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ENERGY POLICY PROGRAM GOLEN GOL HYDROPOWER PROJECT VISIT REPORT

APRIL 2015

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USAID/PAKISTAN: ENERGY POLICY PROGRAM (EPP)

Golen Gol Hydro Power Project Visit Report

Contract No: AID-EPP-I-00-03-00004 **Order No:** AID-391-TO-12-00002

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1. Purpose of Visit

A team of EPP engineers visited the Golen Gol Hydro Power Project (GGHPP) to determine the mode and feasibility of incorporation of USAID funding in the ongoing project and also to evaluate the site conditions. The team assessed the problems for the delay in the project and advised WAPDA on crucial standing of USAID on timely completion of the project. During the visit the team met with the Project Director GGHPP Mr. Mir Zaman and his team. The team also consulted with the Contractors and Consultant for proper assessment of on ground conditions.

2. Status of Project

The accumulated overall progress of the project as of April 2014 is 32.1%. It must be emphasized that as of Dec 2014 the project progress is less than 1%. The project had suffered extensively due to contractual and managerial issues.

Completion date as of Original PC-1 was January 2015 but was extended due to delay in Lot-2 by 1 year and Lot 3.1, 3.2 and Lot 4 by more than 2 years.

The new anticipated date is November 2017. Project Implementation Schedule for the anticipated date of November 2017 is attached as Annexure A.

3. Highlighted Issues

3.1 Environmental NOC for Transmission Lines.

According to the decision on EIA of GGHPP by EPA Govt. of KPK it was indicated that as per PEPA 1997 a separate EIA report should be submitted for transmission lines. This issue was also highlighted in the Due Diligence Report GGHPP of Jan 2015.

WAPDA claimed that they have submitted the EIA and are waiting for approval. It was emphasized that WAPDA should get the approval as soon as possible.

3.2 Status of E&M Contractor

The E&M contractor has mobilized and is in process of establishing an office at the site. E&M contractor submitted a schedule of works with the completion date of April 17. However the contractor has submitted an Extension of time (EOT) claim to the Consultant and completion date is liable to change as per EOT claim conclusion.

It should be further highlighted that the 2nd Mobilization Advance (15%) of E&M contractor is pending as of May 2014. Delay in such payment will result in EOT claims.

Furthermore the E&M contractor is still awaiting design approval from the Consultant. The Consultant admittedly, has not mobilized the design team to site pertaining to the approval of Amendment-2 (further discussed in 3.3). This non-correspondence between the Contractor and Consultant has caused serious delay in Lot 3.2 progress.

3.3 Consultants Agreement

One of the major issue for current delay in the project is the Consultants claim for extension of man months; referred in the documents as Amendment 2. The Consultant claim that 90 % of their man months have been consumed. The Consultant further clarified that due to pending approval of Amendment 2, they were unable to mobilize their design team. The WAPDA Authority has recently approved the Amendment 2 of the consultancy agreement on 15th April 2015. However, the amendment was for the final foreseen date of August 2015.

According to the Project Implementation Schedule provided by consultants the final foreseen date is Nov 2017. This will lead for a request of an Amendment-3 in the consultancy agreement which the Consultant anticipated will be submit by May 2015 to the WAPDA authority.

It is imperative the Consultants Agreement must be extend for the course of the project. As Consultant role is highly crucial for project completion.

Further delays in the project may occur if the anticipated Amendment-3 is not accorded upon in due course.

3.4 KFD/SFD/OPEC loan

No formal document or certification of extension of Loan agreements were available with the Project Director (PD) Office. WAPDA claimed that the extension of loan agreements are on annual basis and are agreed upon till August 2015. WAPDA indicated that to include defect liability certificate period of one year the loan agreement dates must be extended up to September 2018. This issue is routed through EAD.

However this issue must be clarified or resolved with the WAPDA authority as it bears a potential financial risk for the project.

3.5 Disbursement of Loan Funds

GGHPP PD office indicated that Interim Payment Application (IPA) is sent directly to the relevant loan office for disbursement of funds. The amount is disbursement in PKR and USD components directly to the contractors account by the relevant Loan office. However this is an extensive process and often delays are observed in the disbursement. In case of delays the case is referred through EDA.

USIAD must consider this as the LOT 3.2 is funded both with KFD and USAID funds. Delays in payment of a component by either party will lead to interest claim and evidently cost escalation of the project.

3.6 Financial Plan

WAPDA authority has not yet provided a financial plan for the Project. Furthermore a schedule of payments for Lot 3.1 and Lot 3.2 is still awaited.

3.7 PC-1 Approval

WAPDA has not yet submitted the revised PC-1 for Govt. of Pakistan Approval. PC-1 is a crucial for USAID agreement and its approval by Govt. of Pakistan must be prioritized.

