

Pehur Hydro-Power Project: Pehur Hydropower Project (PHPP) is located in the Swabi District approximately 1 km south of Gadoon Industrial Estate. It was conceived in 1993 during the feasibility study of the PHLC Project. However, the detailed Feasibility Study of Pehur HPP was conducted in 2000-01 and found it to be an independent component of the Pehur High Level Canal (PHLC) Project, which is located on the right bank of the Indus River immediately downstream of the Tarbela Reservoir. The Gandaf Pressure Tunnel is the major component of the PHLC Project, which off-takes from the Tarbela Reservoir at an elevation of 393.20 m above sea level. Hence, it offers a considerable hydropower potential at the downstream end of the Gandaf Tunnel. Two turbines with a design head of 68 m will be used during the high head range, and one turbine with a design head of 44 m will be used during the low head range.

In this option, 85% of the available power potential and discharge can be utilized. The total installed capacity is 18 MW, and the average annual energy output is estimated as 57.7 GWh with a plant factor of about 41%. The Pehur Hydropower Project (PHPP) is located in the Swabi District approximately 1 km south of Gadoon Industrial Estate, which is situated at a distance of 1 km from the Gandaf Tunnel. The idea of PHPP was conceived in 1993 during the feasibility study of the PHLC Project. However, the detailed Feasibility Study of Pehur HPP was conducted in 2000-01 and found it to be an independent component of the Pehur High Level Canal (PHLC) Project, which is located on the right bank of the Indus River immediately downstream of the Tarbela Reservoir at an elevation of 393.20 m above sea level. Since the highest and lowest water retention levels of the Tarbela Reservoir fluctuate between 393.20 m and 385.20 m, the Gandaf Tunnel has a design head of 68 m. Two turbines with a design head of 68 m will be used during the high head range, and one turbine with a design head of 44 m will be used during the low head range. The total installed capacity is 18 MW, and the average annual energy output is estimated as 57.7 GWh with a plant factor of about 41%. The project is being constructed with a considerable low cost.

Since most of the civil works and infrastructure involved for the hydropower production, including intake structure, water conveyance facilities, and disposal channel, were readily available as components of the PHLC Project, the Government of Khyber Pakhtunkhwa had decided to implement the project.

SALIENT FEATURES OF THE PROJECT:

Location	Swabi	Capacity	18 MW
Length	4.7 km	Diameter	3.1 m in steel lined & 3.4 m in concrete lined
No. of Units	3	Unit Capacity	6 MW each
Turbines Type	Horizontal Axis Francis Turbine	Available Net Head	Varies from 29 m to 85 m
Annual Energy Output	57.7 GWh		

PROJECT COST: The Project cost is approximately Rs. 1.0 billion. The funding for the project has been met through provincial annual development programme (ADP) and Hydel Development Fund (HDF) on an equal share basis.