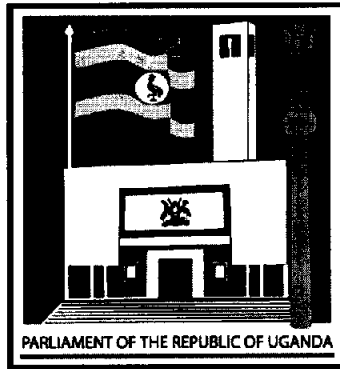


PARLIAMENT OF UGANDA



10TH PARLIAMENT

REPORT OF THE PUBLIC ACCOUNTS COMMITTEE ON THE VALUE FOR MONEY AUDIT REPORT ON THE IMPLEMENTATION OF SOLAR ENERGY INFRASTRUCTURE IN SELECTED EDUCATION AND HEALTH FACILITIES UNDER THE ENERGY FOR RURAL TRANSFORMATION PROJECT II (ERT II)

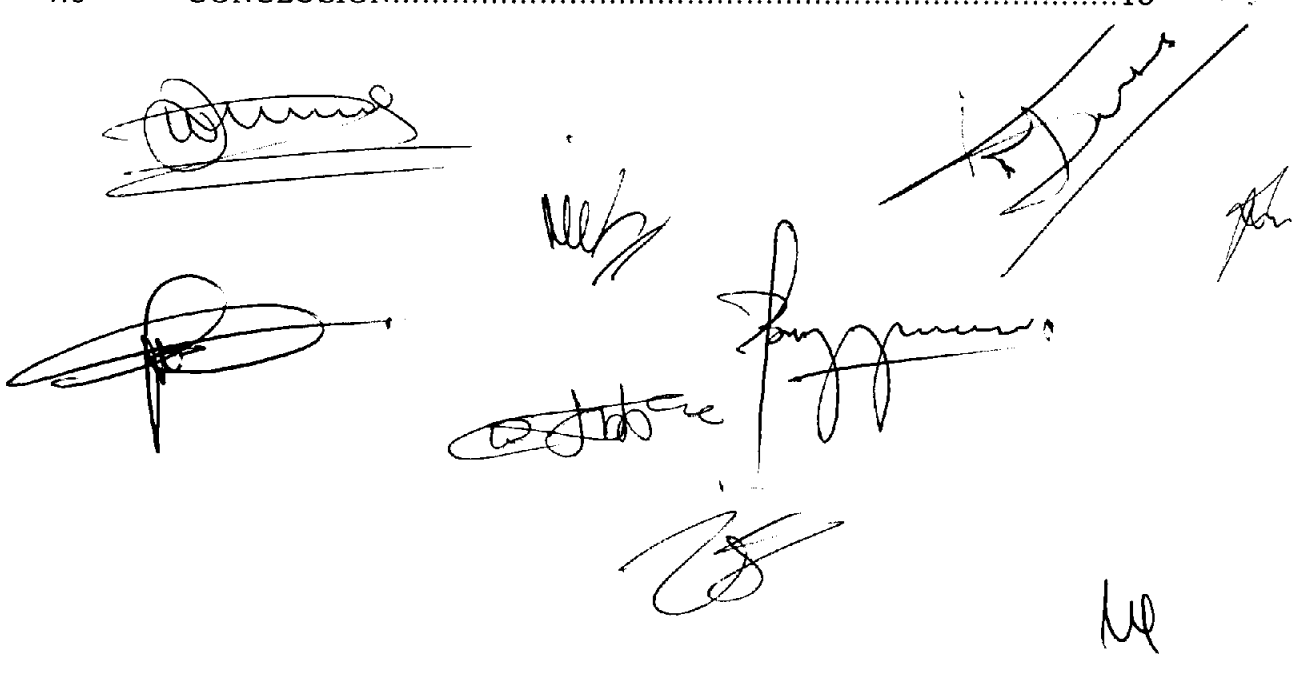
Office of the Clerk to Parliament

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JUNE 2018

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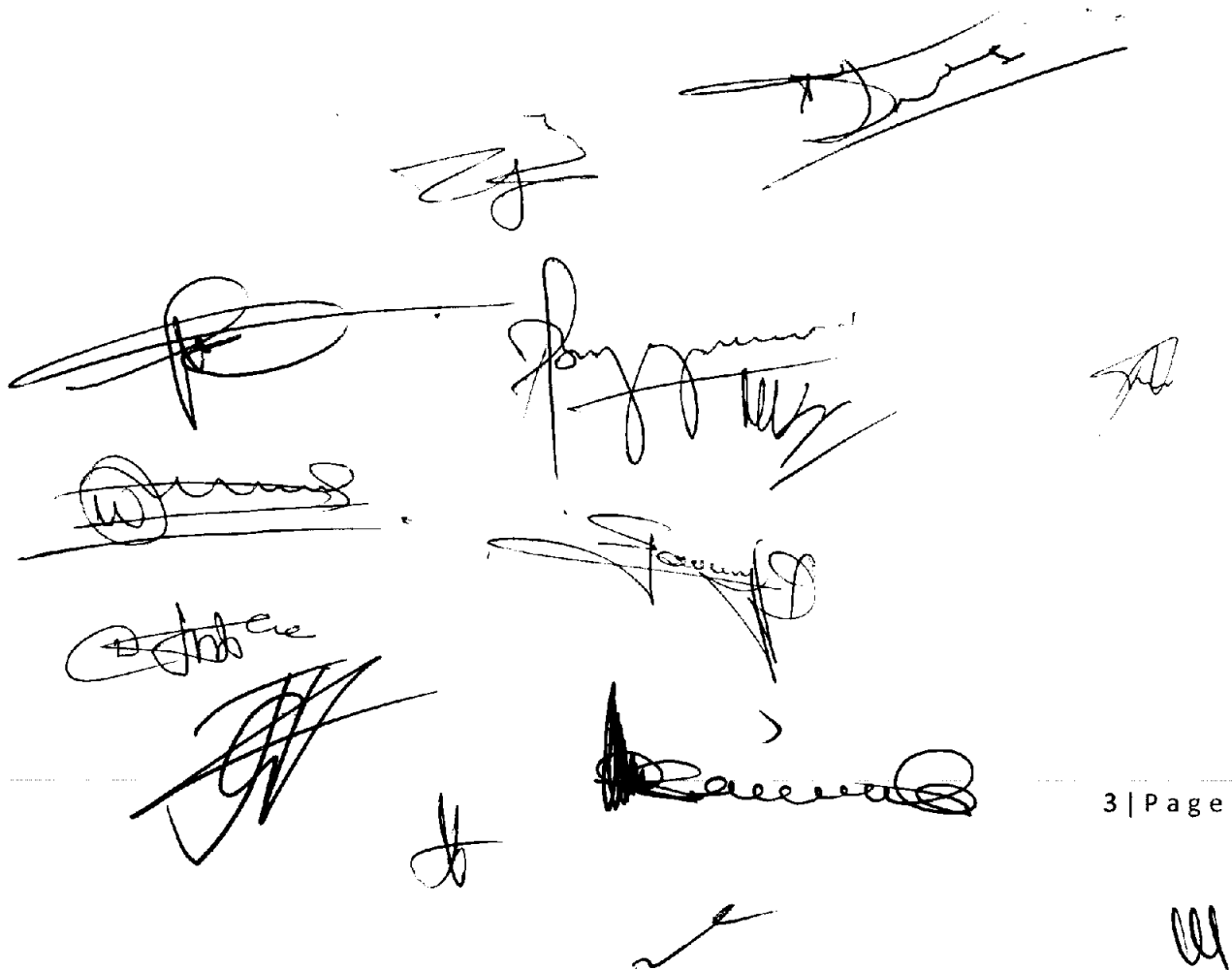
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ABBREVIATIONS AND ACRONYMS

