Chikuminuk Lake Hydroelectric Project
Proposed Project Features

FEATURE	DESCRIPTION
1.A Dam	
1.A.1 – Dam	128-feet high concrete-faced rockfill dam
1.A.2 – Spillway	Ungated side channel at the left dam abutment
1. B Water Conveyances	
1.B.1 – Intake	25-foot diameter intake tower with floating surface collector
1.B.2 – Tunnels	25-foot diameter unlined tunnel, 600-feet pressurized, 175-feet unpressurized. Two 14-foot diameter unpressurized tunnels leading to powerhouse
1.B.3 – Valve Chamber	Vertical gate shaft
1.B.4 – Manifold / Penstocks	Manifold : 120 feet long, 13-foot to 9-foot diameter Penstocks: 135-feet long & 115-feet long ,9-foot diameter
1.B.5 – Instream Flow Pipeline	4-foot diameter, 450 feet long
1.C Powerhouse	
1.C.1 Powerhouse	150-foot long x 75-foot wide above-grade steel framed structure
1.C.2 Tailrace	75- foot wide by 100-foot long concrete outfall with fish barrier
1.D – Other Project Structures	
1.D.2 Fish Handling Operation	100-foot x 150-foot area with pens and sorting building
1.D.1 Maintenance Shop	50-foot x 100-foot steel framed structure
2. Generating Equipment	
2.A – Estimated Average Energy	88.7 GWh/year
2.B – Number of generating units	Two Francis turbines @ 6.7 MW each for a total of 13.4 MW.
2.C – Turbine rating for each unit	6.7 MW for a total of 13.4 MW
2.D – Generator rating for each unit	7.5 MVA @ 0.9 pf
2.E – Single capacity rating for unit	6.7 MW each
2.F – Existing and/or proposed	None existing / proposed installed capacity of 13.4 MW
2.G – Hydraulic head	Design head =~ 91 feet
3. Site Access	Existing access to the Project location is by air
3.A -- Float Plane Dock	12-foot x 16-foot float plane dock at the end of a 450-foot long x 8-foot wide floating finger, supported laterally by driven piles
3.B -- Heliport	100-foot diameter gravel helipad
3.C – Site Roads	Permanent access road to the powerhouse and dam from the float plane dock
Other Structures	
Operator Housing	Three 24-foot x 60-foot houses for power plant operators
Staging Areas	Staging areas for construction and substation facilities