

## SBF Project Implementation Monitoring Report

### Pakistan: Tarbela 5 Hydropower Extension Project

#### 1. Project Information

Project ID:	000005	Investment Number:	L0005A
Member:	Pakistan	Region:	Southern asia
Sector:	Energy	Sub-sector:	Large hydropower generation
AIB Financing Type:	Loan: 300 USD million	Co-financier(s):	WB (IBRD)
E&S category:	A	Borrower:	Islamic Republic of Pakistan
Red Flags Assigned:	3	Monitoring Regime:	Enhanced Monitoring- Level II
Implementing Agency:	Water and Power Development Authority (WAPDA), National Transmission and Dispatch Company (NTDC)		
Project Team Leader:	Ghufran Shafi		
Project Team Members:	Liu Yang, Project Counsel - Investment Operations Marife Principe, Senior Social Development Specialist Shonell Robinson, Financial Management Specialist Yunlong Liu, Senior Procurement Specialist Zhixi Zhu, Environmental Specialist		
Completed Site Visits by AIB:	Nov, 2017  May, 2019 Visits by WB  Oct, 2019 Visits by WB  Dec, 2020 Consultation with WB after its Mission		
Planned Site Visits by AIB:	AIB visit will be planned after the Covid-imposed travel restrictions are eased by the Bank.		

#### 2. Project Summary and Objectives

To facilitate the sustainable expansion of Pakistan's electricity generation capacity providing a low cost, clean, renewable energy option. The Project will add capacity of 1,410 Megawatt (MW), with annual electricity generation of over 1,800 Gigawatt-hours (GWh), primarily during the summer season when demand is highest. The total capacity at Tarbela with the induction of Tarbela 5 Hydropower extension will become 6,928 MW and annual average generation is expected to increase to 19,000 GWH.

The shortages of energy have held back Pakistan's economic performance. The project will support generation of low-cost renewable energy during the peak demand period of summer months when shortages are at their worse. Increased supply at competitive prices from from the project would support economic growth for all enterprises that use electricity, regardless of size or sector. In addition to increasing the supply thus reducing load shedding it will also supplement government's reform program to reduce power sector subsidies and improve its financial viability by reducing the dependence on imported fuels and lowering the cost of supply.

#### 3. Key Dates

Approval:	Sep. 27, 2016	Signing:	Jan. 18, 2017
Effective:	Aug. 11, 2017	Restructured (if any):	
Orig. Closing:	Jun. 30, 2022	Rev. Closing (if any):	

#### 4. Disbursement Summary (USD million)

a) Committed:	300	b) Cancellation (if any):	
c) Disbursed:	3.76	d) Most recent disbursement: (amount / date)	0.814, Dec. 31, 2020
e) Undisbursed:	296.24	f) Disbursement Ratio(%) <sup>1</sup> :	1.3

<sup>1</sup> Disbursement Ratio is defined as the volume (i.e. the dollar amount) of total disbursed amount as a percentage of the net committed volume, i.e.,  $f = c / (a - b)$

## 5. Project Implementation Update

Project implementation was delayed because of delays in selection of Construction Supervision Consultant (CSC) which, in turn, also delayed the procurement of construction contracts. The T5HP designs were finalized after extensive additional geotechnical and site investigations. After coming on board, CSC updated the forecast of electricity generation, and confirmed the constructability of the project. The analysis confirmed the strong economic returns of the T5HP and that the costs are within the budget provided for the project at approval in 2016.

After pre-qualification of civil and electro-mechanical contractors, tendering process has commenced. Bids for the two main contracts (i) works contract for construction of powerhouse connection to tunnel and intakes; and (ii) supply and installation of electro-mechanical equipment and substation were respectively received on November 25 and 26, 2020. Bids are presently under evaluation and contracts are expected to be awarded by end Q1, 2021 (civil works) and Q2, 2021 (electro-mechanical works).

