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USAID ENERGY POLICY PROGRAM

MONTHLY PROGRESS REPORT FEBRUARY 2011

March 2011

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USAID/Pakistan
Office of Energy
ENERGY PROGRAM PROGRESS REPORT
(As of February 28, 2011)

- I. Energy Program Disbursements Approved (Jan and Feb 2011)**
- II. Power Distribution Companies
Performance Improvement Program (PDIP)**
- III. Generation and Transmission Improvement Program (GTIP)**
- IV. Tubewell Efficiency Improvement (Replacement) Program
(TWEIP)**

I. Energy Program Disbursements Approved (Jan and Feb 2011)

No	Amount Approved	Date Approved	Disbursement to	Description of Items for Reimbursements	Comment
1	\$434,767.35	1/3/11	GTIP Technical Assistance		-
2	\$77,931.33	1/13/11	PDIP Technical Assistance		-
3	\$42,567.53	1/14/11	GTIP TA		-
4	\$19,928,000.00	1/24/11	WAPDA Under Gomal Zam Dam Agreement	1 st Request for Reimbursement under \$40 million Agreement signed 1/7/11	-
5	\$477,256.92	2/1/11	PDIP Technical Assistance		
6	\$547,463.63	2/2/11	TWEIP Technical Assistance		-
7	\$3,734,384.00	2/4/11	Northern Power Generation Company, Ltd. Under Fixed Amount Reimbursement Agreement	2 nd Request for Reimbursement Dated 2/2/11 -Rehabilitation of Boiler super heater tubes to overcome failure of tubes, Unit 1, 2 & 3 DC , Storage Batteries (1 Set) Unit 1,2 & 3, and Replacement of Cold Layer Element for RAH (1 set) Unit 1, 2 & 3	Actual disbursement is on hold in OFM pending the signing of an amendment of the respective FARA.
8	\$317,213.71	2/8/11	GTIP Technical Assistance		-
9	\$219,315.21	2/8/11	GTIP Technical Assistance		-

10	\$3,330,000.00	2/9/11	WAPDA under Tarbela Fixed Amount Reimbursement Agreement (FARA)	1 st Request for Reimbursement dated 2/8/11 - Replacement of Damaged Generator Windings with Class F Insulation Windings, Unit 4	ENR Processed Administrative approval on one day after receiving the reimbursement request from WAPDA
11	\$3,330,000.00	2/11/11	WAPDA under Tarbela Fixed Amount Reimbursement Agreement (FARA)	2 nd Request for Reimbursement dated 2/11/11 - Replacement of Damaged Generator Windings with Class F Insulation Windings, Unit 1	ENR Processed Administrative approval the same day that it received the reimbursement request from WAPDA
12	\$7,115,300.00	2/15/11	WAPDA Under Satpara Dam Agreement	1 st Request for Reimbursement under \$26 million Agreement signed 1/7/11	Actual disbursement has been on hold pending Submission of Independent Dam Evaluation Report to Rep. McDermott. The hold was lifted on 2/25/11
13	\$670,000.00	2/22/11	Jamshoro Power Company , Ltd. Under Fixed Amount Reimbursement Agreement	1st Request for Reimbursement Dated 2/18/11 -FARA Item No. 11 Air Pre-heater Element and Seals for Unit No. 1	Actual disbursement is on hold in OFM pending the signing of an amendment of respective FARA
	\$40,224,199.68	TOTAL Administratively approved by Office of Energy, January – February 2/15/11			

II. Power Distribution Companies Performance Improvement Program (PDIP)

USG Category: Largest of six Signature Energy Projects announced by Sec Clinton on 9/28/10 **Type of**

Assistance: G-to-G in kind support through direct USAID Contract

Location: All provinces and FATA

USAID Funding: Committed - \$60 million; **Obligated** - \$14,499,409, **Disbursed/Accrued** - Approximately \$3,000,000

Planned Duration: Three years (1st phase)

Start-up: 9/17/10 on award of Energy II IQC Task Order No. 13.

Implementing Partners: MWP, Participating DISCOs, and NEPRA through a Joint Implementation Task Force with advice and assistance of IRG, a USAID-funded contractor performing since 09/17/10 under Task Order No 13 of Global Energy II IQC.

Key Objectives - Targets include:

1. Greatly improved DISCO governance and management
2. Creation of the legal and political space required for good DISCOs performance.
3. Elimination of GOP subsidies and circular debt.
4. Improved billings, collections, theft reductions and revenue management.
5. Full-sector cost recovery tariffs with social safety nets.
6. Reduced planned and unplanned outages and voltage fluctuations.
7. Improved metering and smart technologies throughout the distribution network.
8. Improved Human Resource Management including performance based incentives.
9. Reduction of technical and non-technical losses, including theft.
10. Improved customer service and outreach.
11. Sustainable improvements through change management and capacity building.

A. Status of key activities under the PDIP Task Order as of February 28, 2011

No.	Activity	Start	End	Percent Completed
1.	The PDIP team mobilized in Sep 2010 and fully participated in the Power Sector Reform Workshop held in October and November 2010 in Islamabad and Lahore respectively. A Workshop report was prepared and provided to USAID.	10/4/10	11/12/10	100%
2.	The PDIP Team visited all the eight DISCOs, one by one to introduce the Program and to have a preliminary assessment of their operations and business.	10/18/10	11/4/10	100%
3.	The PDIP Team is continuing to work with all 8 DISCOs to help them develop improved Business Plans, Initial revised Business Plans have been submitted by DISCOs subsequent to the PDIP sponsored Work Shop held in Islamabad on Dec 09, where more than 40 DISCO Financial Officers and CEOs attended. There will be a continuing effort with the DISCOs to establish the necessary framework for presenting regular and quality business plans.	10/18/10	2/28/11	100%
4.	An operational audit of each of the eight DISCOs was conducted by the PDIP Team in partnership with each DISCO to establish baseline information for improvement interventions in each of the functional area of finance, commercial management, human resource, engineering & operations and communications & customer relations.	11/24/10	1/28/11	100%