CSF	Credit Support Facility
DEO	District Education Officer
DHO	District Health Officer
ERT	Energy For Rural Transformation
GEF	Global Environment Facility
IA	Implementing Agency
IDA	International Development Agency
LV	Low Voltage
MEMD	Ministry of Energy and Mineral Development
MOES	Ministry of Education and Sports
MOFP	Ministry of Finance, Planning and Economic Development
MOH	Ministry of Health
MoWE	Ministry of Water and Environment
PCU	Project Coordination Unit
PFI	Participating Financial Institution
PPEI	Post Primary Education Institution
PV	Photo Voltaic



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1.0 INTRODUCTION

Rt. Hon. Speaker and Hon. Members,

The Public Accounts Committee considered the Value for Money Audit on the Compensation of Project Affected Persons under the Refinery Project as mandated by Rule 162 (2) of the Rules of Procedure and Article 90 of the Constitution of the Republic of Uganda.

Article 163(4) of the Constitution requires the Auditor General to submit to Parliament annually a report of the accounts audited by him or her for the financial year immediately preceding.

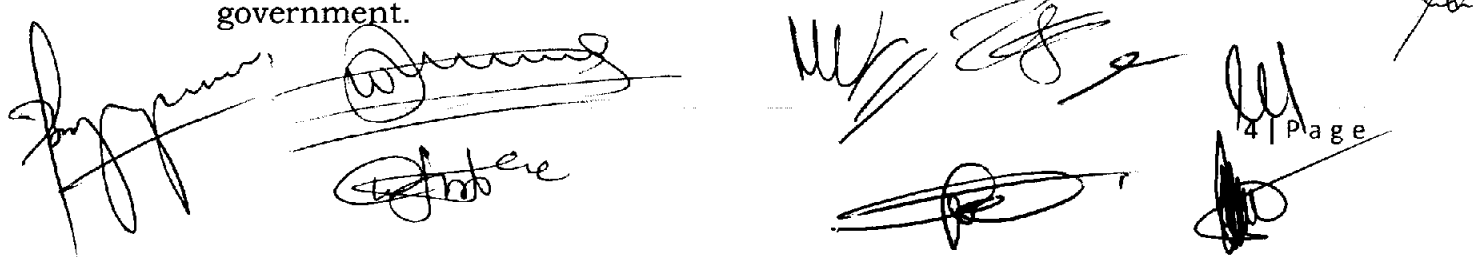
The Energy for Rural Transformation Project II (ERT II) was a strategic effort by the Government of Uganda to provide infrastructure and functioning social services to promote growth and reduce poverty. The Objective of the ERT II project is to increase access to energy and Information Communication Technologies (ICTs) in rural Uganda.

Project Components

The project had three components, namely:

- a) Rural Energy Infrastructure;
- b) Information Communications Technologies (ICTs), and
- c) Energy Development, Cross Sectoral Links and
- d) Impact Monitoring.

The Rural Energy Infrastructure focused on provision of rural electrification, renewable energy power generation, solar PV systems and energy efficiency. The Information Communication Technologies component focused on extending access to ICT services while the Energy Development, Cross Sectoral links and Impact Monitoring components aimed at providing support to the Project Coordination Unit and the implementing sectors of health, education, water, agriculture and local government.



Audit Objective

The overall audit objective was to assess whether the planning and implementation of solar energy infrastructure component was properly undertaken to achieve the expected timelines, coverage and functionality of the infrastructure.

The project's main objective was to increase rural access to energy and the following implementers were involved;

Ministries of Health, Education and sports, Agriculture Animal Industry and Fisheries, Water and Environment and Rural electrification Agency (REA).

The project was implemented in 3 phases, the first phase in 2001, second in 2009 and the last phase in 2016.

