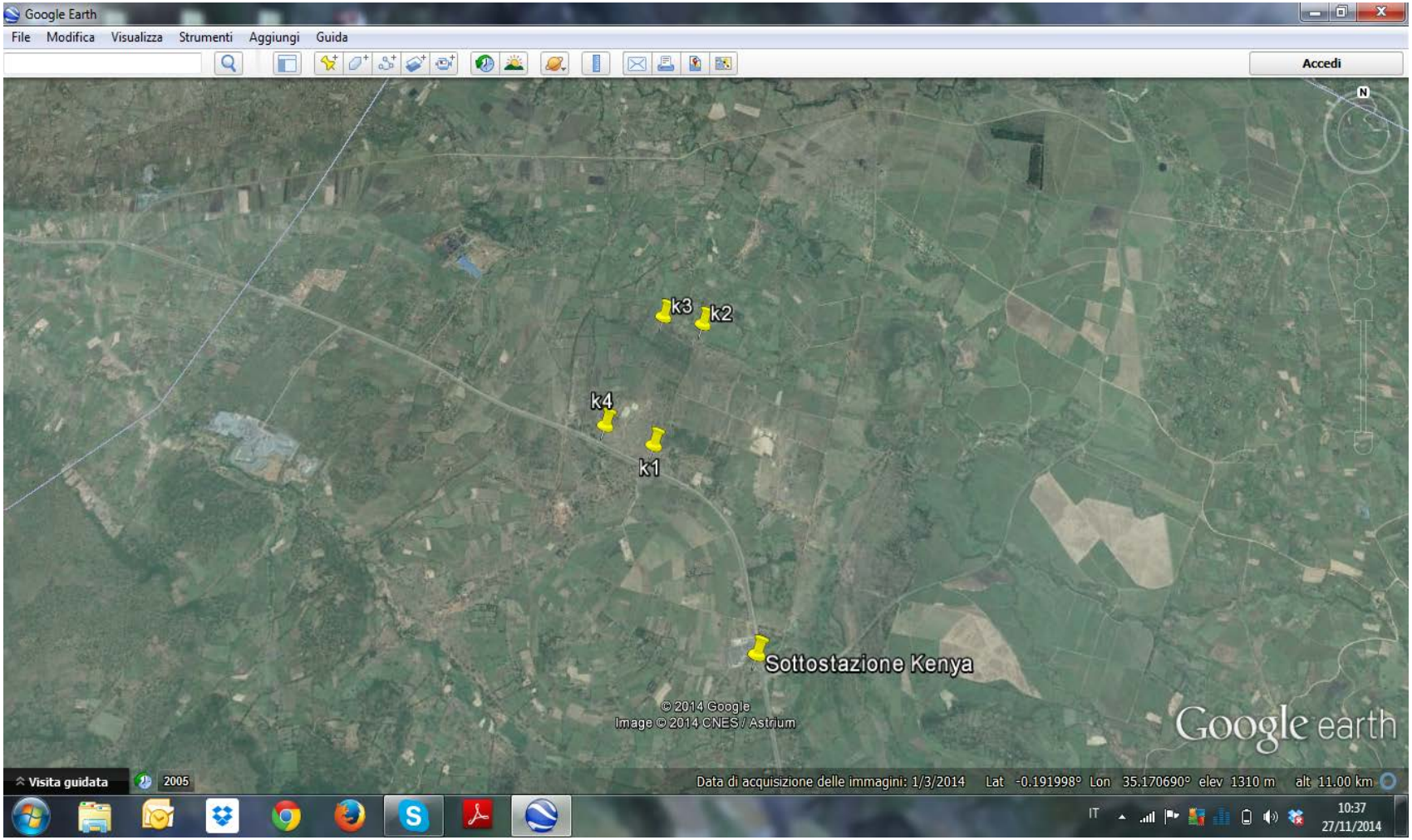
Kericho 40 MWp PV Project



The Project

- APGL INVESTMENT KENYA Ltd. is a SPV shareholded by Convivium investment Ltd., that is investing in several countries in Africa,
- APGL is developing a 40 MWp PV project in the Kericho county of Kenya. Land is under contract and authorization process well on the way,
- RP2 Energia s.r.l. is acting as consultant for APGL both on the technical and the permitting side of the project. RP2 has developed, financed and built several large PV plants in Italy and has been consulting for many international investors (both industrial and financial). The management has a ten years experience in the renewable energy business and has a specific know-how in utility scale projects.