No.	Activity	Start	End	Percent Completed
5.	<p>In addition to operational audits of all 8 DISCOs, the following reports have been developed:</p> <ul style="list-style-type: none"> a. Report on Present DISCO governance and roles of MWP, NEPRA and PEPCO b. Report on DISCO Revenue Management Policies and Practices c. Legal and Policy Review of the National Electric Power Regulatory Authority (NEPRA) concerning the regulation of DISCOS in Pakistan d. Report on Review of DISCO Performance Contracts e. Initial Report on Cost of Service and Tariff Design 	11/24/10	2/28/11	100%
6.	<p>Based on the operational audit reports, performance improvement action plans for the eight Distribution Companies (DISCOs) are being drafted along with the description of specific performance improvement projects, which will be an integral part of the improvement action plan for each of the eight DISCOs. Draft audit reports and performance improvement action plans are complete as of Feb 28 for all 8 DISCOs. The detailed final Reports are planned to be completed by May 31, 2011.</p>	1/8/11	5/31/11	75%
7.	<p>Meeting with individual DISCOs to brief them on the findings of the operational audits and performance improvement action plan activities including performance improvement projects. Briefings to two out of eight DISCOs have been held and the rest are planned to be completed by March 31, 2011.</p>	1/15/11	3/31/11	33%
8.	<p>Establish an Implementation Task Force for the PDIP program. The Implementation Task Force of PDIP is being led by IRG under the leadership of the IRG Chief of party (COP) and consists of 47 IRG professional personnel, 37 Pakistani and 10 Expatriate. In the implementation phase it will be supplemented by additional personnel including employees from the individual DISCOs selected to serve on the PDIP Implementation Team. The Task Force Secretariat will conduct periodic meetings with the DISCOs and MWP and other interested stakeholders to share information on the progress of interventions and project activities, and present information regarding problems/solutions to issues common to all DISCOs and other stakeholders.</p>	11/1/10	4/15/11	75%
9.	<p>A Partnership Agreement is being developed between the individual DISCO, MWP, and USAID on how Performance Action Plan and Performance Improvement Project responsibilities will be shared. This development is anticipated to be completed by March 30, and the Partnership Agreements executed by the parties May 31, 2011.</p>	2/7/11	5/31/11	50%
10.	<p>Preparation and submittal of the Component 2 Proposal for Implementation has been accelerated by more than 5 months, from September 2011 to March 2011.</p>	2/7/11	3/10/11	80%

No.	Activity	Start	End	Percent Completed
11.	PDIP was introduced to NEPRA at the Power Sector Reform Workshop held in Lahore on Nov 11-12, 2010 which was attended by power sector officials from throughout Pakistan.	11/11/10	11/12/10	100%
12.	A comprehensive report on NEPRA has been prepared by PDIP which provides an assessment of the legal and policy aspects of the NEPRA-DISCO operations and relations to NEPRA and its work relevant to distribution operations in Pakistan.	10/15/10	12/9/10	100%
13.	Meetings have been held with NEPRA and a list of potential improvement assistance actions developed in conjunction with NEPRA.	1/6/11	2/28/11	100%
14.	Completed Board of Director (BOD) orientation sessions with PDIP supplied International and Pakistani experts for newly appointed members of seven of the re-constituted DISCOs and National Transmission and Dispatch Company Boards as the initial phase of education and training for appropriate company governance.	2/17/11	2/24/11	100%
15.	Drafted and issued a memo to participants of the BOD orientation sessions to guide them in proper duties and roles in a board meeting.	2/17/11	3/2/11	100%
16.	Drafted a memo proposing various options for GOP to ensure more independence for public sector BODs. The memo was reviewed and discussed with Secretary, MWP on February 22 nd , and he accepted one of the suggested options.	1/23/11	2/22/11	100%
17.	Drafted a proposed notification by GOP to affect BOD independence based on the options selected by the Secretary, MWP.	2/23/11	3/1/11	100%
18.	Led the Task Force in the identification and review of existing Performance Agreements of DISCOs and their functioning and status and recommend any adjustments or new agreements that might be needed to achieve PDIP performance goals and targets.	10/15/10	¼/11	100%
19.	Preparation of Component 2 Proposal	1/15/11	3/10/11	90%
20.	Exercise of Component 2 Option	3/16/11	3/30/11	0

B. PDIP Support of the Ministry of Water and Power in the implementation of Power Distribution Elements of the GOP's Power Sector Reform Program (PSRP)

No.	Activity	Start	End	Percent Completed
1.	Based on the requirement to assist the MWP to improve its performance, USAID authorized PDIP to provide professional support requested by the Secretary MWP. PDIP has renovated and senior PDIP professionals are occupying assigned space near the Secretary's office.	11/26/10	12/9/10	100%

2.	Reviewed MWP processes and interviewed MWP officials to understand problems, issues and weakness at MWP – Interim report submitted and discussed with the Secretary on January 22, 2011.	12/18/10	3/1/11	75%
3.	Developed MWP Action Plan and budget for implementation during PDIP Phase II through September 2013. Coordinated with MWP and EPP – effort completed February 28, 2011. If approved by USAID, phase II will assist MWP in the following areas; <ul style="list-style-type: none"> a. Improve sector governance b. Restructure power sector c. Strengthen the MWP d. Develop future leaders for the power sector e. Establish a policy and planning cell f. Develop key performance indicators 	1/15/11	2/28/11	100%
4.	Reviewed feasibility study of proposed CASA-1000 transmission line project from Kyrgyzstan and Tajikistan to Pakistan through Afghanistan. Presented our findings on December 21, 2011.	12/6/10	12/21/10	100%
5.	Developing a conceptual organizational structure of MWP including permanent technical staff and, policy and planning cell.	2/1/11	4/30/11	10%
6.	Dissolution of The Pakistan Electric Power Company (PEPCO). Joined MWP working group to achieve this objective by June 30, 2011, and assisted the Secretary, MWP in meetings for the orderly dissolution of PEPCO.	1/27/11	6/30/11	10%
7.	CPPA CEO Recruitment. Working with an executive search firm to find CEO of CPPA (Central Power Purchasing Agency). List of short-listed candidates will be presented to MWP.	1/7/11	3/20/11	50%
8.	National Power Plan. Developing a scope of work for the least cost generation study to complement two previous studies; (i) Pak IEM (Integrated Energy Model) developed for the Planning Commission (Energy Wing) under funding from ADB and, (ii) National Power Plan being developed by a Canadian contractor for NTDC (National Transmission and Dispatch Company).	1/8/11	4/15/11	75%
9.	Draft TORs for the Financial Advisor for IESCO and National Power Construction Company	12/15/10	1/8/11	100%
10.	Review of legal issues pertaining to Kohala Hydropower Project	1/22/11	2/11/11	100%
11.	Reviewed effectiveness of ECA (Export Credit Agency) agreement in 425MW Nandipur Combined Cycle Power Project	2/8/11	2/12/11	100%
12.	Reviewed Memorandum and Articles of Association for Alternative Energy Development Company Limited	12/15/10	12/22/10	100%
13.	Drafted a memo on Post 18 th Constitutional Amendment scenario pertaining to electricity.	1/10/11	2/1/11	100%
14.	Assisting MWP in the identification of CEOs and COOs for Generation Companies. Newspaper advertisement prepared and published on February 6. Reviewing 1000 plus resumes and will provide MWP a short list by end of March 2011.	1/10/11	3/31/11	30%

