

DEFINITIONS

acid rock drainage	Acid rock drainage occurs when minerals containing sulphide and elemental sulphur are exposed to oxygen and water, and the acidity resulting from the oxidation of sulphur is entrained by water
alluvium	Soil deposited by a river
Bonneville Power Administration	An American federal agency based in the U.S. Pacific Northwest that transmits and sells wholesale electricity in eight western states (Washington, Oregon, Idaho, Montana, Wyoming, Utah, Nevada and California).
Canadian entitlement	The Canadian 50 per cent share of the computed increase in downstream energy and capacity benefits on the Columbia River in the U.S. due to the construction and coordinated operation of Duncan, Keenleyside and Mica storage dams in Canada, as provided for under the Columbia River Treaty (1964).
clearing	The removal of trees and other woody vegetation
cofferdam	Cofferdams are temporary structures used to isolate areas that are ordinarily exposed to water; this enables construction works to be carried out in the dry behind the protection of the cofferdams
colluvium	Rock and soil debris that falls from a slope and accumulates at the base of the slope
combined cycle gas turbine	The combination of combustion and steam turbines to generate electricity from two thermodynamic cycles. Exhaust gases from a combustion turbine flow to a heat recovery steam generator that produces steam to power a steam turbine, resulting in higher thermal efficiency than achievable by operating the combustion or steam turbines individually.
dependable capacity	The maximum generator output that can be reliably supplied coincident with the system peak load, taking into account the physical state and availability of the equipment, and on water or fuel constraints. Same as Dependable Generating Capacity.
discontinuity	A plane or surface that marks a change in physical characteristics in a soil or rock mass. A discontinuity can be, for example, a bedding, foliation, joint, cleavage, fracture, fissure, crack, shear, or fault plane.
distribution system	Electrical lines, cables, transformers and switches used to distribute electricity over short distances from substations to the customer, generally at voltages lower than 69 kV.
draft tube	The bend in the water passage downstream of the turbine runner that provides a gradual expansion to reduce the flow velocity and recover energy by converting kinetic energy into potential energy
effective load carrying capability	The maximum peak load that a generating unit or system of units can reliably supply such that the sum, over a year, of the probability of not meeting peak load on all days will be no greater than one day in ten years.
electricity losses	Reduction in capacity and energy transferred as resistance converts electricity to heat in electrical equipment and along transmission lines.

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energy	The amount of electricity required over a period of time, measured in gigawatt hours per year.
energy capability	Energy capability is the amount of energy that can be generated under specified conditions by a generating unit or by the electric system over a period of time, typically expressed in GWh/year.
grubbing	The removal of surface organic material including stumps, brush, and root matter
heavy/light load hours	Light load hours are the time of day in which off-peak demand occurs. On BC Hydro's system, light load hours are from 10 pm to 6 am, Monday to Friday. Heavy load hours are the time of day in which peak demand occurs. On BC Hydro's system, heavy load hours are from 6 am to 10 pm, Monday to Friday.
overburden	Soils that overlay bedrock
peak demand	Maximum hourly demand on BC Hydro's system, measured in megawatts and is met with dependable capacity.
Project activity zone	Area within which the Project components will be found or will occur, but not including existing transportation infrastructure that will be used without modification to transport materials or personnel required for the Project.
riprap	Large rocks used to armour shorelines, streambeds, bridge abutments, pilings, and other shoreline structures against scour, water, or ice erosion. Rock for riprap must be hard, dense, angular, durable, and able to resist long exposure to weathering. Rocks used for riprap must be large enough to resist displacement by waves or currents, and the riprap layer must be thick enough to accommodate the largest rock required. Riprap is placed on a bedding layer of finer rock to prevent the large riprap settling into the foundation. Riprap is typically classified by weight, average diameter, and the amount of amount of finer and coarser material permitted. For example, rocks acceptable for class 100 riprap have an average weight of 100 kg; also, 85% of the rocks must be 10 kg or heavier, and rocks larger than 300 kg cannot exceed 15% of the total. The average diameter of class 100 riprap is about 450 mm.
roller compacted concrete	A mix of cement, fly ash, water, sand, and aggregate that contains much less water and cementitious material than conventional concrete. RCC is placed in a manner similar to paving; the material is delivered by dump trucks or conveyors, spread by small bulldozers or specially modified asphalt pavers, and then compacted by vibratory rollers.
shotcrete	Concrete conveyed through a hose and pneumatically projected at high velocity onto a surface
simple-cycle gas turbine	A stand-alone generating plant that uses combustion gases to propel a turbine similar to a jet engine connected to an electrical generator.
spring freshet	The term 'freshet' is commonly used to describe the spring thaw resulting from snow and ice melt in rivers in the Pacific Northwest. The Pacific Northwest markets are typically depressed in April through June as a result of spring freshet conditions because the surplus energy volumes from spring runoff are sold in market at a time when demand is low. In more recent times, additions of significant volumes of non-dispatchable wind generation in the region have had a further impact on reducing spring freshet prices.

stoplogs	Horizontal steel beams that are stacked on top of each other to close a water passage. Stoplogs are installed in guides provided on each side of the water passage. Stoplogs have seals on all four sides.
stripping	The removal of topsoil and/or soil containing organic material
substation	An electrical switching station to terminate transmission lines and/or a station at which a substation transforms voltage from high to low, or the reverse, to a level suitable for sub-transmission or distribution systems.
transmission system	Electrical facilities used to transmit electricity over long distances, usually at voltages greater than 69 kV.