Kenya: General Information

Population	43,000,000
State	Presidential republic, universal suffrage
Religion	Christian 80%
Median age	18.5
Literacy rate	87.4 %
Population growth	2.7%
Political right score (1-7)	4
Civil right score (1-7)	4
Gini Index (0-100)	47.7

Source: tradingeconomics.com and kenya national bureau of statistics

Kenya: Economic Indicators (2014)

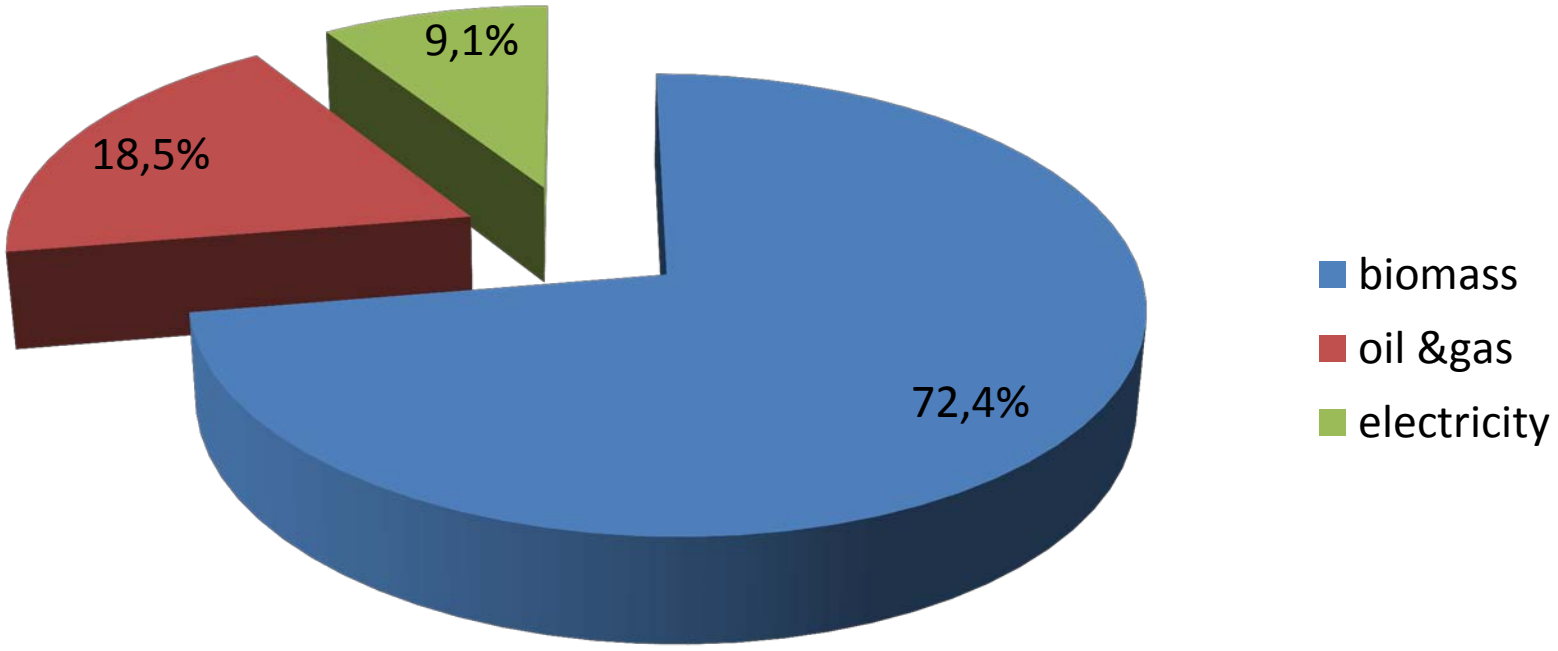
GDP	44.1 B$
Per Capita GDP (PPP)	1885 $ (156th out of 186)
Debt/GDP	48%
GDP growth	5.7%
GCI (1-7) (competitiveness index)	3.85 (96th out of 144)
Inflation	5.5%
Rating (Debt)	B+ (S&P), B1 (Moody's), B+ (Fitch)
Outlook	stable
Change rate KSh/US$	90.01 (75.3 in 2009)