15.	Supported a meeting at Planning Commission, chaired by Deputy Chairman, Nadeem-ul-Haq, and attended by MWP official, NEPRA, MOF, WB, and key consultants of PSRP team on Uniform Tariffs. The committee met twice within the week and reviewed different concepts including the one proposed by PDIP.	2/6/11	2/11/11	100%
16.	Advised on appropriate contract formats for grid-connected solar power plants	2/1/11	2/8/11	100%

III. Generation and Transmission Improvement Program (GTIP) (as of 2/28/11)

To facilitate MWP and USAID coordination and program management, virtually all USAID supported generation and transmission project and reform activities have been or are proposed to be assigned to AEAI under its current Energy II IQC Task Order No EPP-I-08-03-00004.

We now refer to those activities collectively as the GOP-USAID Power Generation and Transmission Improvement Program (GTIP).

GTIP Summary

Location: All Provinces and Federally Administered Tribal Areas

Total US Funding: \$191.06 million (including \$10.9 million for consulting services)

Project Commencement: 10/28/09 (first announcement by Secretary of State Clinton)

Implementing Partners: GOP/MWP/MPNR/PC/WAPDA/NTDC/four GENCOs/OPIC/AES.

Key Targets include:

1. Support the Ministry of Water and Power in the implementation of power generation and transmission elements of the GOP's Power Sector Reform Program (PSRP), including improvement of the primary energy mix.
2. Increase national power generation capacity by 580MW.
3. Provide direct technical advice and assistance to MWP in the improvement of the performance of the generation and transmission sub-sectors.
4. Provide advice and assistance to MWP and USAID in the selection, planning and implementation of new projects.

Ongoing and proposed GTIP activities are divided into three components as follows:

A. Monitor and Support the Implementation of the following Seven Signature Projects announced by Secretary of State Hillary Clinton

PHASE I (FY-2009 and FY-2010 funding)

1. TARBELA HYDROELECTRIC POWER STATION REHABILITATION PROJECT

USG Category: One of four Signature Power Generation Projects announced by Sec Clinton on 10/28/09

Location: Khyber Pakhtunkhwa (KPK) Province

USAID Category: Government to Government through Fixed Amount Reimbursement Agreement

Objectives: Restoration of 80MW in hydropower generation capacity at Tarbela Power Station. Increase an average of 192 million KWh/year of energy to the national grid.

US Funds: US\$ 16.5 million obligated 4/10.

Date of Completion: Per FARA - 12/31/11 and is on track.

Implementing Partner: Water and Power Development Authority (WAPDA) – AEAI a USAID funded consultant, monitors and supports implementation of FARA.

Status: All funds were obligated in the FARA dated 4/30/10. Implementation underway and scheduled to be completed by December 31, 2011. The first set of generator stator windings and its spares arrived at Tarbela Power Station in mid-January. Installation is being delayed due to security concerns of the Japanese turnkey supply/installation contractor. The second of three windings has been shipped from Japan and is scheduled to arrive at Tarbela Power Station by mid-March. The third winding has been manufactured and is scheduled for vendor shipment by end-March 2011. Reimbursement for these three windings is based on shipment by supplier.

The first reimbursement of \$3.33 million was approved by ENR on 2/9/11 and the second (also \$3.33 million) on 2/11/11. The first two reimbursements (totaling \$6.66 million) were direct deposited in WAPDA's account on 2/28/11.

Disbursements are expected to reach a total of approximately \$10.5 million (64% of total) by June 30 2011. The remaining \$6 million balance under the FARA is expected to be reimbursed by January 30 2012.

No.	Activity	Start	End*	Percent Completed
1.	Tarbela Repair/Rehab FARA	4/30/10	1/30/12	40%

2. MUZAFFARGARH THERMAL POWER STATION REHABILITATION PROJECT

USG Category: One of four Signature Power Generation Projects announced by Sec Clinton on 10/28/09

Location: Punjab Province

USAID Category: Government to Government through Fixed Amount Reimbursement Agreement

Objectives: An increase of 165 MW generation capacity to the power station. This could supply an additional 930 million KWh/year of power to the national grid.

USAID Funds: US\$ 15.193 million obligated 5/10; \$167,616 disbursed 2/11; \$3,734,384 approved by ENR for disbursement on 2/4/11- is pending in OFM until FARA is Amended

Date of Completion: Per FARA - 11/30/11, Per ENR estimate - 3/30/12

Implementing Partner: Northern Power Generation Company, Ltd (NPGCL) – AEAI monitors and supports implementation of FARA.

Status: All funds were obligated in the FARA dated 5/20/10. After a slow start, procurement of required items are accelerating and are expected to accelerate more following an amendment to the FARA in March 2011 that will make the GENCO fully responsible for procurement. A first reimbursement \$167,616 was paid in February 2011. A second reimbursement of \$3,734,384 that was approved by USAID/ENR on 2/4/11 is expected to be deposited in the GENCO's bank account by 3/20/11 or sooner following the signing of the mentioned FARA amendment. Disbursements are expected to reach a total of approximately \$9 million (60% of total) by June 30 2011. The schedule for the disbursement of the remaining \$6 million is under careful review and will be reported next month.

No.	Activity	Start	End*	Percent Completed
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No.	Activity	Start	End*	Percent Completed
2.	Muzaffargarh Repair/Rehab FARA	5/20/10	4/30/12	26%

* End date includes 30 days for processing reimbursement request
Additional activities will be listed in the March progress report.

