PERFORMANCE AUDIT REPORT
ON
REHABILITATION OF GENCO-I, II & III
UNDER USAID
AUDIT YEAR 2016-17

AUDITOR GENERAL OF PAKISTAN

PREFACE

The Auditor General conducts audits in terms of Articles 169 and 170 of the Constitution of the Islamic Republic of Pakistan 1973, read with Sections 8 and 12 of the Auditor General's (Functions, Powers and Terms and Conditions of Service) Ordinance 2001.The performance audit of Rehabilitation of GENCO-I, II & III was carried out accordingly.

The Directorate General of Audit Power conducted performance audit of the Rehabilitation of GENCO-I, II & III from December, 2016 to January, 2017 for the period from May, 2010 to June, 2016 with a view to reporting significant findings to stakeholders. Audit examined the economy, efficiency and effectiveness aspects of the Rehabilitation of GENCO-I, II & III. In addition, Audit also assessed, on test check basis whether the management complied with applicable laws, rules, and regulations in managing the Rehabilitation works. The Performance Audit Report indicates specific actions that, if taken, will help the management realize the objectives of the Rehabilitation of GENCO-I, II & III. Most of the observations have been finalized in the light of discussions in the DAC meeting.

The Performance Audit Report is submitted to the President in pursuance of the Article 171 of the Constitution of the Islamic Republic of Pakistan 1973, for causing it to be laid before both houses of Majlis-e-Shoora [Parliament].

Sd/-

Islamabad
Dated: 10 SEP 2018

(**Javaid Jehangir)**
Auditor General of Pakistan

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ABBREVIATIONS AND ACRONYMS

AVR	Automatic Voltage Regulator
CCC	Central Contract Cell
CPGCL	Central Power Generation Company Limited (GENCO-II)
CRRK	Chief Resident Representative Karachi
DAC	Departmental Accounts Committee
DLP	Defect Liability Period
ECC	Economic Coordination Committee
ECNEC	Executive Committee of the National Economic Council
FARA	Fixed Amount Re-imbursement Agreement
FEC	Foreign Exchange Component
GENCO	Generation Company
GoP	Government of Pakistan
GWH	Gaga Watt Hour
ICB	International Competitive Bidding
JPGCL	Jamshoro Power Generation Company Limited (GENCO-I)
KV	Kilo Volt
KW	Kilo Watt
KWH	Kilo Watt Hour
LC	Letter of Credit
LD	Liquidated Damages
LoI	Letter of Intent
MoU	Memorandum of Understanding
MoWP	Ministry of Water and Power
MW	Mega Watt
MWH	Mega Watt Hour
NEC	National Economic Council
NPCC	National Power Control Centre
NPCC	National Power Control Centre
NPGCL	Northern Power Generation Company Limited (GENCO-III)
O&M	Operation and Maintenance
OEM	Original Equipment Manufacturer
PC-I	Planning Commission-I
PNSC	Pakistan National Shipping Corporation
QIPE	Quick Impact Energy Programme
R&M	Repair and Maintenance
TPS	Thermal Power Station
ToC	Taking over Certificate
WAPDA	Water and Power Development Authority

EXECUTIVE SUMMARY

The Directorate General Audit Power conducted performance audit of Rehabilitation of GENCO-I, II & III in November and December, 2016. The main objectives of the audit were to evaluate the economy, efficiency and effectiveness of the USAID Programme. The audit was conducted in accordance with the prevailing rules and regulations.

The U.S Mission to Pakistan is assisting the Government of Pakistan in its efforts to address broad, systemic constraints through on-going and planned programmes, investments in facility upgrades, management and operational enhancements, and support for energy efficiency initiatives.

The U.S Government's Quick Impact Energy Program was designed for the purpose of alleviating the power crisis. This program would increase access of citizens of Pakistan to power and water in the near term through specific actions: one of these actions included repair and rehabilitation of three existing thermal power plants in Jamshoro, Muzaffar Garh and Guddu. US Government planned to assist the Government of Pakistan in mitigating and ultimately resolving the energy crises through repair & maintenance measures to improve the operating capacity of three thermal power plants at Thermal Plant Station (TPS) Jamshoro, TPS Guddu and TPS Muzaffargarh. For this purpose, an amount of $ 54.02 million was provided under USAID through Fixed Amount Reimbursement Agreement (FARA) signed by Ministry of Water & Power and USAID on May 20, 2010. The rehabilitation works on three GENCOs was completed during 2014 to 2016.

a. Key Audit Findings

- Unjustified expenditure of Rs.304.04 million (JY 253.36 million) was made on hiring of supervisory services through Original Equipment Manufacturer (OEM) for 2nd major overhauling of unit No.1 of GENCO-I Jamshoro.
- Funds worth Rs.21.30 million ($ 213,000) received under USAID were not utilized by GENCO-II Guddu.
- Irregular L/C was opened for purchase order worth Rs.1,457 million (US$ 14.57 million) through UBL instead of NBP by GENCO-II Guddu.

- Loss of Rs.13.12 million ($ 85,000 & £ 25,122) was sustained due to unjustified expenditure on account of freight charges by GENCO-II Guddu.
- Company's funds of Rs.294.37 million were blocked due to un-necessary procurement of material by GENCO-II Guddu.
- Material worth Rs.155.50 million (CNY 9.66 million) purchased for rehabilitation / rewinding of units No. 5&6 was not utilized by GENCO-III Muzaffargarh.
- The digital AVR system procured under USAID worth Rs.23.46 million was not commissioned by GENCO-III Muzaffargarh.
- Irregular expenditure of Rs.561.21 million was made on rehabilitation of TPS Muzaffargarh beyond the approved cost of PC-I by GENCO-III Muzaffargarh.
- Loss of Rs.14.45 million was sustained due to procurement of chemicals at higher rates by GENCO-I Jamshoro.
- Undue favour was given to the supplier on account of non deduction of LD worth Rs. 4.09 million against delayed delivery of material by GENCO-I Jamshoro.
- The difference of Rs.1,014.94 million in booking the cost of material in the books of accounts was not reconciled.
- Release of performance bank guarantees worth Rs. 12.16 million were released unjustifiably by GENCO-III Muzaffargarh.
- Expired performance bank guarantees worth Rs. 186.61 million ($ 1,858,214) were not renewed by GENCO-I & GENCO-III.
- Purchase order worth Rs.1,639.20 million ($ 16.39 million) at negotiated rate without tendering/ competition in GENCO-II Guddu was unjustified .
- Unjustified procurement of turbine spares of unit No. 4 worth Rs. 76.77 million ($ 767,677.52) was made by GENCO-III Muzaffargarh, ignoring the findings / comments of GM Central Contract Cell.
- Unjustified expenditure of Rs.65.57 million ($ 624,495.78) was made on rehabilitation of unit No.5 instead of unit No.4 by GENCO-III Muzaffargarh.

- Undue favour of Rs. 2.53 million was extended to the supplier due to change in specification by GENCO-III Muzaffargarh.
- Material worth Rs. 3,033.30 million was procured for different rehabilitation works but the old / dismantled material there against was not returned to Store by GENCO-I & GENCO-III.
- The short material worth Rs.220.60 million was not got reconciled / verified by GENCO-III.

b. Recommendations

In view of the audit findings following steps / suggestions are recommended to improve the system of Rehabilitation of Thermal Power Plants:-

- Overhauling of power units is required to be done indigenously instead of outsourcing it through hiring.
- USAID funds should be properly utilized for the set objective.
- Finance Division rules regulations regarding transfer of funds and opening of L/C in NBP bank instead of other banks needs to be observed.
- The purchase of material should be need based rather than loan based, thereby avoiding un-necessary procurement and the material so procured be utilized / installed properly to achieve the desired objectives.
- The excess expenditure beyond the provision of approved PC-I needs to be get regularized and responsibility be fixed for lapse in the matter.
- The matter regarding procurement of chemicals at higher rates and undue favour for avoiding LD needs to be inquired for fixing responsibility.
- Reconciliation of booking of material be carried out to ensure proper accountal of material.
- The performance guarantees may not be released without utilization of the material with the system of rehabilitation works, and the expired bank guarantees be got renewed timely.
- Purchase orders at negotiated rates without any competition needs to be avoided.
- Procurement of spares and material should be made in transparent

manner along with proper accountal thereof.