2.0 METHODOLOGY

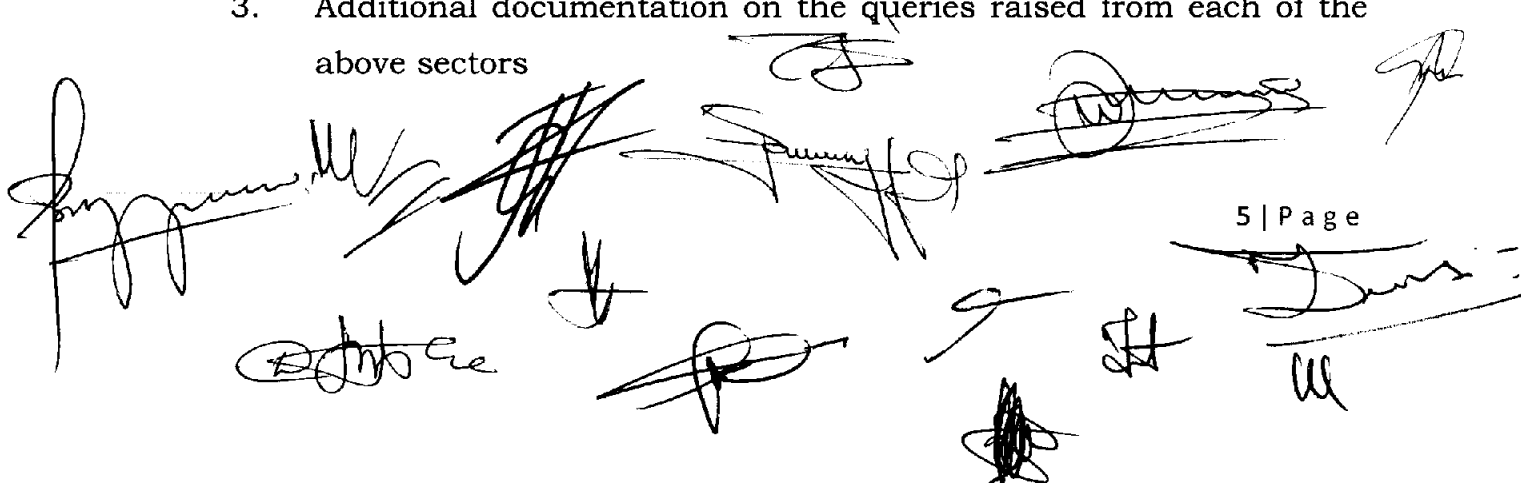
2.1 Meetings

The Committee held meetings with the Accounting Officer and staff of the Ministry of Energy, Ministry of Health, Ministry of Agriculture, Animal Industry and Fisheries, the Rural Electrification Agency (REA), and Ministry of Education and Sports.

2.2 Document Review

The Committee studied and made reference to the following documents;

1. The Value for Money Audit Report on the Implementation of Solar Energy Infrastructure in Selected Education and Health Facilities under the Energy for Rural Transformation Project II (ERT II)
2. The Public Finance Management Act 2015
3. Additional documentation on the queries raised from each of the above sectors



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3.0 FINDINGS, OBSERVATIONS AND RECOMMENDATIONS

The Committee made the following findings, observations and recommendations

3.1 PLANNING:

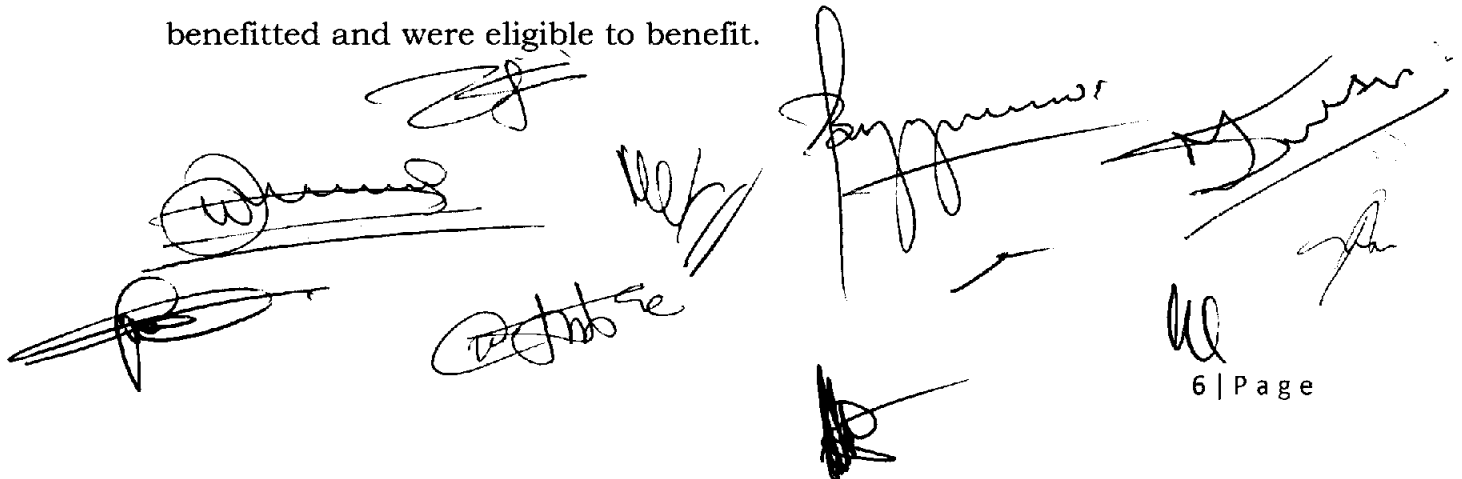
Criteria

According to the Energy for Rural Transformation (ERT) II Operational manual identification and pre-selection of Post Primary Education Institutions by the district education officers was to be based on the distance to the existing (more than 3 km from Low Voltage lines or transformer), future power grid, enrolment levels of benefiting Institutions, and ensuring complementarity to other on-going projects in the sector, including the ICT program and balancing of regional distribution. Similarly, one of the specific objectives of the health component was to connect all health centres within 500 meters of the national grid and up to 1km for HC IVs. All selected schools and health centres were to be physically visited to ascertain their individual energy needs before procurement of the solar energy packages.

The Ministry of Education and Sports informed the committee that they were targeting 560 institutions and that it was difficult to get institutions, which were far off the grid.

Observation

The Ministry of Education and Sports picked on schools which did not meet the criteria and did not follow the required radius of 3 km from the grid. The Ministry did not identify 8 institutions that should have benefitted and were eligible to benefit.



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3.2 SELECTION OF INSTITUTIONS

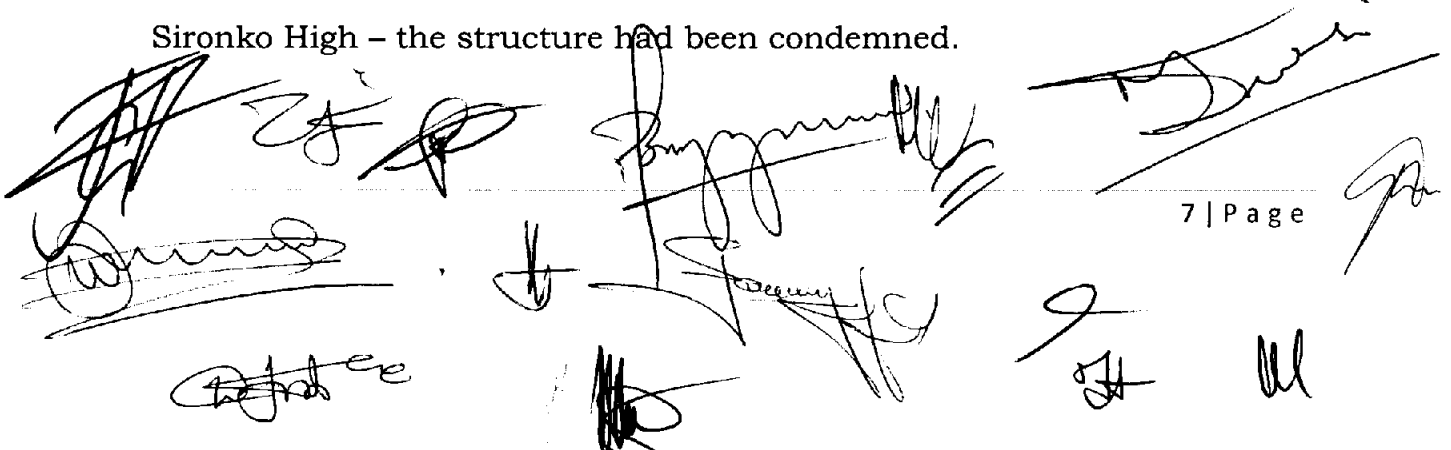
From inspections and document review it was noted that 15 out of 40 schools sampled got solar packages worth USD 162,599 yet they did not meet the eligibility criteria. They were either connected to the grid before the installation of the solar, or were within close proximity to a Low Voltage grid line.

