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# USAID'S GENERATION AND TRANSMISSION IMPROVEMENT PROGRAM (GTIP)

QUARTERLY PERFORMANCE REPORT JUNE 2011



CONTRACT: EPP-I-00-03-00004-00, TASK ORDER 08

## **June 2011**

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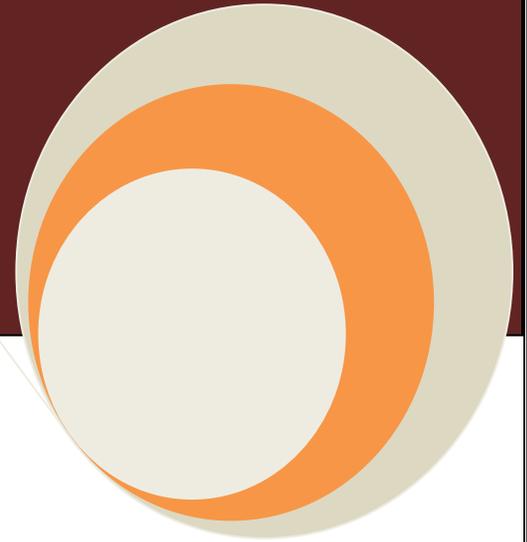
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# ACRONYMS

GTIP	Generation and Transmission Improvement Program
GOP	Government of Pakistan
FARA	Fixed Amount Reimbursable Agreement
GENCO	Generation Companies
GE	General Electric
PSRP	Power Sector Reform Program
CASA	Central Asia South Asia
NPCC	National Power Control Center
PEPCO	The Pakistan Electric Power Company
EECR	Energy Efficiency, Conservation and Renewable Energy
PMO	Project Management Office
EW	Energy Wing
ECC	Economic Coordination Committee
AEAI	Advanced Engineering Associates International
LNG	Liquefied Natural Gas
FODP	Friends of Democratic Pakistan
IMF	International Monetary Fund
NEPRA	National Electric Power Regulatory Authority
IPP	Independent Power Producer
PIIB	Private Power Infrastructure Board
NTDC	National Transmission and Dispatch Company
PSRP	Power Sector Reforms Program
PDIP	Power Distribution and Improvement Program
DISCO	Distribution Company
CPPA	Central Power Purchasing Agency Limited
WAPDA	Water and Power Development Authority
DBDP	Diamer Basha Dam Project
KKH	Karakoram Highway
TUTAP	Turkmenistan, Uzbekistan, Tajikistan, Afghanistan, Pakistan
OGRA	Oil & Gas Regulatory Authority
AEDB	Alternate Energy Development Board

# PROGRAM OVERVIEW

USAID's Generation and Transmission Improvement Program (GTIP) supports the jointly agreed upon interests of USAID and the GOP in power generation, transmission efforts, and related policy reform activities. Current key activities include providing monitoring and implementation support to the following seven signature energy projects, announced by the Secretary of State, Hillary Clinton:

- Four repair and maintenance projects (3 GENCOs and ITarbela, Total Funding \$68 million)
- Two multipurpose dam completion projects (Gomal Zam and Satpara, Total funding \$66 million)
- One wind project in Sind (150 MW with USG contribution of \$46 million).

These projects, when completed, will add 580 MW to Pakistan's generation capacity.

GTIP is also supporting generation & transmission related studies and the policy reform activities assigned by USAID. Examples include developing policies/procedures for the National Power Control Center and advisory services at MWP and the Planning Commission (Energy Wing).

**Staffing:** Contractor's level of effort is comprised of 85% Pakistani and 15% international staff.

**Location:** All Provinces and Federally Administered Tribal Areas

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

**Confidential information redacted**

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# EXECUTIVE SUMMARY

Project Highlights for the Reporting Period April-June 2011 are:

- The Gomal Zam Dam and Spillways are 98 % complete, Hydropower and Switchyard are 93 % complete and the Transmission Line is 60 % complete.
- At the end of the quarter, Satpara Dam is 99 % complete, the Irrigation System is 89 % complete whereas Power House # 1 & 2 are 99 % complete. WAPDA awarded contract for Unit # 3 & 4 civil works to Descon and construction activities started from early May, 2011 and is about 4% complete.
- Completed a technical audit of Jamshoro, Guddu and Muzaffargarh Thermal Power Stations” and sent to USAID, MWP, 3 GENCOs and Planning Commission. The main objective of the study was to carry out a baseline evaluation for determining efficiency gains and operational improvements to be achieved through the implementation of FARAs.
- Initial financial model for the NTDC business plan is done, with status quo situation modeled. An alternative future is being depicted with NTDC and CPPA being split up and CPPA being self-sufficient. A draft financial plan was developed that splits off CPPA from NTDC using latest financial figures and projects forward three cases: a “status quo case,” a “wires only” company , and a “CPPA only” company.
- Developed GENCO business plans and presented the key results of business plans to USAID. A key conclusion is that the GENCO management needs to be autonomous with regards to making decisions. This Plan need to be mainstreamed into the larger effort of the PSRP.
- GTIP Prepared Report for Joint Secretary Power MWP (Ministry of Water and Power), on KESC tariff structure. Report included analytical analysis of components, along with graphical illustrations.
- Established a sustainable process for regular updates of key information to the Ministry website. Updated MWP website to include daily supply and demand data for Jan-June of 2011. Established a short-term path for MWP to use its website to promote transparency in power sector operations.
- Step I Due Diligence for the \$11.2 billion Diamer-Basha project was submitted to USAID on and its review by USAID has led to increased USG interest in the 4,500 MW project.
- Step I Due Diligence on Kurram Tangi Multipurpose Dam was and submitted to USAID.