Source: tradingeconomics.com and kenya national bureau of statistics

Keya GDP Evolution

Primary Energy Consumption

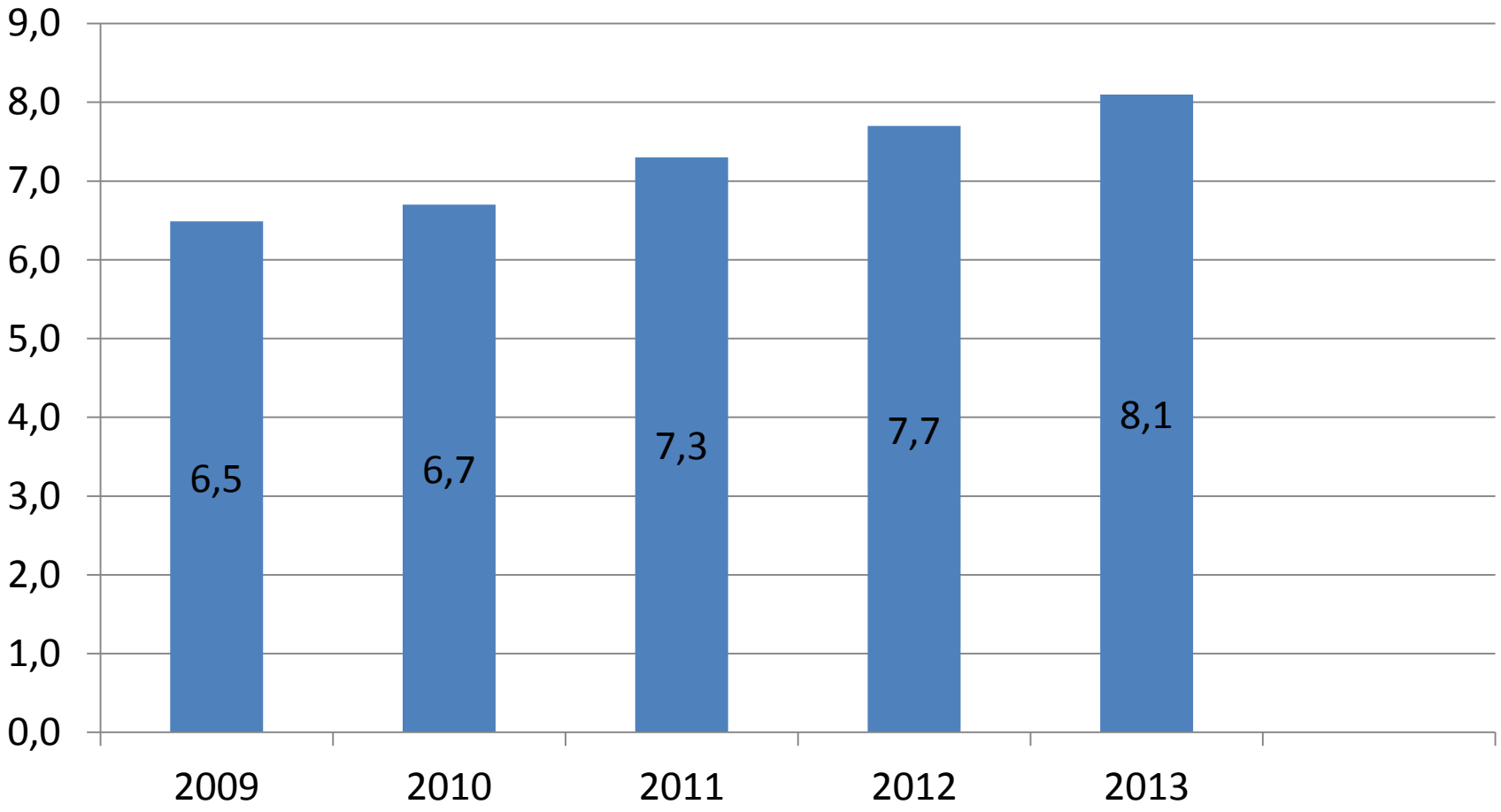