4. Conclusion

The delay of the approval of funds for Lot 3.2 comprising Mechanical and Electrical Works for Golen Gol Powerhouse and Switchyard is source of potential risk and can result in several and serious damages, compromising the construction process and the commercial operation of the plant at the end. The project is suffering serious managerial problems. The contractor for civil works (SAMBU) is highly effected by the delay and is likely to submit heavy cost claims. As stated earlier during the last three months the overall progress of the project is less than 1%. The consequential implication in case of further delays are extension of time, increase in cost, claims form contractor and suspension of works.

5. Site Photographs



Figure 1: Inlet for Lateral Intake



Figure 2: Inlet for Headrace tunnel



Figure 3: Powerhouse Site Showing 3 Inlets for Units

Annexure A

PROJECT IMPLEMENTATION SCHEDULE FOR THE PROPOSE OF THE ADDENDUM 3					2011			2012			2013			2014			2015			2016			2017			2018			2019																																																																							
Activity ID	Activity description	%age	Early start	Early finish	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
GOLEN GOL HYDROPOWER PROJECT																																																																																																				
	Defect Liability Period for GGHP Sum of all LOTS		Feb-11	Jun-17																																																																																																
LOT-2 DIVERSION WEIR & HEADRACE TUNNEL CIVIL WORK																																																																																																				
L2DW	Diversion Weir Work	75%	01NOV11A	10-Dec-16																																																																																																
L2LI	Lateral Intake Work	92%	01NOV11A	3-Aug-15																																																																																																
L2ST	Sand Trap Work	64%	10MAR12A	1-Aug-15																																																																																																
L2HRC	Headrace Channel Work	48%	01AUG12A	1-May-16																																																																																																
L2HRT	Headrace Tunnel Work	76%	01FEB11A	1-Mar-16																																																																																																
L2SC	Surge Chamber Work	55%	01OCT12A	30-Jan-16																																																																																																
L2PS	Pressure Shaft work	27%	15MAR13A	28-Feb-16																																																																																																
L2PT	Pressure Tunnel Work	32%	16JUL12A	28-Feb-16																																																																																																
L2AT-HR	Access Tunnel to Headrace Tunnel work	81%	01JUL11A	10-Apr-16																																																																																																
L2AT	Aeration Tunnel Work	92%	24JUL12A	15-Mar-16																																																																																																
L2AT-PT	Access Tunnel to Pressure Tunnel Work	83%	01MAY12A	30-Jan-16																																																																																																
L2ROAD	Road Work *	30%	01JUL11A	4-Nov-15																																																																																																
* Land Acquisition problem for road is still not resolved																																																																																																				
	Original Contract Project Duration		1-Feb-11	30-Jan-15																																																																																																
	Project Duration according to Approved EOT		1-Feb-11	23-Aug-15																																																																																																
	Project Duration acc. WAPDA Letter CE/PD/GGC/W-30/129		1-Feb-11	1-Jun-17																																																																																																
	Defect Liability Period for Lot-2		May-16	1-May-17																																																																																																
LOT-3.1 POWERHOUSE, TAILRACE AND SWITCHYARD CIVIL WORK																																																																																																				
L3.1PH	Civil Works		01FEB11A	21-Oct-16																																																																																																
L3.1PHEX	PH Excavation	100%	01FEB11A	14JUN13A																																																																																																
L3.1PHSW	PH Superstructure Works	0%	15-Jun-15	20-Oct-16																																																																																																
L3.1YR	Tailrace Work	50%	01NOV13A	15-May-15																																																																																																
L3.1SW	Switchyard Work	0%	15-Jun-15	20-Sep-16																																																																																																
	Original Contract Project Duration		1-Feb-11	19-Feb-15																																																																																																
	Project Duration according to Approved EOT		1-Feb-11	21-Oct-16																																																																																																
	Project Duration acc. WAPDA Letter CE/PD/GGC/W-30/129		1-Feb-11	1-Jun-17																																																																																																
	Defect Liability Period for Lot-3.1		1-Nov-16	1-Nov-17																																																																																																
LOT-3.2 POWERHOUSE ELECTRICAL AND MECHANICAL WORK According ANDRITZ Work Program																																																																																																				
L3.2 E&M	PH Electrical and Mechanical Work		1-Mar-15	20-Jun-17																																																																																																
L3.2CR	PH Crane	0%	25-Oct-15	25-Dec-15																																																																																																
L3.2M	Manufacturing	0%	1-Mar-15	25-Feb-16																																																																																																
L3.2TR1	Installation of Turbine U1	0%	25-Jan-16	25-Dec-16																																																																																																
L3.2TR1C	Commissioning U1	0%	20-Nov-16	20-Mar-17																																																																																																
L3.2TR2	Installation of Turbine U2	0%	25-Mar-16	25-Feb-17																																																																																																
L3.2TR2C	Commissioning U2	0%	25-Jan-17	25-May-17																																																																																																
L3.2TR3	Installation of Turbine U3	0%	25-May-16	25-Apr-17																																																																																																
L3.2TR3C	Commissioning U3	0%	25-Mar-17	20-Jun-17																																																																																																
	Original Contract Project Duration		19-Feb-14	18-Jun-16																																																																																																
	Project Duration After Suspension		1-Mar-15	20-Jun-17																																																																																																
	Project Duration acc. WAPDA Letter CE/PD/GGC/W-30/129		19-Feb-14	1-Sep-17																																																																																																
	Defect Liability Period for Lot-3.2		20-Jun-17	20-Jun-18																																																																																																
LOT-4 PACKAGE-I TRANSMISSION LINE FROM GOLEN GOL TO CHUKIATAN																																																																																																				
L4P1SUR	Survey Work 132kv Transmission Line	100%	18MAR14A	08SEP14A																																																																																																
L4P1SOIL	Subsoil Investigation 132kv TRL	100%	12JUL14A	8-Jan-15																																																																																																
L4P1PRO	Tower Material Procurement Work	15%	Oct-14	15-Oct-15																																																																																																
L4P1FOUN	Foundation work of 132kv TRL	0%	1-Jun-15	1-Jan-16																																																																																																
L4P1TOWER	Tower Erection 132kv TRL	0%	1-Jul-15	1-Oct-16																																																																																																
L4P1GS	Grid Station Design Work	0%	18-Aug-14	1-Jun-15																																																																																																
L4P1GSM	Grid Station Material Procurement	0%	1-Sep-14	1-Sep-15																																																																																																
L4P1GSE5	Grid Station Earthing system	0%	1-Jul-15	1-Oct-15																																																																																																
L4P1GSCH	Grid Station Control House Building	0%	11-Sep-15	1-Mar-16																																																																																																
L4P1GSEF	Grid Station Equipment Foundation	0%	20-Jul-15	1-Dec-15																																																																																																
L4P1GSSW	Grid Station Switchyard Equipment Installation	0%	10-Dec-15	10-Apr-16																																																																																																
L4P1GSCH	Grid Station Control House equipment	0%	11-Apr-16	1-Oct-16																																																																																																
L4P1GSTC	Test and Commissioning	0%	1-Oct-16	15-Nov-16																																																																																																
	Original Contract project Duration		11-Feb-14	6-Apr-16																																																																																																
	Project Duration acc. WAPDA Letter CE/PD/GGC/W-30/129		11-Feb-14	1-Jan-17																																																																																																
	Defect Liability Period for Lot-4-I		Dec-2016	Dec-2018																																																																																																
LOT-4 PACKAGE-II TRANSMISSION LINE FROM CHUKIATAN TO CHAKDARA																																																																																																				
L4P2CH-TIM	132kv Chukia Tun - Timergera Transmission Line	0%	05DEC14A	4-Sep-16																																																																																																
L4P2CH-TM2	Extension of 132kv Timergera/Chakdara GS	0%	6-Jan-15	4-Sep-16																																																																																																
	Original Contract project Duration		12-Nov-14	9-Sep-16																																																																																																
	Project Duration acc. WAPDA Letter CE/PD/GGC/W-30/129		12-Nov-14	1-Nov-17																																																																																																
	Defect Liability Period for Lot-4-II		October-2016	October-2018																																																																																																