- A visit to the Mangla Dam was arranged by GTIP for the USAID Energy Office, including Acting Director, Senior Energy Advisor and a visiting Director on USAID Pakistan Affairs from Washington DC. WAPDA gave a briefing on the proposed project which was followed by discussion.
- GTIP experts came up with the concept of Turkmenistan, Uzbekistan, Tajikistan, Afghanistan, and Pakistan (TUTAP) Transmission Interconnection, under which power from Central Asia would be transmitted to Pakistan through Afghanistan. This project is highly important for regional stability and is likely to promote peace in the conflict affected areas of Afghanistan-Pakistan which is one of the broader aims of USAID. The project envisages power import to Pakistan up to 6000 MW.
- Worked extensively with USAID's Development Outreach and Communications Office and vendors for printing banners and standees for branding of the six-signature projects. The banners and the standees are placed on sites to show the collaborative efforts of USAID with Pakistan in the energy sector.



**Saeed Anwar, COTR and Ghani Khan Marwat, Project Management Specialist visited Satpara Dam on June 20, 2011**





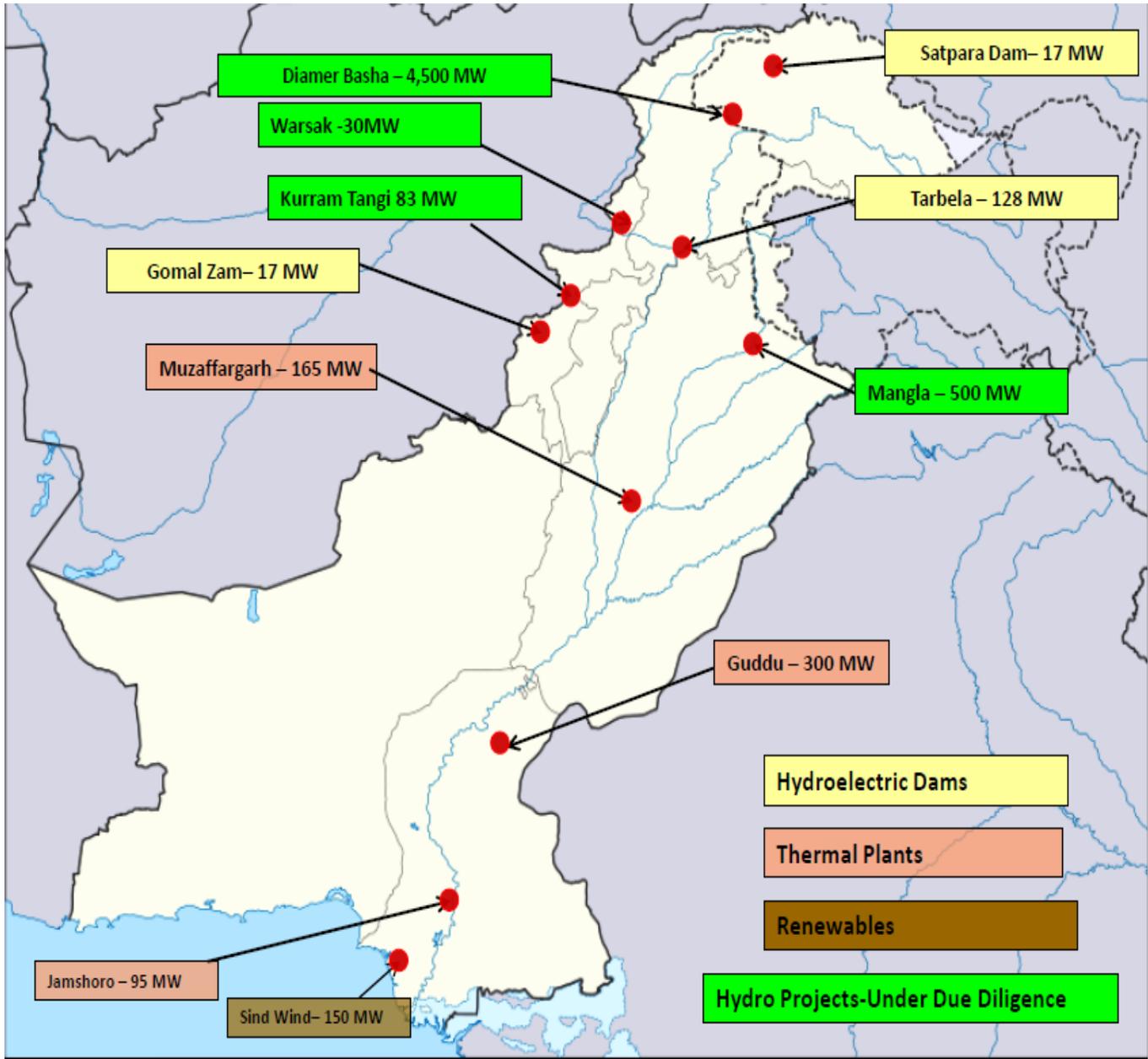
**Satpara Reservoir and  
Dam Portion**

**Irrigation Weir under  
Construction at  
Satpara**



**USAID Branding at  
Satpara Unit 3 & 4:  
Construction in  
Progress**

# GTIP REACH IN PAKISTAN



<b>Punjab</b>	Mangla	Muzaffargarh		
<b>Sindh</b>	Guddu	Jomshoro	Sindh Wind	
<b>KPK</b>	Gomal Zam	Khurram Tangi	Warsak	Tarbela
<b>Gilgit Baltistan</b>	Diemer Basha	Satpara		