TOTAL 2013: 20.2 MTOE



Source: Kenya MEP 2014

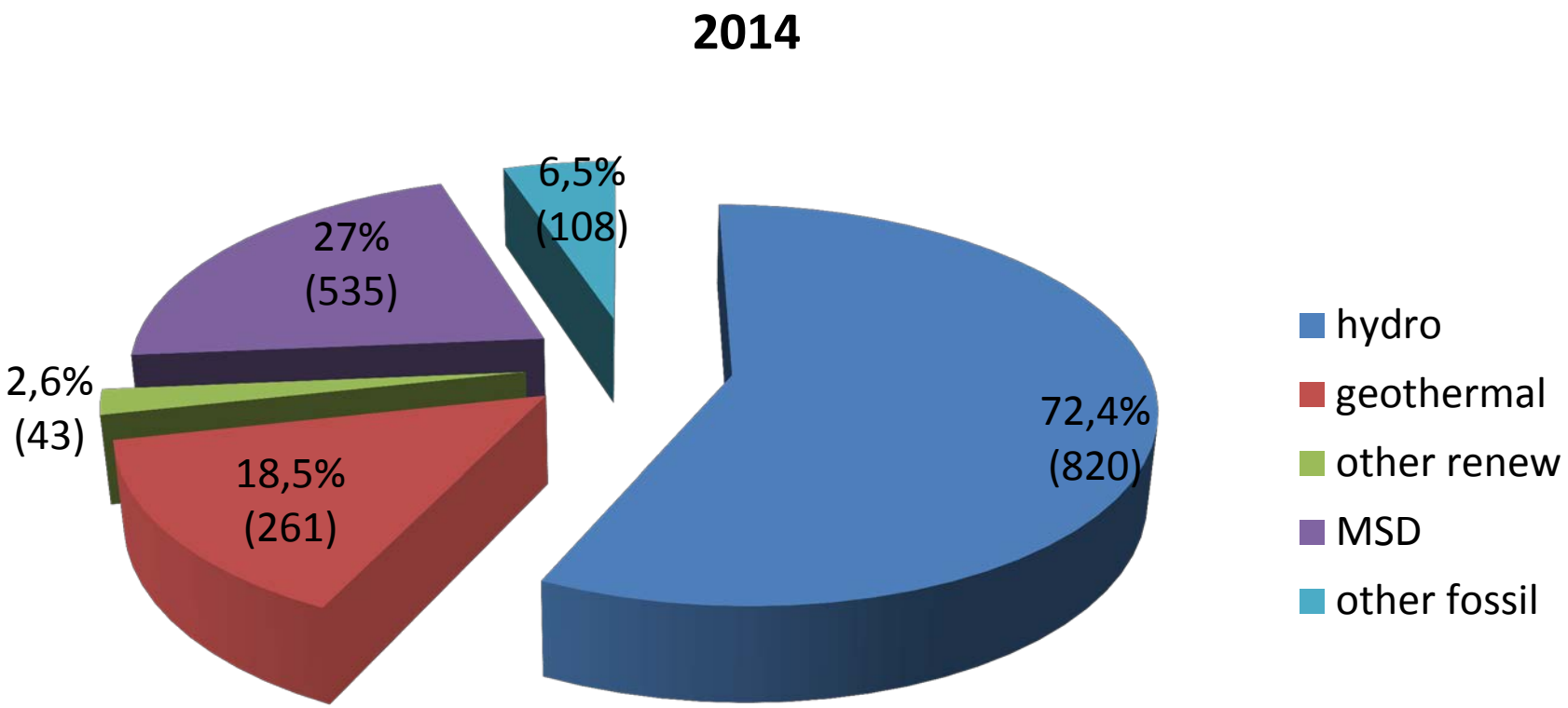
Electric Power Generation (TWh)

