

Table A-1: Summary of Principal Characteristics

GENERAL	
Installed Generating Capacity	500 MW
Energy Storage Capacity	6,000 MWh Nominal
Average Net Head (Generating)	1,500 feet
Maximum Gross Head	1,536.5 feet
Upper Reservoir	
Gross Volume	5,972 acre feet
Maximum Normal Water Level	EI 2,778.5 AMSL
Minimum Normal Water Level	EI 2,705 AMSL
Inlet Elevation	EI 2,640 AMSL
Embankment Crest Level	EI 2,800 AMSL
Dam Design	Rock filled or RCC dam with face and liner
Max Dam Height Above Foundation	260 feet
Perimeter Dike	None
Water Surface Area at Maximum WL	Approx. 70 acres
Water Surface Area at Minimum WL	Approx. 31 acres
Nominal Evaporation	350 acre/feet/year
Intake/Outlet Structure	Gated reinforced concrete structure equipped with coarse racks
WATER CONDUITS	
Power Shafts	One power shaft, 25 foot diameter, concrete lined, 1,248 feet depth from intake to power tunnel
Power Tunnel	25 foot diameter, 5,747 feet concrete lined and 2,500 feet steel lined from power shaft to penstock manifold
Steel Lined Penstocks	Two 12 foot diameter, approx. 250 feet long from manifold to turbine valves
Tailrace Tunnels	Two 2,450 foot long, 25 feet wide, 25 feet high, concrete lined, 8 percent slope
POWERHOUSE	
Generating/Pumping Equipment	Two 250 MW units during generation (300 MW when pumping) reversible Francis type pump turbines @450 RPM, 20 kV, centerline elevation 1,050 AMSL
Powerhouse Dimensions	375 feet long, 85 feet wide, 175 feet high
Generator Floor Level	EI 1,087.5 AMSL
Distribution Elevation	EI 1,062.7 AMSL
Inlet Valve Floor Elevation	EI 1,035.0 AMSL
Transformer Gallery Dimensions	375 feet long, 50 feet wide, 50 feet high
Surge Chamber	280 feet long, 70 feet wide, 100 feet high
Vertical Access Shaft	250 feet long, 85 feet round, concrete lined
Vent Shaft	250 feet long, 8 foot diameter, PAC lined shaft
LOWER RESERVOIR	
Reservoir	Existing Lake Elsinore
Max Water Surface Elevation	EI 1,249 AMSL
Storage Capacity	68,006 acre feet
Surface Area	3,412 acres
Min. Water Surface Elevation (Proposed Operational)	EI 1,235 AMSL
Min. Water Surface Elevation (Hydro Equipment)	EL 1,225.0 AMSL
Storage Capacity	38,519 acre feet
Surface Area	3,074 acres
EVMWD Target Elevation	EI 1,240.0 AMSL
Maximum Water Level, December/March	EI 1,247.0 AMSL
Nominal Evaporation	15,532.9 acre/feet/year
Intake/Outlet Structure	Reinforced concrete structure equipped with stoplogs and trashracks
TRANSMISSION	
Transformation	20 kV generator voltage to 500 kV transmission voltage in underground transformer gallery adjacent to powerhouse
Primary Transmission	Two loops, 500 kV @1,750 MVA line from main transformers at powerhouse. One largely north appx. 13 SM to the Lake Substation and one generally south appx 19 SM to the Case Springs Substation. A portion underground.
Standby Station Service	Single circuit, 20/13.8 kV @ 5 MVA, 4,800 foot long overhead line

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