

## ADIL GROUP OF COMPANIES

HEAD OFFICE: 93-A, AIBAK BLOCK, NEW GARDEN TOWN, LAHORE- PAKISTAN Tel:+92 (42) 35941571 & 73 Email: info@slcmetal.com

COMPANIES: ADIL TEXTILE MILLS LIMITED NETCO RENTAL SERVICES A&SFOODS GILGIT BALTISTAN MOUNTAIN SEEDS SC ENTERTAINMENT PVT. LTD. HAJIRA BIBI Mem. Wef. Soc.

A.S ENERGY CONSULTANTS MANDI BAHA-UD-DIN ENERGY LIMITED SLC METAL & REFINING PVT. LTD.

## Synopsis of the Project

Mandibahauddin Hydro Electric Power Project is located along RD 2+000 along Lower Jhelum Canal Feeder near Rasul Barrage about 10 km from Mandibahauddin Town in District Mandibahauddin of the Punjab Province. The project has the capacity of 3.3 MW and will generate 19.007 GWh of energy annually. Powerhouse and bottom outlets would be located at RD 2+000 in the existing canal. The head available at RD 8+626 and RD 0+000 would be combined for development of this Hydro Electric Power Project. Two Pit type Kaplan Turbines would be installed. Three bottom outlets with hydraulically operated vertical gates would be provided as bypassing structure in case of load rejection on turbine units. NTDC 132 KV Grid at Mandibahauddin about 10 km from project site be used for interconnection through 11 KV line.

Mandibahauddin Hydro Electric Project site is located in District Mandibahauddin, Panjab Province. The project is accessible by air, good roads and railway network. The project area is located about 10 km from Mandibahauddin,61 km from Gujrat, 175 km from Lahoreand 157 km from Islamabad. The nearest Railway station is Mandibahauddin. Allama Iqbal International Airport Lahore and Benazir Bhutto International Airport Islamabad are the nearest airports. The site is accessible via Motorway M2 and GT road from Lahore, Islamabad and Karachi.

Mandibahauddin Power Company got the Letter of Interest (LOI) on April 18, 2016 from Punjab Private Power Development Board (PPDB). The PPDB's authorization is in accordance with the Government of Punjab's "Punjab Power Generation Policy, Year 2006" (the Policy) revised during 2009 to encourage private-sector infrastructure investments. The proposed project has to be developed along Lower Jhelum Canal Feeder RD 8+626 where a fall having head of 3.66 m exists.



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Location of the Project	Plant Factor
Located 10 km from Mandibahauddin, and 157 km north of Lahore.	65%
Head Race Canal	TailraceCanal

**Salient Features:** 

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OFFICE: Bed Width = 36 m N TOWN, Side Stopes = 2 : 1 (42) 35941571 & 73	ADIL TEXTILE MILLS LIMITE NETCO RENTAL SERVICES A & S FOODS GILGIT BALTISTAN MOUNTA HAJIRA BIBI Mem. Wef. Soc.	Side Slopes	36 MERGY CONSULTANTS ANDI BAHA-UD-DIN ENERGY L 20 METAL & REFINING PVT. LTI 2 ENTERTAINMENT PVT. LTD.	
Powerhouse – Machine Hall		Economic & Financial Analysis		
Length	= 36 m	EIRR	= 20.39 %	
Width	= 8.97 m	FIRR	= 17.92 %	
		BC Ratio	= 1.51:1	
Hydro Mechanical	Equipment	Project Cost		
No. of Units	= 2	Base Cost	= 1747.167M Rs.	
Installed Capacity	= 3.3 MW	Base Cost	= 16.561 M US\$	
Energy Potential	= 19GWh	Cost/MW	= 6.39 M US\$	
Type of Turbine	= Horizontal Pit Type			
Runner Dia= 2.1 m	L	Project Cost	= 2225.666M Rs.	
Unit Speed = 317.4 rpm		with IDC and taxes		
UnitDisch. $=$ 3	$30 \text{ m}^3/\text{Sec}$			
Rated Head =	6.75 m	1US\$ = 105.5	5Rs	
Bottom Outlet Design Discharge = $187 \text{ m}^3/\text{sec}$ No. of Gates = $3$		Tariff		
		Levelized tariff 11.748 US Cents kWh or		