3. JAMSHORO THERMAL POWER STATION REHABILITATION PROJECT

USG Category: One of four Signature Power Generation Projects announced by Sec Clinton on 10/28/09

Location: Sindh Province

USAID Category: Government to Government through Fixed Amount Reimbursement Agreement

Objective: An increase of 95 MW generation capacity to the power station. This could supply an additional 530 million KWh/year of power to the national grid.

US Funds: US\$ 18.63 Million obligated 5/10; \$670,000 approved by ENR for disbursement on 3/2/11- is pending in OFM until FARA is Amended

Date of Completion: Per FARA - 11/30/11, Per ENR estimate - 4/30/12

Implementing Partner: Jamshoro Power Company, Ltd (JPCL) – AEAI monitors and supports implementation of FARA.

Status: All funds were obligated in the FARA dated 5/20/10. After a slow start, procurement of required items are accelerating and are expected to accelerate more following an amendment to the FARA in March 2011 that will make the GENCO fully responsible for procurement. The first reimbursement \$670,000 was approved by USAID/ENR on 3/2/11 and is expected to be deposited in the GENCO's bank account by 3/20/11 or sooner following the signing of the mentioned FARA amendment.

Disbursements are expected to reach a total of approximately \$1 million (5.4% of total) by June 30 2011.

The schedule for the disbursement of the remaining \$17.63 million balance is under careful review and will be reported next month.

No.	Activity	Start	End*	Percent Completed
3.	Jamshoro Repair/Rehab FARA	5/20/10	5/30/12	4%

* End date includes 30 days for processing reimbursement request

Additional activities will be listed in the March progress report.

4. GUDDU THERMAL POWER STATION REHABILITATION PROJECT

USG Category: One of four Signature Power Generation Projects announced by Sec Clinton on 10/28/09

Location: Sindh Province

USAID Category: Government to Government through Fixed Amount Reimbursement Agreement

Objectives: An increase of 35-55 MW generation capacity of the power station. This could supply an additional 237-372 million KWh/year of power to the national grid.

US Funds: US\$ 18.068 million obligated 5/10

Date of Completion: Per FARA - 11/30/11, Per ENR estimate - 12/31/12

Implementing Partner: Central Power Generation Company, Ltd (CPGCL) – AEAI monitors and supports implementation of FARA.

Status: All funds were obligated in the FARA dated 5/20/10. As is the case of the other two GENCO FARAs, the Guddu FARA is being amended in March 2011 to make the GENCO fully responsible for procurement. After ten months CPGCL and General Electric have reached an impasse in negotiating the

price and delivery date of a turn-key rehabilitation contract that provides for GE to complete the rehabilitation work and placement of the plant back in service. USAID has advised both CPGCL and GE that CPGCL is responsible for any cost that is above the \$18.068 million amount of the FARA and that all items listed in the FARA must be supplied. CPGCL is consulting with MWP concerning this matter.

No.	Activity	Start	End*	Percent Completed
4.	Guddu Repair/Rehab FARA	5/20/10	1/30/12	0%

* End date includes 30 days for processing reimbursement request
Additional activities will be listed in the March progress report.

PHASE II (FY-2010 regular and supplement budgets)

5. GOMAL ZAM DAM PROJECT (Completion of dam, power plant and transmission line)

USG Category: First of the two Signature Power Generation Projects announced by Sec Clinton on 07/19/2010

Location: South Waziristan (FATA)

USAID Category: Government to Government through Fixed Amount Reimbursement Agreement

Objectives: Support completion of the project that will provide 17.4 MW of power and 91 million KWh/year of electricity to the national grid. The dam will provide storage capacity for approximately 1.14 million acre-feet of water (0.89 million acre-feet of live storage) A companion down-stream irrigation project will irrigate approximately 191,000 acres of land. Its cost (about \$65 million), if approved, will be funded as an Agricultural Project.

US Funds: \$40 million obligated under an Agreement signed on January 7, 2011. \$19.9 million disbursed on 2/2/11.

Date of Completion: Per the Activity Agreement - 10/31/11, Per ENR estimate - 11/30/11

Implementing Partners: Water and Power Development Authority (WAPDA) - AEAI monitors and supports implementation of the Activity Agreement.

Status: All funds were obligated in the Activity Agreement signed 1/7/11. The first disbursement of \$19.9 million under the January 2011 agreement was paid on February 2, 2011. Disbursements are expected to reach a total of approximately \$34 million (85% of total) by June 30 2011. The remaining \$6 million balance under the Activity Agreement is expected to be reimbursed by November 30 2011.

No.	Activity	Start	End*	Percent Completed
5.	Gomal Zam Multi-purpose Dam Completion Project	1/7/11	11/30/11	50%

* End date includes 30 days for processing reimbursement request

Additional activities will be listed in the March progress report.

6. SATPARA DAM PROJECT (completion of dam, power plant, and irrigation works)

USG Category: Second of the two Signature Power Generation Projects announced by Sec Clinton on 07/19/2010

Location: Skardu, Gilgit-Baltistan Province

USAID Category: Government to Government through the Activity Agreement

Objectives: The project would provide 17.66 MW of power and 105 million KWh/year of electricity annually to the local grid. The dam will provide storage capacity for 0.09 million acre-feet of water (0.05 million acre-feet of live storage). The irrigation works that are included will serve 15,536 acres of land and provide 3.1 million gallons per day to meet drinking water needs. It is estimated that on completion of the irrigation system, annual agricultural output of the area will increase from 8,643 to 40,642 tons.

US Funds: \$26 million obligated under an Agreement signed on January 7, 2011. \$7.115 million approved by ENR for disbursement on 2/25/2011 – under process with OFM.

Date of Completion: Per Activity Agreement - Phase 1 by 10/31/11 and the much smaller Phase 2 by 04/30/2013.

Implementing Partners: Water and Power Development Authority (WAPDA) – AEAI monitors and supports implementation of the Activity Agreement.

Status: All funds were obligated in the Activity Agreement dated 1/7/11. Required independent evaluation by USACE of dam seepage prior to first disbursement which was completed on January 30, 2011. The seepage was reported by the USACE team to be within design limits and not to pose a risk to the integrity of the dam. The USACE team submitted their final written report by mid-February 2011. The first reimbursement of \$7.115 million approved by USAID/ENR on 2/25/2011 and is expected to be deposited in WAPDA’s bank account 3/20/11 or sooner following the submission of USACE report to the respective Congressman.