3.3 ELIGIBILITY

Field inspections revealed that 12 potentially eligible schools located in the same districts visited were not selected to benefit from the program although they met the eligibility criteria. These schools comprised of Makhai Seed s.s, Kuju Seed s.s, Ologai Technical, Obalanga Seed s.s, Kagunga Seed s.s, Uganda Martyrs Technical institute, St. Peters s.s Nyarushenje, Bufunjo Seed, Rwimi s.s, Kitumba s.s, Kaboyo s.s and Hamukungu Parents School. These schools were deprived of the opportunity to obtain solar energy packages that would have increased their access to reliable energy, as they were situated more than 3 km away from the existing low voltage power.

The Accounting Officer informed the committee that the schools listed were not in existence at time the selection was made. The schools have been considered for ERT 3.

Status: Bufumbo SS in Mbale – Building completed, Ochola – building completed, Wanale SS in Mbale – Installation is complete, Binyinyi - installation complete, Nambulu S.S – installation complete, Amach Modern S.S – installation is complete, Kitgum SS- Windows and door shutters are being completed and installation will be completed after, Sironko High – the structure had been condemned.



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3.4 DISTRIBUTION OF SOLAR PACKAGES TO SCHOOLS AND HEALTH CENTRES

The sector ministries contracted various contractors to distribute energy packages as stipulated in the contracts. These were based on the energy needs assessment that had been conducted earlier. The terms of reference for the energy needs assessment required an assessment of the energy needs of the institutions based on the available physical infrastructure.

Through field inspections, it was noted that although all schools had at least a structure onto which a package could be installed, 8 out of 40 schools and 2 out of 25 health centres remained with solar packages that could not be installed. They had either incomplete, non-existent, or inhabitable buildings that could not support installation.

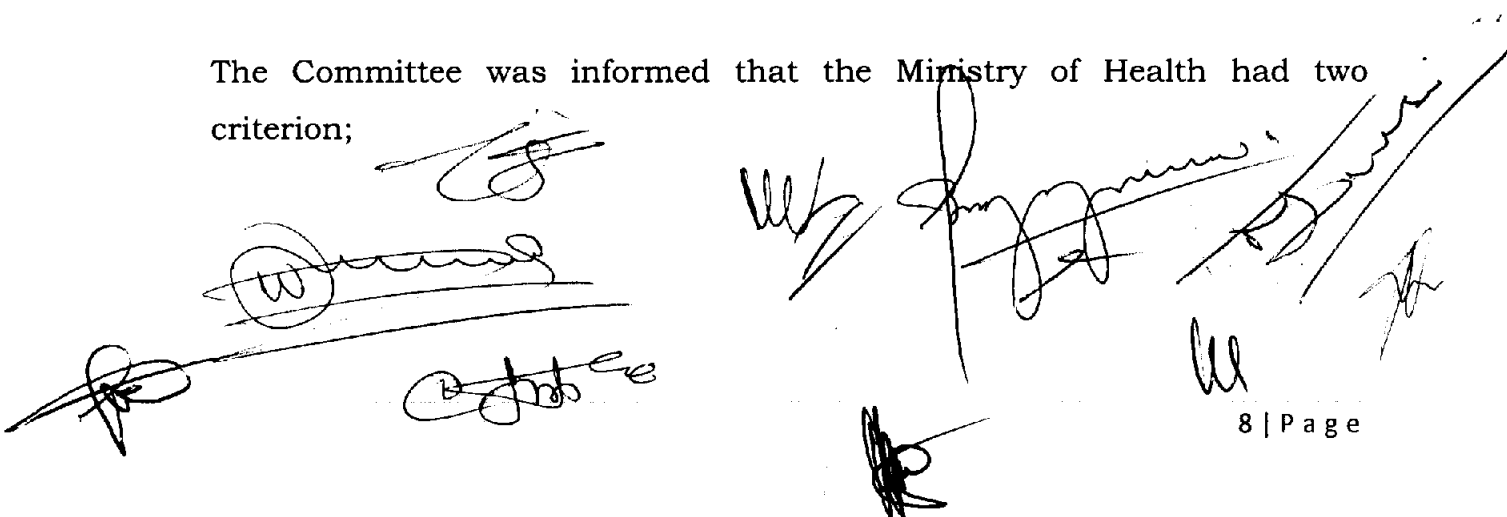
Refer to the budget office report on the same

3.5 EFFECT

Consequently, the non-utilisation of equipment at certain institutions has limited the access to energy at other needy institutions. For example, there were health centres, like Bugamba HC IV in Mbarara and Kamuganguzi HC III in Kabale, that did not receive any package under ERT II yet solar packages are lying idle in some facilities.

Furthermore, in some cases irrationalized installation of energy packages was noted.

The Committee was informed that the Ministry of Health had two criterion;

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1) Institutions shouldn't be close to the grid.

The Committee noted that the first priority for selection was given to institutions that were not connected to the grid, Health Centre 2s and Health Centre 4s had first priority of access.

MOH reviewed and ensured equity in terms of distribution. In the second phase the Ministry will target 25 districts;

2) Functionality: Utilization, available equipment that would benefit from the electricity

The Ministry's target was to connect 446 health facilities, had a cost attached to each of the different sizes but actually connected 522 health facilities, this was under the World Bank IDA fund. The Ministry got more funds from Nordic Development bank.

Further, under ERT 3, savings were used to facilitate districts which needed to be provided with electricity. The Ministry did monitoring and supervision of activities through field visits to ensure maintenance and had done a holistic inventory update in order to cater for later planning.

