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ENERGY POLICY PROGRAM TARBELA VISIT REPORT

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USAID/PAKISTAN: ENERGY POLICY PROGRAM (EPP)

Tarbela Visit Report

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1. Purpose of Visit

A visit to Tarbela Hydro Power Plant was conducted on February 7, 2015 by EPP Chief & Deputy Chief of Party along-with EPP engineers to;

- i. Inspect the equipment arrived and installed at power station under Tarbela phase-II funding - Generator Surface Air Coolers, and Static Excitation System.
- ii. Expedite the procurement of the remaining three items of Tarbela Phase I – Generator Rotor Poles, SCADA System, and Small drainage pump.
- iii. Expedite the opening of accounts for Tarbela Phase II.
- iv. Discuss the staff for which capacity building is required.
- v. Discuss the damages found by WAPDA engineers at Unit-11 during the annual inspection.

In this regard, EPP staff met with Tarbela Chief Engineer and relevant WAPDA staff.

2. Site Visit

Tarbela Chief Engineer welcomed EPP staff and afterwards gave a presentation to highlights the salient features of Tarbela power plants, status of the works under USAID funding (Phase-I & Phase-II) and the damages found by WAPDA at Unit-11 during the annual inspection.



Figure 1: Chief Engineer of Tarbela Power Plant giving presentation to EPP staff

On Capacity Building of WAPDA/Tarbela staff, Chief Engineer informed that the appropriate staff for on-plant training would be Junior Engineer, Sub-Engineer, Middle level Professionals, and Operators.

After the presentation, EPP visited the control room and at the time of visit the plants was generating 589.3 MW and only five units out fourteen were operating and rest were under shutdown due to low reservoir head and maintenance works.



Figure 2: Control Room of Tarbela Power house

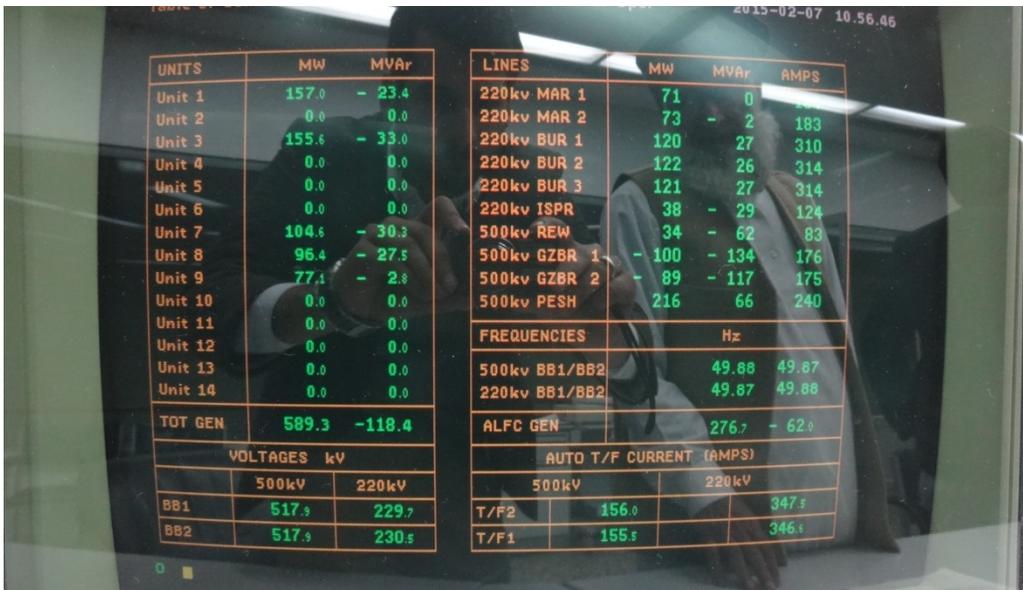


Figure 3: Unit Wise Power generation data at the time of visit

On Phase-I, Major equipment's have been received and installed at site. While procurement of remaining three equipment's Generator Rotor Poles, SCADA System, and Small drainage pump are underway. Chief Engineer informed that WAPDA Engineers are undertaking Factory Acceptance test of SCADA System at ABB Sweden and its shipment is scheduled to arrive at Karachi in April, 2015. The

installation and testing/ commissioning tests are expected to complete in August, 2015. EPP inspected the operation of newly installed digital governors. EPP also advised WAPDA to expedite the procurement of the remaining equipment to complete the project by December 2015.



Figure 4: EPP inspected the working of digital governors at Unit 1



Figure 5: Digital Governor installed at Unit 1

On Phase-II, WAPDA has opened the Operation and Maintenance Account at Habib Bank Limited, Topi, KPK and approval to establish a special dollar account is in advance stage and expected to be established in Feb 2015. These conditions are necessary to meet before any disbursement being made under phase-II funding. Further, two equipment's Generator Surface Air Coolers for Unit 1-4 & 11-14, and Static Exciter for Unit 5 & 6 arrived at power station. The installation of Static Exciter at Unit 5 & 6 and

Generator Surface Air Coolers at Unit 1 are completed and EPP engineers inspected their operation and ensured that they are performing satisfactorily. WAPDA can claim about \$3.1 million after opening of the assignment account as Generator Surface Air Coolers for Unit 1-4 & 11-14, and Static Exciter for Unit 5 & 6 have been received and partially installed at site.



Figure 6: Static Exciter System installed at Unit 5 under Tarbela Phase-II



Figure 7: Inspection of Static Exciter System installed at Unit 5 under Tarbela Phase-II



Figure 8: Inspection Static Exciter System installed at Unit 6 under Tarbela Phase-II



Figure 9: Inspection of Surface Air Coolers at Unit-1 under Tarbela Phase-II



Figure 10: Inspection of Air Coolers at Unit-1 under Tarbela Phase-II



Figure 11: Inspection of Air Coolers at Unit-1 under Tarbela Phase-II

EPP also see the damages found by WAPDA Engineers in the draft tube of Unit-11 during the annual inspection through runner inspection gate. Chief Engineer informed that the damages will be repaired with-in the current lean water period and will take 2 months. WAPDA also provided the pictures and video of the damages at draft tube of Unit 11.



Figure 12: Inspecting the draft tube of Unit 11 through inspection gate



Figure 13: Inspection gate of Unit 11



Figure 14: Damages at draft tube of Unit 11



Figure 15: Damages at draft tube of Unit 11



Figure 16: Damages at draft tube of Unit 11



Figure 17: Damages at draft tube of Unit 11

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