- The dismantled material may be returned to store and reconciliation of shortage of material be made.

1. INTRODUCTION

The Thermal Power Station, Jamshoro (GENCO-I) is located on the right bank of the Indus River to the northwest of Jamshoro city and about 18 KMs away from the city of Hyderabad in Sindh Province of Pakistan. This Power Station was constructed in different phases and has a total capacity of 850 MW. In late 2009, the capacity loss of the plant was estimated at 150 MW and declared de-rated capacity of the plant was 700 MW.

The Thermal Power Station, Guddu (GENCO-II) is located on the right bank of Indus River and about 12 KMs away from Kashmore city of Sindh Province. This Power Station was constructed in different phases and has a total capacity of 1,655 MW. The rehabilitation was started to restore a targeted 75 MW of power at Thermal Power Station, Guddu.

The Thermal Power Station, Muzaffar Garh (GENCO-III) is located between the Indus and Chenab rivers, 2.5 KMs to the North West of Muzaffargarh City in Punjab Province. The installed capacity of the station is 1,350 MW. Due to acute shortage of electricity, routine maintenance was not carried out at scheduled intervals resulting in reducing capacity of power plant significantly. As a result of deferring major overhauling, operational capacity was further reduced significantly.

The US Government planned to assist the Government of Pakistan in mitigating and ultimately resolving the crisis through Repair and Maintenance (R&M) Measures of the three thermal Power Plants. The combined power gain of these projects could be 315 MW. The U.S Government's Quick Impact Energy Program was designed for the purpose of alleviating the power crisis. This program would increase access of citizens of Pakistan to power and water in the near term through four specific actions. For this purpose, an amount $ 54.02 million was provided under USAID through Fixed Amount Reimbursement Agreement (FARA) signed by Ministry of Water & Power and USAID on May 20, 2010. The rehabilitation works on three GENCOs was completed from 2014 to 2016.

1.1 Objectives of the Project

Following were the objectives of the repair & rehabilitation of Thermal

Power Stations, Jamshoro, Guddu and Muzaffargarh.

- Enhancement in availability & reliability
- Reduction in frequent number of starts & stops to save the units from thermal fatigue
- Improvement in life time
- Increase in output
- Improvement in heat rate to save the excessive fuel consumption
- Improvement in environmental conditions due to less fuel consumption

1.2 Beneficiaries

Peoples of Islamic Republic of Pakistan

1.3 Time Phasing

As per Fixed Amount Reimbursement Agreement (FARA) entered into between Ministry of Water & Power and USAID on May 20, 2010, 12 to 18 months were required to complete the Rehabilitation works. However, the same were completed with the following extensions:

GENCO-I

(i)	As per FARA	November 30, 2011
(ii)	As per Activity Agreement (391-006-AA-JAM-2012-00) April 09, 2012	June 30, 2013
(iii)	As per Activity Agreement (391-006-AA-JAM-2012-01) Dated: February 13, 2013	March 31, 2014
(iv)	Referred in PIL letter NO.5 Dated: August 12, 2015	July 31, 2015
(v)	Referred in PIL letter NO.5 Dated: August 12, 2015 Extended.	June 30, 2016

GENCO-II

(i)	As per FARA	November 30, 2011
(ii)	First Extension	June 30, 2013

(iii)	Second Extension	December 31, 2013
(iv)	Actual Completion	December 31, 2014

GENCO-III

As per FARA		November 30, 2011
(i)	As per Activity Agreement (391-006-AA-MUZ-2012) April 19, 2012	June 30, 2012
(ii)	As per Activity Agreement (391-006-AA-MUZ-2012) December 27, 2013	December 31, 2014
(iii)	As per Activity Agreement (391-006-AA-MUZ-2012) February 23, 2015	July 31, 2015
(iv)	As per Activity Agreement (391-006-AA-MUZ-2012) August 12, 2015	March 31, 2016

Financial Progress = 100%

Physical Progress = Completed

1.4 Capital Cost

Year wise summary of Financial Data in respect of Thermal Power Station is as under:

Year	Amount in $		
	JPGCL (GENCO-II)	**CPGCL (GENCO-II)**	**NPGCL (GENCO-III)**
2010-11	6,013,975	-	5,104,335
2011-12	8,878,850	18,910,730	4,125,211
2012-13	1,070,325	-	3,667,860
2013-14	3,366,000	-	2,309,950
2014-15	-	-	570,840
GRAND TOTAL	**19,329,150**	**18,910,730**	**15,778,196**

1.5 Source of Finance

USAID

1.6 Type of Finance

USAID = $ 54.02 million

2. AUDIT OBJECTIVES

The main objectives of the performance audit were:

- To evaluate whether the programme succeeded in achieving objectives as envisaged in PC-I.
- To evaluate whether internal controls were operative and functioning effectively
- To examine whether the awarding and execution of contracts were on merit and successfully executed
- To see whether the payments to the suppliers were made in accordance with the provision of the purchase orders
- To evaluate cost and time over-run
- To evaluate issues regarding the economy and efficiency in completion and operation of the project
- To assess the effectiveness of project in terms of envisaged benefits

3. AUDIT SCOPE AND METHODOLOGY

The period under review of Performance Audit was from May 20, 2010 to June 2016. During this period, total expenditure of $ 54.02 million was incurred upto June 30, 2016 in foreign currency component. The auditable record was available in the Chief Executive Offices of respective GENCOs. Audit activity started with preparation of Preliminary Survey Report (PSR).

Following audit methodology was adopted during execution of Performance Audit:-

- Interview and discussion with the project management.
- Scrutiny of PC-I of the project
- Scrutiny of FARA / Activity agreements
- Evaluation of Tender documents / Purchase Orders

- Examination of Bid Evaluation Reports
- Examination of selected project records and necessary auditable documents
- Examination of Services Agreements

4. AUDIT FINDINGS

4.1 Organization and Management

4.1.1 Unjustified expenditure on hiring supervisory services through OEM for 2nd major overhauling of unit No.1 - Rs. 304.04 million (¥ 253.36 million)

According to Rule-10 of GFR, "every public officer is expected to exercise the same vigilance in respect of expenditure incurred from public moneys as a person of ordinary prudence would exercise in respect of expenditure of his own money".

During Performance Audit of GENCO-I Jamshoro, it was observed that a work order for hiring Supervisory Staff for 2nd major overhauling of Unit No.1 through Original Equipment Manufacturer (OEM) was awarded to M/s ISS Machinery Services Ltd., Japan on November 21, 2014 at a cost of Rs. 304.04 million (equivalent to ¥ 253.36 million) but no material was purchased for its overhauling. Meanwhile, for 3rd major overhauling of Unit No.3 (210 MW Turbine) material / spare parts valuing Rs. 49.42 million were procured but no such supervisory service order was issued for its overhauling and work was done through Company's own maintenance team. Hence, hiring of supervisory services for rehabilitation of Unit No.1 instead of execution of the same work through Company's own maintenance team was not justified.

Non-adherence to General Financial Rules resulted in unjustified expenditure of Rs. 304.04 million on hiring supervisory services through OEM for 2nd major overhauling of Unit No.1 upto the financial year 2015-16.