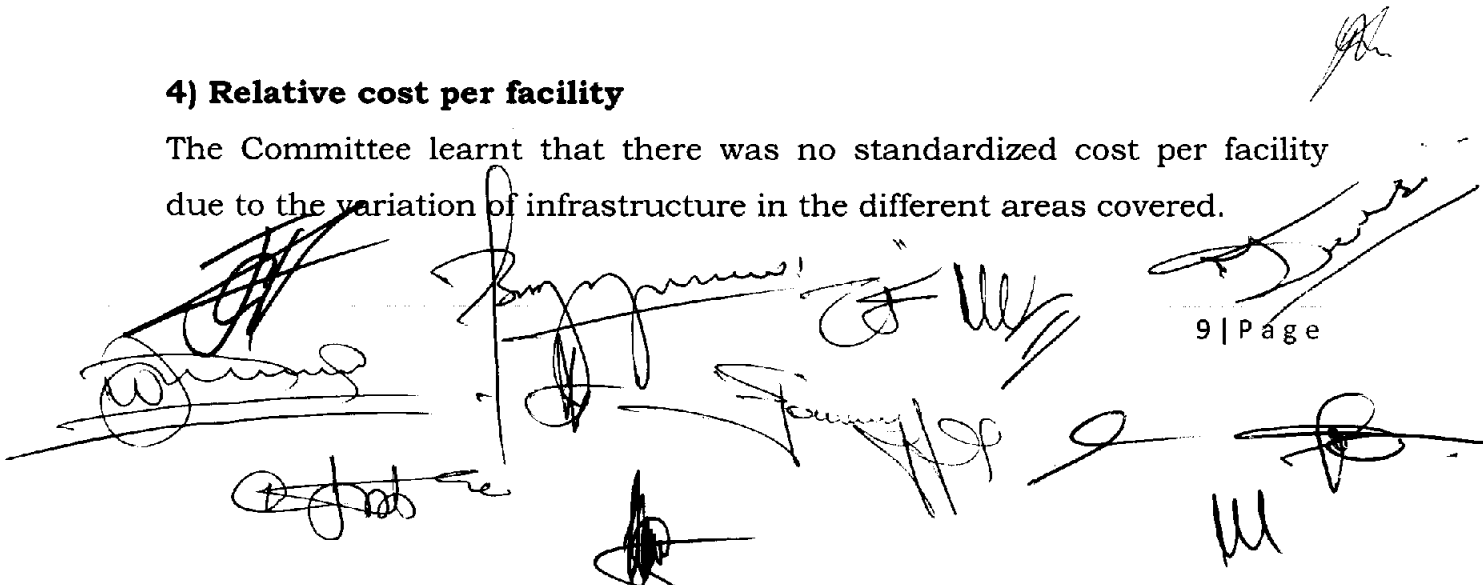
Out of the planned installations, all the facilities were covered.

3) Handling of Faulty components;

The Project manager informed the committee that service contracts provided for replacement of bulbs but not key components like panels and inverters. However, the project had rates that were referred to in case of the need to replace components.

4) Relative cost per facility

The Committee learnt that there was no standardized cost per facility due to the variation of infrastructure in the different areas covered.

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3.6 DELAYED IMPLEMENTATION

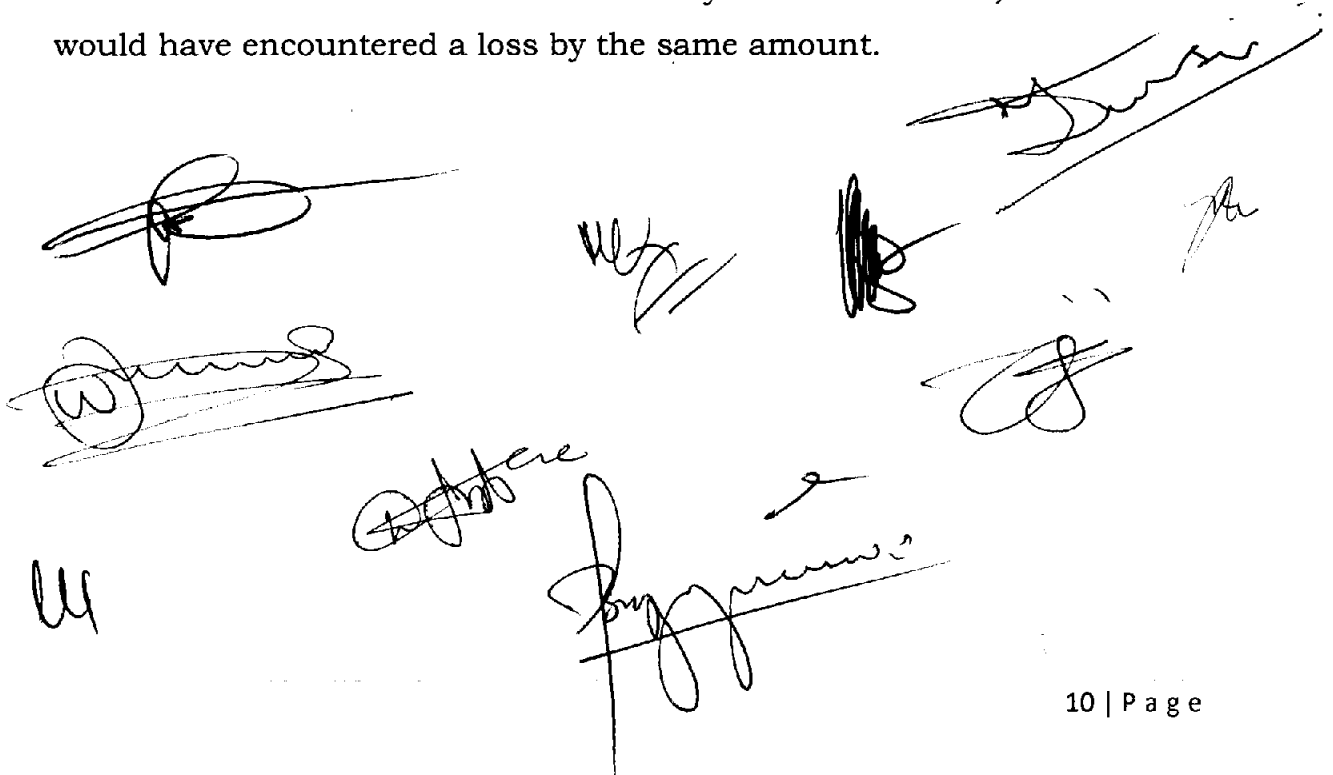
Through document review and field inspections, Audit noted that in some instances, installations had been completed as late as 2014 for both MoES and MoH while in other instances there were no installations made at the time of inspection in March 2016.

Cause

Contract effectiveness was instituted once payment had been made to the contractor. The delay in implementation of the installations was due to the delays in contractor. The delay in implementation of the installations was due to the delays in effecting the contracts by the Project Coordination Unit (PCU).