Additional disbursements in millions are scheduled as follows: \$2.28 by 06/30/11, \$1.9 by 08/11, \$4.5 by 11/30/11, and \$6.2 by 12/31/11. The remaining \$4.1 balance under the Activity Agreement is scheduled to be reimbursed by 05/31/13.

No.	Activity	Start	End*	Percent Completed
6.	Satpara Multi-purpose Dam Completion Project	1/7/11	5/31/13	28%

PHASE III (FY-2011 funding anticipated)

7. SINDH WIND POWER GENERATION PROJECT (*Draft- still under review*)

USG Category: A Signature Power Generation Project announced by Sec Clinton in 10/14/2010

Location: Sindh Province

USAID Category: Public-Private Partnership between the GOP and a large American corporation.

Objectives: An increase of 150 MW generation capacity to the power sector. This could supply an additional 394 million KWh/year of power to the national grid. Reduce power generation shortfall while greatly expanding green energy investments.

US Funds: US\$ 46 million to \$77 million

Date of Completion: 24-36 months from signing of Statement of Intentions

Implementing Partners: MWP/AES/OPIC – AEAI monitors and supports the project implementation

Status: USAID, AES Corp. (US private power development company) and MWP - signatories to the SOI (with OPIC) have initiated the work plan for completion of the feasibility stage activities. The project is on course for developing 150 MW pending successful feasibility determination, which would be made mid to late summer 2011. Parallel activities are also on course, namely the GOP forming a company to serve as the investment vehicle, financing arrangements with GOP pending successful feasibility, and the USAID funding mechanism.

This 150 MW project has already been announced by Secretary of State Clinton as a Public-Private Partnership between the GOP and a large American corporation. It would be the first large scale renewable project in Pakistan. OPIC will provide \$250 million in loan funds. AEAI is accelerating project development including financial packaging under a work plan that includes actions required and roles of

USAID, MWP, the private investor and OPIC. A major issue to be addressed ASAP is whether the Investor of USAID should fund an urgently required feasibility study that satisfies USAID's environmental requirements.

No.	Milestone Activities	Start (no later than)	End	March 9, 2011 Percent Completed
I.	Finalize Feasibility Period Workplan			
	Finalize milestone activities	12/10/10	3/1/11	95%
	Finalize activity roles	1/1/11	3/15/11	80%
II.	Acquire land and conduct feasibility			
A.	3-prong procedure for land	11/14/10	4/15/11	10%
	Agree on TOR for feasibility	11/14/10	5/10/11	60%
	Negotiate split of feasibility costs	11/14/10	5/20/11	15%
	Conduct feasibility	5/20/11	10/31/11	0%
III.	Design Performance Based Agreement			
A.	Determine GOP SPV, owner-rep	4/20/11	5/20/11	0%
	Finalize schedule of Performance activities	4/20/11	5/20/11	0%
	Complete USAID documentation	5/20/11	8/15/11	0%
IV.	Schedule of Activities for GOP Performance			
A.	Sign Performance Base Agreement	8/15/11	8/30/11	0%
	Form the legal SPV for GOP, or define owner rep/signatory	8/30/11	9/15/11	0%
	Review and sign PDA with USAID and AES (TOR attached)	9/15/11	9/30/11	0%
	Sign Security Trust Agreement if one is needed	9/15/11	10/15/11	0%
	Sign Shareholder Agreement upon successful Feasibility determination	11/1/11	11/15/11	0%
	Approve Feasibility Study	11/1/11	11/15/11	0%
	Issue Letter of Support in accordance with GOP policy	11/15/11	11/30/11	0%
	Provide Tariff determination and Generating License	11/15/11	12/15/11	0%
	Negotiate Power Purchase- and Implementation Agreement	11/15/11	12/31/11	0%
	Provide GOP wind guarantee	11/15/11	1/15/12	0%
	Sign all project documents for financing close	2/1/12	2/15/12	0%
	Financing Close = Completion of all PBA Performance Requirements	2/15/12	2/15/12	0%
V.	AES managed activities			
A.	Land, feasibility, project company	11/14/10	2/15/12	0%
	EPC contractor selection	8/15/11	10/31/11	0%
	Tariff Petition	10/1/11	11/30/11	0%
	PPA/IA Negotiation	11/1/11	12/31/11	0%
	Arrange project financing including additional project credits	12/1/11	2/1/12	0%

B. Support of Ministry of Water and Power in the implementation of Power Generation and Transmission and Fuel Related Elements of the GOP's Power Sector Reform Program (PSRP)

No.	Activity	Start	End	Percent Completed
1.	Advise and assist GENCOs 1, 2 and 3 develop and adopt credible and robust business plans.	10/20/10	06/30/11	60%
2.	Undertake a fast-track macro level preliminary analysis and report on the potential and feasibility of converting all public and private oil-fueled to the use of coal based on coal gasification, coal slurry and/or other coal utilization technologies that take in to account environmental concerns/requirements.	10/20/10	12/15/10	100%
3.	Expand the pre-rehabilitation audits required to determine capacity increases of the GENCO 1, 2 and 3 generating units being rehabilitated under USAID-funded FARAs to include full technical audits of the capacity, efficiency, and fuel supply and use of all operating power generation units of GENCOs 1, 2 and 3.	11/20/10	03/11/11	99%
4.	Review policies and operations of the National Power Generation Dispatch Center and identify opportunities for, and training needed, to improve the operations of the National Power Generation Dispatch Center.	AEAI waiting USAID authorization to proceed		
5.	Undertake a comprehensive quantitative analysis of the relative economic value of natural gas allocation amongst major users (power generation, fertilizer, transportation, textile and other industry, commercial, and residential). This requires the gathering of a range of basic economic and use information for each of the major user categories, and natural gas pricing and subsidies.	03/11/11	04/30/11	0%
6.	Develop the Terms of Reference (TOR) for a study of the feasibility of the 1250 MW well-head Kunhar Pusakhi Well-head Combined Cycle Gas Turbine Power Generation Project.	Suspended until further notice at request of USAID/MWP		
7.	Building on the results of item 5. above, undertake a comprehensive quantitative study of the impact on Pakistan's economy of the present and growing natural gas and electricity rationing (load-shedding). The study should include recommendations on policy, pricing, and other reforms that the GOP might consider in the elimination of natural gas and electricity demand-supply imbalances.	03/20/11	05/20/11	0%