The matter was taken up with the management in December, 2016 and reported to the Ministry in February, 2017. The management replied that copies of material utilized for major overhauling of unit No.1 and benefits achieved were provided to Audit. The reply was not relevant as the observation was not attended to.

The DAC in its meeting held on May 15, 2017 directed the management to submit revised reply along with documents in support of increase in generation capacity after major overhauling. Further progress was not intimated till finalization of the report.

Audit recommends that the management needs to implement DAC's directives besides fixing the responsibility for hiring of unjustified services.

4.1.2 Non utilization of funds received under USAID - Rs. 21.30 million ($ 213,000)

As per Fixed Amount Reimbursement Agreement (FARA) with USAID, revised dead line for utilization of the allocated amount was December 31, 2015.

During Performance Audit of GENCO-II GUDDU, it was observed that an amount of $ 19.12 million was allocated under Fixed Amount Reimbursement Agreement (FARA) through USAID but out of this amount, an amount of $ 18.91 million could be utilized up to December 31, 2015 leaving a balance of Rs.21.30 million ($ 0.21 million) un-utilized. The project management could not spend the amount in question on Rehabilitation Programme within a period of four to five years and desired results could not be achieved.

Non-adherence to the provisions of USAID agreement resulted in non-utilization of funds amounting to Rs. 21.30 million up to the financial year 2015-16.

The matter was taken up with the management in November, 2016 and reported to the Ministry in February, 2017. The management replied that for utilization of balance amount, it was planned to procure Evaporator Cooling System but the bids were cancelled due to high rates.

The DAC in its meeting held on May 15, 2017 directed the management to get verify the record of correspondence with USAID for utilization of remaining amount besides fixing the responsibility on defaulter(s). Further progress was not intimated till finalization of the report.

Audit recommends that the management needs to implement DAC's directives besides fixing the responsibility.

4.1.3 Irregular opening of L/C through a bank other than NBP Rs. 1,457 million ($ 14.57 million)

[According to Finance Division (Government of Pakistan) office letter No.F.2 (3)-BR-II)/2009-383/13 dated March 28, 2013, transfer of funds from Revolving Fund account of NBP was against Para-XV(a) of Revolving Fund

Accounts Procedure (Foreign Aid Assignment Account) as circulated vide Finance Division (Budget Wing) No. 2(i) BR-II/2007-88 dated: 17.01.2012".

During Performance Audit of GENCO-II GUDDU, it was observed that an amount of Rs.1,457 million ($ 14.57 million) was transferred from NBP, TPS colony, Guddu Branch to UBL, Hyderi Market Branch, Karachi for opening of Letter of Credit in respect of P.O No.09. As per Finance Ministry's instructions referred above, it was advised to CEO CPGCL to open L/C through NBP instead of UBL but L/C was opened in UBL which was irregular.

Non-adherence to the instructions of Finance Ministry resulted in irregular opening of letter of credit amounting to Rs. 1,457 million upto the financial year 2015-16.

The matter was taken up with the management in November, 2016 and reported to the Ministry in February, 2017. The management replied that the L/C was opened at zero margins prior to letter referred by Audit. The reply was not tenable as the instructions were issued in January, 2012 and clarified in 2013. Further progress was not intimated till finalization of the report.

The DAC in its meeting held on May 15, 2017 directed the management to submit revised reply along with supporting documents to Audit.

Audit recommends that the management needs to investigate the matter for fixing responsibility of irregular opening of L/C.

4.1.4 Loss due to unjustified expenditure on account of freight charges - Rs. 13.12 million ($ 85,000 & £ 25,122)

According to Section-III (1) of WAPDA Guidelines for Enforcing Responsibility for Losses due to Fraud, Theft or Negligence of Individuals, 1982 (amended up to June 01, 2001), "all losses whether of public money or of stores, shall be subjected to preliminary investigation by the officer in whose charge they were, to fix the cause of the loss and the amount involved".

During Performance Audit of GENCO-II GUDDU, it was observed that an amount of Rs.13.12 million (equivalent to $ 85,000 and ¥ 25,122) was approved by the management on account of freight charges in respect of Purchase Order No. 33 and 15 for procurement of two (02) Bypass Damper and procurement of spares / material. These freight charges were approved due to changes of specified Seaports and keeping in view the emergency / early utilization of material. Most of the material purchased under these purchase orders was not utilized so far which showed that there was no emergency. Audit held that payment of such huge amount of freight charges due to change of Seaport was not justified and was a loss to the Company for which responsibility needed to be fixed.

Non-adherence to the Authority's instructions resulted in loss of Rs.13.12 million due to unjustified payment of freight charges upto the financial year 2015-16.

The matter was taken up with the management in November, 2016 and reported to the Ministry in February, 2017. The management replied that the Seaports were changed on the requests of the suppliers and keeping in view urgent requirement of material for rehabilitation of units.

The DAC in its meeting held on May 15, 2017 did not accept the stance of the management and directed the management to furnish revised reply along with documents in support of non-availability of vessels at original seaports, correspondence with PNSC, suppliers and utilization of material. Further progress was not intimated till finalization of the report.

Audit recommends that the management needs to implement DAC's directives besides making good the loss and fixing the responsibility.

4.1.5 Blockage of Company's funds due to un-necessary procurement of material - Rs. 294.37 million

According to Para-5 of Memorandum dated January 17, 1978 on irregularities of purchases of stores and equipments, "purchases should be made only of such items and in such quantities as are required for a specific work. In no case should these purchases be made for storing an item for indefinite period".

In GENCO-II GUDDU, it was observed that three (03) purchase orders for procurement of material / major components for rehabilitation of GT-07, GT-08 and ST-05 were floated in 2012-14. This material was required to be installed soon after its purchase but material valuing Rs. 294.37 million was not utilized so far. This indicated that the equipments were procured without assessing the actual demand.

Non-adherence to Authority's instructions resulted in blockage of funds due to unnecessary procurement of material valuing Rs. 294.37 million upto the financial year 2015-16.

The matter was taken up with the management in November, 2016 and reported to the Ministry in February, 2017. The management replied that material under P.O No.15 & 16 was processed by OEM which could not be used as the plant was working with full efficiency.

The DAC in its meeting held on May 15, 2017 directed the management to decide the fate of procurement of material under P.O No.15 & 16 within a month. Further progress was not reported till finalization of the report.

Audit recommends that the management needs to investigate the matter for fixing responsibility regarding un-necessary procurement of material.

4.1.6 Non-installation of material purchased for rehabilitation of Units No. 5&6 – Rs. 155.50 million (CNY 9.66 million)

As per scope of work of Purchase Order No.MZG-32 dated October 02, 2013, the supplier was required to supply new generators sets, dismantle old generators sets and complete fitting of new generators sets of unit No. 5 & 6.

During Performance Audit of GENCO-III Muzaffargarh, it was observed that a Purchase Order No.MZG-32 for supply, installation, testing and commissioning (Generator Starter Rehabilitation / Rewinding complete in all aspects) for Generator of Unit No.5 & 6 of TPS Muzaffargarh was placed upon M/s Harbin New Energy E&T Company Ltd. on Turn Key basis at a total value of Rs.155.50 million (CNY 9.66 million) on October 02, 2013. The material for this job was received on September 24, 2014 but the same was not installed by the Supplier so far as required under the purchase order clauses. No efforts were made to get the work executed through the concerned Supplier.

Non-adherence to the provisions of Purchase Order resulted in non-installation of material valuing Rs.155.50 million purchased for rehabilitation / rewinding of units No.5&6 upto the financial year 2015-16.

The matter was taken up with the management in November, 2016 and reported to the Ministry in February, 2017. The management replied that the Company was continuously contacting National Power Control Centre (NPCC) for shut down but the same had not been allowed so far. The management accepted the stance of Audit.