# Main Components of GTIP

## Component I:

### Project Monitoring and Implementation

#### **Key Personnel:**

- Salahuddin Rifai, Dispatch
- Saleem Paracha, Hydro
- Malik Ghulam Abbas, Thermal
- Michael Gembol, Generation
- Asif Majeed, Engineering
- Talha Javed, FARA

GTIP is monitoring the implementation of six Fixed Amount Reimbursable Agreement (FARA) projects, three existing thermal GENCO power plants (Muzaffargarh, Guddu and Jamshoro), one existing hydropower (Tarbela) and two new multipurpose dams (Gomal Zam and Satpara). GTIP is also coordinating with the implementing partners to achieve timely progress and the processing of invoices for reimbursement to the GOP from USAID.

Specific activities for the reported period were:

#### ➤ **Hydro:**

- **Tarbela FARA:** The installation and testing of Unit 4 Generator Stator Winding with Class F insulation was completed on May 12, 2011. On June 28, 2011 the unit was operating at full load of 131 MW at reservoir level of 1434 ft. Prior to shutdown and with old Class B winding, the unit was operating at 87 MW, thus there is a net gain of 44 MW at this reservoir level. Tarbela reservoir level will reach to its maximum level of 1550 ft in early August and at that time it is expected that unit 4 will generate 195 MW, hence a gain of 108 MW. During site visits Unit 4 generator stator temperatures were checked and these were within acceptable limits and well below the alarm limits. Class F Windings for Unit 1 and 3 have arrived at site and the units will be shut down after high flow season is over (from mid September), and the installation and commissioning for these units will be completed by end May 2012. WAPDA has placed Purchase Orders for all equipment except training, which is still in process of approval. Total disbursement till June 2011 is \$ 9.509917 million.

- **Gomal Zam Dam:** The main dam is in the final stages of completion and the placement of Roller Compacted Concrete (RCC) on left and right abutment was completed to its level of 763 meters. The construction of bridge girders on the spillway piers was in progress and it is expected that the 100 % completion of main dam and spillways will be achieved by end July 2011. On the powerhouse side, cable pulling and cleaning of the turbine runners and other parts affected by the floods were in progress. The installation of transmission line towers were also in progress and have been installed on an area of 40km (60 % completion achieved) starting from the Tank Grid station to the powerhouse. The closure of diversion tunnel and reservoir filling started on March 30, 2011 and at present the water level was 60 meters in the reservoir. WAPDA is releasing sufficient water from the dam to meet the water rights of the downstream farmers.

The Main Dam and Spillways are 98 % complete, Hydropower and Switchyard are 93 % complete and the Transmission Line is 60 % complete. Total disbursement till June 2011 is \$ 26.053 million. Total financial progress by end of June is 65.13%.

- **Satpara Activity Agreement:** Contractors were mobilized at site after receipt of outstanding payments. Construction activities started in early April. WAPDA awarded civil works contract for unit 3 & 4 to Descon as a variation order to the existing contract. The excavation works started in early April, 2011. The contract for E & M works was awarded to M/s Andritz Technologies, China on Jun 9, 2011 with a completion period of 21 months.

During several visits it was verified that works completed and in progress are supervised by certified engineers of the 'Satpara Dam management consultants - Pakistan Engineering Services' in accordance with the approved specifications and applicable standards. During the visits, GTIP expert monitored progress and also verify WAPDA invoice # 2 of amount 2,282,000 US\$ ; for the completion of irrigation system milestone (89% completion). At the end of the quarter, Main Dam is 99 % complete, the Irrigation System is 89 % complete whereas Power House # 1 & 2 are 99 % complete. WAPDA awarded contract for Unit # 3 & 4 civil works to Descon and construction activities started from early May, 2011 and is about 4% complete. Total disbursement till June 2011 is \$ 7.1153 million, while \$ 2.282 million are in process with OFM. The financial Progress by end of June is 36%.

➤ **Thermal:**

- **Muzaffargarh FARA:** Rehabilitation work of the Boiler super heater tubes of Unit 1, 2 & 3 was completed in April, 2011, providing a net gain of 60 MW. An Amendment in FARA was made to make the GENCO fully responsible for procurement. Total disbursement till June 2011 is \$ 4.4645 million.