Observations

1. The committee noted that the delay was occasioned by the failure to sign documents in time by the MoFPED.
2. The delays resulted in commitment charges of USD 796, 885 (Approx. UGX 2,948,474,500 at the current rate of 1\$ @ UGX 3700). Had it not been for a waiver of commitment fees by the World Bank, Government would have encountered a loss by the same amount.



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3.6 FUNCTIONALITY AND SUSTAINABILITY

Sustainability of the solar packages installed

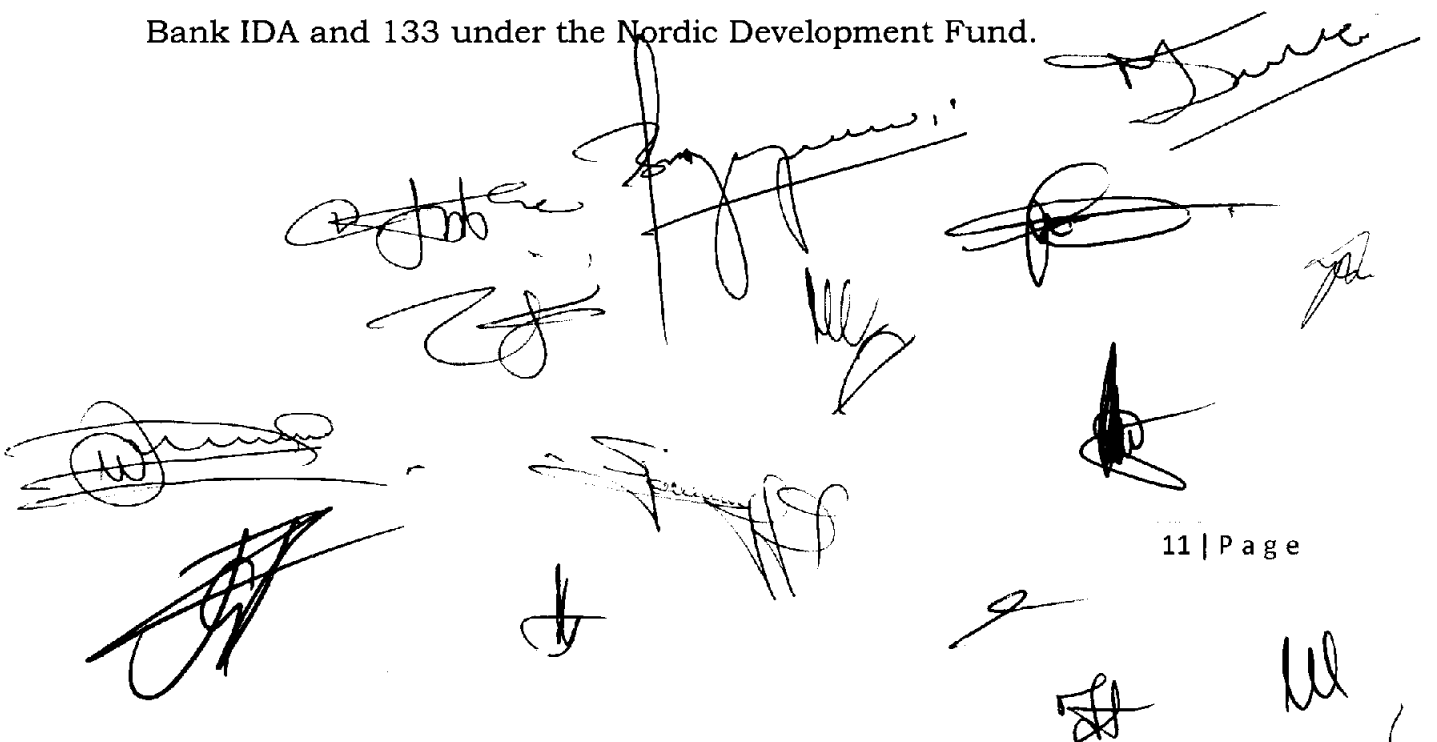
Sustainability plans;

The Ministry of Health informed the committee that vaccines and vaccine fridges required continuous and reliable power supply. Thus the vaccine fridges were provided with a standalone solar system working with UNEPI as an exit strategy and handing over the vaccine fridges to be incorporated in the UNEPI programme.

MOH deliberately trained technicians during the process of project implementation, MOH also provided a tool kit for each of the technicians. *The committee learnt that the procurement team from the Ministry of Health consisted of; Mr. Musinguzi, Evaluation – Mr, Mulepo, Eng. Wanda, and Eng. Okumu – UNBS.* Procurement was made for 25 districts (To be refined)

Observations:

1. Many of the fridges in the health centres are not functional.
2. The committee observes the lack of proper valuation.
3. Despite the submission by the project manager that Mbarara was not a beneficiary, Mwizi HC3 (in Mbarara) benefitted from the solar package.
4. The committee learnt that 522 Health Centres were covered under World Bank IDA and 133 under the Nordic Development Fund.

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3.7 FAULTY SOLAR SYSTEM

Table 2: Findings on faulty solar system installations in selected institutions

Institution	Finding
Bbaale SS	The systems in administration and staff quarters work but run out of power quickly hence the shorter working hours and withdrawal of some lights. This is probably due to poor quality or faulty Photo charge controller.
St. Mathias Mulumba SS	The system in the administration complex was faulty where the fuses blew up shortly after installation. The systems in library, laboratory and staff room work but run out of power quickly hence the shorter working hours and withdrawal of some lights. This is probably due to poor quality or faulty Photo charge controller.
Kamira HCIII	A total of 1.32kWp is installed OPD, maternity, inpatient ward and the staff house serving a vaccine refrigerator, 20 AC lights, 6 security lights and 4 sockets. However, the security lights fitted with motion sensors are faulty. Solar panels in the inpatient ward are faulty with very low currents measured.
Ngoma HC IV	2.28kWp installed in the theatre, maternity ward and staff quarters serving 40 internal lights, 17 security lights, a blood refrigerator and theatre appliances. However, the central package serving the theatre and maternity ward overloads and trip when the sterilizer is turned on.

Source: OAG inspections carried out on March 2016

The committee was informed that the batteries became faulty and there was a request to supply batteries in 64 schools. The batteries were supplied by a Vietnamese company through competitive bidding.

Technical specifications were provided and the company that won the bid met the specifications.

Observations:

The committee observed as follows;

1. 64 schools were supplied with faulty equipment due to inefficiencies before, during and after installation of equipment.
2. The Project Coordination Unit manifested inefficiencies in its supervisory role.