The DAC in its meeting held on May 15, 2017 directed the management to expedite the installation of material exclusively procured under USAID. Further progress was not intimated till finalization of the report.

Audit recommends that the management needs to investigate the matter for fixing responsibility besides ensuring installation of procured material.

4.1.7 Non-commissioning of digital AVR system procured under USAID - Rs. 23.46 million

According to Clause-15 of the Purchase Order No.T-ICB-09 (B) dated July 25, 2012, the supplier was entirely responsible for successful execution of the contract in all respects in accordance with the terms and conditions specified in the contract.

During Performance Audit of GENCO-III MUZAFFARGARHI, it was observed that a purchase order for Supply, Designing, Erection, Installation/ Commissioning and Testing of New Digital Automatic Voltage Regulator (AVR) System and dismantling of existing AVR System at 1x320 MW Unit No.4 was awarded to M/s ABB Switzerland (Pvt.) Ltd. on July 25, 2012 at a total value of Rs.23.46 million (equivalent to $ 234,600). The material was received in Store on February 12, 2015 and installed at site but successful testing and commissioning of the AVR system was not done so far. No action was taken against the supplier for non-testing and commissioning of the AVR system.

Non-adherence to the provisions of purchase order resulted in non-commissioning of digital AVR system worth Rs. 23.46 million up to the financial year 2015-16.

The matter was taken up with the management in November, 2016 and reported to the Ministry in February, 2017. The management replied that this office was in contact with M/S ABB for completion of testing of AVR but due to law and order situation in Pakistan, visit of foreign experts was late. The reply was not tenable as the management failed to get the work completed as per terms and conditions of purchase order.

The DAC in its meeting held on May 15, 2017 directed the management to expedite the testing of AVR system and intimate its progress to Audit. Further progress was not reported till finalization of the report.

Audit recommends that the management needs to implement DAC's directives besides fixing the responsibility.

4.1.8 Irregular excess expenditure beyond 15% on rehabilitation of TPS Muzaffargarh - Rs. 561.21 million

According to Ministry of Water & Power letter No. P-I-6(73)/2010 dated

August 24, 2011, ECNEC approved Rs.1,584.15 million including FEC of Rs.1,291.41 million for rehabilitation of Thermal Power Station, Muzaffargarh.

In GENCO-III Muzaffargarh, it was observed that an amount of Rs. 2,145.36 million for all the purchase orders of rehabilitation works under USAID was transferred / released to the Chief Resident Representative, Karachi for making payment against approved amount of Rs.1,584.15 million. Thus, excess expenditure of Rs. 561.21 million (35.42%) was incurred beyond approved PC-I which needed revised approval of ECNEC. No efforts were made to get the revised approval from ECNEC.

The matter was taken up with the management in November, 2016 and reported to the Ministry in February, 2017. The management replied that the case for obtaining approval from ECNEC was being initiated.

The DAC in its meeting held on May 15, 2017 directed the management to expedite the approval of excess expenditure from ECNEC. Further progress was not reported till finalization of the report.

Audit recommends that the management needs to expedite the approval of irregular expenditure from ECNEC.

4.2 FINANCIAL MANAGEMENT

4.2.1 Loss due to procurement of chemicals from 2nd lowest bidder Rs. 14.45 million

According to Rule-38 of PPRA Rules 2004, "the bidder with the lowest evaluated bid, if not in conflict with any other law, rules, regulations or policy of the Federal Government, shall be awarded the procurement contract, within the original or extended period of bid validity".

During Performance Audit of GENCO-I JAMSHORO, it was observed that a purchase order for procurement of magnesium hydroxide fuel oil additive etc. was placed upon M/s PENTOL GMBH, Germany on Turnkey basis at a cost of Rs.72.23 million (equivalent to $ 797,284.85) on May 21, 2013. As per comparative statement, M/S System Separation, Sweden offered the same specification of the chemicals as per administrative approval at the cost of Rs.57.78 million (equivalent to $ 637,700). Instead of awarding the purchase order to the 1st lowest bidder i.e. M/s System Separation offering required specifications, the management issued purchase order to 2nd lowest bidder i.e. M/s PENTOL GMBH, Germany at higher rates with different specifications.

Thus, the Company sustained a loss of Rs.14.45million (Rs.72.23M– Rs.57.78 M) due to purchase of chemicals at higher rates.

Non-adherence to the Authority's instructions resulted in loss of Rs. 14.45 million due to procurement of chemicals at higher rates up to the financial year 2015-16.

The matter was taken up with the management in December, 2016 and reported to the Ministry in February, 2017. The management replied that the supply order was placed upon second lowest bidder keeping in view the results of Magnesium from M.A Kazi Institute of Chemistry (University of Sindh). The reply was not tenable being irrelevant.

The DAC in its meeting held on May 15, 2017 directed the management to conduct third party evaluation of the magnesium hydroxide other than M.A Kazi Institute of Chemistry. Further progress was not intimated till finalization of the report.

Audit recommends that the management needs to investigate the matter for fixing responsibility of loss.

4.2.2 Non-recovery of LD charges from supplier - Rs. 4.09 million

According to Delivery Clause of the Purchase Order No.OEM-23 dated July 08, 2011, the material was required to be delivered within 120 days. As per Clause-18 (Failure and Termination), if the supplier fails to deliver the stores or any consignment thereof within the specified delivery period, the purchaser shall be entitled at his option to recover the liquidated damages levied at the rate of 2% per month or part thereof (maximum to 10%), the liquidated damages shall be recovered only for the stores supplied late except where undelivered stores hold the use of other stores when it shall be for the total value of the contract (the recovery of liquidated damages) mentioned above from any unit of WAPDA / PEPCO.

During Performance Audit of GENCO-I JAMSHORO, it was observed that a purchase order for procurement of spare parts for 210 MW Turbine for 3rd major overhauling was placed upon M/s Acheng General Power Plant, China on July 08, 2011 at a price of Rs.40.90 million (CNY 3.33 million) with a delivery period of 120 days. The original delivery period was expired on November 05, 2011. Instead of taking any action against the Supplier, the management revised the purchase order on November 17, 2011 i.e. after twelve days of expiry period of the first purchase order with deletion of five (5) items valuing CNY 0.36 million and again the delivery period of 120 days (upto March 17, 2012) was given. However, the delivery was received on May 09, 2012 but no liquidated damages were recovered from the supplier. Audit held that non-imposition of liquidated damages of Rs.4.09 million besides delay of 186 days from the original delivery date was not justified.

The matter was taken up with the management in November, 2016 and reported to the Ministry in February, 2017. The management replied that the delivery period was counted from opening of letter of credit, hence no LD was involved. The reply was not tenable because as per Purchase Order, delivery period of 120 days was mentioned and no condition of 120 days from opening of letter of credit was mentioned.

The DAC in its meeting held on May 15, 2017 directed the management to submit revised reply in accordance with Audit remarks issued on April 28, 2017. Further progress was not reported till finalization of the report.

Audit recommends that the management needs to implement DAC's directives besides fixing the responsibility and ensuring recovery of LD charges.

4.2.3 Non-reconciliation of various departmental Accounts of organization- Rs. 1,014.94 million

According to IAS-1.15, the financial statements must present fairly the financial position, financial performance and cash flows of an entity. Fair presentation requires the faithful representation of the effects of transactions, other events and conditions of recognition of assets, liabilities, income and expenses.

During Performance Audit of GENCO-II GUDDU, it was noticed that reconciliation in respect of various account balances in different departments in GENCO-II and GENCO-III was not done. In GENCO-II, an expenditure of Rs.1,499.79 million including taxes was booked against Purchase order No. 9 while it was recorded as Rs.2,111.82 million in the statement of material maintained at Store. Similarly in GENCO-III total expenditure on account of purchase orders including Taxes under USAID was Rs.1,742.45 million whereas statement maintained by another Section an amount of Rs.2,145.36 million was transferred to CRRK for making payments. Thus an amount of Rs.1,014.94 million was less recorded /unadjusted in the accounts which was not justified.