Source: Kenya MEP 2014



Source: Kenya MEP 2014

Installed Capacity (MW) by source

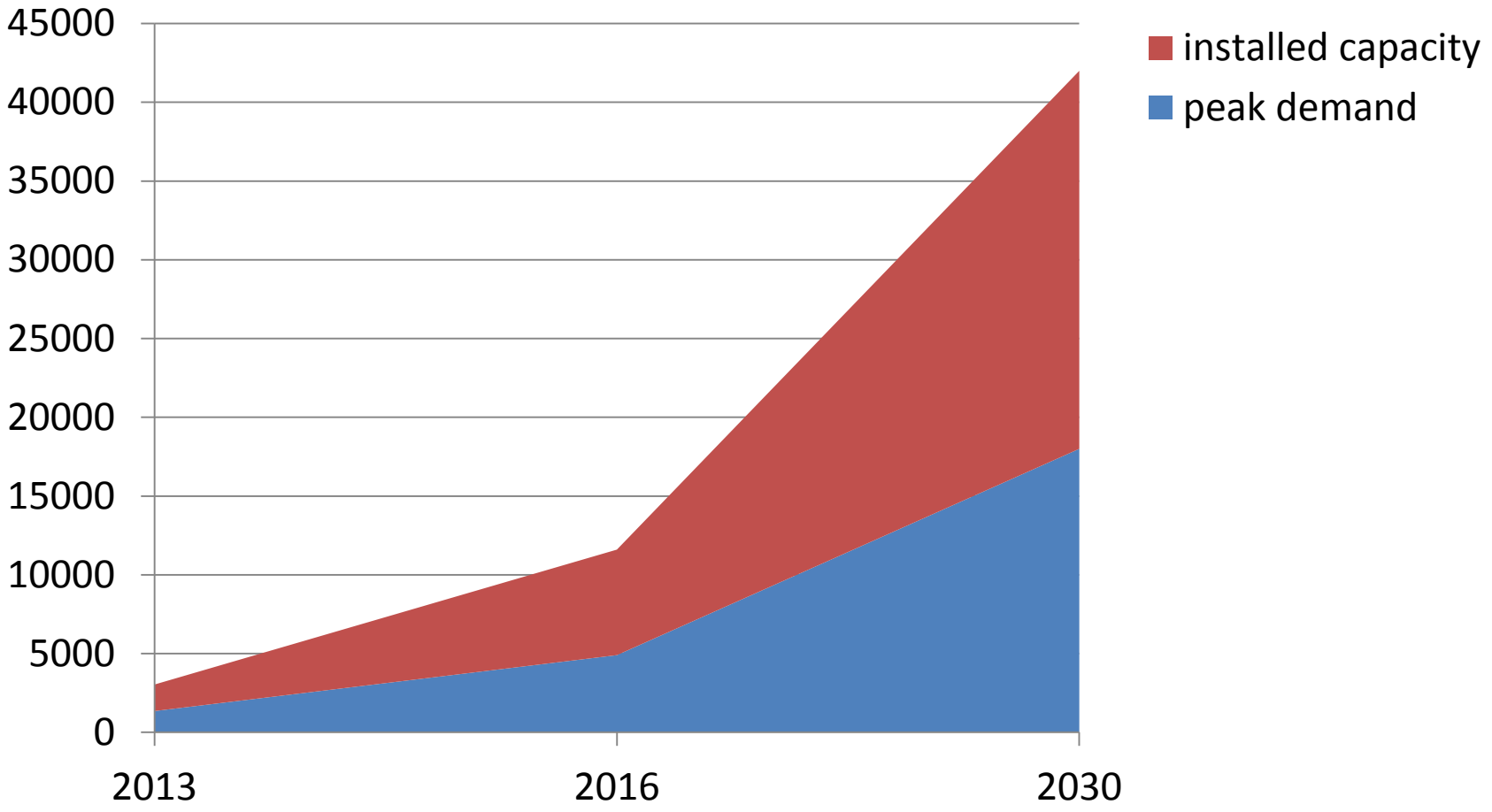


Total 1684 MW

Source: Kenya MEP 2014

Electricity Demand Growth Forecast (MW)

Source: Kenya MEP 2014



Source: Kenya MEP 2014

Regulatory Framework

- The energy sector is mainly and as of our purposes guided by Sessional Paper 4 of 2004 and The Energy Act No 12 of 2006,
- Also relevant are: The Environment Management and Co-ordination Act of 1999, The Local Government Act 265 of the Laws of Kenya, The Physical Planning Act 286 of the Laws of Kenya and The Environment and Land Court Act No. 19 of 2011 and FIT Policy 2° release December 2012,
- Sessional Paper 4 of 2004 and The Energy Act No 12 of 2006 have restructured the sector to enhance private sector partecipation to improve the system, which remains mainly State-owned.

Regulatory Framework

- Key Actors of the sector are:
  1. Ministry of Energy and Petroleum (**MOP**) which provides an enabling environment for all stakeholders,
  2. Energy Regulatory Commision (**ERC**) responsible for economic and technical regulation of the market,
  3. Energy Tribunal with juristition over ERC decisions and energy sector,
  4. Kenya Power & Lighting C.L. (**KPLC**) that purchases power from KenGen and IPP and carries out transmission distribution, supply and retail. GoK shareholding 50.1%,
  5. Kenya Electricity Generating C.L. (**KenGen**) with GoK shareholding 70%, which produces the bulk (75%) of electricity consumed in Kenya,
  6. Rural Electrification Authority (**REA**) to promote the the development of renewable energies,