No.	Activity	Start	End	Percent Completed
8.	Building on the results of item 3 above, identify and recommend short and long-term measures to control the supply and use of fuel, and improve the efficiency and/or generating capacity of all relevant GENCO power generation units.	AEAI waiting USAID authorization to proceed		
9.	As requested by the MWP and approved by USAID, second senior policy, institutional, and power generation and transmission professionals and support staff to serve on the governance and restructuring team of the MWP.	07/21/10	02/28/12	30%
10.	As a continuation of item 2 above and taking into account oil-to-coal conversion activities of KESC, recommend specific alternative fuel options for MWP consideration.	AEAI waiting USAID authorization to proceed		
11.	Additional Studies as Requested by MWP and USAID concurs			

C. Advice and assistance to MWP, other GOP entities, and USAID in the selection, planning and final design of USAID-funded energy projects

These activities under this component of GTIP are closely guided by the Energy Strategy that was approved by Senior USAID, State and all other responsibility sharing USG agencies on 2/22/11 and the guidance provided in the strategy concerning the selection of energy projects to be supported by the USG. That selection guidance in the Strategy is as follows:

Future infrastructure projects will be chosen based upon:

I. Technical feasibility:

- A. Can the proposed intervention actually contribute significantly to meeting Pakistan's energy and other vital development needs, while improving the country's energy security?
- B. Does the project use domestic resources or imported?
- C. Does the project result in energy diversification?

II. Cost –

- A. Is the cost reasonable?
- B. Can the project's full financing be arranged in a timely fashion?

III. Overall effect:

- A. Is the project high visibility?
- B. Is it a high priority for Pakistan?
- C. Will the power and other benefits be worth the time and money?

In the case of all projects identified by the GOP and others as candidates for USG support, the first serious step is to undertake the first of USAID's **two-phase Due Diligence process**. The two Phases of USAID/Pakistan's due diligence process are as follows:

Phase 1 The focus of activities under this Phase will be on gathering and analyzing candidate projects existing documents and other information and presenting the information in a manner that shows that the information is credible and adequate for use in applying the above identified criteria in identifying/selecting projects that merit serious USG consideration for support .

Phase 2 Will be a much more in-depth analysis of projects identified/selected by using the outputs of Phase 1 and applying the above identified criteria. The focus of Phase 2 will be gathering, analyzing, and presenting the additional information required for a definitive USG decision to support or not support a project and if so, how much support should the USG provide, and when and through which mechanism the support should be provided. As noted above, due diligence is required to provide the basis for senior USG policy and decision makers to apply the project selection guidance in the approved Energy Strategy. AEAI has successfully advised and has assisted USAID with the due diligence and preparation of agreement documentation for all nine of the Signature Energy Projects announced to date by Secretary of State Clinton.

Due diligence is also underway, or about to begin on additional projects that are listed in the table below. Start and end dates that are planned, and % completions, are included.

Projects that have been considered but are not anticipated for due diligence are also listed, with explanations provided.

All projects in the table have been requested by GOP for USG consideration. (Some that were previously listed have been superseded by more recent GOP requests; so the table is not the sum total of all new projects that may be available).

An additional number of projects that fall into two other categories for consideration have also been compiled. Although not requested by the GOP: the possibilities of remedying current idle capacity, and assisting existing constructions already underway for power that can be brought on line in the next 12-20 months, have been reviewed. Conclusions have been drawn, and are as follows explaining why they are not included in the table for consideration:

- Projects/activities that “address idle capacity”. Estimated at 835 mw of renewed capacity, these projects comprise a program of parts replacement and repair projects spread over 9 plants. The projects involve either fuel-oil fired, or natural gas constrained plants, in total requiring expensive fuel oil or diesel alternatives to operate - \$125 million in total, per month in fuel oil purchases.
- Projects/activities that “help accelerate new capacity additions that are already underway, planned to come on line over the next 12-20 months”. These projects should amount to a total of roughly 2,000 mw when completed; 16 non-nuclear (one nuclear is planned for completion by GOP this spring, for an additional 340 mw), rehabilitation and new plant investments with an average of 170 mw per plant/project. They however comprise projects that are either: 1) those - some substantially complete, that can continue as funded from GOP's current budget -

assuming that donors assist with project commitments otherwise, i.e. those listed below, 2) privately led, that PPIB has not recommended USG need consider assisting, 3) rental power projects, 4) facing legal issues, or 5) bogged down by GOP bureaucracy.

No.	Activity	Start	End	Percent Completed
1.	<p>Di Amer-Basha Multipurpose Dam This project would increase the water storage capability of Pakistan by 50%, improve flood control and produce 4,500 MW of power. Once the USG takes the lead, other donors, IFIs, export credit agencies, sovereign wealth funds, guarantors, and possibly carbon credits, would cover the remainder of the financing. The \$20 to \$50 million proposed by WAPDA as prompt initial USG support of the project would include funding for the cost of the large camp that is required for the project.</p>	Phase 1 Due Diligence Start ASAP	April 30, 2011	10%
2.	<p>Kurram Tangi Multipurpose Dam This project located in politically sensitive and strategic North Waziristan, is very high on the GOP's list of priorities. It would create more than 3,500 construction jobs for 4-5 years, impound 1.2 million acre feet of water, irrigate an additional 84,000 acres in the FATA and produce 83 MW of power. WAPDA now estimates the total project cost is \$700 million. Early USAID non-loan funding of about 10% of the total project cost would demonstrate US commitment and serve as a catalyst to attract other donor, IFI, and export credit agency funding. (It is believed that a consortium of IDB, WB and ADB has suggested can provide a \$120 million commercial loan for the project).</p>	Phase 1 Due Diligence Start ASAP	April 30, 2011	15%
3.	<p>Installation of Gas Turbines in Faisalabad and O&M Management of 320 MW UAE gifted plant. These turbines are a gift from the UAE and have already been shipped to Faisalabad. They could be producing 320 MW of power within six months; and with the addition of waste heat recovery boilers, another 120 MW with no additional fuel. Phase II (highly efficient heat recovery boilers) will require USAID leadership but no additional USAID funding.</p>	Phase 1 Due Diligence Started 2/1/11	4/15/11	30%
4.	<p>Up-gradation (Electro Mechanical Equipment) of Mangla Hydro Power Station Recently requested by MWP, no details as yet have been collected.</p>	Phase 1 Due Diligence Start date to be scheduled ASAP.		