3.8 KEY RECOMMENDATIONS

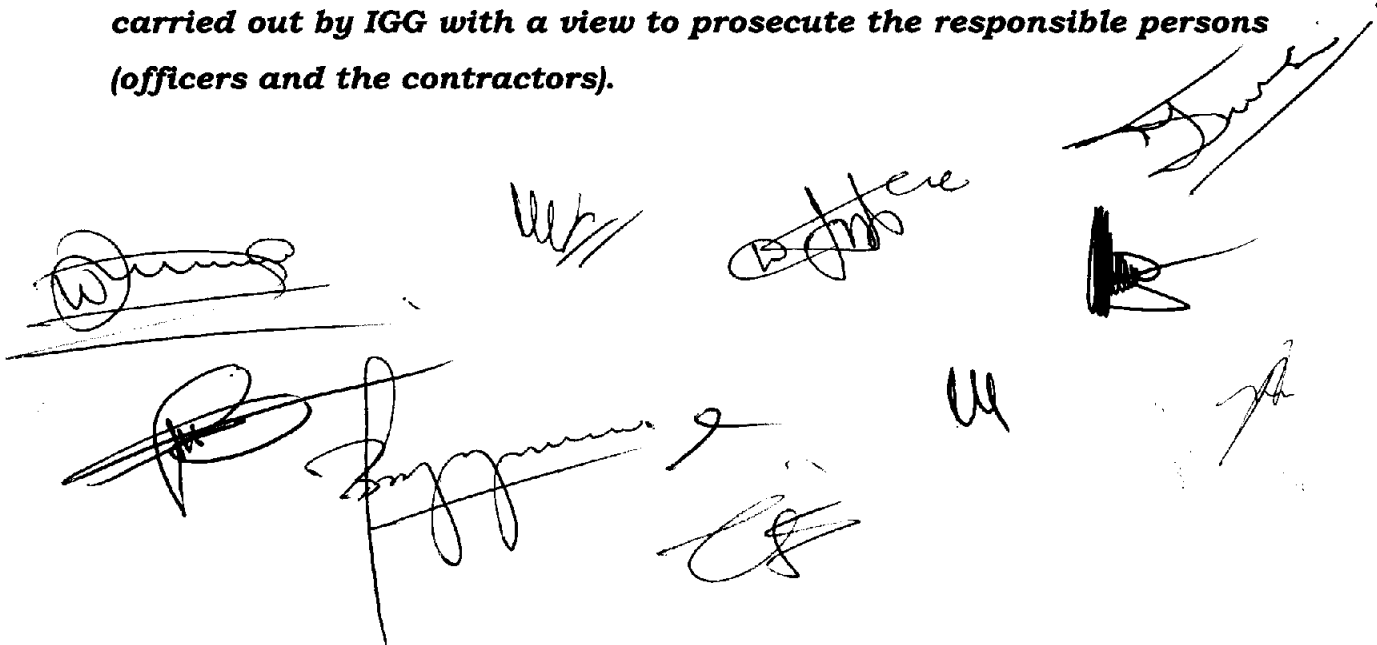
The Accounting Officer through ERT Project Coordination Unit in the Ministry of Energy and Mineral Development should:

1. **Ensure that, in future implementation of the program, the selection of beneficiaries is comprehensively undertaken by the implementing agencies in accordance with the clearly defined criteria. More guidelines need to be developed for the application of the established criteria. A weighting system could be introduced to avoid subjectivity in the selection process.**
2. **Ensure that the Ministries of Education and Health closely monitor and enforce compliance of the needs assessment contract provisions, by specifically visiting the schools during the process of undertaking and reviewing the energy needs assessment, to ensure full delivery of the contractual outputs.**
3. **Ensure that the necessary approvals from the funders of the programme are properly planned and obtained in a timely manner. In addition funds for contracts effectiveness should be made available to contractors within the shortest time after contracting.**

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4. **Ensure that future solar package installations are properly monitored and maintained for proper and continued functionality.**
5. **Ensure that the Ministries of Education and Health put in place asset replacement policies to ensure continued functionality of the infrastructure.**
6. **Ensure that adequate measures are put in place for protection of the installations.**
7. **Ensure that maintenance of the infrastructure encompasses provision of maintenance kits to the schools and health facilities to be able to effectively operate and maintain the solar infrastructure now and upon project closure.**
8. **Follow up with the implementing ministries to ensure that the contractors train and develop the capacity of the beneficiaries who should subsequently train others, to install and maintain the solar packages.**
9. **The committee also recommends that a forensic audit be conducted to ascertain the actual installations and beneficiaries.**

10. **The committee further recommends that investigations be carried out by IGG with a view to prosecute the responsible persons (officers and the contractors).**

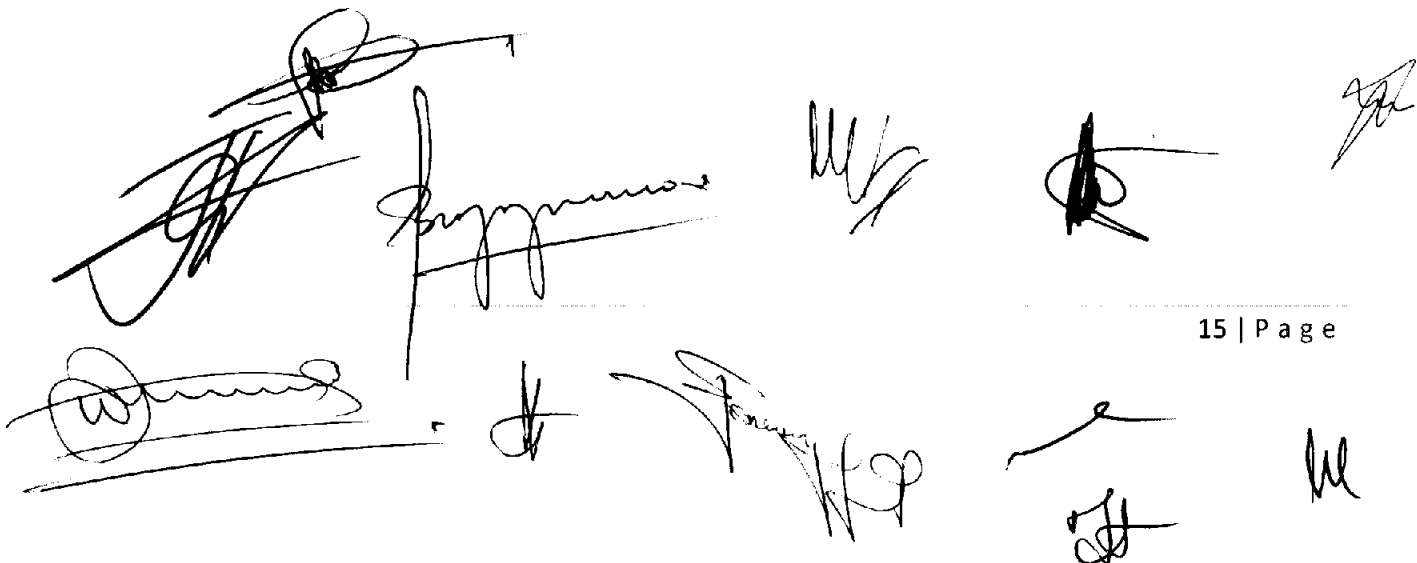
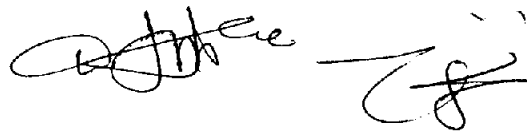
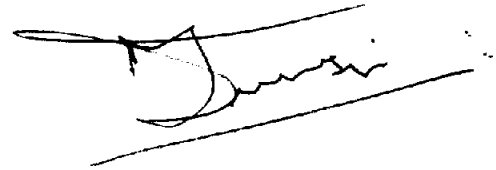


