

NEELUM JHELUM HYDROELECTRIC PROJECT

KEY FACTS

Project Duration Proposed:	July 2002 – June 2010
Gross Head:	420 metres (original plan of 213 metres)
Dam Height:	148 feet
Water Diverted:	280 m ³ /sec
Length of Headrace Tunnel:	32.5 km (original plan of 28.49 km)
Power Generation Capacity:	963 MW (original plan of 500 MW)
Annual Energy Production:	5,150 GWh
Generation Cost:	Rs 1.82 per KWh

1.0 PROJECT OVERVIEW

The original PC-1 of the Neelum Jhelum Hydroelectric Project was approved by ECNEC in December 1989 for an amount of Rs. 15,012 million. According to original plan, the waters of the River Neelum were envisaged to be diverted at Nauseri, 41 km upstream of the Domel bend through tunnels to create a head of 213 metres by a 28.49 km long headrace tunnel, outfalling near Majhoi near the upper limb of the River Jhelum to generate 500 MW of power. However, during the feasibility study conducted by NORCONSULT, the Ministry of Water and Power agreed on an improved option of diverting water in a single stretch through a 32.5 km tunnel to generate 963 MW of power.

The final plan of the Neelum Jhelum Hydroelectric Project intends to utilize a gross head of 40 metres by diverting 280 m³/sec of water of the Neelum River flows from Nauseri, 41 km upstream of Muzaffarabad, to the lower limb of Jhelum River through a 32.5 km long headrace tunnel system which will travel in the mountainous region. Four vertical shaft Francis turbines will be installed in an underground power station to generate 963 MW of electricity.

2.0 CURRENT STATUS

The detailed engineering plan of the revised project was completed in 1997 under a mixed credit arrangement. The revised project was offered to the Private Power Cell of the Government of AJK through the Private Power Infrastructure Board (PPIB) for the involvement of the private sector. The revised PC-1 has been cleared from ECNEC as a top priority project and is awaiting arrangements for funding.

The cost of the project according to new PC-1 is Rs. 94,825.85 million including the foreign exchange component. WAPDA envisages spending Rs 46.0 million in the year 2001-02. The construction period of the project will be 8 years.

REFERENCES

1. Pakistan Water & Power Development Authority, "PC-1 Proforma for Neelum-Jhelum Hydroelectric Project", Hydroelectric Planning Organization, May 2001
2. Planning Commission, Govt of Pakistan, "Federal Govt Public Sector Development Programme 2001-2002", June 2001.
3. Pakistan Water & Power Development Authority, "Annual Report 1999-2000", 2001.
4. Pakistan Water & Power Development Authority, "Monthly Progress Report for February 2002", Hydroelectric Planning Organization, March 2002.