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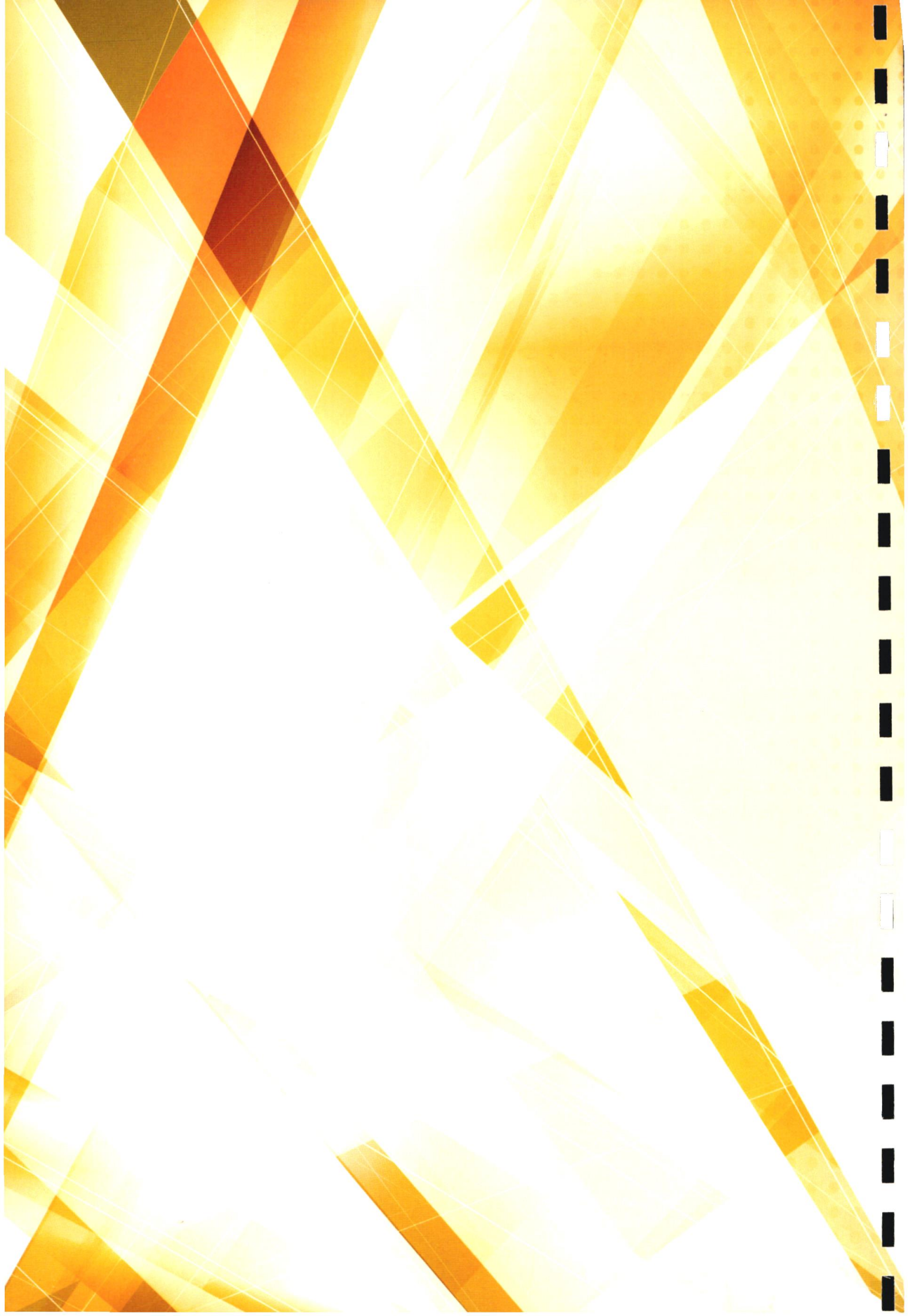
REPUBLIC OF KENYA  
MINISTRY OF ENERGY AND PETROLEUM

POWERING KENYA  
EMPOWERING DREAMS



## PERFORMANCE REPORT

FOR PRESENTATION TO PARLIAMENT  
AS PER PROVISIONS OF ARTICLE 153(4)(b)  
OF THE CONSTITUTION OF KENYA





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# Remarks by the Cabinet Secretary Ministry of Energy and Petroleum



**Mr. Davis Chirchir**

Energy has been singled out as one of the key enablers of the Vision 2030. The Jubilee Manifesto further enumerates the importance of creating reliable energy infrastructure to enable the private sector to plan and invest for growth. Energy security therefore remains a matter of national priority. My Ministry is also alive to the fact that expensive energy hinders the competitiveness of our country by raising the cost of doing business. In this regard, energy accessibility and cost are key priorities in my Ministry. 'A Country Doing Business Index' published by World Bank as a tool for measuring a country's sectorial competitiveness is also a key area we are paying attention to. The index rating for Kenya for the time taken to connect new electricity customers for the year 2012/13 was 163 days, which my Ministry is working to bring to under 40 days.

To address the above three factors, my Ministry in September 2013 launched the road map for the 5000+ MW program for transforming Kenya in 40 months. Through this initiative, in addition to scaling up power generation, we will be focusing on reducing the cost of power by over 40% in electricity for industrial and domestic customers, translating to the increased competitiveness for our economy.

This roadmap, has 280 MW new geothermal power generation at Olkaria (II) and (IV) which is expected to be commissioned by October 2014 at a very competitive tariff of US cents 7.2 per kWh. An additional 100 MW new geothermal power generation contract has been awarded, with a power purchase agreement, at a tariff of US cents 7.0 per kWh signed for delivery to the grid by June 2015. Investors have also been shortlisted for the 700 MW LNG-fired power plant at Dongo Kundu, Mombasa and the 960 MW coal fired power plant at Lamu, whose tender progress is at the final stages of award.

As an immediate measure to address cost of power, my Ministry retired Aggreko 90MW expensive emergency power at Embakasi in November 2013.



To ensure accessibility to electricity, a total of 443,254 new electricity consumers were connected to the grid against a target of 210,000 as at end of this Financial Year 2013/14. This represents a 53% increase from the 2012/2013 Financial Year (FY) achievement of 289,619 connections. We are also in the process of electrifying all public primary schools by end of the 2014/15 FY. Over 5,000 primary schools were electrified by the end of Financial Year 2013/14, with 4,481 of the schools connected to the grid and 603 powered using solar PV, in a program to support the Primary Schools Laptop Project. It is important to support this programme, as it will also mark a major milestone towards the Jubilee Government's agenda of ensuring every Kenyan has access to electricity by year 2020.

My Ministry is keen to support business and therefore, in addition to providing power, we are keen to guarantee the quality of power both to our industrial and domestic users. We are therefore working actively to enhance transmission infrastructure and modernize distribution infrastructure. In this regard, over 4,600KM of various transmission lines are under implementation. During the period under review, 435Km of transmission lines have been completed, 2,300 KM are under construction while 1,867 KM are being prepared.

To ensure uptake of the power developed under the 5000 MW+ program, we have established a demand committee, which is working closely with other Ministries as well as the private sector to generate new demand as well as audit the current / existing demand. We have identified and are working with, among others, the Ministry of Industrialization and Enterprise Development to create industrial parks close to power generation and transmission sites including:

- Olkaria and Menengai in Nakuru County
- Isinya in Kajiado County
- Lessos in Nandi County
- Dongo Kundu and Mariakani in Mombasa County

Other counties where industrial parks are being identified include; Kisumu, Lamu, Kitui and Wajir.

We are also working closely with the Ministry of Transport and Infrastructure to ensure adequate and reliable power for the standard gauge railway line, as well as provision of power for the other projects under the LAPSSET program.

Kenya has recently recorded tremendous success in oil and gas exploration. Recently, four discovery oil wells were drilled by Tullow Kenya BV namely; Ekales, Ageta, Amosing and Ewoi in Lokichar sub basin. These have raised the country's recoverable oil reserves from 300 to 600 million barrels. Offshore in the Lamu basin, we have recorded drilling successes with the establishment of an active hydrocarbon system. We are confident that it is just a matter of time before world-class hydrocarbon discoveries are recorded in offshore Kenya.



My Ministry is working closely with oil and gas exploration companies to support the drive towards positioning Kenya as a global player in petroleum supply. We have thus supported Tullow to speed up its exploration campaign. In this regard, Tullow has already commenced work on a commercialization plan, which will culminate in the field development plan by last quarter of 2015. My Ministry has also advertised an Expression of Interest for the crude oil pipeline from Hoima, Uganda to Lamu through Lokichar

On coal resources development, the Ministry successfully signed a Benefits Sharing Agreement on December 23, 2013 with the host community paving way for coal mining to start in Blocks C and D of Mui basin in Kitui County.

Alongside these oil and coal development plans, we are committed to rolling out social programmes aimed at ensuring that the communities, where the discoveries have been made, do benefit from the resources.

KPC transported 5.5 billion litres of refined products in FY13/14 compared to 4.1 billion in FY 12/13; a 34% increase.

NOCK retailed 232.9 million litres of petroleum products in FY 13/14 compared to 252.7 million litres in FY 12/13. Retail stations however increased from 102 to 116 over the same period.

An upgrade of the existing petroleum infrastructure is also underway with the construction of line 5 (Mombasa – Nairobi) pipeline set to commence in June 2014 to replace the aged line 1. The petroleum storage capacity in Nairobi is also set to double with additional tankage being constructed.

We have now instituted a number of initiatives aimed at streamlining the downstream petroleum sector. This includes tightening the licensing requirements to ensure only companies that are able to operate within the stringent safety and technical thresholds of the petroleum subsector are licensed to operate in the country. We have also proposed a number of measures including fiscal breaks to support private investment in petroleum infrastructure such as storage and retail petrol stations.

Following the proposed exit by Essar from Kenya Petroleum Refineries Limited, we are now exploring different alternatives for reviving the refinery including potentially converting it into a storage facility to meet the challenge of inadequate storage for strategic and operational stocks in the country.

Legal and institutional reforms remain key to ensuring that the country realizes lasting benefits from its oil and gas resources as well as to ensure an effectively organized energy sector. Thus, alongside drafting the Energy Policy and revising the Energy Act, we have sought support from the World Bank under the Kenya Petroleum Technical Assistance Project (KEPTAP). KEPTAP has been designed as an early measure strategy to build capacity and put necessary structures and institutions in place within the existing but limited window



of time prior to commencement of development and production. KEPTAP is based on the following four major components of reforms and capacity building for the country's petroleum sector:

- Petroleum sector reforms and capacity building
- Revenue and investment management
- Sustainable impact of the oil and gas industry
- Project management

To enhance productivity and achieve success for our projects, my Ministry has rolled out a robust performance management as well as projects monitoring framework. In this regard, the Ministry, together with the parastatals under it, negotiated and signed performance contracts, which have been cascaded across all levels. We have also instituted a robust project management framework where the Ministry and its parastatals have developed Gantt charts on the basis of which we track project implementation fortnightly. The Gantt charts are provided as an annex to this report.

The Ministry uptake on the exchequer budget allocation 2013/14 FY has improved from 72% and currently stands at 91%. We expect that with support from Treasury, the outstanding amount will be disbursed by the end of this Financial Year, which will bring disbursements close to 100%.

It is now my pleasure to invite you to read this report which enumerates our achievements in the Energy sector for this 2013/2014 Financial Year.

Mr. Davis Chirchir  
Cabinet Secretary



# 1.0 July 2013–June 2014 Report for the Ministry of Energy and Petroleum



**Eng. Joseph Njoroge, MBS**

The performance and achievements by the Ministry of Energy and Petroleum Headquarters in both the oversight and implementation are as per details below



S/No.	Project Name	Implementation Status	Remarks/Challenges
<b>KENYA ELECTRICITY GENERATING COMPANY (KenGen)</b>			
1.	<b>Olkaria IV – 140MW Geothermal Power Project</b>	<p>i) Design, manufacturing and shipping of major equipment completed;</p> <p>ii) Electrical and Mechanical assembly for STG 1 at final testing phases with Pre commissioning activities in progress.</p> <p>iii) Installation of the STG unit 2 in progress;</p> <p>iv) Erection of structures at substations and Transmission line towers erection in progress. Commissioning to start in next quarter;</p> <p>v) Piling, installation of supports for steam pipelines and construction of separator stations in progress.</p> <p>vi) Project completion stands at 97%.</p> <p><b>The Lot D (Infrastructure works):</b></p> <p>a) The 10km Road from Olkaria I-Olkaria IV completed;</p> <p>b) Resettlement Action Plan (RAP) – Construction of RAP houses at advanced stage with a completion date of April 2014.</p>	<p>The plant is scheduled to be commissioned by June 2014</p> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>- Wayleave acquisition</li> <li>- Local Community issues which continue to be handled as the project progresses</li> <li>- Transmission Line and Substation contract 3 month behind schedule;</li> <li>- Delay in substation has led to redesign of alternative power evacuation route.</li> </ul>
2.	<b>Olkaria I – 140MW Geothermal Power project</b>	<p>i) Tendering, award and approval completed;</p> <p>ii) Design, manufacturing and shipping of major equipment completed;</p> <p>iii) Structural concrete works, steel erection, cladding, plastering works, painting, fencing works in progress;</p> <p>i) Installation of the STG unit and inner casing ongoing;</p> <p>ii) Power house steel erection at 50% Structural steel works and partition masonry walling 90%.</p> <p>iii) Erection of structures at substations and Transmission line towers erection in progress. Commissioning to start in next quarter;</p> <p>iv) Piling, installation of supports for steam pipelines and construction of separator stations in progress.</p> <p>v) Project completion stands at 85%</p> <p><b>The Lot D (Infrastructure works):</b></p> <p>a) Geothermal Complex: Construction in progress with a completion date of September 2014;</p>	<p>The plant is scheduled to be commissioned by October 2014.</p> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>- Wayleave acquisition</li> <li>- Local Community issues which continue to be handled as the project progresses</li> <li>- Transmission Line and Substation contract 3 month behind schedule;</li> <li>- Delay in Commissioning of Suswa Substation and Completion of Suswa-Isinya line has potential to affect dispatch of power.</li> </ul>



S/No.	Project Name	Implementation Status	Remarks/Challenges
<b>KENYA ELECTRICITY GENERATING COMPANY</b>			
3.	<b>Ngong I Wind Phase II – 6.8MW</b>	<ul style="list-style-type: none"> <li>i) Financial closure was achieved in February 2013 and commencement for this contract was achieved on 13th March 2013</li> <li>ii) Road network and civil works design at advanced stage with 6 out 8 WTG foundations concreted;</li> <li>iii) Design, manufacturing and FAT and shipment of all major components completed;</li> <li>iv) Substation works in progress;</li> <li>• Project completion stands at 68%.</li> </ul>	<p>Early targeted completion date is March 2014 while the Contractual date is September 2014.</p> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>- Delay in conclusion of financing agreement has delayed the project for over 2 years.</li> <li>- Community issues affected access to site.</li> </ul>
4.	<b>Ngong II Wind – 13.6MW</b>	<ul style="list-style-type: none"> <li>i) Financial closure was achieved. Advance payment made in March 2013 and commencement for this contract was achieved on 13th March 2013;</li> <li>ii) Foundation excavation completed and steel fixing works in progress;</li> <li>iii) Bulk excavations for road networks and site platforms completed.</li> <li>iv) Equipment manufacturing in progress and shipment has started;</li> <li>v) Project completion stands at 33%</li> </ul>	<p>Target completion date is September 2014.</p> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>- Delay in conclusion of financing agreement has delayed the project for over 2 years.</li> <li>- Community issues affected access to sit</li> </ul>
5.	<b>Drilling - 80 Wells Contract</b>	<p>Contract signed and drilling commenced</p> <ul style="list-style-type: none"> <li>i) Forty (40) wells have drilled to completion under 80-wells Contract;</li> <li>ii) Five (5) wells are currently under drilling at various depths.</li> </ul>	



S/No.	Project Name	Implementation Status	Remarks/Challenges
<b>Geothermal Development Company(GDC)</b>			
6.	<b>Menengai Geothermal Project. Phase 1</b>	<ul style="list-style-type: none"> <li>- Surface study 100%</li> <li>- Project Financing 75%</li> <li>- Drilling 25%</li> <li>- Investor Engagement 25%</li> <li>- Steam Gathering System –Tendering process 50% complete</li> <li>- ESIA 100%</li> <li>- Feasibility study 100%</li> </ul>	
<b>KENYA ELECTRICITY TRANSMISSION COMPANY(KETRACO)</b>			
7.	<b>Kilimambogo - Thika - Githambo Line Construction of 17km double circuit 132kV line, 50km 132kV line, 2x23MVA 132/33kV sub-stations at Mang'u and Githambo</b>	Project completed	<ul style="list-style-type: none"> <li>i. Way leaves acquisition due to increasing land values</li> <li>ii. Vandalism of tower members</li> </ul>
8.	<b>Thika-Nyaga line 20km 132kV line, 23 MVA 132/33 sub-station works at Kiganjo (Nyaga)</b>	Project completed	<ul style="list-style-type: none"> <li>i. Way leaves acquisition due to increasing land values</li> <li>ii. Vandalism of tower members</li> </ul>
9.	<b>Mombasa - Nairobi Line Construction of 220/400kV 482km line with sub-stations extension works at Rabai and Embakasi substations.</b>	Conductor stringing, line construction and upgrading of Embakasi and Rabai substations are in progress.	<ul style="list-style-type: none"> <li>i. Way leaves acquisition due to increasing land values</li> <li>ii Access from state corporations</li> </ul>
10.	<b>Rabai - Malindi-Garsen - Lamu Construction of 320km 220kV line, 3 No. 23 MVA sub-stations at Malindi, Garsen and Lamu</b>	Conductor stringing completed and commissioning tests for the line and sub-station is on-going.	



S/No.	Project Name	Implementation Status	Remarks/Challenges
KENYA ELECTRICITY TRANSMISSION COMPANY(KETRACO)			
11.	<b>Nairobi Ring 220kV substations at Koma Rock, Athi River, Isinya and Ngong</b> Construction of 3No.2x 200 MVA 220/66 kV substation at Athi River, Isinya, Koma Rock and Ngong'	Lines construction – tower erection and substations civil works are in progress. Compensation for structures is completed.	
12.	<b>Suswa-Isinya line</b> Construction of 100km 400kV double circuit line	Lines construction – tower erection and substations civil works are in progress. Compensation for structures is completed.	
13.	<b>Suswa Substation</b> Construction of 2x350 MVA 400/220 kV substation at Suswa.	Contract awarded and Site access handed over to contractor. Design and equipment testing are on-going	
14.	<b>Eastern Electricity Highway (Ethiopia - Kenya) Construction of 612km 500kV HDVC bipole, convertor substation and 400/220kV sub-station.</b>	Engineering supervision consultant procured. Detailed design and preparation of bid documents completed. Procurement of EPC contractors is in progress. Valuation of both land and structures on the ROW completed. Documents prepared in readiness for gazettelement of the right of way through the National Land Commission	
15.	<b>Olkaria I- Suswa &amp; Olkaria IV- Suswa</b> Construction of 20 km and 25 km 220kV double circuit lines and substation at Suswa	Consultant and contractor procured. Line construction - tower foundations civil works and tower erection are in progress.	
16.	<b>Kenya Electricity Expansion Project (KEEP): Kindaruma-Mwingi-Garissa</b> Construction of 250km 132kV Line and 2x23MVA and MVA sub-stations at Garissa and Mwingi	Lines and sub-stations construction and tower foundations civil works, compensation for structures and design of civil and electrical works are in progress.	



S/No.	Project Name	Implementation Status	Remarks/Challenges
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KENYA ELECTRICITY TRANSMISSION COMPANY(KETRACO)

- |     |   |  |  |
|-----|---|--|--|
| 17. | <b>KEEP: Eldoret-Kitale Construction of 60km 132kV line, with 1 x 23MVA substation at Kitale.</b> | Lines and sub-stations construction and tower foundations civil works, compensation for structures and design of civil and electrical works are in progress. |  |
| 18. | <b>KEEP: Kisii - Awendo Construction of 44km 132kV line, No. 1 23 MVA sub-station</b>             | Lines and sub-stations construction and tower foundations civil works, compensation for structures and design of civil and electrical works are in progress. |  |
| 19. | <b>Olkaria - Lessos - Kisumu 286 km, 220kV double circuit line, 1 No. 90MVA sub-station</b>       | Lines and sub-stations construction and tower foundations civil works, compensation for structures and design of civil and electrical works are in progress. |  |

RURAL ELECTRIFICATION AUTHORITY (REA)

- |     |  |  |   |
|-----|--|--|---|
| 20. | <b>Implement solar PV in nine institutions far from the grid in Narok and Kajiado counties with Business centre to generate revenue to sustain the project as part of technical assistance from JICA</b> | Project completed  |   |
| 21. | <b>Ensure connection of electricity to new Public Facilities</b>   | 679 new public facilities were connected to electricity against a target of 862 in the FY 2013/14.   |   |
| 22. | <b>Rural Electrification Program</b>   | <ul style="list-style-type: none"> <li>It is estimated that out of a total of 21,000 public primary schools only about 10,938 (48%) have access to electricity while a balance of 11,062 (52%) are yet to be supplied with electricity.</li> <li>A total of 5,085 primary schools were electrified during FY 2013/14. 4,481 primary schools were electrified through the grid while 603 through Solar PV in order to provide the necessary infrastructure for the class one laptop implementation programme.</li> <li>The remaining 5,977 primary schools will be electrified in FY 2014/15</li> </ul> | Delay in delivery of materials due to long lead time, hence delay in project implementation and commissioning e.g. shortage of 33KV transformers has caused delays in commissioning of projects |



S/No.	Project Name	Implementation Status	Remarks/Challenges
<b>RURAL ELECTRIFICATION AUTHORITY (REA)</b>			
23.	<b>Five new isolated diesel power stations at Kamoliriban, Kotulo Khorondile, Maikona and Lokiriama</b>	<ul style="list-style-type: none"> <li>Civil and mechanical works for all the five stations are ongoing and are expected to be completed by the end of December 2014.</li> <li>Installation of 50 kW solar PVs was completed at Rhamu and Takaba isolated power stations. Installation of 80 KW Solar PV hybrid for Laisamis, and 30 KW Solar PV hybrid for Eldas is ongoing. The installations are expected to be completed by end of October 2014. This is expected to reduce the operational cost of the stations.</li> </ul>	Delay in delivery of materials due to long lead time, hence delay in project implementation and commissioning e.g. shortage of 33KV transformers has caused delays in commissioning of projects
<b>MINISTRY OF ENERGY AND PETROLEUM</b>			
24.	<b>Increase electricity availability through power generation</b>	Facilitated and supported the development of a total of 406 Megawatts of new power generation capacity as follows: <ul style="list-style-type: none"> <li>87.5 MW Thika Power Ltd,</li> <li>52 MW Orpower Plant III at Okaria,</li> <li>24 MW Kindaruma upgrade,</li> <li>12.8 MW Olkaria wellhead and</li> <li>20 MW Olkaria well heads</li> <li>210 MW Olkaria Geothermal units</li> </ul>	
25.	<b>Coal Exploration in the Karoo System</b>	Facilitated and supported the development of 435 Km transmission lines which comprised of: Rabai – Malindi – Garsen – Lamu line; 328 Km 220 kV line. Kilimambogo – Thika – Githambo; 67 Km 132 kV line, Thika – Gatundu (Nyaga); 30 Km 132 kV line	
26.	<b>Coal Exploration in Meru/Isiolo</b>	Provided support and monitored the connection of over 420,000 new customers.	
27.	<b>Support of Coal development</b>	Progressed the procurement of an Independent Power Producer (IPP) to develop the 700 MW LNG power plant at Dongo Kundu to Tender adjudication stage.	
28.	<b>Geothermal Exploration in Morendat-Malewa area</b>	Progressed the procurement of an Independent Power Producer (IPP) to develop the 960MW Coal power plant at Lamu to Tender adjudication stage.	
29.	<b>Connection of electricity to public institutions</b>	Provided support for electrification of 5,000 public primary schools, with 4,481 electrified through the National Grid and 603 through Solar PV.	



S/No.	Project Name	Implementation Status	Remarks/Challenges
MINISTRY OF ENERGY AND PETROLEUM			
30.	<b>Monitor, supervise and report on the results of drilling oil exploration wells</b>	<p>The Ministry continued to monitor, supervise and report on the results of oil and gas exploration activities in the country as below:</p> <p><b>ETUKO WELL</b> Etuko well was spud on 11th May, 2013. It was drilled to a total depth of 3,100m. It encountered approximately 45M of net pay thickness in shallower Auwerwer (Upper Lokhone Sandstone) reservoir and 50m of potential net pay in Lower Lokhone Sandstone. The well was drilled in Block 10BB.</p> <p>Etuko prospect is the first test of the basin's Flank Play in the eastern part of the basin.</p> <p><b>EKALES WELL</b> Ekales well was spud on 22nd July, 2013. It is located in Block 13T. It was drilled to a total depth of 1,454 m. It encountered net pay zone of 60m to 100m in the Upper Lokhone Sandstone reservoirs. Future Drill Stem Testing (DST) aims to confirm productivity of these zones.</p> <p><b>AGETE-1 WELL</b> The well was spud on 26th September, 2013. It is in Block 13T. It was drilled to a total depth of 1,930m. It encountered moveable oil with an estimated 100m of net oil pay in good quality sandstone reservoirs.</p> <p><b>BAHASI-1 WELL</b> The well was spud in October 2013. It is situated in Block 9 and is operated by Africa Oil. It was drilled to a total depth of 2,900m. It encountered metamorphic basement at 2,850m. A thick section of Tertiary and Cretaceous interbedded sands and shales were encountered with only minor shows of gas throughout the section. The well was plugged and abandoned.</p> <p><b>AMOSING-1 WELL</b> Amosing-1 well was spud on 5th January, 2014. It was drilled to a total depth of 2,101m. It encountered a potential net pay zone of 160m to 200m. It is located in Block 10BB, 7km South-West of Ngamia-1 well. The net pay in Amosing Well significantly exceeds pre-drill expectations.</p> <p><b>EWOI-1 WELL</b> Ewoi-1 well was spud on 28th December, 2013. It is located in Block 10BB. Ewoi-1 well encountered potential net pay thickness of 20m to 80m. This discovery continues to de-risk the basin's Flank Play that was opened by Etuko-1.</p>	



S/No.	Project Name	Implementation Status	Remarks/Challenges
MINISTRY OF ENERGY AND PETROLEUM			
31.	<b>Coal Exploration in the Karoo System</b>	The Ministry has prepared contracts for private firms to tender for exploratory drilling for coal in both Kilifi and Kwale counties. The Ministry also held test drilling and consultative meetings with leadership and the public in the two counties for smooth implementation of the coal drilling in FY 2014/15.	
32.	<b>Coal Exploration in Meru/Isiolo</b>	The Ministry has indentified and established access to six coal exploratory drilling sites. The Ministry also held test drilling and consultative meetings with leadership and the public in the two counties for the smooth implementation of the coal drilling in FY 2014/15.	
33.	<b>Support of Coal development</b>	<p>The Ministry has</p> <ol style="list-style-type: none"> <li data-bbox="563 1061 1078 1290">i. Advertised Expression of Interest for establishment of the 900 – 1000 MW Lamu Coal Plant which closed on 25th October, 2013. Twenty six submissions were received out of which ten firms were pre-qualified to proceed to the next stage, i.e. Request For Proposals (RFP); Bids have been received and the tender process is at final stages of award</li> <li data-bbox="563 1308 1078 1594">ii. Conducted four workshops and a series of meetings for Kitui County Local Community Leaders to build consensus for signing of the Blocks C and D Benefit Sharing Agreements. The public ceremony for signing the documents was held in Mwingi on 23rd December, 2013 and was attended by among others three Cabinet Secretaries, Kitui Senator, two Governors, former Vice President and Members of Parliament from Kitui County.</li> <li data-bbox="563 1612 1078 1697">iii. Established a regional office at Mathuki for the purpose of coordinating coal development activities in Mui Basin;</li> <li data-bbox="563 1715 1078 1863">iv. Provided logistic support to Officers of the Ministry of Land, Housing and Urban Development engaged in ongoing Land Adjudication and Registration in the areas covered by the coal project; and</li> <li data-bbox="563 1881 1078 2069">v. Undertook 29 sensitization sub-locational meetings to prepare the local community on the expected activities, which include fast-tracking of the land issues and generating awareness of the Sub-County Resettlement and Compensation Committee (SCRCC) formation.</li> </ol>	



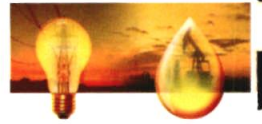
S/No.	Project Name	Implementation Status	Remarks/Challenges
MINISTRY OF ENERGY AND PETROLEUM			
34.	<b>Geothermal Exploration in Morendat-Malewa area</b>	The Ministry carried out Geological, Geophysical and Geochemical Surveys and completed delineation of the Morendat-Malewa and Kigio-Marula geothermal prospects.	
35.	<b>Monitor, Supervise and report on Geothermal Development</b>	During the period under review, the Ministry:- <ol style="list-style-type: none"> <li>i. Monitored and supervised ongoing geothermal resources development by Geothermal Development Company (GDC) at Menengai; Kenya Electricity Generating Company (KenGen) at Olkaria; Africa Geothermal International Limited (AGIL) at Longonot and Marine Power Generation at Akiira -Mt. Margaret;</li> <li>ii. Led an Inter-Ministerial Team in a survey and later a detailed audit of the local community (Masai) households affected by the attempted eviction from Ngati Farm;</li> <li>iii. Processed permits, Treasury exemptions and contracts payments in support of GDC and KenGen;</li> <li>iv. Took part in meetings for resolving Community issues affecting geothermal resource development by KenGen in the Olkaria area; and,</li> </ol>	
36.	<b>Conduct Investment-Grade Energy Efficiency Audits</b>	During the period under review two (2) Investment-Grade Energy Efficiency Audits at Iber Africa and Masinde Muliro University and one (1) General Investment Audit at Kenya Water Institute office Block were undertaken.	Implementation of identified measures lead to savings in energy, reduction of energy costs for the firms and increase in competitiveness of goods and services offered
37.	<b>Installation of wind Energy storage facility in Marsabit.</b>	Project is ongoing and is expected to be completed by December 2014.	Project delayed by arrangements for advance payment
38.	<b>Installation of wind component to existing solar water pumping systems in ASAL areas.</b>	16 wind turbines were installed to existing solar water pumps supervised, tested and commissioned.	
39.	<b>Installation of locally made wind water pumps in ASAL areas.</b>	4 locally made wind pumps were installed in ASAL areas.	One of the objectives was to promote local manufacture of renewable energy technologies



S/No.	Project Name	Implementation Status	Remarks/Challenges
MINISTRY OF ENERGY AND PETROLEUM			
40.	Installation of wind masts and data loggers	Contract for installation of five 100 meter masts awarded and works have commenced	The purpose is to provide pre-investment data for faster development of wind farms
41.	Analysis of wind data and preparation of wind energy development.	Data from the 95 meter masts measured at 40 meters analyzed and final report prepared and submitted, complete with maps and wind energy development prospectus	
42.	Development and distribution of energy conservation and efficiency brochures	6,000 brochures on biogas and Feed-in Tariff developed, published and distributed surpassing the performance target of 5,000.	
43.	Solar technology	<ul style="list-style-type: none"> <li>• Tenders for 66 institutions were awarded and 53 of them have been completed</li> <li>• Works under Spanish funded contract commenced with 100 institutions connected in Kajiado/Narok.</li> <li>• Distribution of the 200 Chinese solar demonstration kits for households done.</li> </ul>	
44.	Small Hydras Development One (1) community will be assisted in developing and installing small hydro power project.	<ul style="list-style-type: none"> <li>• Prototype small hydropower turbine has been assembled and tested with the generator at NMC.</li> <li>• Procured civil works materials for hydropower project for community at Ngelechi.</li> <li>• Construction work ongoing, with weir done, and excavation of canal done.</li> </ul>	
45.	Development of national small hydro power atlas	<ul style="list-style-type: none"> <li>• Mapping of all potential sites for hydro power development done.</li> <li>• Development of national atlas at an advanced stage about 80% complete</li> </ul>	
46.	Installation of pilot biogas digester at Kaimosi College and completion of pilot project on production of biogas using flower waste in Eureka Holdings Ltd., Thika and P.J. Dave Flowers Ltd., Isinya.	Constructions completed	



S/No.	Project Name	Implementation Status	Remarks/Challenges
MINISTRY OF ENERGY AND PETROLEUM			
47.	Support K.A.M to undertake Energy Efficiency projects.	<ul style="list-style-type: none"> <li>• 8 General Audits undertaken</li> <li>• 3 Investment Grade Audit undertaken</li> </ul>	
48.	Documentation of Renewable Energy Activities	Contract for survey and documentation of renewable energy activities in three counties awarded.	
49.	Re-afforestation of Upper Tana	<p>Works on Sondu Miriu catchment started in Chepalungu, Ndoinet and Saino. Community mobilization completed in all sites and sites preparation in readiness for March/April planting ongoing.</p> <ul style="list-style-type: none"> <li>• Works for Upper Tana phase I &amp; II ongoing as per timeline</li> </ul>	Focus is being made in areas with existing hydro power generation
50.	Testing of institutional & domestic cook-stove performance.	<ul style="list-style-type: none"> <li>• 10 cook-stove varieties tested.</li> <li>• 3 best performing varieties identified.</li> <li>• Proposals for standard and regulation development for improved cook-stoves in Kenya to be prepared.</li> </ul>	
51.	Youth and Women Empowerment	The Ministry has progressively involved a total of 14 youth interns (11 females and 2 males) from various institutions and attached them to various departments within the Ministry. A total of 132 youth (69 males and 63 females) were on apprenticeship in various renewable energy centres. In addition, tenders worth Kshs1 4,408, 479 were awarded to 105 enterprises owned by youth, women and persons with disabilities.	
52.	Fulfilment of Performance Contract to Downstream Institutions	The Ministry cascaded performance contracts to all its Agencies.	
53.	Ease of Doing Business	<p>The Ministry:</p> <ol style="list-style-type: none"> <li>Ensured that relevant approvals were granted within 30 days,</li> <li>Provided relevant information to investors within 14 days of their requests.</li> <li>Paid all taxes due to Government and enforced all the contracts.</li> <li>Continued putting in place a plan to facilitate the reduction of electricity cost over the next few months.</li> </ol>	



# Reports by Parastatals Under the Ministry of Energy and Petroleum

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# KENYA PIPELINE COMPANY LTD

JUNE 2014



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## 1. Introduction

KPC plays a key role in the petroleum supply chain through transportation of bulk petroleum products imported through the port of Mombasa to the hinterland. In the past one year, the Company has operated efficiently and safely, albeit with a few challenges. KPC's financial performance over the last three years has also been good as the company continues to post increasing profitability.

The rising economic growth in countries within the region and expected increase in demand for petroleum products will result in even higher business and turnover for the company. KPC will continue to expand the system's capacity to meet the growing demand for petroleum and ensure security of supply of petroleum products in the country.

This paper presents the company's performance, challenges faced and the key projects being implemented.



KPC engineer checking on integrity of pipeline



## 2. Performance

### 2.1 Throughput Performance

The company recorded a marked increase in throughput over the last three years from 4,149,757m<sup>3</sup> in 2010/11 to 5,545,280m<sup>3</sup> as of 27th June 2013/14, an increase of 34%. A total volume of 5.6 million m<sup>3</sup> is expected at the end of the current financial year, which will be about 9.7% higher than 2012/13 performance.

Table 1 below depicts throughput performance for the last 3 years and 2013/14 performance to 27th June 2014.

**Table 1: Throughput Performance**

Destination	2010/11 0	2011/12	2012/13	2013/14
Local	3,073,460	3,031,590	3,086,607	2,703,332
Transit	1,076,297	1,504,507	1,969,231	1,969,231
<b>Total</b>	<b>4,149,757</b>	<b>4,536,097</b>	<b>5,055,838</b>	<b>5,545,280</b>

The Mombasa - Nairobi pipeline operated at an average throughput flow rate of 635m<sup>3</sup>/hr up to 25th June 2014, up from 598m<sup>3</sup>/hr and 534m<sup>3</sup>/hr recorded in 2012/13 and 2011/12 respectively.

With a total throughput of 3.1 million m<sup>3</sup>, KPC transported about 82% of the petroleum products consumed in the Kenyan hinterland in 2012/13 FY estimated at 3.8 million m<sup>3</sup>. The company also transported 90% of the transit products received through the port of Mombasa estimated at 2.18 million m<sup>3</sup>. This has minimised the number of road oil trucks transporting petroleum products for long distance

### 2.2 Financial Performance

The company has recorded increasing profitability over the years. In 2013/14, the oil transportation revenue is expected to increase by 9% from Kshs.18.5 billion realized in 2012/13 FY to Kshs.20 billion, while Profits Before Tax is projected to increase from Kshs.8.0 billion to Kshs.9.7 billion.

Table 2 below depicts the Company's financial performance for the last 3 years.



Table 2: Financial Performance in Kshs. '000

ITEM DESCRIPTION	2010/11	2011/12	2012/13	2013/14 to May	2013/14 Latest Forecast
Oil Transportation Receipts	13,784,556	16,480,628	18,487,064	18,564,674	20,234,063
Other Income	271,512	980,141	309,403	319,083	326,478
Total Income	14,056,068	17,460,769	18,796,467	18,883,757	20,560,541
Total Expenditure	7,592,748	9,609,941	10,747,678	9,464,954	10,829,490
Profit Before Tax	6,463,320	7,850,828	8,048,789	9,418,803	9,731,051
Tax/ tax Provision	1,991,889	2,237,381	1,843,274	2,420,000	2,640,000
Profit After Tax	4,521,957	5,613,447	6,205,515	6,998,803	7,091,051

### 3. Key Projects

- i. Replacement of the Mombasa - Nairobi pipeline(Line 5)
- ii. Construction of a parallel pipeline from Sinendet to Kisumu.
- iii. Construction of additional storage tanks at the Nairobi terminal.
- iv. Construction of additional Jet A-1 tanks/depot for JKIA.
- v. Construction of additional loading arms in Eldoret.
- vi. Development of Liquefied Petroleum Gas (LPG) storage & bottling facility in Nairobi.
- vii. Purchase of Liquefied Natural Gas and selling to an independent power producer.

#### Highlights of these projects are presented below:

##### 3.1 Replacement of the Mombasa - Nairobi Pipeline (Line 5)

The Mombasa - Nairobi pipeline has been in operation for over 35 years and requires rehabilitation to maintain its integrity. KPC intends to replace the pipeline with a larger diameter to meet projected demand up to year 2044 and ensure sustained, reliable and efficient transportation of petroleum products in the region.



KPC has selected a contractor for the works i.e. M/S Zakhem International and contract preparation is on-going. Construction works to commence once the contract is signed.



KPC tank farm

**Project Implementation Timelines:**

Proposed Line I Replacement Project (Line 5)

Item No.	Activity	Start	Finish
1	Commencement of consultancy services	14/05/2012	21/06/2012
2	Preliminary Designs	22/06/2012	27/08/2013
3	EIA Study	20/09/2012	26/02/2014
4	Detailed Designs and Tender Documents	04/08/2013	02/03/2014
5	Procurement of Contractor	01/02/2014	17/08/2016
6	Construction	18/08/2014	16/08/2016



### 3.2 Construction of a Parallel Pipeline from Sinendet to Kisumu

KPC intends to construct a parallel pipeline from Sinendet to Kisumu to increase supply of product to Kisumu and thereby optimally utilize the depot's facilities, enhance flexibility and optimization of Line 4 and increase the company's throughput and revenue. The project is to be implemented through an EPC contract.

KPC has selected a contractor for the works i.e. M/S Petrojet and contract preparation is on-going. Construction works to commence once the contract is signed.

#### Project Implementation Timelines:

Construction of parallel pipeline from Sinendet to Kisumu

Item No.	Activity	Start	Finish
1	Tender Documentation by KPC	01/10/2013	18/01/2014
2	Tendering Process	22/02/2014	04/05/2014
3	Tender Evaluation	05/05/2014	19/06/2014
4	Contract Award	20/06/2014	04/08/2014
5	Construction	05/08/2014	27/06/2016

### 3.3 Construction of Additional Storage Tanks in Nairobi

KPC intends to enhance storage capacity for the fast moving products; Automotive Gas Oil (AGO) and Motor Spirit Premium (MSP). The project will involve construction of 2 No. AGO tanks, 1 No. AGO/MSP swing tank and 1 No. MSP tank at Nairobi terminal each with a gross capacity of 33,366m<sup>3</sup>. The additional tanks will be constructed under an EPC arrangement.

KPC is in the process of selecting a contractor for the works. Currently the tender is at financial evaluation stage.

#### Project Implementation Timelines:

Construction of Additional Tanks at Nairobi Terminal

Item No.	Activity	Start	Finish
1	Tender Documentation by KPC	01/07/2013	07/11/2013
2	Tendering Process	08/11/2013	23/05/2014
3	Tender Evaluation	24/05/2014	23/06/2014
4	Contract Award	24/06/2014	08/08/2014
5	Construction	09/08/2014	06/11/2016



### 3.4 Construction of Additional Jet A-1 Tanks/Depot for JKIA

The Jomo Kenyatta International Airport (JKIA) is undergoing expansion which will result in an increase in flights. KPC is planning to construct additional Jet A-1 at the airport to match the needs of the expanding airport.

Discussions with KAA are at an advanced stage and they have already set aside 10 acres of land for the proposed depot. We are still waiting response from KAA on some information we had requested for. These include a scaled plot plan, elevations, geotechnical investigation survey reports and demand data.

Once this outstanding information is availed, the tender document shall be ready for advertisement.

The project is still within schedule with advertisement scheduled for or before 26th August 2014.

Tender document preparation is at the final stages pending submission of design drawings from KAA. Tender shall be advertised soon after.

#### Project Implementation Timelines:

Proposed Jet A-1 Depot within Jomo Kenyatta International Airport (Jkia)

Item No.	Activity	Start	Finish
1	Tender Documentation	07/01/2014	18/08/2014
2	Advertisement	19/08/2014	11/11/2014
3	Evaluation	12/11/2014	29/12/2014
4	Contract Award	30/12/2014	29/01/2015
5	Project Implementation	30/01/2015	15/02/2017



### 3.5 Construction of Additional loading arms in Eldoret

#### Project Implementation Timelines:

Proposed Bottom Truck Loading Facility at Eldoret Depot (Ps27)

Item No.	Activity	Start	Finish
1	Tender Documentation	01/07/2013	30/09/2013
2	Advertisement	01/10/2013	05/11/2013
3	Evaluation	06/11/2013	30/01/2014
4	Contract Award	31/01/2014	28/02/2014
5	Project Implementation	24/03/2014	23/09/2015

### 3.6 Development of Liquefied Petroleum Gas (LPG) Storage and Bottling Facility in Nairobi

The development of the LPG facilities is one of the key flagship projects under the Kenya vision 2030. KPC has undertaken a feasibility study on inland bulk LPG storage and distribution facilities whose report was received in June 30, 2013.

The overall objective of developing the LPG facilities in the country is to ensure availability and accessibility of LPG at cost effective prices, promote use of LPG as household fuel among the urban poor and the rural population and enhance socio-economic development.

The project scope will include construction of storage facility with a capacity of 2220MT, Pump Platform; Cylinder Filling Area; Tanker Loading Gantries and other associated facilities. According to the feasibility study report the total cost for proposed development at Nairobi is estimated at USD 22.87 million (Phase I).

Currently, preparations to acquire a suitable site for the Nairobi LPG bulk handling and storage facilities are on-going. The tender for procurement of land for the storage and bottling facility was advertised and opened on 25th March 2014. Evaluation of the land offers is on-going with the government valuation outstanding to complete the evaluation.

Negotiation and procurement of the LPG site is scheduled for 6th June 2014 to 28th August 2014.

Negotiation and procurement report was presented before the Tender Committee for deliberation on 27<sup>th</sup> June 2014.



### Project Implementation Timelines:

Proposed Nairobi Liquefied Petroleum Gas Facility

Item No.	Activity	Start	Finish
1	Project Approvals	14/02/2014	13/03/2014
2	Purchase of Project Site	14/03/2014	28/08/2014
3	Procure a Consultant to prepare tender documents for EPC contractor and carry out EIAS	29/08/2014	22/12/2014
4	Undertake ESIA, Prepare Designs and Tender documents for EPC Contractor	05/01/2015	03/04/2015
5	Selection of EPC Contractor	06/04/2015	24/07/2015

### 3.7 LNG Project

The government through the Ministry of Energy and Petroleum (MOEP) targets to increase electricity production in the National grid to 5,000 megawatts by year 2016. Arrangements have been made to import Liquefied Natural Gas (LNG) from Qatar on government to government basis. The LNG is expected to produce additional 1,050 megawatts towards achieving this target. In view of this, MOEP has mandated KPC to import the LNG and sell to the power producers in the country. In order to meet this target, KPC is expected to import 52MMBTU which translates to 1 million tons of LNG. This therefore translates to a planned importation annual budget of USD 208 million (52MMBTU\*USD4) equivalent to about Kshs. 18 billion.

The road map by the government for achieving the first phase of the project is 24 months starting March, 2014. It is expected that generation of 700 megawatts will commence by October, 2015 and an additional 350 megawatts will be expected to be generated by September 2016 thus achieving a total of 1050 Megawatts.

An indicative term sheet on long term sale and purchase of LNG was prepared by Qatargas and reviewed on 21st May, 2014 during a forum on commencement of discussion. Currently, KPC plans to engage MOEP on the critical path of the LNG infrastructure which should go in tandem with negotiations of LNG and thereby the success of the project.



## 4 CHALLENGES FACED BY THE COMPANY

The major challenges faced by KPC are;

### 1.Aged Mombasa – Nairobi pipeline

The Mombasa – Nairobi pipeline is 35 years old and requires a lot of rehabilitation works while some equipment have become obsolete and damaged due to wear and tear.

Proposed Solution: KPC intends to replace the Mombasa – Nairobi pipeline with a 20 inch diameter pipeline to match projected demand up to year 2044.



KPC line iv

### 2.Unreliable Power Supply

Power outages and surges lead to unplanned pipeline shutdowns and affect KPC sensitive equipment and as a result affect product supply.

Proposed Solution: In the short term KPC has engaged the Kenya Power Management to ensure reliable power supply.

### 3.Unreliable Communication Infrastructures

KPC relies on third parties communication network. In the event of communication failures the operation of the pipeline is slowed because the Nairobi Control Centre (NCC) cannot view the various pipeline operating parameters such as pressure and flow rates.

Proposed Solution: KPC plans to lay a fibre optic cable below the new Line 5 pipeline. KPC is also considering VSAT for communication redundancy.

### 4.Ullage Allocation and Utilization

The current method of ullage sharing uses historical data of the OMC's market sales and pipeline utilisation and limits optimal utilisation of the pipeline capacity leading to slow or stagnated growth in KPC throughput volumes.



Proposed solution: Allow KPC to allocate its system capacity taking into account the government policy on product supply, regional governments' requirements and total industry self-declared monthly product demand established from the OMC's self-declared monthly product demand.

### **5.Slow Evacuation of Products from the Pipeline System at Nairobi**

The rate of evacuation of products by the OMC's from the system does not match the volume of planned imports. The result in most cases is clogging of the pipeline system leading to lack of ullage at Kipevu Oil Storage Facility (KOSF) for imports and stoppage of pipeline operations also due to lack of ullage at the Nairobi, Nakuru and Eldoret depots.

Proposed solution: KPC require that the OMC's evacuate operational products from the system as per the government's directive of within 10 days for local products and 14 days for transit products.

### **6.Limited Capacity of the Sinendet – Kisumu pipeline (Line 3)**

The Sinendet – Kisumu pipeline capacity is limited to delivering 2,400 m<sup>3</sup>/day to Kisumu depot against a demand of 4,500 m<sup>3</sup>/day, resulting in product grade stock-outs at the depot from time to time.

Proposed solution: KPC plans to construct a spur pipeline off the current Line 4 to enhance the supply capacity to Kisumu depot.

### **7.Reliance on Single Jetty for Imports**

Kipevu Oil Terminal (KOT) handles about 99% of the country's imports. Reliance on a single jetty for offloading exposes the country to supply disruptions in case of a catastrophe.



KPC putting safety first



Proposed solution: There are plans by Kenya Ports Authority (KPA) to relocate the jetty and enhance it to be able to receive four vessels at a time.

### **8. Customs Clearance**

Customs clearance processes slow down evacuation of products from KPC systems leading to congestion of trucks in the depots resulting in safety and security threats.

Proposed solution: KPC has been continuously engaging KRA in improving clearance procedures. KRA needs to ensure reliability of its systems or provide back-up to ensure business continuity. In the short term, all stakeholders to synchronize the working hour to match KPC 24 hour operations. The initiative requiring upfront duty payment may ease product evacuation from the pipeline system.

### **9. Terrorism Threats and Vandalism of Pipeline facilities**

Terrorism and vandalism is a major concern in KPC.

Proposed solution: KPC is installing Integrated Security System in all its installations to enhance security surveillance. In addition, KPC will maintain constant liaison with Government security agencies to secure the company's facilities.

### **10. Securing KPC's Facilities and Property**

These concerns arise due to encroachment of pipeline Right Of Way and facilities.

Proposed solution: KPC is seeking to have the ROW and land where it has facilities delineated to secure pipeline boundaries and facilities. Other proposed measures include, mapping of pipeline by the Ministry of Lands to avoid innocent encroachment and constant liaison with Government security agencies to secure strategic facilities.

### **11. Collateral Financing Arrangements (CFA)**

KPC is exposed due to CFA administration in that it is an area which requires expert collateral managers. Slow clearance of CFA materials also contribute to the clogging of pipeline system due release procedures.

Proposed solution: KPC is reviewing the arrangement with a view of discontinuing the company's involvement in the arrangement.