Non-adherence to the International Accounting Standards resulted in non-reconciliation of difference of Rs.1,014.94 million in booking cost of material in the books of accounts up to the financial year 2015-16.

The matter was taken up with the management in November, 2016 and reported to the Ministry in February, 2017. The management replied that material valuing Rs.505.28 million was received free of cost from the supplier.

The DAC in its meeting held on May 15, 2017 directed the management to provide complete detail and justification of material received free of cost. Further progress was not intimated till finalization of the report.

Audit recommends that the management needs to implement DAC's directives besides ensuring faithful representation of financial statements.

(Clubbed para No. 4.2.3 & 4.2.8)

4.2.4 Undue favour to Contractor on account of unjustified release of Bank Guarantee - Rs. 12.16 million

According to Clause-19/20 of the Purchase Orders, the supplier was required to include in the list of documents, a letter of warranty to the effect that the goods offered for shipment conform exactly to the specifications laid down in your tender / in this contract and that goods in question have also been tested and checked by the supplier prior to packing and dispatch and that the goods in question were new and free from defects and that in the event of goods being found old or defective or not conforming to the specifications, the supplier would be held responsible for all losses and that would agree to substitute the unacceptable goods with the acceptable at his risk and cost.

During performance Audit of GENCO-II GUDDU, it was noticed that the performance guarantees of three suppliers worth Rs. 6.99 were released without utilization / conforming of material with the system as the same was procured exclusively for rehabilitation of G-7, G-8 & ST-5 and Bypass Dumper under USAID. Similarly, in GENCO-III performance guarantee amounting to Rs.5.17 million was released in May, 2016 before installation of Voith Geared Variable Speed Hydrolic Coupling of boiler feed Water Pumps received in October, 2015.

The matter was taken up with the management in November, 2016 and reported to the Ministry in February, 2017. The management replied that 10% performance guarantee was released in the light of terms and conditions of the tender documents. The reply was not relevant as no justification for release of performance guarantees before utilization of procured material was provided.

The DAC in its meeting held on May 15, 2017 directed the management to furnish revised reply giving full justification along with supporting documents within a week. Further progress was not reported till finalization of the report.

Audit recommends that the management needs to investigate the matter for fixing the responsibility besides implementing DAC's directives.

(Clubbed Para No. 4.2.4, 4.2.6 & 4.2.7)

4.2.5 Non-renewal of expired performance bank guarantees – Rs. 186.61 million ($ 1,858,214)

According to Clause-19 of the Purchase Orders, the supplier was required to include in the list of documents, a letter of warranty to the effect that the goods offered for shipment conform exactly to the specifications laid down in your tender / in this contract and that goods in question have also been tested and checked by the supplier prior to packing and dispatch and that the goods in question were new and free from defects and that in the event of goods being found old or defective or not conforming to the specifications, the supplier would be held responsible for all losses and that would agree to substitute the unacceptable goods with the acceptable at his risk and cost.

During Performance Audit of GENCO-II Guddu & GENCO-III Muzaffargarh, it was observed that three (03) purchase orders were issued to different suppliers during October, 2012 to October, 2013. All the material was received in stores and Goods Return Notes were prepared accordingly. Meanwhile, the performance bank guarantees amounting to Rs.186.61 million ($ 1,858,214) provided against these purchase orders were expired. These performance bank guarantees were required to be got extended from the suppliers upto completion of Defects Liability Period (DLP) but the suppliers did not renew the expired bank guarantees. No action was taken against the supplier for this default *(Detail in Table-1)***.**

Non adherence to the clause of purchase order resulted in non-renewal of expired performance bank guarantee amounting to Rs.186.61 million up to the financial year 2015-16.

The matter was taken up with the management in November, 2016 and reported to the Ministry in February, 2017. The management replied that in case of P.O.9, about two years had been passed and machines were working efficiently. In case of P.O MZF-29, the supplier provided performance guarantee of lesser amount whereas in case of P.O MZG-32, the matter was under correspondence with the supplier. The reply was not tenable as it was the responsibility of the management to ensure obtaining renewed performance guarantees from suppliers well in time.

The DAC in its meeting held on May 15, 2017 directed the management to furnish comprehensive reply along with reasons for obtaining of performance guarantee of lesser amount in one case and expedite the renewal of other performance guarantees. Further progress was not reported till finalization of the report.

Audit recommends that the management needs to implement DAC's directives besides fixing the responsibility.

4.2.6 Unauthentic expenditure statements – Rs. 2,145.36 million

According to IAS-1.15, the financial statements must 'present fairly' the financial position, financial performance and cash flows of an entity. Fair presentation requires the faithful representation of the effects of transactions, other events and conditions of recognition of assets, liabilities, income and expenses.

During Performance Audit of GENCO-III Muzaffargarh, it was observed that due to non-coordination of Procurement Section, Accounts Section and Stores, exact expenditure statement of amount utilized for rehabilitation works under USAID could not be finalized. As per statement of expenditure provided by Accounts Section, total expenditure on account of purchase orders and taxes was Rs.1,742.45 million whereas as per statement of expenditure maintained by another Section, an amount of Rs. 2,145.36 million was transferred to CRRK for making payments. No efforts were made towards reconciliation of funds transferred to CRRK and adjustment of its utilization along with refund of balance amount.

Non-adherence to Internal Accounting Standards resulted in unauthentic expenditure of Rs. 2,145.36 million upto the financial year 2015-16.

The matter was taken up with the management in November, 2016 and reported to the Ministry in February, 2017. The management replied that the amount had been reconciled.

The DAC in its meeting held on May 15, 2017 directed the management to get the record verified from Audit within a week. Further progress was not reported till finalization of the report.

Audit recommends that the management needs to implement the DAC's directives.

4.3 PROCUREMENT AND CONTRACT MANAGEMENT

4.3.1 Unjustified purchase at negotiated rate without tendering/ competition – Rs. 1,639.20 million ($ 16.39 million)

According to Rule-20 of PPRs, 2004, "Save as otherwise provided hereinafter, the procuring agencies shall use open competitive bidding as the principal method of procurement for the procurement of goods, services and works". As per Rule-40 of PPRs, 2004 "Save as otherwise provided there shall be no negotiations with the bidder having submitted the lowest evaluated bid or with any other bidder".

During Performance Audit of GENCO-II, it was observed that a main purchase order for supply of Spares / Equipments for Reliability assurance, Tfire Uprate/ Advanced Seals, Upgrade Mark via Control System Ex 2100, Excitation System, DCS System Including one new generator starter etc for GT-07, GT-08 and ST-05 was planned. First proposal from M/s General Energy valuing $ 25.66 million was received on November 01, 2010. After holding three meetings for negotiation, the amount was reduced by the supplier. Finally, a purchase order for procurement of above material was issued at a total value of Rs.1,639.20 million (cost of material for $ 14.56 million with a Service Agreement at $ 1.83 million). It showed that the Project Management had prepared no estimates for comparing the offered rates and kept on relying on the supplier. Award of purchase order at negotiated rate without any competition was not justified.

Non-adherence to PPRA rules resulted in unjustified award of purchase order worth Rs.1,639.20 million at negotiated rate without tendering / competition for the financial year 2015-16.

The matter was taken up with the management in November, 2016 and reported to the Ministry in February, 2017. The management replied that the purchase order was issued to OEM in accordance with Rule-42 C of PPRA Rules and negotiation was done in favour of the Company.

The DAC in its meeting held on May 15, 2017 directed the management to furnish revised reply along with supporting documents within a week. Further progress was not reported till finalization of the report.

