

# LAKE ELSINORE ADVANCED PUMPED STORAGE PROJECT

## HIGH LEVEL COST ESTIMATE

2/14/2008

DESCRIPTION	QUANTITY	UNIT	TOTAL
<b>SITE PREPERATION</b>	1	LS	<b>\$ 6,400,000</b>
TRAFFIC MAINTENTANCE	1	LS	
LOWER INTAKE SITE STORAGE	1	LS	
ACCESS ROADS	1	LS	
<b>LOWER RESERVOIR</b>			<b>\$ 24,460,400</b>
INSTALL & REMOVE COFFERDAM	1	LS	
DREDGING	84,000	CY	
DEWATERING	1	LS	
INTAKE EXCAVATION	49,500	CY	
LOWER INTAKE STRUCTURE GROUND SUPPORT	1	LS	
INTAKE CONCRETE/INCL REBAR	4,778	CY	
TRANSITION FROM TUNNEL TO STRUCTURE	500	CY	
INTAKE BACKFILL	36,750	CY	
INTAKE GATES	3	EA	
MISC MECH/ELECT/HOIST/RAKES	1	LS	
TRASH RACKS	110,000	LBS	
<b>POWERHOUSE CAVERN</b>	1	LS	<b>\$ 76,070,500</b>
CAVERN EXCAVATION	141,000	CY	
TRANSFORMER GALLERY EXCAVATION & SUPPORT	55,700	CY	
TRANSFORMER GALLERY/ GATE SHAFTS CONCRETE	3,600	CY	
SHOTCRETE	1,335	CY	
POWERHOUSE ROOF	40,000	SF	
POWERHOUSE CONCRETE	20,000	CY	
MISC EMBEDS	275,000	LBS	
P.H. STRUCTURAL STEEL	3,180,000	LBS	
P.H. ARCHITECTURAL	1	LS	
MAINTENANCE FACILITY	3,200	SF	
ADMIN BUILDING	9,600	SF	
<b>TUNNEL/SHAFTS</b>	1	LS	<b>\$ 219,362,100</b>
ACCESS SHAFTS & CONSTRUCTION ADITS	114,520	CY	
POWER SHAFT INTAKE	1	LS	
POWER SHAFT INTAKE EXC. & LINING	1,275	LF	
CONSOLIDATED GROUTING	30	DAY	
PRESSURE TUNNEL EXCAVATION (4203 LF)	96,000	CY	
PRESSURE TUNNEL SHOTCRETE	2,000	CY	
CONSOLIDATED GROUTING	30	DAY	
PENSTOCK EXCAVATION	2,400	CY	
PENSTOCK ROCKBOLTS	3,000	LF	
PENSTOCK SHOTCRETE	75	CY	
PENSTOCK LINER	1,150,000	LBS	
CONSOLIDATED GROUTING	10	DAY	
PENSTOCK CONCRETE	4,050	CY	
TAILRACE TUNNEL EXCAV (4600 LF)	83,630	CY	
DRAFT TUBE TUNNEL EXCAV	4,465	CY	
DRAFT TUBE TUNNEL ROCKBOLTS	4,830	LF	
DRAFT TUBE TUNNEL SHOTCRETE	100	CY	
DRAFT TUBE TUNNEL LINER	660,000	LBS	
DRAFT TUBE TUNNEL CONCRETE	2,600	CY	
PRESSURE SHAFT & TAILRACE SHAFT FAULT CROSSINGS	115	DAY	

DESCRIPTION	QUANTITY	UNIT	TOTAL
<b>UPPER RESERVOIR</b>			<b>\$ 223,484,800</b>
CLEARING	130	ACRE	
DAM #1 ROCKFILL W/ CONCRETE FACE	5,320,000	CY	
DAM #1 SPILLWAY	468,121	CY	
<b>POWERHOUSE AUXILIARY: MECH</b>			<b>\$ 28,357,500</b>
DEWATERING SYSTEM/EQUIPMENT	1	LS	
HVAC	1	LS	
VENTILATION	1	LS	
FIRE PROTECTION	1	LS	
STATION DRAINAGE/SUMPS/PUMPS	1	LS	
WATER SUPPLY	1	LS	
ISO PHASE BUS DUCTS	1	LS	
ELECTRICAL CABINETS/MISC	1	LS	
LIGHTING	1	LS	
GROUNDING	1	LS	
COMMUNICATIONS/FIBER OPTICS/MICRO	1	LS	
INSTRUMENTATION	1	LS	
STATION BATTERY SYSTEM	1	LS	
DIESEL POWER SYSTEM	1	LS	
POWERHOUSE BRIDGE CRANE	1	LS	
<b>POWERHOUSE TURBINE/GENERATORS</b>			<b>\$ 180,000,000</b>
WATER TO WIRE PACKAGE	1	LS	
<b>JOBSITE INDIRECT &amp; ENGINEERING DESIGN</b>			<b>\$ 100,000,000</b>
JOBSITE INDIRECT	1	LS	
ENGINEERING & DESIGN	1	LS	
<b>SIEMENS AG TUNNEL WORK</b>			<b>\$ 37,830,000</b>
GIL SHAFT 12' DIAMETER	1,500	VF	
GIL POWER TUNNEL	3,500	LF	
GIS SHAFT FOR INTERCONNECT GIL TUNNEL	300	VF	
GIS SHAFT FOR AIR VENTS	300	VF	
GIL INTERCONNECT TUNNEL	8,800	LF	
<b>TOTAL LEAPS CONSTRUCTION COST</b>			<b>\$ 895,965,300</b>