# APPENDIX

KENYA PIPELINE COMPANY LTD  
WORKPLAN



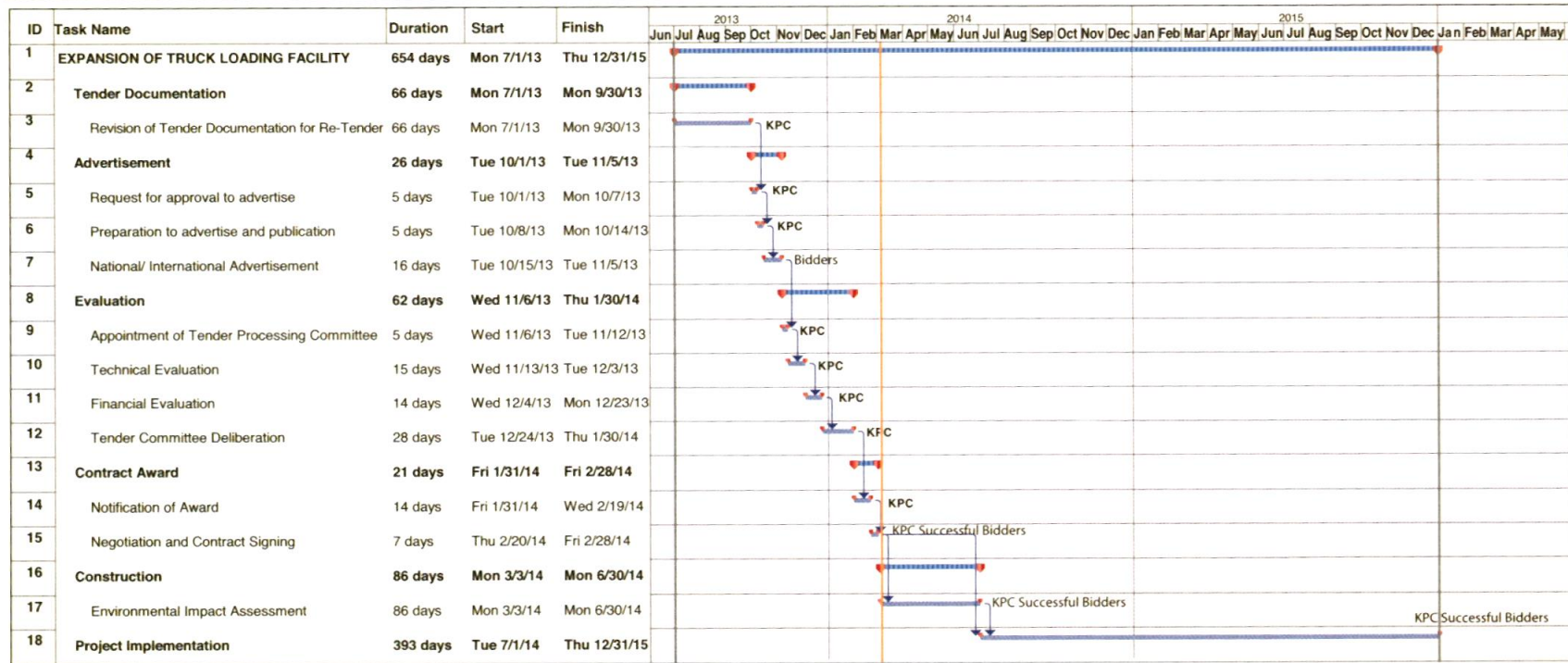
REPUBLIC OF KENYA



**PROPOSED BOTTOM TRUCK LOADING FACILITY AT ELDORET DEPOT (PS27) PROPOSED PROGRAMME OF WORKS**

**KENYA PIPELINE COMPANY**

**(1ST JUL 2013 - 31ST DEC 2015)**



Project: Construction of Additional Tank  
Date: Wed 3/5/14

Task		Project Summary		Inactive Task		Duration-only		Finish-only			
Split		External Tasks		Inactive Milestone		Manual Summary Rollup		Progress			
Milestone		External Milestone		Inactive Summary		Manual Summary		Deadline			
Summary		Inactive Task		Manual Task		Start-only					

KENYA PIPELINE CO LTD    MR. CHARLES TANUI    MANAGING DIRECTOR SIGNATURE: \_\_\_\_\_    DATE: \_\_\_\_\_



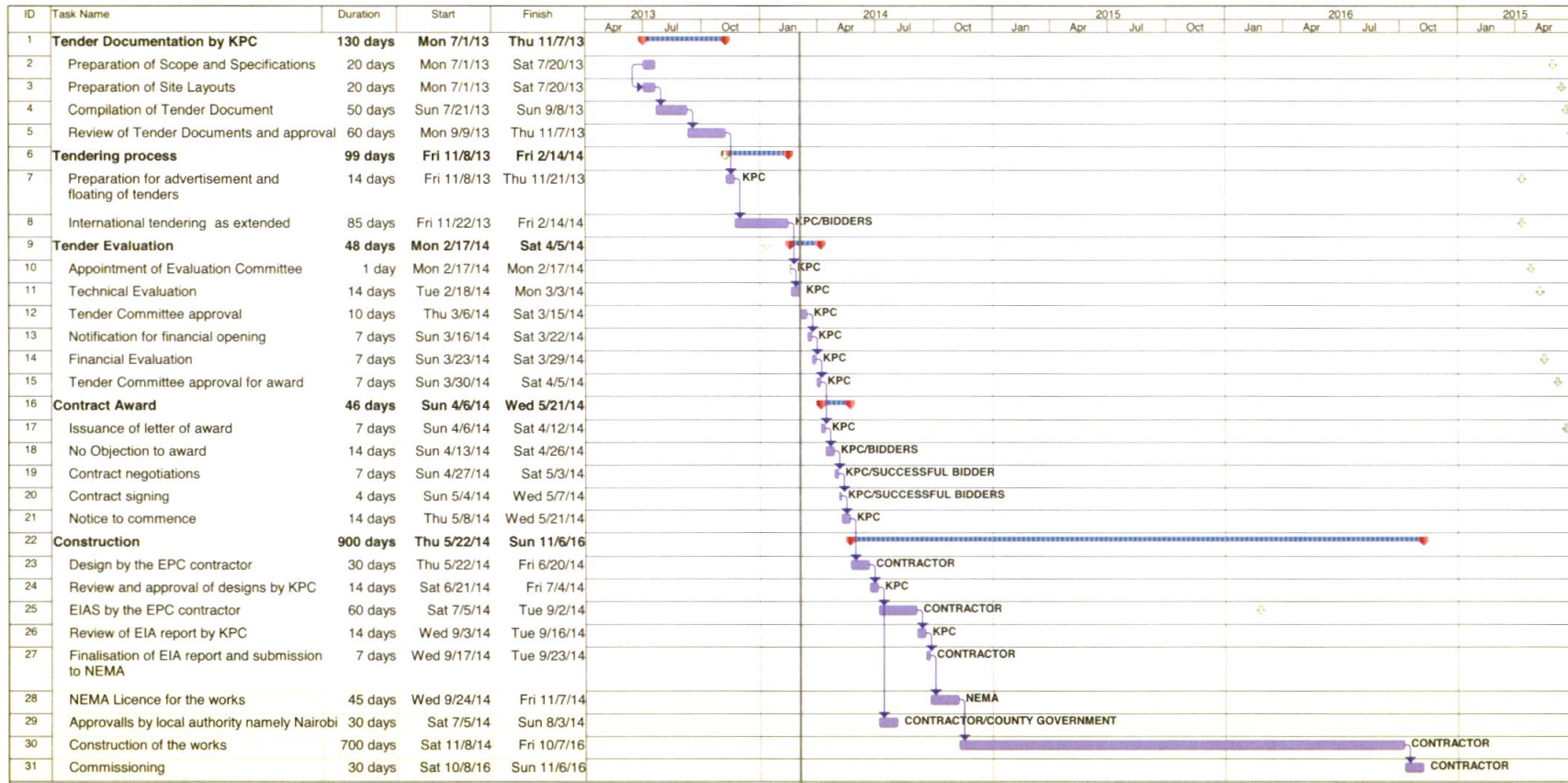
REPUBLIC OF KENYA



**CONSTRUCTION OF ADDITIONAL TANKS AT NAIROBI TERMINAL  
EPC CONTRACT PROPOSED PROGRAMME OF WORKS**

**KENYA PIPELINE COMPANY**

**(1ST JUL 2013 - 4TH NOV 2016)**



Project: Construction of Additional Tank Date: Wed 3/5/14	Task	Project Summary	Inactive Task	Duration-only	Finish-only
	Split	External Tasks	Inactive Milestone	Manual Summary Rollup	Progress
	Milestone	External Milestone	Inactive Summary	Manual Summary	Deadline
	Summary	Inactive Task	Manual Task	Start-only	

KENYA PIPELINE CO LTD      MR. CHARLES TANUI      MANAGING DIRECTOR SIGNATURE: \_\_\_\_\_      DATE: \_\_\_\_\_



REPUBLIC OF KENYA



**PROPOSED JET A1 DEPOT WITHIN JOMO KENYATTA INTERNATIONAL AIRPORT (JKIA) PROPOSED PROGRAMME OF WORKS**      **KENYA PIPELINE COMPANY**      **(07TH JAN 2014 - 28TH SEPT 2016)**

ID	Task Name	Duration	Start	Finish	2014												2015												2016												2017											
					Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb									
1	PROPOSED JET-A1 DEPOT WITHIN JKIA	712 days	Tue 1/7/14	Wed 9/28/16	[Gantt bar for Task 1]																																															
2	Tender Documentation	60 days	Tue 1/7/14	Mon 3/31/14	[Gantt bar for Task 2]																																															
3	Preparation of Scope and Specifications	12 days	Tue 1/7/14	Wed 1/22/14	[Gantt bar for Task 3]																																															
4	Preparation of Site Layouts	2 days	Thu 1/23/14	Fri 1/24/14	[Gantt bar for Task 4]																																															
5	Compilation of Tender Document	45 days	Fri 1/10/14	Fri 3/14/14	[Gantt bar for Task 5]																																															
6	Review of Tender Document [Legal and Finance]	11 days	Mon 3/17/14	Mon 3/31/14	[Gantt bar for Task 6]																																															
7	Advertisement	61 days	Tue 4/1/14	Tue 6/24/14	[Gantt bar for Task 7]																																															
8	Request for approval to advertise	2 days	Tue 4/1/14	Wed 4/2/14	[Gantt bar for Task 8]																																															
9	Preparation to advertise and publication	3 days	Thu 4/3/14	Mon 4/7/14	[Gantt bar for Task 9]																																															
10	National/ International Advertisement	56 days	Tue 4/8/14	Tue 6/24/14	[Gantt bar for Task 10]																																															
11	Evaluation	34 days	Wed 6/25/14	Mon 8/11/14	[Gantt bar for Task 11]																																															
12	Appointment of Tender Processing Committee	5 days	Wed 6/25/14	Tue 7/1/14	[Gantt bar for Task 12]																																															
13	Technical Evaluation	7 days	Wed 7/2/14	Thu 7/10/14	[Gantt bar for Task 13]																																															
14	Financial Evaluation	8 days	Fri 7/11/14	Tue 7/22/14	[Gantt bar for Task 14]																																															
15	Tender Committee Deliberation	14 days	Wed 7/23/14	Mon 8/11/14	[Gantt bar for Task 15]																																															
16	Contract Award	23 days	Tue 8/12/14	Thu 9/11/14	[Gantt bar for Task 16]																																															
17	Notification of Award	14 days	Tue 8/12/14	Fri 8/29/14	[Gantt bar for Task 17]																																															
18	Negotiation and Contract Signing	9 days	Mon 9/1/14	Thu 9/11/14	[Gantt bar for Task 18]																																															
19	Project Implementation	534 days	Fri 9/12/14	Wed 9/28/16	[Gantt bar for Task 19]																																															

Project: Construction of Parallel Pipelin Date: Tue 3/4/14	Task	Project Summary	Inactive Task	Duration-only	Manual Summary Rollup	Finish-only
	Split	External Tasks	Inactive Milestone	Manual Summary	Progress	
	Milestone	External Milestone	Inactive Summary	Start-only	Deadline	
	Summary	Inactive Task	Manual Task			

KENYA PIPELINE CO LTD      MR. CHARLES TANUI      MANAGING DIRECTOR SIGNATURE: \_\_\_\_\_      DATE: \_\_\_\_\_



REPUBLIC OF KENYA



**PROPOSED NAIROBI LIQUIFIED PETROLEUM GAS FACILITY PROPOSED PROGRAMME OF WORKS**      **KENYA PIPELINE COMPANY**      **(14th FEB 2014 - 09TH DEC 2016)**

ID	Task Name	Duration	Start	Finish	2014												2015												2016	
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
1	<b>NAIROBI LPG STORAGE AND DISTRIBUTION FACILITIES</b>	<b>736 days</b>	<b>Fri 14/02/14</b>	<b>Fri 09/12/16</b>	[Gantt bar for Task 1]																									
2	Project Approvals	1 mon	Fri 14/02/14	Thu 13/03/14	[Gantt bar for Task 2]																									
3	<b>Purchase of Project Site</b>	<b>120 days</b>	<b>Fri 14/03/14</b>	<b>Thu 28/08/14</b>	[Gantt bar for Task 3]																									
4	Advertise for land	15 days	Fri 14/03/14	Thu 03/04/14	[Gantt bar for Task 4]																									
5	Receive and evaluate offers	45 days	Fri 04/04/14	Thu 05/06/14	[Gantt bar for Task 5]																									
6	Negotiate and procure new site for Project	3 mons	Fri 06/06/14	Thu 28/08/14	[Gantt bar for Task 6]																									
7	<b>Procure a consultant to Prepare tender documents for EPC contractor and carry out EIAs</b>	<b>81 days</b>	<b>Fri 29/08/14</b>	<b>Fri 19/12/14</b>	[Gantt bar for Task 7]																									
8	Invitation to Tender	1 day	Fri 29/08/14	Fri 29/08/14	[Gantt bar for Task 8]																									
9	Receive Bids	30 days	Mon 01/09/14	Fri 10/10/14	[Gantt bar for Task 9]																									
10	Evaluate Bids	30 days	Mon 13/10/14	Fri 21/11/14	[Gantt bar for Task 10]																									
11	TC approval of award of contract	5 days	Mon 24/11/14	Fri 28/11/14	[Gantt bar for Task 11]																									
12	Notification of award of contract	14 days	Mon 01/12/14	Thu 18/12/14	[Gantt bar for Task 12]																									
13	Award of contract	1 day	Fri 19/12/14	Fri 19/12/14	[Gantt bar for Task 13]																									
14	<b>Undertake ESIA, Prepare Designs and Tender Documents for EPC contractor</b>	<b>65 days</b>	<b>Mon 05/01/15</b>	<b>Fri 03/04/15</b>	[Gantt bar for Task 14]																									
15	Undertake Environment and Social Impact Assessment	45 days	Mon 05/01/15	Fri 06/03/15	[Gantt bar for Task 15]																									
16	Prepare Front End Engineering Designs	45 days	Mon 05/01/15	Fri 06/03/15	[Gantt bar for Task 16]																									
17	Prepare Tender Documents	20 days	Mon 09/03/15	Fri 03/04/15	[Gantt bar for Task 17]																									
18	<b>Selection of EPC Contractor</b>	<b>80 days</b>	<b>Mon 06/04/15</b>	<b>Fri 24/07/15</b>	[Gantt bar for Task 18]																									
19	Invitation to Tender	1 day	Mon 06/04/15	Mon 06/04/15	[Gantt bar for Task 19]																									
20	Receive bids	30 days	Tue 07/04/15	Mon 18/05/15	[Gantt bar for Task 20]																									
21	Evaluate bids	30 days	Tue 19/05/15	Mon 29/06/15	[Gantt bar for Task 21]																									
22	Notification of award contract	14 days	Tue 30/06/15	Fri 17/07/15	[Gantt bar for Task 22]																									
23	Award of Contract	5 days	Mon 20/07/15	Fri 24/07/15	[Gantt bar for Task 23]																									
24	<b>Project Detailed Design, Procurement of Materials and Construction</b>	<b>360 days</b>	<b>Mon 27/07/15</b>	<b>Fri 09/12/16</b>	[Gantt bar for Task 24]																									
25	Detailed Design, Procurement, Construction and Commissioning	18 mons	Mon 27/07/15	Fri 09/12/16	[Gantt bar for Task 25]																									

Project: Implementation timelines for 1 Date: Fri 07/03/14

Task	[Blue bar]	Project Summary	[Grey bar]	Inactive Task	[Green bar]	Duration-only	[Blue dashed bar]	Finish-only	[Red box]
Split	[Blue bar with gap]	External Tasks	[Grey bar with gap]	Inactive Milestone	[Green bar with gap]	Manual Summary Rollup	[Blue dashed bar with gap]	Progress	[Black bar]
Milestone	[Red diamond]	External Milestone	[Grey diamond]	Inactive Summary	[Green diamond]	Manual Summary	[Blue dashed diamond]	Deadline	[Red arrow]
Summary	[Red diamond with bar]	Inactive Task	[Grey diamond with bar]	Manual Task	[Green diamond with bar]	Start-only	[Blue dashed diamond with bar]		[Red arrow with bar]

KENYA PIPELINE CO LTD      MR. CHARLES TANUI      MANAGING DIRECTOR SIGNATURE: \_\_\_\_\_      DATE: \_\_\_\_\_



REPUBLIC OF KENYA



**CONSTRUCTION OF PARALLEL PIPELINE FROM SINENDET TO KISUMU - EPC CONTRACT PROPOSED PROGRAMME OF WORKS**      **KENYA PIPELINE COMPANY**      **(1st OCT 2013 - 22ND MAY 2016)**

ID	Task Name	Duration	Start	Finish	2013	2014	2015	2016										
					Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct
1	<b>Tender Documentation by KPC</b>	<b>110 days</b>	<b>Tue 10/1/13</b>	<b>Sat 1/18/14</b>														
2	Preparation of Scope and Specifications	20 days	Tue 10/1/13	Sun 10/20/13														
3	Preparation of Site Layouts	20 days	Tue 10/1/13	Sun 10/20/13														
4	Compilation of Tender Document	50 days	Mon 10/21/13	Mon 12/9/13														
5	Review of Tender Documents and approval	40 days	Tue 12/10/13	Sat 1/18/14														
6	<b>Tendering process</b>	<b>72 days</b>	<b>Sat 2/22/14</b>	<b>Sun 5/4/14</b>														
7	Preparation for advertisement and floating of tenders	14 days	Sat 2/22/14	Fri 3/7/14														
8	International tendering	56 days	Mon 3/10/14	Sun 5/4/14														
9	<b>Tender Evaluation</b>	<b>46 days</b>	<b>Mon 5/5/14</b>	<b>Thu 6/19/14</b>														
10	Appointment of Evaluation Committee	1 day	Mon 5/5/14	Mon 5/5/14														
11	Technical Evaluation	14 days	Tue 5/6/14	Mon 5/19/14														
12	Tender Committee approval	10 days	Tue 5/20/14	Thu 5/29/14														
13	Notification for financial opening	7 days	Fri 5/30/14	Thu 6/5/14														
14	Financial Evaluation	7 days	Fri 6/6/14	Thu 6/12/14														
15	Tender Committee approval for award	7 days	Fri 6/13/14	Thu 6/19/14														
16	<b>Contract Award</b>	<b>46 days</b>	<b>Fri 6/20/14</b>	<b>Mon 8/4/14</b>														
17	Issuance of letter of award	7 days	Fri 6/20/14	Thu 6/26/14														
18	No Objection to award	14 days	Fri 6/27/14	Thu 7/10/14														
19	Contract negotiations	7 days	Fri 7/11/14	Thu 7/17/14														
20	Contract signing	4 days	Fri 7/18/14	Mon 7/21/14														
21	Notice to commence	14 days	Tue 7/22/14	Mon 8/4/14														
22	<b>Construction</b>	<b>693 days</b>	<b>Tue 8/5/14</b>	<b>Mon 6/27/16</b>														
23	Design by the EPC contractor	30 days	Tue 8/5/14	Wed 9/3/14														
24	Review and approval of designs by KPC	14 days	Thu 9/4/14	Wed 9/17/14														
25	EIAS by the EPC contractor	50 days	Thu 9/18/14	Thu 11/6/14														
26	Review of EIA report by KPC	7 days	Fri 11/7/14	Thu 11/13/14														
27	Finalisation of EIA report and submission to NEMA	7 days	Fri 11/14/14	Thu 11/20/14														
28	NEMA Licence for the works	45 days	Fri 11/21/14	Sun 1/4/15														
29	Approval of railways crossing by KRC	30 days	Thu 9/18/14	Fri 10/17/14														
30	Approval of road crossings by KENHA, KERRA	30 days	Thu 9/18/14	Fri 10/17/14														
31	Approval by Telkom on fibre optic cables	30 days	Thu 9/18/14	Fri 10/17/14														
32	Approvals by local authorities namely Kisumu	30 days	Thu 9/18/14	Fri 10/17/14														
33	Construction of the works	510 days	Mon 1/5/15	Sat 5/28/16														
34	Commissioning	30 days	Sun 5/29/16	Mon 6/27/16														

Project: Construction of Parallel Pipeline  
Date: Tue 3/4/14

Task	Project Summary	Inactive Task	Duration-only	Finish-only
Split	External Tasks	Inactive Milestone	Manual Summary Rollup	Progress
Milestone	External Milestone	Inactive Summary	Manual Summary	Deadline
Summary	Inactive Task	Manual Task	Start-only	

KENYA PIPELINE CO LTD      MR. CHARLES TANUI      MANAGING DIRECTOR SIGNATURE: \_\_\_\_\_      DATE: \_\_\_\_\_





# GEOHERMAL DEVELOPMENT COMPANY

## CONTENTS

1. Introduction/Background
2. Project Design and Implementation Approach
3. Projects Update
  - a. 100MW Menengai
  - b. 360MW Menengai
  - c. 150MW Suswa
  - d. 200MW Baringo-Silali
4. Project Outcome
5. Benefits of the Project
6. Project Stakeholders
7. Parties Involved and Responsibilities
8. Appendix: Gantt Charts



## 1. Introduction

### 1.1 General Background

Kenya is endowed with a huge potential of high temperature resource estimated at between 7,000 to 10,000 MWe that largely remains untapped. Geothermal is the least cost (most economic) source of electric power for Kenya. Despite the fact that geothermal is the best option for Kenya and that the Country has had a long geothermal development period spanning over 50 years, only 260 MW has been connected to the national grid. This slow progress is attributed to the fact that geothermal development requires large upfront financing which the existing public entities may not support by their balance sheets. In addition, high upstream development risks have deterred private sector participation.

The Ministry of Energy and Petroleum has rolled out programmes for the development of 5000+MW of energy by the year 2016. Under this framework, GDC will develop 810MW of geothermal energy from three geothermal prospects.

### 1.2 Target Projects

The development of the 810MW of geothermal by GDC will be based on the ongoing activities in Menengai and additional works to be commissioned in Suswa and Baringo-Silali geothermal fields. The plan is to incrementally develop the 810MW from the different projects over the next 40 months as shown in the tables below.

#### FAST TRACKING GEOTHERMAL POWER GENERATION – GDC’s CONTRIBUTION

	Dec-13	Jun-14	Dec-14	Jun-15	Dec-15	Jun-16	Dec-16	Project
	6 Months	12 Months	18 Months	24 Months	30 Months	36 Months	42 Months	Totals
<b>Target Totals</b>	-	-	-	<b>100</b>	<b>60</b>	-	<b>300</b>	<b>460</b>
Menengai	-	-	-	-	-	-	150	150
Suswa	-	-	-	-	-	-	100	200
Baringo-silali	-	-	-	-	-	-	200	810
Total (Mw)	-	-	-	100	60	-	650	
<b>Cumulative Mw</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>160</b>	<b>160</b>	<b>810</b>	



### Silali Crater in the Baringo-Silali Geothermal Prospect

The government recognizes that it will be difficult to finance the 5000MW+ without the participation of both the public and the private investors. GDC will therefore accelerate geothermal development by facilitating the entry of Independent Power Producers (IPPs) to the sector as a means of mobilizing development capital.

In these projects, GDC will develop the steam resource (fuel) thereby shielding the private sector from the resource related exploration risks that have in the past deterred their participation. In addition, GDC will offer the private sector generation opportunities and in turn enable the sector mobilize private development capital.

## 2.0 PROJECT DESIGN AND IMPLEMENTATION APPROACH

The projects will be undertaken as outlined below;

### 2.1 Infrastructural Development

The infrastructural development phase involves construction of main access roads, establishment of drilling water system including electricity for powering the pumping system, well pads and drilling fluid recirculation ponds. These activities will be undertaken by GDC.

### 2.2 Steam Development

Three to four exploration wells will be drilled in each of the prospects to prove steam. The exploration wells will be followed by drilling of appraisal wells after which a feasibility study



will be carried out. Positive outcomes of the feasibility studies will lead to drilling of production wells. This segment of the project will be financed and undertaken by GDC using in-house capability. GDC will develop the steam and own the wells.

### 2.3 Power Plant Construction

The steam will be provided to Independent Power Producers (IPP) who will finance, build, own, operate and transfer the power plants for a predetermined period under the Build Own and Operate (BOO) structure. GDC will construct a network of steam gathering pipelines from various wells that will deliver steam to the power plants.

### 2.4 Substation and Transmission

In order to evacuate the power, Kenya Electricity Transmission Company (KETRACO) will construct transmission lines.

The power generated will be sold to the National Offtaker, in this case Kenya Power & Lighting Company Limited (KPLC). The power generator will therefore enter into a Power Purchase Agreement with the Offtaker.

## 3.0 THE 810MW GDC PROJECTS DEVELOPMENT UPDATE

The overall objective of this project is to increase the national electricity generation capacity by an additional 810MW from geothermal sources.

### 3.1 The First 100MW in MENENGAI

GDC started drilling in Menengai in 2011 and has deployed 4 drilling rigs. Currently 80MW of steam from 25 wells with capacities ranging between 2MW and 13MW is available for conversion into electricity. Further, six (6) wells are in various stages of heating up and testing. The drilling of more wells is in progress.



Menengai Geothermal Prospect



GDC has contracted three IPPs to construct three power plants of capacities between 33MW and 37MW. The procurement of the Independent Power Producers (IPPs) started in June 2013. Negotiations between the IPPs and KPLC for Power Purchase Agreement have also been concluded. The Project Implementation and Steam Supply Agreement (PISSA) was initiated in June 2014.

The procurement of the EPC contractor for the construction of the Steam Gathering system was awarded in December 2013. The Steam Gathering system EPC contractor has commenced designs at site. The construction period for the Steam Gathering system is 12 months.

Environmental and Social Impact Assessment (ESIA) for the project commenced in August 2013 and the ESIA license was issued in October 2013. The project feasibility study was carried out from November 2013 and the final feasibility study report submitted in January 2014.

### **3.2 The Next 360MW from MENENGAI**

Development of next 360MW in Menengai will be undertaken in two more phases as follows:

- 60MW by December 2015
- 300 MW by December 2016.

GDC will deploy 6 drilling rigs four of which are on site while three additional are in the process of delivery. One of the new rigs will be deployed in Baringo-Silali

### **3.3 THE 150MW SUSWA PROJECT**

The development of 150MW will be undertaken in one phase by December 2016.

Detailed Surface studies were completed in 2013 and the project ESIA in progress. A community engagement framework was established in 2013. The infrastructure works are scheduled to commence in the next financial year. An invitation for expression of interest by the privates sector to participate in the development has been issued.

### **3.4 THE 200MW BARINGO - SILALI PROJECT**

The 200MW will be developed by December 2016. Detailed Surface studies have been completed and the Environmental Licence obtained.

Community engagement framework has been established and Land approval by Baringo County Government has been obtained. Infrastructure development has commenced. The Government has secured a loan to commence the work.



The government is in the process of concluding loan negotiations from KfW to the tune of USD 100 Million to support the development of this project.

#### 4. Projects Outcome

The following are the expected results:

- 1) Reduction of perceived resource risks and mobilization of additional funding from the private sector.
- 2) Additional 810 MW from geothermal to the national grid by 2016.
- 3) Replication of the development model to achieve the target 5,000MW+ generation capacity by 2016.
- 4) Increased private sector participation in power generation.
- 5) Improved livelihoods to the communities around geothermal areas through job creation.

#### 5. Benefits of the project

Geothermal development in Kenya will contribute to increased energy security, enhance firm and reliable base load generation capacity, and promote low-carbon development. The project benefits include;

- 1) **Reduced Electricity Tariffs.** Currently, the country is procuring emergency power at 22 US cents per kilowatt hour. Alternative oil based source of power cost about 16 US cents per kilowatt hour. It is projected that the cost of power from this project will be below 10 US cents per kilowatt hour thereby lowering the cost of electricity.
- 2) **Job Creation and Income Generation:** The project will enable job creation opportunities enhancing income generation activities.
- 3) **Increased Security:** Geothermal development will enhance security in the areas as a result of the economic activities and social amenities.
- 4) **Forest Conservation:** Displacement of biomass fuel consumption by enhanced access to electricity will contribute to conserve forests that are also serving as water catchment areas.



A Geothermal Well in the Menengai Geothermal Project

## 6. Project Stakeholders

### 6.1 Project Beneficiaries

The project stakeholders will accrue benefits from the implementation of the project.

#### 6.1.2 The Public

The country will benefit from the project through the injection of additional competitively-priced electric power to the national grid aimed at meeting public power needs.

#### 6.1.3 GDC

GDC will accrue revenue from the project which will be re-employed in further geothermal development.

#### 6.1.4 The Private Sector

The Private Sector will accrue return on investment

#### 6.1.5 Local Community

There will be job creation and enhanced economic activity for the local community.

#### 6.1.6 Government

The Government will be relieved of the burden to raise infrastructure funds which will be raised by the private sector.



## 7. Parties Involved and Responsibilities

**Geothermal Development Company Limited (GDC)** Geothermal Development Company Limited (GDC) will own and implement the project. GDC will enter into a steam sales/supply contract and may in addition sign an investment contract with IPPs.

**Ministry of Energy & Petroleum (MOEP)** will offer coordination & supervisory role to all players.

**Energy Regulatory Commission (ERC)** will ratify the Power Purchase Agreements and the Tariff.

**Kenya Power and Lighting Company (KPLC)** will enter into Power Purchase Agreements with IPPs & off-take the power. In addition, KPLC will enter into a wheeling power contract with KETRACO and a steam compensation agreement with GDC.

**Kenya Electricity Transmission Company Ltd (KETRACO)** will avail the evacuation facilities and enter into a wheeling contract with KPLC.

**Independent Power Producers (IPPs):** The IPPs will enter into a steam sale agreement and an investment contract with GDC. The IPPs will also enter into a Power Purchase Agreement with KPLC and acquire a generation license from ERC.

**The Government of Kenya (through the Ministry of Finance)** will finance the project through budgetary allocations and support from development partners. It will also provide securities and facilitate guarantees.



Suswa Geothermal Prospect

# APPENDIX

## GEOHERMAL DEVELOPMENT COMPANY WORKPLAN



REPUBLIC OF KENYA



<b>5000+MW NATIONAL ENERGY PROJECTS GDC 200MW BARINGO SILALI</b>	<b>GEO THERMAL DEVELOPMENT COMPANY</b>
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ID	Task Name	Duration	Start	Finish	2009 2010 2011 2012 2013 2014 2015 2016 2017																											
					M	J	N	J	M	M	J	S	N	J	M	M	J	S	N	J	M	M	J	S	N	J	M	M	J	S	N	J
1	200MW BARINGO - SILALI PROJECT	2235 d	Mon 5/2/11	Tue 6/13/17	▶																											
2	PROJECT PREPARATION	806 d	Mon 5/2/11	Mon 7/15/13	▶																											
3	SURFACE EXPLORATION	210 d	Wed 6/1/11	Tue 12/27/11	▶																											
4	Detailed Surface studies	180 d	Wed 6/1/11	Sun 11/27/11	▶																											
5	Well Siting	30 d	Mon 11/28/11	Tue 12/27/11	▶																											
6	COUNTY/COMMUNITY APPROVAL PROCESS	330 d	Mon 8/20/12	Mon 7/15/13	▶																											
7	Community Engagement	120 d	Mon 8/20/12	Mon 12/17/12	▶																											
8	Acceptance by Community	120 d	Tue 12/18/12	Tue 4/16/13	▶																											
9	County Government Approval	90 d	Wed 4/17/13	Mon 7/15/13	▶																											
10	ESIA FOR DRILLING	303 d	Wed 6/1/11	Thu 3/29/12	▶																											
11	Preparation of RFP Document	15 d	Wed 6/1/11	Wed 6/15/11	▶																											
12	Advertisement	0 d	Wed 6/15/11	Wed 6/15/11	▶																											
13	Preparation of Proposals	45 d	Thu 6/16/11	Sat 7/30/11	▶																											
14	Evaluation of proposals	14 d	Sun 7/31/11	Sat 8/13/11	▶																											
15	TC Approval of evaluation report	0 d	Sat 8/13/11	Sat 8/13/11	▶																											
16	Notification of award	30 d	Sun 8/14/11	Mon 9/12/11	▶																											
17	Contract Negotiations	12 d	Tue 9/13/11	Sat 9/24/11	▶																											
18	Contract signing	0 d	Sat 9/24/11	Sat 9/24/11	▶																											
19	Commencement of Services	0 d	Sat 9/24/11	Sat 9/24/11	▶																											
20	IMPLEMENTATION PERIOD	187 d	Sun 9/25/11	Thu 3/29/12	▶																											
21	Preparation of project ESIA report	30 d	Sun 9/25/11	Mon 10/24/11	▶																											
22	Submission to NEMA for review	7 d	Tue 10/25/11	Mon 10/31/11	▶																											
23	Review of report by NEMA	45 d	Tue 11/1/11	Thu 12/15/11	▶																											
24	EIA Study	60 d	Fri 12/16/11	Mon 2/13/12	▶																											
25	Final reports, submission & NEMA approval	45 d	Tue 2/14/12	Thu 3/29/12	▶																											
26	Issue of EIA licence	0 d	Thu 3/29/12	Thu 3/29/12	▶																											
27	PPP PROJECT APPROVAL	583 d	Mon 5/2/11	Wed 12/5/12	▶																											
28	PROJECT PREFEASIBILITY	0 d	Tue 12/27/11	Tue 12/27/11	▶																											
29	Detailed Surface Studies	0 d	Tue 12/27/11	Tue 12/27/11	▶																											
30	PROJECT CONCEPT NOTE APPROVAL	583 d	Mon 5/2/11	Wed 12/5/12	▶																											
31	Concept Note preparation	30 d	Mon 5/2/11	Tue 5/31/11	▶																											
	Review by PPP Unit	15 d	Wed 6/1/11	Wed 6/15/11	▶																											
	PPP Committee Approval	0 d	Wed 12/5/12	Wed 12/5/12	▶																											
34	FUNDING	1260 d	Thu 10/11/12	Wed 3/23/16	▶																											
35	EXCHEQUER FINANCE FOR PROJECT	256 d	Tue 10/1/13	Fri 6/13/14	▶																											
45	KfW Fund (80MEUR)	1214 d	Mon 11/26/12	Wed 3/23/16	▶																											
46	KfW Appraisal Mission	7 d	Mon 11/26/12	Sun 12/2/12	▶																											

CERTIFIED BY: DR. SILAS M SIMIYU  
MANAGING DIRECTOR & CEO

SIGNATURE:



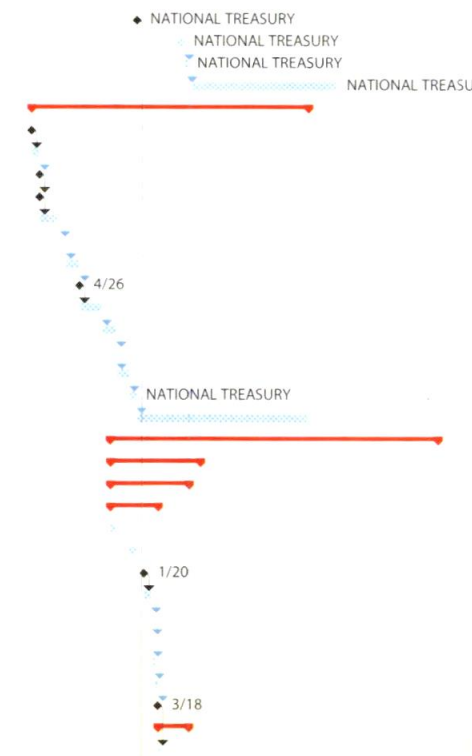
REPUBLIC OF KENYA



**5000+MW NATIONAL ENERGY PROJECTS  
GDC 200MW BARINGO SILALI**

**GEOHERMAL DEVELOPMENT  
COMPANY**

ID	Task Name	Duration	Start	Finish	2009	2010	2011	2012	2013	2014	2015	2016	2017																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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47	GDC Preparation of Fund Utilization Proposal	26 d	Mon 12/3/12	Fri 12/28/12										48	KfW Board Approval	150 d	Sat 12/29/12	Mon 5/27/13										49	Preparation of Loan Financial Agreement	7 d	Tue 6/24/14	Mon 6/30/14										50	Treasury Approval	0 d	Thu 12/19/13	Thu 12/19/13										51	Loan Signing	30 d	Sun 6/1/14	Mon 6/30/14										52	Loan Effectiveness	15 d	Tue 7/1/14	Tue 7/15/14										53	Disbursement period	600 d	Sat 8/2/14	Wed 3/23/16										54	GRMF (6MUSD)	1143 d	Thu 10/11/12	Fri 11/27/15										55	Pre-Application Workshop	0 d	Thu 10/11/12	Thu 10/11/12										56	Preparation of EOI	33 d	Thu 10/11/12	Mon 11/12/12										57	Submission of EOI to AU	0 d	Mon 11/12/12	Mon 11/12/12										58	Opening of EOI by AU	0 d	Mon 11/12/12	Mon 11/12/12										59	Shortlisting	71 d	Tue 11/13/12	Tue 1/22/13										60	Pre-bid Workshop	3 d	Tue 2/26/13	Thu 2/28/13										61	Preparation of Grant Proposal	57 d	Fri 3/1/13	Fri 4/26/13										62	Submission of Grant Application	0 d	Fri 4/26/13	Fri 4/26/13										63	Notification of Award	91 d	Sat 4/27/13	Fri 7/26/13										64	Addressing Comments on Application	60 d	Sat 7/27/13	Tue 9/24/13										65	Grant Negotiation	2 d	Wed 9/25/13	Thu 9/26/13										66	Addressing CPs	52 d	Fri 9/27/13	Sun 11/17/13										67	Grant Signing	30 d	Mon 11/18/13	Tue 12/17/13										68	Disbursement & Procurement	710 d	Wed 12/18/13	Fri 11/27/15										69	<b>PROJECT PROCUREMENT</b>	<b>1353 d</b>	<b>Sat 8/31/13</b>	<b>Sun 5/14/17</b>										70	INFRASTRUCTURE PROCUREMENTS	371 d	Mon 9/2/13	Sun 9/7/14										71	ACCESS ROADS & WELL PADS CONTRACT	325 d	Mon 9/2/13	Wed 7/23/14										72	BIDDING PROCESS	198 d	Mon 9/2/13	Tue 3/18/14										73	Preparation of tender documents	21 d	Mon 9/2/13	Sun 9/22/13										74	Confirmation of Funding	30 d	Mon 11/18/13	Tue 12/17/13										75	Advertisement	0 d	Mon 1/20/14	Mon 1/20/14										76	Bidding period	30 d	Mon 1/20/14	Tue 2/18/14										77	Tender Evaluation	5 d	Wed 2/19/14	Sun 2/23/14										78	TC Approval	2 d	Mon 2/24/14	Tue 2/25/14										79	Notification of Award	7 d	Wed 2/26/14	Tue 3/4/14										80	Draft contract preparation & Negotiation	14 d	Wed 3/5/14	Tue 3/18/14										81	Contract signing	0 d	Tue 3/18/14	Tue 3/18/14										82	IMPLEMENTATION	127 d	Wed 3/19/14	Wed 7/23/14										83	Notice to Commence	7 d	Wed 3/19/14	Tue 3/25/14									
48	KfW Board Approval	150 d	Sat 12/29/12	Mon 5/27/13										49	Preparation of Loan Financial Agreement	7 d	Tue 6/24/14	Mon 6/30/14										50	Treasury Approval	0 d	Thu 12/19/13	Thu 12/19/13										51	Loan Signing	30 d	Sun 6/1/14	Mon 6/30/14										52	Loan Effectiveness	15 d	Tue 7/1/14	Tue 7/15/14										53	Disbursement period	600 d	Sat 8/2/14	Wed 3/23/16										54	GRMF (6MUSD)	1143 d	Thu 10/11/12	Fri 11/27/15										55	Pre-Application Workshop	0 d	Thu 10/11/12	Thu 10/11/12										56	Preparation of EOI	33 d	Thu 10/11/12	Mon 11/12/12										57	Submission of EOI to AU	0 d	Mon 11/12/12	Mon 11/12/12										58	Opening of EOI by AU	0 d	Mon 11/12/12	Mon 11/12/12										59	Shortlisting	71 d	Tue 11/13/12	Tue 1/22/13										60	Pre-bid Workshop	3 d	Tue 2/26/13	Thu 2/28/13										61	Preparation of Grant Proposal	57 d	Fri 3/1/13	Fri 4/26/13										62	Submission of Grant Application	0 d	Fri 4/26/13	Fri 4/26/13										63	Notification of Award	91 d	Sat 4/27/13	Fri 7/26/13										64	Addressing Comments on Application	60 d	Sat 7/27/13	Tue 9/24/13										65	Grant Negotiation	2 d	Wed 9/25/13	Thu 9/26/13										66	Addressing CPs	52 d	Fri 9/27/13	Sun 11/17/13										67	Grant Signing	30 d	Mon 11/18/13	Tue 12/17/13										68	Disbursement & Procurement	710 d	Wed 12/18/13	Fri 11/27/15										69	<b>PROJECT PROCUREMENT</b>	<b>1353 d</b>	<b>Sat 8/31/13</b>	<b>Sun 5/14/17</b>										70	INFRASTRUCTURE PROCUREMENTS	371 d	Mon 9/2/13	Sun 9/7/14										71	ACCESS ROADS & WELL PADS CONTRACT	325 d	Mon 9/2/13	Wed 7/23/14										72	BIDDING PROCESS	198 d	Mon 9/2/13	Tue 3/18/14										73	Preparation of tender documents	21 d	Mon 9/2/13	Sun 9/22/13										74	Confirmation of Funding	30 d	Mon 11/18/13	Tue 12/17/13										75	Advertisement	0 d	Mon 1/20/14	Mon 1/20/14										76	Bidding period	30 d	Mon 1/20/14	Tue 2/18/14										77	Tender Evaluation	5 d	Wed 2/19/14	Sun 2/23/14										78	TC Approval	2 d	Mon 2/24/14	Tue 2/25/14										79	Notification of Award	7 d	Wed 2/26/14	Tue 3/4/14										80	Draft contract preparation & Negotiation	14 d	Wed 3/5/14	Tue 3/18/14										81	Contract signing	0 d	Tue 3/18/14	Tue 3/18/14										82	IMPLEMENTATION	127 d	Wed 3/19/14	Wed 7/23/14										83	Notice to Commence	7 d	Wed 3/19/14	Tue 3/25/14																							
49	Preparation of Loan Financial Agreement	7 d	Tue 6/24/14	Mon 6/30/14										50	Treasury Approval	0 d	Thu 12/19/13	Thu 12/19/13										51	Loan Signing	30 d	Sun 6/1/14	Mon 6/30/14										52	Loan Effectiveness	15 d	Tue 7/1/14	Tue 7/15/14										53	Disbursement period	600 d	Sat 8/2/14	Wed 3/23/16										54	GRMF (6MUSD)	1143 d	Thu 10/11/12	Fri 11/27/15										55	Pre-Application Workshop	0 d	Thu 10/11/12	Thu 10/11/12										56	Preparation of EOI	33 d	Thu 10/11/12	Mon 11/12/12										57	Submission of EOI to AU	0 d	Mon 11/12/12	Mon 11/12/12										58	Opening of EOI by AU	0 d	Mon 11/12/12	Mon 11/12/12										59	Shortlisting	71 d	Tue 11/13/12	Tue 1/22/13										60	Pre-bid Workshop	3 d	Tue 2/26/13	Thu 2/28/13										61	Preparation of Grant Proposal	57 d	Fri 3/1/13	Fri 4/26/13										62	Submission of Grant Application	0 d	Fri 4/26/13	Fri 4/26/13										63	Notification of Award	91 d	Sat 4/27/13	Fri 7/26/13										64	Addressing Comments on Application	60 d	Sat 7/27/13	Tue 9/24/13										65	Grant Negotiation	2 d	Wed 9/25/13	Thu 9/26/13										66	Addressing CPs	52 d	Fri 9/27/13	Sun 11/17/13										67	Grant Signing	30 d	Mon 11/18/13	Tue 12/17/13										68	Disbursement & Procurement	710 d	Wed 12/18/13	Fri 11/27/15										69	<b>PROJECT PROCUREMENT</b>	<b>1353 d</b>	<b>Sat 8/31/13</b>	<b>Sun 5/14/17</b>										70	INFRASTRUCTURE PROCUREMENTS	371 d	Mon 9/2/13	Sun 9/7/14										71	ACCESS ROADS & WELL PADS CONTRACT	325 d	Mon 9/2/13	Wed 7/23/14										72	BIDDING PROCESS	198 d	Mon 9/2/13	Tue 3/18/14										73	Preparation of tender documents	21 d	Mon 9/2/13	Sun 9/22/13										74	Confirmation of Funding	30 d	Mon 11/18/13	Tue 12/17/13										75	Advertisement	0 d	Mon 1/20/14	Mon 1/20/14										76	Bidding period	30 d	Mon 1/20/14	Tue 2/18/14										77	Tender Evaluation	5 d	Wed 2/19/14	Sun 2/23/14										78	TC Approval	2 d	Mon 2/24/14	Tue 2/25/14										79	Notification of Award	7 d	Wed 2/26/14	Tue 3/4/14										80	Draft contract preparation & Negotiation	14 d	Wed 3/5/14	Tue 3/18/14										81	Contract signing	0 d	Tue 3/18/14	Tue 3/18/14										82	IMPLEMENTATION	127 d	Wed 3/19/14	Wed 7/23/14										83	Notice to Commence	7 d	Wed 3/19/14	Tue 3/25/14																																					
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53	Disbursement period	600 d	Sat 8/2/14	Wed 3/23/16										54	GRMF (6MUSD)	1143 d	Thu 10/11/12	Fri 11/27/15										55	Pre-Application Workshop	0 d	Thu 10/11/12	Thu 10/11/12										56	Preparation of EOI	33 d	Thu 10/11/12	Mon 11/12/12										57	Submission of EOI to AU	0 d	Mon 11/12/12	Mon 11/12/12										58	Opening of EOI by AU	0 d	Mon 11/12/12	Mon 11/12/12										59	Shortlisting	71 d	Tue 11/13/12	Tue 1/22/13										60	Pre-bid Workshop	3 d	Tue 2/26/13	Thu 2/28/13										61	Preparation of Grant Proposal	57 d	Fri 3/1/13	Fri 4/26/13										62	Submission of Grant Application	0 d	Fri 4/26/13	Fri 4/26/13										63	Notification of Award	91 d	Sat 4/27/13	Fri 7/26/13										64	Addressing Comments on Application	60 d	Sat 7/27/13	Tue 9/24/13										65	Grant Negotiation	2 d	Wed 9/25/13	Thu 9/26/13										66	Addressing CPs	52 d	Fri 9/27/13	Sun 11/17/13										67	Grant Signing	30 d	Mon 11/18/13	Tue 12/17/13										68	Disbursement & Procurement	710 d	Wed 12/18/13	Fri 11/27/15										69	<b>PROJECT PROCUREMENT</b>	<b>1353 d</b>	<b>Sat 8/31/13</b>	<b>Sun 5/14/17</b>										70	INFRASTRUCTURE PROCUREMENTS	371 d	Mon 9/2/13	Sun 9/7/14										71	ACCESS ROADS & WELL PADS CONTRACT	325 d	Mon 9/2/13	Wed 7/23/14										72	BIDDING PROCESS	198 d	Mon 9/2/13	Tue 3/18/14										73	Preparation of tender documents	21 d	Mon 9/2/13	Sun 9/22/13										74	Confirmation of Funding	30 d	Mon 11/18/13	Tue 12/17/13										75	Advertisement	0 d	Mon 1/20/14	Mon 1/20/14										76	Bidding period	30 d	Mon 1/20/14	Tue 2/18/14										77	Tender Evaluation	5 d	Wed 2/19/14	Sun 2/23/14										78	TC Approval	2 d	Mon 2/24/14	Tue 2/25/14										79	Notification of Award	7 d	Wed 2/26/14	Tue 3/4/14										80	Draft contract preparation & Negotiation	14 d	Wed 3/5/14	Tue 3/18/14										81	Contract signing	0 d	Tue 3/18/14	Tue 3/18/14										82	IMPLEMENTATION	127 d	Wed 3/19/14	Wed 7/23/14										83	Notice to Commence	7 d	Wed 3/19/14	Tue 3/25/14																																																																																													
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62	Submission of Grant Application	0 d	Fri 4/26/13	Fri 4/26/13										63	Notification of Award	91 d	Sat 4/27/13	Fri 7/26/13										64	Addressing Comments on Application	60 d	Sat 7/27/13	Tue 9/24/13										65	Grant Negotiation	2 d	Wed 9/25/13	Thu 9/26/13										66	Addressing CPs	52 d	Fri 9/27/13	Sun 11/17/13										67	Grant Signing	30 d	Mon 11/18/13	Tue 12/17/13										68	Disbursement & Procurement	710 d	Wed 12/18/13	Fri 11/27/15										69	<b>PROJECT PROCUREMENT</b>	<b>1353 d</b>	<b>Sat 8/31/13</b>	<b>Sun 5/14/17</b>										70	INFRASTRUCTURE PROCUREMENTS	371 d	Mon 9/2/13	Sun 9/7/14										71	ACCESS ROADS & WELL PADS CONTRACT	325 d	Mon 9/2/13	Wed 7/23/14										72	BIDDING PROCESS	198 d	Mon 9/2/13	Tue 3/18/14										73	Preparation of tender documents	21 d	Mon 9/2/13	Sun 9/22/13										74	Confirmation of Funding	30 d	Mon 11/18/13	Tue 12/17/13										75	Advertisement	0 d	Mon 1/20/14	Mon 1/20/14										76	Bidding period	30 d	Mon 1/20/14	Tue 2/18/14										77	Tender Evaluation	5 d	Wed 2/19/14	Sun 2/23/14										78	TC Approval	2 d	Mon 2/24/14	Tue 2/25/14										79	Notification of Award	7 d	Wed 2/26/14	Tue 3/4/14										80	Draft contract preparation & Negotiation	14 d	Wed 3/5/14	Tue 3/18/14										81	Contract signing	0 d	Tue 3/18/14	Tue 3/18/14										82	IMPLEMENTATION	127 d	Wed 3/19/14	Wed 7/23/14										83	Notice to Commence	7 d	Wed 3/19/14	Tue 3/25/14																																																																																																																																																																																																																											
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CERTIFIED BY: DR. SILAS M SIMIYU  
MANAGING DIRECTOR & CEO

SIGNATURE:



<b>5000+MW NATIONAL ENERGY PROJECTS GDC 200MW BARINGO SILALI</b>	<b>GEOHERMAL DEVELOPMENT COMPANY</b>
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ID	Task Name	Duration	Start	Finish	2009	2010	2011	2012	2013	2014	2015	2016	2017						
					M	J	S	N	J	M	M	J	S	N	J	M	M	J	S
84	Construction	120 d	Wed 3/26/14	Wed 7/23/14															
85	PAYMENT MILESTONES	120 d	Wed 3/26/14	Wed 7/23/14															
86	Advance payment (20%)	30 d	Wed 3/26/14	Thu 4/24/14															
87	30% Payment against 50% Progress	60 d	Wed 3/26/14	Sat 5/24/14															
88	20% Payment against 80% progress	90 d	Wed 3/26/14	Mon 6/23/14															
89	30% Payment for Work completion	120 d	Wed 3/26/14	Wed 7/23/14															
90	WATER STORAGE SYSTEM (KSH 200M)	199 d	Wed 12/4/13	Fri 6/20/14															
91	Preparation of RFP Document	21 d	Wed 12/4/13	Tue 12/24/13															
92	Advertisement	0 d	Tue 12/24/13	Tue 12/24/13															
93	Tendering	30 d	Wed 12/25/13	Thu 1/23/14															
94	Evaluation	7 d	Fri 1/24/14	Thu 1/30/14															
95	TC Approval of evaluation report	7 d	Fri 1/31/14	Thu 2/6/14															
96	Notification of award	7 d	Fri 2/7/14	Thu 2/13/14															
97	Contract Negotiations	7 d	Fri 2/14/14	Thu 2/20/14															
98	Contract signing	0 d	Thu 2/20/14	Thu 2/20/14															
99	IMPLEMENTATION	120 d	Fri 2/21/14	Fri 6/20/14															
100	Delivery & Installation at site	120 d	Fri 2/21/14	Fri 6/20/14															
101	PAYMENT MILESTONES	120 d	Fri 2/21/14	Fri 6/20/14															
102	Issuance of 70% LC	14 d	Fri 2/21/14	Thu 3/6/14															
103	Advance payment (20%)	30 d	Fri 2/21/14	Sat 3/22/14															
104	30% Payment against 60% Progress	60 d	Fri 2/21/14	Mon 4/21/14															
105	40% Payment against 100% progress	90 d	Fri 2/21/14	Wed 5/21/14															
106	10% Final Payment Upon Acceptance	120 d	Fri 2/21/14	Fri 6/20/14															
107	WATER PIPELINE (KSH 420M)	306 d	Tue 10/1/13	Sat 8/2/14															
108	Preparation of RFP Document	21 d	Tue 10/1/13	Mon 10/21/13															
109	Advertisement	0 d	Mon 1/20/14	Mon 1/20/14															
110	Tendering	30 d	Mon 1/20/14	Tue 2/18/14															
111	Evaluation	5 d	Wed 2/19/14	Sun 2/23/14															
112	TC Approval of evaluation report	2 d	Mon 2/24/14	Tue 2/25/14															
113	Notification of award	7 d	Wed 2/26/14	Tue 3/4/14															
114	Contract Negotiations	7 d	Wed 3/5/14	Tue 3/11/14															
115	Contract signing	0 d	Tue 3/11/14	Tue 3/11/14															
116	IMPLEMENTATION	144 d	Wed 3/12/14	Sat 8/2/14															
117	Issuance of 70% LC	7 d	Wed 3/12/14	Tue 3/18/14															
118	30% Advance Payment	30 d	Wed 3/12/14	Thu 4/10/14															
119	Delivery to site	120 d	Wed 3/12/14	Wed 7/9/14															
120	70% Final Payment	0 d	Sat 8/2/14	Sat 8/2/14															

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MANAGING DIRECTOR & CEO**

SIGNATURE:





<b>5000+MW NATIONAL ENERGY PROJECTS GDC 200MW BARINGO SILALI</b>	<b>GEOHERMAL DEVELOPMENT COMPANY</b>
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ID	Task Name	Duration	Start	Finish	2009	2010	2011	2012	2013	2014	2015	2016	2017								
					M	J	S	N	M	M	J	S	N	M	M	J	S	N	M	M	J
158	PAYMENT MILESTONES	157 d	Sun 3/2/14	Tue 8/5/14																	
159	Issuance of 70% LC	14 d	Sun 3/2/14	Sat 3/15/14																	
160	Advance payment (20%)	30 d	Sun 3/9/14	Mon 4/7/14																	
161	30% Payment against 50% Progress	30 d	Tue 4/8/14	Wed 5/7/14																	
162	20% Payment against 90% progress	30 d	Thu 5/8/14	Fri 6/6/14																	
163	10% Payment Upon Final Acceptance	60 d	Sat 6/7/14	Tue 8/5/14																	
164	STORES (KSH 50M)	276 d	Fri 12/6/13	Sun 9/7/14																	
165	BIDDING PROCESS	89 d	Fri 12/6/13	Tue 3/4/14																	
166	Preparation of tender documents	14 d	Fri 12/6/13	Thu 12/19/13																	
167	Issue of tender documents	5 d	Fri 12/20/13	Tue 12/24/13																	
168	Bidding period	30 d	Wed 12/25/13	Thu 1/23/14																	
169	Tender Evaluation	5 d	Fri 1/24/14	Tue 1/28/14																	
170	TC Approval	2 d	Wed 1/29/14	Thu 1/30/14																	
171	Notification of Award	7 d	Fri 1/31/14	Thu 2/6/14																	
172	Draft contract preparation & Negotiation	21 d	Fri 2/7/14	Thu 2/27/14																	
173	Contract signing	0 d	Tue 3/4/14	Tue 3/4/14																	
174	IMPLEMENTATION	187 d	Wed 3/5/14	Sun 9/7/14																	
175	Notice to Commence	7 d	Wed 3/5/14	Tue 3/11/14																	
176	Construction	120 d	Wed 3/12/14	Wed 7/9/14																	
177	PAYMENT MILESTONES	180 d	Wed 3/12/14	Sun 9/7/14																	
178	Advance payment (20%)	30 d	Wed 3/12/14	Thu 4/10/14																	
179	30% Payment against 50% Progress	30 d	Fri 4/11/14	Sat 5/10/14																	
180	20% Payment against 70% progress	30 d	Sun 5/11/14	Mon 6/9/14																	
181	20% Payment against 90% progress	30 d	Tue 6/10/14	Wed 7/9/14																	
182	10% Payment for operational	60 d	Thu 7/10/14	Sun 9/7/14																	
183	DRILLING OF 1 WELL - BARINGO (KSH 200M)	220 d	Thu 1/30/14	Sat 9/6/14																	
184	Mobilization (KSH 20M)	90 d	Thu 1/30/14	Tue 4/29/14																	
185	Drilling Materials (KSH 100M)	120 d	Thu 1/30/14	Thu 5/29/14																	
186	Operations (KSH 80M)	100 d	Fri 5/30/14	Sat 9/6/14																	
187	RIGS CONTRACTS	448 d	Fri 12/6/13	Thu 2/26/15																	
188	DRILLING SERVICES - KFW-3 Rigs	373 d	Thu 12/19/13	Fri 12/26/14																	
189	EOI proposal submission	30 d	Thu 12/19/13	Fri 1/17/14																	
190	KFW no objection - EOI	7 d	Sat 1/18/14	Fri 1/24/14																	
191	EOI Tendering	45 d	Tue 7/1/14	Thu 8/14/14																	
192	Evaluation of EOI and shortlisting	7 d	Fri 8/15/14	Thu 8/21/14																	
193	KFW no objection - shortlist	7 d	Fri 8/22/14	Thu 8/28/14																	
194	Tender preparation	5 d	Fri 8/29/14	Tue 9/2/14																	

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SIGNATURE:



**5000+MW NATIONAL ENERGY PROJECTS  
GDC 200MW BARINGO SILALI**

**GEOHERMAL DEVELOPMENT  
COMPANY**

ID	Task Name	Duration	Start	Finish	2009 2010 2011 2012 2013 2014 2015 2016 2017																						
					M	J	S	N	J	M	M	J	S	N	J	M	M	J	S	N	J	M	M	J	S	N	J
195	KFW no objection - Tender	7 d	Wed 9/3/14	Tue 9/9/14																							
196	Tendering	30 d	Wed 9/10/14	Thu 10/9/14																							
197	Evaluation	7 d	Fri 10/10/14	Thu 10/16/14																							
198	KFW no objection - evaluation	5 d	Fri 10/17/14	Tue 10/21/14																							
199	Award and contract negotiation	7 d	Wed 10/22/14	Tue 10/28/14																							
200	KFW no objection - draft contract	7 d	Wed 10/29/14	Tue 11/4/14																							
201	contract signing	7 d	Wed 11/5/14	Tue 11/11/14																							
202	Advance payment (20%)	30 d	Wed 11/12/14	Thu 12/11/14																							
203	Rig mobilization and rig-up	45 d	Wed 11/12/14	Fri 12/26/14																							
204	3 DRILLING RIGS	448 d	Fri 12/6/13	Thu 2/26/15																							
205	Funding Approval	60 d	Fri 12/6/13	Mon 2/3/14																							
206	Tendering	30 d	Tue 2/4/14	Wed 3/5/14																							
207	Evaluation	7 d	Thu 3/6/14	Wed 3/12/14																							
208	Contract Negotiation & Award	14 d	Thu 3/13/14	Wed 3/26/14																							
209	Contract signing	7 d	Thu 3/27/14	Wed 4/2/14																							
210	Design & manufacture	270 d	Thu 4/3/14	Sun 12/28/14																							
211	Delivery to Site	60 d	Mon 12/29/14	Thu 2/26/15																							
212	PROCUREMENT OF MATERIALS	155 d	Mon 12/23/13	Mon 5/26/14																							
213	Tender Document Preparation	14 d	Mon 12/23/13	Sun 1/5/14																							
214	Tendering	30 d	Mon 1/6/14	Tue 2/4/14																							
215	Evaluation	7 d	Wed 2/5/14	Tue 2/11/14																							
216	Award	14 d	Wed 2/12/14	Tue 2/25/14																							
217	Delivery	90 d	Wed 2/26/14	Mon 5/26/14																							
218	CONSULTANCY SERVICES	1353 d	Sat 8/31/13	Sun 5/14/17																							
219	MANAGEMENT & SUPERVISION	1113 d	Sat 8/31/13	Fri 9/16/16																							
220	EOI proposal submission	15 d	Sat 8/31/13	Sun 9/15/13																							
221	KFW no objection - EOI	200 d	Sun 9/15/13	Thu 4/3/14																							
222	EOI Tendering	30 d	Thu 4/3/14	Sat 5/3/14																							
223	Evaluation of EOI and shortlisting	7 d	Sat 5/3/14	Sat 5/10/14																							
224	KFW no objection - shortlist	5 d	Sat 5/10/14	Thu 5/15/14																							
225	Tender preparation	14 d	Thu 5/15/14	Thu 5/29/14																							
226	KFW no objection - Tender	5 d	Thu 5/29/14	Tue 6/3/14																							
227	Tendering	45 d	Tue 6/3/14	Fri 7/18/14																							
228	Evaluation	7 d	Fri 7/18/14	Fri 7/25/14																							
229	KFW no objection - evaluation	5 d	Fri 7/25/14	Wed 7/30/14																							
230	Award and contract negotiation	21 d	Wed 7/30/14	Wed 8/20/14																							
231	KFW no objection - draft contract	5 d	Wed 8/20/14	Mon 8/25/14																							

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MANAGING DIRECTOR & CEO**

SIGNATURE: 







REPUBLIC OF KENYA



**5000+MW NATIONAL ENERGY PROJECTS  
GDC 200MW BARINGO SILALI**

**GEO THERMAL DEVELOPMENT  
COMPANY**

ID	Task Name	Duration	Start	Finish	2009	2010	2011	2012	2013	2014	2015	2016	2017											
					M	J	S	N	J	M	M	J	S	N	J	M	M	J	S	N	J	M	M	J
306	Submission of proposals	0 d	Thu 3/27/14	Thu 3/27/14																				
307	Bid Evaluation	14 d	Fri 3/28/14	Thu 4/10/14																				
308	Negotiation	60 d	Fri 4/11/14	Mon 6/9/14																				
309	Tender Committee Approval	7 d	Tue 6/10/14	Mon 6/16/14																				
310	Notification of award	14 d	Tue 6/17/14	Mon 6/30/14																				
311	Tender Award	7 d	Tue 7/1/14	Mon 7/7/14																				
312	STEAM DEVELOPMENT	971 d	Tue 7/8/14	Sat 3/4/17																				
313	Notice to commence	7 d	Tue 7/8/14	Mon 7/14/14																				
314	Implementation	964 d	Tue 7/15/14	Sat 3/4/17																				
315	<b>ESIA FOR 200MW STEAM GATHERING</b>	<b>303 d</b>	<b>Wed 1/1/14</b>	<b>Thu 10/30/14</b>																				
316	Preparation of RFP Document	15 d	Wed 1/1/14	Wed 1/15/14																				
317	Advertisement	0 d	Wed 1/15/14	Wed 1/15/14																				
318	Preparation of Proposals	45 d	Thu 1/16/14	Sat 3/1/14																				
319	Evaluation of proposals	14 d	Sun 3/2/14	Sat 3/15/14																				
320	TC Approval of evaluation report	0 d	Sat 3/15/14	Sat 3/15/14																				
321	Notification of award	30 d	Sun 3/16/14	Mon 4/14/14																				
322	Contract Negotiations	12 d	Tue 4/15/14	Sat 4/26/14																				
323	Contract signing	0 d	Sat 4/26/14	Sat 4/26/14																				
324	Commencement of Services	0 d	Sat 4/26/14	Sat 4/26/14																				
325	Implementation Period	187 d	Sun 4/27/14	Thu 10/30/14																				
326	Preparation of project ESIA report	30 d	Sun 4/27/14	Mon 5/26/14																				
327	Submission to NEMA for review	7 d	Tue 5/27/14	Mon 6/2/14																				
328	Review of report by NEMA	45 d	Tue 6/3/14	Thu 7/17/14																				
329	EIA Study	60 d	Fri 7/18/14	Mon 9/15/14																				
330	Final reports, submission & NEMA approval	45 d	Tue 9/16/14	Thu 10/30/14																				
331	Issue of EIA licence	0 d	Thu 10/30/14	Thu 10/30/14																				
332	<b>200MW POWER PLANTS DEVELOPMENT</b>	<b>981 d</b>	<b>Tue 10/7/14</b>	<b>Tue 6/13/17</b>																				
333	PROCUREMENT OF IPP	981 d	Tue 10/7/14	Tue 6/13/17																				
334	Advert/ Issue RFP to Shortlisted firms	0 d	Sun 7/5/15	Sun 7/5/15																				
335	Tendering Period	45 d	Sun 7/5/15	Wed 8/19/15																				
336	Site Visit	0 d	Wed 8/19/15	Wed 8/19/15																				
337	Submission of proposals	0 d	Wed 8/19/15	Wed 8/19/15																				
338	Evaluation	7 d	Wed 8/19/15	Wed 8/26/15																				
339	Tender Committee Approval	0 d	Wed 8/26/15	Wed 8/26/15																				
340	Notification of award	7 d	Wed 8/26/15	Wed 9/2/15																				
341	Tender Award	0 d	Wed 9/2/15	Wed 9/2/15																				
342	Contracting			Thu 7/16/15																				