  7. Kenya Electricity Transmission C.L. (**KETRACO**) 100% GoK shareholding, responsible for development, maintenance and operation of national Grid and from 2008 transmission,
  8. National Environmental Management Authority (**NEMA**) in charge of EIA licencing,
  9. FIT Commettee which evaluates the eligibility of the project for the FIT.

National Grid

- 1. The existing transmission network comprises 1,331 km of 220 kV and 2,436 km of 132 kV lines, and is interconnected with Uganda through a 132 kV double circuit line,
- 2. As of June 2013, there were nine generation substations with a transformation capacity of 1,846 MVA and forty-five transmission substations with a capacity of 3,076 MVA,
- 3. The existing transmission system capacity is severely constrained particularly during peak hours. The problem is partly due to inadequate reactive power in major load centres and also transmission constraints particularly in the Western and Nairobi regions,
- 4. One of the recommendations under Sessional Paper No. 4 of 2004 was to unbundle transmission and distribution functions. This began in 2008 with the establishment of KETRACO as a transmission entity.

KETRACO

- KETRACO was established in 2008 to unbundle transmission from distribution
- As part of its mandate, KETRACO is currently undertaking new transmission projects aimed at developing a robust grid system to enable evacuation of the additional 5,000MW by 2016, which entails construction of the 132kV Menengai – Soilo, 400kV Menengai – Rongai, 400kV Silali – Rongai, 400kV Dongo Kundu – Mariakani, 400kV Lamu – Nairobi East, 400kV Kitui – Nairobi East and the 400kV Isinya - Nairobi East transmission lines.