Audit recommends that the management needs to inquire the matter for fixing responsibility for non observance of PPRA Rules.

4.3.2 Unjustified procurement of turbine spares of Unit No.4 – Rs.76.77 million ($ 767,677.52)

According to Rule-10 of GFR, "every public officer is expected to exercise the same vigilance in respect of expenditure incurred from public moneys as a person of ordinary prudence would exercise in respect of expenditure of his own money".

During Performance Audit of GENCO-III, it was observed that two (02) purchase orders valuing Rs.76.77 million ($ 638,264.27 and $ 129,413.25 respectively) for procurement of spare parts for Turbine of 320 MW Unit No. 4 were issued to M/S Harbin Integrated Power Control, China in August and September, 2011. The case of this procurement was sent to WAPDA Central Contract Cell for vetting. As per noting of G.M Central Contract Cell some findings / comments were given which indicated violation of FARA and PPRA Rules .These observations and comments were required to be replied with logic but were ignored and the purchase orders were issued by the Company.

Non-adherence to the General Financial Rules resulted in unjustified procurement of turbine spare parts valuing Rs.76.77 million up to the financial year 2015-16.

The matter was taken up with the management in November, 2016 and reported to the Ministry in February, 2017. The management replied that it was an old case and was initiated before signing of FARA / USAID. The observations received from CCC were replied and no further observations were received. The reply was not tenable as no documents were provided to substantiate the stance.

The DAC in its meeting held on May 15, 2017 directed the management to provide approval of CCC along with observance of FARA rules. Further progress was not intimated till finalization of the report.

Audit recommends that the management needs to implement DAC's directive beside fixing the responsibility.

4.3.3 Unjustified expenditure on rehabilitation of unit No. 5 instead of unit No.4 – Rs. 65.57 million ($ 624,495.78)

According to Rule-10 of GFR, "every public officer is expected to exercise the same vigilance in respect of expenditure incurred from public moneys as a person of ordinary prudence would exercise in respect of expenditure of his own money".

During Performance Audit of GENCO-III Muzaffargarh, it was observed that administrative approval of up gradation / rehabilitation of (i) Furnace Safety and Supervisory System (FSSS) (ii) Digital Electro-Hydraulic Control System (DEH-III) including ETS installed at Unit No.4 was given at a total cost of $ 430,000. The tender for this work was opened on May 24, 2012 and single tenderer M/s ABB Abu Dhabi participated which was rejected on technical grounds on June 11, 2012. Later on, a purchase order for the same work of Unit No.5 was issued to M/s Harbin Integrated Power Control Engineering Ltd., China on September 30, 2013 at a total cost of Rs.65.57 million (equivalent to $ 624,495.78). As per PC-I of Rehabilitation of Thermal Power Station, Muzaffargarh capacity of Unit No.5 was 200 MW and it had to regain only 20 MW after rehabilitation whereas capacity of Unit No. 4 was 320 MW and it had to regain 50 MW even at a lesser price of $ 430,000. No justification of rehabilitation of Unit No.5 instead of Unit No.4 was given which would add 30 MW i.e. 262.80 MKWH annually.

Non-adherence to the General Financial Rules resulted in unjustified expenditure of Rs.65.57 million on rehabilitation of Unit No.5 instead of Unit No.4 up to the financial year 2015-16.

The matter was taken up with the management in November, 2016 and reported to the Ministry in February, 2017. The management replied that the actual expenditure was Rs. 53 million instead of Rs.65.57 million. The reply was not tenable as no justification of ignoring Unit No.4 was given.

The DAC in its meeting held on May 15, 2017 directed the management to get verify the stance from Audit and give justification of selection of units No.5 & 6 instead of unit No.4. Further progress was not intimated till finalization of the report.

Audit recommends that the management needs to investigate the matter besides implementing DAC's directives.

4.3.4 Undue favour to the supplier due to change in specifications - Rs. 2.53 million ($ 25,350.28)

According to Rule-23(1) of PPRA Rules 2004, procuring agencies shall formulate precise and unambiguous bidding documents that shall be made available to the bidders immediately after the publication of the invitation to bid.

During Performance Audit of GENCO-III Muzaffargarh, it was noticed that a tender for procurement of Relays and Measuring Meters was processed in April, 2011 and letter of intent was issued to M/s Harbin Integrated Power Control Engineering Ltd., China on February 24, 2012. Subsequently, on the request of the supplier, certain amendments in specifications of Relays were made and incorporated in the Purchase Order issued on May 31, 2012 with a delivery period of 150 days from the date of establishment of letter of credit. The Supplier, vide letter dated October 16, 2012, again requested for changes in specification of Relays and amendment in Purchase Order which was accepted vide amendment issued on December 07, 2012. The above position clearly indicated that the specifications were not clearly mentioned in the bidding documents and the Relays were procured at the will of the supplier just to extend undue favour to the supplier.

Non-adherence to the PPRA Rules, 2004 resulted in undue favour of Rs. 2.53 million to the supplier due to changes in the specification up to the financial year 2015-16.

The matter was taken up with the management in November, 2016 and reported to the Ministry in February, 2017. The management replied that there was no change in specifications of the material and only some typographical mistakes were corrected in the light of the bidder request. The reply was not tenable as the change of specifications after opening of bid / award of purchase order was not justified.

The DAC in its meeting held on May 15, 2017 directed the management to justify the amendments after opening of bid and extension in delivery period. Further progress was not intimated till finalization of the report.

Audit recommends that the management needs to implement DAC's directives.

4.4 ASSETS MANAGEMENT

4.4.1 Non return of dismantled / replaced material - Rs. 3,033.30 million

As per Para-75 of WAPDA Accounting Manual 1978, on completion of the work, the excess material will be returned to go down or transferred to another work.

During Performance Audit of GENCO-I Jamshoro & GENCO-II Guddu, it was noticed that material costing Rs. 3,033.30 million, procured under FARA for different rehabilitations works, were issued to different Sections during the years 2012 to 2016. As per rules, after installation of new material, old dismantled and replaced material was required to be returned to Store for further disposal which was not done *(Detail in Table-2)*

Non-adherence to the WAPDA Accounting Manual resulted in non-return of dismantled material replaced against new material valuing Rs. 3,033.30 million upto the financial year 2015-16.

The matter was taken up with the management in November & December, 2016 and reported to the Ministry in February, 2017. The management replied that all the material had been returned to store after replacement.

The DAC in its meeting held on May 15, 2017 directed the management to get the record verified from Audit within a week. Further progress was not reported till finalization of the report.

Audit recommends that the management needs to expedite production of record of return of material.

4.4.2 Loss due to application of wrong exchange rate – Rs. 220.60 million

According to Section-III (1) of WAPDA Guidelines for Enforcing Responsibility for Losses due to Fraud, Theft or Negligence of Individuals, 1982 (amended up to June 01, 2001), "all losses whether of public money or of stores, shall be subjected to preliminary investigation by the officer in whose charge they were, to fix the cause of the loss and the amount involved".

During Performance Audit of GENCO-III Muzaffargarh, thirty (30) purchase orders for procurement of material under Rehabilitation Programme were issued from December, 2009 to December, 2014. As per detail of purchase orders provided by the ICB Section, purchase orders valuing $ 19,179,708.23

were issued against the total allocation of $ 15,778,196 by the USAID. As per statement of expenditure of purchase orders maintained in Accounts Section with fluctuated value of dollar, the cost of material was Rs.1,653.84 million. As per calculation by Audit, the average dollar rate of all the purchase orders was Rs.97.73, therefore, the amount of material should have been Rs.1,874.43 million (19,179,708.23x97.73) instead of Rs.1,653.84 million. Hence, there was a difference of Rs. 220.60 million causing a loss to the Company.