CERTIFIED BY: DR. SILAS M SIMIYU  
MANAGING DIRECTOR & CEO

SIGNATURE:



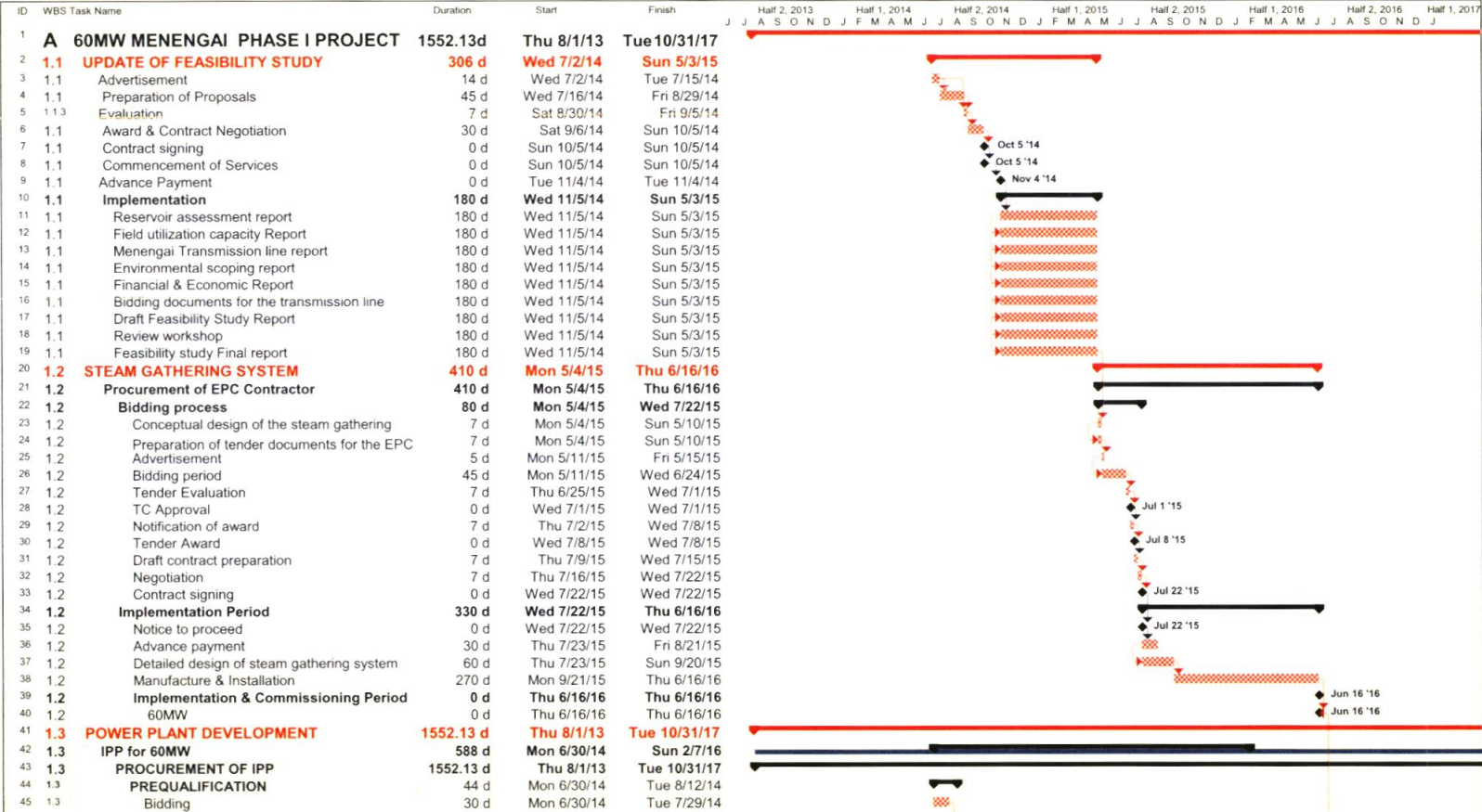


REPUBLIC OF KENYA



**5000+MW NATIONAL ENERGY PROJECTS  
GDC 60MW MENENGAI GEOTHERMAL PROJECT**

**GEOTHERMAL DEVELOPMENT  
COMPANY**



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MANAGING DIRECTOR & CEO

SIGNATURE:

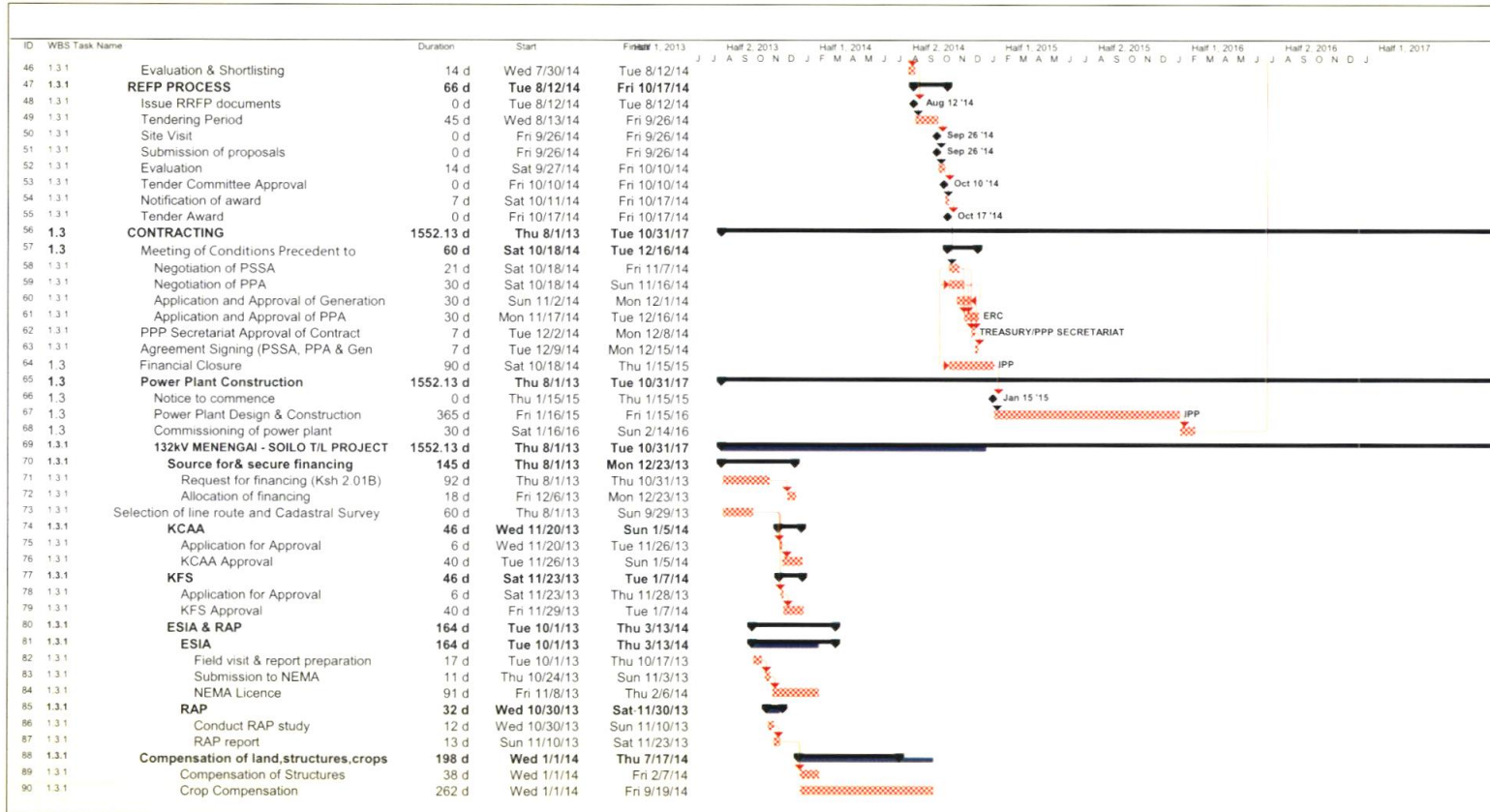


REPUBLIC OF KENYA



**5000+MW NATIONAL ENERGY PROJECTS  
GDC 60MW MENENGAJ GEOTHERMAL PROJECT**

**GEOTHERMAL DEVELOPMENT  
COMPANY**



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MANAGING DIRECTOR & CEO

SIGNATURE:



**5000+MW NATIONAL ENERGY PROJECTS  
GDC 60MW MENENGAI GEOTHERMAL PROJECT**

**GEOTHERMAL DEVELOPMENT  
COMPANY**

ID	WBS Task Name	Duration	Start	Finish	Half 2, 2013	Half 1, 2014	Half 2, 2014	Half 1, 2015	Half 2, 2015	Half 1, 2016	Half 2, 2016	Half 1, 2017																																																																																																																																																																																						
					J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J																																																																																																																																		
91	1.3.1	<b>Compensation of land</b>	<b>165 d</b>	<b>Mon 2/3/14</b>	<b>Thu 7/17/14</b>								92	1.3.1	Prepare land strips	6 d	Mon 2/3/14	Sat 2/8/14								93	1.3.1	Actual Payment	114 d	Sat 2/8/14	Mon 6/2/14								94	1.3.1	<b>Procure EPC Contractor</b>	<b>43.02 d</b>	<b>Sat 11/23/13</b>	<b>Sun 1/5/14</b>								95	1.3.1	Bidding process	17 d	Sat 11/23/13	Mon 12/9/13								96	1.3.1	Bid Submission & Evaluation	6 d	Wed 12/11/13	Mon 12/16/13								97	1.3.1	TC approval & Award	7 d	Mon 12/16/13	Mon 12/23/13								98	1.3.1	Contract Signing	14 d	Sun 12/22/13	Sun 1/5/14								99	1.3.1	<b>EPC Contract</b>	<b>356 d</b>	<b>Fri 1/10/14</b>	<b>Wed 12/31/14</b>								100	1.3.1	Advance payment (Ksh 155 M)	6 d	Fri 1/10/14	Wed 1/15/14								101	1.3.1	Design & Engineering	65 d	Fri 1/17/14	Sat 3/22/14								102	1.3.1	Progress Payment (Ksh 1,085M)	6 d	Sun 3/23/14	Fri 3/28/14								103	1.3.1	Manufacture and Supply of Equipment	109 d	Sat 3/29/14	Tue 7/15/14								104	1.3.1	Construction & Commissioning	208 d	Mon 3/17/14	Fri 10/10/14								105	1.3.1	Progress Payment (Ksh 310M)	1 d	Sat 10/11/14	Sat 10/11/14							
92	1.3.1	Prepare land strips	6 d	Mon 2/3/14	Sat 2/8/14								93	1.3.1	Actual Payment	114 d	Sat 2/8/14	Mon 6/2/14								94	1.3.1	<b>Procure EPC Contractor</b>	<b>43.02 d</b>	<b>Sat 11/23/13</b>	<b>Sun 1/5/14</b>								95	1.3.1	Bidding process	17 d	Sat 11/23/13	Mon 12/9/13								96	1.3.1	Bid Submission & Evaluation	6 d	Wed 12/11/13	Mon 12/16/13								97	1.3.1	TC approval & Award	7 d	Mon 12/16/13	Mon 12/23/13								98	1.3.1	Contract Signing	14 d	Sun 12/22/13	Sun 1/5/14								99	1.3.1	<b>EPC Contract</b>	<b>356 d</b>	<b>Fri 1/10/14</b>	<b>Wed 12/31/14</b>								100	1.3.1	Advance payment (Ksh 155 M)	6 d	Fri 1/10/14	Wed 1/15/14								101	1.3.1	Design & Engineering	65 d	Fri 1/17/14	Sat 3/22/14								102	1.3.1	Progress Payment (Ksh 1,085M)	6 d	Sun 3/23/14	Fri 3/28/14								103	1.3.1	Manufacture and Supply of Equipment	109 d	Sat 3/29/14	Tue 7/15/14								104	1.3.1	Construction & Commissioning	208 d	Mon 3/17/14	Fri 10/10/14								105	1.3.1	Progress Payment (Ksh 310M)	1 d	Sat 10/11/14	Sat 10/11/14																				
93	1.3.1	Actual Payment	114 d	Sat 2/8/14	Mon 6/2/14								94	1.3.1	<b>Procure EPC Contractor</b>	<b>43.02 d</b>	<b>Sat 11/23/13</b>	<b>Sun 1/5/14</b>								95	1.3.1	Bidding process	17 d	Sat 11/23/13	Mon 12/9/13								96	1.3.1	Bid Submission & Evaluation	6 d	Wed 12/11/13	Mon 12/16/13								97	1.3.1	TC approval & Award	7 d	Mon 12/16/13	Mon 12/23/13								98	1.3.1	Contract Signing	14 d	Sun 12/22/13	Sun 1/5/14								99	1.3.1	<b>EPC Contract</b>	<b>356 d</b>	<b>Fri 1/10/14</b>	<b>Wed 12/31/14</b>								100	1.3.1	Advance payment (Ksh 155 M)	6 d	Fri 1/10/14	Wed 1/15/14								101	1.3.1	Design & Engineering	65 d	Fri 1/17/14	Sat 3/22/14								102	1.3.1	Progress Payment (Ksh 1,085M)	6 d	Sun 3/23/14	Fri 3/28/14								103	1.3.1	Manufacture and Supply of Equipment	109 d	Sat 3/29/14	Tue 7/15/14								104	1.3.1	Construction & Commissioning	208 d	Mon 3/17/14	Fri 10/10/14								105	1.3.1	Progress Payment (Ksh 310M)	1 d	Sat 10/11/14	Sat 10/11/14																																	
94	1.3.1	<b>Procure EPC Contractor</b>	<b>43.02 d</b>	<b>Sat 11/23/13</b>	<b>Sun 1/5/14</b>								95	1.3.1	Bidding process	17 d	Sat 11/23/13	Mon 12/9/13								96	1.3.1	Bid Submission & Evaluation	6 d	Wed 12/11/13	Mon 12/16/13								97	1.3.1	TC approval & Award	7 d	Mon 12/16/13	Mon 12/23/13								98	1.3.1	Contract Signing	14 d	Sun 12/22/13	Sun 1/5/14								99	1.3.1	<b>EPC Contract</b>	<b>356 d</b>	<b>Fri 1/10/14</b>	<b>Wed 12/31/14</b>								100	1.3.1	Advance payment (Ksh 155 M)	6 d	Fri 1/10/14	Wed 1/15/14								101	1.3.1	Design & Engineering	65 d	Fri 1/17/14	Sat 3/22/14								102	1.3.1	Progress Payment (Ksh 1,085M)	6 d	Sun 3/23/14	Fri 3/28/14								103	1.3.1	Manufacture and Supply of Equipment	109 d	Sat 3/29/14	Tue 7/15/14								104	1.3.1	Construction & Commissioning	208 d	Mon 3/17/14	Fri 10/10/14								105	1.3.1	Progress Payment (Ksh 310M)	1 d	Sat 10/11/14	Sat 10/11/14																																														
95	1.3.1	Bidding process	17 d	Sat 11/23/13	Mon 12/9/13								96	1.3.1	Bid Submission & Evaluation	6 d	Wed 12/11/13	Mon 12/16/13								97	1.3.1	TC approval & Award	7 d	Mon 12/16/13	Mon 12/23/13								98	1.3.1	Contract Signing	14 d	Sun 12/22/13	Sun 1/5/14								99	1.3.1	<b>EPC Contract</b>	<b>356 d</b>	<b>Fri 1/10/14</b>	<b>Wed 12/31/14</b>								100	1.3.1	Advance payment (Ksh 155 M)	6 d	Fri 1/10/14	Wed 1/15/14								101	1.3.1	Design & Engineering	65 d	Fri 1/17/14	Sat 3/22/14								102	1.3.1	Progress Payment (Ksh 1,085M)	6 d	Sun 3/23/14	Fri 3/28/14								103	1.3.1	Manufacture and Supply of Equipment	109 d	Sat 3/29/14	Tue 7/15/14								104	1.3.1	Construction & Commissioning	208 d	Mon 3/17/14	Fri 10/10/14								105	1.3.1	Progress Payment (Ksh 310M)	1 d	Sat 10/11/14	Sat 10/11/14																																																											
96	1.3.1	Bid Submission & Evaluation	6 d	Wed 12/11/13	Mon 12/16/13								97	1.3.1	TC approval & Award	7 d	Mon 12/16/13	Mon 12/23/13								98	1.3.1	Contract Signing	14 d	Sun 12/22/13	Sun 1/5/14								99	1.3.1	<b>EPC Contract</b>	<b>356 d</b>	<b>Fri 1/10/14</b>	<b>Wed 12/31/14</b>								100	1.3.1	Advance payment (Ksh 155 M)	6 d	Fri 1/10/14	Wed 1/15/14								101	1.3.1	Design & Engineering	65 d	Fri 1/17/14	Sat 3/22/14								102	1.3.1	Progress Payment (Ksh 1,085M)	6 d	Sun 3/23/14	Fri 3/28/14								103	1.3.1	Manufacture and Supply of Equipment	109 d	Sat 3/29/14	Tue 7/15/14								104	1.3.1	Construction & Commissioning	208 d	Mon 3/17/14	Fri 10/10/14								105	1.3.1	Progress Payment (Ksh 310M)	1 d	Sat 10/11/14	Sat 10/11/14																																																																								
97	1.3.1	TC approval & Award	7 d	Mon 12/16/13	Mon 12/23/13								98	1.3.1	Contract Signing	14 d	Sun 12/22/13	Sun 1/5/14								99	1.3.1	<b>EPC Contract</b>	<b>356 d</b>	<b>Fri 1/10/14</b>	<b>Wed 12/31/14</b>								100	1.3.1	Advance payment (Ksh 155 M)	6 d	Fri 1/10/14	Wed 1/15/14								101	1.3.1	Design & Engineering	65 d	Fri 1/17/14	Sat 3/22/14								102	1.3.1	Progress Payment (Ksh 1,085M)	6 d	Sun 3/23/14	Fri 3/28/14								103	1.3.1	Manufacture and Supply of Equipment	109 d	Sat 3/29/14	Tue 7/15/14								104	1.3.1	Construction & Commissioning	208 d	Mon 3/17/14	Fri 10/10/14								105	1.3.1	Progress Payment (Ksh 310M)	1 d	Sat 10/11/14	Sat 10/11/14																																																																																					
98	1.3.1	Contract Signing	14 d	Sun 12/22/13	Sun 1/5/14								99	1.3.1	<b>EPC Contract</b>	<b>356 d</b>	<b>Fri 1/10/14</b>	<b>Wed 12/31/14</b>								100	1.3.1	Advance payment (Ksh 155 M)	6 d	Fri 1/10/14	Wed 1/15/14								101	1.3.1	Design & Engineering	65 d	Fri 1/17/14	Sat 3/22/14								102	1.3.1	Progress Payment (Ksh 1,085M)	6 d	Sun 3/23/14	Fri 3/28/14								103	1.3.1	Manufacture and Supply of Equipment	109 d	Sat 3/29/14	Tue 7/15/14								104	1.3.1	Construction & Commissioning	208 d	Mon 3/17/14	Fri 10/10/14								105	1.3.1	Progress Payment (Ksh 310M)	1 d	Sat 10/11/14	Sat 10/11/14																																																																																																		
99	1.3.1	<b>EPC Contract</b>	<b>356 d</b>	<b>Fri 1/10/14</b>	<b>Wed 12/31/14</b>								100	1.3.1	Advance payment (Ksh 155 M)	6 d	Fri 1/10/14	Wed 1/15/14								101	1.3.1	Design & Engineering	65 d	Fri 1/17/14	Sat 3/22/14								102	1.3.1	Progress Payment (Ksh 1,085M)	6 d	Sun 3/23/14	Fri 3/28/14								103	1.3.1	Manufacture and Supply of Equipment	109 d	Sat 3/29/14	Tue 7/15/14								104	1.3.1	Construction & Commissioning	208 d	Mon 3/17/14	Fri 10/10/14								105	1.3.1	Progress Payment (Ksh 310M)	1 d	Sat 10/11/14	Sat 10/11/14																																																																																																															
100	1.3.1	Advance payment (Ksh 155 M)	6 d	Fri 1/10/14	Wed 1/15/14								101	1.3.1	Design & Engineering	65 d	Fri 1/17/14	Sat 3/22/14								102	1.3.1	Progress Payment (Ksh 1,085M)	6 d	Sun 3/23/14	Fri 3/28/14								103	1.3.1	Manufacture and Supply of Equipment	109 d	Sat 3/29/14	Tue 7/15/14								104	1.3.1	Construction & Commissioning	208 d	Mon 3/17/14	Fri 10/10/14								105	1.3.1	Progress Payment (Ksh 310M)	1 d	Sat 10/11/14	Sat 10/11/14																																																																																																																												
101	1.3.1	Design & Engineering	65 d	Fri 1/17/14	Sat 3/22/14								102	1.3.1	Progress Payment (Ksh 1,085M)	6 d	Sun 3/23/14	Fri 3/28/14								103	1.3.1	Manufacture and Supply of Equipment	109 d	Sat 3/29/14	Tue 7/15/14								104	1.3.1	Construction & Commissioning	208 d	Mon 3/17/14	Fri 10/10/14								105	1.3.1	Progress Payment (Ksh 310M)	1 d	Sat 10/11/14	Sat 10/11/14																																																																																																																																									
102	1.3.1	Progress Payment (Ksh 1,085M)	6 d	Sun 3/23/14	Fri 3/28/14								103	1.3.1	Manufacture and Supply of Equipment	109 d	Sat 3/29/14	Tue 7/15/14								104	1.3.1	Construction & Commissioning	208 d	Mon 3/17/14	Fri 10/10/14								105	1.3.1	Progress Payment (Ksh 310M)	1 d	Sat 10/11/14	Sat 10/11/14																																																																																																																																																						
103	1.3.1	Manufacture and Supply of Equipment	109 d	Sat 3/29/14	Tue 7/15/14								104	1.3.1	Construction & Commissioning	208 d	Mon 3/17/14	Fri 10/10/14								105	1.3.1	Progress Payment (Ksh 310M)	1 d	Sat 10/11/14	Sat 10/11/14																																																																																																																																																																			
104	1.3.1	Construction & Commissioning	208 d	Mon 3/17/14	Fri 10/10/14								105	1.3.1	Progress Payment (Ksh 310M)	1 d	Sat 10/11/14	Sat 10/11/14																																																																																																																																																																																
105	1.3.1	Progress Payment (Ksh 310M)	1 d	Sat 10/11/14	Sat 10/11/14																																																																																																																																																																																													

CERTIFIED BY: DR. SILAS SIMIYU  
MANAGING DIRECTOR & CEO

SIGNATURE:



REPUBLIC OF KENYA



**5000+MW NATIONAL ENERGY PROJECTS  
GDC 100MW MENENGAI GEOTHERMAL PROJECT**

**GEOTHERMAL DEVELOPMENT  
COMPANY**

ID	Task Name	Duration	Start 2013	2014												2015					2016																		
				M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J			
1	<b>MENENGAI 100MW IPP POWER PLANT</b>	<b>850.67 days</b>	<b>Sun 5/19/13</b>	[Timeline bar]																																			
2	<b>PROJECT FINANCING</b>	<b>120 days</b>	<b>Mon 11/18/13</b>	[Timeline bar]																																			
3	Request letter to Treasury	0 days	Mon 11/18/13	[Timeline bar]																																			
4	Funding Confirmation	30 days	Mon 11/18/13	[Timeline bar]																																			
5	<b>DISBURSEMENT</b>	<b>90 days</b>	<b>Wed 12/18/13</b>	[Timeline bar]																																			
6	Quarter 3	30 days	Wed 12/18/13	[Timeline bar]																																			
7	Quarter 4	90 days	Wed 12/18/13	[Timeline bar]																																			
8	<b>LAND ACCESS RIGHTS</b>	<b>48 days</b>	<b>Tue 11/12/13</b>	[Timeline bar]																																			
9	Application to KFS	0 days	Tue 11/12/13	[Timeline bar]																																			
10	Acquisition of Certificate of Lease	48 days	Tue 11/12/13	[Timeline bar]																																			
11	PARTIAL RISK GUARANTEES (PRGS)	568 days	Mon 10/28/13	[Timeline bar]																																			
12	Application letter to AfDB	28 days	Mon 10/28/13	[Timeline bar]																																			
13	Project appraisal Mission	7 days	Mon 6/16/14	[Timeline bar]																																			
14	Approval of Project PRGs	90 days	Mon 6/23/14	[Timeline bar]																																			
15	Contracting	180 days	Sun 9/21/14	[Timeline bar]																																			
16	LC For Commercial Risk	60 days	Fri 3/20/15	[Timeline bar]																																			
17	<b>IPP INVESTOR ENGAGEMENT</b>	<b>850.67 days</b>	<b>Sun 5/19/13</b>	[Timeline bar]																																			
18	<b>APPLICATION FOR FEED IN TARIFF</b>	<b>17 days</b>	<b>Sun 5/19/13</b>	[Timeline bar]																																			
19	Submit Application	5 days	Sun 5/19/13	[Timeline bar]																																			
20	Committee seating	7 days	Fri 5/24/13	[Timeline bar]																																			
21	Approval	5 days	Fri 5/31/13	[Timeline bar]																																			
22	<b>RFP PREPARATION</b>	<b>38 days</b>	<b>Sun 6/23/13</b>	[Timeline bar]																																			
23	Appointment of team	5 days	Sun 6/23/13	[Timeline bar]																																			
24	Concept development	1 day	Fri 6/28/13	[Timeline bar]																																			
25	Site plan development	2 days	Sat 6/29/13	[Timeline bar]																																			
26	Preliminary specs	5 days	Mon 7/1/13	[Timeline bar]																																			
27	Steam Supply Agreement (Draft)	5 days	Mon 7/1/13	[Timeline bar]																																			
28	Draft Power purchase Agreement	5 days	Mon 7/1/13	[Timeline bar]																																			
29	Review of draft document	5 days	Sat 7/6/13	[Timeline bar]																																			
30	GDC/KPLC Payment Agreement	30 days	Mon 7/1/13	[Timeline bar]																																			
31	<b>PROCUREMENT OF IPPS</b>	<b>73 days</b>	<b>Fri 7/26/13</b>	[Timeline bar]																																			
32	Advertise and Issue of RFP	7 days	Fri 7/26/13	[Timeline bar]																																			
33	Proposal preparation	52 days	Fri 7/26/13	[Timeline bar]																																			
34	Bidder's Technical Conference	0 days	Fri 8/23/13	[Timeline bar]																																			
35	Submission of proposals	0 days	Mon 9/16/13	[Timeline bar]																																			
36	Bid Evaluation	5 days	Mon 9/16/13	[Timeline bar]																																			
37	Tender Committee Approval	2 days	Sat 9/21/13	[Timeline bar]																																			
38	Notification of Award	14 days	Mon 9/23/13	[Timeline bar]																																			
39	<b>CONTRACTING OF IPPS</b>	<b>325 days</b>	<b>Mon 10/7/13</b>	[Timeline bar]																																			
40	Negotiation	266 days	Mon 10/7/13	[Timeline bar]																																			
41	<b>Meeting of Conditions Precedent to proceed and Financial Closure</b>	<b>51 days</b>	<b>Mon 6/30/14</b>	[Timeline bar]																																			

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MANAGING DIRECTOR & CEO

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<b>5000+MW NATIONAL ENERGY PROJECTS GDC 150MW SUSWA PROJECT</b>	<b>GEOHERMAL DEVELOPMENT COMPANY</b>
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ID	Task Name	Duration	Start	Finish	Timeline											
					2012 H2	2013 H1	2013 H2	2014 H1	2014 H2	2015 H1	2015 H2	2016 H1	2016 H2	2017 H1		
1	150MW SUSWA GEOTHERMAL PROJECT	1806 d	Fri 6/1/12	Thu 5/11/17	H1 —————>											
2	<b>PROJECT PREPARATION</b>	<b>663 d</b>	<b>Fri 6/1/12</b>	<b>Tue 3/25/14</b>	[Red bar from 6/1/12 to 3/25/14]											
3	SURFACE EXPLORATION	210 d	Fri 6/1/12	Thu 12/27/12	[Red bar from 6/1/12 to 12/27/12]											
4	Surface studies	180 d	Fri 6/1/12	Tue 11/27/12	[Red bar from 6/1/12 to 11/27/12]											
5	Well Siting	30 d	Wed 11/28/12	Thu 12/27/12	[Red bar from 11/28/12 to 12/27/12]											
6	COUNTY/COMMUNITY APPROVAL PROCESS	480 d	Sat 12/1/12	Tue 3/25/14	[Red bar from 12/1/12 to 3/25/14]											
7	Community Engagement	90 d	Sat 12/1/12	Thu 2/28/13	[Red bar from 12/1/12 to 2/28/13]											
8	Acceptance by Community	180 d	Fri 3/1/13	Tue 8/27/13	[Red bar from 3/1/13 to 8/27/13]											
9	County Government Approval	210 d	Wed 8/28/13	Tue 3/25/14	[Red bar from 8/28/13 to 3/25/14]											
10	ESIA FOR DRILLING	633 d	Fri 6/1/12	Sun 2/23/14	[Red bar from 6/1/12 to 2/23/14]											
11	Preparation of RFP Document	15 d	Fri 6/1/12	Fri 6/15/12	[Red bar from 6/1/12 to 6/15/12]											
12	Advertisement	0 d	Fri 6/15/12	Fri 6/15/12	[Red bar at 6/15/12]											
13	Preparation of Proposals	45 d	Sat 6/16/12	Mon 7/30/12	[Red bar from 6/16/12 to 7/30/12]											
14	Evaluation of proposals	14 d	Tue 7/31/12	Mon 8/13/12	[Red bar from 7/31/12 to 8/13/12]											
15	TC Approval of evaluation report	0 d	Mon 8/13/12	Mon 8/13/12	[Red bar at 8/13/12]											
16	Notification of award	30 d	Tue 8/14/12	Wed 9/12/12	[Red bar from 8/14/12 to 9/12/12]											
17	Contract Negotiations	12 d	Thu 9/13/12	Mon 9/24/12	[Red bar from 9/13/12 to 9/24/12]											
18	Contract signing	0 d	Mon 9/24/12	Mon 9/24/12	[Red bar at 9/24/12]											
19	IMPLEMENTATION PERIOD	517 d	Tue 9/25/12	Sun 2/23/14	[Red bar from 9/25/12 to 2/23/14]											
20	Preparation of project ESIA report	30 d	Tue 9/25/12	Wed 10/24/12	[Red bar from 9/25/12 to 10/24/12]											
21	Submission to NEMA for review	7 d	Thu 10/25/12	Wed 10/31/12	[Red bar from 10/25/12 to 10/31/12]											
22	Review of report by NEMA	45 d	Thu 11/1/12	Sat 12/15/12	[Red bar from 11/1/12 to 12/15/12]											
23	EIA Study	90 d	Sun 12/16/12	Fri 3/15/13	[Red bar from 12/16/12 to 3/15/13]											
24	Final reports, submission & NEMA approval	45 d	Fri 1/10/14	Sun 2/23/14	[Red bar from 1/10/14 to 2/23/14]											
25	Issue of EIA licence	0 d	Sun 2/23/14	Sun 2/23/14	[Red bar at 2/23/14]											
26	PPP APPROVAL PROCESS	336 d	Thu 12/27/12	Thu 11/28/13	[Red bar from 12/27/12 to 11/28/13]											
27	PPP PROJECT APPROVAL	336 d	Thu 12/27/12	Thu 11/28/13	[Red bar from 12/27/12 to 11/28/13]											
28	PROJECT PREFEASIBILITY	0 d	Thu 12/27/12	Thu 12/27/12	[Red bar at 12/27/12]											
29	Detailed Surface Studies	0 d	Thu 12/27/12	Thu 12/27/12	[Red bar at 12/27/12]											
30	PROJECT CONCEPT NOTE APPROVAL	89 d	Sun 9/1/13	Thu 11/28/13	[Red bar from 9/1/13 to 11/28/13]											
31	Concept Note Preparation	30 d	Sun 9/1/13	Mon 9/30/13	[Red bar from 9/1/13 to 9/30/13]											
	Review by PPP Unit	15 d	Tue 10/1/13	Tue 10/15/13	[Red bar from 10/1/13 to 10/15/13]											
	PPP Committee Approval	44 d	Wed 10/16/13	Thu 11/28/13	[Red bar from 10/16/13 to 11/28/13]											
34	<b>FUNDING</b>	<b>1208 d</b>	<b>Wed 11/7/12</b>	<b>Sat 2/27/16</b>	[Red bar from 11/7/12 to 2/27/16]											
35	INDIA EXIM BANK (200MUSD)	1208 d	Wed 11/7/12	Sat 2/27/16	[Red bar from 11/7/12 to 2/27/16]											
36	Request for credit to Treasury	0 d	Wed 11/7/12	Wed 11/7/12	[Red bar at 11/7/12]											
37	Proposal preparation	85 d	Wed 11/7/12	Wed 1/30/13	[Red bar from 11/7/12 to 1/30/13]											
38	Submission of proposal to MOE	0 d	Thu 1/31/13	Thu 1/31/13	[Red bar at 1/31/13]											

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**5000+MW NATIONAL ENERGY PROJECTS  
GDC 150MW SUSWA PROJECT**

**GEOHERMAL DEVELOPMENT  
COMPANY**

ID	Task Name	Duration	Start	Finish	2012 H1	2012 H2	2013 H1	2013 H2	2014 H1	2014 H2	2015 H1	2015 H2	2016 H1	2016 H2	2017 H1
39	Submission of Proposal to Bank	0 d	Fri 2/15/13	Fri 2/15/13											
40	Bank Approval	300 d	Thu 9/5/13	Tue 7/1/14											
41	Preparation of Loan Financial Agreement	50 d	Wed 7/2/14	Wed 8/20/14											
42	Loan Signing	30 d	Mon 2/3/14	Tue 3/4/14											
43	Loan effectiveness	15 d	Wed 3/5/14	Wed 3/19/14											
44	Disbursement period	710 d	Thu 3/20/14	Sat 2/27/16											
45	<b>PROJECT SITE PREPARATION</b>	<b>1340 d</b>	<b>Sat 12/1/12</b>	<b>Mon 8/1/16</b>											
46	LAND	570 d	Sat 12/1/12	Mon 6/23/14											
47	COMMUNITY ENGAGEMENT	90 d	Sat 12/1/12	Thu 2/28/13											
48	LAND RIGHTS & ACQUISITION	480 d	Fri 3/1/13	Mon 6/23/14											
49	ACCESS ROADS & WELL PADS	950 d	Thu 12/26/13	Mon 8/1/16											
50	Main Access Road Construction	150 d	Thu 12/26/13	Sat 5/24/14											
51	Construction of Well Pads	800 d	Sun 5/25/14	Mon 8/1/16											
52	WATER SUPPLY SYSTEM	413 d	Thu 12/26/13	Wed 2/11/15											
53	Abstraction Permit Application	30 d	Thu 12/26/13	Fri 1/24/14											
54	Pump Station Tendering	45 d	Wed 7/2/14	Fri 8/15/14											
55	Pump station construction	180 d	Sat 8/16/14	Wed 2/11/15											
56	Power Supply & Commissioning	180 d	Sat 8/16/14	Wed 2/11/15											
57	Water storage/Reservoir facility	180 d	Sat 8/16/14	Wed 2/11/15											
58	Main pipeline installation	120 d	Wed 10/15/14	Wed 2/11/15											
59	Distribution pipeline installation	21 d	Thu 1/22/15	Wed 2/11/15											
60	<b>PROJECT PROCUREMENT</b>	<b>1164 d</b>	<b>Wed 3/5/14</b>	<b>Thu 5/11/17</b>											
61	DRILLING SERVICES RIGS ACQUISITION	190 d	Wed 3/5/14	Wed 9/10/14											
62	Advertisement	5 d	Wed 3/5/14	Sun 3/9/14											
63	Tendering	45 d	Mon 3/10/14	Wed 4/23/14											
64	Proposals Evaluation	15 d	Thu 4/24/14	Thu 5/8/14											
65	TC Approval	7 d	Fri 5/9/14	Thu 5/15/14											
66	Award and contract negotiation	21 d	Fri 5/16/14	Thu 6/5/14											
67	Contract signing	7 d	Fri 6/6/14	Thu 6/12/14											
68	Rig mobilization and rig-up	90 d	Fri 6/13/14	Wed 9/10/14											
69	CIVIL EQUIPMENT	237 d	Wed 3/5/14	Mon 10/27/14											
70	Tender preparation	7 d	Wed 3/5/14	Tue 3/11/14											
71	No objection - Tender	14 d	Wed 3/12/14	Tue 3/25/14											
72	Tendering	45 d	Wed 3/26/14	Fri 5/9/14											
73	Evaluation	7 d	Sat 5/10/14	Fri 5/16/14											
74	Award and contract negotiation	30 d	Sat 5/17/14	Sun 6/15/14											
75	Contract signing	14 d	Mon 6/16/14	Sun 6/29/14											
76	Delivery	120 d	Mon 6/30/14	Mon 10/27/14											

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**5000+MW NATIONAL ENERGY PROJECTS  
GDC 150MW SUSWA PROJECT**

**GEOHERMAL DEVELOPMENT  
COMPANY**

ID	Task Name	Duration	Start	Finish	2012		2013		2014		2015		2016		2017
					H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	H1
77	DRILLING MATERIALS	215 d	Wed 3/5/14	Sun 10/5/14											
78	Tender preparation	7 d	Wed 3/5/14	Tue 3/11/14											
79	Tendering	30 d	Wed 3/12/14	Thu 4/10/14											
80	Evaluation	14 d	Fri 4/11/14	Thu 4/24/14											
81	Award and contract negotiation	30 d	Fri 4/25/14	Sat 5/24/14											
82	Contract signing	14 d	Sun 5/25/14	Sat 6/7/14											
83	Delivery	120 d	Sun 6/8/14	Sun 10/5/14											
84	WATER SUPPLY MATERIALS	208 d	Wed 3/5/14	Sun 9/28/14											
85	Tender preparation	7 d	Wed 3/5/14	Tue 3/11/14											
86	Tendering	30 d	Wed 3/12/14	Thu 4/10/14											
87	Evaluation	7 d	Fri 4/11/14	Thu 4/17/14											
88	Award and Contract Negotiation	30 d	Fri 4/18/14	Sat 5/17/14											
89	Contract signing	14 d	Sun 5/18/14	Sat 5/31/14											
90	Delivery	120 d	Sun 6/1/14	Sun 9/28/14											
91	MANAGEMENT & SUPERVISION CONSULTANCY	1040 d	Wed 3/5/14	Sat 1/7/17											
92	EOI proposal submission	15 d	Wed 3/5/14	Wed 3/19/14											
93	EOI Tendering	30 d	Thu 3/20/14	Fri 4/18/14											
94	Evaluation of EOI and shortlisting	15 d	Sat 4/19/14	Sat 5/3/14											
95	Tender preparation	30 d	Sun 5/4/14	Mon 6/2/14											
96	Tendering	45 d	Tue 6/3/14	Thu 7/17/14											
97	Evaluation	30 d	Fri 7/18/14	Sat 8/16/14											
98	Award and Contract Negotiation	30 d	Sun 8/17/14	Mon 9/15/14											
99	Contract signing	5 d	Tue 9/16/14	Sat 9/20/14											
100	Mobilization	30 d	Sun 9/21/14	Mon 10/20/14											
101	Contract performance	810 d	Tue 10/21/14	Sat 1/7/17											
102	TRANSACTION ADVISOR	740 d	Sun 5/3/15	Thu 5/11/17											
103	EOI proposal submission	15 d	Sun 5/3/15	Mon 5/18/15											
104	EOI Tendering	30 d	Mon 5/18/15	Wed 6/17/15											
105	Evaluation of EOI and shortlisting	15 d	Wed 6/17/15	Thu 7/2/15											
106	Tender preparation	30 d	Thu 7/2/15	Sat 8/1/15											
107	Tendering	45 d	Sat 8/1/15	Tue 9/15/15											
108	Evaluation	30 d	Tue 9/15/15	Thu 10/15/15											
109	Award and contract negotiation	30 d	Thu 10/15/15	Sat 11/14/15											
110	contract signing	5 d	Sat 11/14/15	Thu 11/19/15											
111	Transaction advisory services	540 d	Thu 11/19/15	Thu 5/11/17											
112	<b>JOINT STEAM DEVELOPMENT</b>	<b>1226 d</b>	<b>Mon 12/23/13</b>	<b>Mon 5/1/17</b>											
113	PROCUREMENT OF DEVELOPERS	1226 d	Mon 12/23/13	Mon 5/1/17											
114	RFP Preparation	7 d	Mon 12/23/13	Sun 12/29/13											

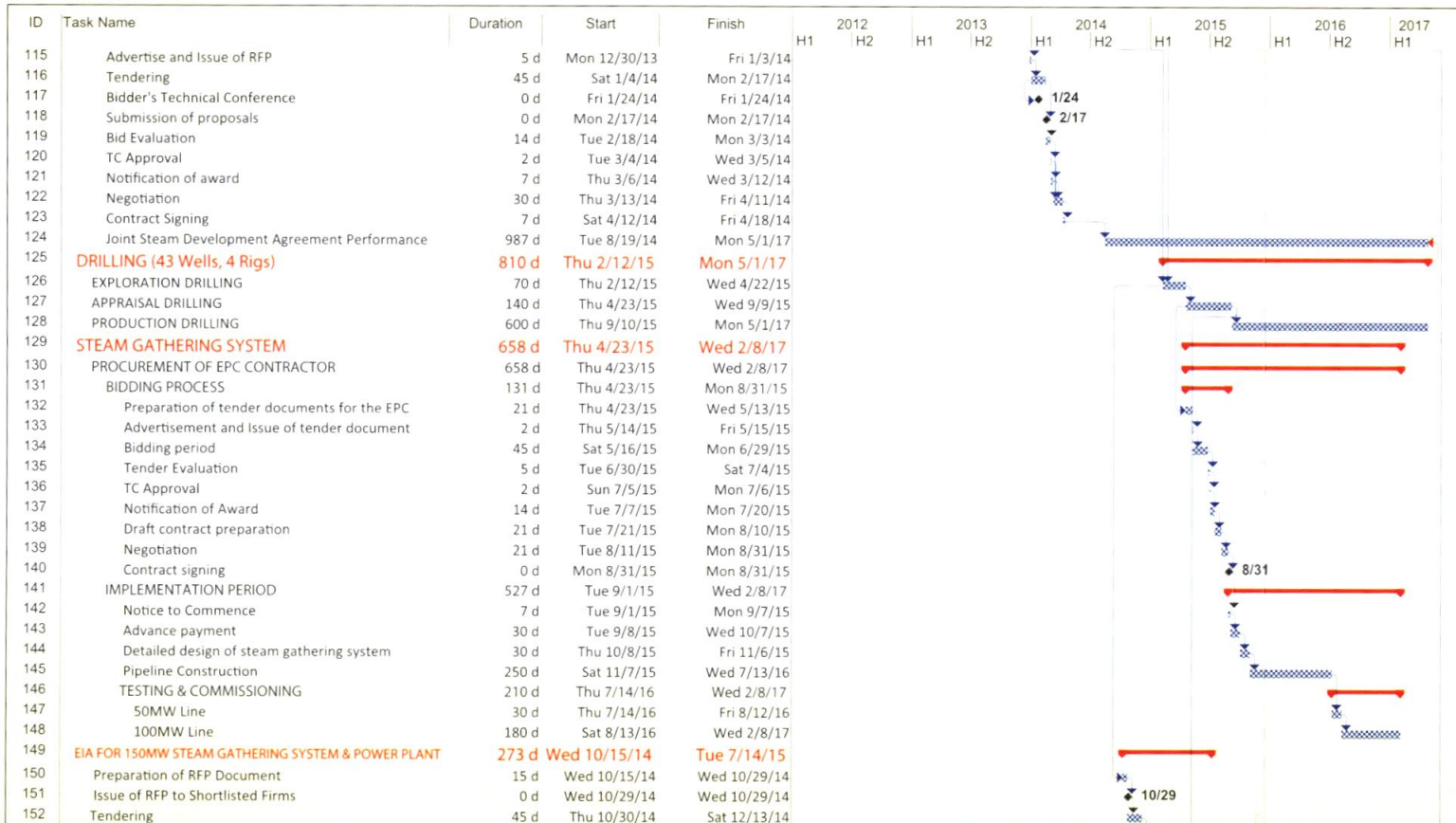
CERTIFIED BY: DR. SILAS M SIMIYU  
MANAGING DIRECTOR & CEO

SIGNATURE:



**5000+MW NATIONAL ENERGY PROJECTS  
GDC 150MW SUSWA PROJECT**

**GEOHERMAL DEVELOPMENT  
COMPANY**



CERTIFIED BY: DR. SILAS M SIMIYU

SIGNATURE: 



REPUBLIC OF KENYA



<b>5000+MW NATIONAL ENERGY PROJECTS GDC 150MW SUSWA PROJECT</b>	<b>GEOHERMAL DEVELOPMENT COMPANY</b>
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ID	Task Name	Duration	Start	Finish	2012	2013	2014	2015	2016	2017
					H1	H2	H1	H2	H1	H2
153	Evaluation of proposals	14 d	Sun 12/14/14	Sat 12/27/14						
154	TC Approval of evaluation report	0 d	Sat 12/27/14	Sat 12/27/14						
155	Notification of award	30 d	Sun 12/28/14	Mon 1/26/15						
156	Contract Negotiations	12 d	Tue 1/27/15	Sat 2/7/15						
157	Contract signing	0 d	Sat 2/7/15	Sat 2/7/15						
158	IMPLEMENTATION PERIOD	157 d	Sun 2/8/15	Tue 7/14/15						
159	Submission to NEMA for review	7 d	Sun 2/8/15	Sat 2/14/15						
160	Review of report by NEMA	45 d	Sun 2/15/15	Tue 3/31/15						
161	EIA Study	60 d	Wed 4/1/15	Sat 5/30/15						
162	Final reports, submission & NEMA approval	45 d	Sun 5/31/15	Tue 7/14/15						
163	Issue of EIA licence	0 d	Tue 7/14/15	Tue 7/14/15						
164	<b>FEASIBILITY STUDY</b>	<b>501 d</b>	<b>Fri 10/24/14</b>	<b>Mon 3/7/16</b>						
165	Preparation of EOI	7 d	Fri 10/24/14	Fri 10/31/14						
166	No Objection for Eoi	14 d	Fri 10/31/14	Fri 11/14/14						
167	Eoi Advert & Tendering	30 d	Fri 11/14/14	Sun 12/14/14						
168	Evaluation & Shortlist	14 d	Sun 12/14/14	Sun 12/28/14						
169	No Objection for Shortlist	14 d	Sun 12/28/14	Sun 1/11/15						
170	Preparation of RFP Document	21 d	Sun 1/11/15	Sun 2/1/15						
171	No Objection for RFP	14 d	Sun 2/1/15	Sun 2/15/15						
172	Issue of RFP to Shortlisted Firms	0 d	Sun 2/15/15	Sun 2/15/15						
173	Preparation of Proposals	45 d	Sun 2/15/15	Wed 4/1/15						
174	Combined Evaluation	14 d	Wed 4/1/15	Wed 4/15/15						
175	No Objection to evaluation report	14 d	Wed 4/15/15	Wed 4/29/15						
176	Award & Contract Negotiation	30 d	Wed 4/29/15	Fri 5/29/15						
177	No Objection to Contract	14 d	Fri 5/29/15	Fri 6/12/15						
178	Contract signing	0 d	Fri 6/12/15	Fri 6/12/15						
179	Advance Payment	0 d	Fri 6/12/15	Fri 6/12/15						
180	Implementation	270 d	Fri 6/12/15	Mon 3/7/16						
181	<b>POWER PLANT DEVELOPMENT</b>	<b>492 d</b>	<b>Wed 12/2/15</b>	<b>Thu 4/6/17</b>						
182	150MW POWER PLANT	492 d	Wed 12/2/15	Thu 4/6/17						
183	<b>PROCUREMENT OF IPP</b>	<b>492 d</b>	<b>Wed 12/2/15</b>	<b>Thu 4/6/17</b>						
184	Advert/ Issue RFP to Shortlisted firms	0 d	Sat 12/19/15	Sat 12/19/15						
185	Tendering Period	45 d	Sat 12/19/15	Tue 2/2/16						
186	Site Visit	0 d	Tue 2/2/16	Tue 2/2/16						
187	Submission of proposals	0 d	Tue 2/2/16	Tue 2/2/16						
188	Evaluation	7 d	Tue 2/2/16	Tue 2/9/16						
189	Tender Committee Approval	0 d	Tue 2/9/16	Tue 2/9/16						
190	Notification of award	7 d	Tue 2/9/16	Tue 2/16/16						
191	Tender Award	0 d	Tue 2/16/16	Tue 2/16/16						

CERTIFIED BY: DR. SILAS M SIMIYU  
MANAGING DIRECTOR & CEO

SIGNATURE:

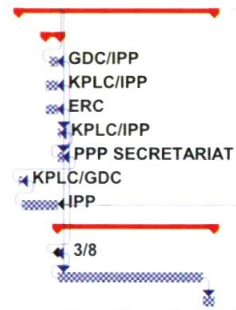


REPUBLIC OF KENYA



<b>5000+MW NATIONAL ENERGY PROJECTS GDC 150MW SUSWA PROJECT</b>	<b>GEOHERMAL DEVELOPMENT COMPANY</b>
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ID	Task Name	Duration	Start	Finish	2012		2013		2014		2015		2016		2017
					H1	H2	H1	H2	H1	H2	H1	H2	H1		
192	<b>Contracting</b>	492 d	Wed 12/2/15	Thu 4/6/17											
193	Meeting of Conditions Precedent to proceed	37 d	Sun 2/7/16	Mon 3/14/16											
194	and Financial Closure	21 d	Tue 2/16/16	Tue 3/8/16											
195	Negotiation of PPA	30 d	Sun 2/7/16	Tue 3/8/16											
196	Application and Approval of Generation	30 d	Sun 2/7/16	Tue 3/8/16											
197	Application and Approval of PPA	7 d	Tue 3/8/16	Mon 3/14/16											
198	<b>PPP Secretariat Approval of Contract</b>	<b>14 d</b>	<b>Tue 3/8/16</b>	<b>Mon 3/21/16</b>											
199	Agreement Signing (PSSA, PPA & Gen Licence)	7 d	Wed 12/2/15	Wed 12/9/15											
200	Financial Closure	90 d	Wed 12/9/15	Tue 3/8/16											
201	<b>Power Plant Construction</b>	395 d	Tue 3/8/16	Thu 4/6/17											
202	Notice to commence	0 d	Tue 3/8/16	Tue 3/8/16											
203	Power Plant Design & Construction	365 d	Tue 3/8/16	Tue 3/7/17											
204	Commissioning of power plant	30 d	Wed 3/8/17	Thu 4/6/17											



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MANAGING DIRECTOR & CEO

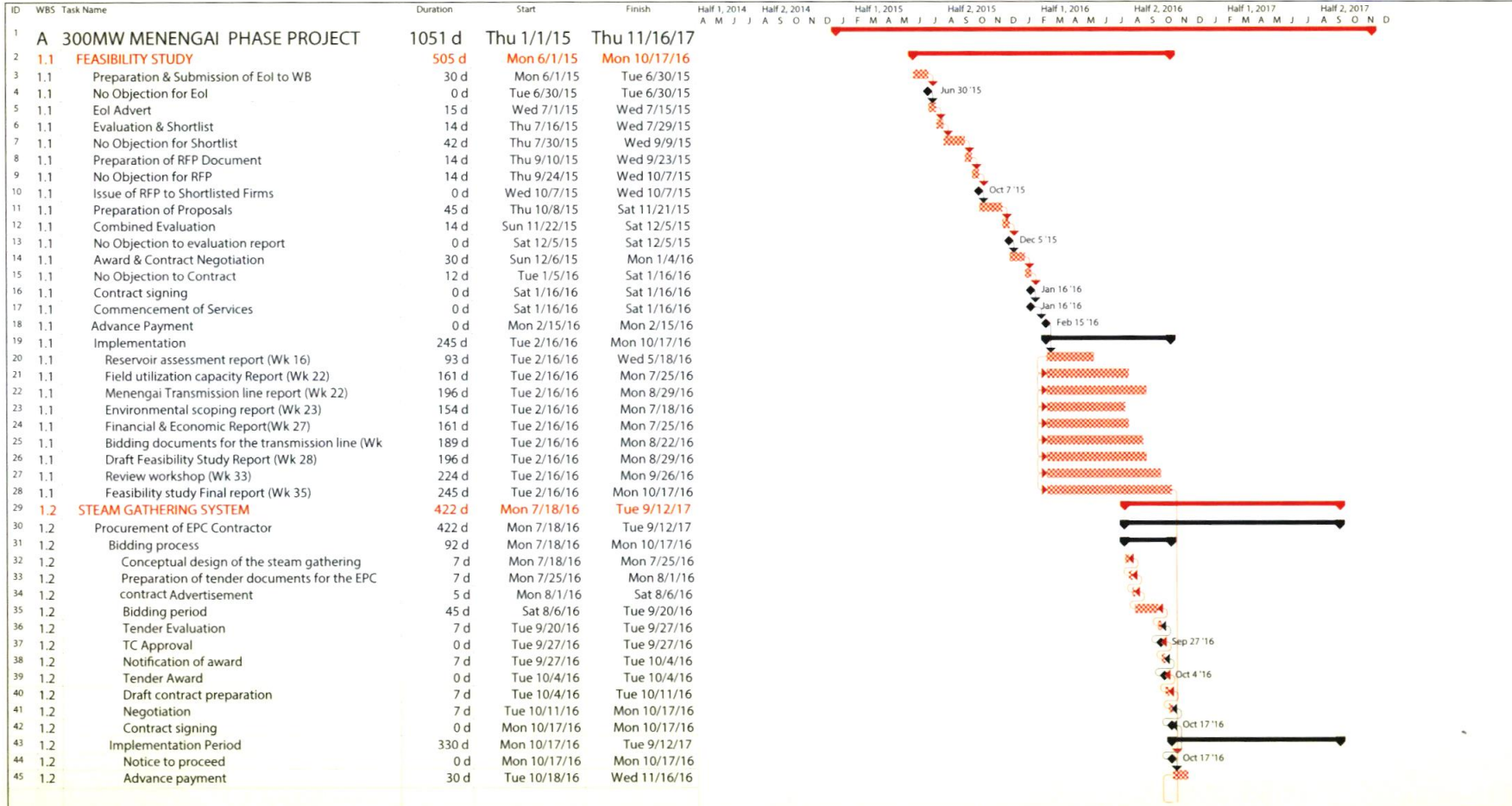
SIGNATURE:



REPUBLIC OF KENYA



<b>5000+MW NATIONAL ENERGY PROJECTS GDC 300MW MENENGAI PROJECT</b>	<b>GEOHERMAL DEVELOPMENT COMPANY</b>
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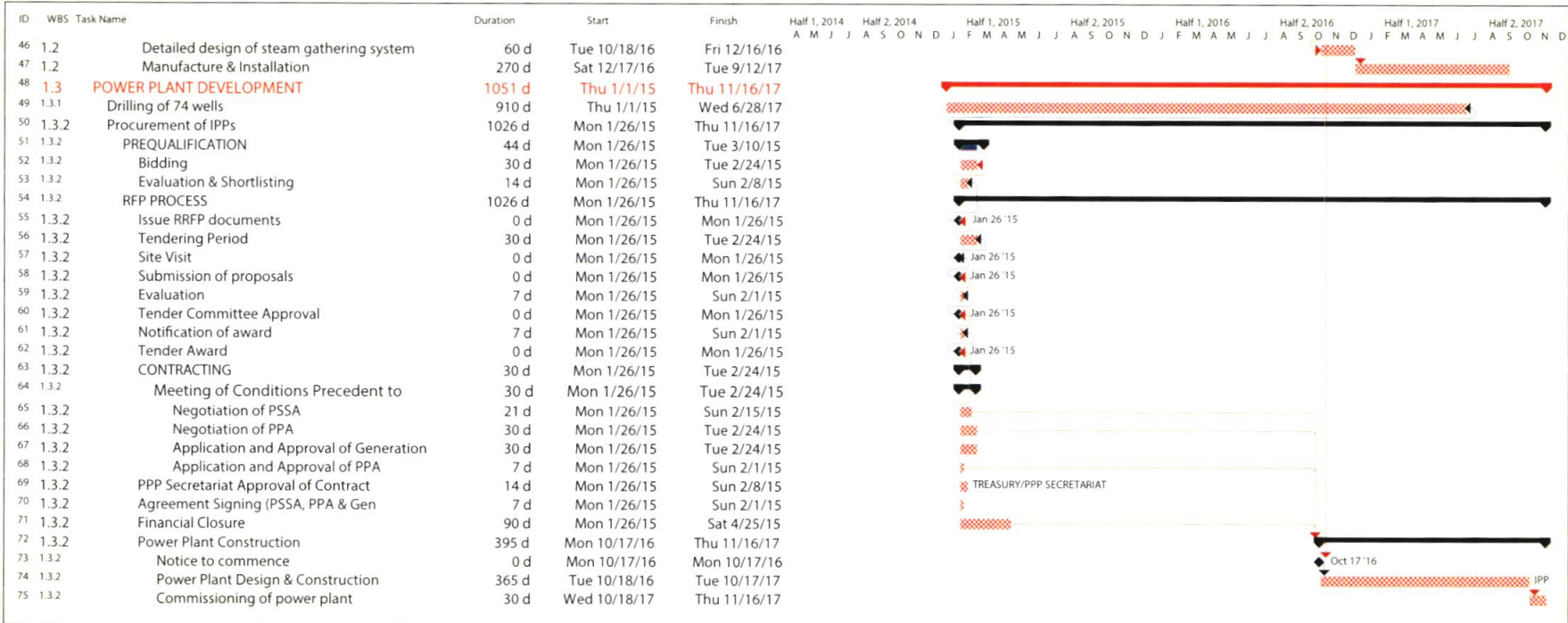
CERTIFIED BY: DR. SILAS M. SIMIYU  
MANAGING DIRECTOR & CEO

SIGNATURE:



**5000+MW NATIONAL ENERGY PROJECTS  
GDC 300MW MENENGAI PROJECT**

**GEOHERMAL DEVELOPMENT  
COMPANY**



CERTIFIED BY: DR. SILAS M. SIMIYU  
MANAGING DIRECTOR & CEO

SIGNATURE:



# KENYA ELECTRICITY TRANSMISSION COMPANY LTD.

JUNE 2014

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1. Background
2. Overview
3. Financial Performance and Key Operational KPIs
4. Projects Update
  - a. Completed Electricity Transmission Lines
  - b. Construction of electricity Transmission Lines
  - c. Transmission Projects Preparation
5. Other Key Achievements
6. Challenges and Proposed Mitigation
7. Conclusion/Way Forward
8. Appendix: Gantt Charts



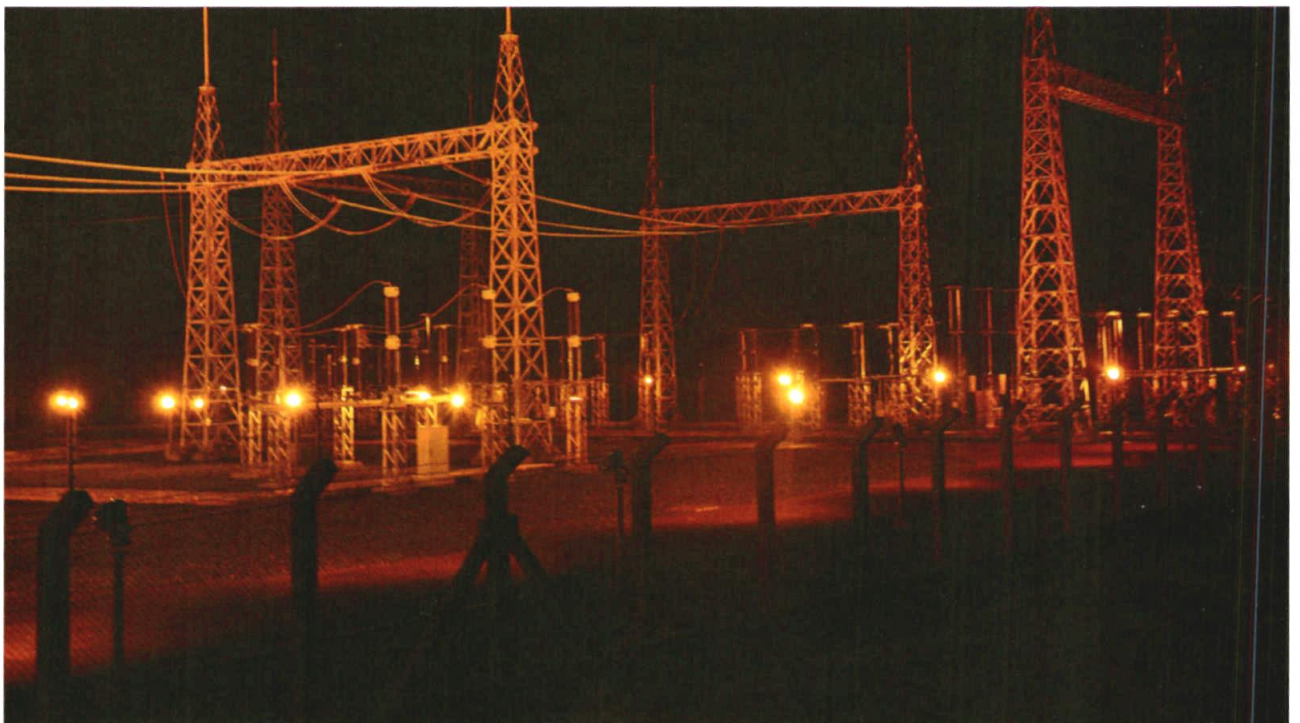
## 1. Background

Kenya Electricity Transmission Company Ltd. (KETRACO) was incorporated in December 2008 under the Company's Act, Cap 486 as a state corporation pursuant to the sessional paper No.4 of 2004 on energy. The Mandate of the Company is to plan, design, construct, operate and maintain the national electricity transmission grid and regional interconnectors. KETRACO is 100% government owned and being a state corporation, it is regulated under the State Corporations Act, Cap 446.

