

District Geexchange Feasibility Vancouver Island University Campus



VIU Nanaimo Campus; Photo: VIU

Project Type

DES Feasibility & Options Analysis

Owner and Client

Vancouver Island University

Location

Nanaimo, BC

Year

2010

Project Partner

Altum Engineering Ltd.

Reference

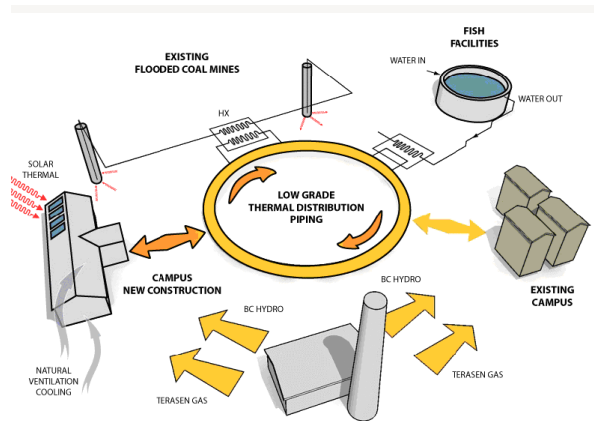
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The VIU Nanaimo campus overlies the former workings of a coal mine abandoned in 1930. Staff on campus recognized the potential to use the flooded mine works as a source and sink for a possible geexchange heating and cooling system. This concept was further shaped and developed in the 2009 VIU Campus Master Plan.

Altum Engineering Ltd. and JDQ Engineering Limited were retained to evaluate the technical and financial feasibility of a mine water-based geexchange district energy system for the existing buildings and the future build-out projected in the Master Plan. The potential for synergistic benefits of including other nearby community buildings to connect with the geo-exchange system, such as the municipal ice arena adjacent to the Campus was also considered.

Site testing, energy requirement projections, and conceptual design development indicated that the potential for developing an efficient and economical mine water-based district energy system is very promising.

VIU has now included plans for mine water-based geexchange systems for the new Health & Sciences Centre and Sport, Health and Wellness Centre within their Five-Year Capital Plan (2015-2020).



Images: VIU Master Plan