The matter was taken up with the management in November, 2016 and reported to the Ministry in February, 2017. The management replied that the difference was due to exchange rates of US Dollars and record was ready for verification.

The DAC in its meeting held on May 15, 2017 directed the management to get verify the actual calculations within a week. Further progress was not reported till finalization of the report.

Audit recommends that the management needs to expedite production of record as directed by DAC.

4.5 OVERALL ASSESSMENT

Overall assessment refers to performance regarding rehabilitation works on three GENCOs under USAID Programme with reference to Economy, Efficiency and Effectiveness as summarized below.

4.5.1 Economy

The issues like unjustified expenditure of Rs.304.04 million (JY 253.36 million) on hiring of supervisory services for 2nd major overhauling, under utilization of funds worth Rs.21.30 million ($ 213,000) received under USAID , Loss of Rs.13.12 million ($ 85,000 & £ 25,122) on account of freight charges, blocked of Company's funds of Rs.294.37 million due to un-necessary procurement of material, irregular expenditure of Rs.561.21 million on rehabilitation of TPS Muzaffargarh beyond the approved PC-I cost, Loss of Rs.14.45 million sustained due to procurement of chemicals at higher rate, unjustified expenditure of Rs.65.57 million ($ 624,495.78) on rehabilitation of unit No.5 instead of unit No.4,did speak of the fact that cost of the rehabilitation works of respective GENCOs could be economized through proper,well thought out and detailed planning.

4.5.2 Efficiency

The operational phase of the programme manifested certain lapses in efficiency like non installation of material procured for re-habilitation / re-winding of generating units, non-commissioning of AVR system , non deduction of LD against delayed delivery of material, release and non renewal of performance bank guarantees ,non return of old /dismantled material to Store ,non reconciliation of short material ,which which were required to be addressed.

4.5.3 Effectiveness

The effectiveness of the project can well be assessed from the fact that the programme was scheduled to be completed within one and half year of time but it took four to six years for its completion that has lessened the effectiveness, thereby delaying the envisaged benefits of the programme.

4.5.4 Time over-run

As per contract agreement Rehabilitation work of GENCO's was to be completed within a period of 12 to 18 months from the date of commencement i.e. May 20, 2010. However scheduled and actual completion of the GENCOs is as under:

TPS Jamshoro

(i)	Completion Date as per FARA.	November 30, 2011
(ii)	Activity Agreement No. 391-006-AA-JAM-2012-00 Dated: April 09, 2012.	June 30, 2013
(iii)	Activity Agreement No. 391-006-AA-JAM-2012-01. Dated: February 13, 2013.	March 31, 2014
(iv)	Referred in PIL letter No. 5 Dated: August 12, 2015	July 31, 2015
(v)	Referred in PIL letter No. 5 Dated: August 12, 2015 Extended.	June 30, 2016

TPS Guddu

(i)	FARA 391-GUD-FARA-005-00	November 30, 2011
(ii)	USAID letter Dated: April 19, 2012	June 30, 2013
(iii)	Actual Completion	31.10.2014

TPS Muzaffargarh

(i)	FARA No. 391-MZG-FAR-004-00	November 30, 2011
(ii)	391-006-AA-MUZ-2012-00	June 30, 2013
(iii)	391-006-AA-MUZ-2012-02	December 31, 2014
(iv)	391-006-AA-MUZ-2012	July 31, 2015
(v)	USAID letter Dated: August 12, 2015	March 31, 2016

During the Performance Audit on the accounts of Rehabilitation of GENCO's it was observed that the work of Rehabilitation was to be completed within 12 to 18 months from the date of commencement but the project could not be completed within the schedule period. However it was completed after delay of more than four years upto June 30,2016.

The matter was taken up with the project management in November and December, 2016. It was replied that the programmes were got extended from USAID.

Audit recommends the management to investigate the matter of time over-run and fix responsibility upon the persons at fault.

5. CONCLUSION

Rehabilitation of Old and Deteriorated Units of TPS Jamshoro, TPS Guddu and TPS Muzaffargarh were planned under USAID Progeramme in the year 2010. The project management could not manage and closely monitor all the activities timely resultantly envisaged benefits as per PC-I Proforma could not be achieved well in time and were delayed against the provision of original PC-I due to following factors:-

- Delay in Technical and Financial evaluation of bids revived.
- Delay in placement of Purchase Orders after evaluation of bids.
- Amendments in Purchase Orders due to changes in specification of the material.
- Delay in award of Purchase Order/ Service Order to OEM due to a number of proposals submitted by the supplier.
- Delay in obtaining of Exemption Certificates from FBR.
- Extensions in time given to the suppliers.
- Delay in installation of material by the suppliers.
- Non arrangement of timely shut down for rehabilitation purpose.

- Provisions of PC-I were not followed in letter and spirit.

A detailed working on all the three GENCOs with reference to targets provided in PC-FARA Agreement with audit findings is tabulated below:

5.1 (GENCO-I)

Unit No.	Installed Capacity	Present Operational Capacity	Declared De-rated Capacity	Gain After Rehabilitation	Capacity After Rehabilitation
	MW	MW	MW	MW	MW
1	250	140	180	45	225
2	200	140	180	10	190
3	200	135	170	20	190
4	200	145	170	20	190
Total:	850	560	700	95	795

5.2 (GENCO-II)

Unit No.	Installed Capacity	Present Operational Capacity	Declared De-rated Capacity	Gain after Rehab:	Capacity after Rehab:
	MW	MW	MW	MW	MW
5.	100	70	85	10	95
7.	100	75	80	15	95
8.	100	80	80	15	95
Total	**300**	**225**	**245**	**40**	**285**

5.3 (GENCO-III)

Unit No.	Installed Capacity	Present Operational Capacity	Declared De-rated Capacity	Gain after Rehab:	Capacity after Rehab:
	MW	MW	MW	MW	MW
1	210	140	185	25	205
2	210	180	200	5	205
3	210	130	160	45	205
4	320	215	245	55	300
5	200	70	170	20	190
6	200	100	170	20	190
Total	**1350**	**835**	**1130**	**170**	**1295**

5.4 Generation and Heat Rate Data for the years 2010-11 to 2015-16 (Before and After Rehabilitation with Audit Findings).

GENERATION DATA TPS JAMSHORO FOR 2010-11 TO 2015-16				
Year	**Unit No. I**	**Unit No.2**	**Unit No.3**	**Unit No.4**
2010-11	930.078	641.587	617.671	614.539
2011-12	690.592	292.500	237.886	354.498
2012-13	542.636	538.657	456.613	350.017
2013-14	1024.633	483.792	953.364	865.54
2014-15	920.402	662.807	994.269	418.936
2015-16	605.585	1199.973	1094.325	700.594

Audit Finding:

i) An expenditure of Rs.762.359 million (37.50%) incurred on Rehabilitation of unit No. 1 but the generation decreased to the extent of 41% in 2015-16 with reference to generation in the year 2013-14.

(ii) Generation on unit No. 4 touched to 865.540 MKWh in the year 2013-14 but again decreased to the extent of 418.936 MKWh and 700.594 MKWh in the years 2014-15 and 2015-16.

HEAT RATE PERTAINING TO TPS JAMSHORO FOR 2010-11 TO 2015-16				
Year	**Unit No.1**	**Unit No.2**	**Unit No.3**	**Unit No.4**
2010-11	10,051.600	12,042.740	11,965.860	11,952.000
2011-12	10,394.159	12,935.441	12,852.057	12,712.691
2012-13	10,617.065	10,868.004	10,756.032	11,653.602
2013-14	10,271.233	10,527.434	10,441.495	10,690.873
2014-15	10,452.634	10,886.873	10,703.542	10,787.884
2015-16	10,361.559	11,647.170	11,464.420	11,526.990
		(7% Increase)	(7.11% Increase)	6.85% Increase)

Audit Findings:

(i) Heat rate on unit No. 1 for the first three years 2010-11 to 2012-13 on average rate basis remained 10354.275 BTU/KWh whereas in the later years after rehabilitation i.e. in the years 2013-14 to 2015-16 was 10361.742 BTU/KWh. The position clearly indicates that no improvement could be achieved even after rehabilitation of unit despite incurring expenditure of 37.50% from the USAID Programme.