Energy Plan for the next 2 years

- Kenya Government issued a National Energy Policy Draft (02-24-2014) which envisions the building of 5000 MW within 2016, mainly coal, LNG and Geothermal,
- New FIT has been issued, as of March 2012, for 1500 MW additional power, of which 100 MW for large PV plants (over 10 and under 40 MWp), connected to the Grid.

Feed-In-Tariffs (FIT)

- The current FiT Policy (2° revision) was issued on December 2012: a new policy will be released by December 2015,
- Different FiT values for small solar grid projects (< 10 MW) and large solar projects (10.1-40 MW),
- Fit Values for Large solar projects (10.1-40 MW):
  - 0.12 US$/Kwh for 20 years,
  - 12% of the above tariff will be subjected to annual indexation (O&M component) ,
- Payment (in US$): monthly, 45 days after the date of receipt of the invoice by KPLC (the Off-taker).

FiT Procedures

- Submission of Expression of Interest (EOI): Project Application Form to Ministry of Energy,
- Review of EOI by FiT Committee (3 months),
- The EOI may be approved for three-year exclusivity period,
- FiT Project Progress Report (every 6 months),
- Legal, technical, regulatory permitting to be submitted to FIT Committee,
- Project full feasibility study including all above mentioned permits and financial feasibility,
- Connection to the Grid Project in compliance with Ketraco rules,
- Review of full feasibility study (3 months) by FIT Committee,
- Conclusion of PPA (Power Purchase Agreement),
- Approval of PPA by national Regulator (ERC).

Expression of Interest (EOI)

- First communication of the intention to develop a project under the FiT policy,
- Basic information on the location, estimated energy output, planned project infrastructure, proposed grid connection point, proposed routing of the power line, expected development timeframe,
- A pre-feasibility study report to be submitted with the application,
- No fee is charged for the EOI application and processing,
- FiT Committee comprising representatives of the Ministry of Energy, the Off-taker and the national energy sector Regulator will review the EOI application,
- The Ministry of Energy shall respond within 3 months:
  - Approve (three-year exclusivity period),
  - Request further information,
  - Reject the EOI proposal (reasons for such decision).