Components	Physical Progress	Environmental & Social Compliance	Procurement
Component A: Powerhouse and Tunnel Works (USD133.2 M)	0	An Environmental and Social Assessment (ESA) of the Project, prepared jointly by WAPDA and National Transmission and Dispatch Company Ltd. (NTDC), considers adverse environmental and social issues likely to arise during the complete project cycle, including the preconstruction, construction, and operation phases	Delayed. However WAPDA has initiated the tendering process after pre-qualification of contractors. Bids have been received which are presently being evaluated.
Component B1: Turbines generators and related equipment (USD110.6 M)	0	An Environmental and Social Assessment (ESA) of the Project, prepared jointly by WAPDA and National Transmission and Dispatch Company Ltd. (NTDC), considers adverse environmental and social issues likely to arise during the complete project cycle, including the preconstruction, construction, and operation phases	Delayed. However WAPDA has initiated the tendering process after pre-qualification of contractors. Bids have been received which are presently being evaluated.
Component B2: Transformers, switchyard electrical connection (USD30.1 M)	0	An Environmental and Social Assessment (ESA) of the Project, prepared jointly by WAPDA and National Transmission and Dispatch Company Ltd. (NTDC), considers adverse environmental and social issues likely to arise during the complete project cycle, including the preconstruction, construction, and operation phases	Delayed. However WAPDA has initiated the tendering process after pre-qualification of contractors. Bids have been received which are presently being evaluated.

### Financial Management:

No AIIB disbursement has been made yet. However, WAPDA is preparing audited financial statements which will be submitted in Q1.

## 6. Status of the Grievance Redress Mechanism (GRM)

A Project-specific Grievance Redress Mechanism will be used for the Project. It will address any complaints from the community during the implementation phase. A tripartite Grievance Redress Committee on labor issues has been operational during Tarbela 4 Hydropower Project and will continue to address labor complaints and employment issues under the Project. Health hazards to labor will be managed through comprehensive training and provision of protective equipment. Further, labor camps required during the construction phase will be carefully built or existing sites will be upgraded to ensure that living conditions are healthy and do not lead to any conflicts. A Labor Monitoring Plan will also ensure that suitable working conditions are in place.

## 7. Results Monitoring

Project implementation is delayed and major works are still under procurement. There is therefore no results to report.

Baseline Year: Jan. 1, 2017 End Target Year: Jun. 30, 2020

Project Objective Indicators	Year	Target	Actual	Others, if any
Indicator #1: Generation Capacity of Hydropower Constructed Under the Project (MW)	Jan. 1, 2022	1410	-	
Indicator #2: Electricity supply of renewable energy annually (GWh)	Jan. 1, 2018	17,200GWh	-	
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Indicator #2: Electricity supply of renewable energy annually (GWh)	Jan. 1, 2020	17,200GWh	-	
Indicator #2: Electricity supply of renewable energy annually (GWh)	Jan. 1, 2021	19,000GWh	-	
Indicator #2: Electricity supply of renewable energy annually (GWh)	Jan. 1, 2022	19,000GWh	-	
Indicator #3: Availability of generation capacity during summer months (MW)	Jan. 1, 2018	4,888MW	-	
Indicator #3: Availability of generation capacity during summer months (MW)	Jan. 1, 2019	4,888MW	-	
Indicator #3: Availability of generation capacity during summer months (MW)	Jan. 1, 2020	4,888MW	-	
Indicator #3: Availability of generation capacity during summer months (MW)	Jan. 1, 2021	6,298MW	-	
Indicator #3: Availability of generation capacity during summer months (MW)	Jan. 1, 2022	6,298MW	-	
Indicator #4: Preparation of hydropower project, completion of pilot solar project and capacity building program (%)	Jan. 1, 2018	40%	-	
Indicator #4: Preparation of hydropower project, completion of pilot solar project and capacity building program (%)	Jan. 1, 2019	60%	-	
Indicator #4: Preparation of hydropower project, completion of pilot solar project and capacity building program (%)	Jan. 1, 2020	80%	-	
Indicator #4: Preparation of hydropower project, completion of pilot solar project and capacity building program (%)	Jan. 1, 2021	100%	-	
Indicator #4: Preparation of hydropower project, completion of pilot solar project and capacity building program (%)	Jan. 1, 2022	100%	-	
Indicator #1: Generation Capacity of Hydropower Constructed Under the Project (MW)	Jan. 1, 2017	0 MW	-	
Indicator #2: Electricity supply of renewable energy annually (GWh)	Jan. 1, 2017	14,175GWh	-	
Indicator #3: Availability of generation capacity during summer months (MW)	Jan. 1, 2017	3,478MW	-	
Indicator #4: Preparation of hydropower project, completion of pilot solar project and capacity building program (%)	Jan. 1, 2017	20%	-	