■ Work activity completed
■ Work activity remaining
■ Critical Activity
■ Defect Liability Period
■ Golen Gol Hydropower Project

1. PROJECT IMPLEMENTATION COMPLETION DATE
 Lot-2 Implementation Finish Date Is May, 2016
 Lot-3.1 Implementation Finish Date Is 21 Oct, 2016.
 Lot-3.2 Implementation Finish Date Is 20 June, 2017
 Lot-4P-I Implementation Finish Date Is Nov, 2016.
 Lot-4P-II Implementation Finish Date Is Sept, 2016.
 Golen Gol Hydropower Project Finish Date Is June, 2017.

Defect Liability Period for Lot-2, Lot 3.1 and Lot 3.2 is one year.
 Defects Liability Period for Lot-4.1 and Lot-4.2 is two years
 %age is according to Monthly Progress Report
 Status : 20.04.2015

2. Contractual Date
 Lot-2 Start Date 01.02.2011 Finish Date 31.01.2015
 Lot-3.1 Start Date 01.02.2011 Finish Date 14.02.2015
 Lot-3.2 Start Date 19.02.2014 Finish Date 18.06.2016
 Lot-4 P-I Start Date 11.02.2014 Finish Date 06.04.2016
 Lot-4 P-II Start Date 12.11.2014 Finish Date 12.09.2016

3. WAPDA Note of completion According Letter No.CE/PD/GGC/W-30/129 Date 16.01.2015
 Lot-2 Completion Date 06.2017
 Lot-3.1 Completion Date 06.2017
 Lot-3.2 Completion Date 09.2017
 Lot-4 P-I Completion Date 01.2017
 Lot-4 P-II Completion Date 11.2017

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