(ii) Heat rates on unit No. 2, 3 and 4 in the years 2013-14 and 2014-15 with reference to 2012-13 is also not satisfactory while in the year 2015-16 it again jumped beyond 11000 BTU/KWh.

GENERATION DATA RELATING TO TPS GUDDU FOR THE PERIOD 2010-11 TO 2015-16				
Year	**Generation Unit No. 5, Units in (MKWH)**	**Generation Unit No. 7, Units in (MKWH)**	**Generation Unit No. 8, Units in (MKWH)**	**Increase / Decrease in % age**
2010-11	246..950	596.115	584.493	
2011-12	0.000	507.905	624.291	
2012-13	35.302	0.000	621.380	
2013-14	251.269	568.917	463.267	1283.460 (45%)
2014-15	434.999	683.623	735.417	1,859.039
2015-16	411.427	643.496	544.692	1599.615 (16.22%)

Audit Findings:

Increase in generation at unit No. 5 is appearing with reference to previous years but there is no considerable increase in generation at unit No. 7 & 8 in the years 2013-14 to 2015-16 with reference to years 2010-11 to 2012-13.

HEAT RATE OF TPS GUDDU FOR THE PERIOD 2010-11 TO 2015-16		
YEAR	**Unit No.7 in (Btu)**	**Unit No.8 in (Btu)**
2010-11	12,945	13,337
2011-12	13,460	13,524
2012-13	13,797	12,664
2013-14	13,065	13,799
2014-15	11,168	11,302
2015-16	11,855	11,943

Audit Findings:

Heat rate in 20014-15 decreased to a reasonable extent but the same increased upto 6.15% and 5.6% respectively in 2015-16 with reference to year 2014-15 and again upward trend started.

GENERATION DATA RELATING TO TPS MUZAFFARGARH FOR THE PERIOD 2010-11 TO 2015-16						
Year	**Generation Unit No. 1, Units in (MKWH)**	**Generation Unit No. 2, Units in (MKWH)**	**Generation Unit No. 3, Units in (MKWH)**	**Generation Unit No. 4, Units in (MKWH)**	**Generation Unit No. 5, Units in (MKWH)**	**Generation Unit No. 6, Units in (MKWH)**
2010-11	470.590	909.762	946.810	1,124.630	275.961	379.489
2011-12	1,096.380	881.563	523.745	1,073.026	55.188	51.325
2012-13	852.100	1,213.860	1,193.355	800.222	450.825	445.148
2013-14	901.130	852.010	1,099.150	1,440.478	850.175	585.967
2014-15	1,000.350	934.958	784.750	782.589	715.698	644.721
2015-16	1,064.407	944.517	931.009	939.958	639.752	627.851

Audit Findings:

An expenditure of US $ 8.462 million more than 50% of the USAID incurred on Rehabilitation of unit No. 5 and 6 which had to regain the capacity of 190 MW against 205 MW for unit No. 1 & 2 but there is a vast difference in the generation of unit No. 1-2 and 5-6. Generation on unit No. 4 has decreased in the years 2014-15 and 2015-16 with reference to previous years.

HEAT RATE OF TPS MUZAFFARGARH FOR THE PERIOD 2010-11 TO 2015-16								
YEAR		**Unit No.1**	**Unit No.2**	**Unit No.3**	**Unit No.4**	**Unit No.5**	**Unit No.6**	**Total Heat Rate of Six Units**
2010-11	**Net**	12,770.61	12,141.73	12,053.29	10,489.42	15,715.60	15,422.76	78592.81
	Gross	11,153.54	11,074.13	11,073.57	12,112.93	12,830.58	12,977.03	71221.78
2011-12	**Net**	11,550.45	11,415.04	11,384.88	12,431.17	18,116.02	16,868.77	81766.33
	Gross	10,491.05	10,414.62	10,434.20	10,866.64	12,806.30	12,733.63	67746.44
2012-13	**Net**	11,679.13	11,392.99	11,269.62	11,386.13	12,228.21	12,395.11	70351.19
	Gross	10,508.71	10,413.75	10,418.76	9,941.22	11,020.31	10,969.54	63272.29
2013-14	**Net**	11,532.59	11,479.14	11,296.14	11,035.36	12,197.96	12,349.63	69890.82
	Gross	10,372.78	10,416.59	10,360.83	9,654.82	10,952.19	10,895.61	62652.82
2014-15	**Net**	11,503.43	11,469.36	11,275.28	12,815.30	12,552.78	12,719.07	72335.22

	Gross	10,322.17	10,458.96	10,277.35	10,641.33	11,145.19	11,058.21	63903.21
2015-16	**Net**	11,043.19	11,222.52	11,082.22	11,447.74	12,411.58	12,574.91	69782.16
	Gross	10,094.26	10,303.79	10,240.33	10,067.61	11,033.32	11,026.04	62782.35

Average Net Heat Rate for six units 2010-11 to 2012-13	76,903.44
Average Net Heat Rate for six units 2013-14 to 2015-16	70,669.40
Difference	**6,234.04**
Decrease in Heat Rate	**8.10%**
Average Gross Heat Rate for six units 2010-11 to 2012-13	67,413.50
Average Gross Heat Rate for six units 2013-14 to 2015-16	63,107.13
Difference	**4,306.38**
Decrease in Heat Rate	**6.39%**

Note:- A minor decrease of less than 10% in all the six units after rehabilitation has been observed while the Heat rate of unit No. 4 increased upto 12.73% with reference to 2010-11.

ACKNOWLEDGEMENT

We wish to express our appreciation to the management and staff of GENCO-I, II and III for the assistance and cooperation extended to the auditors during this assignment.

Annex-1

PROJECT DIGEST

Name of Project	Rehabilitation of GENCOs.
Location of the Project	TPS Jamshoro, TPS Guddu and TPS Muzaffargarh..
Authorities Responsible For	
Sponsoring:-	Ministry of Water and Power (MoWP) through Government of Pakistan (GoP).
Execution:-	Water and Power Development Authority (WAPDA)
Operation and Maintenance:-	CEO (GENCOs)
PROJECT OBJECTIVES	The main objective of the Power Development Programme is to provide adequate facilities for generation, transmission & distribution of electrical power, keeping in view the future power requirements for domestic, commercial, industrial, agricultural & economic development of the country.
PROJECT COMPLETION	The Project was required to be completed within a period of 12 to 18 months after FARA Agreement (tentatively from June, 2010 to November, 2011 subject to approval of PC-I and completion of pre-implementation activities.

TABLE-1

S/No	Company	No. of P.Os	Amount of P/G (Rs. in Million)	Expiry Date of P/G	Extension Required	Original Para No.
1	GENCO-II	1 (P.O-9) Dt. 04.10-12	163.92 (US$ 1,639,200)	31-10-13	31-12-14	4.2.9
2	GENCO-III	1 (MZF-29 Dt.30.09.13	6.22 (US$ 62,174)	26-10-15	10-10-16	4.2.11
3	GENCO-III	1 (MFG-32 Dt.02.10.13	16.47 (US$ 156,840)	15-09-15	25-09-17	4.2.12
		TOTAL	**Rs. 186.61 Million**			

TABLE-2

S/No	Company	Amount of Material issued	Original Para No.
1	GENCO-I	1,782.25	4.4.1
2	GENCO-II	1,251.05	4.4.3
	TOTAL	**3,033.30**	