The company envisages being a world-class electricity transmission company and the leading inter-connector in Africa. Its mission therefore is, to build and operate a national electricity transmission network that is reliable, efficient, effective, safe and environment-friendly through innovative and best practices; and to promote regional power trade for socio-economic development.

## 2. Overview of the 12 Month Operating Environment

During the period under review, the company operated in a favourable environment. It received continuous support from government and development partners and it engaged with more project contractors, consultants and other stakeholders.



Malindi sub-station at night



### 3. Financial Performance and Key Operational KPIs

During the period under review, the total assets of the company were Ksh. 46,015 Million, mainly driven by an increase in project costs and the acquisition of additional assets. The 2013/2014 projects revised budget for both local and external funding was Ksh. 2,696 Million and Ksh. 15,536 Million respectively.

### 4. Projects Implementation

#### (a) COMPLETED ELECTRICITY TRANSMISSION LINES

The following transmission lines were completed and commissioned:

- (i) 67KM 132kV Kilimambogo – Thika - Githambo;
- (ii). 40KM 132kV Thika - Nyaga (Kiganjo);
- (iii). 328KM 220kV Rabai – Malindi – Garsen - Lamu. Line completed and energized up to Garsen sub-station. Commissioning tests are on-going for Lamu sub-station, which will be energized in July 2014.

#### (b) CONSTRUCTION OF ELECTRICITY TRANSMISSION LINES

Construction of the following transmission lines continued:

##### i. 482 KM 220/400kV Mombasa - Nairobi Line:

- Rabai sub-station and Lot 1 of the line (Rabai - Tsavo) completed.
- Conductor stringing, Lot 2 (Tsavo - Embakasi) line construction and upgrading of Embakasi sub-station is in progress.
- Expected completion date: December 2014

##### ii. 25 KM 220kV Olkaria I – Suswa & 25 KM 220kV Olkaria IV – Suswa:

- Line construction - tower foundations civil works, tower erection and conductor stringing are in progress. Line construction is at 92% and the priority loop line was energized.
- Expected completion date: July 2014

##### iii. 100 KM 400kV Nairobi Ring: Suswa - Isinya

- Lines construction – tower erection and substations civil works are in progress.
- Compensation for wayleaves is on-going.
- Expected completion date:
  - Suswa sub-station: July 2014
  - Transmission line: October 2014



**iv. 354 KM 132kV Kenya Electricity Expansion Programme (KEEP):**

Eldoret - Kitale, Kisii - Awendo and Kindaruma - Mwingi - Garissa Lines

- Lines construction and tower foundations civil works are in progress.
- Compensation for wayleaves is on-going.
- Expected completion date: October 2014

**v. 96 KM 132kV Meru - Isiolo - Nanyuki:**

- Line construction - tower foundations civil works and tower erection are in progress.
- Engineering, Procurement & Construction (EPC) Contract awarded. Design work for line and substations completed.
- Compensation for wayleaves is on-going.
- Expected completion date: December 2014.

**vi. 127 KM 400kV Lessos - Tororo (Kenya-Uganda) interconnector**

- EPC contract awarded. Engineering designs and tower spotting commenced. Line engineering design is on-going at 75.6% and for Lessos Sub-station it is at 12%.
- Schedule of affected land owners has been gazetted by the National Land Commission. Valuation of land is complete and compensation for wayleaves is on-going.
- Expected completion date: March 2015.

**vii. 431 KM 132kV Power Transmission Improvement Projects:**

Nanyuki-Nyahururu; Lessos-Kabarnet; Olkaria-Narok; Mwingi-Kitui-Sultan Hamud-Wote; Bomet-Sotik; Ishiara-Kieni transmission lines and associated substations

- EPC contracts awarded. Transmission line and substations engineering design preparation is in progress. Line engineering design is on-going at 86.5% and for sub-stations it is at 93.3%. Sub-stations civil works are on-going at 6.2% and construction of the line commenced.
- Route survey completed and compensation for wayleaves is in progress.
- Expected completion date: September 2015.

**viii. 430 KM 400kV Loiyangalani - Suswa transmission line**

- Land valuation completed and 98% valuation of structures undertaken.
- Schedule of affected land owners has been gazetted by the National Land Commission (NLC). Compensation for structures is in progress. Offer letters for land pending adoption of the land evaluation report by the NLC.
- Awaiting notice to proceed and construction is expected to start in July 2014.

**ix. 153 KM 132kV Machakos-Konza-Kajiado-Namanga single circuit line**

- EPC Contracts awarded and design work for line and substations has started.
- Expected completion date: November 2015.



x. **90 KM 220kV Turkwel - Ortum - Kitale single circuit Line**

- EPC Contracts awarded and design work for line and substations has started.
- Geotechnical works for Kitale and Ortum substations completed.
- Expected completion date: November 2015.
- EPC Contracts awarded and design work for line and substations has started

xi. **13 KM 132kV Menengai - Soilo**

- Environmental Impact Assessment (EIA) report submitted to NEMA in March 2014. Resettlement Action Plan (RAP) study under progress.
- Request for approval of shortlisted consultant prepared for tender committee's approval.
- Construction contract awarded.
- Expected completion date: December 2014.

(c) **TRANSMISSION PROJECTS PREPARATION**

The following transmission lines projects are under preparation:

i. **612 KM 500kV HVDC Ethiopia - Kenya Interconnector**

- Valuation of both land and structures on the right of way (ROW) completed. Documents prepared in readiness for gazettelement of the right of way through the National Land Commission.
- Procurement of EPC contractors is in progress. Construction expected to start in January 2015.

ii. **300 KM 400/220kV Olkaria - Lessos - Kisumu line**

- Acquisition of wayleaves is in progress. Contractor procured to value land and structures. Consent signing at 75% of the line.
- Prequalification of EPC contractors completed and documents were submitted to JICA for 'No Objection'. Construction expected to start in December 2014.



Part of the 220kV Rabai- Malindi- Garsen- Lamu Line

**iii. 100 KM 132kV Sondu - Homa Bay – Ndhiwa - Awendo transmission line**

- Resettlement Action Plan (RAP) report submitted for acquiring NEMA license.
- Environmental Impact Assessment study is on-going.
- Construction expected to start in November 2014.

**(iv). 5000+MW Projects****i. 25 KM 400kV Menengai - Rongai**

- Requested financial resources from MOE&P. Discussions with prospective financiers are on-going.
- Feasibility study completed.
- ESIA and RAP under preparation by KETRACO project team.
- TOR for procurement of supervision consultant shared with financier for 'No Objection'.

**ii. 150 KM 400kV Silali - Rongai Line**

- Requested financial resources from MOE&P
- Environmental and Social Impact Assessment ESIA & RAP studies and preparation of draft bid documents are in progress.
- Preliminary route selection started.

**iii. 50 KM 400kV Dongo Kundu - Mariakani**

- Requested financial resources from MOE&P
- ESIA & RAP studies and preparation of draft bid documents are in progress.
- Preliminary route selection started.

**iv. 520 KM 400kV Lamu - Kitui - Nairobi East Line**

- Requested financial resources from MOE&P.
- ESIA & RAP studies and preparation of draft Bid Documents are in progress.
- Preliminary route selection was started

**v. 110 KM 400kV Isinya - Nairobi East Line**

- Requested financial resources from MOE&P.
- ESIA & RAP studies and preparation of draft Bid Documents are in progress.
- Preliminary route selection started.

**vi. Mariakani Substation**

- Procurement of Contractor is on-going.

**vii. Isinya Substation**

- RFP for procuring contractor prepared and contractor procured.
- Expected completion date: December 2015



#### (d) OTHER KEY ACHIEVEMENTS

##### i. Feasibility studies undertaken

Feasibility studies are on-going for 22 new projects. Draft study reports submitted by the consultants. Studies expected to be completed in July 2014.

##### ii. Project epc tenders awarded

The company awarded projects-related tenders: procurement of substations land, consultancy services.

##### iii. Transmission licence

The company was issued with a 50-year power transmission license by ERC

##### iv. Capacity building and performance evaluation

The company recruited more professional staff and trained different staff in different courses. The company's 2012/2013 performance was successfully evaluated by the government and rated as 'VERY GOOD'.

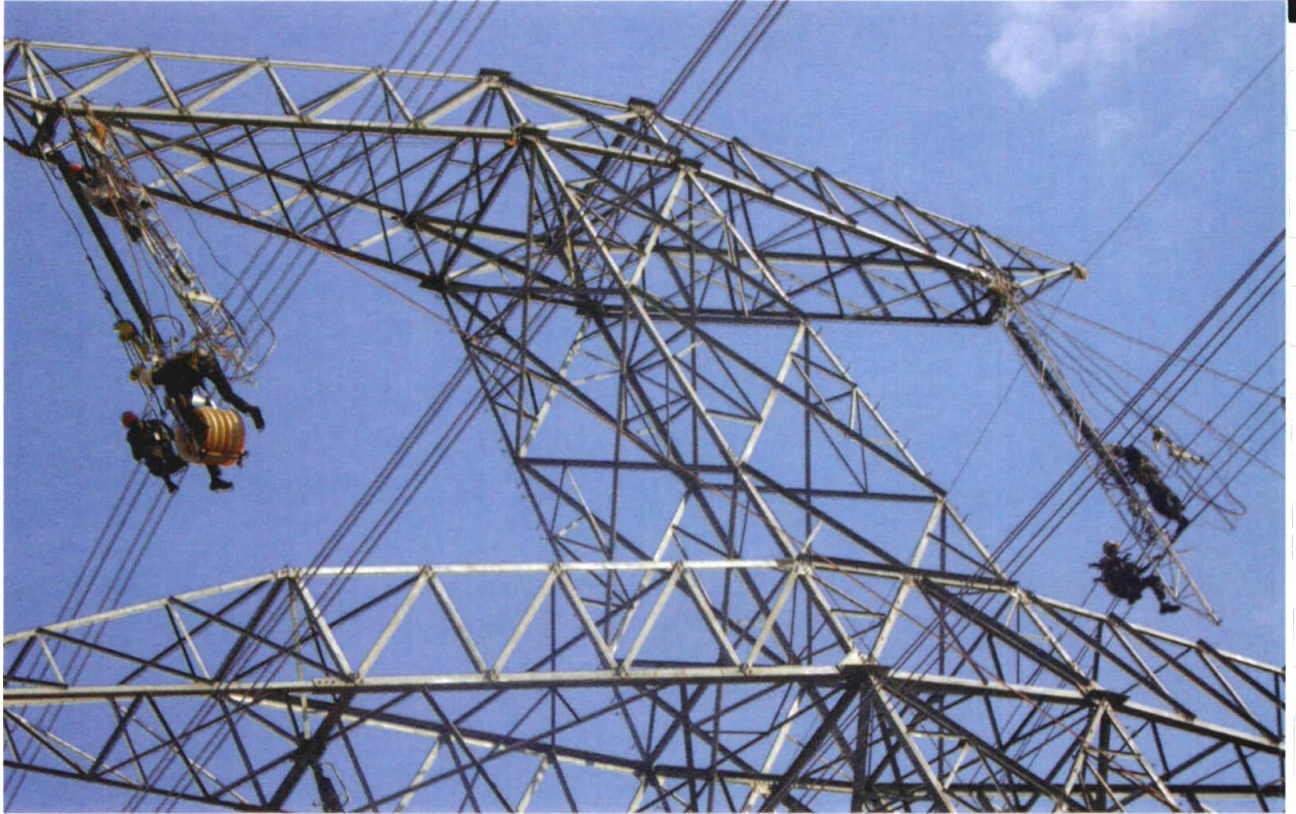
### 5. Challenges and Proposed Mitigation

#### The company encountered the following challenges:

- i. Wayleaves acquisition issues;
- ii. Vandalism of transmission infrastructure;
- iii. Inadequate funds to finance 5000+ MW transmission projects;
- iv. Shortage of transmission/substation engineers in the market;
- v. Slow processing of duty exemptions for contractors;

#### The following mitigation measures were applied:

- i. Using the National Land Commission to issue public notice and gazette the affected parcels of land along the wayleave corridors;
- ii. Collaboration with Kenya Forest Service, Kenya Wildlife Service and National Environmental Management Authority;
- iii. Continuous public sensitization, engagement of community leaders, collaboration with local administration and improved compensation payment procedures;
- iv. Use of modern survey technology for route selection;
- v. Use of anti-theft bolts in tower erection;
- vi. Requested government for additional budget allocation;
- vii. Disseminating projects information to prospective investors and development partners;
- viii. Collaboration with National Treasury in processing of duty exemptions for contractors;
- ix. Continuous capacity building for the staff;



Ongoing stringing works along the 400kV Mombasa- Nairobi Transmission Project.

# APPENDIX

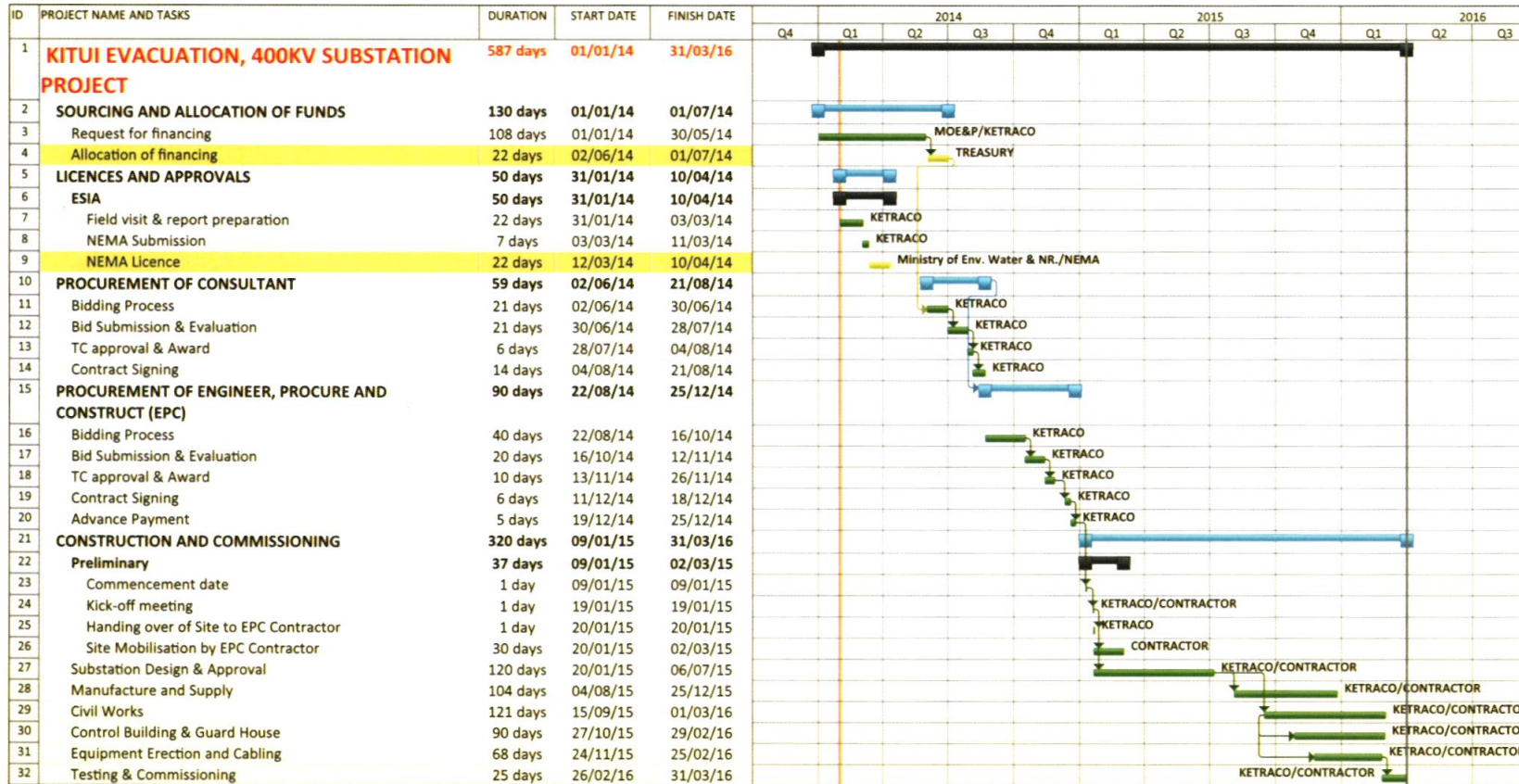
KENYA ELECTRICITY TRANSMISSION COMPANY LTD.  
WORKPLAN



REPUBLIC OF KENYA



**400KV KITUI EVACUATION  
400KV SUBSTATION PROJECT**      **KENYA ELECTRICITY  
TRANSMISSION COMPANY LIMITED**      **(JAN 2014 - MARCH 2016)**



Project: Kitui Evacuation  
Date: 31/01/14

Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
Split		External Tasks		Inactive Summary		Manual Summary		Progress	
Milestone		External Milestone		Manual Task		Start-only			
Summary		Inactive Task		Duration-only		Finish-only			

**KENYA ELECTRICITY TRANSMISSION COMPANY LIMITED**      **ENG. JOEL M. KIILU**      **MANAGING DIRECTOR**      **SIGNATURE**      **DATE**



REPUBLIC OF KENYA



<b>5000+ MW TRANSMISSION LINE PROJECTS (OLKARIA - 280MW)</b>	<b>KENYA ELECTRICITY TRANSMISSION COMPANY LIMITED</b>	<b>(AUG. 2013 - SEPT. 2014)</b>
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ID	PROJECT NAME AND TASKS	DURATION	START DATE	FINISH DATE	2013				2014			
					Q3	Q4	Q1	Q2	Q3	Q4		
1	<b>OLKARIA 280MW POWER EVACUATION PROJECT</b>	304 days	01/08/13	30/09/14								
2	Olkaria - Suswa Transmission Line	193 days	01/08/13	28/04/14								
3	Suswa Substation	254 days	01/08/13	22/07/14								
4	Suswa - Isinya Transmission Line	304 days	01/08/13	30/09/14								

Project: 5000MW+ Projects Date: 31/01/14	Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
	Split		External Tasks		Inactive Summary		Manual Summary		Progress	
	Milestone		External Milestone		Manual Task		Start-only			
	Summary		Inactive Task		Duration-only		Finish-only			

<b>KENYA ELECTRICITY TRANSMISSION COMPANY LIMITED</b>	<b>ENG. JOEL M. KIILU</b>	<b>MANAGING DIRECTOR</b>	<b>SIGNATURE</b>	<b>DATE</b>
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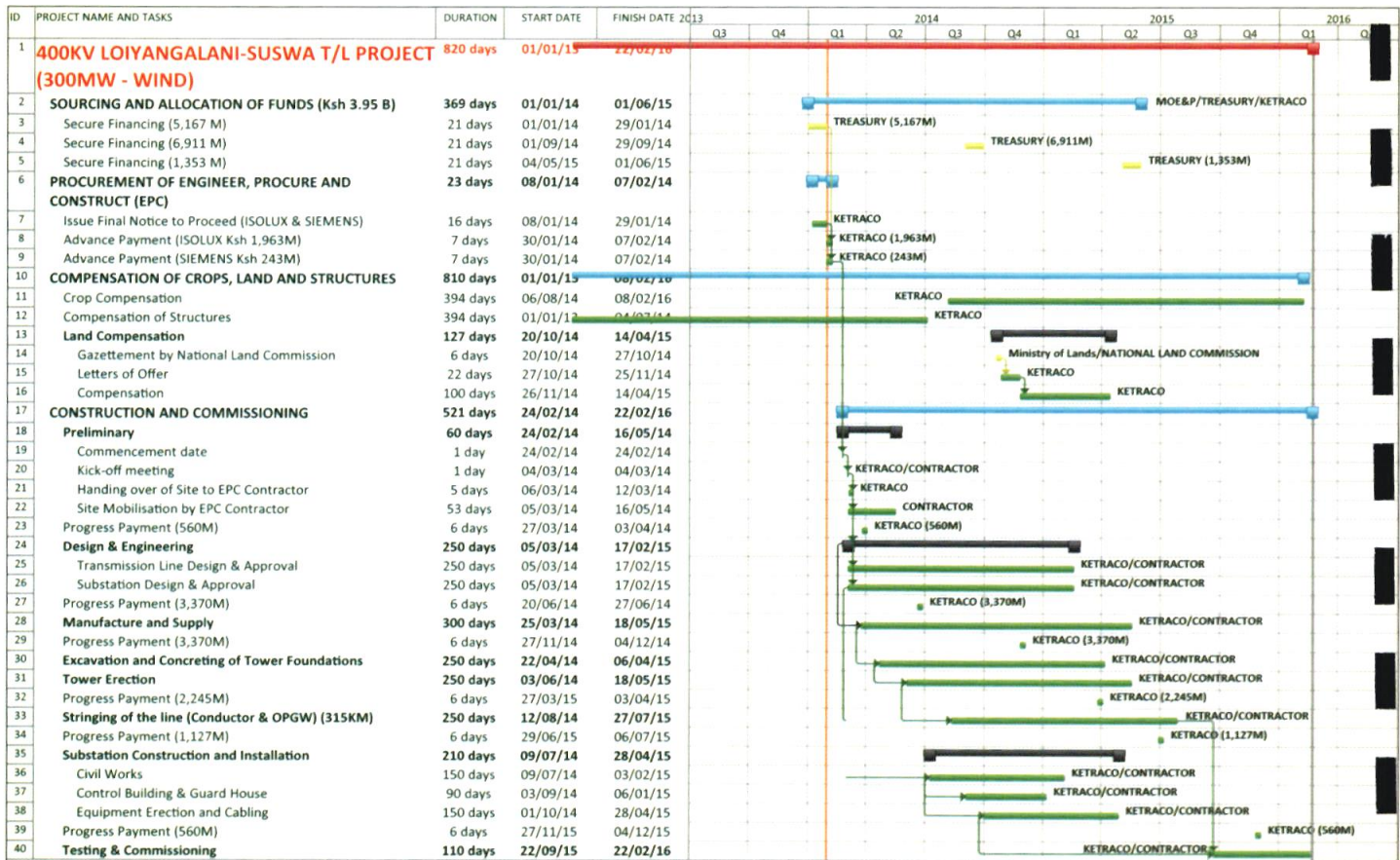
REPUBLIC OF KENYA



**400KV LOIYANGALANI-SUSWA TRANSMISSION LINE PROJECT (300MW - WIND)**

**KENYA ELECTRICITY TRANSMISSION COMPANY LIMITED**

(JAN. 2013 - FEB. 2016)



Project: LOIYANGALANI-SUSWA  
Date: 31/01/14

Task	Project Summary	Inactive Milestone	Manual Summary Rollup	Deadline
Split	External Tasks	Inactive Summary	Manual Summary	Progress
Milestone	External Milestone	Manual Task	Start-only	Inactive Task
Summary	Inactive Task	Duration-only	Finish-only	

KENYA ELECTRICITY TRANSMISSION COMPANY LIMITED      ENG. JOEL M. KIILU      MANAGING DIRECTOR      SIGNATURE      DATE



**400KV ISINYA-NAIROBI EAST TRANSMISSION LINE PROJECT**      **KENYA ELECTRICITY TRANSMISSION COMPANY LIMITED**      **(DEC. 2013 - DEC. 2016)**

ID	PROJECT NAME AND TASKS	DURATION	START DATE	FINISH DATE	2013		2014				2015				2016					
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	
1	<b>400KV ISINYA-NAIROBI EAST T/L PROJECT</b>	<b>805 days</b>	<b>02/12/13</b>	<b>30/12/16</b>																
	<b>SOURCING AND ALLOCATION OF FUNDS</b>	<b>704 days</b>	<b>02/12/13</b>	<b>11/08/16</b>																
	Request for financing (Ksh 4.69B)	100 days	02/12/13	18/04/14																
	Allocation of financing (First - 122M)	29 days	01/01/14	10/02/14																
5	Allocation of financing (Second - 1,470M)	29 days	01/07/14	08/08/14																
6	Allocation of financing (Third - 2,198M)	29 days	01/07/15	10/08/15																
	Allocation of financing (Fourth - 900M)	29 days	04/07/16	11/08/16																
	<b>SELECTION OF LINE ROUTE</b>	<b>90 days</b>	<b>02/12/13</b>	<b>04/04/14</b>																
	Selection of line route	90 days	02/12/13	04/04/14																
10	<b>LICENCES AND APPROVALS</b>	<b>109 days</b>	<b>02/12/13</b>	<b>01/05/14</b>																
11	<b>KCAA</b>	<b>46 days</b>	<b>02/12/13</b>	<b>03/02/14</b>																
	Application for Approval	6 days	02/12/13	09/12/13																
	KCAA Approval	40 days	10/12/13	03/02/14																
	<b>ESIA</b>	<b>87 days</b>	<b>01/01/14</b>	<b>01/05/14</b>																
	Field visit & report preparation	21 days	01/01/14	29/01/14																
16	NEMA Submission	6 days	30/01/14	06/02/14																
17	NEMA Licence	60 days	07/02/14	01/05/14																
	<b>RESETTLEMENT ACTION PLAN (RAP)</b>	<b>94 days</b>	<b>01/01/14</b>	<b>12/05/14</b>																
	Procure prequalified RAP consultant	10 days	01/01/14	14/01/14																
	Bid Submission & Evaluation	15 days	15/01/14	04/02/14																
21	TC approval & Award	5 days	04/02/14	10/02/14																
22	Conduct RAP study	60 days	10/02/14	02/05/14																
	RAP report	6 days	05/05/14	12/05/14																
	<b>COMPENSATION OF CROPS, LAND AND STRUCTURES</b>	<b>706 days</b>	<b>18/04/14</b>	<b>30/12/16</b>																
	Compensation of structures (500M)	60 days	28/05/14	19/08/14																
	Crop compensation (72M)	678 days	28/05/14	30/12/16																
27	Compensation of land	447 days	18/04/14	04/01/16																
28	Prepare Land Strips	28 days	18/04/14	27/05/14																
	Write to National Land Commission for gazette	6 days	28/05/14	04/06/14																
	National Land Commission gazettes	21 days	05/06/14	03/07/14																
	Actual Land Payment (418M)	131 days	06/07/15	04/01/16																
32	<b>PROCUREMENT OF CONSULTANT</b>	<b>60 days</b>	<b>02/01/14</b>	<b>26/03/14</b>																
33	Bidding Process	17 days	02/01/14	24/01/14																
	Bid Submission & Evaluation	14 days	27/01/14	13/02/14																
	TC approval & Award	5 days	14/02/14	20/02/14																
	Contract Signing	14 days	21/02/14	12/03/14																
37	Advance Payment (50M)	1 day	26/03/14	26/03/14																
38	<b>PROCUREMENT OF ENGINEER, PROCURE AND CONSTRUCT (EPC)</b>	<b>119 days</b>	<b>24/07/14</b>	<b>06/01/15</b>																
	Bidding Process	40 days	24/07/14	17/09/14																
	Bid Submission & Evaluation	21 days	18/09/14	16/10/14																
	TC approval & Award	28 days	17/10/14	25/11/14																
	Contract Signing	14 days	26/11/14	15/12/14																
43	Advance Payment (320M)	6 days	30/12/14	06/01/15																
44	<b>CONSTRUCTION AND COMMISSIONING</b>	<b>504 days</b>	<b>27/01/15</b>	<b>30/12/16</b>																
	<b>Preliminary</b>	<b>34 days</b>	<b>27/01/15</b>	<b>13/03/15</b>																
	Commencement date	1 day	27/01/15	27/01/15																
	Kick-off meeting	1 day	04/02/15	04/02/15																
48	Handing over of Site to EPC Contractor	1 day	12/02/15	12/02/15																
49	Site Mobilisation by EPC Contractor	21 days	13/02/15	13/03/15																
	<b>Design &amp; Engineering</b>	<b>192 days</b>	<b>16/02/15</b>	<b>10/11/15</b>																
	Transmission Line Design & Approval	144 days	16/02/15	03/09/15																
	Substation Design & Approval	192 days	16/02/15	10/11/15																
	Progress Payment (170M)	6 days	25/05/15	01/06/15																
54	<b>Manufacture and Supply</b>	<b>294 days</b>	<b>27/04/15</b>	<b>09/06/16</b>																
55	Progress Payment (1,000M)	6 days	22/06/15	29/06/15																
	<b>Excavation and Concreting of Tower Foundations</b>	<b>324 days</b>	<b>22/06/15</b>	<b>15/09/16</b>																
	Progress Payment (830M)	6 days	23/11/15	30/11/15																
	<b>Tower Erection</b>	<b>306 days</b>	<b>17/08/15</b>	<b>17/10/16</b>																
59	Progress Payment (665M)	6 days	30/03/16	06/04/16																
60	<b>Stringing of the line (Conductor &amp; OPGW)</b>	<b>288 days</b>	<b>14/10/15</b>	<b>18/11/16</b>																
	Progress Payment (500M)	6 days	27/06/16	04/07/16																
	<b>Substation Construction and Installation</b>	<b>330 days</b>	<b>11/05/15</b>	<b>12/08/16</b>																
	Civil Works	330 days	11/05/15	12/08/16																
	Control Building & Guard House	120 days	03/08/15	15/01/16																
65	Equipment Erection and Cabling	150 days	20/07/15	12/02/16																
	Progress Payment (165M)	6 days	23/11/16	30/11/16																
	<b>Testing &amp; Commissioning</b>	<b>30 days</b>	<b>21/11/16</b>	<b>30/12/16</b>																

Project: ISINYA-NAIROBI EAST      Date: 31/01/14

Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline		Progress
Split		External Tasks		Inactive Summary		Manual Summary		Progress		
Milestone		External Milestone		Manual Task		Start-only				
Summary		Inactive Task		Duration-only		Finish-only				

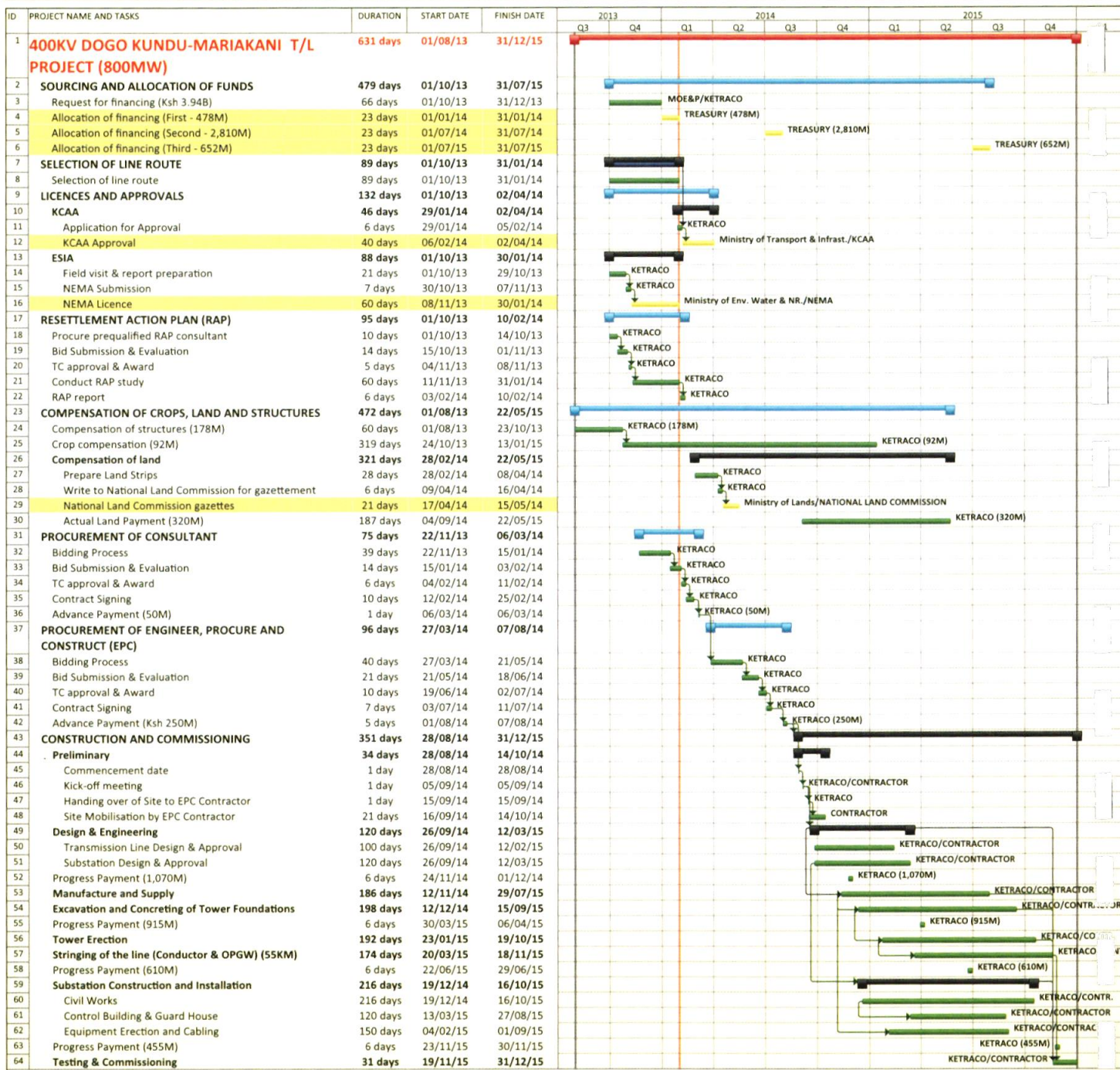
**KENYA ELECTRICITY TRANSMISSION COMPANY LIMITED**      **ENG. JOEL M. KIILU**      **MANAGING DIRECTOR**      **SIGNATURE**      **DATE**



REPUBLIC OF KENYA



**400KV DOGO KUNDU-MARIAKANI TRANSMISSION LINE PROJECT (800MW)** | **KENYA ELECTRICITY TRANSMISSION COMPANY LIMITED** | **(AUG. 2013 - DEC. 2015)**



Project: DOGO KUNDU-MARIAKANI Date: 31/01/14

Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline		Progress
Split		External Tasks		Inactive Summary		Manual Summary		Progress		
Milestone		External Milestone		Manual Task		Start-only				
Summary		Inactive Task		Duration-only		Finish-only				

KENYA ELECTRICITY TRANSMISSION COMPANY LIMITED | **ENG. JOEL M. KIILU** | MANAGING DIRECTOR | SIGNATURE | DATE



REPUBLIC OF KENYA



**400KV SILALI-RONGAI TRANSMISSION LINE PROJECT (400MW)** | **KENYA ELECTRICITY TRANSMISSION COMPANY LIMITED** | **(OCT. 2013 - OCT. 2016)**

ID	PROJECT NAME AND TASKS	DURATION	START DATE	FINISH DATE	2013	2014	2015	2016						
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	<b>400KV SILALI - RONGAI T/L PROJECT (400MW)</b>	<b>805 days</b>	<b>01/10/13</b>	<b>31/10/16</b>	[Gantt bar spanning from Q3 2013 to Q4 2016]									
	<b>SOURCING AND ALLOCATION OF FUNDS</b>	<b>612 days</b>	<b>01/10/13</b>	<b>03/02/16</b>	[Gantt bar spanning from Q3 2013 to Q4 2015]									
	Request for financing (Ksh 5.53B)	108 days	01/10/13	27/02/14	[Gantt bar from Q3 2013 to Q2 2014]									
	Allocation of financing (First - 116M)	23 days	01/01/14	31/01/14	[Gantt bar from Q1 2014 to Q1 2014]									
	Allocation of financing (Second - 1,762M)	23 days	01/07/14	31/07/14	[Gantt bar from Q3 2014 to Q3 2014]									
	Allocation of financing (Third - 2,752M)	23 days	01/07/15	31/07/15	[Gantt bar from Q3 2015 to Q3 2015]									
	Allocation of financing (Fourth - 900M)	23 days	04/01/16	03/02/16	[Gantt bar from Q1 2016 to Q1 2016]									
	<b>SELECTION OF LINE ROUTE</b>	<b>90 days</b>	<b>01/10/13</b>	<b>03/02/14</b>	[Gantt bar from Q3 2013 to Q2 2014]									
	Selection of line route	90 days	01/10/13	03/02/14	[Gantt bar from Q3 2013 to Q2 2014]									
	<b>LICENCES AND APPROVALS</b>	<b>116 days</b>	<b>04/11/13</b>	<b>14/04/14</b>	[Gantt bar from Q4 2013 to Q1 2014]									
	<b>KCAA</b>	<b>46 days</b>	<b>05/02/14</b>	<b>09/04/14</b>	[Gantt bar from Q1 2014 to Q1 2014]									
	Application for Approval	6 days	05/02/14	12/02/14	[Gantt bar from Q1 2014 to Q1 2014]									
	KCAA Approval	40 days	13/02/14	09/04/14	[Gantt bar from Q1 2014 to Q1 2014]									
	<b>ESIA</b>	<b>116 days</b>	<b>04/11/13</b>	<b>14/04/14</b>	[Gantt bar from Q4 2013 to Q1 2014]									
	Field visit & report preparation	50 days	04/11/13	10/01/14	[Gantt bar from Q4 2013 to Q1 2014]									
	NEMA Submission	6 days	13/01/14	20/01/14	[Gantt bar from Q1 2014 to Q1 2014]									
	NEMA Licence	60 days	21/01/14	14/04/14	[Gantt bar from Q1 2014 to Q1 2014]									
	<b>RESETTLEMENT ACTION PLAN (RAP)</b>	<b>96 days</b>	<b>01/10/13</b>	<b>11/02/14</b>	[Gantt bar from Q3 2013 to Q2 2014]									
	Procure prequalified RAP consultant	10 days	01/10/13	14/10/13	[Gantt bar from Q3 2013 to Q3 2013]									
	Bid Submission & Evaluation	14 days	15/10/13	01/11/13	[Gantt bar from Q3 2013 to Q4 2013]									
	TC Approval & Award	6 days	04/11/13	11/11/13	[Gantt bar from Q4 2013 to Q4 2013]									
	Conduct RAP study	60 days	12/11/13	03/02/14	[Gantt bar from Q4 2013 to Q2 2014]									
	RAP report	6 days	04/02/14	11/02/14	[Gantt bar from Q1 2014 to Q1 2014]									
	<b>COMPENSATION OF CROPS, LAND AND STRUCTURES</b>	<b>608 days</b>	<b>05/03/14</b>	<b>01/07/16</b>	[Gantt bar from Q2 2014 to Q4 2016]									
	Compensation of Structures (66M)	60 days	05/03/14	27/05/14	[Gantt bar from Q2 2014 to Q3 2014]									
	Crop compensation (252M)	567 days	01/05/14	01/07/16	[Gantt bar from Q3 2014 to Q4 2016]									
	Compensation of land	242 days	05/05/14	07/04/15	[Gantt bar from Q3 2014 to Q4 2015]									
	Prepare Land Strips	28 days	05/05/14	11/06/14	[Gantt bar from Q3 2014 to Q3 2014]									
	Write to National Land Commission for gazette	6 days	12/06/14	19/06/14	[Gantt bar from Q3 2014 to Q3 2014]									
	National Land Commission gazettes	21 days	20/06/14	18/07/14	[Gantt bar from Q3 2014 to Q3 2014]									
	Actual Land Payment (612M)	187 days	21/07/14	07/04/15	[Gantt bar from Q3 2014 to Q4 2015]									
	<b>PROCUREMENT OF CONSULTANT</b>	<b>56 days</b>	<b>02/06/14</b>	<b>18/08/14</b>	[Gantt bar from Q2 2014 to Q2 2014]									
	Bidding Process	17 days	02/06/14	24/06/14	[Gantt bar from Q2 2014 to Q2 2014]									
	Bid Submission & Evaluation	14 days	25/06/14	14/07/14	[Gantt bar from Q2 2014 to Q3 2014]									
	TC approval & Award	5 days	14/07/14	18/07/14	[Gantt bar from Q3 2014 to Q3 2014]									
	Contract Signing	14 days	21/07/14	07/08/14	[Gantt bar from Q3 2014 to Q3 2014]									
	Advance Payment (50M)	1 day	18/08/14	18/08/14	[Gantt bar from Q3 2014 to Q3 2014]									
	<b>PROCUREMENT OF ENGINEER, PROCURE AND CONSTRUCT (EPC)</b>	<b>130 days</b>	<b>22/09/14</b>	<b>20/03/15</b>	[Gantt bar from Q4 2014 to Q1 2015]									
	Bidding Process	40 days	22/09/14	14/11/14	[Gantt bar from Q4 2014 to Q4 2014]									
	Bid Submission & Evaluation	21 days	14/11/14	12/12/14	[Gantt bar from Q4 2014 to Q4 2014]									
	TC approval & Award	28 days	15/12/14	21/01/15	[Gantt bar from Q4 2014 to Q1 2015]									
	Contract Signing	14 days	21/01/15	09/02/15	[Gantt bar from Q1 2015 to Q1 2015]									
	Advance Payment (425M)	20 days	23/02/15	20/03/15	[Gantt bar from Q1 2015 to Q1 2015]									
	<b>CONSTRUCTION AND COMMISSIONING</b>	<b>407 days</b>	<b>10/04/15</b>	<b>31/10/16</b>	[Gantt bar from Q1 2015 to Q4 2016]									
	<b>Preliminary</b>	<b>34 days</b>	<b>10/04/15</b>	<b>27/05/15</b>	[Gantt bar from Q1 2015 to Q1 2015]									
	Commencement date	1 day	10/04/15	10/04/15	[Gantt bar from Q1 2015 to Q1 2015]									
	Kick-off meeting	1 day	20/04/15	20/04/15	[Gantt bar from Q1 2015 to Q1 2015]									
	Handing over of Site to EPC Contractor	1 day	28/04/15	28/04/15	[Gantt bar from Q1 2015 to Q1 2015]									
	Site Mobilisation by EPC Contractor	21 days	29/04/15	27/05/15	[Gantt bar from Q1 2015 to Q1 2015]									
	<b>Design &amp; Engineering</b>	<b>150 days</b>	<b>30/04/15</b>	<b>25/11/15</b>	[Gantt bar from Q1 2015 to Q4 2015]									
	Transmission Line Design & Approval	100 days	30/04/15	16/09/15	[Gantt bar from Q1 2015 to Q3 2015]									
	Substation Design & Approval	150 days	30/04/15	25/11/15	[Gantt bar from Q1 2015 to Q4 2015]									
	Progress Payment (1,650M)	6 days	22/06/15	29/06/15	[Gantt bar from Q2 2015 to Q2 2015]									
	<b>Manufacture and Supply</b>	<b>234 days</b>	<b>25/06/15</b>	<b>17/05/16</b>	[Gantt bar from Q2 2015 to Q4 2016]									
	Excavation and Concreting of Tower Foundations	256 days	23/07/15	14/07/16	[Gantt bar from Q3 2015 to Q4 2016]									
	Progress Payment (1,235M)	6 days	23/11/15	30/11/15	[Gantt bar from Q4 2015 to Q4 2015]									
	<b>Tower Erection</b>	<b>254 days</b>	<b>03/09/15</b>	<b>23/08/16</b>	[Gantt bar from Q3 2015 to Q4 2016]									
	Stringing of the line (Conductor & OPGW)	240 days	20/10/15	19/09/16	[Gantt bar from Q4 2015 to Q4 2016]									
	Progress Payment (825M)	6 days	30/03/16	06/04/16	[Gantt bar from Q1 2016 to Q1 2016]									
	<b>Substation Construction and Installation</b>	<b>330 days</b>	<b>29/05/15</b>	<b>01/09/16</b>	[Gantt bar from Q2 2015 to Q4 2016]									
	Civil Works	330 days	29/05/15	01/09/16	[Gantt bar from Q2 2015 to Q4 2016]									
	Control Building & Guard House	120 days	21/08/15	04/02/16	[Gantt bar from Q3 2015 to Q4 2015]									
	Equipment Erection and Cabling	150 days	06/08/15	02/03/16	[Gantt bar from Q3 2015 to Q4 2015]									
	Progress Payment (415M)	6 days	27/06/16	04/07/16	[Gantt bar from Q3 2016 to Q3 2016]									
	<b>Testing &amp; Commissioning</b>	<b>30 days</b>	<b>20/09/16</b>	<b>31/10/16</b>	[Gantt bar from Q3 2016 to Q4 2016]									

Project: SILALI-RONGAI | Date: 31/01/14

Task	Project Summary	Inactive Milestone	Manual Summary Rollup	Deadline
Split	External Tasks	Inactive Summary	Manual Summary	Progress
Milestone	External Milestone	Manual Task	Start-only	
Summary	Inactive Task	Duration-only	Finish-only	

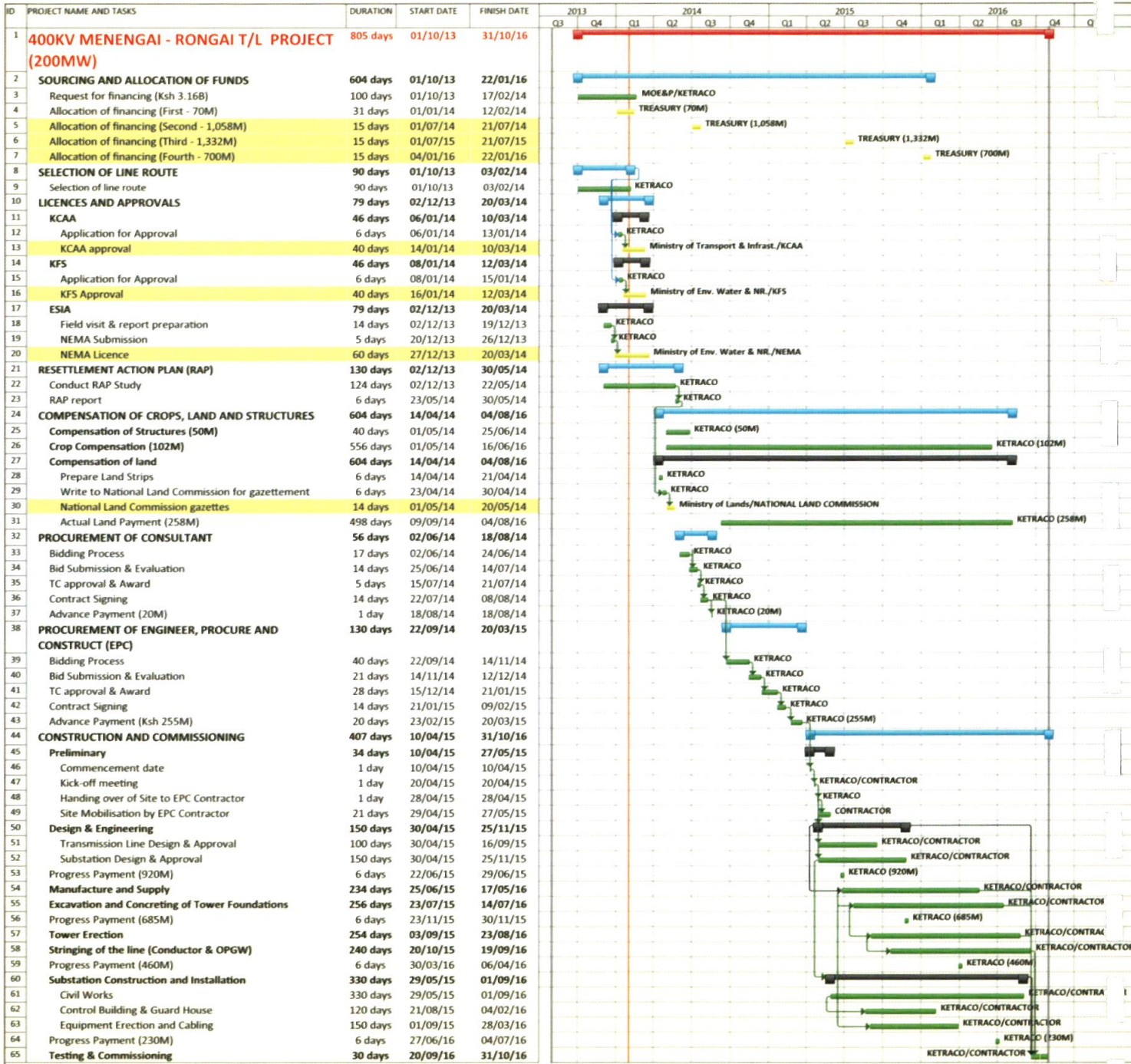
KENYA ELECTRICITY TRANSMISSION COMPANY LIMITED | **ENG. JOEL M. KIILU** | MANAGING DIRECTOR | SIGNATURE | DATE



REPUBLIC OF KENYA



**400KV MENENGAI-RONGAI TRANSMISSION LINE PROJECT (200MW)**      **KENYA ELECTRICITY TRANSMISSION COMPANY LIMITED**      **(OCT. 2013 - OCT. 2016)**



Project: MENENGAI-RONGAI Date: 31/01/14	Task	Project Summary	Inactive Milestone	Manual Summary Rollup	Deadline
Split	External Tasks	Inactive Summary	Manual Summary	Progress	
Milestone	External Milestone	Manual Task	Start-only		
Summary	Inactive Task	Duration-only	Finish-only		

**KENYA ELECTRICITY TRANSMISSION COMPANY LIMITED**      **ENG. JOEL M. KIILU**      **MANAGING DIRECTOR**      **SIGNATURE**      **DATE**



**2KV MENENGAI-SOILO TRANSMISSION LINE PROJECT (100MW)**

**KENYA ELECTRICITY TRANSMISSION COMPANY LIMITED**

(AUG. 2013 - DEC. 2014)