- **Jamshoro FARA:** Site visits were made to Jamshoro for discussions with Chief Engineer, Plant Managers of operation and maintenance and Director Procurement for expediting actions on FARA items. GTIP provided support in making of detailed specifications of item 27 i.e. 'Off-line efficiency monitoring and trainings' for public tendering and suggested some measures for better housekeeping. Total disbursement till June 2011 is \$ 0.67 million.
- **Guddu FARA:** GTIP conducted preliminary studies for analyzing costs and benefits of finding alternative to GE proposal for Combined Cycle Plant at GENCO II (Guddu power station). On June 4, 2011 CPGCL informed USAID that negotiations with GE on up rate & upgrade of 300MW Sub- block II-A did not bear any positive results, hence they are offered three alternatives to utilize same amount of FARA funds for rehabilitation of units 1 – 4 and the overhaul of units 11 – 13 which will increase the output by +300MW.

A Due Diligence draft report, based on request from Guddu and directed by USAID, was prepared to ascertain the cost-benefit of the alternative proposal given by Guddu management. The present FARA for this project is not progressing because GE and the GENCO have not reached an agreement on price. The data for the due diligence was collected and discussed the scope of work with the respective Plant Managers during site visit in June, 2011.

➤ **Technical Audit:**

Completed a study of Jamshoro, Guddu and Muzaffargarh Thermal Power Stations” and sent to USAID, MWP, 3 GENCOs and Planning Commission. The main objective of the study was to carry out a baseline evaluation or a benchmarking for determining efficiency gains and operational improvements to be achieved through the implementation of FARAs. Presentation on the report was also made to MWP. Key findings were that some problems are technical and are largely being covered under the FARA replacements. Other reasons derive from inadequacies of management at the companies, lack of financing for essential O&M activities and modernization, and fuel quality problems. The recommendations for improvement were also shared with the stakeholders.

➤ **Environmental Monitoring & Mitigation Plans (EMMP):**

Technical support was provided in the preparation of Environmental Mitigation and Monitoring Plans (EMMP) for FARA projects. Meetings were held prior to award of contract with USAID officials from the Office of Energy and Regional Environmental Office. Finalized the proposals for preparation of Environmental Mitigation and Monitoring Program (EMPP) for four FARAs (Muzaffargarh, Guddu, Jamshoro and Tarbela) in accordance with the USAID environmental guidelines. WAPDA in consultation with GTIP prepared Work Plans for the Implementation of EMMPs for Gomal Zam & Satpara. Environmental Cell of WAPDA approved the work plan. GTIP is providing support and will monitor the implementation during site visits.

## Quarterly Reimbursement Summary till June 30, 2011

Total Reimbursement Claim Submitted \$50,094,717  
 Amount Reimbursed \$47,812,717  
 Reimbursement In process \$2,282,000

Agreement		July-Sep 2010	Oct- Dec 2010	Jan- Mar 2011			Apr- June 2011
Muzaffargarh	Requisition No.	1			2	3	
	Amount USD	167,616			3,734,384	562,500	
Jamshoro	Requisition No.			1			
	Amount USD			670,000			
Guddu	Requisition No.						
	Amount USD						
<b>Total amount requisitioned<sup>1</sup></b>							
<b>5,134,500</b>		<b>167,616</b>			<b>4,966,884</b>		
<b>Amount reimbursed<sup>2</sup></b>							
<b>5,134,500</b>					<b>4,572,000</b>		<b>562,500</b>
Tarbela	Requisition No.			1	2	3	4
	Amount USD			3,330,000	3,330,000	2,479,917	370,000
Satpara	Requisition No.			1			2
	Amount USD			7,115,300			2,282,000
Gomal Zam	Requisition No.			1	2		3
	Amount USD			19,928,000	5,125,000		1,000,000
<b>Total amount requisitioned<sup>3</sup></b>							
<b>44,960,217</b>					<b>41,308,217</b>		<b>3,652,000</b>
<b>Amount reimbursed<sup>4</sup></b>							
<b>42,678,217</b>					<b>38,828,300</b>		<b>3,849,917</b>

1 Amount requisitioned refers to the claims processed and sent to USAID for approval.

2 Amount reimbursed refers to the disbursements made by USAID.

3 Amount requisitioned refers to the claims processed and sent to USAID for approval.

4 Amount reimbursed refers to the disbursements made by USAID. Therefore there might be a mismatch in the amount requisitioned and amount reimbursed as some disbursements are made in the next quarter.

## ➤ **GENCO Management Contracts**

### Key Personnel

- Ghulam Abbas, Generation Expert
- Michael Gembol, Generation Expert

GTIP is working with PPIB to develop the draft of bid documents, O&M draft contracts, evaluation criteria, and baseline studies for a private contractor to manage the operations and maintenance (O&M) of Muzaffargarh Thermal Power Station through the existing managers and workforce. GTIP completed an Attainable Improvements Analysis (AIA) showing how much performance improvement can be expected from the FARA rehabilitation projects, fuel changes, and the management contracts. The AIA shows that the FARA work will regain most of the lost capacity and efficiency, and this undercuts some of the improvements expected from Management Contracts. GTIP is using the AIA to make rational estimates of just how much capacity and efficiency can be recovered by Management Contracts. PPIB plans to have terms in the contracts that incentivize the contractor to make major capital investments, so it is important that all the incentive terms are based on rational expectations.