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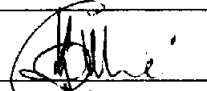


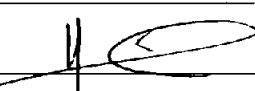

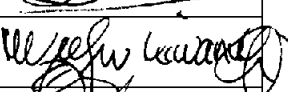

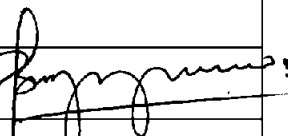
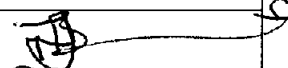
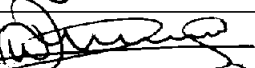
4.0 CONCLUSION

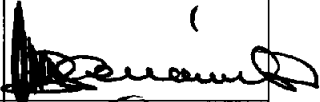
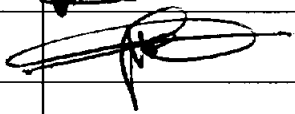
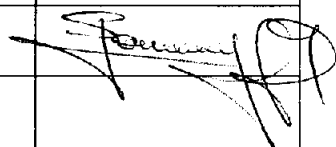
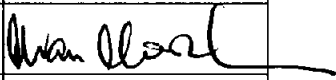
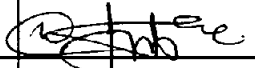
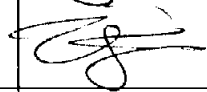
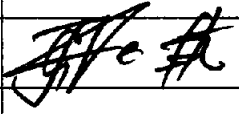
Whereas the Ministry of Energy and Mineral Development has undertaken specific interventions aimed at increasing access to energy through provision of energy technologies under the implementing sectors of health and education, inadequate planning, beneficiary selection and energy needs assessment resulted in irregular distribution /installation of packages and un-installed packages. This has led to underutilization of energy output. In some instances, vandalism was reported due to poor security measures. Inadequate contract management, monitoring and supervision led to significant delays in implementation of the Project. It is hoped that with the implementation of ERT III, the lessons learnt will be applied to fulfil the objectives of the project.

Rt. Hon. Speaker and Hon. Members, I beg that the report be considered and adopted by this House.



APPENDIX I: SIGNATURE LIST

SR. No.	NAME	CONSTITUENCY	PARTY	SIGNATURE
1.	HON. ANGELINE OSEGGE	DWR SOROTI	FDC	
2.	HON. GERALD KARUHANGA	NTUNGAMO MUNICIPALITY	INDEP	
3.	HON. MUGABE KAHONDA DONOZIO	RUHINDA COUNTY	NRM	
4.	HON. LOY KATALI	JINJA DISTRICT	NRM	
5.	HON. HENRY MUSASIZI	RUBANDA COUNTY	NRM	
6.	HON. DHAMUZUNGU GEOFREY	BUDIOPE EAST COUNTY	NRM	
7.	HON. BYARUGABA ALEX	ISINGIRO COUNTY SOUTH	NRM	
8.	HON. NDAMIRA CATHERINE	DWR KABALE	NRM	
9.	HON. ABABIKU JESCA	ADJUMANI DWR	NRM	
10.	HON. AZAIRWE DOROTHY N K	DWR KAMWENGE	NRM	
11.	HON. SILWANYI SOLOMON	BUKHOLI CENTRAL	NRM	
12.	HON. TWESIGYE JOHN NTAMUHIIRA	BUNYARUGURU COUNTY	NRM	
13.	HON. KIWANUKA KEEFA	KIBOGA EAST COUNTY	NRM	
14.	HON. ANYAKUN ESTHER DAVINA	DWR NAKAPIRIPIT	NRM	
15.	HON. KAHIMA MOSES	RUHAAMA COUNTY	NRM	
16.	HON. OGONG FELIX OKOT	DOKOLO SOUTH	NRM	
17.	HON. ASIKU ELLY ELIAS	KOBOKO NORTH	NRM	
18.	HON. BINTU LUKUMU JALIA	MASINDI DWR	NRM	
19.	HON. WAKABI PIUS	BUGAHYA COUNTY	NRM	
20.	HON. AYOO TONNY	KWANIA COUNTY	NRM	
21.	HON. AMONGIN JACQUILINE	NGORA DWR	NRM	

22.	HON. SSEKIKUBO THEODORE	LWEMIYAGA COUNTY	NRM	
23.	HON. KISA STEPHEN	LUUKA SOUTH	NRM	
24.	Hon. WALYOMU MUWANIKA MOSES	KAGOMA COUNTY	NRM	
25.	HON. MBWATEKAMWA GAFFA	KASAMBYA COUNTY	NRM	
26.	HON. LOKII JOHN BAPTIST	MATHENIKO COUNTY	NRM	
27.	HON. KORETA IVAN (LT GEN)	UPDF	UPDF	
28.	HON. BASEKE FRED	NTENJERU SOUTH	IND	
29.	HON. MUKODA JULIE ZABWE	DWR MAYUGE	IND	
30.	HON. ALIONI YORKE ODRIA	ARINGA SOUTH	IND	
31.	HON. FRANCA JUDITH AKELLO	DWR AGAGO	FDC	
32.	HON. SSEMUJJU IBRAHIM NGANDA	KIRA MUNICIPALITY	FDC	
33.	HON. PATRICK AKORA EBONG	MURUZI COUNTY	UPC	
34.	HON. SEWUNGU JOSEPH	KALUNGU WEST	DP	
35.	HON. MPUUGA MATHIAS	MASAKA MUNICIPALITY	DP	