ID	OBJECT NAME AND TASKS	DURATION	START DATE	FINISH DATE	2013	2014
1	<b>2KV MENENGAI - SOILO T/L PROJECT (100MW)</b>	<b>369 days</b>	<b>01/08/13</b>	<b>30/12/14</b>	[Gantt chart bar spanning from Q3 2013 to Q1 2014]	
2	<b>SOURCING AND ALLOCATION OF FUNDS</b>	<b>253 days</b>	<b>01/08/13</b>	<b>21/07/14</b>	[Gantt chart bar from Q3 2013 to Q2 2014]	
3	Request for financing (KES 1,395M)	92 days	01/08/13	06/12/13	[Gantt chart bar from Q3 2013 to Q4 2013]	
4	Allocation of financing (KETRACO - 475M)	18 days	01/01/14	24/01/14	[Gantt chart bar from Q1 2014 to Q1 2014]	
5	Allocation of financing (First - 500M)	18 days	01/01/14	24/01/14	[Gantt chart bar from Q1 2014 to Q1 2014]	
6	Allocation of financing (Second - 895M)	15 days	01/07/14	21/07/14	[Gantt chart bar from Q2 2014 to Q2 2014]	
7	<b>SELECTION OF LINE ROUTE</b>	<b>60 days</b>	<b>01/08/13</b>	<b>23/10/13</b>	[Gantt chart bar from Q3 2013 to Q4 2013]	
8	Selection of Line Route	60 days	01/08/13	23/10/13	[Gantt chart bar from Q3 2013 to Q4 2013]	
9	<b>LICENCES AND APPROVALS</b>	<b>118 days</b>	<b>01/10/13</b>	<b>13/03/14</b>	[Gantt chart bar from Q4 2013 to Q1 2014]	
10	<b>KCAA</b>	<b>46 days</b>	<b>06/01/14</b>	<b>10/03/14</b>	[Gantt chart bar from Q1 2014 to Q1 2014]	
11	Application for Approval	6 days	06/01/14	13/01/14	[Gantt chart bar from Q1 2014 to Q1 2014]	
12	KCAA Approval	40 days	14/01/14	10/03/14	[Gantt chart bar from Q1 2014 to Q1 2014]	
13	<b>KFS</b>	<b>46 days</b>	<b>08/01/14</b>	<b>12/03/14</b>	[Gantt chart bar from Q1 2014 to Q1 2014]	
14	Application for Approval	6 days	08/01/14	15/01/14	[Gantt chart bar from Q1 2014 to Q1 2014]	
15	KFS Approval	40 days	16/01/14	12/03/14	[Gantt chart bar from Q1 2014 to Q1 2014]	
16	<b>ESIA</b>	<b>118 days</b>	<b>01/10/13</b>	<b>13/03/14</b>	[Gantt chart bar from Q4 2013 to Q1 2014]	
17	Field visit & report preparation	17 days	01/10/13	23/10/13	[Gantt chart bar from Q4 2013 to Q4 2013]	
18	Submission to NEMA	11 days	24/10/13	07/11/13	[Gantt chart bar from Q4 2013 to Q4 2013]	
19	NEMA Licence	90 days	08/11/13	13/03/14	[Gantt chart bar from Q4 2013 to Q1 2014]	
20	<b>RESETTLEMENT ACTION PLAN (RAP)</b>	<b>24 days</b>	<b>30/10/13</b>	<b>02/12/13</b>	[Gantt chart bar from Q4 2013 to Q4 2013]	
21	Conduct RAP study	12 days	30/10/13	14/11/13	[Gantt chart bar from Q4 2013 to Q4 2013]	
22	RAP report	13 days	14/11/13	02/12/13	[Gantt chart bar from Q4 2013 to Q4 2013]	
23	<b>COMPENSATION OF CROPS, LAND AND STRUCTURES</b>	<b>260 days</b>	<b>01/01/14</b>	<b>30/12/14</b>	[Gantt chart bar from Q1 2014 to Q4 2014]	
24	Compensation of Structures (100M)	38 days	01/01/14	21/02/14	[Gantt chart bar from Q1 2014 to Q1 2014]	
25	Crop Compensation (60M)	260 days	01/01/14	30/12/14	[Gantt chart bar from Q1 2014 to Q4 2014]	
26	Compensation of land	119 days	03/02/14	17/07/14	[Gantt chart bar from Q1 2014 to Q2 2014]	
27	Prepare land strips	6 days	03/02/14	10/02/14	[Gantt chart bar from Q1 2014 to Q1 2014]	
28	Actual Land Payment (160M)	114 days	10/02/14	17/07/14	[Gantt chart bar from Q1 2014 to Q2 2014]	
29	<b>PROCUREMENT OF ENGINEER, PROCURE AND CONSTRUCT (EPC)</b>	<b>86 days</b>	<b>15/11/13</b>	<b>14/03/14</b>	[Gantt chart bar from Q4 2013 to Q1 2014]	
30	Bidding process	49 days	15/11/13	22/01/14	[Gantt chart bar from Q4 2013 to Q1 2014]	
31	Bid Submission & Evaluation	10 days	23/01/14	05/02/14	[Gantt chart bar from Q1 2014 to Q1 2014]	
32	TC approval & Award	14 days	06/02/14	25/02/14	[Gantt chart bar from Q1 2014 to Q1 2014]	
33	Contract Signing	7 days	26/02/14	06/03/14	[Gantt chart bar from Q1 2014 to Q1 2014]	
34	Advance payment (155M)	6 days	07/03/14	14/03/14	[Gantt chart bar from Q1 2014 to Q1 2014]	
35	<b>CONSTRUCTION AND COMMISSIONING</b>	<b>197 days</b>	<b>31/03/14</b>	<b>30/12/14</b>	[Gantt chart bar from Q1 2014 to Q4 2014]	
36	<b>Preliminary</b>	<b>22 days</b>	<b>31/03/14</b>	<b>29/04/14</b>	[Gantt chart bar from Q1 2014 to Q1 2014]	
37	Commencement date	1 day	31/03/14	31/03/14	[Gantt chart bar from Q1 2014 to Q1 2014]	
38	Kick-off meeting	1 day	08/04/14	08/04/14	[Gantt chart bar from Q1 2014 to Q1 2014]	
39	Handing over of Site to EPC Contractor	1 day	09/04/14	09/04/14	[Gantt chart bar from Q1 2014 to Q1 2014]	
40	Site Mobilisation by EPC Contractor	14 days	10/04/14	29/04/14	[Gantt chart bar from Q1 2014 to Q1 2014]	
41	<b>Design &amp; Engineering</b>	<b>52 days</b>	<b>09/04/14</b>	<b>19/06/14</b>	[Gantt chart bar from Q1 2014 to Q2 2014]	
42	Transmission Line Design & Approval	49 days	09/04/14	16/06/14	[Gantt chart bar from Q1 2014 to Q2 2014]	
43	Substation Design & Approval	52 days	09/04/14	19/06/14	[Gantt chart bar from Q1 2014 to Q2 2014]	
44	Progress Payment (942M)	6 days	20/06/14	27/06/14	[Gantt chart bar from Q2 2014 to Q2 2014]	
45	<b>Manufacture and Supply</b>	<b>90 days</b>	<b>29/04/14</b>	<b>01/09/14</b>	[Gantt chart bar from Q1 2014 to Q3 2014]	
46	Excavation and Concreting of Tower Foundations	60 days	27/05/14	18/08/14	[Gantt chart bar from Q2 2014 to Q3 2014]	
47	<b>Tower Erection</b>	<b>55 days</b>	<b>16/06/14</b>	<b>29/08/14</b>	[Gantt chart bar from Q2 2014 to Q3 2014]	
48	Stringing of the line (Conductor & OPGW)	60 days	28/07/14	17/10/14	[Gantt chart bar from Q3 2014 to Q4 2014]	
49	Progress Payment (453M)	6 days	27/11/14	04/12/14	[Gantt chart bar from Q4 2014 to Q4 2014]	
50	<b>Substation Construction and Installation</b>	<b>145 days</b>	<b>08/05/14</b>	<b>26/11/14</b>	[Gantt chart bar from Q2 2014 to Q4 2014]	
51	Civil Works	145 days	08/05/14	26/11/14	[Gantt chart bar from Q2 2014 to Q4 2014]	
52	Control Building & Guard House	75 days	28/05/14	09/09/14	[Gantt chart bar from Q2 2014 to Q3 2014]	
53	Equipment Erection and Cabling	120 days	28/05/14	11/11/14	[Gantt chart bar from Q2 2014 to Q4 2014]	
54	<b>Testing &amp; Commissioning</b>	<b>24 days</b>	<b>27/11/14</b>	<b>30/12/14</b>	[Gantt chart bar from Q4 2014 to Q4 2014]	

Legend for Gantt chart symbols:

- Task: Solid green bar
- Split: Dotted green bar
- Milestone: Solid black bar
- Summary: Solid grey bar
- Project Summary: Solid red bar
- External Tasks: Dotted black bar
- External Milestone: Solid black bar
- Inactive Task: Dotted grey bar
- Inactive Milestone: Solid red bar
- Manual Task: Solid grey bar
- Duration-only: Solid grey bar
- Manual Summary Rollup: Solid grey bar
- Manual Summary: Solid grey bar
- Start-only: Solid green bar
- Finish-only: Solid green bar
- Deadline: Solid black bar
- Progress: Solid black bar

KENYA ELECTRICITY TRANSMISSION COMPANY LIMITED      ENG. JOEL M. KIILU      MANAGING DIRECTOR      SIGNATURE      DATE



REPUBLIC OF KENYA



**400KV LAMU-KITUI-NAIROBI EAST TRANSMISSION LINE PROJECT (2000MW)**      **KENYA ELECTRICITY TRANSMISSION COMPANY LIMITED**      **(AUG. 2013 - MARCH 2016)**

ID	PROJECT NAME AND TASKS	DURATION	START DATE	FINISH DATE	2013 2014 2015 2016											
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	
1	<b>400KV LAMU-KITUI-NAIROBI EAST T/L PROJECT (2000MW)</b>	<b>695 days</b>	<b>01/08/13</b>	<b>30/03/16</b>												
2	<b>SOURCING AND ALLOCATION OF FUNDS</b>	<b>522 days</b>	<b>01/08/13</b>	<b>31/07/15</b>												
3	Request for financing (Ksh 17.035B)	87 days	01/08/13	29/11/13												
4	Allocation of financing (First - 636M)	23 days	01/01/14	31/01/14												
5	Allocation of financing (Second - 7,762M)	23 days	01/07/14	31/07/14												
6	Allocation of financing (Third - 6,587M)	23 days	05/01/15	04/02/15												
7	Allocation of financing (Fourth - 2,050M)	23 days	01/07/15	31/07/15												
8	<b>SELECTION OF LINE ROUTE</b>	<b>88 days</b>	<b>01/10/13</b>	<b>30/01/14</b>												
9	Selection of line route	88 days	01/10/13	30/01/14												
10	<b>LICENCES AND APPROVALS</b>	<b>116 days</b>	<b>01/11/13</b>	<b>11/04/14</b>												
11	<b>KCAA</b>	<b>46 days</b>	<b>05/02/14</b>	<b>09/04/14</b>												
12	Application for Approval	6 days	05/02/14	12/02/14												
13	KCAA Approval	40 days	13/02/14	09/04/14												
14	<b>KWS</b>	<b>46 days</b>	<b>07/02/14</b>	<b>11/04/14</b>												
15	Application for Approval	6 days	07/02/14	14/02/14												
16	KWS Approval	40 days	17/02/14	11/04/14												
17	<b>ESIA</b>	<b>95 days</b>	<b>01/11/13</b>	<b>13/03/14</b>												
18	Field visit & report preparation	28 days	01/11/13	10/12/13												
19	NEMA Submission	7 days	11/12/13	19/12/13												
20	NEMA Licence	60 days	20/12/13	13/03/14												
21	<b>RESETTLEMENT ACTION PLAN (RAP)</b>	<b>94 days</b>	<b>01/11/13</b>	<b>12/03/14</b>												
22	Procure prequalified RAP consultant	10 days	01/11/13	14/11/13												
23	Bid Submission & Evaluation	14 days	14/11/13	03/12/13												
24	TC approval & Award	6 days	04/12/13	11/12/13												
25	Conduct RAP study	59 days	12/12/13	04/03/14												
26	RAP report	6 days	05/03/14	12/03/14												
27	<b>COMPENSATION OF CROPS, STRUCTURES AND LAND</b>	<b>502 days</b>	<b>01/04/14</b>	<b>02/03/16</b>												
28	Compensation of Structures (136M)	60 days	02/04/14	24/06/14												
29	Crop compensation (312M)	435 days	03/07/14	02/03/16												
30	Compensation of land	352 days	01/04/14	05/08/15												
31	Prepare Land Strips	36 days	01/04/14	20/05/14												
32	Write to National Land Commission for gazette	6 days	21/05/14	28/05/14												
33	National Land Commission gazettes	21 days	28/05/14	25/06/14												
34	Actual Land Payment (1,512M)	240 days	04/09/14	05/08/15												
35	<b>PROCUREMENT OF CONSULTANT</b>	<b>68 days</b>	<b>22/11/13</b>	<b>25/02/14</b>												
36	Bidding Process	39 days	22/11/13	15/01/14												
37	Bid Submission & Evaluation	14 days	15/01/14	03/02/14												
38	TC approval & Award	6 days	04/02/14	11/02/14												
39	Contract Signing	10 days	12/02/14	25/02/14												
40	<b>PROCUREMENT OF ENGINEER, PROCURE AND CONSTRUCT (EPC)</b>	<b>96 days</b>	<b>27/03/14</b>	<b>07/08/14</b>												
41	Bidding Process	40 days	27/03/14	21/05/14												
42	Bid Submission & Evaluation	21 days	21/05/14	18/06/14												
43	TC approval & Award	10 days	19/06/14	02/07/14												
44	Contract Signing	7 days	03/07/14	11/07/14												
45	Advance Payment (500M)	5 days	01/08/14	07/08/14												
46	<b>CONSTRUCTION AND COMMISSIONING</b>	<b>415 days</b>	<b>28/08/14</b>	<b>30/03/16</b>												
47	<b>Preliminary</b>	<b>34 days</b>	<b>28/08/14</b>	<b>14/10/14</b>												
48	Commencement date	1 day	28/08/14	28/08/14												
49	Kick-off meeting	1 day	05/09/14	05/09/14												
50	Handing over of Site to EPC Contractor	1 day	15/09/14	15/09/14												
51	Site Mobilisation by EPC Contractor	21 days	16/09/14	14/10/14												
52	<b>Design &amp; Engineering</b>	<b>150 days</b>	<b>26/09/14</b>	<b>23/04/15</b>												
53	Transmission Line Design & Approval	120 days	26/09/14	12/03/15												
54	Substation Design & Approval	150 days	26/09/14	23/04/15												
55	Progress Payment (6,650M)	6 days	24/11/14	01/12/14												
56	<b>Manufacture and Supply</b>	<b>240 days</b>	<b>12/11/14</b>	<b>13/10/15</b>												
57	Excavation and Concreting of Tower Foundations	252 days	12/12/14	30/11/15												
58	Progress Payment (4,950M)	6 days	30/03/15	06/04/15												
59	<b>Tower Erection</b>	<b>246 days</b>	<b>23/01/15</b>	<b>01/01/16</b>												
60	Stringing of the line (Conductor & OPGW)	234 days	20/03/15	10/02/16												
61	Progress Payment (3,350M)	6 days	22/06/15	29/06/15												
62	<b>Substation Construction and Installation</b>	<b>288 days</b>	<b>19/12/14</b>	<b>26/01/16</b>												
63	Civil Works	288 days	19/12/14	26/01/16												
64	Control Building & Guard House	120 days	13/03/15	27/08/15												
65	Equipment Erection and Cabling	150 days	04/02/15	01/09/15												
66	Progress Payment (1,675M)	6 days	23/11/15	30/11/15												
67	<b>Testing &amp; Commissioning</b>	<b>35 days</b>	<b>11/02/16</b>	<b>30/03/16</b>												

Project: Lamu-Kitui-Nairobi East Date: 31/01/14	Task	Project Summary	Inactive Milestone	Manual Summary Rollup	Deadline
	Split	External Tasks	Inactive Summary	Manual Summary	Progress
	Milestone	External Milestone	Manual Task	Start-only	Finish-only
	Summary	Inactive Task	Duration-only	Finish-only	

KENYA ELECTRICITY TRANSMISSION COMPANY LIMITED      ENG. JOEL M. KIILU      MANAGING DIRECTOR      SIGNATURE      DATE



# KENYA ELECTRICITY GENERATION COMPANY

JUNE 2014

## CONTENTS

1. Background
2. Overview
3. Financial Highlights and Key KPI
4. Projects Update
5. Challenges and Proposed Mitigation
6. Conclusion/Way Forward
7. Appendix : Gantt Charts



## 1. Background

Kenya Electricity Generating Company (KenGen) is the nation's leading power producer, generating 75% of the electricity consumed nationally. Demand for electricity has grown steadily over the last decade at a rate of 8 - 10% and is projected to increase exponentially over the next 17 years – from the current 1.7GW to 33GW.

Reliable and affordably priced electricity is essential for the growth of a country's economy and key to the sustenance of its future. The high cost of electricity has been identified as a concern by the government and industry players. Initiatives to reduce electricity costs have been mooted to bolster economic growth while meeting energy and environmental goals.

KenGen shoulders the bulk of this growth despite the challenges of financing and sustainability of generation sources. With only 29% of the population accessing electricity, there is immense potential to grow and meet the rising demand. To succeed in its vision of a capacity base of 3GW by 2018, KenGen is pursuing excellence in areas of capital growth, regulatory, operations and organizational health.



KenGen 20MW Ngong Wind Project



## 2. Overview: One (1) Year Operating Environment

The Jubilee government has committed to install an additional 5GW in the next 40 months. Being a state corporation and market leader, KenGen has been tasked with delivering 844MW. This target will go a long way to meeting the current energy demand. The Company has been involved in the preparation of the sector's implementation plans; identifying road maps, critical paths and interrelationships between key players. Multi-agency efforts have been stepped up with high level representation in the development of the new energy policy regulations.

Within the year ending 30th June 2014, KenGen has installed 120MW of sustainable energy. 24MW of hydroelectricity was added to the national grid from Kindaruma while 95.6MW of geothermal energy has been installed in Olkaria, Naivasha.

A further 230MW are expected to be commissioned by December 2014, all from renewable wind and geothermal sources. In addition, 500MW have been initiated while financial and project models are ongoing for a further 1230MW slated for completion by 2018.

There is a change in the company's Board of Directors with three new members elected and Chairman appointed. In addition, a new Managing Director / CEO has also been appointed. These changes herald a new management regime with huge expectations to deliver not only KenGen's objectives but also the nation's expected economic growth.

## 3. Financial Performance and Key Operational KPIs

Half year pre-tax profit for 2013/14 is Kshs. 2.43 billion, following the Kshs. 3.6 billion recorded for 2012/13. Debt / Equity is currently at 163%, up from 135%, highlighting KenGen's resolve to develop capacity addition at minimal shareholder / government equity. Current asset base is Kshs. 189 billion, up from Kshs. 161 billion and expected to rise to Kshs. 201 billion with the commissioning of the ongoing projects.

KenGen has recruited additional staff to ensure there is operational sustainability. This is in line with the projected capacity growth as well as knowledge transfer from the staff anticipated to retire in the next four years.

GoK Performance Contracting has been entrenched in KenGen, with a "Very Good" score of 2.874 attained for year 2012/13 evaluation. This embodies the achievement of targets as set out by the government in regard to financial, social and operational aspects.



The company was awarded Best HR Practices (Public Sector) at the Human Resources Index Audit from IHRM as well as 4 other awards. An additional cap was bagged following the second runner-up position at the IFRS Fire Awards. Emphasis is given to innovation which is manifested through programs such as the Technical Seminars that are held every year. The innovation programs are geared towards increasing efficiency and productivity.

#### 4. Key Projects

KenGen is undergoing a paradigm shift by implementing a corporate transformation strategy dubbed "Good to Great", anchored on reducing operational and overhead costs, quick implementation of new growth capacity, improving operational and maintenance processes and improving the organizational health.

The company, in line with Vision 2030 delivery, embarked on an ambitious geothermal development program starting with the flagship Olkaria I & IV 280MW at an estimated cost of US dollars 1 billion; a first in the world of geothermal and a true case for continental collaboration in financing and engineering. It is one of the most competitive projects, with an overall tariff of around US cents 7. The project is 95% complete with most installations complete and 140MW scheduled to be commissioned by July 2014.



70MW Geothermal wellhead Project



Committed projects are ongoing and status is as follows:

Project	Capacity (MW)	Mode	Progress (%)	Status
Ngong I	6.8	Wind	95	All turbines erected and substations works in progress and commissioning to start in July 2014
Ngong II	13.6	Wind	88	Turbines erection to complete in June and commissioning to start in July 2014
Olkaria I (Unit 4&5)	140	Geo	90	Commissioning of Unit 4 works in progress.  Commissioning of Unit 4 (70MW) to start in September 2014 and Unit 5 (70MW) in November 2014
Olkaria IV (Unit 1&2)	140	Geo	98	Commissioning of Unit 1 (70MW) started on 15th June 2014  Unit 2 commissioning to start in mid July 2014 .
Wellhead Project	70	Geo	50	4 units (25.6MW) completed.  The remaining 45MW on going and to be completed in September 2015
Isiolo (Meru wind Project)	100	Wind	15	Land acquisitions initiated in Meru.
Olkaria I (Unit 6) Olkaria VI	210	Geo	20	ESIA done. Procurement of consultant in progress. To be completed by December 2016 Financing plan ongoing Drilling ongoing
Olkaria VI	140	Geo	10	Procurement of transaction advisor in progress. Drilling ongoing
Early Generation (Wellhead Leasing)	50	Geo	5	Expression of Interest closing in June 14 To be operational in Jan 2016



## 5. Challenges and Proposed Mitigation

Challenge	Mitigation
Accelerating geothermal development	KenGen is accelerating drilling and deployment of geothermal well-heads and power plants.
Capital financing	There is need to leverage on capital markets for injection of private capital to achieve an ambitious capital spend target of US dollars 5 billion. Capital structuring (debt equity) and National Treasury support is necessary while exploring alternative revenue opportunities.
Cost reflective tariffs	Headway is required to finalize on 20-packed PPA items to ensure equitable value proposition for all partners as well as fast-tracking PPAs.
Land / site acquisition	Facilitate acquisition of land (sites) for key projects such as wind, coal and geothermal expansion.
Stakeholder / community issues	Engagement and government intervention especially in land compensation and amicable community relations.
PPP framework development	Build on Public-Private-Partnership / Joint Venture framework to accelerate project financing.



KenGen 280MW Olkaria Project

## 6. Conclusion / Way Forward

Going forward, KenGen aims to enforce its geothermal footprint. To achieve the growth projections targeted by the company requires resilient sourcing of capital. An excellent working relationship is necessary between the industry players and government for the achievement of all the set goals.

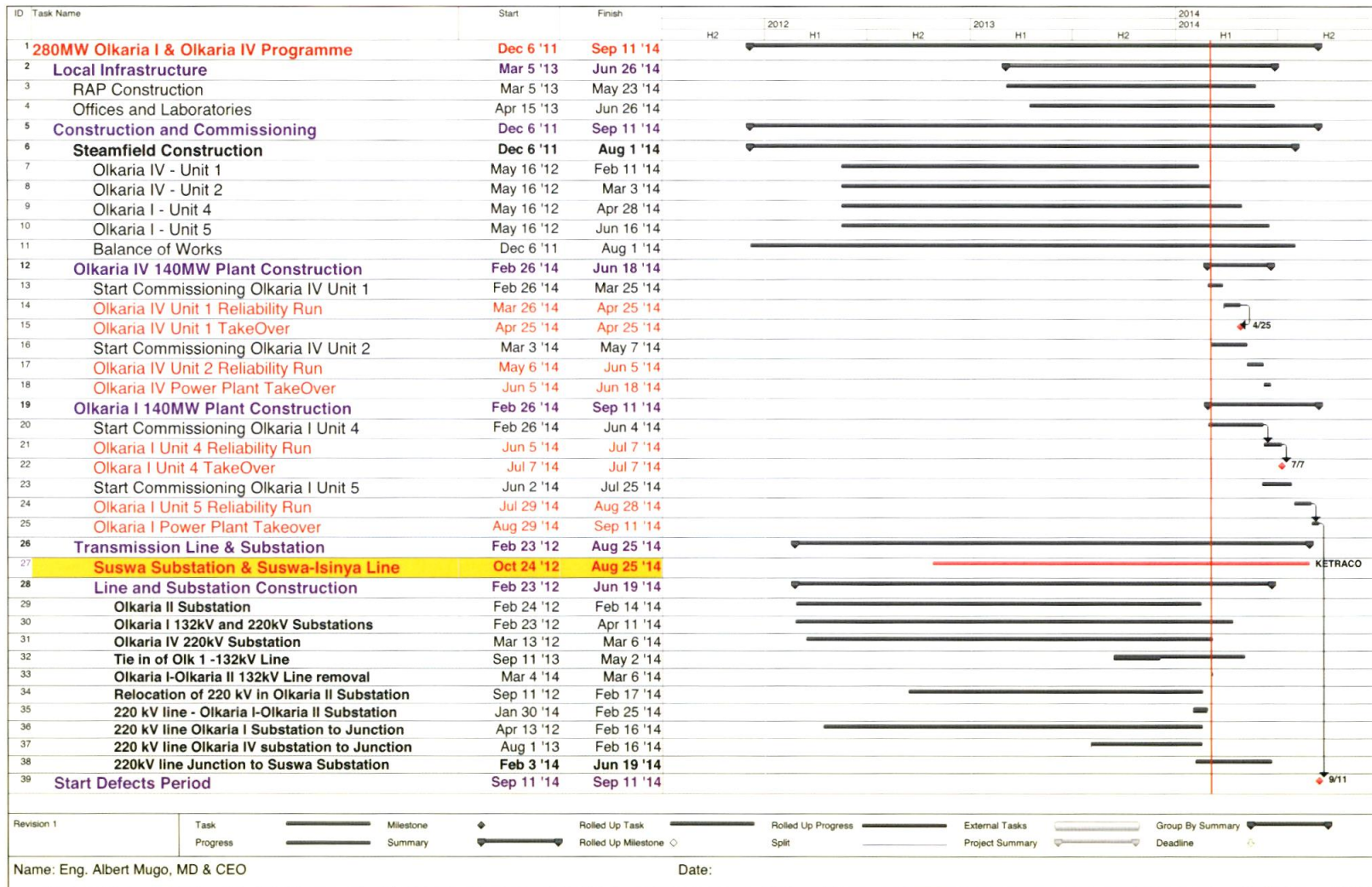
As Kenya strives to achieve the +10% annual growth required to attain developing country status through Vision 2030, conscious efforts must be implemented to power the desired shift.

# APPENDIX

KENYA ELECTRICTY GENERATION COMPANY  
WORKPLAN

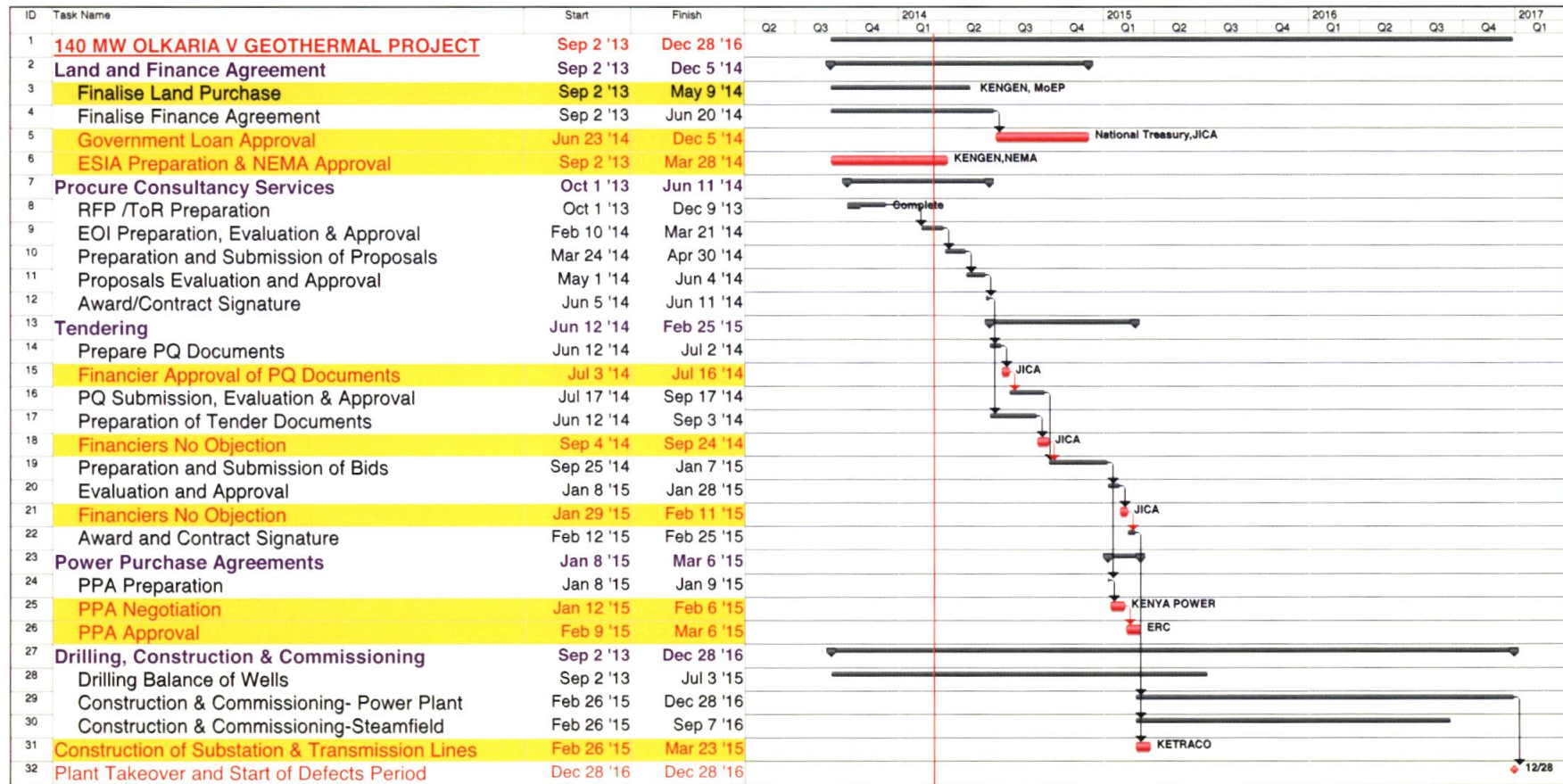


<b>5000+MW POWER PLAN: KENGEN CONTRIBUTION 280MW OLKARIA I and IV PROJECT</b>	<b>KENYA ELECTRICITY GENERATING COMPANY</b>	<b>(DEC. 2011 - SEP. 2014)</b>
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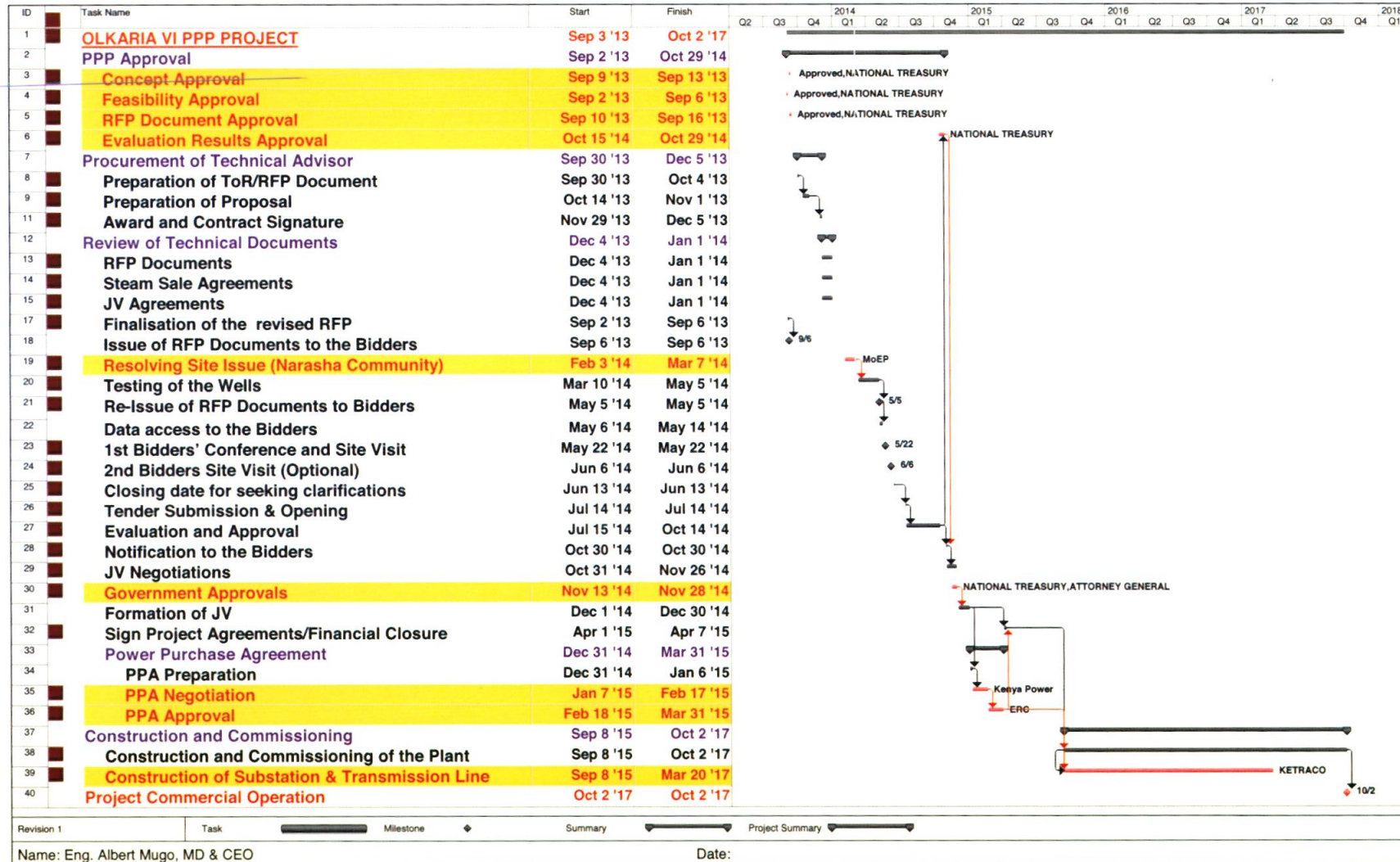
<b>5000+MW POWER PLAN KENGEN CONTRIBUTION 140MW OLKARIA V</b>	<b>KENYA ELECTRICITY GENERATING COMPANY</b>	<b>(SEP. 2013 TO DEC. 2016)</b>
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Revision 1: Task Split Milestone Summary Project Summary External Tasks External Milestone Inactive Task Progress Deadline

Name: Eng. Albert Mugo, MD & CEO Date:

<b>5000+MW POWER PLAN KENGEN CONTRIBUTION 140MW OLKARIA VI PPP</b>	<b>KENYA ELECTRICITY GENERATING COMPANY</b>	<b>(SEPT. 2013 TO OCT. 2017)</b>
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Revision 1

Task

Milestone

Summary

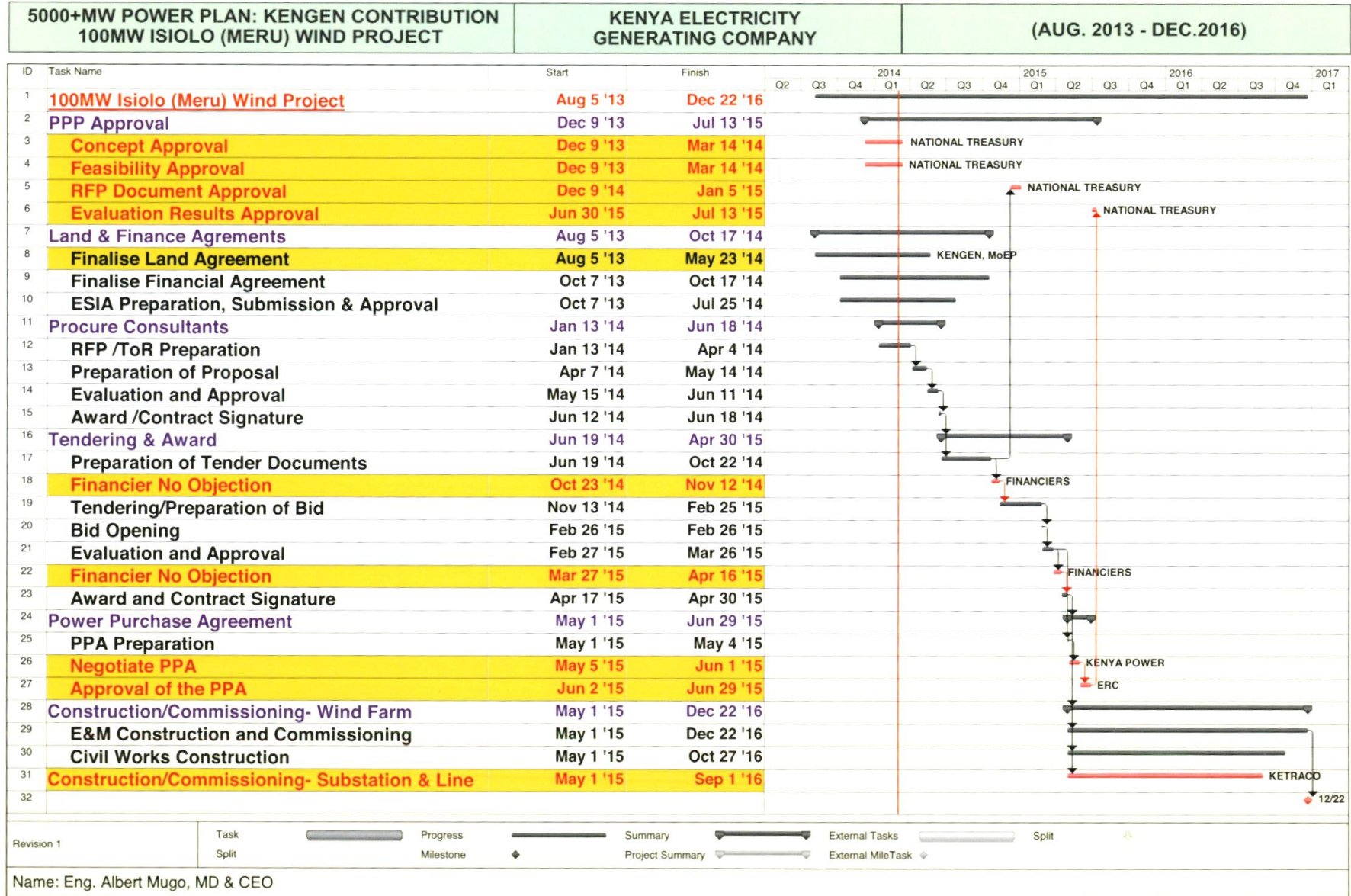
Project Summary

Name: Eng. Albert Mugo, MD & CEO

Date:



REPUBLIC OF KENYA

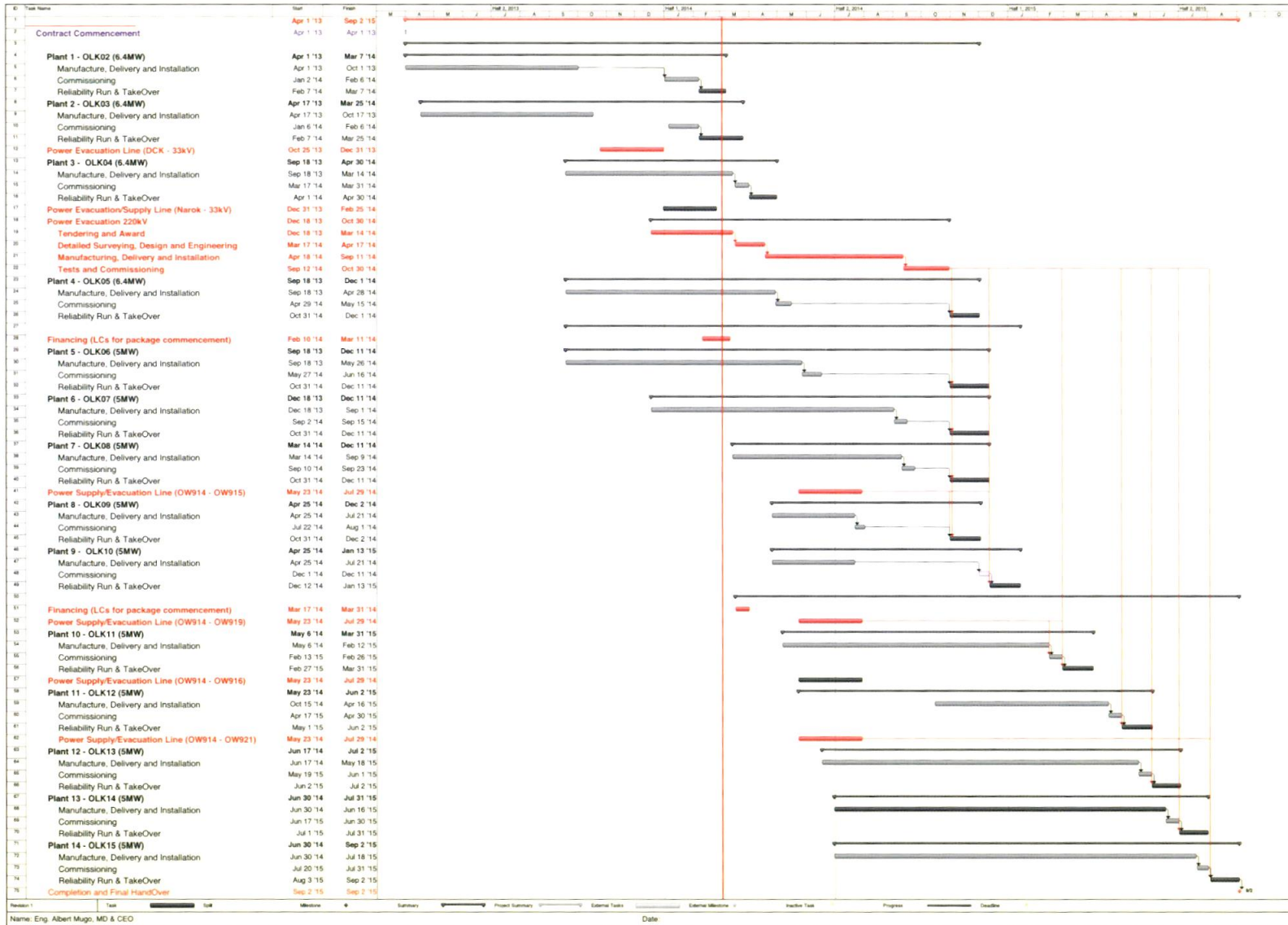




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**5000+MW POWER PLAN: KENGEN CONTRIBUTION  
70MW GEOTHERMAL WELLHEAD PROJECT**      **KENYA ELECTRICITY  
GENERATING COMPANY**      **(APR. 2013 - SEP.2015)**



Name: Eng. Albert Mugo, MD & CEO

Date



<b>5000+MW POWER PLAN: KENGEN CONTRIBUTION 70MW OLKARIA I UNIT 6 PROJECT</b>	<b>KENYA ELECTRICITY GENERATING COMPANY</b>	<b>(AUG. 2013 - DEC. 2016)</b>
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ID	Task Name	Start	Finish	2013		2014		2015		2016		2017
				H1	H2	H1	H2	H1	H2	H1	H2	H1
1												
2	<b>Preparation</b>	Nov 25 '13	Apr 4 '14									
3	<b>Finalisation of Finance Agreements</b>	Nov 25 '13	Apr 4 '14									
4	<b>Procurement of Consultancy Services</b>	Nov 25 '13	Apr 4 '14									
5	RFP /ToR Preparation	Nov 25 '13	Jan 3 '14									
6	<b>KfW Approval of ToR</b>	Jan 31 '14	Feb 6 '14									
7	Preparation and Submission of Proposals	Feb 7 '14	Feb 28 '14									
8	Evaluation & Approval	Mar 3 '14	Mar 21 '14									
9	<b>KfW Evaluation Results Approval</b>	Mar 24 '14	Mar 28 '14									
10	Award /Contract Signature	Mar 31 '14	Apr 4 '14									
11	<b>Tendering</b>	Apr 7 '14	Jan 2 '15									
12	Prepare PQ Documents	Apr 7 '14	Apr 18 '14									
13	<b>Financiers Approval of PQ Documents</b>	Apr 21 '14	May 2 '14									
14	PQ Submission, Evaluation & Approval	May 5 '14	Jun 13 '14									
15	Preparation of Tender Documents	Apr 7 '14	Jun 27 '14									
16	<b>Financiers No Objection</b>	Jun 30 '14	Jul 18 '14									
17	Preparation & Submission of Bids	Jul 21 '14	Oct 31 '14									
18	Evaluation and Approval	Nov 3 '14	Nov 28 '14									
19	<b>Financiers No Objection</b>	Dec 1 '14	Dec 19 '14									
20	Award and Contract Signature	Dec 22 '14	Jan 2 '15									
21	<b>Power Purchase Agreements (PPA)</b>	Nov 3 '14	Dec 30 '14									
22	PPA Preparation	Nov 3 '14	Nov 4 '14									
23	<b>Negotiate PPA</b>	Nov 5 '14	Dec 2 '14									
24	<b>Approval of PPA</b>	Dec 3 '14	Dec 30 '14									
25	<b>Construction &amp; Commissioning</b>	Jan 5 '15	Dec 2 '16									
26	Construction/ Commission- Power Plant	Jan 5 '15	Dec 2 '16									
27	Construction/Commission- Steamfield	Jan 5 '15	Jul 15 '16									
28												

Revision 1

Task: Progress: Summary: External Tasks: Split:

Split: Milestone: Project Summary: External MileTask:

Name: Eng. Albert Mugo, MD & CEO, KenGen:





REPUBLIC OF KENYA



<b>5000+MW POWER PLAN: KENGEN CONTRIBUTION 6.8 MW NGONG I PHASE II WIND POWER PROJECT</b>	<b>KENYA ELECTRICITY GENERATING COMPANY</b>	<b>(FEB. 2012 - APR. 2014)</b>
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ID	Task Name	Start	Finish	Gantt Chart																															
				Half 1, 2013			Half 2, 2013			Half 1, 2014			Half 2, 2014			Half 1, 2015																			
				D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J
1	<b>Ngong I Phase II Wind Farm</b>	<b>Feb 12 '13</b>	<b>Apr 22 '14</b>	[Gantt bar from Feb 12 '13 to Apr 22 '14]																															
2				[Gantt bar from Feb 12 '13 to Apr 22 '14]																															
3	Engineering Design	Feb 12 '13	Feb 22 '13	[Gantt bar from Feb 12 '13 to Feb 22 '13]																															
4	Engineering Design Approval by KenGen	Feb 22 '13	Mar 4 '13	[Gantt bar from Feb 22 '13 to Mar 4 '13]																															
5	WTG Transformer Manufacturing, Sea Freight & Delivery	Mar 18 '13	Jul 17 '13	[Gantt bar from Mar 18 '13 to Jul 17 '13]																															
6	MV6 Cabinet Manufacturing, Sea Freight & Delivery	Mar 18 '13	Jul 26 '13	[Gantt bar from Mar 18 '13 to Jul 26 '13]																															
7	SM6 Cabinet Manufacturing, Sea Freight & Delivery	Mar 18 '13	Jul 26 '13	[Gantt bar from Mar 18 '13 to Jul 26 '13]																															
8	Cable Manufacturing, Sea Freight & Delivery To Site	Mar 18 '13	Jun 17 '13	[Gantt bar from Mar 18 '13 to Jun 17 '13]																															
9	Transformer Installation On Top Of Tower Foundation	Jul 17 '13	Aug 7 '13	[Gantt bar from Jul 17 '13 to Aug 7 '13]																															
10	MV6 Cabinet Installation At Tower Base	Feb 20 '14	Mar 22 '14	[Gantt bar from Feb 20 '14 to Mar 22 '14]																															
11	SM6 Cabinet Installation At Substation	Feb 20 '14	Mar 22 '14	[Gantt bar from Feb 20 '14 to Mar 22 '14]																															
12				[Gantt bar from Feb 12 '13 to Apr 22 '14]																															
13	Wind Turbine Generator (WTG) Manufacturing	Feb 12 '13	Sep 1 '13	[Gantt bar from Feb 12 '13 to Sep 1 '13]																															
14	WTG's Ready To Ship	Sep 1 '13	Sep 1 '13	[Gantt bar from Sep 1 '13 to Sep 1 '13]																															
15	WTG Factory Training	Aug 25 '13	Sep 15 '13	[Gantt bar from Aug 25 '13 to Sep 15 '13]																															
16	WTG Sea Freight To Mombasa	Sep 8 '13	Oct 8 '13	[Gantt bar from Sep 8 '13 to Oct 8 '13]																															
17	Customs Clearance & Land Transport	Oct 8 '13	Nov 22 '13	[Gantt bar from Oct 8 '13 to Nov 22 '13]																															
18	WTG's Available On Site	Nov 11 '13	Nov 11 '13	[Gantt bar from Nov 11 '13 to Nov 11 '13]																															
19	WTG Mechanical Erection	Nov 17 '13	Feb 13 '14	[Gantt bar from Nov 17 '13 to Feb 13 '14]																															
20	WTG Electrical Erection	Feb 20 '14	Mar 22 '14	[Gantt bar from Feb 20 '14 to Mar 22 '14]																															
21	Assymetrical Digital Service Line Availability	Feb 13 '14	Feb 13 '14	[Gantt bar from Feb 13 '14 to Feb 13 '14]																															
22	SCADA Installation	Feb 13 '14	Mar 6 '14	[Gantt bar from Feb 13 '14 to Mar 6 '14]																															
23				[Gantt bar from Feb 12 '13 to Apr 22 '14]																															
24	WTG Testing & Commissioning	Feb 27 '14	Apr 13 '14	[Gantt bar from Feb 27 '14 to Apr 13 '14]																															
25	Testing Complete Wind Farm	Apr 13 '14	Apr 22 '14	[Gantt bar from Apr 13 '14 to Apr 22 '14]																															
26	<b>Take-Over of the Works</b>	<b>Apr 22 '14</b>	<b>Apr 22 '14</b>	[Gantt bar from Apr 22 '14 to Apr 22 '14]																															

Date:



**Kenya Power**

## KENYA POWER & LIGHTING CO. LTD.

JUNE 2014

### CONTENTS

1. Mandate of Kenya Power
2. Overview of the 12 month operating environment
3. Financial performance and Key Operational KPIs
4. Key Projects
5. Challenges and proposed mitigation
6. Conclusion/Way Forward



## 1. Mandate of Kenya Power

The Kenya Power and Lighting Company Ltd is a power utility which commenced operations in 1922 as the East African Power and Lighting Co. Ltd. The company has the mandate to purchase bulk electricity supply, transmit, distribute and retail electricity to end use customers throughout Kenya. Its purpose, responsibilities and core functions as a commercial state corporation in Kenya are stated in its vision and mission statements and are expressed in its relationships with other key players in the power sub-sector and in its contributions to the country's long term public policy and national development objectives.

### Mission Statement

Powering People for Better Lives

### Vision Statement

To provide world class power that delights our customers.



Kenya Power technicians carry out extensive work on the power infrastructure in Nairobi West as part of Operation Boresha Stima Viwandani in May 2014.



## 2. Overview of the 12 month operating environment

The major events in the operating environment that had highest levels of impact on company operations were:

- i. Approval was received from the Energy Regulatory Commission for implementation of the electricity tariff adjustment the company had applied for in February 2013. The implementation effective date was 1st December 2013 and it resulted in an initial 7.1% increase in basic revenue yield per kWh sold from Kshs. 8.09 to Kshs. 8.59 .
- ii. Profit before tax as at end of May 2014 improved to Kshs. 9,686 Million as compared to Kshs. 5,231 Million at the same time in the previous year. The improvement was due to combined effects of sharply increased sales and an improved operating efficiency. This was complimented by a tariff increase effective December 2013 that enabled the company to meet revenue requirements of the new IPP and KenGen generation plants that were commissioned in 2013 and 2014.
- iii. Rising GDP growth in 2013 has driven electricity sales growth to 10% as compared to 3.6% growth in the previous year. This growth is especially noted in the large power customer segment.
- iv. A total of 210.3 MW of new power generation capacity was commissioned in 2013/14 as compared to 40MW in the previous year. This has allowed for retirement of 90MW of emergency generation, which the most expensive source. The bulk power purchase cost, however, rose to Kshs. 4.59/kWh from Kshs. 4.36/kWh at the end of the previous year due to failure of the expected long rains between March and May 2014, leading to higher usage of more expensive thermal energy in the generation mix. The cost reduction benefit of the new 70MW Olkaria IV 1st unit geothermal was not yet realized due to the plant being commissioned in June 2014.

## 3. Financial performance and Key Operational KPIs

### i. Profit Before Tax

This has improved to Kshs. 9,686 million as at May 2014 as compared to 5,231 at the end of May 2013. This 85.2% growth is mostly attributable to a 10% increase in sales and 7% increase in revenue yield per kWh due to the tariff adjustment of December 2013.

### ii. Return on Investment

This has improved to 5.0% as at May 2014 as compared to 3.25% at the end of May 2013. This improvement is attributable to an 85% increase in profit before tax as compared to a 21.3% increase in total assets.



Bomet Substation during its commissioning.

### iii. Debt Equity Ratio

This has improved to 2.13 at May 2014 as compared to 2.07 at May 2013 due to a 25% increase in debt as compared to a 19% increase in equity. This ratio can still be raised further to 3.0 (75% debt against 25% equity) as recommended by the World Bank as the self-financing ratio for the company's major projects. This high debt-equity ratio mitigates the need for tariff increases to raise project development funds.

### iv. Development Index

This index has improved to 72.6% as compared to 58.3% at the same time in the previous year. This was due to comparatively higher value of capital expenditure in the period up to December 2013 that offset the growth in recurrent expenditure this year to date.

### v. Number of New Customers Connected

In the period from 1st July 2013 to 26th June 2014 a total of 412,453 new customers were connected, which is expected to rise above 420,000 by June 30th 2014. This compares to 289,619 in the entire year of 2012/13. Despite the rise in connection costs that has occurred the company has still managed to maintain this indicator on a positive trend. Factors contributing to this included increased availability of loans to prospective



customers, a KShs. 2.7 billion government subsidy applied in the 1st quarter 2013/14, an increase in number of new applications received and intensified mobilization of resources in the fourth quarter to accelerate new connections.

#### vi. Expand and Upgrade Electricity Distribution Network

The length of power lines (HV, MV and LV) constructed by the company had reached 17,246 (provisional result) Km by the end of 2013/14 as compared to 16,532 in the same period in the previous year. This growth is associated with high customer connectivity growth and timing of project completion. Due to long delay in reviewing new connection charges the company is now subsidizing new connection line LV extensions.



Eager residents of the Kibera informal settlement, Nairobi give technicians from Kenya Power a helping hand when the Company carried out an electrification project there in June 2012.



### **vii. Sales**

Sales for 2013/14 has improved to 7,175 GWh as compared to 6,576 GWh 2012/13 and is attributed mainly to economic growth, the rise in number of new customers connected in recent months and increased generation capacity that facilitated a rise in peak demand.

### **viii. Generation capacity procured**

In 2013/14 a total of 210.3 MW of new generation capacity was procured and became operational. This indicator in 2013/14 included the 87.5 MW Thika power station, 24 MW Kindaruma expansion, 16MW additional Orpower Geothermal Plant, 12.8 MW Geothermal Well Heads and 70 MW from Olkaria IV unit 1. This is greater than the 40 MW new capacity procured in the entire previous year.

### **ix. System Efficiency**

System Efficiency in 2013/14, which is electricity sold to final consumers as a percentage of energy purchased from generating companies at 82.0% (provisional result), was an improvement over the 81.32% achieved in the previous year. Mismatched timing of new power stations and transmission line developments contributed to higher than expected transmission losses in the past two years. Construction of the new higher capacity transmission line between Nairobi and Mombasa is ongoing, which will reduce transmission losses when complete. Connection of a large number of new customers at low voltage especially in rural areas where line distance between substations is long is also creating tendency for technical losses to arise. New substation and other network upgrading projects have had notable benefits in reducing system technical losses. Commercial losses (especially from power theft) continue to be addressed by widespread inspection of power supply installations.

### **x. LV Breakdowns per 1000 customers per month**

Average number of Low Voltage breakdowns per 1,000 customers per month at 9.70 is worse than the achievement 7.45 at the same time in the previous year, which is mainly a reflection of better data capture on incidences. This indicator has been affected by transformer vandalism, oil siphoning, shortage of 33kV cables and stay wire. Enhanced LV maintenance to address faults in the LV includes availing transformers & cables and reinforcement to repetitive cases.

### **xi. Average time to connect new customer upon payment**

Average time to connect new customers after payment (240V and 415V customers) worsened to 80 days as compared to 71 days at the end of the previous year. This result, however, does not include allowance for delays caused by customers. Analysis of the data shows that new customers are applying for connection at a time when their premises are not yet ready for connection as it is taking 48 days on average after payment for customers to submit internal wiring completion certificates as compared to 36 days on average for the company to carry out connection after receipt of the wiring certificates.



## xii. Average Tariffs

Average Industrial Retail Tariff in US dollars has worsened slightly to US cents 15 as compared to US cents 14 at the end of the previous year. This was a result of unfavourable generation mix in the period March to May 2014 when the expected long rains failed, which entailed insufficient hydro generation and greater use of expensive thermal generation.

Average Domestic Retail Tariff in US dollars has remained the same at US cents 20 as compared to the previous year. This indicator is affected by a stepped tariff entailing a higher energy charge for increased levels of consumption.



Kenya Power technicians prepare to install electricity to a house in Majimbo, an informal settlement in Embu County in April 2013.

