

From: Richard Tennant <vanportecologies@gmail.com>
Sent: Tuesday, May 15, 2018 8:25 PM
To: Commission Secretary BCUC:EX
Subject: BCUC REVIEW of CHARGING INFRASTRUCTURE

Reference; Exhibit C1-2 BC Hydro Submission - March 16, 2018 Appendix A; page 1

1.1 BC Hydro states that “This means that AT SOME POINT, electricity must be converted from AC to DC and....whether this conversion happens ONBOARD the vehicle or WITHIN a charging station is an important distinction for charging infrastructure” ..

Aside from reviewing the merits of on board vehicle converters, given that VSI has an interest in building merchant bulk energy storage and related distributed power generation plants that would operate in DC-mode only, please discuss the following statement...

“VSI believes that the overall cost of capitalization/installation/operation of DCFC stations could be significantly reduced if ‘DC-only’ power is supplied directly to the charging station, with backup DC supplied either from a nearby high voltage DC transmission line or from a ‘Community Bulk energy Storage’ that is a micro gas turbine-to-electric or gas/Hydrogen fuel cell electric generator that VSI also generally operates in DC mode with costs of any equipment for AC conversion being the responsibility of the municipality such that the costs are not booked by VSI or are covered in a proposed pipeline transport or treatment tariff applied to municipal industrial effluent for ‘waste-to-energy storage and carbon control operations’