## ➤ **Sindh Wind Project**

### Key Personnel

- Daniel Potash, Senior Financial Analyst
- Anser Ali, Project Development Advisor
- Danish Khaliq, Project Development Advisor
- Aisha Fariel Salahuddin, Project Development Advisor
- Aameena Sohail, Project Legal Advisor

USAID is funding a Public-Private Partnership between the GOP and AES Corporation, which will develop and construct a 150 MW wind power project. GTIP will monitor and support project implementation including feasibility analysis, financial structuring and risk allocation, providing technical and legal support, and generally assisting USAID and GOP to create a sustainable and attractive investment in a modern wind power farm.

### Specific work done was:

- Site visits were made by GTIP experts and civil engineer consultants. Draft of site visit report was submitted to USAID. The report indicates that southernmost site Keti Bandar has far better wind corridor and environmental considerations could be mitigated. The other two sites are entirely feasible and only somewhat less favorable. AES local office collaborated with GTIP by sharing data and strategies.

- Law firm RFP was issued to 8 firms out of 14 identified in May. Three bids from excellent companies were received. Hiring is delayed because of reconsideration of the Project vis-à-vis AES change of orientation.
- GTIP team met with AEDB (Alternate Energy Development Board) to get wind data pursuant to MWP request and obtained wind data.
- As informed by the local office of AES, AES HQ does not want to move ahead with paying for feasibility study at this time. Other options are being explored, such as USAID picking up this cost temporarily. A decision paper has been drafted and revised, and is being finalized by staff of USAID and GTIP.
- The Project Development Agreement between USAID and AES and GOP is under review depending how AES wants to proceed.
- GTIP meets MWP periodically to review progress on the Sindh Wind Project. Joint Secretary Power sent a letter to USAID affirming its commitment to the Project in June.
- A meeting was held among AES, USAID and GTIP's project development team to discuss the status of Sindh Wind Project. The discussions focused on the challenges faced and strategy going forward.
- Government of Sindh directly indicated that land could be allocated for the project. Another problem is that AES has temporarily put Pakistan investments in a suspense mode, which is preventing the feasibility study from commencing. Finally there is an issue with GOP not wanting to create the SPV in light of AES and USAID ambivalence about the project. USAID has expressed doubts about the project's economic attractiveness in light of least cost planning consideration. Specifically, GOP does not want to create an SPV until USAID funding is confirmed. Such confirmation is difficult in light of AES' ambivalence about investment in the project.
- GTIP finalized its land report assessing these sites and made a recommendation on which one is best. A major issue to be addressed ASAP is whether the Investor, or USAID, should fund an urgently required feasibility study that satisfies USAID's environmental requirements. This would allow moving forward.
- Several papers were drafted for USAID decision-making, risks and benefits and options for dealing with revising the project in a new formulation. It was tentatively decided that USAID funding the feasibility study would be inapposite.

## ➤ **Business Plans Activity**

### Key Personnel

- Daniel Potash, Senior Financial Analyst
- Anser Ali, Project Development Advisor
- Danish Khaliq, Project Development Advisor
- Aisha Fariel Salahuddin, Project Development Advisor
- Ameena Sohail, Project Legal Advisor

Some of the specific activities are:

***GENCO Business Plans:***

- Developed GENCO business plans and presented the key results of business plans to USAID. The following four main recommendations were suggested.
  - I. GENCO management needs to be autonomous with regards to making decisions.
  - II. The GENCO Business Plans need to be mainstreamed into the larger effort of the PSRP.
  - III. The success of business plans depends on rationalizing the generation tariffs.
  - IV. The existing managements are weak; therefore GENCOS should issue management contracts to private sector parties with current experience operating thermal power plants.

***NTDC Business Plans:***

- Data collection and informative meetings are continuing with NTDC.
- Senior/middle management interviews with NTDC management conducted during the quarter.
- Assessments of different internal and external aspects of NTDC business and business environment.
- A report was prepared by GTIP about the proposed structure of CPPA and recommendations for its sustainable operations.
- Mapping of issues critical to future activities of NTDC.
- Identification of areas for management/corporate governance improvements.
- Initial financial model is done, with status quo situation modeled. An alternative future is being depicted with NTDC and CPPA being split up and CPPA being self-sufficient. A draft financial plan was developed that splits off CPPA from NTDC using latest financial figures and projects forward three cases: a “status quo case,” a “wires only” company , and a “CPPA only” company.
- Internal development of business plan is in process: strategy, financial projections, staffing. A draft business plan was created and circulated internally and revised for coherence of financial, economic, legal, technical, and strategic issues.
- Field trip to Sheikhpura Grid Station (2400Mva) which is the biggest in Pakistan including walkthrough inspection on the operations and maintenance departments at station.
- Data was collected from NTDC planning department and is being compiled into a detailed Transmission system analysis report.
- Reviewed the NTDC Grid Code to include the updates into be NTDC B-plan proposal.
- Field visit to National Power Control Center (NPCC), part of NTDC, discussed in general key issues, got an update on JICA-financed project to upgrade control room which is expected to be complete by year end.
- The above items will be presented to NTDC next reporting period, with the objective to elicit NTDC’s business plan, as consistent with PSRP.

## **Component 2:**

### **POLICY AND REFORM**

#### **Key Personnel:**

- Mary Webster, Policy
- Faraz Khan, Finance
- Ijlal Naqvi, Outreach
- Michael Gembol, Generation
- Gerrie Vermeulen, Transmission
- Akbar Yousaf, Hydrocarbons
- Imran Haider, IT

#### **I. Support to Governance and Reform Team (GRT), GOP**

GTIP provides support to the Ministry of Water and Power and Planning Commission in the implementation of the GOP's Power Sector Reform Program (PSRP). The activity is jointly performed with Power Distribution Improvement Program (PDIP).