## 4. Key Projects

(key projects being undertaken by your entity and a status update on the same)

Status of Contracts under the Project as at 31st May, 2014

RIGHT ISSUE PROJECTS								
Contract Name	Contract Signature	Commencement Date	Site Hand over date(C/W NEMA License & change of user)	Completion forecast date	Status (Percentage completion)	Contract amount (US\$ Equivalent)	Amount paid as of 31 st May, 2014	Notes
Kindaruma-Mwingi-Garissa Line	April 4, 2012	July 1, 2012	Aug 2012	Jan 2016	40%	14,308,673.80	5,693,975.77	<ul style="list-style-type: none"> <li>Foundation Cast:- 386No out of 691</li> <li>Tower Erection:-220No</li> </ul>
Eldoret-Kitale Line	April 4, 2012	July 1, 2012	Aug 2012	Jan 2016	37%	4,402,595.10	1,583,391.97	<ul style="list-style-type: none"> <li>oundation Cast:- 85No out of 200</li> <li>Tower Erection-39</li> </ul>
Kisii-Awendo Line	April 4, 2012	July 1, 2012	Aug 2012	Jan 2016	38%	2,580,815.60	978,925.74	<ul style="list-style-type: none"> <li>Foundation Cast.- 40No out of 124</li> <li>Tower Erection-11No</li> </ul>
Kindaruma s/s	April 4, 2012	July 1, 2012	Nov 2013	Nov 2015	39%	11,182,471.4	4,215,765.78	<ul style="list-style-type: none"> <li>Equipment foundation works resumed after solving the issue of river riparian with WRMA.</li> <li>FAT In-Progress</li> </ul>
Mwingi s/s	April 4, 2012	July 1, 2012	Nov 2013	Nov 2015	39%	11,182,471.4	4,215,765.78	<ul style="list-style-type: none"> <li>Equipment foundation works complete. Control room works on-going.</li> <li>FAT In-Progress</li> </ul>



## Status of Contracts under the Project as at 31st May, 2014

RIGHT ISSUE PROJECTS								
Contract Name	Contract Signature	Commencement Date	Site Hand over date(C/W NEMA License & change of user)	Completion forecast date	Status (Percentage completion)	Contract amount (US\$ Equivalent )	Amount paid as of 31 st May, 2014	Notes
Garissa s/s	April 4, 2012	July 1, 2012	Mar 2014	Mar 2016	39%	11,182,471.4	4,215,765.78	<ul style="list-style-type: none"> <li>• Earthworks in progress.</li> <li>• FAT In-Progress.</li> </ul>
Kitale s/s	April 4, 2012	July 1, 2012	Aug 2012	Nov 2015	20%	5,116,603.00	766,638.01	<ul style="list-style-type: none"> <li>• Kitale Equipment foundation civil works in-progress.</li> <li>• Eldoret: Line bay Foundation in-progress.</li> <li>• FAT completed except for protection</li> </ul>
Awendo s/s	April 4, 2012	July 1, 2012	Nov 2015	Nov 2015	10%	10,221,840.10	767,490.45	<ul style="list-style-type: none"> <li>• Kisii: Line bay foundations civil works in-progress</li> <li>• Awendo: Site yet to be handed over. Awaiting county approvals.</li> <li>• FAT completed except for protection</li> </ul>
Design & supervision Services	April 4, 2012	May 23, 2011	N/A	Aug, 2015	46%	4,779,817	2,193,809.24	<ul style="list-style-type: none"> <li>• Approval of designs in progress and site works supervision on-going.</li> </ul>



## Component C: Distribution

### a) Upgrading of substations and power lines.

RIGHT ISSUE PROJECTS								
Contract Name	Contract Signature	Commencement Date	Site Hand over date(C/W NEMA License & change of user)	Completion forecast date	Status (Percentage completion)	Contract amount (US\$ Equivalent )	Amount paid as of 31 st May, 2014	Notes
Supply of conductors, cables & cable accessories	Dec 23, 2011	Dec 23, 2011	N/A	Sept , 2012	100%	4,445,500	4,445,500	All Quantities delivered.
Supply of various 66kV, 33kV, & 11kV line construction material	Dec 23, 2011	Dec 23, 2011	N/A	Sept , 2012	100%	1,914,875	1,914,875	All Quantities delivered.
Supply of Isolators, Insulators & Surge Arrestors for 66kV, 33kV, & 11kV lines	Dec 23, 2011	Dec 23, 2011	N/A	Sept , 2012	100%	2,592,698	2,592,698	All Quantities delivered.
Supply of Concrete Poles		Dec 23, 2011	N/A	Sept , 2012	10%	8,758,904.25	943,443.64	Manufacturing & Delivery in-progress



## (b) EPC for Construction Of 66/11 kV substations In Nairobi Region- Lot 1

Contract Name	Contract Signature	Commencement Date	Site Hand over date(C/W NEMA License & change of user)	Completion forecast date	Status (Percentage completion)	Contract amount (US\$ Equivalent )	Amount paid as of 31 st May, 2014	Notes
Githunguri	Jun 14th 2012	Sept 10, 2012	Nov 2012	Nov 2014				<ul style="list-style-type: none"> <li>• Equipment foundations 90% done,</li> <li>• CRB up to lintel,</li> <li>• Boundary wall 15%</li> </ul>
Villa Franca	Jun 14th 2012	Sept 10, 2012	Nov 2012	Nov 2014	25%	20,895,779.00	4,816,489.07	<ul style="list-style-type: none"> <li>• Equipment foundations 90% complete</li> <li>• CRB complete,</li> <li>• TX foundations in progress, boundary wall 90%</li> </ul>
Magumu	Jun 14th 2012	Sept 10, 2012	Nov 2012	Nov 2014	25%	20,895,779.00	4,816,489.07	<ul style="list-style-type: none"> <li>• Equipment foundations 90% done,</li> <li>- CRB roofing in-progress</li> <li>- TX foundation in progress, boundary wall 70%</li> </ul>
Uplands	Jun 14th 2012	Sept 10, 2012	Nov 2012	Nov 2014	25%	20,895,779.00	4,816,489.07	<ul style="list-style-type: none"> <li>- Equipment foundations 10% done,</li> <li>- CRB up to ground beam,</li> <li>- boundary wall excavated</li> </ul>
Rironi	Jun 14th 2012	Sept 10, 2012	Nov 2012	Nov 2014	25%	20,895,779.00	4,816,489.07	<ul style="list-style-type: none"> <li>• Equipment foundations 60% done,</li> <li>• CRB in progress,</li> <li>• boundary wall 70</li> </ul>



**(b) EPC for Construction Of 66/11 kV substations In Nairobi Region- Lot 1**

Contract Name	Contract Signature	Commencement Date	Site Hand over date(C/W NEMA License & change of user)	Completion forecast date	Status (Percentage completion)	Contract amount (US\$ Equivalent )	Amount paid as of 31 st May, 2014	Notes
Lower Kabete	Jun 14th 2012	Sept 10, 2012	Nov 2012	Nov 2014	25%	20,895,779.00	4,816,489.07	Civil Works – 10%
Lukenya	Jun 14th 2012	Sept 10, 2012	Nov 2012	Nov 2014	25%	20,895,779.00	4,816,489.07	Awaiting county approvals
Dagoretti	Jun 14th 2012	Sept 10, 2012	Nov 2012	Nov 2014	25%	20,895,779.00	4,816,489.07	Awaiting county approvals
Kirigiti	Jun 14th 2012	Sept 10, 2012	Nov 2012	Nov 2014	25%	20,895,779.00	4,816,489.07	Alternative site being sought

**(c) EPC for Construction Of 33/11 kV Substations In West Kenya Region- Lot 2**

Kabarak	Jun 14th 2012	Sept 10, 2012	Mar 2013	Mar 2015	30%	10,275,037.80	2,992,165.44	Civil works – 30% Complete
Chepsion,	Jun 14th 2012	Sept 10, 2012	Mar 2013	Mar 2015	30%	10,275,037.80	2,992,165.44	Civil works – 20% Complete
Ahero	Jun 14th 2012	Sept 10, 2012	Mar 2013	Mar 2015	30%	10,275,037.80	2,992,165.44	Civil works – 25% Complete
Kibos	Jun 14th 2012	Sept 10, 2012	Mar 2013	Mar 2015	30%	10,275,037.80	2,992,165.44	Civil works – 20% Complete
Majengo,	Jun 14th 2012	Sept 10, 2012	Jan 2014	Jan 2016	30%	10,275,037.80	2,992,165.44	Civil works – 20% Complete
Maseno	Jun 14th 2012	Sept 10, 2012	Mar 2013	Mar 2015	30%	10,275,037.80	2,992,165.44	Civil works – 32% Complete
Elgon View	Jun 14th 2012	Sept 10, 2012	Mar 2013	Mar 2015	30%	10,275,037.80	2,992,165.44	Civil works – 30% Complete
Kipsarman	Jun 14th 2012	Sept 10, 2012	Mar 2013	Mar 2015	30%	10,275,037.80	2,992,165.44	Civil works – 20% Complete



## (d)EPC for Construction Of 33/11 kV Substations In Mt Kenya – Lot 3

Contract Name	Contract Signature	Commencement Date	Site Hand over date(C/W NEMA License & change of user)	Completion forecast date	Status (Percentage completion)	Contract amount (US\$ Equivalent )	Amount paid as of 31 st May, 2014	Notes
Juja,	Jun 29, 2012	Sept 10, 2012	Mar 2013	Mar 2015	21%	8,559,804.20	1,801,539.83	<ul style="list-style-type: none"> <li>• Equipment foundation complete</li> <li>• Control room walling works on-going.</li> </ul>
Kangema	Jun 29, 2012	Sept 10, 2012	Mar 2013	Mar 2015	21%	8,559,804.20	1,801,539.83	<ul style="list-style-type: none"> <li>• Control room building at roofing level</li> <li>• Equipment foundation completed</li> <li>• TX foundation completed</li> </ul>
Mwea	Jun 29, 2012	Sept 10, 2012	Jun 2013	Jun 2015	21%	8,559,804.20	1,801,539.83	<ul style="list-style-type: none"> <li>• Boundary wall on-going</li> <li>• Equipment Foundations on-going</li> <li>• Control room building on-going.</li> </ul>
Tala	Jun 29, 2012	Sept 10, 2012	Mar 2013	Mar 2013	21%	8,559,804.20	1,801,539.83	<ul style="list-style-type: none"> <li>• Boundary wall complete</li> <li>• Control room building roofing on-going</li> <li>• Equipment foundation 80% complete</li> </ul>
Gatundu	Jun 29, 2012	Sept 10, 2012	Mar 2013	Sept 2015	21%	8,559,804.20	1,801,539.83	Earthworks commenced





(e) EPC for Construction of 132/33/11 kV substations In Coast Region – Lot 4

Contract Name	Contract Signature	Commencement Date	Site Hand over date(C/W NEMA License & change of user)	Completion forecast date	Status (Percentage completion)	Contract amount (US\$ Equivalent)	Amount paid as of 31 st May, 2014	Notes
Jomvu	Aug 31, 2012	Nov 01, 2012	Nov 2012	Nov 2015	34%	6,185,347	2,091,513.81	<ul style="list-style-type: none"> <li>70% equipment delivered</li> <li>Earthworks on-going.</li> </ul>
Mishomoroni	Aug 31, 2012	Nov 01, 2012	Oct 2013	Oct 2015	34%	6,185,347	2,091,513.81	<ul style="list-style-type: none"> <li>60% equipment delivered</li> <li>Earthworks commenced</li> </ul>
Githunguri	July 27, 2012	Nov 5, 2012	Jan 2013	Oct 2014	30%	8,440,759.35	2,524,475.43	<ul style="list-style-type: none"> <li>Line Materials delivered.</li> <li>66kV line design in-progress</li> <li>11kV lines under wayleaves approval and some in design.</li> </ul>
Villa Franca	July 27, 2012	Nov 5, 2012	Jan 2013	Oct 2014	30%	8,440,759.35	2,524,475.43	<ul style="list-style-type: none"> <li>Line Materials delivered.</li> <li>66kV line pegging complete</li> <li>11kV lines: partial wayleaves granted and some in design.</li> </ul>
Magumu	July 27, 2012	Nov 5, 2012	Jan 2013	Oct 2014	30%	8,440,759.35	2,524,475.43	<ul style="list-style-type: none"> <li>Line Materials delivered.</li> <li>33kV line works in-progress</li> <li>11kV lines under wayleaves approval and some in design.</li> </ul>
Uplands	July 27, 2012	Nov 5, 2012	Jan 2013	Oct 2014	30%	8,440,759.35	2,524,475.43	<ul style="list-style-type: none"> <li>Line Materials delivered.</li> <li>66kV line design in-progress</li> <li>11kV lines under wayleaves approval and some in design.</li> </ul>

(f) EPC for construction of 66kV, 33kV and 11kV lines in Nairobi & Coast Regions- Lot 1

Contract Name	Contract Signature	Commencement Date	Site Hand over date(C/W NEMA License & change of user)	Completion forecast date	Status (Percentage completion)	Contract amount (US\$ Equivalent)	Amount paid as of 31 st May, 2014	Notes
Rironi	July 27, 2012	Nov 5, 2012	Jan 2013	Oct 2014	30%	8,440,759.35	2,524,475.43	<ul style="list-style-type: none"> <li>Line Materials delivered.</li> <li>66kV line design in-progress</li> <li>11kV lines under wayleaves approval and some in design</li> </ul>
Lower Kabete	July 27, 2012	Nov 5, 2012	Jan 2013	Oct 2014	30%	8,440,759.35	2,524,475.43	<ul style="list-style-type: none"> <li>Line Materials delivered.</li> <li>66kV line design in-progress</li> <li>11kV lines under wayleaves approval and some in design</li> </ul>
Lukenya	July 27, 2012	Nov 5, 2012	Jan 2013	Oct 2014	30%	8,440,759.35	2,524,475.43	<ul style="list-style-type: none"> <li>Line Materials delivered.</li> <li>66kV line design in-progress</li> <li>11kV lines under wayleaves approval and some in design</li> </ul>
Dagoretti	July 27, 2012	Nov 5, 2012	Sept 2013	Oct 2014	30%	8,440,759.35	2,524,475.43	<ul style="list-style-type: none"> <li>Line Materials delivered.</li> <li>66kV line design in-progress</li> <li>11kV lines under wayleaves approval and some in design</li> </ul>
Kirigiti	July 27, 2012	Nov 5, 2012	Oct 2013	Oct 2014	30%	8,440,759.35	2,524,475.43	Line Materials delivered.
Mishomoroni	July 27, 2012	Nov 5, 2012	Oct 2013	Oct 2014	30%	8,440,759.35	2,524,475.43	<ul style="list-style-type: none"> <li>33 &amp; 11kV line pegging in-progress.</li> </ul>
Jomvu	July 27, 2012	Nov 5, 2012	Jan 2013	Oct 2014	30%	8,440,759.35	2,524,475.43	<ul style="list-style-type: none"> <li>Partial wayleave clearance granted for 33kV lines.</li> <li>Pegging in-progress</li> </ul>



## (g) EPC for construction of 33 &amp; 11kV lines in West Kenya region – Lot 2

Contract Name	Contract Signature	Commencement Date	Site Hand over date(C/W NEMA License & change of user)	Completion forecast date	Status (Percentage completion)	Contract amount (US\$ Equivalent)	Amount paid as of 31 st May, 2014	Notes
Kabarak	July 27, 2012	Nov 5, 2012	Jan 2013	Oct 2014	43%	4,646,208.32	1,980,723.69	<ul style="list-style-type: none"> <li>Line Materials delivered.</li> <li>33kV line returned to design following KERA comments</li> <li>11kV Wayleave acquisition in-progress</li> </ul>
Chepsion	July 27, 2012	Nov 5, 2012	Jan 2013	Oct 2014	43%	4,646,208.32	1,980,723.69	<ul style="list-style-type: none"> <li>33kV line returned to contractor for re-design.</li> <li>11kV Wayleave acquisition in-progress</li> </ul>
Ahero	July 27, 2012	Nov 5, 2012	Jan 2013	Oct 2014	43%	4,646,208.32	1,980,723.69	<ul style="list-style-type: none"> <li>Line Materials delivered.</li> <li>33kV Line pegging in progress</li> <li>11kV Wayleave acquisition in-progress</li> </ul>
Kibos	July 27, 2012	Nov 5, 2012	Jan 2013	Oct 2014	43%	4,646,208.32	1,980,723.69	<ul style="list-style-type: none"> <li>Line Materials delivered.</li> <li>- 33kV construction in-progress</li> <li>- 11kV Wayleave acquisition in-progress</li> </ul>
Majengo	July 27, 2012	Nov 5, 2012	Jan 2013	Oct 2014	43%	4,646,208.32	1,980,723.69	<ul style="list-style-type: none"> <li>Line Materials delivered.</li> <li>33kV &amp; 11kV Designs in-progress, awaiting clearance by KeNHA following proposal to expand Kisumu-Kakamega rd.</li> </ul>
Maseno	July 27, 2012	Nov 5, 2012	Jan 2013	Oct 2014	43%	4,646,208.32	1,980,723.69	<ul style="list-style-type: none"> <li>Line Materials delivered.</li> <li>33kV &amp; 11kV pegging in progress.</li> </ul>



## (g) EPC for construction of 33 &amp; 11kV lines in West Kenya region – Lot 2

Contract Name	Contract Signature	Commencement Date	Site Hand over date(C/W NEMA License & change of user)	Completion forecast date	Status (Percentage completion)	Contract amount (US\$ Equivalent)	Amount paid as of 31 st May, 2014	Notes
Elgon View	July 27, 2012	Nov 5, 2012	Jan 2013	Oct 2014	43%	4,646,208.32	1,980,723.69	<ul style="list-style-type: none"> <li>Line Materials delivered.</li> <li>33kV Wayleave acquisition in-progress</li> <li>11kV line construction in progress.</li> </ul>
Kipsarman	July 27, 2012	Nov 5, 2012	Jan 2013	Oct 2014	43%	4,646,208.32	1,980,723.69	<ul style="list-style-type: none"> <li>Line Materials delivered.</li> <li>33kV &amp; 11kV Designs in-progress. KPLC considering changing from concrete to wooden pole due to rough terrain.</li> </ul>

## (h) EPC for construction of 33 &amp; 11kV Lines in Mt. Kenya region – Lot 3

Juja	July 27, 2012	Nov 01, 2012	Feb 2013	Oct 2014	25%	4,869,185.48	1,964,226.20	<ul style="list-style-type: none"> <li>66kV line on-going</li> <li>11kV wayleave acquisition in-progress</li> </ul>
Kangema	July 27, 2012	Nov 05, 2012	Feb 2013	Oct 2014	25%	4,869,185.48	1,964,226.20	<ul style="list-style-type: none"> <li>Line Materials delivered.</li> <li>33kV pole erection on-going</li> <li>11kV wayleave acquisition in-progress</li> </ul>
Mwea	July 27, 2012	Nov 05, 2012	Jun 2013	Oct 2014	25%	4,869,185.48	1,964,226.20	<ul style="list-style-type: none"> <li>Line Materials delivered.</li> <li>Design in-progress</li> </ul>
Tala	July 27, 2012	Nov 05, 2012	Feb 2013	Oct 2014	25%	4,869,185.48	1,964,226.20	<ul style="list-style-type: none"> <li>Line Materials delivered.</li> <li>66kV hole digging in-progress</li> <li>11kV wayleave acquisition in-progress</li> </ul>
Gatundu	July 27, 2012	Nov 05, 2012	Sept 2013	Oct 2014	25%	4,869,185.48	1,964,226.20	<ul style="list-style-type: none"> <li>Line Materials delivered.</li> <li>Design in-progress.</li> </ul>



## (h) EPC for construction of 33 &amp; 11kV Lines in Mt. Kenya region – Lot 3

Contract Name	Contract Signature	Commencement Date	Site Hand over date(C/W NEMA License & change of user)	Completion forecast date	Status (Percentage completion)	Contract amount (US\$ Equivalent)	Amount paid as of 31 st May, 2014	Notes
Pre-payment meters.	Aug 31, 2012	Nov 05, 2012	N/A	Sept 2014	100%	6,657,400	6,657,300.00	Complete
Distribution Supervision support services	Aug 31, 2012	Nov 05, 2012	N/A	Jul 2016	60%	1,184,449	936,282.89	<ul style="list-style-type: none"> <li>Approving Designs as submitted on-going.</li> <li>Site supervision in-progress.</li> </ul>
Slum Electrification	Aug 31, 2012	Aug 31, 2012	N/A	Jun 2014	2%	10,000,000	402,075.00	<ul style="list-style-type: none"> <li>Design in-progress: 5 No. Schemes</li> <li>Design completed: 40 No. Schemes</li> <li>Wayleaves in-progress:5 No. Scheme</li> <li>Approved for construction: 41 No. Schemes</li> <li>Construction in-progress: 24 No. Schemes</li> <li>Approved awaiting construction:8 No. Schemes</li> <li>Customers connected and metered in March: 651 No.</li> </ul>
GPOBA: IVA - Services	Aug 31, 2012	Aug 31, 2012	N/A	Jun 2014	18%	73,205	19,033.43	<ul style="list-style-type: none"> <li>1st&amp; 2nd Quarter verification done for a total of 1790 meters.</li> </ul>



**TURNKEY KPLC AND IFC PROJECTS**
**Status of Contracts under the Project as at 31st May, 2014**

Contract Name	Contract Signature	Commencement Date	Site Hand over date(C/W NEMA License & change of user)	Completion forecast date	Status (Percentage completion)	Contract amount (US\$ Equivalent)	Amount paid as of 31 st May, 2014	Notes
Magadi 66/33kV S/Stn and lines	May 24, 2012	Jun, 22, 2012	Aug 2012	30/3/2014	22%	3,367,027.09	Nil	<ul style="list-style-type: none"> <li>• Civil Works on-going</li> </ul>
Hindi – Mukunubi / Kibaoni Market 33kV line	July 22, 2013	Nov 30, 2013	Dec 2013	Feb 2015	25%	1,156,768	11,567	<ul style="list-style-type: none"> <li>• Pole erection in progress</li> <li>• Pole delivery in progress</li> </ul>
Hindi – Mokowe/Lamu 66kV and 33kV line	Apr 26, 2013	Apr 26, 2013	June 2013	Aug 2014	50%	2,024,044.64	789,411.76	<ul style="list-style-type: none"> <li>• Dressing and stringing in-progress.</li> </ul>
Thika North 66/11kV, 2x23MVA S/Stn and lines	July 22, 2013	Nov 30 2013	Dec 2013	Feb 2015	15%	6,343,278.83	Nil	<ul style="list-style-type: none"> <li>• design approvals ongoing.</li> <li>• Pegging on-going</li> <li>• Equipment manufacturing in-progress</li> </ul>
Maungu 132/33Kv, 1x15MVA S/Stn and Lines	Dec 24, 2013	Not yet	Not yet	Not yet	10%	7,899,550.73	789,952.22	<ul style="list-style-type: none"> <li>• Design in-progress</li> </ul>
Mamlaka 66/11kV, 2x23MVA S/Stn and lines	Dec 24, 2013	Not yet	Not yet	Not yet	10%	7,822,545.47	782,254.58	<ul style="list-style-type: none"> <li>• Design in-progress</li> </ul>
Bahati 33/11kV, 1X7.5MVA S/Stn and lines	Dec 24, 2013	Not yet	Not yet	Not yet	10%	4,349,492.80	434,948.85	<p>Contract signed, pending effectiveness</p> <p>Site handover done, effective date to be declared on release of advance payment.</p>



## RIGHTS ISSUE PROJECTS

### Status of Contracts under the Project as at 31st May, 2014

Contract Name	Commencement Date	Completion forecast date	Status (Percentage completion)	Contract amount (US\$ Equivalent)	Amount paid as of 31 st May, 2014	Notes
City Square 66/11	March 01, 2012	June 01, 2013	72.10%	7,667,972.44	5,528,249.15	All feeders commissioned
Embu 33/11	February 09, 2012	April 08, 2013	80.74%	3,720,824.70	3,004,287.17	Snags being resolved
Eastleigh 66/11	April 01, 2012	July 01, 2013	77.88%	7,951,018.88	6,192,354.89	Feeders commissioned
Thika 66/11	February 15, 2012	May 14, 2013	77.33%	8,703,345.97	6,729,892.83	All feeders commissioned
Nyeri 33/11	June 01, 2012	Sept 01, 2013	75.33%	5,407,235.94	4,073,301.22	All feeders commissioned
Kasarani 66/11	Aug 06, 2013	Nov 06, 2014	13.98%	7,073,584.25	988,657.65	Civil works in progress. Line construction on-going.





**IFC PROJECTS**

IFC - (WORLD BANK GROUP)	Financier	Contractor	Contract amount \$(M)	Contract effective date	Period of Contract	Date Due for Completion	Status	Objective
Maungu 132/33kv S/S & Lines	IFC	AEE - SA Spain	7.889	N/A	N/A	N/A	Evaluation completed. Awaiting effective date	Capacity enhancement at Maungu and De-Link from KPC system and alternate line to Voi town
Bahati 33/11 KV s/s & Lines	IFC	ABB Kenya	4.349	N/A	N/A	N/A	Evaluation completed. Awaiting effective date	Capacity enhancement, voltage support reliability and alternate supply to Bahati area of Nakuru
Mamlaka GIS s/s & Lines	IFC	HydroChina Huadong	6.743	N/A	N/A	N/A	Evaluation completed. Awaiting effective date	Capacity enhancement, voltage support and reliability improvement in Nairobi's State House, University of Nairobi and relieve Cathedral SS.

**KPLC NAIROBI RING PROJECT (EPCF)**

Thika Road 220/66KV substation (Kenyatta University)	KPLC/AEE Spain	AEE SA - Spain	28.97	Pending effective date	30Months	Not Set	Pending site acquisition and effective date	Capacity enhancement, voltage support and reliability improvement around Nairobi City & Environs. Part of the Nairobi 220KV Ring Project
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**KPLC/MOE FUNDED TURNKEY PROJECTS**

Magadi Road GSU 66/33	MoE	ABB South Africa	28.97	26/4/2012	14 Months	May 2014	Civil works in progress	Serve magadi GSU camp and its environs. Reduce the 11kV lines to Magadi
Kahaini 66/11 SS	MoE	Etrade	4.00	30/10/2013	14 Months	31st December 2014	Design approval in progress	Of load Makuyu and thika town substations
Lamu 33/11	MoE	Retendered	N/A	N/A	N/A	N/A	Retendering to be done on 16th January	Remove the off grid station at lamu and supply lamu town



**KPLC/MOE FUNDED TURNKEY PROJECTS**

IFC – (WORLD BANK GROUP)	Financier	Contractor	Contract amount \$(M)	Contract effective date	Period of Contract	Date Due for Completion	Status	Objective
Hindi – Mokowe 33KV Line	MoE	Powergen	2.00	April 2013	14 Months	June 2014	Pole erection in progress	Serve Hindi town, mokowe town and supply Lamu island substation
Hindi – Kibaoni 33KV line	MoE	Powergen	1.10	April 2013	14 Months	31st December 2014	Designs in progress.	Produce independent feeders to Witu and Mpeketoni towns from Hindi substation

**KPLC/KETRACO 132 KV TRANSMISSION SUBSTATIONS**

Kindaruma- Mwingi- Garissa 132kv S/S	IDA	KEC Int. Ltd	11.18	July, 2012	18 Months	Jun, 2014	On going (KPLC/KETRACO)	Capacity enhancement, voltage support at Mwingi and Garrissa. Retire Diesel stations.
Eldoret –Kitale 132KV S/S	IDA	ABB (PTY) Ltd	5.12	July, 2012	18 Months	Jun, 2014	On going (KPLC/KETRACO)	Capacity enhancement, voltage support and reliability improvement in Kitale & environs
Kisii - Awendo 132 KV S/S	IDA	ABB (PTY) Ltd	10.22	July, 2012	18 Months	Jun, 2014	On going (KPLC/KETRACO)	Capacity enhancement, voltage support and reliability improvement in Southern Nyanza & environs

**KPLC/KETRACO 132 KV TRANSMISSION LINES**

Kindaruma – Mwingi - Garissa 132kv Lines	IDA	Tata Projects Ltd	14.31	July, 2012	24 Months	Jun, 2014	On going (KPLC/KETRACO)	Tx Lines for Capacity enhancement, voltage support at Mwingi and Garrissa. Retire Diesel stations.
Eldoret – Kitale 132KV Lines	IDA	Tata Projects Ltd	4.40	July, 2012	18 Months	February 2014	On going (KPLC/KETRACO)	Tx Lines for Capacity enhancement, voltage support and reliability improvement in Kitale & Environs
Kisii-Awendo 132 KV Lines	IDA	Tata Projects Ltd	2.55	July, 2012	18 Months	February 2014	On going (KPLC/KETRACO)	Tx Lines for Capacity enhancement, voltage support and reliability improvement in Southern Nyanza & environs



**KEEP - CONSTRUCTION OF DISTRIBUTION SUBSTATIONS**

KENYA ELECTRICITY EXPANSION PROJECT - CREDIT NO. 4743 - KE	Financier	Contractor	Contract amount \$(M)	Contract effective date	Period of Contract	Date Due for Completion	Status	Objective
<b>LOT-1-Nairobi</b>								
<b>Region</b>								
Rironi	IDA	KEC Int. Ltd	20.89	Sept,2012	24 Months	Sept.2014	On going	Loss reduction, capacity enhancement and improve reliability.
Magumu	IDA	KEC Int. Ltd	20.89	Sept,2012	24 Months	Sept.2014	On going	Loss reduction, capacity enhancement and improve reliability.
Lower Kabete	IDA	KEC Int. Ltd	20.89	Sept,2012	24 Months	Sept.2014	On going	Loss reduction, capacity enhancement and improve reliability.
Ndenderu	IDA	KEC Int. Ltd	20.89	Sept,2012	24 Months	Sept.2014	On going	Loss reduction, capacity enhancement and improve reliability.
Githunguri	IDA	KEC Int. Ltd	20.89	Sept,2012	24 Months	Sept.2014	On going	Loss reduction, capacity enhancement and improve reliability.
Kirigiti	IDA	KEC Int. Ltd	20.89	Sept,2012	24 Months	Sept.2014	On going	Loss reduction, capacity enhancement and improve reliability.
Villa Franca	IDA	KEC Int. Ltd	20.89	Sept,2012	24 Months	Sept.2014	On going	Loss reduction, capacity enhancement and improve reliability.
Uplands	IDA	KEC Int. Ltd	20.89	Sept,2012	24 Months	Sept.2014	On going	Loss reduction, capacity enhancement and improve reliability.
Lukenya	IDA	KEC Int. Ltd	20.89	Sept,2012	24 Months	Sept.2014	On going	Loss reduction, capacity enhancement and improve reliability.

KENYA ELECTRICITY EXPANSION PROJECT – CREDIT NO. 4743 - KE	Financier	Contractor	Contract amount \$(M)	Contract effective date	Period of Contract	Date Due for Completion	Status	Objective
Lot 2- West Kenya								
Ahero	IDA	Siemens India Ltd	10.28	Sept,2012	24 Months	Sept.2014	On going	Loss reduction, capacity enhancement and improve reliability.
Maseno	IDA	Siemens India Ltd	10.28	Sept,2012	24 Months	Sept.2014	On going	Loss reduction, capacity enhancement and improve reliability.
Chepseon	IDA	Siemens India Ltd	10.28	Sept,2012	24 Months	Sept.2014	On going	Loss reduction, capacity enhancement and improve reliability.
Elgon View	IDA	Siemens India Ltd	10.28	Sept,2012	24 Months	Sept.2014	On going	Loss reduction, capacity enhancement and improve reliability.
Kipsarrman	IDA	Siemens India Ltd	10.28	Sept,2012	24 Months	Sept.2014	On going	Loss reduction, capacity enhancement and improve reliability.
Kibos	IDA	Siemens India Ltd	10.28	Sept,2012	24 Months	Sept.2014	On going	Loss reduction, capacity enhancement and improve reliability.
Kabarak University	IDA	Siemens India Ltd	10.28	Sept,2012	24 Months	Sept.2014	On going	Loss reduction, capacity enhancement and improve reliability.
Majengo - Vihiga.	IDA	Siemens India Ltd	10.28	Sept,2012	24 Months	Sept.2014	On going	Loss reduction, capacity enhancement and improve reliability.



KENYA ELECTRICITY EXPANSION PROJECT – CREDIT NO. 4743 - KE	Financier	Contractor	Contract amount \$(M)	Contract effective date	Period of Contract	Date Due for Completion	Status	Objective
<b>Lot-3 – Mt. Kenya Region</b>								
Gatundu	IDA	KEC Int. Ltd	8.56	Sept,2012	24 Months	Sept.2014	On going	Loss reduction, capacity enhancement and improve reliability.
Kangema	IDA	KEC Int. Ltd	8.56	Sept,2012	24 Months	Sept.2014	On going	Loss reduction, capacity enhancement and improve reliability.
Tala	IDA	KEC Int. Ltd	8.56	Sept,2012	24 Months	Sept.2014	On going	Loss reduction, capacity enhancement and improve reliability.
Mwea	IDA	KEC Int. Ltd	8.56	Sept,2012	24 Months	Sept.2014	On going	Loss reduction, capacity enhancement and improve reliability.
Juja	IDA	KEC Int. Ltd	8.56	Sept,2012	24 Months	Sept.2014	On going	Loss reduction, capacity enhancement and improve reliability.
<b>Lot 4-Coast Region</b>								
Jomvu	IDA	CHINT ELECTRIC Ltd	6.19	Nov,2012	24 Months	November .2014	On going	Loss reduction, capacity enhancement and improve reliability in mainland west – Jomvu, Miritini, Chaani and adjacent areas
Mshomoroni	IDA	CHINT ELECTRIC Ltd	6.19	Nov,2012	24 Months	November .2014	On going	Loss reduction, capacity enhancement and improve reliability – mainland north Mshomoroni, Utange, Kisauni.





## CONSTRUCTION OF DISTRIBUTION LINES

KENYA ELECTRICITY EXPANSION PROJECT - CREDIT NO. 4743 - KE	Financier	Contractor	Contract amount \$(M)	Contract effective date	Period of Contract	Date Due for Completion	Status	Objective
LOT-1-Nairobi & Coast Regions								
Rironi	IDA	SINOTEC LTD	8.44	November,2012	15 months	July 2014	On going	
Magumu	IDA	SINOTEC LTD	8.44	November,2012	15 months	July 2014	On going	
Lower Kabete	IDA	SINOTEC LTD	8.44	November,2012	15 months	July 2014	On going	Feed in and Feed-out Lines to supply new KEEP SS's above for Loss reduction,
Ndenderu	IDA	SINOTEC LTD	8.44	November,2012	15 months	July 2014	On going	
Githunguri	IDA	SINOTEC LTD	8.44	November,2012	15 months	July 2014	On going	
Kirigiti	IDA	SINOTEC LTD	8.44	November,2012	15 months	July 2014	On going	
Villa Franca	IDA	SINOTEC LTD	8.44	November,2012	15 months	July 2014	On going	
Uplands	IDA	SINOTEC LTD	8.44	November,2012	15 months	July 2014	On going	Capacity enhancement and improve reliability.
Lukenya	IDA	SINOTEC LTD	8.44	November,2012	15 months	July 2014	On going	
Jomvu	IDA	SINOTEC LTD	8.44	November,2012	15 months	July 2014	On going	
Mshomoroni	IDA	SINOTEC LTD	8.44	November,2012	15 months	July 2014	On going	



**CONSTRUCTION OF DISTRIBUTION LINES**

KENYA ELECTRICITY EXPANSION PROJECT - CREDIT NO. 4743 - KE	Financier	Contractor	Contract amount \$(M)	Contract effective date	Period of Contract	Date Due for Completion	Status	Objective
<b>Lot 2-West</b>								
<b>Kenya</b>								
Ahero	IDA	SINOTEC LTD	4.65	November,2012	15 months	July 2014	On going	
Maseno	IDA	SINOTEC LTD	4.65	November,2012	15 months	July 2014	On going	
Chepseon	IDA	SINOTEC LTD	4.65	November,2012	15 months	July 2014	On going	
Elgon View	IDA	SINOTEC LTD	4.65	November,2012	15 months	July 2014	On going	Feed in and Feed-out Lines to supply new KEEEP SS's above for Loss reduction, capacity enhancement and improve reliability.
Kipsarrman	IDA	SINOTEC LTD	4.65	November,2012	15 months	July 2014	On going	
Kibos	IDA	SINOTEC LTD	4.65	November,2012	15 months	July 2014	On going	
Kabarak University	IDA	SINOTEC LTD	4.65	November,2012	15 months	July 2014	On going	
Majengo	IDA	SINOTEC LTD	4.65	November,2012	15 months	July 2014	On going	
<b>Lot-3 -Mt. Kenya</b>								
<b>Region</b>								
Gatundu	IDA	KEC Int. Ltd	4.87	November,2012	15 months	July 2014	On going	
Kangema	IDA	KEC Int. Ltd	4.87	November,2012	15 months	July 2014	On going	Feed in and Feed-out Lines to supply new KE
Tala	IDA	KEC Int. Ltd	4.87	November,2012	15 months	July 2014	On going	EP SS's above for Loss reduction, capacity enhancement and improve reliability.
Mwea	IDA	KEC Int. Ltd	4.87	November,2012	15 months	July 2014	On going	
Juja	IDA	KEC Int. Ltd	4.87	November,2012	15 months	July 2014	On going	



## 5. Challenges and proposed mitigation

Risk / Challenge	Mitigation
1. Unaffordability of connection cost by new ordinary customers	<ul style="list-style-type: none"> <li>• Loan facilities for customers</li> <li>• Support from GOK to meet connectivity costs</li> <li>• Review costs to increase efficiencies</li> <li>• Pre-investment</li> </ul>
2. Weak scrap metal law	<ul style="list-style-type: none"> <li>• Government to be lobbied to strengthen scrap metal law to effectively deter vandalism</li> </ul>
3. Drought induced power rationing	<ul style="list-style-type: none"> <li>• Diversification of energy sources.</li> <li>• Interconnection of the national grid with neighbouring countries</li> <li>• Discovery and development of new energy sources in the country</li> </ul>
4. Uncoordinated development planning (esp. cabling) with other utilities	<ul style="list-style-type: none"> <li>• Improved consultation and coordination between infrastructural developers including water and telecommunications</li> </ul>
5. Levies demanded by various Government entities for power infrastructure leading to debt conflicts. May also lead to higher tariffs.	<ul style="list-style-type: none"> <li>• Intervention by Central Government to resolve disputes, set relevant policy and harmonise relevant laws</li> </ul>
6. Delays in implementation of generation projects leading to continued suppressed demand and dampened sales Government delay in providing guarantees required for implementing generation projects.	<ul style="list-style-type: none"> <li>• Continued temporary use of emergency generation.</li> <li>• Raise generation reserve margin requirement from 15% to 30% provide future cushion for project delays.</li> <li>• Demand Side Management and Energy Efficiency programs to substitute for new plant.</li> <li>• Government to establish a policy and legal framework for provision of government support and securities for project implementation</li> </ul>
7. Right of Way for power lines, (wayleaves acquisition, encroachment, trace clearance)	<ul style="list-style-type: none"> <li>• Public Education</li> <li>• Engaging Government, County and other public bodies</li> <li>• Intensified trace maintenance</li> <li>• Linking transmission line development to new generation plant development</li> </ul>
8. High levels of vandalism and theft of power assets	<ul style="list-style-type: none"> <li>• Intensify anti-vandalism security measures.</li> <li>• Ensure enforcement of new stiff penalties.</li> <li>• Engage communities in anti-vandalism efforts.</li> <li>• Engage authorities</li> <li>• Step up prosecution of vandalism cases</li> </ul>



## 6. Conclusion/Way Forward

The priority strategic initiatives of the company are as follows:

- Continue with construction of 31 new KEEP funded substation projects scheduled to be completed in 2015
- Extend automation of the distribution Network
- Increase redundancy and dedicated lines to large power customers so as to eliminate power outages affecting them
- Implementation of the Distribution Master Plan
- Enhance anti-vandalism technical and legal interventions
- Ensure over 1.5 million new electricity customers are connected in every 5 year period
- Sales growth has now reached 10% annual rate, which has to be raised to 15% annual growth to meet 5000+ MW generation expansion plan.
- Fast Track Regional interconnection (Kenya - Ethiopia, Kenya - Tanzania and second Kenya - Uganda links)
- Structured procurement of 5,093 MW by 2017 out of which 2,383 MW is already committed to be built.

Although a very ambitious and costly power network infrastructural investment programme is being implemented to serve the aims of the Vision 2030 Medium Term Plan, it is noted that this programme has attracted keen attention from lenders, led by the World Bank, who are financing the majority of these projects to fruition.

Reasons for optimism of continued sales growth in the plan period include growth of the economy, massive infrastructural investment in the country, a vibrant domestic private sector and growing foreign direct investment in to the country.

The company remains keenly aware that it provides an essential service as an input in productive activity and residential life in the modernising economy and as such recognises customer satisfaction as a core objective.

# APPENDIX

KENYA POWER & LIGHTING CO. LTD.  
WORKPLAN



REPUBLIC OF KENYA



Kenya Power

<b>THE 5000+ MW POWER GENERATION PROJECTS</b>	<b>KENYA POWER &amp; LIGHTING COMPANY</b>	<b>934MW KENYA POWER CONTRIBUTION THROUGH IPPS SEPT 2013 - DEC 2016</b>
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ID	Task Name	Duration	Start	Finish	Half 1, 2013				Half 2, 2013				Half 1, 2014				Half 2, 2014				Half 1, 2015				Half 2, 2015				Half 1, 2016				Half 2, 2016				Half 1, 2017																																														
					J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J
1	<b>Thika Power 87MW</b>	197 days	4/1/13	12/31/13																																																																															
2	Construction (Steam Unit)	109 days	8/1/13	12/31/13																																																																															
3	Interim Commercial Operation Tests	101 days	4/1/13	8/18/13																																																																															
4	Full Commercial Operation Tests	23 days	11/30/13	12/31/13																																																																															
5	Full Commercial Operation Date	0 days	12/31/13	12/31/13																																																																															
6	<b>OrPower4 16MW</b>	278 days	4/1/13	4/23/14																																																																															
7	Construction	278 days	4/1/13	4/23/14																																																																															
8	Full Commercial Operation Tests	67 days	12/28/13	3/31/14																																																																															
9	Full Commercial Operation Date	0 days	4/23/14	4/23/14																																																																															
10	<b>Triumph Power 83MW</b>	326 days	4/1/13	6/30/14																																																																															
11	Construction	281 days	4/1/13	4/28/14																																																																															
12	66kV Interconnection Facilities	86 days	1/1/14	4/30/14																																																																															
13	Full Commercial Operation Tests	43 days	5/1/14	6/30/14																																																																															
14	Full Commercial Operation Date	0 days	6/30/14	6/30/14																																																																															
15	<b>Gulf Power 80MW</b>	326 days	4/1/13	6/30/14																																																																															

THE KENYA POWER & LIGHTING COMPANY LTD

DR. BEN CHUMO

MD & CEO

Sign: \_\_\_\_\_

Date: \_\_\_\_\_



<b>THE 5000+ MW POWER GENERATION PROJECTS</b>	<b>KENYA POWER &amp; LIGHTING COMPANY</b>	<b>934MW KENYA POWER CONTRIBUTION THROUGH IPPS SEPT 2013 - DEC 2016</b>
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ID	Task Name	Duration	Start	Finish	Half 1, 2013		Half 2, 2013		Half 1, 2014		Half 2, 2014		Half 1, 2015		Half 2, 2015		Half 1, 2016		Half 2, 2016		Half 1, 2017							
					J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
16	Construction	283 days	4/1/13	4/30/14	IPP																							
17	66kV Interconnection Facilities	86 days	1/1/14	4/30/14	KPLC																							
18	Full Commercial Operation Tests	43 days	5/1/14	6/30/14	IPP																							
19	Full Commercial Operation Date	0 days	6/30/14	6/30/14	◆ 6/30																							
20	<b>Kinangop Wind 60MW</b>	<b>695 days</b>	<b>1/1/13</b>	<b>8/31/15</b>	(Red bar)																							
21	PPA Approval	53 days	1/1/13	3/14/13	ERC																							
22	Effectiveness of PPA	177 days	3/14/13	11/15/13	IPP/KPLC																							
23	Construction	467 days	11/16/13	8/31/15	IPP																							
24	Transmission line Construction	446 days	11/16/13	7/31/15	IPP																							
25	Commissioning	66 days	6/1/15	8/31/15	IPP																							
26	Full Commercial Operation Date	0 days	8/31/15	8/31/15	◆ 8/31																							
27	<b>Lake Turkana Wind Power 300MW</b>	<b>1045 days</b>	<b>1/1/13</b>	<b>12/31/16</b>	(Red bar)																							
28	PPA Approval	90 days	1/1/13	5/6/13	ERC																							
29	Effectiveness of PPA	216 days	5/6/13	3/1/14	IPP/KPLC																							
30	Escrow Agreement	196 days	5/6/13	2/3/14	TREASURY/IPP/KPLC																							

THE KENYA POWER & LIGHTING COMPANY LTD

DR. BEN CHUMO                      MD & CEO                      Sign: \_\_\_\_\_                      Date: \_\_\_\_\_



REPUBLIC OF KENYA



Kenya Power

THE 5000+ MW POWER GENERATION PROJECTS	KENYA POWER & LIGHTING COMPANY	934MW KENYA POWER CONTRIBUTION THROUGH IPPS SEPT 2013 - DEC 2016
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ID	Task Name	Duration	Start	Finish	Half 1, 2013		Half 2, 2013		Half 1, 2014		Half 2, 2014		Half 1, 2015		Half 2, 2015		Half 1, 2016		Half 2, 2016		Half 1, 2017																		
					J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N
31	Escrow Account Opening	563 days	2/4/14	3/31/16																																			
32	Construction	719 days	3/1/14	11/30/16																																			
33	Interconnection Facilities	566 days	3/1/14	4/29/16																																			
34	Transmission line Construction	566 days	3/1/14	4/29/16																																			
35	Suswa Substation Construction	566 days	3/1/14	4/29/16																																			
36	Loyangalani Substation Construction	566 days	3/1/14	4/29/16																																			
37	Suswa Isinya line	566 days	3/1/14	4/29/16																																			
38	Commissioning	155 days	5/1/16	12/1/16																																			
39	Full Commercial Operation Date	0 days	12/31/16	12/31/16																																			
40	<b>AGIL 70MW (Geo.)</b>	<b>1039 days</b>	<b>1/9/13</b>	<b>12/31/16</b>																																			
41	PPA Approval	37 days	1/9/13	2/28/13																																			
42	Effectiveness of PPA	263 days	2/28/13	3/3/14																																			
43	Government Support Letter	243 days	2/28/13	2/3/14																																			
44	Generation Licence	252 days	2/28/13	2/14/14																																			
45	Reservior Confirmation	263 days	3/3/14	3/4/15																																			

THE KENYA POWER & LIGHTING COMPANY LTD

DR. BEN CHUMO

MD & CEO

Sign: \_\_\_\_\_

Date: \_\_\_\_\_





REPUBLIC OF KENYA

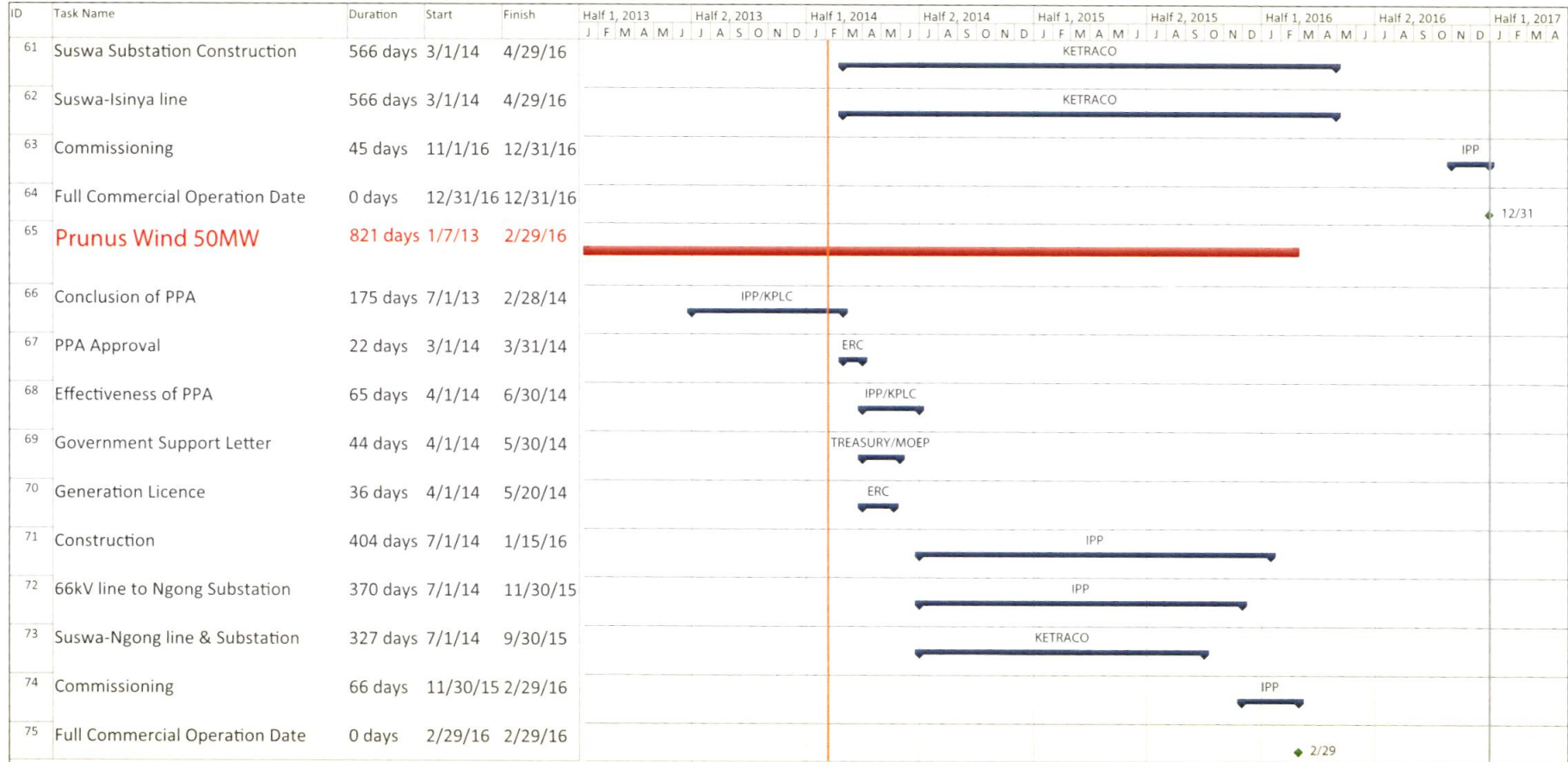


Kenya Power

**THE 5000+ MW POWER GENERATION PROJECTS**

**KENYA POWER & LIGHTING COMPANY**

**934MW KENYA POWER CONTRIBUTION THROUGH IPPS  
SEPT 2013 - DEC 2016**



THE KENYA POWER & LIGHTING COMPANY LTD

DR. BEN CHUMO

MD & CEO

Sign: \_\_\_\_\_

Date: \_\_\_\_\_



<b>THE 5000+ MW POWER GENERATION PROJECTS</b>	<b>KENYA POWER &amp; LIGHTING COMPANY</b>	<b>934MW KENYA POWER CONTRIBUTION THROUGH IPPS SEPT 2013 - DEC 2016</b>
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ID	Task Name	Duration	Start	Finish	Half 1, 2013			Half 2, 2013			Half 1, 2014			Half 2, 2014			Half 1, 2015			Half 2, 2015			Half 1, 2016			Half 2, 2016			Half 1, 2017										
					J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N
76	<b>Kipeto Wind 100MW</b>	652 days	9/1/13	2/29/16	[Red bar spanning from Sep 2013 to Feb 2016]																																		
77	PPA Negotiations	111 days	9/1/13	1/31/14	[Black bar labeled IPP/KPLC from Sep 2013 to Jan 2014]																																		
78	PPA Approval	43 days	1/1/14	2/28/14	[Black bar labeled ERC from Jan 2014 to Feb 2014]																																		
79	Effectiveness of PPA	87 days	2/1/14	5/31/14	[Black bar labeled IPP/KPLC from Feb 2014 to May 2014]																																		
80	Government Support Letter	74 days	2/3/14	5/15/14	[Black bar labeled NT/MOEP from Feb 2014 to May 2014]																																		
81	Generation Licence	64 days	2/3/14	5/1/14	[Black bar labeled ERC from Feb 2014 to May 2014]																																		
82	Construction	478 days	5/1/14	2/29/16	[Black bar labeled IPP from May 2014 to Feb 2016]																																		
83	220kV line to Isinya Substation	392 days	5/1/14	10/30/15	[Black bar labeled IPP from May 2014 to Oct 2015]																																		
84	Isinya Substation	370 days	5/1/14	9/30/15	[Black bar labeled KETRACO from May 2014 to Sep 2015]																																		
85	Commissioning	66 days	11/30/15	2/29/16	[Black bar labeled IPP from Nov 2015 to Feb 2016]																																		
86	Full Commercial Operation Date	0 days	2/29/16	2/29/16	[Black diamond marker at Feb 2016]																																		
87	<b>Kwale Int. Sugar Company 18MW</b>	565 days	9/1/13	10/29/15	[Red bar spanning from Sep 2013 to Oct 2015]																																		
88	PPA Negotiations	131 days	9/1/13	2/28/14	[Black bar labeled IPP from Sep 2013 to Feb 2014]																																		
89	PPA Approval	22 days	3/1/14	3/31/14	[Black bar labeled ERC from Mar 2014 to Mar 2014]																																		
90	Effectiveness of PPA	44 days	4/1/14	5/30/14	[Black bar labeled IPP/KPLC from Apr 2014 to May 2014]																																		

THE KENYA POWER & LIGHTING COMPANY LTD

DR. BEN CHUMO

MD & CEO

Sign: \_\_\_\_\_

Date: \_\_\_\_\_





## RURAL ELECTRIFICATION AUTHORITY

JUNE 2014

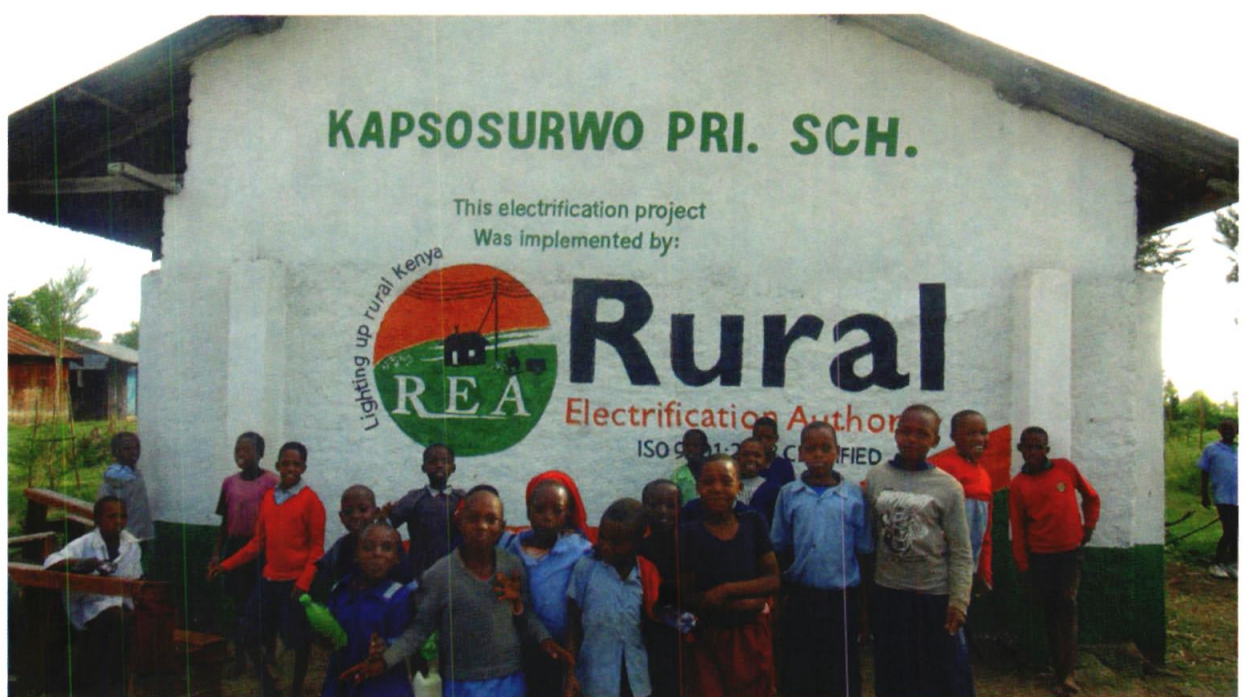
### CONTENTS

1. Introduction
2. Projects Under Implementation Over The Period July 2013 - June 2014
  - a. Status of implementation of the primary schools projects
  - b. Status of ongoing renewable energy development projects
3. Planned Projects For 2013/14 (January-June 2014)
4. Challenges Encountered in Projects Implementation & Proposed Mitigation
5. Conclusion
6. Annexes
7. Appendix: Gantt charts



## 1. Introduction

- The Government established the rural electrification program in 1973 for purposes of subsidizing electricity supply in the rural areas. Thirty years after the inception of the program (by 2003) only about 4% of the rural population had electricity connection in their homes while access level was about 8%.
- As a result of the low connectivity, the Government through the Economic Recovery Strategy (ERS) of 2003 and Sessional Paper No 4 of 2004 of Energy undertook to accelerate the pace of rural electrification through creation of a special purpose rural electrification agency.
- REA was consequently established in 2006 under the Energy Act No. 12 of 2006 with the mandate of enhancing electricity supply in the rural areas. The functions of the Authority as outlined in the Act are as follows:
  - a. Management of the rural electrification programme fund,
  - b. Development and updating of the rural electrification programme masterplan,
  - c. Implementing and sourcing of funds for the rural electrification programme,
  - d. Promotion of use of renewable energy sources,
  - e. Management of the delineation, tendering and award of contracts for licenses and permits for rural electrification.



Primary Schools connected on Grid



- Upon commencing operations in 2007, REA aligned its goals to Vision 2030 which aims at having all Kenyans enjoy a high quality of life by the year 2030. The target set in Vision 2030 was to electrify all major public facilities and one million households by the year 2013.
- REA's first strategic plan (2008/09-2012/13) adopted the target of connecting all major public facilities (trading centres, secondary schools and health centres) by the year 2012/13.
- It is estimated that by end of 2012/13 out of a total of about 26,000 major public facilities (trading centres, secondary schools and health centres) in the country about 86% have been electrified leaving a balance of 14% as shown in the table below:-

Table 1: Summary of Electrification Level

Type of Facility	Total Number	Electrified By 2003	Electrified Facilities by 2013		Un - Electrified Facilities	
			No.	%	No.	%
Trading Centres	13,135	1,096	10,429	79%	2,706	21%
Secondary Schools	8,195	285	7,878	96%	1,037	4%
Health Centres	4,543	348	3,905	86%	1,467	14%
<b>TOTAL</b>	<b>25,873</b>	<b>1,729</b>	<b>22,212</b>	<b>86%</b>	<b>3,661</b>	<b>14%</b>

## 2. 1. PROJECTS UNDER IMPLEMENTATION OVER THE PERIOD JULY 2013 - JUNE 2014

This section gives the status of projects under implementation within the last six months divided into three categories as below,

- Status of projects carried forward from the financial year 2012/13
- Status of implementation of the public primary schools projects
- Status of on-going renewable energy development projects.

### a) Status of projects carried forward from the financial year 2012/13

- At the close of the 2012/13 financial year, 862 projects were in various stages of implementation. These projects were mostly targeting the public secondary schools and trading centers among other facilities.



- The table below summarizes the status of these projects as at 30th June 2014.

Table 1: Summary of electrification status of 2013/14 projects

No	Status	No of Projects
1.	Commissioned	679
2.	Under construction	183
	<b>TOTAL</b>	<b>862</b>

- Included in the 862 projects were 12 isolated diesel power stations (gensets) which were at various stages of implementation.
- Out of the 12 stations, REA has been able to complete and commission four (4) stations namely; Takaba, Rhamu, Lokichogio and Eldas over the last twelve months. A summary status of the rest of the stations as at 30th June 2014 is attached as Annex I

#### b) Status of implementation of the public primary schools projects

- The status of implementation of the primary schools as of 30th June 2014 is as shown below. Electricity supply/connection includes wiring of class one in readiness for the laptops.

Table 2: Summary of electrification status of primary schools

No	Status	No of Primary schools (Grid)	No of Primary schools (Solar Pv)
1.	Commissioned/Connected	3,338	195
2.	Complete & Awaiting Commissioning	1,143	408
	<b>TOTAL</b>	<b>4,481</b>	<b>603</b>

It is expected that all the primary schools currently under implementation will be completed by end of July 2014.

- In addition to the grid extension and solar Pv installations REA is constructing five new isolated diesel power stations at Kamoliriban, Kotulo, Khorondile, Maikona and Lokiriama. Details of the status of the stations are given in Annex II.



