

Addendum to pdf Evidence

The desire to expand Electric Vehicle Charging Station Service (EVS) stems from multiple concerns; from fossil fuel costs and related (uncontrolled) carbon outputs to the interests of those promoting efficient mass autonomous EV infrastructure. No matter what interest motivates EVS system designers the challenge is to develop the most cost-effective and efficient EVS infrastructure.

One caveat is whether debt-burdened public power can be relied on to further subsidize the needed rapid build-out that is needed to put the industry on a self-sustaining basis. Vanport envisions that, in order to leap-frog this caveat and put tens of thousands of EV on the roads by the early 2020's then the financial and physical resources being wasted by government monopolies seeking to maintain the status quo and prevent workable competition must instead be applied to create the productive assets and wealth needed to accelerate development of EVS infrastructure as well as other 'low carbon' alternative fuel vehicles including hydrogen fuel cell electric, hydrogen-enriched renewable natural gas/hythane and dual-fuel hydrogen internal combustion engine vehicles.

Vanport believes such opportunities could result by private financiers enabling our long-proposed seawater pump-up storage hydropower plants that also would to be built and operated (albeit below 49.9 MW threshold of BCUC oversight) as hybrid design systems that also recycle municipal solid and liquid wastes, as well as contaminated soils and EV batteries. This combined multiple bulk energy storage and waste management system would support its own micro grid development and community energy storage network that would compete with municipal 'stand-alone' waste management facility developments that spew CO2 and ignore our competing system design elements and identified markets, as evidenced by the billions being wasted on building obsolete wastewater treatment plants for the CRD and Metro Vancouver that cost 3 x more and will never return a dime to taxpayers.

Our hydro reservoir-connected commercial sewage and storm water reclaim-treatment pipelines will be co-installed with multiple EVS points and elevated transit paid for as construction cost components of building the hydro works. The finance model is comparable to that pioneered by the private builders of the original hydropower plant at JOR and its related tramway network for Victoria, as well as by the current operations of Calpine Corp at 'The Geysers' geothermal plant and its import of effluent from the city of Santa Rosa, California.

Vanport has private financiers willing to purchase and rehab decommissioned hydro reservoirs and nearby underground mines at both JOR and Britannia Mines in return for the right to own the reclaimed wastewater, access/lease identified pipeline-transit corridors and to sell the power and other system outputs. To date, the municipal governments have maintained their silence on these developments and have refused all entreaties to review such proposed options before proceeding with their so-called business plans to build their conventional facilities. In short, we believe we need the BCUC to expose the facts and help in breaking their silence in order meet the challenge to develop cost effective and efficient EVS suited for both EVS and alternative fuel vehicles.

Pump up storage hydro plants are considered 'the ultimate in recycling'. This reputation will be strengthened with their inclusion in an 'eco-industrial' complex which, in addition to the (profitable) reclaim of municipal wastes, will also enable efficient hydraulic capture-compression and reclaim of CO2, as well as to recycle of EV batteries as components of a circular economy that recycles batteries as re-manufactured components suited for operating low power community solar systems; to replace discharged batteries used as 'quick-disconnect' propulsion units for bus transit, trucks or elevated container freight trains; to reclaim battery chemicals and casings including in co-mix with carbon fibres via steam extrusion into panels suitable for manufacture of transit and EV car shells/seats; erosion control devices suitable for forestry applications/earning of carbon credits (see Port Angeles, Wash plant)

The bulk storages, pipelines and transit also would be self-fueled/powerd with carbon-controlled thermal-electric waste-to-energy and/or imported surplus hydro freshet energy or local renewable energy sourced from variable or intermittent sources whereby the storages then increase energy density/capacity and other value factors that could ease a merchant bulk energy storage company to consider to invest heavily in EVS development.