##### ➤ **Policy:**

- Provided advice on elimination of Tariff Differential subsidy to MWP. A series of policy options were presented to the stakeholders including MWP, MoF Planning Commission and PPIB.
- Provided policy advice and inputs to Energy Security Chapter of 10th Five Year Plan plus accompanying policy statement, budget and action plan.
- Prepared a report for Planning Commission on "Solutions & Schedule to address Pakistan Energy Crisis", which gives a systematic and methodical schedule. Action items are being prioritized and specific timelines have been suggested. The report consolidates all proposed solutions from PSRP, FODP, PC and Energy Summit Preparatory Meeting.
- Provided comments and feedback for various documents assigned by the Member Energy, Planning Commission and Secretary Water and Power.
- Prepared a presentation for the energy summit, describing all the activities of the USAID.

##### ➤ **Finance:**

- Tariff Structure: Prepared Report for Joint Secretary Power MWP, on KESC tariff structure. Report included analytical analysis of components, along with graphical illustrations.

- Finance Course: Designed a financial training course covering key aspects of financial reporting, accounting, ratio analysis etc.
- Financial analysis: Provided financial advice to Joint Secretary Power on financial issues relating to MWP. Prepared analytical briefing to JS Power on issues relating to allocation of tranche payments. In addition, evaluated DISCOs debt-related issues to provide financial input on future course of actions.
- Worked on providing detailed cash flow and economic analysis of five projects being undertaken by GTIP, including costs, ratio analysis etc.
- Economic Value of Gas Allocation: Prepared a financial model to assist MWP in the allocation of Gas between IPPs and the Fertilizer Sector. Report included analytical analysis of the proposal, along with detailed financial working and graphical illustrations.
- DISCOs Receivables Model: Gathered financial data including key indicators of DISCOs performance in receivable collections and circular debt related issues. Used information to prepare excel model, to assist MWP in monitoring, tracking progress and evaluating DISCO performance over a period of time. Also prepared presentation for Joint Secretary Power on evaluating the PEPCO Receivables recovery targets plan.
- Group Support: Provided support to other GTIP members in financial analysis related tasks
- PEPCO Dissolution Issues: Provided DS Power with discussion of major Post PEPCO issues, along with some recommendations/solutions.

➤ **Outreach:**

- GTIP provided an Outreach Advisor to work with the MWP. The Outreach Advisor assists in implementing the PSRP with a particular focus on transparency and accountability in the power sector.
- Established a sustainable process for regular updates of key information to the Ministry website. Updated MWP website to include daily supply and demand data for Jan-June of 2011.
- Established a short-term path for MWP to use its website to promote transparency in power sector operations.
- Developed a communications action plan for the MWP for the promotion of accountability and transparency in power sector operations.
- Capacity building of Ministry staff to maintain and update website.
- Developed a concept note on automating information workflows at the MWP
- Wrote Terms of Reference for MWP to hire a web developer who will redesign the MWP website and build a web portal allowing secure access to operating information on the power sector. Assisted MWP in identifying funding sources for the web developer.
- Assisted in preparations for the Energy Summit which was initially scheduled in May 2011 but has been postponed several times now.
- Secured written approval from Secretary MWP to go ahead with five proposed MWP communications activities:
  - a. Revamping the MWP website.
  - b. Training workshops for energy sector journalists.

- c. Delivery of loadshedding schedules via SMS
- d. Electricity consumer surveys.
- e. Power sector reforms newsletter.

- Initiated design of a pilot program to deliver loadshedding schedules via SMS.
- Prepared inaugural Ministry of Water and Power Newsletter for June 2011.

➤ **Transmission:**

- GTIP team is in the initial conceptual - stage to look into the possibility of importing power from Afghanistan that is already connected to the Asian grid. Initial round of meetings held with various senior staff members of MWP/NTDC and MD PEPCO.
- Reviewing policies and operation of National Power Control Centre (NPCC) to identify opportunities for training needs in order to improve the operations.
- Data is continuously collected and is under review.
- New procedures for NPCC are being compiled.

## 2. Support to Planning Commission

➤ **Hydrocarbons:**

- Energy section of Annual Development Plan 2011-12 was finalized and published.
- Industrial zones near dormant gas fields: Attended meetings, prepared MOMs and coordinated follow-up.
- ECC summary for consumer gas pricing: Undertook detailed review and analysis, gave internal presentation and drafted ECC summary as per EW guidelines.
- Other ECC summaries related to energy sector: Provided review and inputs. Work is ongoing, as required.
- Comments on Hagler Bailey gas study: Prepared comments as per Energy Wing request.
- Fertilizer gas pricing and subsidy issues: Prepared report based on review of various documents, analysis and discussions. Detailed meeting with Sr. Chief is pending.
- Energy policy document: Prepared TORs for development of document. Further work is on hold pending EW interest in the subject and donor support.
- General Technical Assistance and support to EW is ongoing

➤ **IT Support:**

- Prepared summary for Prime Minister for Energy Conservation Measures
- Prepared graphs comparing Temperature and Electricity Demand in the country
- Prepared a brief on the deliberates to arrange Rs. 120 Billion for the energy sector
- Updated IT equipment placed in Member Energy's office

- Prepared a summary for The President regarding “Three Gorges Project” for official visit to CHINA
- Prepared a summary for the Prime Minister on Import of Power from Iran for the border towns of Balochistan.
- Prepared a summary for ECC for the Power Crisis in summer.
- Prepared a summary for ECC for Rationalization of Gas Pricing in order to Mitigate Shortages
- Prepared a summary for ECC for Shortage of Gas at KESC and Load shedding payment to PSO
- Gathering information for preparing a brief on Circular Debt.
- Prepared a brief on Value of Gas in Fertilizer sector.