- Civil and mechanical works for all the five stations were awarded in May 2014 and are expected to be completed by December 2014. The tender for the supply and installation of the gensets is under evaluation and will be awarded by end of July 2014.

### c) Status of on-going renewable energy development projects.

REA has awarded contracts for the installation of solar PVs at four (4) isolated power stations that is;

- 50 KW Solar PV hybrid for Rhamu and Takaba which are complete and will be commissioned by 15th July 2014.
- 80 KW Solar PV hybrid for Laisamis is in progress to be completed and commissioned by end of 30th July 2014.
- 30 KW Solar PV hybrid for Eldas is in progress to be completed and commissioned by end of October 2014.

## 2.PLANNED PROJECTS FOR 2014/15

- 50 MW grid connected solar plant project in Garissa County is awaiting signing of loan agreement between Kenyan and Chinese Governments.
- A 100 MW Hybrid Solar/Wind plant at Muhoroni. Feasibility study completed and draft commercial contract prepared.
- A number of other renewable energy projects are planned for implementation as shown in the attached Annex III.

## 3.CHALLENGES ENCOUNTERED IN PROJECTS IMPLEMENTATION & PROPOSED MITIGATION

a) Funding - Although the Government has continued to provide funds for the Rural Electrification Programme over the years, the funds are hardly enough to implement the construction of all identified priority projects in each financial year.

b) Delay in delivery of materials due to long lead time, hence delay in project implementation and commissioning e.g. shortage of 33 kV transformers has caused delays in commissioning of projects.

**Solution:** Bulk and timely procurement of materials and promoting more locally manufactured materials.

c) **Wayleaves acquisition:** Huge compensation required and delays in acquisitions of consent.



### Primary School Connected on Solar PV

**Solution:** Involvement of communities, local leaders to sensitize communities on the on the importance of granting free wayleaves.

#### 4. CONCLUSION

With continued Government support, REA is committed to ensure that the Vision 2030 target of having all the households in the country connected with clean and reliable source of energy is achieved by the year 2020 as per the Jubilee Government manifesto.



## Annex I : Off Grid Diesel Power Stations – Ongoing Projects

	SITE/PROJECT	STATUS	CHALLENGES
1	<b>Takaba</b>	Commissioned, to be handed over to KPLC for Operation and management	Procurement of Turnkey projects takes time.
2.	<b>Rhamu</b>	Commissioned, to be handed over to KPLC for Operation and management	Procurement of Turnkey projects takes time.
3	<b>Eldas</b>	Commissioned, to be handed over to KPLC for Operation and management	Procurement of Turnkey projects takes time.
4	<b>Lokichogio</b>	In operation but awaiting final commissioning and handover by July 2014	Procurement of Turnkey projects takes time.
5	<b>Laisamis</b>	Completed, to be commissioned by July, 2014. Customers already connected to offer the load	Procurement of Turnkey projects takes time.
6	<b>Lokitaung</b>	Completed awaiting commissioning	Procurement of Turnkey projects takes time.
7	<b>North Horr</b>	Completed, to be commissioned by July, 2014 Customers already connected to offer the load	Procurement of Turnkey projects takes time.
8	<b>Banisa</b>	Civil & mechanical works are complete. Genset to be installed by July, 2014	Procurement of Turnkey projects takes time.
9	<b>Lokori</b>	Completed awaiting commissioning by September, 2014	Procurement of Turnkey projects takes time.
10.	<b>Hulugho</b>	Installation of genset in progress to be completed and and commissioned by June 2014	Procurement of Turnkey projects takes time.
11	<b>Kiunga</b>	Installation of genset in progress to completed and commissioned by June 2014	Procurement of Turnkey projects takes time.
12	<b>Dadaab</b>	Civil works and reticulation complete awaiting delivery of generators. To be completd by Dec 2014	Procurement of Turnkey projects takes time.



## Annex II. Off Grid Diesel Power Stations –2013/2014

	SITE/PROJECT	STATUS
1.	Kamoliriban	Civil works in progress and gen-sets tender under evaluation. The project is expected to be completed by December, 2014
2.	Kotulo	Civil works in progress and gen-sets tender under evaluation. The project is expected to be completed by December, 2014
3.	Khorondile	Civil works in progress and gen-sets tender under evaluation. The project is expected to be completed by December, 2014
4.	Maikona	Civil works in progress and gen-sets tender under evaluation. The project is expected to be completed by December, 2014
5.	Lokiriama	Civil works in progress and gen-sets tender under evaluation. The project is expected to be completed by December, 2014

## Annex III. Renewable Energy Projects – Planned Projects For 2013/2014

	SITE/PROJECT	STATUS
1	100 MW Hybrid Solar/Wind at Muhoroni	Land identified and formal acquisition of in process. Feasibility Study carried out by China Jiangxi International in consortium with Jinko Solar. Draft commercial contract prepared.
2	50 MW solar plant at Garissa	Project awaiting conclusion of evaluation by China Exim Bank to facilitate signing of the loan agreement framework between the Government of Kenya and the People's Republic of China.
3	50 MW solar plant at Nanyuki	MOU between Sinotec Co. of China, Ministry of Energy & Petroleum and REA identification and formal acquisition of land in progress.
4	Scale UP of Renewable Energy Program (SREP)	Sites being identified by various stakeholders to facilitate carrying out of Feasibility studies. Existing isolated diesel power stations to be retrofitted with renewable energy under AFD identified and feasibility study is on-going.
5	Bangladesh settlement - Solar project	RFP for ESIA evaluated. Project awaiting 50% of the cost funding from Mombasa County Government.

# APPENDIX

## RURAL ELECTRIFICATION AUTHORITY WORKPLAN



<b>ELECTRIFICATION OF 11,000 PUBLIC PRIMARY SCHOOLS</b>	<b>RURAL ELECTRIFICATION AUTHORITY</b>	<b>MARCH 2014 - APRIL 2015</b>
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ID	Task Name	Duration	Start	Finish	2014												2015											
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun						
1	<b>2013/14 FY - 5,000 PUBLIC PRIMARY SCHOOLS</b>	97 days	Feb 21 '14	Jul 7 '14																								
2	<b>A) ELECTRIFICATION OF 2,500 PRIMARY SCHOOLS</b>	50 days	Mar 10 '14	May 16 '14																								
3	Constuction in-progress through Grid Extension - 2,300 schools	38 days	Mar 10 '14	Apr 30 '14																								
4	Solar PV Installation in progress - 200 schools	50 days	Mar 10 '14	May 16 '14																								
5	Delivery of Pin Insulators	38 days	Mar 10 '14	Apr 30 '14																								
6																												
7	<b>B) ELECTRIFICATION OF 400 PRIMARY SCHOOLS THROUGH SOLAR PVS</b>	97 days	Feb 21 '14	Jul 7 '14																								
8	Tender Advertisement	18 days	Feb 21 '14	Mar 18 '14																								
9	Appointment of opening/Evaluation Teams	5 days	Mar 10 '14	Mar 14 '14																								
10	Bid clossing & opening	1 day	Mar 19 '14	Mar 19 '14																								
11	Evaluation of Bids	10 days	Mar 20 '14	Apr 2 '14																								
12	Tender Committee Approval	3 days	Apr 3 '14	Apr 7 '14																								
13	Notification of Award	5 days	Apr 8 '14	Apr 14 '14																								
14	Execution of Contract ( Includes 7 days appeal period)	10 days	Apr 15 '14	Apr 28 '14																								
15	Execution of Solar Installation Works	50 days	Apr 29 '14	Jul 7 '14																								
16																												
17	<b>C) ELECTRIFICATION OF 2,100 PUBLIC PRIMARY SCHOOLS THROUGH GRID EXTENSION</b>	81 days	Mar 10 '14	Jun 30 '14																								
18	<b>PROCUREMENT OF LINE CONSTRUCTION MATERIALS</b>	77 days	Mar 11 '14	Jun 25 '14																								

Project: Projects Implementation chart 2 Date: Tue 3/18/14	Task  Milestone  External Tasks Split  Summary  External Milestone Progress  Project Summary  Deadline
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REPUBLIC OF KENYA



<b>5000 + MW POWER PLAN: REA CONTRIBUTION 100 MW HYBRID SOLAR/WIND PLANT MUHORONI</b>	<b>RURAL ELECTRIFICATION AUTHORITY</b>	<b>(FROM JULY 2013 - MARCH 2016)</b>
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ID	Task Name	Duration	Start	Finish	2013		2014				2015				2016			
					Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
1	<b>100 MW HYBRID SOLAR AND WIND PLANT AT MUHORONI</b>	<b>717 days</b>	<b>Jul 1 '13</b>	<b>Mar 29 '16</b>														
2	<b>Signing of MOU</b>	<b>35 days</b>	<b>Jul 1 '13</b>	<b>Aug 16 '13</b>														
3	Identification of Proposed Project & Site	10 days	Jul 1 '13	Jul 12 '13														
4	Discuss on the Terms of MOU	10 days	Jul 15 '13	Jul 26 '13														
5	Clearance of MOU by Attorney General	10 days	Jul 29 '13	Aug 9 '13														
6	Signing of MOU	<b>5 days</b>	<b>Aug 12 '13</b>	<b>Aug 16 '13</b>														
7	<b>Acquisition of Land</b>	<b>99 days</b>	<b>Oct 15 '13</b>	<b>Feb 28 '14</b>														
8	Request for allocation of Land Solar/Wind	12 days	Oct 15 '13	Oct 30 '13														
9	Formalize acquisition of land	86 days	Nov 1 '13	Feb 28 '14														
10	<b>Carry Out Feasibility Study - Wind/Solar</b>	<b>42 days</b>	<b>Mar 3 '14</b>	<b>Apr 29 '14</b>														
11	Collect Solar & Wind Data	22 days	Mar 3 '14	Apr 1 '14														
12	Analyse collected data and prepare report	20 days	Apr 2 '14	Apr 29 '14														
13	<b>Carry out ESIA Hybrid Solar/Wind</b>	<b>114 days</b>	<b>Jan 9 '14</b>	<b>Jun 17 '14</b>														
14	Prepare EOI	2 days	Jan 9 '14	Jan 10 '14														
15	Advertise EOI	11 days	Jan 13 '14	Jan 27 '14														
16	Evaluation of EOI	5 days	Jan 28 '14	Feb 3 '14														
17	Preparation of RFP	2 days	Feb 4 '14	Feb 5 '14														
18	TC Approval	5 days	Feb 6 '14	Feb 12 '14														
19	Issue & Submission of ESIA RFP	11 days	Feb 13 '14	Feb 27 '14														
20	Evaluation of Proposals	5 days	Feb 28 '14	Mar 6 '14														
21	TC Award & Notification	5 days	Mar 7 '14	Mar 13 '14														
22	Signing of Contract	11 days	Mar 14 '14	Mar 28 '14														
23	Conduct ESIA and Prepare Report	25 days	Mar 31 '14	May 2 '14														
24	Submission of Report to NEMA	5 days	May 5 '14	May 9 '14														
25	Issue of EIA License	21 days	May 12 '14	Jun 9 '14														
26	<b>Sign Commercial Contract</b>	<b>42 days</b>	<b>Apr 21 '14</b>	<b>Jun 17 '14</b>														
27	Carry due dilligence on Contractor	5 days	Apr 21 '14	Apr 25 '14														
28	Prepare Draft Commercial Contract Contract	10 days	Apr 28 '14	May 9 '14														
29	Forward Commercial Contract to MOE	2 days	May 12 '14	May 13 '14														

Project: 100 MW PV SOLAR AND WIND Date: Thu 1/23/14

Task Split Progress Milestone Summary Project Summary External Tasks External Milestone Deadline

Signed By:  
Ng'ang'a Munyu  
Ag CEO, Rural Electrification Authority

Date:



REPUBLIC OF KENYA



<b>5000 + MW POWER PLAN: REA CONTRIBUTION 100 MW HYBRID SOLAR/WIND PLANT MUHORONI</b>	<b>RURAL ELECTRIFICATION AUTHORITY</b>	<b>(FROM JULY 2013 - MARCH 2016)</b>
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ID	Task Name	Duration	Start	Finish	2013		2014				2015				2016		
					Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
30	Forward Commercial Contract to AG	5 days	May 14 '14	May 20 '14													
31	Issue no objection to Commercial Contract	10 days	May 21 '14	Jun 3 '14													
32	Sign Commercial Contract	10 days	Jun 4 '14	Jun 17 '14													
33	<b>Secure Concessional Financing, Acquisition of a PPA &amp; Generation License</b>	<b>221 days</b>	<b>Jun 24 '14</b>	<b>Apr 28 '15</b>													
34	<b>Formal Request of Loan by GOK to China Gvt</b>	<b>20 days</b>	<b>Jun 24 '14</b>	<b>Jul 21 '14</b>													
35	Application Letter by GOK to Government of China	5 days	Jul 22 '14	Jul 28 '14													
36	Formal Application to China Exim Bank	5 days	Jul 29 '14	Aug 4 '14													
37	Forward Commercial Contract & Documents to China Exim Bank	10 days	Aug 5 '14	Aug 18 '14													
38	<b>Evaluation of the project by China Exim Bank</b>	<b>66 days</b>	<b>Aug 19 '14</b>	<b>Nov 18 '14</b>													
39	<b>Signing of Loan Agreement Framework between Government of Kenya &amp; China Government</b>	<b>28 days</b>	<b>Nov 19 '14</b>	<b>Dec 26 '14</b>													
40	Letter of Support from Embassy of China	5 days	Nov 19 '14	Nov 25 '14													
41	Set out Terms of the Loan Agreement	5 days	Nov 26 '14	Dec 2 '14													
42	Inform National Treasury of Success and request date to Sign	5 days	Dec 3 '14	Dec 9 '14													
43	Sign Loan Agreement Framework	10 days	Dec 15 '14	Dec 26 '14													
44	<b>Recruitment of a Consultant for Works Supervision</b>	<b>64 days</b>	<b>Dec 29 '14</b>	<b>Mar 26 '15</b>													
45	Preparation of EOI	2 days	Dec 29 '14	Dec 30 '14													
46	Advertisement	11 days	Dec 31 '14	Jan 14 '15													
47	Evaluation of Bids	5 days	Jan 15 '15	Jan 21 '15													
48	TC Approval of Evaluation Report	5 days	Jan 22 '15	Jan 28 '15													
49	Preparation of RFP	5 days	Jan 29 '15	Feb 4 '15													
50	Issue RFP	11 days	Feb 5 '15	Feb 19 '15													
51	Evaluation of Bids	5 days	Feb 20 '15	Feb 26 '15													
52	Award by TC	5 days	Feb 27 '15	Mar 5 '15													
53	Prepare & Sign Contract	15 days	Mar 6 '15	Mar 26 '15													
54	<b>Feed-in Tariff PPA between REA &amp; KPLC</b>	<b>24 days</b>	<b>Dec 29 '14</b>	<b>Jan 29 '15</b>													
55	Apply for Feed-In-Tariff PPA	2 days	Dec 29 '14	Dec 30 '14													
56	Approval of PPA	22 days	Dec 31 '14	Jan 29 '15													

Project: 100 MW PV SOLAR AND WIND Date: Thu 1/23/14

Signed By: Ng'ang'a Munyu  
Ag CEO, Rural Electrification Authority

Date:



REPUBLIC OF KENYA



<b>5000 + MW POWER PLAN: REA CONTRIBUTION 100 MW HYBRID SOLAR/WIND PLANT MUHORONI</b>	<b>RURAL ELECTRIFICATION AUTHORITY</b>	<b>(FROM JULY 2013 - MARCH 2016)</b>
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ID	Task Name	Duration	Start	Finish	2013		2014				2015				2016			
					Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
57	<b>Power Generation License (Solar/Wind)</b>	<b>38 days</b>	<b>Jan 30 '15</b>	<b>Mar 24 '15</b>														
58	Issue Notice to Generate Power	11 days	Jan 30 '15	Feb 13 '15														
59	Apply for Power Generation License	5 days	Feb 16 '15	Feb 20 '15														
60	Issue Power Generation	22 days	Feb 23 '15	Mar 24 '15														
61	<b>Signing of Loan Agreement between Treasury and China Exim Bank</b>	<b>22 days</b>	<b>Dec 29 '14</b>	<b>Jan 27 '15</b>														
62	<b>Issue of Notice of Effectiveness of the Loan</b>	<b>45 days</b>	<b>Jan 28 '15</b>	<b>Mar 31 '15</b>														
63	Approval by Treasury	5 days	Jan 28 '15	Feb 3 '15														
64	Legal Opinion by Attorney General	5 days	Feb 4 '15	Feb 10 '15														
65	Sign On-Lending Agreement between MOEP & REA	10 days	Feb 11 '15	Feb 24 '15														
66	Issue letter of Confirmation of Acceptance	5 days	Feb 25 '15	Mar 3 '15														
67	Payment of Management Fee of 1%	10 days	Mar 4 '15	Mar 17 '15														
68	Open Management Fee Account	10 days	Mar 18 '15	Mar 31 '15														
69	<b>Issue of Irrevocable Notice of Drawdown</b>	<b>20 days</b>	<b>Apr 1 '15</b>	<b>Apr 28 '15</b>														
70	Approve Drawer Schedule	10 days	Apr 1 '15	Apr 14 '15														
71	Issue of performance & Downpayment Guarantees	10 days	Apr 15 '15	Apr 28 '15														
72	<b>Construction of 50 MW Solar Plant</b>	<b>238 days</b>	<b>May 1 '15</b>	<b>Mar 29 '16</b>														
73	Procurement and Delivery of Materials	65 days	May 1 '15	Jul 30 '15														
74	Construction of Civil & Mechanical Works	174 days	Jul 1 '15	Feb 29 '16														
75	Installation of Solar Modules and Associated Distribution Boards	108 days	Oct 1 '15	Feb 29 '16														
76	Construction of Transmission Line	86 days	Nov 2 '15	Feb 29 '16														
77	Testing & Commissioning	21 days	Mar 1 '16	Mar 29 '16														
78	<b>Construction 50 MW Wind Farm</b>	<b>217 days</b>	<b>May 1 '15</b>	<b>Feb 29 '16</b>														
79	Procurement & Delivery of Materials	64 days	May 1 '15	Jul 29 '15														
80	Construction of Civil Works	107 days	Jul 1 '15	Nov 26 '15														
81	Installation of wind turbines	87 days	Oct 1 '15	Jan 29 '16														
82	Construction of Transmission Line	87 days	Oct 1 '15	Jan 29 '16														
83	Testing & Commissioning	21 days	Feb 1 '16	Feb 29 '16														

Project: 100 MW PV SOLAR AND WIND  
Date: Thu 1/23/14

Task Split: Progress Milestone

Summary Project Summary

External Tasks External Milestone

Signed By: Ng'ang'a Munyu  
Ag CEO, Rural Electrification Authority

Date:



<b>5000 + MW POWER PLAN: REA CONTRIBUTION 50 MW GARISSA SOLAR PLANT</b>	<b>RURAL ELECTRIFICATION AUTHORITY</b>	<b>(JUNE 2012 - JUNE 2015)</b>
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ID	Task Name	Duration	Start	Finish	2012		2013		2014		2015					
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	<b>50 MW PV SOLAR PLANT AT GARISSA</b>	<b>803 days</b>	<b>Jun 1 '12</b>	<b>Jun 30 '15</b>												
2	Signing of MOU	36 days	Jun 1 '12	Jul 20 '12												
3	Carry out due diligence on Contractor	10 days	Dec 3 '12	Dec 14 '12												
4	<b>Acquisition of Land</b>	<b>303 days</b>	<b>Jan 2 '13</b>	<b>Feb 28 '14</b>												
5	Request for allocation of Land	22 days	Jan 2 '13	Jan 31 '13												
6	Formalize acquisition of land	99 days	Oct 15 '13	Feb 28 '14												
7	<b>Carry Out Feasibility Study</b>	<b>66 days</b>	<b>Oct 1 '12</b>	<b>Dec 31 '12</b>												
8	Collect data	23 days	Oct 1 '12	Oct 31 '12												
9	Analyse data and prepare report	43 days	Nov 1 '12	Dec 31 '12												
10	<b>Carry out ESIA</b>	<b>156 days</b>	<b>Mar 14 '13</b>	<b>Oct 17 '13</b>												
11	Preparation of RFP	2 days	Mar 14 '13	Mar 15 '13												
12	Issue of ESIA RFP	22 days	Mar 18 '13	Apr 16 '13												
13	Evaluation of Proposals	4 days	Apr 17 '13	Apr 22 '13												
14	TC Award & Notification	10 days	Apr 23 '13	May 6 '13												
15	Signing of Contract	10 days	May 7 '13	May 20 '13												
16	Conduct ESIA and Prepare Report	48 days	May 21 '13	Jul 25 '13												
17	Submission of Report to NEMA	10 days	Jul 26 '13	Aug 8 '13												
18	Issue of EIA License	50 days	Aug 9 '13	Oct 17 '13												
19	<b>Secure Concessional Financing, Acquisition of PPA &amp; Generation License</b>	<b>411 days</b>	<b>Dec 11 '12</b>	<b>Jul 8 '14</b>												
20	Sign Commercial Contract	38 days	Dec 11 '12	Jan 31 '13												
21	Evaluation of the project by China Exim Bank	89 days	Oct 1 '13	Jan 31 '14												
22	Signing of Loan Agreement Framework between Government of Kenya & China Government	25 days	Feb 3 '14	Mar 7 '14												
23	Letter of support from Embassy of China	5 days	Feb 3 '14	Feb 7 '14												
24	Set out terms of the loan Agreement	5 days	Feb 10 '14	Feb 14 '14												
25	Inform National Treasury of success and request date to sign	5 days	Feb 17 '14	Feb 21 '14												

Project: 50 MW PV PLANT AT GARISSA  
Date: Thu 1/23/14

Task		Summary		Rolled Up Progress		Project Summary	
Progress		Rolled Up Task		Split		Group By Summary	
Milestone		Rolled Up Milestone		External Tasks		Deadline	

Signed by: Ng'ang'a Munyu  
Ag. CEO, Rural Electrification Authority

Date:





<b>5000 + MW POWER PLAN: REA CONTRIBUTION 50 MW GARISSA SOLAR PLANT</b>	<b>RURAL ELECTRIFICATION AUTHORITY</b>	<b>(JUNE 2012 - JUNE 2015)</b>
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ID	Task Name	Duration	Start	Finish	2012		2013		2014		2015	
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
52	Issue of Irrevocable Notice of Drawdown	20 days	Jun 11 '14	Jul 8 '14								
53	Approve Drawer Schedule	10 days	Jun 11 '14	Jun 24 '14								
54	Issue of performance & Downpayment Guarantees	10 days	Jun 25 '14	Jul 8 '14								
55	<b>Construction</b>	<b>255 days</b>	<b>Jul 9 '14</b>	<b>Jun 30 '15</b>								
56	Procurement and Delivery of Materials	65 days	Jul 9 '14	Oct 7 '14								
57	Construction of Civil & Mechanical Works	174 days	Sep 9 '14	May 8 '15								
58	Installation of Solar Modules and Associated Distribution Boards	108 days	Jan 1 '15	Jun 1 '15								
59	Construction of 7Km Transmission Line	108 days	Dec 1 '14	Apr 29 '15								
60	Testing & Commissioning	21 days	Jun 2 '15	Jun 30 '15								
61	<b>KETRACO CONNECTION FACILITIES</b>	<b>587 days</b>	<b>Jul 2 '12</b>	<b>Sep 30 '14</b>								
62	<b>250Km Kindaruma-Mwingi- Garissa 132KV Line</b>	<b>544 days</b>	<b>Jul 2 '12</b>	<b>Jul 31 '14</b>								
63	Contract Signing Date	1 day	Jul 2 '12	Jul 2 '12								
64	Design	173 days	Jul 3 '12	Feb 28 '13								
65	Manufacture	262 days	Sep 3 '12	Sep 3 '13								
66	Construction	284 days	Jul 1 '13	Jul 31 '14								
67	<b>2*23MVA, 132/33kV Substation</b>	<b>587 days</b>	<b>Jul 2 '12</b>	<b>Sep 30 '14</b>								
68	Contract signing	1 day	Jul 2 '12	Jul 2 '12								
69	Design	172 days	Sep 3 '12	Apr 30 '13								
70	Manufacture	346 days	Nov 1 '12	Feb 27 '14								
71	Construction	283 days	Jul 1 '13	Jul 30 '14								
72	Energize, Testing and Commissioning	43 days	Aug 1 '14	Sep 30 '14								

Project: 50 MW PV PLANT AT GARISSA Date: Thu 1/23/14	<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Task</td> <td style="width:15%;"></td> <td style="width:15%;">Summary</td> <td style="width:15%;"></td> <td style="width:15%;">Rolled Up Progress</td> <td style="width:15%;"></td> <td style="width:15%;">Project Summary</td> <td style="width:15%;"></td> </tr> <tr> <td>Progress</td> <td></td> <td>Rolled Up Task</td> <td></td> <td>Split</td> <td></td> <td>Group By Summary</td> <td></td> </tr> <tr> <td>Milestone</td> <td></td> <td>Rolled Up Milestone</td> <td></td> <td>External Tasks</td> <td></td> <td>Deadline</td> <td></td> </tr> </table>	Task		Summary		Rolled Up Progress		Project Summary		Progress		Rolled Up Task		Split		Group By Summary		Milestone		Rolled Up Milestone		External Tasks		Deadline	
Task		Summary		Rolled Up Progress		Project Summary																			
Progress		Rolled Up Task		Split		Group By Summary																			
Milestone		Rolled Up Milestone		External Tasks		Deadline																			

Signed by:  
Ng'ang'a Munyu  
Ag. CEO, Rural Electrification Authority

Date:



# ENERGY REGULATORY COMMISSION

JUNE 2014

## CONTENTS

1. Background
2. Overview/Mandate
3. Key Achievements
4. Petroleum Subsector
5. Electricity Subsector
6. Renewable Subsector
7. Regulations
8. Challenges
9. Way Forward
8. Appendix: Gantt charts



## 1. Background

The energy sector is a key driver of economic growth and development of a country. It also plays a key role in improving the environment of doing business. In Kenya, the energy sector has been identified as a key enabler for realization of the Vision 2030 to transform Kenya into a middle-income economy. Much has been achieved in the last ten years. The Government prepared and implemented the Sessional Paper No. 4 of 2004 on energy and enacted the Energy Act 2006 that unbundled further the electricity sub-sector and brought all energy sub-sectors that is electricity, downstream petroleum exploration and renewable energy under a single regulator.

Before the Jubilee Government took over, the country had an installed capacity of 1,586MW and 120MW of emergency power, which totaled to 1,716MW by June 2013. The Government in August 2013 retired 90MW of emergency power. Only 30MW is remaining in the system in western Kenya to provide system stability support in the western region.

The Government in September 2013 launched the project 5,000MW+ of fast tracked capacity to be implemented in 40 months to transform Kenya by increasing the generation capacity as well as transmission and distribution infrastructure in the country. Various programmes are also being implemented in the petroleum and renewable energy sub-sectors.

Energy demand is expected to increase tremendously with the various initiatives that are being implemented by the National and County Governments. It is anticipated that electricity demand will rise sharply as new County Governments take shape and numerous economic activities spring up. In particular, energy intensive activities such as mining, production of iron and steel products from local iron ore deposits, irrigation of large tracts of land for food security and agro-based industry, operation of petroleum pipelines for both crude and refined fuel oils, petrochemicals production including urea, steel products based manufacturing, such as motor vehicle body parts and for earth moving equipment, electrification of designated rail lines, installation of escalators at shopping malls and airports, and new economic zones will require a lot of power.



ERC officer inspecting a gas and oil installation



In order to transform the economy, affordable and sustainable supply of electricity has to be provided. A roadmap to raise the generation capacity by at least 5,000MW from the current installed capacity to slightly over 6,700 MW by 2016 is proposed. Through the road map, the generation cost is projected to reduce from US cents 11.30 to US cents 7.41, while end-user tariffs, exclusive of taxes and levies, are projected to reduce from US cents 14.14 to US cents 9.00 for commercial/industrial customers and from US cents 19.78 to 10.45 for domestic customers. The new capacity will mainly be developed from geothermal 1,646MW, natural gas 1,050MW, wind 630MW and coal 1,920MW through IPPs under the PPP framework.

### 1.1 Mandate of the Energy Regulatory Commission

ERC is the energy sector regulator. It is established under the Energy Act, 2006 and is responsible for economic and technical regulation of the electric power, renewable energy and downstream petroleum sub-sectors, with a mandate encompassing licensing and compliance enforcement, energy pricing, dispute resolution, energy planning, competition and monitoring and protecting consumer interests.

### 2. ERC Achievements in the last 12 Months

- Thika power plant (87MW) was commissioned in July 2013, three months ahead of schedule.
- ERC, working in conjunction with the Ministry of Energy and Petroleum, has retired 90MW of emergency power to bring the cost of electricity down.
- Effective 1st December 2013, ERC approved realigned Retail Electricity Tariffs that will reduce the cost of electricity and the cost of energy to industries, businesses and households through reducing the proportion of the fuel component in the overall retail tariffs. The average cost of electricity has been revised downwards from Kshs. 15.59/kWh in FY2012/13 to Kshs. 15.51/kWh in FY2013/14. This is as a result of current efforts to bring on board cheaper and clean renewable energy largely from wind and geothermal and the displacement of expensive emergency power in the national energy mix. These costs will reduce further in the medium term to KShs. 12.26/kWh by FY2015/16 when the 5,000+MW of new generation comes on line. The new generation has 40% of coal and 33% of Liquefied Natural Gas, which have lower tariffs compared to diesel-powered plants.
- Between July 2013 and June 2014, the Fuel Cost Charge (FCC) averaged Ksh. 5.50 despite the failure of the long rains and delays in commissioning the Olkaria power plants that were expected by March 2014. This is a fair performance given the world volatility in petroleum products prices. In the realigned tariff, the average FCC was projected at Kshs. 5.19 thus there has been a deviation of only Kshs. 0.31/kWh from the approved tariff. This fair performance was as a result of coordinated monitoring of the energy balance between the commission and utility players.



- Eight Power Purchase Agreements (PPAs) have been approved during the financial year 2013/2014 with a total capacity of 162.3MW. The total capacity of the new proposed projects with approved PPAs is 1,135MWMW. Interestingly of these new plants will use renewable energy technologies such as wind, geothermal and hydropower technologies.
- In order to fast track the approval process in line with project 5,000+MW of fast tracked new capacity, ERC has committed to approve all Power Purchase Agreements and issue licenses for new power plants within 30 days instead of the statutory 90 days. Out of the eight PPAs approved this year, three are under the project 5,000+MW and were approved within 30 days. Approvals of the other projects were done on average under 40 days. This is an excellent performance given the statutory approval time of 90 days.
- The commissioned coordinated the development and preparation of the Least Cost Power Development Plan and completed on time the Medium Term Plan (2014-2018) where load forecasting which directly impacts on generation planning and transmission planning incorporated project 5000+MW projects. The team has also prepared a ten-year plan, which is an extension of the Medium Term Plan with a few changes on the load forecasting section as it incorporates FiT projects. This is the first time, the Government is doing such a plan within the LCPDP.

#### **In the Petroleum Sub Sector, the Commission:**

- In licensing of petroleum businesses, ERC has implemented an online licensing system dubbed the Regulatory Management Information System (RMIS), which has ensured easier access to licensing services, by the public and fostered great efficiency in the processing of applications. The period of processing licence applications has reduced from an average of 30 days to 12 days.
- In petroleum pricing, ERC has continued to regulate pump prices of key products namely AGO, PMS and IK with a view to ensuring that distortions of pricing dynamics by oil marketing companies is contained and that only prudently incurred costs in the petroleum supply chain are passed onto the consumer. This has allowed pump prices to remain stable with international movements in crude oil reflecting on a timely basis in the pump.
- ERC continues to monitor the quality of petroleum products being consumed in the country through the fuel marking and monitoring product, which has ensured a marked reduction in motor fuels adulteration and export dumping. The current compliance level for the various petroleum retail dispensing stations in the country stands at 97%



- In the petroleum infrastructural development, the Commission has licensed an additional 31,000M3 storage for petroleum products at Konza which will be a boost to the country's petroleum storage capacity and hence alleviate supply constraints.
- ERC has continued to ensure that the petroleum infrastructure in the country meets the requisite standards by ensuring that all new petroleum facilities are vetted and issued with permits before commencement of construction works.

#### **In the Electricity Subsector:**

- The Commission has continued to carry out technical audits of the licensees operations and facilities aimed at improving service delivery to electricity consumers in the country. This has resulted into reduced power black outs, reduced electricity related accidents/incidences as well as improved power supply quality and reliability.
- The Commission has continued to license electricians and electrical contractors to carry out electrical installation works for existing and new consumers. This has improved the quality of electrical installations works in the country thus reducing electrical related accidents/incidences within the consumer premises. The Commission has licensed 2,949 electricians and registered 741 electrical contractors
- The Commission has set service delivery standards for Kenya Power and Lighting Company limited (KPLC) with regards to power quality, reliability and customer service. The parameters are continuously monitored and any deviations addressed immediately.
- The Commission has continued to provide an avenue for mediation on any disputes between electricity consumers and the service providers within the sector, which has reduced consumer complaints through public media. This has seen a reduction in disputes from 30 to 5 at the close of the year.



ERC engaging the public during a stakeholder consultation



### In the renewable energy sub sector, the Commission:

- Has created a renewable energy portal, which is a one-stop shop on key information and opportunities in the renewable energy sector including licensing and related requirements.
- Adopted the Standardized Power Purchase Agreements for projects under Feed-in-Tariff Policy for projects below 10MW.
- Has licensed 10 Energy audit firms and 22 energy auditors, issued 4 licenses to solar water heating contractors and 9 to solar water heating technicians. On the same period, 79 licenses were issued to solar PV contractors and 58 licenses to solar PV technicians.

### Regulations

In the last eight months, the Commission has prepared the following regulations, which will be fully implemented once gazetted:

- The Energy (Electricity Tariffs) Regulations. The regulations are in the office of the Cabinet Secretary, Ministry of Energy and Petroleum for approval before they are gazetted.
- Energy (Energy Management) Regulations 2013. The regulations are awaiting gazettelement.
- Highlights on the Designation of Industrial, Commercial and Institutional Energy Users Rules, 2013. The regulations have been gazetted.
- The Energy (Electricity Regulatory Accounts) Regulations. These regulations are in the office of the Cabinet Secretary for Energy and Petroleum for approval before they are gazetted.
- Draft Energy (Appliances' Energy Performance and Labelling) Regulations. The regulations have been approved by the Commission.
- The Energy (Lubricants Facility Construction and Business Licensing) Regulations, 2013. The regulations have been approved by the Commission and forwarded to the Cabinet Secretary, Energy and Petroleum for approval before they are gazetted.
- The Energy (Minimum operational stocks and capacity sharing) Regulations, 2014.
- The Energy (Petroleum products quality management) Regulations, 2014.

### Challenges

The Commission faces various challenges in the course of implementing its mandate. They include:



- a) Lack of adequate funding from the levies (ERC electricity and petroleum regulation levies) to finance the Commission activities. Out of a total budget requirement of Ksh. 673 Million in FY 201/15, the Commission can only raise Ksh. 376 Million from levies.
- Challenges in recruiting, enumerating and retention of qualified staff due to lack of funds.
  - Not able to implement fully the strategic plan 2012-2016 due to inadequate funding.
  - Constraints in competency development programmes
- b) Developing adequate regulations to regulate the energy sector due to capacity constraints.
- c) Coping with the expanding and dynamic energy sector with discovery of oil and gas.

### Way forward

The Commission is putting in place measures to regulate the energy sector in line with Vision 2030 and to ensure full implementation of project 5,000MW+ of fast tracked new capacity.

- Approve all PPAs and licenses for electricity sub sector within 30 days instead of the statutory 90 days.
- Promote and monitor electricity power generation from the various technologies with a view to managing the fuel cost charges and other pass through costs to help reduce electricity tariffs
- Harmonise its operations and mandate in line with requirements of the Constitution.
- Maintaining regulatory independence in the course of implementing its mandate and operations
- Continue to foster better regulations in the energy sector to ensure efficient service delivery and sustainable access to energy services.
- Seeking to revise its levies to achieve sustainability in financing its strategic plan and added programmes in project 5,000MW+.
- Working closely with the ministry of Energy and Petroleum to ensure better regulation of the energy sector in the country.
- Work closely with the National Treasury and the Public Private Partnership (PPP)-Unit to promote public and private sector investment in provision of energy services in the country.

# APPENDIX

## ENERGY REGULATORY COMMISSION WORKPLAN

## GOK-PROJECT 5,000 MW+ FAST TRACKED NEW CAPACITY TO TRANSFORM KENYA: ENERGY REGULATORY COMMISSION APPROVAL OF PPAs AND LICENSES

In the next forty (40) months, the Commission will be proactive in ensuring that the objectives and policy interventions by Government to increase power generation in the country by 5,000MW and investment in other sub sectors are implemented. To this end, the Commission, in line with its mandate and strategic plan objectives; commits to carry out the following:

- coordinating demand-supply planning and follow up on project implementation;
- licensing the new capacity, as provided for by law to ensure prudent and safe operations and fast track implementation within 30 days;
- approving the PPAs to facilitate project financing and ultimately the trading arrangements between the off-takers and the power producers; while protecting the interests of electricity consumers within 30 days;
- approving network service contracts and establishing the Transmission-Use-of-System tariffs to facilitate conveyance of electrical energy from producers to load centers within 30 days;
- reviewing retail tariffs to facilitate the consumption of electricity while ensuring the viability of sector entities and in harmony with government policy;
- handling any complaints that might arise between and amongst sector players in the process of developing the new capacity earmarked for the fast-tracked projects; and
- assist in co-ordination and supervision of the energy sector
- monitor the implementation of the projects and give regular updates on project status, and
- formulation of new regulations to facilitate the emerging mid and downstream of the gas industry, for the importation of LNG, gas by pipeline, transmission, distribution and utilization of natural gas. These will include the basic standards, participants, infrastructure, rights and responsibilities. It will also cover such issues as regulatory principles of monopoly and competitive sectors, codes of practice, licensing and contracting and agreement approvals, legal principles of gas importation (LNG or Pipeline), storage, transportation by pipeline, delivery to consumers etc

POWER PURCHASE AGREEMENTS AND LICENCE APPROVALS WITHIN 30 DAYS	ENERGY REGULATORY COMMISSION	5000+MW 40 MONTH PROJECT SEPTEMBER 2013 - DECEMBER 2016
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### GOK-PROJECT 5,000 MW+ FAST TRACKED NEW CAPACITY TO TRANSFORM KENYA: ENERGY REGULATORY COMMISSION APPROVAL OF PPAs AND LICENSES


ID	Task Name	Duration	Start	Finish	2014				2015				2016				
					Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2
1	<b>Approved PPAs</b>	0 days	Sun 01-09-13	Sun 01-09-13			01-09										
2	Thika Power 87MW	0 days	Sun 01-09-13	Sun 01-09-13			01-09										
3	Orpower4 16MW	0 days	Sun 01-09-13	Sun 01-09-13			01-09										
4	Triumph Power 83MW	0 days	Sun 01-09-13	Sun 01-09-13			01-09										
5	Gulf Power 80MW	0 days	Sun 01-09-13	Sun 01-09-13			01-09										
6	Kinangop Wind 60MW	0 days	Sun 01-09-13	Sun 01-09-13			01-09										
7	Lake Turkana Wind Power 300MW	0 days	Sun 01-09-13	Sun 01-09-13			01-09										
8	Agil (Geo) 140 MW	0 days	Sun 01-09-13	Sun 01-09-13			01-09										
9																	
10	PPAs to APPROVE	747 days	Sun 01-09-13	Tue 31-05-16	[Gantt Bar]												
11	<b>GDC Menengai PPA (100MW)</b>	25 days	Wed 27-11-13	Fri 27-12-13													
12	1. PPA Negotiations	66 days	Sun 01-09-13	Tue 26-11-13													
13	1.1 Observe negotiations	17 days	Wed 27-11-13	Wed 18-12-13													
14	2. Submit for Approval	1 day	Fri 01-11-13	Fri 01-11-13													
15	3.1 Acknowledge Receipt	1 day	Wed 27-11-13	Wed 27-11-13													
16	3.2 Check for Completeness	5 days	Thu 28-11-13	Wed 04-12-13													
17	3.3 Commission Paper	10 days	Thu 05-12-13	Tue 17-12-13													
18	3.4 Review by Commissioners	8 days	Wed 18-12-13	Thu 26-12-13													
19	3.5 Commission Approval	1 day	Fri 27-12-13	Fri 27-12-13													
20	3.6 Issue Instrument of Approval	1 day	Mon 30-12-13	Mon 30-12-13													
21																	
22	<b>Licensing</b>	47 days	Fri 01-11-13	Mon 30-12-13													
23	Prepare Licence Documents	1 day	Fri 01-11-13	Fri 01-11-13													
24	1.1 Public Notice in Print Media	12 days	Sun 03-11-13	Sat 16-11-13													
25	Submit for Approval	15 days	Fri 15-11-13	Wed 04-12-13													
26	2.1 Inspection/Objection	7.5 days	Tue 12-11-13	Wed 20-11-13													
27	2.2 Process Objections	7.5 days	Tue 12-11-13	Wed 20-11-13													
28	Approval Process	25 days	Wed 27-11-13	Fri 27-12-13													
29	3.1 Acknowledge	1 day	Wed 27-11-13	Wed 27-11-13													
30	3.2 Check for Completeness	5 days	Thu 28-11-13	Wed 04-12-13													
31	3.3 Commission Paper	5 days	Fri 13-12-13	Thu 19-12-13													
32	3.4 Review by Commissioners	5 days	Fri 20-12-13	Wed 25-12-13													
33	3.5 Commission Approval	1 day	Fri 27-12-13	Fri 27-12-13													
34	3.6 Issue Licence	1 day	Mon 30-12-13	Mon 30-12-13													
35																	

Project: Gantt Chart for Project 5000M Date: Thu 20-02-14

Task Split

Progress Milestone Summary Project Summary External Tasks External Milestone Deadline

**KEY:** ERC: ENERGY REGULATORY COMMISSION, GDC: GEOTHERMAL DEVELOPMENT COMPANY, IPP: INDEPENDENT POWER PRODUCER, KENGEN: KENYA ELECTRICITY GENERATING COMPANY, KPLC: KENYA POWER AND LIGHTING COMPANY LIMITED, MOEP: MINISTRY OF ENERGY AND PETROLEUM, NEMA: NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY, PPP UNIT: PUBLIC PRIVATE PARTNERSHIPS UNIT

Signature:  Dr. Frederick Nyang- Ag. Director General, 30/09/2013

### GOK-PROJECT 5,000 MW+ FAST TRACKED NEW CAPACITY TO TRANSFORM KENYA: ENERGY REGULATORY COMMISSION APPROVAL OF PPAs AND LICENSES

ID	Task Name	Duration	Start	Finish	Gantt Chart											
					Qtr 2	Qtr 3	Qtr 4	2014				2015				2016
					Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2		
36	<b>Kipeto Wind (100MW)</b>	<b>119 days</b>	<b>Sun 01-09-13</b>	<b>Sun 02-02-14</b>												
37	PPA Negotiations	88 days	Sun 01-09-13	Tue 24-12-13												
38	1.1 Observe Negotiations	88 days	Sun 01-09-13	Tue 24-12-13												
39	2. Submit for Approval	24 days	Thu 02-01-14	Fri 31-01-14												
40	3. Approval Process	24 days	Wed 01-01-14	Thu 30-01-14												
41	3.1 Acknowledge	2 days	Wed 01-01-14	Thu 02-01-14												
42	3.2 Check for Completeness	5 days	Fri 03-01-14	Wed 08-01-14												
43	3.3 Commission Paper	10 days	Thu 09-01-14	Tue 21-01-14												
44	3.4 Review by Commissioners	6 days	Wed 22-01-14	Wed 29-01-14												
45	3.5 Commission Approval	1 day	Fri 31-01-14	Fri 31-01-14												
46	3.6 Issue Instrument of Approval	1 day	Sun 02-02-14	Sun 02-02-14												
47																
48	<b>Licensing</b>	<b>118 days</b>	<b>Sun 01-09-13</b>	<b>Fri 31-01-14</b>												
49	Prepare Licence Documents	30 days	Sun 01-09-13	Thu 10-10-13												
50	1.1 Public Notice in Print Media	30 days	Thu 10-10-13	Sat 16-11-13												
51	Submit for Approval	30 days	Tue 19-11-13	Thu 26-12-13												
52	2.1 Inspection/Objection	10 days	Fri 27-12-13	Wed 08-01-14												
53	2.2 Process Objections	8.67 days	Tue 21-01-14	Fri 31-01-14												
54	Approval Process	25 days	Wed 01-01-14	Fri 31-01-14												
55	3.1 Acknowledge	2 days	Wed 01-01-14	Thu 02-01-14												
56	3.2 Check for Completeness	5 days	Fri 03-01-14	Wed 08-01-14												
57	3.3 Commission Paper	10 days	Thu 09-01-14	Tue 21-01-14												
58	3.4 Review by Commissioners	6 days	Wed 22-01-14	Wed 29-01-14												
59	3.5 Commission Approval	1 day	Thu 30-01-14	Thu 30-01-14												
60	3.6 Issue Licence	1 day	Fri 31-01-14	Fri 31-01-14												
61																
62	<b>Kwale Intern. Sugar Co. (18MW)</b>	<b>118 days</b>	<b>Sun 01-09-13</b>	<b>Fri 31-01-14</b>												
63	PPA Negotiations	88 days	Sun 01-09-13	Tue 24-12-13												
64	1.1 Observe Negotiations	88 days	Sun 01-09-13	Tue 24-12-13												
65	2. Submit for Approval	24 days	Wed 01-01-14	Thu 30-01-14												
66	3. Approval Process	24 days	Wed 01-01-14	Thu 30-01-14												
67	3.1 Acknowledge	2 days	Wed 01-01-14	Thu 02-01-14												
68	3.2 Check for Completeness	5 days	Fri 03-01-14	Wed 08-01-14												
69	3.3 Commission Paper	10 days	Thu 09-01-14	Tue 21-01-14												

Project: Gantt Chart for Project 5000M  
Date: Thu 20-02-14

Task Split


Progress Milestone

Summary Project Summary

External Tasks External Milestone

Deadline

**KEY:** ERC: ENERGY REGULATORY COMMISSION, GDC: GEOTHERMAL DEVELOPMENT COMPANY, IPP: INDEPENDENT POWER PRODUCER, KENGEN: KENYA ELECTRICITY GENERATING COMPANY, KPLC: KENYA POWER AND LIGHTING COMPANY LIMITED, MOEP: MINISTRY OF ENERGY AND PETROLEUM, NEMA: NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY, PPP UNIT: PUBLIC PRIVATE PARTNERSHIPS UNIT

Signature:   
Dr. Frederick Nyang-Ag, Director General, 30/09/2013

POWER PURCHASE AGREEMENTS AND LICENCE APPROVALS WITHIN 30 DAYS	ENERGY REGULATORY COMMISSION	5000+MW 40 MONTH PROJECT SEPTEMBER 2013 - DECEMBER 2016
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
**GOK-PROJECT 5,000 MW+ FAST TRACKED NEW CAPACITY TO TRANSFORM KENYA: ENERGY REGULATORY COMMISSION APPROVAL OF PPAs AND LICENSES**

ID	Task Name	Duration	Start	Finish	2014				2015				2016				
					Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4		
70	3.4 Review by Commissioners	5 days	Wed 22-01-14	Tue 28-01-14													
71	3.5 Commission Approval	1 day	Wed 29-01-14	Wed 29-01-14													
72	3.6 Issue Instrument of Approval	1 day	Fri 31-01-14	Fri 31-01-14													
73																	
74	Licensing	118 days	Sun 01-09-13	Fri 31-01-14													
75	1. Prepare Licence Documents	30 days	Sun 01-09-13	Thu 10-10-13													
76	1.1 Public Notice in Print Media	30 days	Thu 10-10-13	Sat 16-11-13													
77	2. Submit for Approval	30 days	Tue 19-11-13	Thu 26-12-13													
78	2.1 Inspection/Objection	15 days	Fri 27-12-13	Wed 15-01-14													
79	2.2 Process Objections	28 days	Fri 27-12-13	Fri 31-01-14													
80	3. Approval Process	24 days	Wed 01-01-14	Thu 30-01-14													
81	3.1 Acknowledge	2 days	Wed 01-01-14	Thu 02-01-14													
82	3.2 Check for Completeness	5 days	Fri 03-01-14	Wed 08-01-14													
83	3.3 Commission Paper	10 days	Thu 09-01-14	Tue 21-01-14													
84	3.4 Review by Commissioners	6 days	Wed 22-01-14	Wed 29-01-14													
85	3.5 Commission Approval	1 day	Thu 30-01-14	Thu 30-01-14													
86	3.6 Issue Licence	1 day	Fri 31-01-14	Fri 31-01-14													
87																	
88	Prunus Wind (50MW)	212 days	Mon 01-07-13	Tue 01-04-14													
89	PPA Negotiations	175 days	Mon 01-07-13	Fri 14-02-14													
90	1.1 Observe Negotiations	175 days	Mon 01-07-13	Fri 14-02-14													
91	Submit for Approval	22 days	Sat 01-03-14	Fri 28-03-14													
92	Approval Process	22 days	Sat 01-03-14	Fri 28-03-14													
93	3.1 Acknowledge	2 days	Sun 02-03-14	Mon 03-03-14													
94	3.2 Check for Completeness	5 days	Tue 04-03-14	Mon 10-03-14													
95	3.3 Commission Paper	10 days	Tue 11-03-14	Mon 24-03-14													
96	3.4 Review by Commissioners	5 days	Tue 25-03-14	Sun 30-03-14													
97	3.5 Commission Approval	1 day	Mon 31-03-14	Mon 31-03-14													
98	3.6 Issue Instrument of Approval	1 day	Tue 01-04-14	Tue 01-04-14													
99																	
100	Licensing	212 days	Tue 02-07-13	Wed 02-04-14													
101	Prepare Licence Documents	115 days	Mon 01-07-13	Mon 02-12-13													
102	1.1 Public Notice in Print Media	60 days	Fri 01-11-13	Wed 15-01-14													
103	Submit for Approval	60 days	Wed 04-12-13	Sun 16-02-14													
104	2.1 Inspection/Objection	15 days	Fri 01-11-13	Mon 18-11-13													

Project: Gantt Chart for Project 5000M  
Date: Thu 20-02-14

Task Split Progress Milestone Summary Project Summary External Tasks External Milestone Deadline

**KEY:** ERC: ENERGY REGULATORY COMMISSION, GDC: GEOTHERMAL DEVELOPMENT COMPANY, IPP: INDEPENDENT POWER PRODUCER, KENGEN: KENYA ELECTRICITY GENERATING COMPANY, KPLC: KENYA POWER AND LIGHTING COMPANY LIMITED, MOEP: MINISTRY OF ENERGY AND PETROLEUM, NEMA: NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY, PPP UNIT: PUBLIC PRIVATE PARTNERSHIPS UNIT

Signature   
Dr. Frederick Nyang- Ag, Director General, 30/09/2013

POWER PURCHASE AGREEMENTS AND LICENCE  
APPROVALS WITHIN 30 DAYS

ENERGY REGULATORY COMMISSION

5000+MW 40 MONTH PROJECT  
SEPTEMBER 2013 - DECEMBER 2016


**GOK-PROJECT 5,000 MW+ FAST TRACKED NEW CAPACITY TO TRANSFORM KENYA: ENERGY REGULATORY COMMISSION APPROVAL OF PPAs AND LICENSES**

ID	Task Name	Duration	Start	Finish	2014												2015				2016	
					Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2					
105	2.2 Process Objections	15 days	Fri 01-11-13	Mon 18-11-13	PRUNUS,PUBLIC,ERC & NEMA																	
106	Approval Process	22 days	Sat 01-03-14	Fri 28-03-14	ERC																	
107	3.1 Acknowledge	3 days	Sat 01-03-14	Mon 03-03-14	ERC																	
108	3.2 Check for Completeness	5 days	Tue 04-03-14	Mon 10-03-14	ERC																	
109	3.3 Commission Paper	10 days	Tue 11-03-14	Mon 24-03-14	ERC																	
110	3.4 Review by Commissioners	6 days	Tue 25-03-14	Mon 31-03-14	ERC																	
111	3.5 Commission Approval	1 day	Tue 01-04-14	Tue 01-04-14	ERC																	
112	3.6 Issue Licence	1 day	Wed 02-04-14	Wed 02-04-14	ERC,PRUNUS,KPLC,MOEP & MEDIA																	
113																						
114	<b>Marine Power(Geo.) 70 MW</b>	<b>187 days</b>	<b>Mon 09-09-13</b>	<b>Wed 30-04-14</b>	ERC,MARINE & KPLC																	
115	PPA Negotiations (KPLC+ Marine)	161 days	Sun 01-09-13	Tue 25-03-14	MARINE & KPLC																	
116	1.1 Observe Negotiations	161 days	Fri 06-09-13	Mon 31-03-14	ERC																	
117	Submit for Approval	1 day	Tue 01-04-14	Tue 01-04-14	MARINE & KPLC																	
118	Approval Process	25 days	Mon 14-04-14	Fri 09-05-14	ERC																	
119	3.1 Acknowledge	2 days	Wed 02-04-14	Thu 03-04-14	ERC																	
120	3.2 Check for Completeness	5 days	Fri 04-04-14	Tue 08-04-14	ERC																	
121	3.3 Commission Paper	8 days	Wed 09-04-14	Fri 18-04-14	ERC																	
122	3.4 Review by Commissioners	8 days	Sat 19-04-14	Sat 26-04-14	ERC																	
123	3.5 Commission Approval	1 day	Mon 28-04-14	Mon 28-04-14	ERC																	
124	3.6 Issue Instrument of Approval	1 day	Wed 30-04-14	Wed 30-04-14	ERC,MARINE,KPLC,MOEP																	
125																						
126	<b>Licensing</b>	<b>190 days</b>	<b>Mon 09-09-13</b>	<b>Sat 03-05-14</b>	MARINE POWER																	
127	Prepare Licence Documents	102 days	Sun 01-09-13	Fri 10-01-14	MARINE POWER																	
128	Public Notice in Print Media	22.5 days	Mon 06-01-14	Mon 03-02-14	MARINE POWER,ERC & PUBLIC																	
129	Submit for Approval	44 days	Fri 01-11-13	Wed 25-12-13	MARINE POWER																	
130	2.1 Inspection/Objection	22.5 days	Fri 14-02-14	Wed 12-03-14	MARINE POWER,PUBLIC,ERC,NEMA																	
131	2.2 Process Objections	10.5 days	Tue 18-03-14	Mon 31-03-14	MARINE POWER,PUBLIC,ERC,NEMA																	
132	Approval Process	28 days	Fri 01-11-13	Thu 05-12-13	MARINE POWER & ERC																	
133	3.1 Acknowledge	3 days	Sun 06-04-14	Tue 08-04-14	ERC																	
134	3.2 Check for Completeness	5 days	Wed 09-04-14	Tue 15-04-14	ERC																	
135	3.3 Commission Paper	9 days	Wed 16-04-14	Thu 24-04-14	ERC																	
136	3.4 Review by Commissioners	6 days	Fri 25-04-14	Thu 01-05-14	ERC																	
137	3.5 Commission Approval	1 day	Fri 02-05-14	Fri 02-05-14	ERC																	
138	3.6 Issue License	1 day	Sat 03-05-14	Sat 03-05-14	ERC,IPP,KPLC,MOE & MEDIA																	
139																						

Project: Gantt Chart for Project 5000M  
Date: Thu 20-02-14

Task Split Progress Summary External Tasks Deadline

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Signature   
Dr. Frederick Nyang- Ag. Director General, 30/09/2013

POWER PURCHASE AGREEMENTS AND LICENCE APPROVALS WITHIN 30 DAYS	ENERGY REGULATORY COMMISSION	5000+MW 40 MONTH PROJECT SEPTEMBER 2013 - DECEMBER 2016
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### GOK-PROJECT 5,000 MW+ FAST TRACKED NEW CAPACITY TO TRANSFORM KENYA: ENERGY REGULATORY COMMISSION APPROVAL OF PPAs AND LICENSES

