the coming decades, significant*  
32 *increases in the penetration of self-generation by all*  
33 *classes of customers is a near certainty. However,*  
34 *policies that are responding to the challenges of*  
35 *climate change are expected to drive policies that drive*  
36 *electrification in the transportation sector and other*  
37 *sectors that are reliant on fossil fuels. The impact of*  
38 *electrification on grid demand is uncertain, however,*  
39 *since hydrogen technologies (e.g., hydrogen fuel cell*  
40 *vehicles) have the potential to disrupt reliance on the*  
41 *grid in the next few decades. The evolving disruptors*  
42 *that make investments that are justified on the basis of*

1                                    *benefits three or four decades into the future are*  
2                                    *particularly problematic.*

3                                    The Elenchus Report is focussed on the prudent approach to facilities  
4                                    planning in the current uncertain world in which there are credible scenarios  
5                                    supporting the very different views that (i) demand for grid power could  
6                                    increase over the next 20 to 50 years, and (ii) demand for grid power could  
7                                    decline over the next 20 to 50 years. To manage risk, it is important that  
8                                    system planning takes into account both possibilities by explicitly assessing  
9                                    the consequences from a planning perspective of each possibility. It follows  
10                                    that it would be prudent to include in the range of alternatives that are  
11                                    identified and assessed for generation and grid investments one or more  
12                                    alternatives that offer flexibility.<sup>1</sup>

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14                                    It is this uncertainty about the evolution of the electricity system that  
15                                    underpins the view of Elenchus that it is prudent to exercise caution in  
16                                    believing the results of any economic analysis of long-lived capital projects  
17                                    that “assume[s] that grid assets will remain used and useful for the full  
18                                    duration of the expected service life of the assets considered.” [page 16,  
19                                    lines 13-15] This concern is particularly significant when the economic  
20                                    analysis is based on a useful life of many decades.

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<sup>1</sup> Elenchus notes that alternatives that have lower initial capital costs also generally have lower short term rate impacts.