### **COMPONENT 3:**

## **NEW PROJECTS, PLANNING & DEVELOPMENT**

### **Key Personnel:**

- Mian Shahid Ahmad – Engineering & Finance
- Ghulam Abbas – Hydro
- Muhammad Khan Hoti- Finance
- Malik Ghulam Abbas- Thermal
- Munir Ahmed- Capacity Building
- Michael Gembol- Thermal
- Dan Vincent- Capacity Building
- Tariq Qazi- Transmission
- Gerrie Vermeulen-Transmission

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

**Phase I:** 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. GTIP 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.

➤ **HYDRO:**

***Due Diligence:***

The Due Diligence team is tasked to recommend USAID funding support to selected Infrastructure Projects.

- Constituted a Joint WAPDA-USAID Due Diligence Task Force to review the upcoming projects.

***Di Amer Basha Multipurpose Dam:***

- Collected and reviewed information for Step 1 Due Diligence report, shared initial findings with USAID for comments and guidance.
- Step 1 Due Diligence for the \$11.2 billion Di Amer-Basha project was submitted to USAID on 21 April 2011 and its review by USAID has led to increased USG interest in the 4,500 MW project. Funding support from USAID is under consideration and follow-up on questions and queries raised by various offices are being dealt with, on a regular and continuing basis at GTIP.

***Kurram Tangi:***

- Initial review of information available for Kurram-Tangi Multipurpose Dam project was done. Submitted Step 1 Due Diligence Report on Kurram-Tangi Multipurpose Dam project.
- USAID authorized Step 2 Due Diligence, this effort is underway. Given that irrigation is a major component of the project; the Step 2 Due Diligence will be closely coordinated with the USAID Office of Agriculture. USAID and WAPDA have established a Joint Kurram Tangi Task Force to accelerate process.

### ***Warsak and Mangla:***

- Step I Due diligence for Rehabilitation of Warsak Hydropower Plant and Mangla Hydropower Plant were initiated which included site visits and initial round of meetings.
- WAPDA and USAID have established a Joint Mangla Up-Grade Project Task Force to accelerate due diligence. The Step I Due Diligence has been completed this month and a report was submitted to USAID. A visit to the Mangla Dam was arranged by GTIP for the USAID Energy Office, including Acting Director, Senior Energy Advisor and a visiting Director on USAID Pakistan Affairs from Washington DC. GTIP team leader for new projects accompanied the team. WAPDA gave a briefing on the proposed project which was followed by discussion.

### **➤ Hydro Carbons and Thermal:**

- GTIP team visited Kunar Pasakhi Deep (KPD) gas and oil field to get information for the Step I Due Diligence study of KPD gas being allocated to power sector.
- GTIP team is in the process of evaluating a prospective project for transporting natural gas from the Kunar Pasakhi Deep Gas Field to Jamshoro Thermal Power Station, located 45 km away.
- Discussions with Member (Energy), Planning Commission on issues pertaining to LNG supply for power sector and use of KPD gas.
- Started Step I Due Diligence for USAID support to the LNG Floating Storage and Regasification Project,
- Collected and reviewed information on 320MW UAE Gifted Gas Turbine Power Plant and prepared preliminary draft of Step I Due Diligence for USAID guidance on format and structure of the report.
- GTIP team is working on the IPPs plans to import LNG. Held a meeting with the CEO of Orient Power, to obtain information on the IPPs plans to import LNG.
- Reviewed and finalized the report prepared by Hagler-Bailly Pakistan on the Economic Value of natural gas in each sector. This value was assessed using alternatives for natural gas and determined on the basis of the cost of the best alternative in each sector and end-use. The study shows that electric power generation by CCGT plants has the highest economic value for available gas supplies. The report was shared with the Planning Commission, Ministry of Petroleum and Natural Resources, and Ministry of Water & Power. A presentation was also given at the Energy House to different stakeholders including officials from Inter State Gas Systems (ISGS), Sui Southern Gas Company (SSGC), Sui Northern Gas Pipelines (SNGP), and a delegation of MNPR headed by the Additional Secretary, MNPR.

### **➤ Capacity Building:**

- Conducted and submitted the draft due diligence report on WAPDA's Request for General Consultancy Services. A meeting was held on April 30, 2011 in Islamabad between USAID Energy Office and WAPDA, also attended by the Deputy Mission Director USAID. WAPDA officials discussed about possible USAID's assistance in acquiring General

Consultants (GC) for technical areas and subsequently sent a formal request along with the concept note. The request was forwarded to GTIP to analyze and give recommendations.