No.	Activity	Start	End	Percent Completed
5.	<p>Up-gradation (Electro Mechanical Equipment) of Warsak Hydro Power Station Recently requested by MWP, no details as yet have been collected.</p>	Phase 1 Due Diligence Start date to be scheduled ASAP.		
6.	<p>Increased Fuel Supply: LNG Floating Storage and Regasification Project This project would result in enough LNG within 18 months of financial close to produce 1,850 MW of electricity, saving roughly \$1 billion per year in fuel purchases by replacing fuel oil and diesel with much cheaper natural gas.</p>	Phase 1 Due Diligence Started 10/1/10	No later than 5/31/11	15%
7.	<p>Natural Gas Loss Reduction and Use Efficiency Project This project would be done jointly with the World Bank in a co-financing arrangement that splits targeted investments that will result in gas loss reduction and use efficiency components to be provided by USG. The project could reduce theft of \$500 million per year and also save enough gas to replace \$500 million per year in oil imports.</p>	Phase 1 Due Diligence - Under review with WB since 6/10	7/31/11	25%
8.	<p>Kunar Pusakhi well-head combined cycle gas turbine project A still to be confirmed decision has reportedly been made, that the production of natural gas from this well will be dedicated under a special pricing arrangement, for 1500 mw of power generation at Kunar Pusakhi. Within 18 months this project could begin to greatly improve the power sector, further reducing load-shedding and the average cost of electricity.</p>	Phase 1 Due Diligence Started 10/10 and restarted 3/1/10	6/30/11	5%
9.	<p>Qadirpur Natural Gas Field Project is to increase natural gas supplies through restoration and enhancement of compression plant. The \$ 200 million project can reduce gas shortage for power generation and industry. Qadirpur gas field is Pakistan's third largest gas producing field; saving about 690 million cubic feet of gas a day, or over 20 per cent of current production.</p>	Phase 1 Due Diligence Start date to be scheduled ASAP.		
10.	<p>Energy Resource Exploration and Development Project Tight gas technology, and pricing policy development. A \$ 10 million project USAID would fund technical services for development of pricing policy and technology development; and could fund the development of a reservoir simulation and computer modeling center.</p>	Phase 1 Due Diligence Start date to be scheduled ASAP.		

No.	Activity	Start	End	Percent Completed
11.	<p>Karot Dam Project 720 mw project based in AJK. The \$1,470 million project is a public private partnership proposed by Associated Technologies (Pvt), Ltd., Lahore, awarded by PPIB of the MWP. Feasibility studies have been conducted.</p>	Phase 1 Due Diligence Start date to be scheduled ASAP.		
12.	<p>Imported coal private power project Help Pakistan build capacity to use the second cheapest source of electricity generation. In time it will enable infrastructure and human resources capacity developments for utilization of domestic coal resource.</p>	Project not being considered due to fuel type issues.		
13.	<p>Gulf Electric Power Project An import substitution, plant conversion project, naptha fuel replacing imported oil – 240 mw, \$255 million public private partnership proposed by Gulf Electric Company, a combined cycle plant that may be possible to be on line in 2 - 3 years.</p>	Project not being considered due to fuel type issues.		
14.	<p>Star Thermal Power Project A 125 mw privately led project awarded by PPIB, to be built in Sindh, project owners in Lahore. Office of Energy to get update on progress: assistance may or may not be required.</p>	Project not being considered while updated status is pending.		
15.	<p>Madian Hydropower Project A 157 mw privately led project awarded by PPIB, to be built in Swat River, Khyber-Pakhtunkhwa, project owners Cherat Cement based in Karachi. Office of Energy to get update on progress: assistance may or may not be required.</p>	Project not being considered while updated status is pending.		
16.	<p>Gulpur Hydropower Project A 100 mw privately led project awarded by PPIB, to be built in AJK, project owners Mira Paksitan Limited, Lahore. Office of Energy to get update on progress: assistance may or may not be required.</p>	Project not being considered while updated status is pending.		

No.	Activity	Start	End	Percent Completed
17.	<p>Koti Hydropower Project A 100 mw privately led project awarded by PPIB, to be built in AJK, project owners Mira Paksitan Limited, Lahore. Office of Energy to get update on progress: assistance may or may not be required.</p>	Project not being considered while updated status is pending.		
18.	<p>Munda Multipurpose Dam A 740 mw privately led project awarded by PPIB, to be built in FATA. Office of Energy to get update on progress: assistance may or may not be required. Reportedly, GOP is expecting \$400 million from World Bank to help finance the project. The dam is expected to generate 740 MW electricity and provide a live storage capacity of 0.67 MAF water. The project would help reduce flood risks in Nowshehra and irrigate 29,000 acres besides benefiting 30,000 acres of already irrigated areas.</p>	Project was not being considered due to legal issues with the GOP.		
19.	<p>Suki Kinari Hydropower Project A 840 mw project, to be built in Khyber-Pakhtunkhwa. A consortium of IFIs reportedly will extend \$300 million to GOP for the project, which costs \$1.4 billion.</p>	Project was not being considered due to substantial development cost and duration to complete.		
20.	<p>Lower Spat Gah Hydropower Project A 657 MW run-of-river project to be built in Kohistan District, KPK, a \$700 million project with an implementation period of 6 years.</p>	Project was not being considered due to substantial development cost and duration to complete.		
21.	<p>Phase 2 Due Diligence on projects selected by Senior USG Team Based Due Diligence Phase 1 results</p>			
22.	<p>Due Diligence of Additional Projects as per Senior Guidance</p>			

IV. Tubewell Efficiency Improvement (Replacement) Program (TWEIP) (as of 2/28/11)

Location: Khyber-Pakhtunkhwa, Punjab, Sindh Provinces

US Funding: \$18.5 million (for USAID share of motor-pump set cost)

Phase 1 (pilot) Launched: 5/1/10 (integrated into Phase 2)

Phase 2 Launched: 11/1/10 (up to 11,000 tubewell motor-pup sets)

Completion of Phase 2: 3/31/13

Implementing Partners: GOP/MWP/DISCOs and participating private farmers. The farmers are required to pay 50% of the cost of each new tubewell motor-pump set. IRG, a USAID-funded contractor, provides technical management of the program. Khushhali Bank, under a USAID funded agreement, disburses USAID’s 50% share of the cost of each individual motor-pump set.