ID	Task Name	Duration	Start	Finish	2014				2015				2016			
					Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	
140	Lamu 900-1000MW Coal Project	192 days	Wed 04-09-13	Fri 02-05-14	[Gantt Chart: Lamu 900-1000MW Coal Project]											
141	Issue RFPs	5 days	Mon 04-11-13	Fri 08-11-13	[Gantt Chart: Issue RFPs]											
142	Days for responses and Site Visit	55 days	Mon 11-11-13	Sat 18-01-14	[Gantt Chart: Days for responses and Site Visit]											
143	Sunction from PPP Unit	1 day	Fri 01-11-13	Fri 01-11-13	[Gantt Chart: Sunction from PPP Unit]											
144	Evaluation of RFPs and Award	27 days	Tue 21-01-14	Fri 21-02-14	[Gantt Chart: Evaluation of RFPs and Award]											
145	Negotiate Fuel Supply Agreement	37 days	Mon 24-02-14	Tue 08-04-14	[Gantt Chart: Negotiate Fuel Supply Agreement]											
146	Negotiate PPA	37 days	Mon 24-02-14	Tue 08-04-14	[Gantt Chart: Negotiate PPA]											
147	Observe negotiations	37 days	Mon 24-02-14	Tue 08-04-14	[Gantt Chart: Observe negotiations]											
148	Signing of Fuel Supply Agreement	1 day	Tue 08-04-14	Tue 08-04-14	[Gantt Chart: Signing of Fuel Supply Agreement]											
149	Initialing of PPA	1 day	Tue 08-04-14	Tue 08-04-14	[Gantt Chart: Initialing of PPA]											
150	Approval process	1 day	Fri 02-05-14	Fri 02-05-14	[Gantt Chart: Approval process]											
151	Submit PPA for Approval	1 day	Wed 09-04-14	Wed 09-04-14	[Gantt Chart: Submit PPA for Approval]											
152	3.1 Acknowledge	1 day	Fri 11-04-14	Sat 12-04-14	[Gantt Chart: 3.1 Acknowledge]											
153	3.2 Check for Completeness	5 days	Mon 14-04-14	Fri 18-04-14	[Gantt Chart: 3.2 Check for Completeness]											
154	3.3 Commission Paper	5 days	Sat 19-04-14	Wed 23-04-14	[Gantt Chart: 3.3 Commission Paper]											
155	3.4 Review by Commissioners	6 days	Thu 24-04-14	Wed 30-04-14	[Gantt Chart: 3.4 Review by Commissioners]											
156	3.5 Commission Approval	1 day	Thu 01-05-14	Thu 01-05-14	[Gantt Chart: 3.5 Commission Approval]											
157	3.6 Issue Instrument of Approval	1 day	Fri 02-05-14	Fri 02-05-14	[Gantt Chart: 3.6 Issue Instrument of Approval]											
158																
159	Licensing	192 days	Wed 04-09-13	Fri 02-05-14	[Gantt Chart: Licensing]											
160	Prepare Licence Documents	30 days	Mon 04-11-13	Wed 11-12-13	[Gantt Chart: Prepare Licence Documents]											
161	Public Notice in Print Media	30 days	Fri 13-12-13	Mon 20-01-14	[Gantt Chart: Public Notice in Print Media]											
162	Submit for Approval	29 days	Thu 23-01-14	Wed 26-02-14	[Gantt Chart: Submit for Approval]											
163	2.1 Inspection/Objection	15 days	Wed 22-01-14	Sat 08-02-14	[Gantt Chart: 2.1 Inspection/Objection]											
164	2.2 Process Objections	15 days	Tue 11-02-14	Thu 27-02-14	[Gantt Chart: 2.2 Process Objections]											
165	Approval Process	26 days	Tue 01-04-14	Tue 29-04-14	[Gantt Chart: Approval Process]											
166	3.1 Acknowledge	2 days	Wed 02-04-14	Thu 03-04-14	[Gantt Chart: 3.1 Acknowledge]											
167	3.2 Check for Completeness	5 days	Fri 04-04-14	Tue 08-04-14	[Gantt Chart: 3.2 Check for Completeness]											
168	3.3 Commission Paper	7 days	Thu 10-04-14	Fri 18-04-14	[Gantt Chart: 3.3 Commission Paper]											
169	3.4 Review by Commissioners	9 days	Sat 19-04-14	Mon 28-04-14	[Gantt Chart: 3.4 Review by Commissioners]											
170	3.5 Commission Approval	1 day	Wed 30-04-14	Wed 30-04-14	[Gantt Chart: 3.5 Commission Approval]											
171	3.6 Issue Licence	1 day	Fri 02-05-14	Fri 02-05-14	[Gantt Chart: 3.6 Issue Licence]											
172																
173	Kitui 900-1000MW Coal Project	195 days	Sun 01-09-13	Fri 02-05-14	[Gantt Chart: Kitui 900-1000MW Coal Project]											

Project: Gantt Chart for Project 5000M Date: Thu 20-02-14

Task Split Progress Milestone Summary Project Summary External Tasks External Milestone

**KEY:** ERC: ENERGY REGULATORY COMMISSION, GDC: GEOTHERMAL DEVELOPMENT COMPANY, IPP: INDEPENDENT POWER PRODUCER, KENGEN: KENYA ELECTRICITY GENERATING COMPANY, KPLC: KENYA POWER AND LIGHTING COMPANY LIMITED, MOEP: MINISTRY OF ENERGY AND PETROLEUM, NEMA: NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY, PPP UNIT: PUBLIC PRIVATE PARTNERSHIPS UNIT

Signature: Dr. Frederick Nyang-Ag, Director General, 30/09/2013

POWER PURCHASE AGREEMENTS AND LICENCE APPROVALS WITHIN 30 DAYS	ENERGY REGULATORY COMMISSION	5000+MW 40 MONTH PROJECT SEPTEMBER 2013 - DECEMBER 2016
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**GOK-PROJECT 5,000 MW+ FAST TRACKED NEW CAPACITY TO TRANSFORM KENYA: ENERGY REGULATORY COMMISSION APPROVAL OF PPAs AND LICENSES**

ID	Task Name	Duration	Start	Finish	2014				2015				2016						
					Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2		
174	Issue RFPs	5 days	Mon 04-11-13	Fri 08-11-13															
175	Days for responses and Site Visit	55 days	Mon 11-11-13	Sat 18-01-14															
176	Evaluation of RFPs and Award	27 days	Tue 21-01-14	Fri 21-02-14															
177	Sunction from PP Unit	1 day	Sun 23-02-14	Sun 23-02-14															
178	Negotiate Fuel Supply Agreement	37 days	Mon 24-02-14	Tue 08-04-14															
179	Negotiate PPA	37 days	Mon 24-02-14	Tue 08-04-14															
180	Observe negotiations	37 days	Mon 24-02-14	Tue 08-04-14															
181	Signing of Fuel Supply Agreement	1 day	Tue 08-04-14	Tue 08-04-14															
182	Initiating of PPA	1 day	Tue 08-04-14	Tue 08-04-14															
183	Approval process	1 day	Fri 01-11-13	Fri 01-11-13															
184	Submit PPA for Approval	1 day	Wed 09-04-14	Wed 09-04-14															
185	3.1 Acknowledge	1 day	Fri 11-04-14	Sat 12-04-14															
186	3.2 Check for Completeness	5 days	Mon 14-04-14	Fri 18-04-14															
187	3.3 Commission Paper	5 days	Sat 19-04-14	Wed 23-04-14															
188	3.4 Review by Commissioners	6 days	Thu 24-04-14	Wed 30-04-14															
189	3.5 Commission Approval	1 day	Thu 01-05-14	Thu 01-05-14															
190	3.6 Issue Instrument of Approval	1 day	Fri 02-05-14	Fri 02-05-14															
191	Licensing	195 days	Sun 01-09-13	Fri 02-05-14															
193	Prepare Licence Documents	30 days	Mon 04-11-13	Wed 11-12-13															
194	Public Notice in Print Media	30 days	Fri 13-12-13	Mon 20-01-14															
195	Submit for Approval	29 days	Thu 23-01-14	Wed 26-02-14															
196	2.1 Inspection/Objection	15 days	Wed 22-01-14	Sat 08-02-14															
197	2.2 Process Objections	15 days	Tue 11-02-14	Thu 27-02-14															
198	Approval Process	26 days	Tue 01-04-14	Tue 29-04-14															
199	3.1 Acknowledge	2 days	Wed 02-04-14	Thu 03-04-14															
200	3.2 Check for Completeness	5 days	Fri 04-04-14	Tue 08-04-14															
201	3.3 Commission Paper	7 days	Thu 10-04-14	Fri 18-04-14															
202	3.4 Review by Commissioners	9 days	Sat 19-04-14	Mon 28-04-14															
203	3.5 Commission Approval	1 day	Wed 30-04-14	Wed 30-04-14															
204	3.6 Issue Licence	1 day	Thu 01-05-14	Thu 01-05-14															
205	LNG 700-800MW POWER PROJECT	194 days	Mon 02-09-13	Fri 02-05-14															
206	Issue EOI	19 days	Tue 01-10-13	Fri 25-10-13															

Project: Gantt Chart for Project 5000M  
Date: Thu 20-02-14

Task Split:  Progress Milestone:  Summary Project Summary:  External Tasks:  External Milestone:  Deadline:

**KEY:** ERC: ENERGY REGULATORY COMMISSION, GDC: GEOTHERMAL DEVELOPMENT COMPANY, IPP: INDEPENDENT POWER PRODUCER, KENGEN: KENYA ELECTRICITY GENERATING COMPANY, KPLC: KENYA POWER AND LIGHTING COMPANY LIMITED, MOEP: MINISTRY OF ENERGY AND PETROLEUM, NEMA: NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY, PPP UNIT: PUBLIC PRIVATE PARTNERSHIPS UNIT

Signature:   
Dr. Frederick Nyang- Ag, Director General, 30/09/2013

POWER PURCHASE AGREEMENTS AND LICENCE APPROVALS WITHIN 30 DAYS	ENERGY REGULATORY COMMISSION	5000+MW 40 MONTH PROJECT SEPTEMBER 2013 - DECEMBER 2016
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**GOK-PROJECT 5,000 MW+ FAST TRACKED NEW CAPACITY TO TRANSFORM KENYA: ENERGY REGULATORY COMMISSION APPROVAL OF PPAs AND LICENSES**

ID	Task Name	Duration	Start	Finish	2014				2015				2016				
					Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4		
208	Evaluate EOIs	13 days	Mon 28-10-13	Mon 11-11-13													
209	Sunction from PPP Unit	1 day	Mon 02-12-13	Mon 02-12-13													
210	Issue RFP	1 day	Thu 28-11-13	Thu 28-11-13													
211	Evaluation of RFPs and Award of Tender	73 days	Fri 29-11-13	Thu 27-02-14													
212	Negotiate Fuel Supply Agreement	2 days	Fri 28-02-14	Sat 01-03-14													
213	Negotiate PPA	12 days	Sun 02-03-14	Mon 17-03-14													
214	Initialing of PPA	1 day	Mon 17-03-14	Mon 17-03-14													
215	Signing of Fuel Supply Agreement	12 days	Tue 18-03-14	Tue 01-04-14													
216	Approval process	28 days	Wed 02-04-14	Fri 02-05-14													
217	Submit PPA for Approval	1 day	Wed 02-04-14	Wed 02-04-14													
218	3.1 Acknowledge	2 days	Wed 02-04-14	Thu 03-04-14													
219	3.2 Check for Completeness	5 days	Sat 05-04-14	Wed 09-04-14													
220	3.3 Commission Paper	9 days	Thu 10-04-14	Sun 20-04-14													
221	3.4 Review by Commissioners	7 days	Mon 21-04-14	Mon 28-04-14													
222	3.5 Commission Approval	1 day	Thu 01-05-14	Thu 01-05-14													
223	3.6 Issue Instrument of Approval	1 day	Fri 02-05-14	Fri 02-05-14													
224																	
225	<b>Licensing</b>	<b>126 days</b>	<b>Tue 03-12-13</b>	<b>Sat 03-05-14</b>													
226	Prepare Licence Documents	74 days	Fri 29-11-13	Fri 28-02-14													
227	Public Notice in Print Media	1 day	Sat 01-03-14	Sat 01-03-14													
228	Submit for Approval	15 days	Sun 02-03-14	Thu 20-03-14													
229	2.1 Inspection/Objection	15 days	Fri 21-03-14	Mon 07-04-14													
230	2.2 Process Objections	4.67 days	Thu 10-04-14	Wed 16-04-14													
231	Approval Process	28 days	Wed 02-04-14	Fri 02-05-14													
232	3.1 Acknowledge	2 days	Thu 03-04-14	Fri 04-04-14													
233	3.2 Check for Completeness	5 days	Sat 05-04-14	Wed 09-04-14													
234	3.3 Commission Paper	11 days	Thu 10-04-14	Tue 22-04-14													
235	3.4 Review by Commissioners	8 days	Wed 23-04-14	Thu 01-05-14													
236	3.5 Commission Approval	1 day	Fri 02-05-14	Fri 02-05-14													
237	3.6 Issue Licence	1 day	Sat 03-05-14	Sat 03-05-14													
238																	
239	<b>REA Garissa Solar Plant (50MW)</b>	<b>175 days</b>	<b>Mon 02-09-13</b>	<b>Thu 10-04-14</b>													
240	PPA Negotiations	149 days	Mon 02-09-13	Mon 10-03-14													
241	Submit Application for Approval	1 day	Mon 10-03-14	Mon 10-03-14													

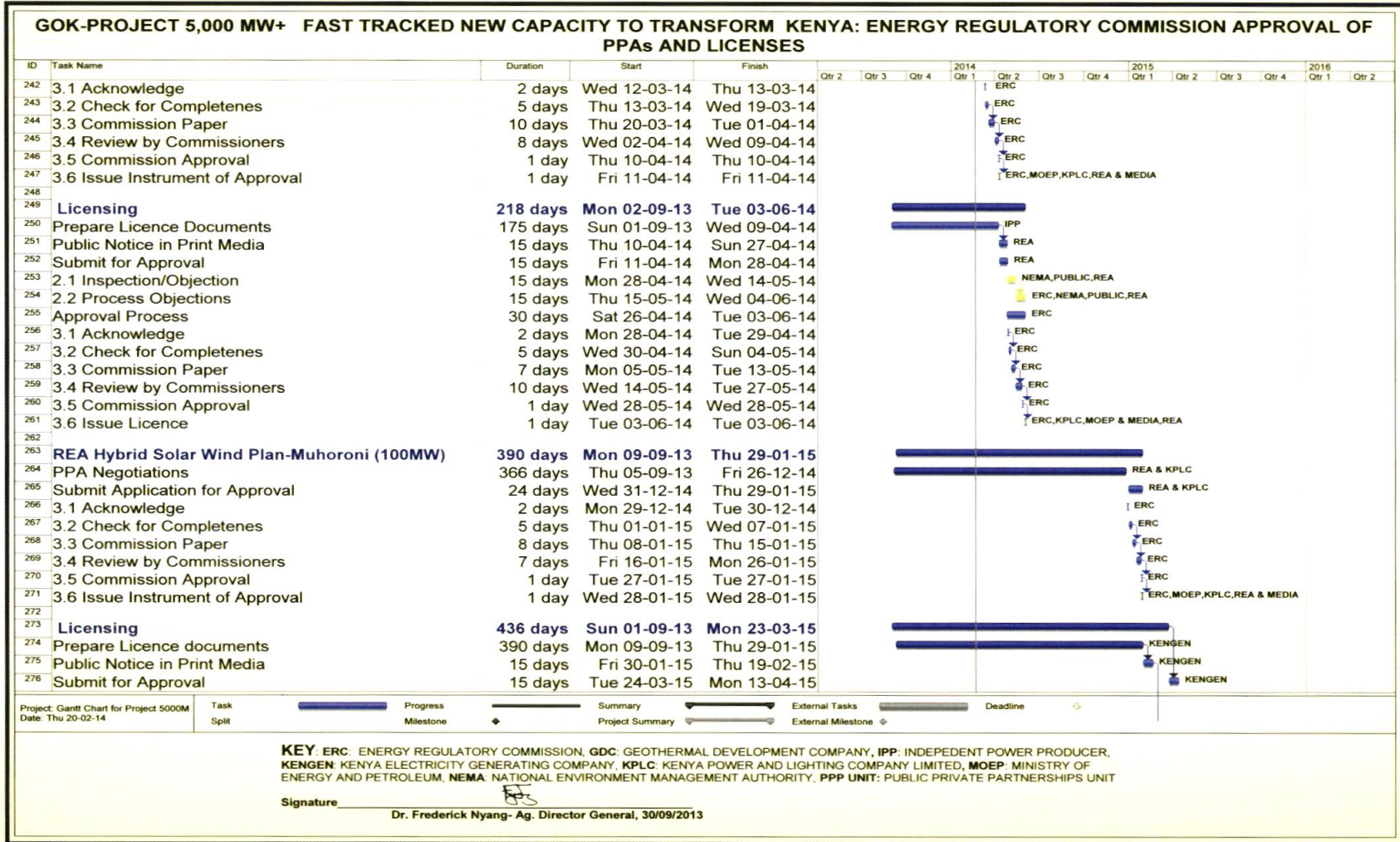
Project: Gantt Chart for Project 5000MW Date: Thu 20-02-14

Task Split: Progress Milestone Summary Project Summary External Tasks External Milestone Deadline

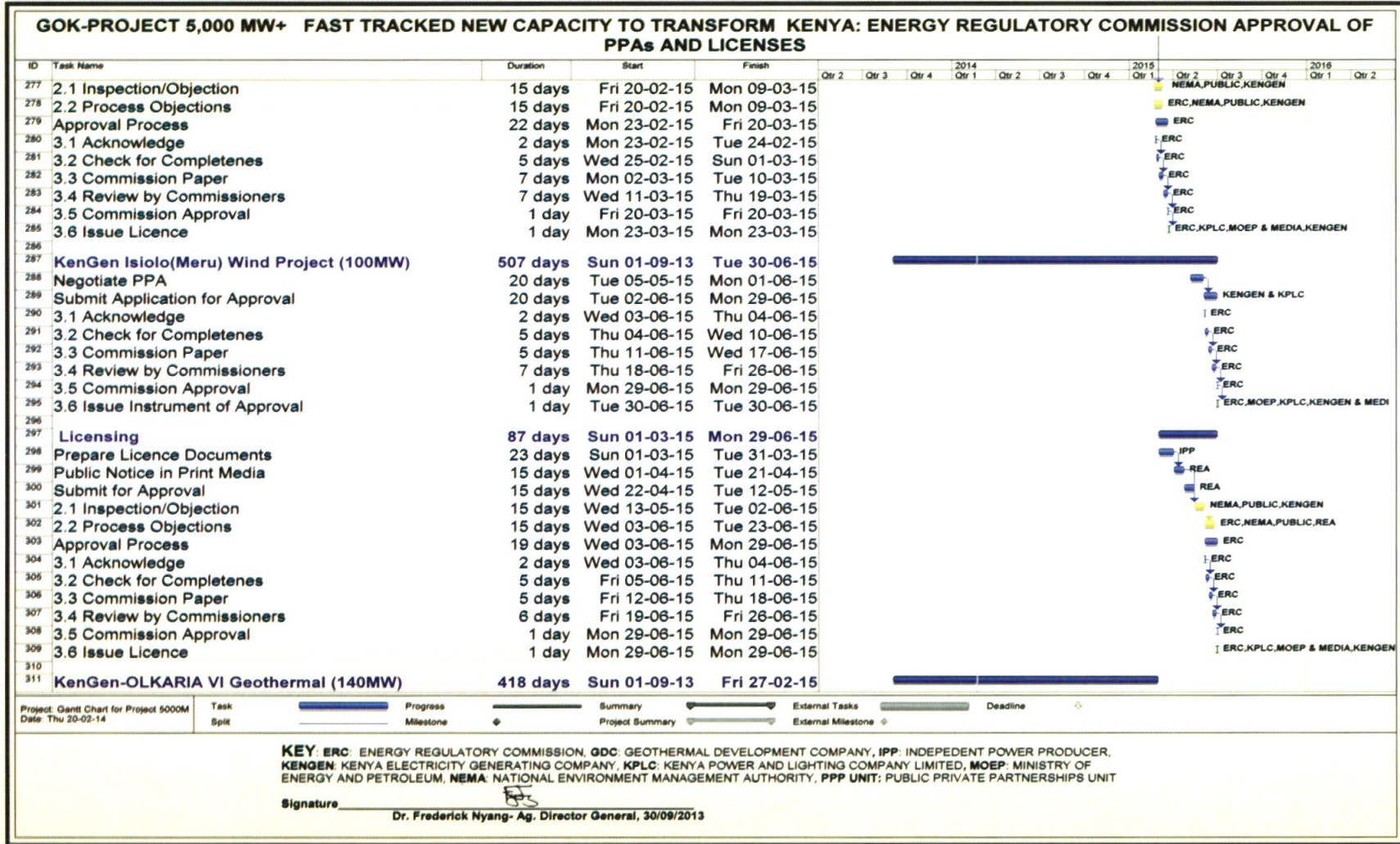
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Signature:   
 Dr. Frederick Nyang-Ag, Director General, 30/09/2013

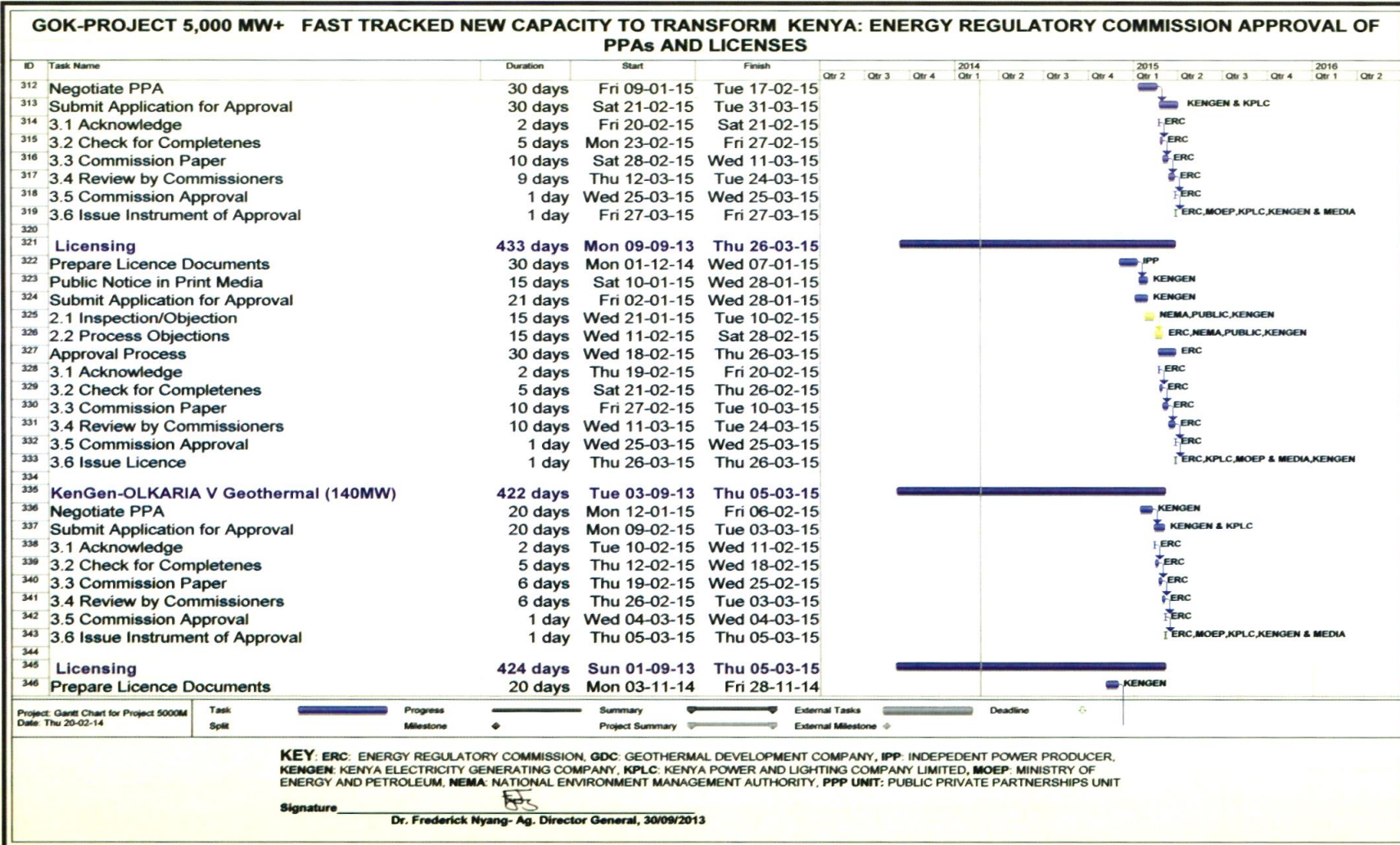
POWER PURCHASE AGREEMENTS AND LICENCE APPROVALS WITHIN 30 DAYS	ENERGY REGULATORY COMMISSION	5000+MW 40 MONTH PROJECT SEPTEMBER 2013 - DECEMBER 2016
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POWER PURCHASE AGREEMENTS AND LICENCE APPROVALS WITHIN 30 DAYS	ENERGY REGULATORY COMMISSION	5000+MW 40 MONTH PROJECT SEPTEMBER 2013 - DECEMBER 2016
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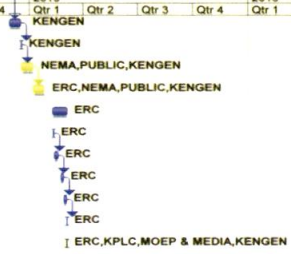
POWER PURCHASE AGREEMENTS AND LICENCE APPROVALS WITHIN 30 DAYS	ENERGY REGULATORY COMMISSION	5000+MW 40 MONTH PROJECT SEPTEMBER 2013 - DECEMBER 2016
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POWER PURCHASE AGREEMENTS AND LICENCE APPROVALS WITHIN 30 DAYS	ENERGY REGULATORY COMMISSION	5000+MW 40 MONTH PROJECT SEPTEMBER 2013 - DECEMBER 2016
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**GOK-PROJECT 5,000 MW+ FAST TRACKED NEW CAPACITY TO TRANSFORM KENYA: ENERGY REGULATORY COMMISSION APPROVAL OF PPAs AND LICENSES**

ID	Task Name	Duration	Start	Finish	2014				2015				2016		
					Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2		
347	Public Notice in Print Media	15 days	Sat 29-11-14	Wed 17-12-14											
348	Submit Application for Approval	2 days	Thu 18-12-14	Fri 19-12-14											
349	2.1 Inspection/Objection	15 days	Sat 20-12-14	Thu 08-01-15											
350	2.2 Process Objections	15 days	Fri 09-01-15	Tue 27-01-15											
351	Approval Process	22 days	Mon 09-02-15	Thu 05-03-15											
352	3.1 Acknowledge	2 days	Tue 10-02-15	Wed 11-02-15											
353	3.2 Check for Completeness	5 days	Thu 12-02-15	Wed 18-02-15											
354	3.3 Commission Paper	5 days	Mon 23-02-15	Fri 27-02-15											
355	3.4 Review by Commissioners	5 days	Sat 28-02-15	Wed 04-03-15											
356	3.5 Commission Approval	1 day	Thu 05-03-15	Thu 05-03-15											
357	3.6 Issue Licence	1 day	Thu 05-03-15	Thu 05-03-15											



Project: Gantt Chart for Project 5000M  
Date: Thu 20-02-14

Task Split:  Progress Milestone:  Summary Project Summary:  External Tasks External Milestone:  Deadline: 

**KEY:** ERC: ENERGY REGULATORY COMMISSION, GDC: GEOTHERMAL DEVELOPMENT COMPANY, IPP: INDEPENDENT POWER PRODUCER, KENGEN: KENYA ELECTRICITY GENERATING COMPANY, KPLC: KENYA POWER AND LIGHTING COMPANY LIMITED, MOEP: MINISTRY OF ENERGY AND PETROLEUM, NEMA: NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY, PPP UNIT: PUBLIC PRIVATE PARTNERSHIPS UNIT

Signature   
Dr. Frederick Nyang- Ag. Director General, 30/09/2013



# NATIONAL OIL CORPORATION OF KENYA

JUNE 2014

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1. Background
2. Overview
3. Financial Highlights and Key KPI
4. Projects Update
  - a. Upstream
  - b. Midstream
  - c. Downstream
5. Challenges
6. Next Steps
7. Conclusion
8. Appendix: Gantt Charts

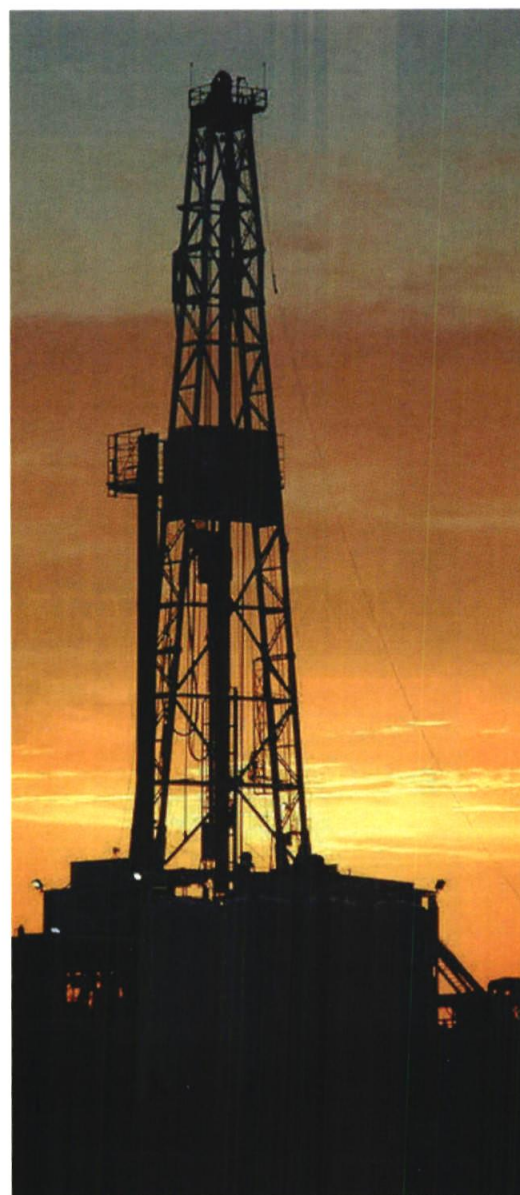


## 1.0 Background

The National Oil Corporation of Kenya is a limited company incorporated by the Government of Kenya in April 1981 under the Companies Act, Cap 486 of the Laws of Kenya. At its formation, the Corporation was charged with participation in all aspects of the petroleum industry. The company is 100% owned by the Government of Kenya through the Ministry of Energy and Petroleum and the National Treasury.

The formation of National Oil Corporation was precipitated by the oil crisis of the 1970's (1973/74 and 1979/80) and the corresponding supply disruptions and price hikes. This necessitated the need for the government to have greater control of this crucial factor of the economy's performance by having a company which would act as an instrument of government policy in oil matters.

The corporation became operational in 1984 with initial activities mainly consisting of exploration activities delegated from the Ministry of Energy. In March 1988, the need for the company to enter into downstream activities (petroleum importation and distribution) was identified. National Oil has since grown to be among the leading oil companies in Kenya with a rapidly expanding retail network and growing its presence in petroleum midstream and downstream to be among Africa's foremost fully integrated national oil companies.



Oil Drilling Rig in Turkana

## 2.0 Overview

The period July-June 2014 was characterized by increased activity on the oil and gas exploration front following the string of successes by Tullow in the Lokichar Basin. Tullow now estimates the Lokichar area to hold an estimated 600M barrels of oil with increased estimates anticipated with additional drilling and appraisal activity.



On the petroleum downstream front, following the decline in petroleum consumption experienced in the build up to the 2013 elections, consumption picked up sluggishly during the first and second quarter of the Financial Year. Momentum picked up in the second half of the financial year. The corporation anticipates closing the financial year 2013/14 with increased volumes of products sold compared to the previous year.

### 3.0 Financial Highlights and Key KPIs

During the financial year 2013/14 as observed in the overview above, activity began picking up after slowdown in the build up to the 2013 election. The corporation therefore recorded a marginal decline in the year to date May 2014, compared to same period in the previous year but we are confident to surpass the performance of the previous year. Table 1 and 2 below captures the financial highlights and key KPI compared to same period previous year.

**Table 1: Corporate Financial Highlights**

Item Description	FY 2012/13 YTD MAY 2013	FY 2013/14 YTD MAY 2014
Turnover (Kshs '000)	214,862	217,458
Other Income (Kshs '000)	98,552	81,875
Gross Profit (Kshs '000)	739,186	780,105
Profit Before Tax	239,338	237,426
Upstream Data Sales (Kshs '000)		94,000

**Table 2: Key Operational Indicators**

Item Description	FY 2012/13	FY 2013/14
Sales Volumes (M3)	252,742	232,922
NNT Throughput Volumes (M3)	185,000	184,000
Number of Retail Stations	102	116



## 4.0 Projects Update

With petroleum set to play a vital role as a key infrastructural enabler of the Vision 2030 coupled with the increasing central role of national oil companies, National Oil is committed to playing a major role towards the attainment of the Vision by ensuring access to affordable petroleum products. To achieve this, the Corporation is focusing on the following initiatives:

### Short term

- Scale up retail network expansion
- Secure government – to – government contracts for supply of petroleum to Kenya
- Active oil and gas exploration
- Development of oil and gas support services business units

### Medium Term

- Petroleum infrastructure development
- Positioning Kenya as a regional hub for oil and gas exploration support services

### Long Term

Positioning Kenya as a petroleum trading logistics hub

For each of the above broad initiatives, the corporation has outlined and embarked on a number of projects in petroleum upstream, midstream and downstream.

In this respect during the first half of the current financial year the Corporation pursued the following initiatives:

## 4.1 Upstream Projects

### 4.1.1 Multiclient Seismic Data Acquisition

The Corporation entered into partnership with Schlumberger WesternGeco to acquire multiclient seismic 2D and 3D data in offshore blocks. During the year over 9,000 line kilometers of multiclient 2D seismic data were acquired. The objective of this initiative is to enhance the amount and quality of seismic data available to enhance the prospectiveness of Kenya's offshore acreage.

The revenue generated from this multiclient seismic survey will be used by the Corporation to set up a modern Data Centre at the South C Energy Centre which shall incorporate:

- Online data store
- Seismic processing centre
- Data visualization facility



The Data Center will provide specialised data and seismic support services to oil and gas exploration companies operating locally and across East African region thus reducing costs and turnaround time. It will also serve to position Kenya as an East African upstream services hub.

#### 4.1.2 Block 14T Work Programme

National Oil is the PSC licensee and operator of Block 14T. During the year, the corporation undertook an extensive geochemical and petrochemical survey entailing:

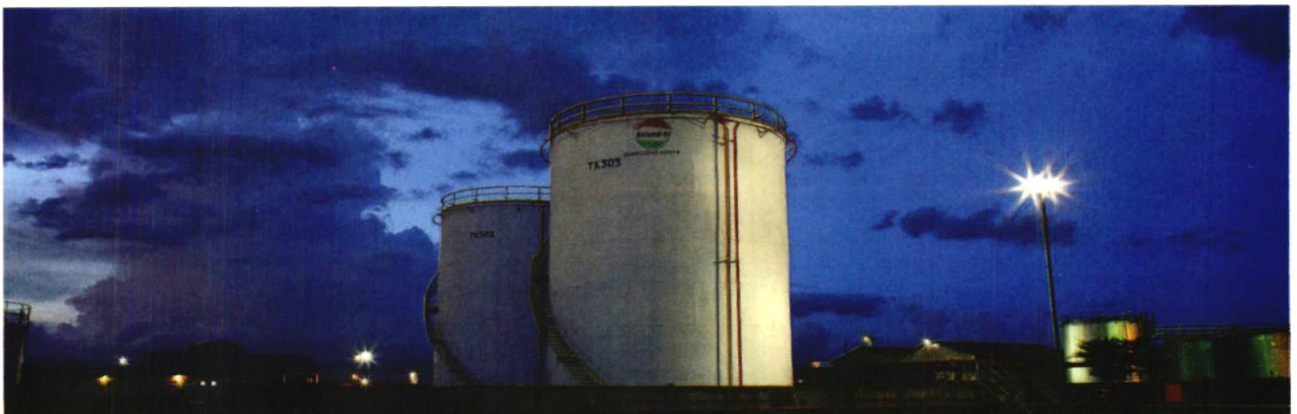
- Acquisition of over 443 Gore Sorber geochemical samples and interpretation
- Acquisition of 22,000KM of Full Tensor Gradiometry (FTG) data
- Acquisition of magnetotellurics data
- Acquisition of 310KM line of 2D seismic data which was acquired which is above the PSC requirement of 120KM.

Processing of 2D seismic and MT is currently underway in Germany. Joint interpretation and data integration between NOC Kenya and JOGMEC is scheduled to commence in the next financial year. The corporation also undertook community sensitization.

#### 4.1.3 Capacity Building

During the period under review, the corporation hired 32 management trainees to be engaged in the various upstream roles within the company as the corporation seeks to build capability in readiness for production. The management trainees have been attached to field operations of various exploration companies and are set to be sponsored to universities overseas starting July 2014 for various oil and gas postgraduate programmes.

The corporation also signed MOUs with the University of Nairobi and Kenyatta University for collaboration in various areas of research and capacity building. The objective of these collaborations is to support the local universities to build capacity to provide specialist oil and gas programmes locally.



Nairobi National Terminal Photo



#### 4.1.4 Government Participation Interest

The Corporation is the Government's nominee to exercise the Government's back-in participation interest in the blocks where commercial oil and gas resources have been discovered. The Corporation jointly with the Ministry of Energy and Petroleum is working with Tullow Oil on the field development studies that will inform the field development plan. The Corporation is currently also preparing to raise funds to finance this back-in participation.

### 4.2 Midstream Projects

#### 4.2.1 Petroleum Offshore Jetty and Tankfarm Project

The objective of this project is to build sufficient petroleum loading and offloading as well as storage capacity to help position the Kenyan coast as a regional petroleum trading logistics hub. During the year, the Corporation completed the feasibility study for the offshore jetty and Tankfarm project and has commenced the process of engaging a transaction advisor for the project. The offshore jetty is among the 47 projects that have been prioritized by the National Treasury for implementation under the Public Private Partnership (PPP) model.

### 4.3 Downstream Projects

#### 4.3.1 Nairobi National Terminal LPG Storage and Filling Plant

To ease the constraints currently being faced by the country in the availability of LPG storage and filling infrastructure, the Corporation in September 2013 commenced construction of this plant at its Nairobi National Terminal. The plant will have a storage capacity of 90MT and in addition to serving the Corporation will also provide hospitality to the upcoming LPG players thus serving to enhance the penetration of LPG in the country. Completion and testing of the plant is slated for August 2014.



Proposed Single Buoy Mooring



### 4.3.2 Retail Expansion

The density and distribution of retail petrol stations in Kenya is skewed to major towns and major highways. Fewer than 1,500 retail outlets currently serve a population of 40M Kenyans. In South Africa for example, Gauteng province alone with a population of 10M people and covering an area of only 18,178 square kilometers has 1,582 outlets.



Kamulu Service Station

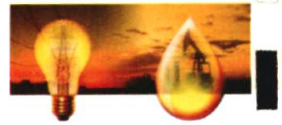
As a measure to increase security of supply and cushion the public against supply shocks, National Oil is working on enhancing its national footprint of stations from 109 to 150 by the year 2016. This will enable the Corporation to have a retail presence in every county headquarter in Kenya as well as in rural market centers and smaller towns across the country. During the first half of the year, the Corporation brought onboard an additional four stations in Kamulu, Nyeri, Nakuru and Ngong.

### 4.3.3 MOU with Indian Oil Company

Indian Oil is one of the four national oil companies in India and the single largest company in India. The company is mostly focused on midstream and downstream petroleum activities including refining, petrochemicals, pipelines, R&D, aviation and retailing of petroleum. Due to its impressive and diverse capabilities in midstream and downstream petroleum activities, National Oil has commenced engagements with Indian Oil with a view to partnering in developing the various facets of National Oil's downstream business and achieving market leadership. The engagements are set to culminate in the signing of an MOU between the two companies in the next few weeks.

## 5.0 Challenges

While the above achievements have been realised, a number of challenges have been encountered. Key among these challenges are highlighted below.



### **a. Inadequate Financing**

Petroleum business is highly capital intensive and while National Oil has an aggressive growth plan, the company remains largely undercapitalized with total assets of Kshs 8B. This has continued to hamper the ability of the company to grow faster.

#### **Mitigation**

Moving forward there may be need for the Government to consider injecting additional capital into National Oil and/or other forms of support (through for example allocation of land for infrastructure projects, letters of comfort or guarantees to financiers and partners where applicable) to enable the company achieve faster growth and participate in high capital petroleum infrastructure projects.

### **b. Constrained and Aged National Petroleum Distribution Infrastructure**

The existing petroleum infrastructure in the country is aged and limited in capacity thus necessitating the need for the same to be shared among the over 60 registered oil marketing companies operating in Kenya on the basis of historical sales data/market share. This has however posed operational and logistical challenges to National Oil which has been on a steep growth trajectory as allocation of space (ullage) in the existing facilities using historical sales trends does not take immediate cognizance of the expanded network.

#### **Mitigation**

There will be need therefore to develop a master plan for the modernization of the national petroleum infrastructure with a view to only address the present constraints, but also develop infrastructure to support the oil and gas discoveries in Kenya and East Africa with a view to positioning Kenya as a regional petroleum trading logistics hub.

### **c. Petroleum Supply**

Importation of petroleum to the country is wholly through spot arrangements which can predispose the country to supply shocks and often results in price volatilities. Best practice worldwide for net petroleum importers is to provide for a mix of spot purchases and term contracts.

#### **Mitigation**

There is need therefore to facilitate the National Oil Corporation of Kenya to enter into term contracts with producing national oil companies under government-to-government contracts particularly under the 30% quota with a view to ensuring stability in the supply of petroleum into the country.



#### d. Legislative Framework

The current legal framework governing upstream oil and gas operations dates back to 1986. The industry and the region has rapidly changed since then and in the recent past oil and gas discoveries have been made in Kenya and the region.

##### Mitigation

There is therefore need for urgent review of the legislative framework to provide for a robust operational and institutional framework to govern the nascent industry. Some of the laws that are immediately needed include those to:

- **Provide for fair fiscal terms for both oil and gas**
- **Govern the establishment of a National Data Centre, data management as well as data sharing**
- **Local Content**
- **Establish a clear role for the Ministry, National Oil Corporation and the establishment of a Regulator for the emerging upstream sector**
- **Provide for the establishment of a robust environmental law that addresses concerns related to oil and gas exploration activities**

#### e. Public Procurement Process

As a state corporation, National Oil is subject to the Public Procurement and Disposal Act. However as a commercial entity in a fully competitive environment and mandated to play a pivotal role in securing petroleum supply in the country, the lengthy procurement process can hamper speed of execution. In addition it is anticipated that as Kenya records more oil discoveries and moves into production, working within the provisions of the current Public Procurement and Disposal Act will be an impediment to National Oil further entrenching itself in the upstream field.

##### Mitigation

Developing or newly developed countries such as India, China, Malaysia, Brazil among others that have spurred their national oil companies to become global players have sought to provide special dispensations that have saved their NOCs from the rigors of the public procurement laws but at the same time providing appropriate safeguards that ensure these NOCs still remain accountable to the government and the public.

#### f. Inadequate Technical Skills

The country lacks adequate skills in the technical areas of oil and gas upstream and midstream. These skills will be critical if National Oil is to effectively play its role as a fully integrated company and for the Government to pursue an effective local content policy for the emerging oil and gas upstream and midstream functions.



## Mitigation

In this respect there will be need for a grand marshal plan as done in Trinidad & Tobago, Brazil, Malaysia among others to build local competencies in these areas with National Oil working with other stakeholders to drive this agenda.

## 6.0 Next Steps

In July 2013, the Corporation commenced implementation of its 2013-16 Strategic Plan which aims to lay a robust foundation for a world class fully integrated national oil company of the future. The Strategic Plan focuses on the following key areas:

- Achieving 10% global market share by 2016
- Developing world class petroleum infrastructure
- Developing world class Upstream Business
- Transforming ICT to a key enabler of business and a driver of competitiveness
- Developing world class Human Resources
- Positioning National Oil as a major player in the global oil and gas industry



Kamulu Service Station



Over the last few years there has been growing interest in East Africa's oil and gas exploration acreage. However companies coming to conduct exploration in the region have to rely on support services such as geochemical and geophysical analysis, data services, and equipment sourced from outside the region. National Oil is committed to ensuring that Kenya addresses this gap by acting as a hub for these services within the region.

To this end in the second half of the year the corporation commenced the process of establishing a modern data centre that will allow remote access to oil and gas data enabling persons interested in the data to access it from wherever they may be in the world as well as a data visualization and seismic processing centre.

The corporation also embarked on offshore geochemical analysis to identify oil seeps and generate multiclient geochemical data. Sales of this data will help in the setting up of a modern national geochemical laboratory to provide hydrocarbon analysis for the East African region.

Through the support of the World Bank under the Kenya Petroleum Technical Assistance Project (KEPTAP) and in collaboration with the Ministry of Energy and Petroleum, the Corporation will also be looking to spearhead development of a Local Content Policy and Legislation to ensure that Kenyans begin participating in the oil and gas sector at an early stage. Under the KEPTAP the Corporation will also be looking to undertake a commercialization study to inform on the various options for the oil discovered in Turkana. This study shall inform participation by the Corporation in the field development engagements with Tullow Oil to ensure the most optimal field development plan is implemented for the benefit of the country.

## 7.0 Conclusion

Increasingly, the role of national oil companies in the realization of national development agendas is becoming more pronounced. This is more so in the emerging economies of Asia, Africa and South America where national oil companies are now one of the most important tools of economical transformation. National Oil is rising to the occasion to support realization of the development objectives espoused in the Vision 2030.



# APPENDIX

NATIONAL OIL CORPORATION OF KENYA  
WORKPLAN

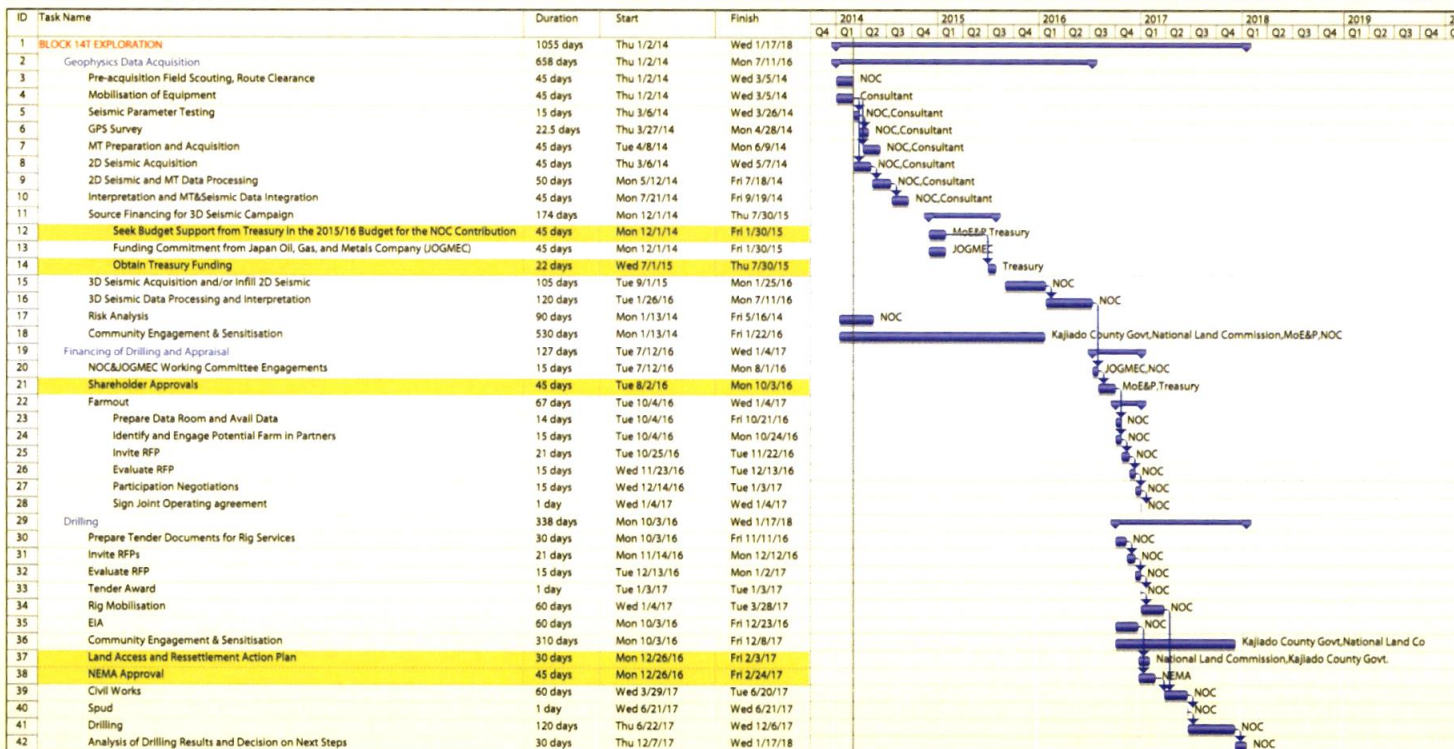


REPUBLIC OF KENYA

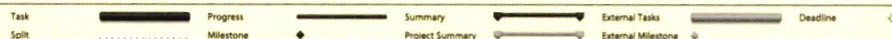


ENERGIZING KENYA

**BLOCK 14T EXPLORATION PROJECT**      **NATIONAL OIL CORPORATION OF KENYA**      **NATIONAL ENERGY PROJECTS 2014-2020**  
 2ND JAN. 2014 - 6TH DEC. 2017  
 48 MONTH PROJECT



Project: BLOCK 14T EXPLORATION



**SUMAYYA HASSAN - ATHMANI**  
 CEO NATIONAL OIL CORPORATION OF KENYA  
 15TH JANUARY 2014

## ENHANCE SECURITY OF PETROLEUM SUPPLY & GROW MARKET SHARE

## NATIONAL OIL CORPORATION OF KENYA

## NATIONAL ENERGY PROJECTS 2014-2020

13TH JAN. 2014 - 29TH JUN. 2017

ID	Task Name	Duration	Start	Finish	2014				2015				2016									
					Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3				
1	ENHANCE SECURITY OF PETROLEUM SUPPLY & GROW MARKET SHARE	783 days	Mon 7/1/13	Wed 6/29/16	[Gantt bar spanning from Q2 2014 to Q3 2016]																	
2	30% Quota	140 days	Mon 2/3/14	Fri 8/15/14	[Gantt bar from Q2 2014 to Q2 2015]																	
3	Ullage Restoration for 30% Quota including PMS	30 days	Mon 2/3/14	Fri 3/14/14	[Gantt bar from Q2 2014 to Q2 2015]																	
4	Seek approval from MOE&P and Vessel Scheduling Committee	1 day	Mon 3/17/14	Mon 3/17/14	[Gantt bar from Q2 2014 to Q2 2015]																	
5	Receive Date Range from MOE&P	15 days	Tue 3/18/14	Mon 4/7/14	[Gantt bar from Q2 2014 to Q2 2015]																	
6	Negotiate and Secure Short term Supply Agreements	30 days	Tue 4/8/14	Mon 5/19/14	[Gantt bar from Q2 2014 to Q2 2015]																	
7	Negotiate and Secure long term Supply Agreements	120 days	Mon 3/3/14	Fri 8/15/14	[Gantt bar from Q2 2014 to Q2 2015]																	
8	Arrival and Discharge of initial Cargo	3 days	Tue 5/20/14	Thu 5/22/14	[Gantt bar from Q2 2014 to Q2 2015]																	
9	Grow Market Channels and Market Share	783 days	Mon 7/1/13	Wed 6/29/16	[Gantt bar spanning from Q2 2014 to Q3 2016]																	
10	Attain Preferred Government Supplier Status for Fuel	35 days	Wed 2/19/14	Tue 4/8/14	[Gantt bar from Q2 2014 to Q2 2015]																	
11	Seek Approval of Treasury and the Head of Public Service through MoE&P	15 days	Wed 2/19/14	Tue 3/11/14	[Gantt bar from Q2 2014 to Q2 2015]																	
12	Approval for Preferred Government Supplier Status for Fuel	20 days	Wed 3/12/14	Tue 4/8/14	[Gantt bar from Q2 2014 to Q2 2015]																	
13	Attain Aviation Supply Partnership for Security Forces	25 days	Wed 2/19/14	Tue 3/25/14	[Gantt bar from Q2 2014 to Q2 2015]																	
14	Seek Approval of the Min. of State for Defence and Min. of Internal Security through MOE&P	15 days	Wed 2/19/14	Tue 3/11/14	[Gantt bar from Q2 2014 to Q2 2015]																	
15	Approval by Min. of State for Defence and Min. of Internal Security	10 days	Wed 3/12/14	Tue 3/25/14	[Gantt bar from Q2 2014 to Q2 2015]																	
16	Attain Preferred Fuel Supplier Status for Upstream Activities	40 days	Wed 2/19/14	Tue 4/15/14	[Gantt bar from Q2 2014 to Q2 2015]																	
17	Seek Support of MOE&P	10 days	Wed 2/19/14	Tue 3/4/14	[Gantt bar from Q2 2014 to Q2 2015]																	
18	Engage with Exploration Companies	30 days	Wed 3/5/14	Tue 4/15/14	[Gantt bar from Q2 2014 to Q2 2015]																	
19	Attain Government-to-Government Export Opportunities for Neighbouring Landlocked Countries	10 days	Wed 2/19/14	Tue 3/4/14	[Gantt bar from Q2 2014 to Q2 2015]																	
20	Seek Support of Min. of Commerce, Tourism & EAC Affairs through MoE&P	10 days	Wed 2/19/14	Tue 3/4/14	[Gantt bar from Q2 2014 to Q2 2015]																	
21	Enhance Retail Presence	92 days	Mon 3/10/14	Tue 7/15/14	[Gantt bar from Q2 2014 to Q2 2015]																	
22	Present Retail Masterplan to MOE&P	2 days	Mon 3/10/14	Tue 3/11/14	[Gantt bar from Q2 2014 to Q2 2015]																	
23	Obtain Concession of Government Owned Land Aligned to the Masterplan	90 days	Wed 3/12/14	Tue 7/15/14	[Gantt bar from Q2 2014 to Q2 2015]																	
24	KPRL	30 days	Mon 3/3/14	Fri 4/11/14	[Gantt bar from Q2 2014 to Q2 2015]																	
25	Obtain Approval to Use the Facility as a Storage, Truck Loading and National Strategic Reserves	30 days	Mon 3/3/14	Fri 4/11/14	[Gantt bar from Q2 2014 to Q2 2015]																	
26	Shareholder Equity Support through Petroleum Development Levy	90 days	Mon 3/3/14	Fri 7/4/14	[Gantt bar from Q2 2014 to Q2 2015]																	
27	Obtain Shareholder Equity Support from Treasury through MOE&P for the Expanded Business	90 days	Mon 3/3/14	Fri 7/4/14	[Gantt bar from Q2 2014 to Q2 2015]																	
28	Expand Retail Network from 98 stations to 150 stations	783 days	Mon 7/1/13	Wed 6/29/16	[Gantt bar spanning from Q2 2014 to Q3 2016]																	
29	Grow retail network to 115 stations	261 days	Mon 7/1/13	Mon 6/30/14	[Gantt bar from Q2 2014 to Q2 2015]																	
30	Grow retail network to 132 stations	261 days	Tue 7/1/14	Tue 6/30/15	[Gantt bar from Q2 2014 to Q2 2015]																	
31	Grow retail network to 150 stations	261 days	Wed 7/1/15	Wed 6/29/16	[Gantt bar from Q2 2014 to Q2 2015]																	
32	Increase Sales Volumes from 285,000M3 to 543,000M3	783 days	Mon 7/1/13	Wed 6/29/16	[Gantt bar spanning from Q2 2014 to Q3 2016]																	
33	Grow sales volumes to 310,000M3	261 days	Mon 7/1/13	Mon 6/30/14	[Gantt bar from Q2 2014 to Q2 2015]																	
34	Grow sales volumes to 409,000M3	261 days	Tue 7/1/14	Tue 6/30/15	[Gantt bar from Q2 2014 to Q2 2015]																	
35	Grow sales volumes to 543,000M3	261 days	Wed 7/1/15	Wed 6/29/16	[Gantt bar from Q2 2014 to Q2 2015]																	

Project: MARKET SHARE & SECURITY OF PETROLEUM SUPPLY



**SUMAYYA HASSAN - ATHMANI**  
 CEO NATIONAL OIL CORPORATION OF KENYA  
 15TH JANUARY 2014

**KENYA OIL AND GAS INDUSTRY REQUIREMENTS STUDY**

**NATIONAL OIL CORPORATION OF KENYA**

**NATIONAL ENERGY PROJECTS 2014-2020**  
3RD FEB. 2014 - 18TH MAY. 2015  
14 MONTH PROJECT

ID	Task Name	Duration	Start	Finish	2014				2015				2016			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2		
1	<b>KENYA OIL AND GAS INDUSTRY REQUIREMENTS STUDY</b>	351 days	Fri 5/2/14	Fri 9/4/15												
2	Engage Consultant	152 days	Fri 5/2/14	Mon 12/1/14												
3	Request for support under KEPTAP for Study	45 days	Fri 5/2/14	Thu 7/3/14												
4	Prepare TORs for Consultant	15 days	Fri 7/4/14	Thu 7/24/14												
5	Advertise EOI	21 days	Fri 7/25/14	Fri 8/22/14												
6	Evaluate EOI	10 days	Mon 8/25/14	Fri 9/5/14												
7	Prepare RFP	15 days	Mon 9/8/14	Fri 9/26/14												
8	Invite RFPs	21 days	Mon 9/29/14	Mon 10/27/14												
9	Evaluate RFP	10 days	Tue 10/28/14	Mon 11/10/14												
10	Award Tender	1 day	Tue 11/11/14	Tue 11/11/14												
11	Contract Negotiations and Signing	14 days	Wed 11/12/14	Mon 12/1/14												
12	Oil and Gas Industry Requirements Study	199 days	Tue 12/2/14	Fri 9/4/15												
13	Conduct Study and Prepare Report	180 days	Tue 12/2/14	Mon 8/10/15												
14	Circulate Report for Stakeholder Feedback	10 days	Tue 8/11/15	Mon 8/24/15												
15	Stakeholder Review Workshop	1 day	Tue 8/25/15	Tue 8/25/15												
16	Incorporate Stakeholder Comments	7 days	Wed 8/26/15	Thu 9/3/15												
17	Present Study to MoE&P	1 day	Fri 9/4/15	Fri 9/4/15												

KENYA OIL AND GAS INDUSTRY REQUIREMENTS STUDY	Task		Milestone		External Tasks	
	Split		Summary		External Milestone	
	Progress		Project Summary		Deadline	



**SUMAYYA HASSAN - ATHMANI**  
CEO NATIONAL OIL CORPORATION OF KENYA  
15TH JANUARY 2014



REPUBLIC OF KENYA



ENERGIZING KENYA

# MOMBASA SBM AND TANKFARM PROJECT

# NATIONAL OIL CORPORATION OF KENYA

## NATIONAL ENERGY PROJECTS 2014-2020

13TH JAN. 2014 - 26TH AUG. 2019  
66 MONTH PROJECT