- In pursuant to the request, meetings were held at WAPDA House Lahore with six senior WAPDA officials and draft report was submitted to USAID in May 2011. Awaiting USAID authorization to proceed further on the capacity building request.
- A Donors Forum-Energy Roundtable was convened on June 14, 2011 in Islamabad, organized by GTIP. Participants from Japan International Cooperation Agency (JICA), KfW Development Bank, Islamic Development Bank, French Development Agency (AFD), UNDP, USAID funded Energy Programs i.e. TWEIP, GTIP and. During the meeting, donors provided updates on their ongoing efforts in the energy sector, presented new projects in the pipeline, discussed common challenges, and synchronized efforts in helping the Government of Pakistan solve the severe energy sector crisis. Wrote the minutes of the meeting and shared with all participants.
- Worked on development of a database of all donor funded energy projects in Pakistan. A format was provided to all donors and the report is being compiled. Data has been obtained from kfW, Islamic Development Bank, and AFD. Efforts are being made to obtain data from other donors so that a consolidated report can be finalized and shared.
- Prepared and compiled the reports for the USAID Energy Office as and when requested.

#### ➤ **Transmission and Import of Power:**

- Working on the proposal for construction of a 220 kV D.I. Khan sub-station along with associated transmission lines to ensure stability and reliability of NTDC system.
- Evaluation of adequacies of NTDC's network, identification of various NTDC's transmission and grid station projects as FARA candidate projects, for approval of USG. The 220 Kv Dera Ismail Khan Grid Station along with allied transmission line, located in KPK province, bordering Waziristan, a priority project, has been included as a candidate Project for the possible USG support under FARA.
- Collection of NTDC Transmission Grid data.
- GTIP experts came up with the concept of Turkmenistan, Uzbekistan, Tajikistan, Afghanistan, and Pakistan (TUTAP) Transmission Interconnection, under which power from Central Asia would be transmitted to Pakistan through Afghanistan. This project is highly important for regional stability and is likely to promote peace in the conflict affected areas of Afghanistan-Pakistan which is one of the broader aims of USAID. The project envisages power import to Pakistan up to 6000 MW. After extensive initial round of meetings and data collection made a presentation on TUTAP project to MWP. The Minister and Secretary MWP showed great interest in the project and MWP has now formally requested USAID for a detailed briefing and preliminary study of the project.
- Contract Agreement signed between AEAI and M/s Auriga International for preparation of policies and procedures of Power System Operation, Economic Dispatch of Power and Load Shedding procedures of NTDC/NPCC.

# MEDIA & COMMUNICATIONS

## Key Personnel

- Ijlal Naqvi
- Maliha Khurram

Activities for the reported periods were:

- Worked extensively with USAID's Development Outreach and Communications Office and vendors for printing banners and standees for branding of the six-signature projects. The banners and the standees are placed on site to show the collaborative efforts of USAID with Pakistan in the energy sector.
- Prepared a report on the history of FARAs and obstacles (key problems) in the implementation. The report also gives an account of the efforts by GTIP team to overcome the problems in the finalization and implementation of FARAs.
- Developing communication products in support of GTIP project work, such as success stories, visibility materials etc. This task also includes conceptualizing other appropriate tools (for e.g. documentaries) for increasing visibility of project work. Prepared a success story for Muzaffargarh Power Plant, highlighting the role played by GTIP/USAID.
- Revised the Marking Plan for GTIP which suits project requirements and addresses recent communication needs.
- Worked with USAID's Development Outreach and Communications Office and media personnel for the coverage of the energy round table in the press. The press release was approved by the DOCs office. The event was covered in main English and Urdu daily newspapers such as The News, Daily Times and Daily Jang.

# Administration/Management Support to GTIP

## **Key Personnel:**

- Dan Vincent
- Anjum Sarfaraz
- Syed Hussain Al Azeem
- Muhammad Awais Shabir

Administration is structured to support on-going and planned project activities while ensuring contractual compliance. Administration encompasses the following functions: Accounting/Finance, Human Resources, Procurement, Contracts, Logistics and Communications. In implementing these functions, processes and policies are developed to ensure uniformity of efforts.

**Accounting/Finance:** A draft budget was developed that included estimates from respective task leaders.

**Human Resources:** The following new staff members added during the quarter , M. Gembol, generation G. Vermuelen, transmission D. Vincent, admin & management support T. Qazi, transmission, A. Yusuf, Oil & Gas Mohammad Khan Hoti, Senior Project Financing Advisor Ghulam Abbas, Senior Advisor Hydro. One new member hired as a consultant (Anser Ali)

**Procurement:** Purchase Orders placed for operations; RFP evaluated and POs issued for technical services which include Infra D (Site selection Sindh Wind) and Auriga (NTDC policy & procedures). RFP issued for Environment Mitigation Monitoring Plans (EMMPs) to support FARAs, technical services of a consultant, Hagler Bailly Pakistan, legal firms for Sindh Wind, medical insurance, car lease and computers.

**Contracts:** All 4 Concurrence requests for travel and all 7 requests for staffing approved by USAID. Consent to place commercial agreement with Auriga approved.

**Communications:** Set up computers for new hires

**Logistics:** 45 Trips (arrangements, per diem & documentation), evaluated potential guesthouses for staff.