

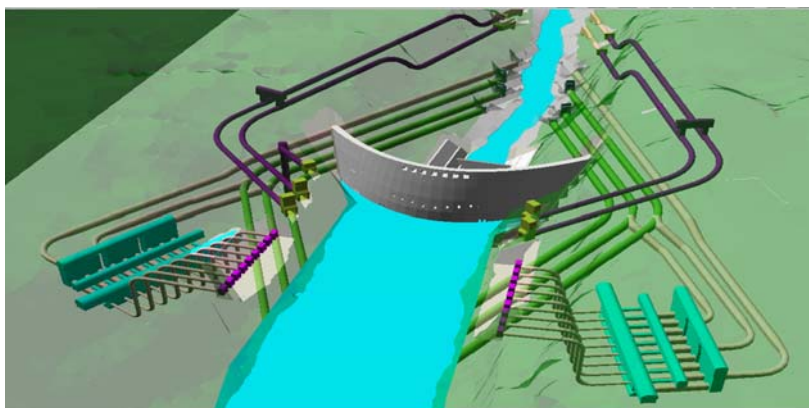
## Xiluodu



Bird's view of Xiluodu Hydropower Project r

Xiluodu Hydropower Project is situated on the Jinsha River reach. It is a huge hydropower project with comprehensive benefits of primary power generation, sediment controlling, flood controlling, downstream navigation improving. The controlled basin area is  $454.4 \times 10^3 \text{ km}^2$ , which is 96% of the whole Jinsha River basin area. The water level in normal storage is 600 m with a total reservoir capacity of 12.67 billion  $\text{m}^3$ , active storage capacity of 6.46 billion  $\text{m}^3$  and flood control capacity is 4.65 billion  $\text{m}^3$ . The key structures consists of dam, power conduit systems and power plants, flood discharge and energy dissipation structures etc. The type of dam is concrete double-curvature arch dam with a crest elevation of 610m and crest length of 700m. The maximum dam height is 278 m. Seven  $12.5\text{m} \times 13.5\text{m}$  surface spillways, eight  $6\text{m} \times 6.7\text{m}$  deep outlets are arranged on the arch dam body. There are five spillway tunnels both on the left and right banks separately. 2 large underground power houses are laid on the both banks separately, each has 9 turbine units with the single capacity of 700MW, the total installed capacity of the project is 12600 MW, the annual average power generation is 57.12 TWh. The power conduit systems are composed of intakes, headrace tunnels, main powerhouses, main transmission caverns, tailrace surge chambers and ground surface switch stations.

The construction of Xiluodu Hydropower Project began on Dec.26<sup>th</sup>, 2005. The total construction period is 12 years and 2 months. It is planned to realize river closure in 2008. The project static investment is 45.928 billion RMB based on the 2001's price level.

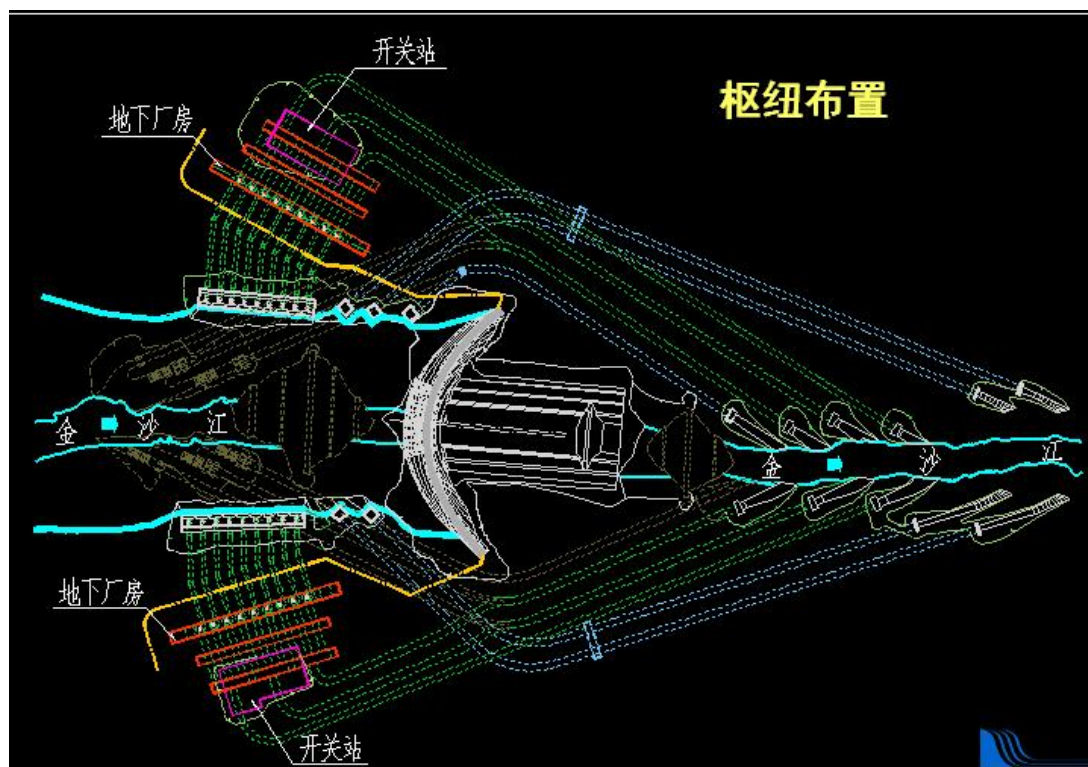


3-D sketch map of Xiluodu Hydropower Project

### General Features

## Main features

Item	Unit	Parameters	Item	Unit	Parameters
normal storage W.L.	m	600	maximum dam height	m	278
flood control W.L.	m	560	earth-rock excavation	m <sup>3</sup>	19.6788×10 <sup>6</sup>
dead W.L.	m	540	earth-rock pouring	m <sup>3</sup>	2.6856×10 <sup>6</sup>
total reservoir storage capacity	m <sup>3</sup>	12.67 billion	rock excavation of the cavern	m <sup>3</sup>	15.7557×10 <sup>6</sup>
active capacity	m <sup>3</sup>	6.46 billion	concrete and steel concrete	m <sup>3</sup>	13.0546×10 <sup>6</sup>
installed capacity	MW	12600	construction period	month	42
average output in low water period	MW	3395~6657	electricity generation period	month	108
mean annual electricity generation	TWh	57.12~64.06	total working period		12 years and 2 months
inundated population		39467	total static investment	RMB	44.573 billion
dam type		concrete double-curvature arch dam	total investment	RMB	60.334 billion
basic intensity of earthquake		VIII	static investment per kW	RMB/kW	3538
crest elevation	m	610.00	static investment per electricity energy unit	RMB/kWh	0.78



Layout of Xiluodu Hydropower Project