Key TWEIP Targets include:

1. Reduce peak demand for electricity approximately 45 MW.
2. Save approximately 115.5 million kWh of electricity per year.
3. Reduce electricity bills of participating farmers a total of approximately \$7.7 million per year.
4. Accrue about \$3.7 million per year in savings to the seven participating DISCOs from the reduction in sales of subsidized electricity to the farmer.
5. Provide benefits of more-reliable agricultural motor-pump sets to participating farmers.
6. Demonstrate the multiple benefits of a replicable energy efficiency improvement program.

A. Status of key activities under the TWEIP Task Order as of February 28, 2011

No.	Activity	Start	End	Percent Completed
1.	Program Launch: The full TWEIP program was formally launched on 11/1/10 in seven of eight GOP-owned DISCOs.	11/1/10	12/1/10	100%
2.	Motor-Pump Set Supplier Certification: SGS was selected as the Certification Company on 10 Oct, and The Expression of Interest to Motor-Pump Set Suppliers was issued on 14 Oct. Four major motor-pump set suppliers are now “certified & participating”. Three more are awaiting final certification. <i>Activity Started 10 Oct and ongoing. This activity deemed to be 90% complete as at 28 Feb 2011 (but open to new “participants at any time). Activity ends with sales curtailment on 31 Dec 2011.</i>	10/10/10	2/28/11	90%
3.	Certified Motor-Pump Set Suppliers - have submitted a list of 964 farmers who have paid their Audit “deposit” (Rs. 1500 commitment payment) to activate a full motor-pump set pre-audit.	10/10/10	12/31/11	10%

No.	Activity	Start	End	Percent Completed
4.	<p>Farmer Database: The Program has developed an Internet based Database of Farmers who've contacted the TWEIP Call Center. The Database is now available to all Certified Motor-Pump Set Suppliers. To date 1537 Farmers have been published in the Farmer Database.</p> <p><i>Activity Started 13 Dec (USAID Contract approval) and ongoing. This activity "mechanism" deemed to be 100% complete as at 28 Feb 2011, but input remains ongoing on a daily basis. Activity ends with sales curtailment on 31 Dec 2011.</i></p>	12/13/10	12/31/11	100%
5.	<p>DISCO Support: A letter from the Secretary Water & Power has been distributed to all DISCOs (less QESCO) requiring them to cooperate fully with the program. The TWEIP 'embedding' of liaison officers within DISCOs is complete (less IESCO).</p>	10/10/10	12/31/11	85%
6.	<p>Utility Bill Advertising: To date now MEPCO, HESCO, GEPCO, PESCO, FESCO & LESCO have printed the Tubewell advertisement about the project in their electricity bills. This has been hugely successful reaching all the 230,000 tubewell owners with 1584 farmers contacting the call centre and being logged onto the data base within the first two weeks of bill issues.</p> <p><i>Activity Started 13 Dec (USAID Contract approval) and ongoing. This activity deemed to be 85% complete as at 28 Feb 2011 (only IESCO remains to start participating). Activity ends with sales curtailment on 31 Dec 2011.</i></p>	12/13/10	12/31/11	85%
7.	<p>Negotiation of a USAID agreement with a disbursement agent: With effect from 3/3/11 Khushhali Bank assumed responsibility for disbursing USAID's 50% share of the cost of each tubewell motor-pump set.</p>	-	-	100%
8.	<p>MOU between IRG & Motor-Pump Set Suppliers: MOUs between IRG and the Motor-Pump Set Suppliers, have been agreed with 5 Pump Suppliers namely MAK Pumps, FlowPak, KSB Pumps, HMA and PECO. Victoria Pumps and Golden Pumps are undergoing "Certification". The MOU, interalia, covering the Standard Operating Procedures serves as a commitment to the Program's objectives, its rules and regulations, and modalities of working. This week (28 Feb) MAK Pumps and FlowPak have signed the MOUs. Remaining MOU signings are imminent.</p> <p><i>Activity Started 16 Oct (USAID Contract approval) and ongoing. This activity "mechanism" deemed to be 70 % complete as at 28 Feb 2011 – awaiting six signatures. Activity ends with end of program 31 Mar 2012.</i></p>	10/16/10	3/31/12	70%

No.	Activity	Start	End	Percent Completed
9.	<p>MOU between IRG & Banks for Farmer Loans: Separate MOUs, to be signed by IRG and nine participating Banks. <i>Activity Started 16 Oct and ongoing. This activity “mechanism” deemed to be 70 % complete as at 28 Feb 2011 – awaiting eight final signatures. Activity ends with sales curtailment on 31 Dec 2011.</i></p>	10/16/10	3/31/12	70%
10.	<p>Program Marketing: 100,000 program brochures have been printed and distributed. TV & Radio adverts under production. Wall Boards in 36 cities underway. <i>Activity Started 14 Oct and ongoing. This activity “mechanism” deemed to be 70 % complete as at 28 Feb 2011 – Marketing Company selected and now in production phase (including TV and Radio advertisements). Activity ends with sales curtailment on 31 Dec 2011.</i></p>	10/14/10	12/31/11	70%
11.	<p>Overall progress: To date: 5,417 “leads” (interested farmers) have been identified with Rs. 1500 commitment payment. Energy audit teams had conducted 4218 energy audits, sizing of 2366 audits have been complete (KSB: 2108: MAK: 247 and FlowPak: 11). 486 Quotations have been sent to farmers by KSB and MAK. 422 farmers have made payments and 319 pumps are installed. 269 sites have been post-audited for energy consumption after retrofitting motor-pump sets. <i>Activity Started 14 Oct and ongoing. The program “mechanisms” now all in place deemed to be a “springboard” to rapidly increasing sales and installations. Overall program target of 45 MW currently @ 3.2%, and target of 115 GWh @ 4.7% completion. Activity ends with program end date of 31 Mar 2012.</i></p>	10/14/10	3/31/12	4.7%

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