Intermediate Result Indicators	Year	Target	Actual	Others, if any
Indicator #1: Component A. Construction of T5 power house and connection to Tunnel 5	Jan. 1, 2018	20%	-	
Indicator #1: Component A. Construction of T5 power house and connection to Tunnel 5	Jan. 1, 2019	40%	-	
Indicator #1: Component A. Construction of T5 power house and connection to Tunnel 5	Jan. 1, 2020	80%	-	
Indicator #1: Component A. Construction of T5 power house and connection to Tunnel 5	Jan. 1, 2021	100%	-	
Indicator #1: Component A. Construction of T5 power house and connection to Tunnel 5	Jan. 1, 2022	100%	-	

Indicator #2: Component A. Construction of intake modification for Tunnel 5	Jan. 1, 2019	20%	-	
Indicator #2: Component A. Construction of intake modification for Tunnel 5	Jan. 1, 2020	40%	-	
Indicator #2: Component A. Construction of intake modification for Tunnel 5	Jan. 1, 2021	80%	-	
Indicator #2: Component A. Construction of intake modification for Tunnel 5	Jan. 1, 2022	100%	-	
Indicator #3: Component B. Installation of number of power units on Tunnel 5	Jan. 1, 2021	3	-	
Indicator #3: Component B. Installation of number of power units on Tunnel 5	Jan. 1, 2022	3	-	
Indicator #4: Component B. Construction of T5 Switchyard	Jan. 1, 2018	20%	-	
Indicator #4: Component B. Construction of T5 Switchyard	Jan. 1, 2019	40%	-	
Indicator #4: Component B. Construction of T5 Switchyard	Jan. 1, 2020	80%	-	
Indicator #4: Component B. Construction of T5 Switchyard	Jan. 1, 2021	100%	-	
Indicator #4: Component B. Construction of T5 Switchyard	Jan. 1, 2022	100%	-	
Indicator #5: Component B. Transmission line for power evacuation	Jan. 1, 2018	20%	-	
Indicator #5: Component B. Transmission line for power evacuation	Jan. 1, 2019	40%	-	
Indicator #5: Component B. Transmission line for power evacuation	Jan. 1, 2020	80%	-	
Indicator #5: Component B. Transmission line for power evacuation	Jan. 1, 2021	100%	-	
Indicator #5: Component B. Transmission line for power evacuation	Jan. 1, 2022	100%	-	
Indicator #1: Component A. Construction of T5 power house and connection to Tunnel 5	Jan. 1, 2017	0	-	
Indicator #2: Component A. Construction of intake modification for Tunnel 5	Jan. 1, 2017	0	-	
Indicator #3: Component B. Installation of number of power units on Tunnel 5	Jan. 1, 2017	0	-	
Indicator #4: Component B. Construction of T5 Switchyard	Jan. 1, 2017	0	-	
Indicator #5: Component B. Transmission line for power evacuation	Jan. 1, 2017	0	-	

**Remarks:** Since the project implementation is still under procurement stage, no result has been generated.