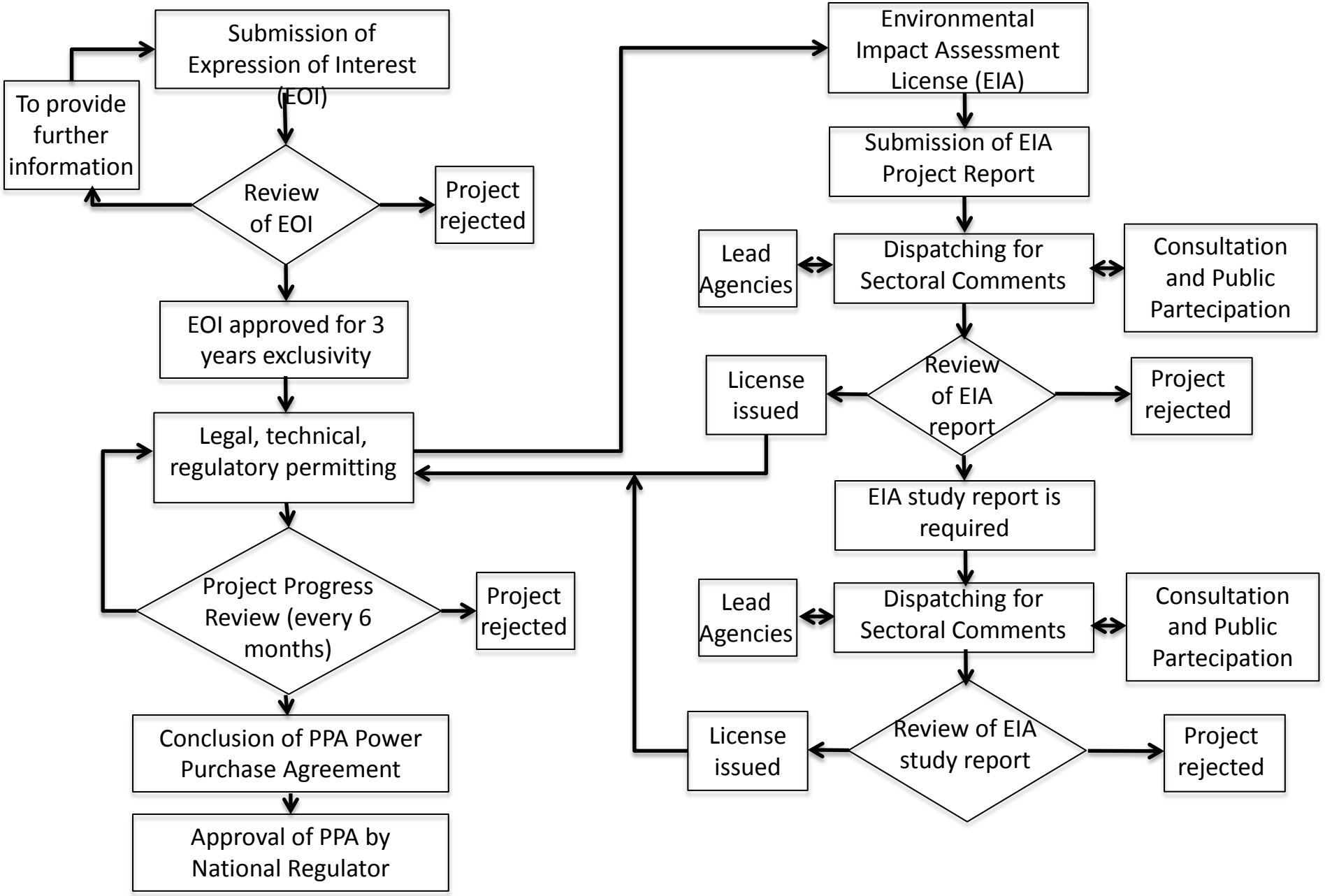
Environmental Impact Assessment (EIA) License

- EIA License iussed by National Environmental Management Authority (NEMA) is required to sign a PPA,
- First step is the submission of a EIA Project Report drafted by an EIA Licensed Expert,
- A payment of the 0.1% of the project overall appraised value is required,
- EIA Project Report dispatched for sectorial comments to:
  - Relevant Lead Agencies,
  - Consultation and Public Partecipation (CCP),
- EIA Project Report review Process:
  - License issued with Necessary Conditions of Approval,
  - Proposal Rejected - No License Issued,
  - Environmental impact assessment study report (EIA study report) is required,
- EIA Study Report dispatched for sectorial comments to:
  - Relevant Lead Agencies,
  - Consultation and Public Partecipation (CCP),
- EIA Study Report review Process:
  - License issued with Necessary Conditions of Approval,
  - Proposal Rejected - No License Issued.

Power Purchase Agreement (PPA)

- The **Standardised PPA** shall be offered to an applicant who has demonstrated significant progress towards reaching financial closure and is able to provide:
  - Proof of land acquisition, access or usage rights,
  - Full technical and economic feasibility study ,
  - Grid connection plan,
  - Environmental Impact Assessment (EIA) License,
  - Other relevant permits and approvals ,
  - EPC plan,
  - Evidence of financial capability ,
- PPA will be subject to **dispatch instructions** by the system operator,
- The **costs** of interconnection, construction, upgrading of transmission/distribution lines, substations, and associated equipment, **are to be borne by the developer** upfront,
- With prior arrangements, the Off-taker may construct or upgrade its grid at a reasonable economic expense to facilitate interconnection and recover the associated costs from the developer through the Feed-in-Tariff,
- **Signed PPA** approved by **National Energy Regulator (ERC)**,
- A **generation license** to be iussed by National Energy Regulator (ERC) in accordance with the Energy Act .

FiT and EIA Procedures



Kericho: location and land

Dimension of land: 130 acres (52.6 ha)

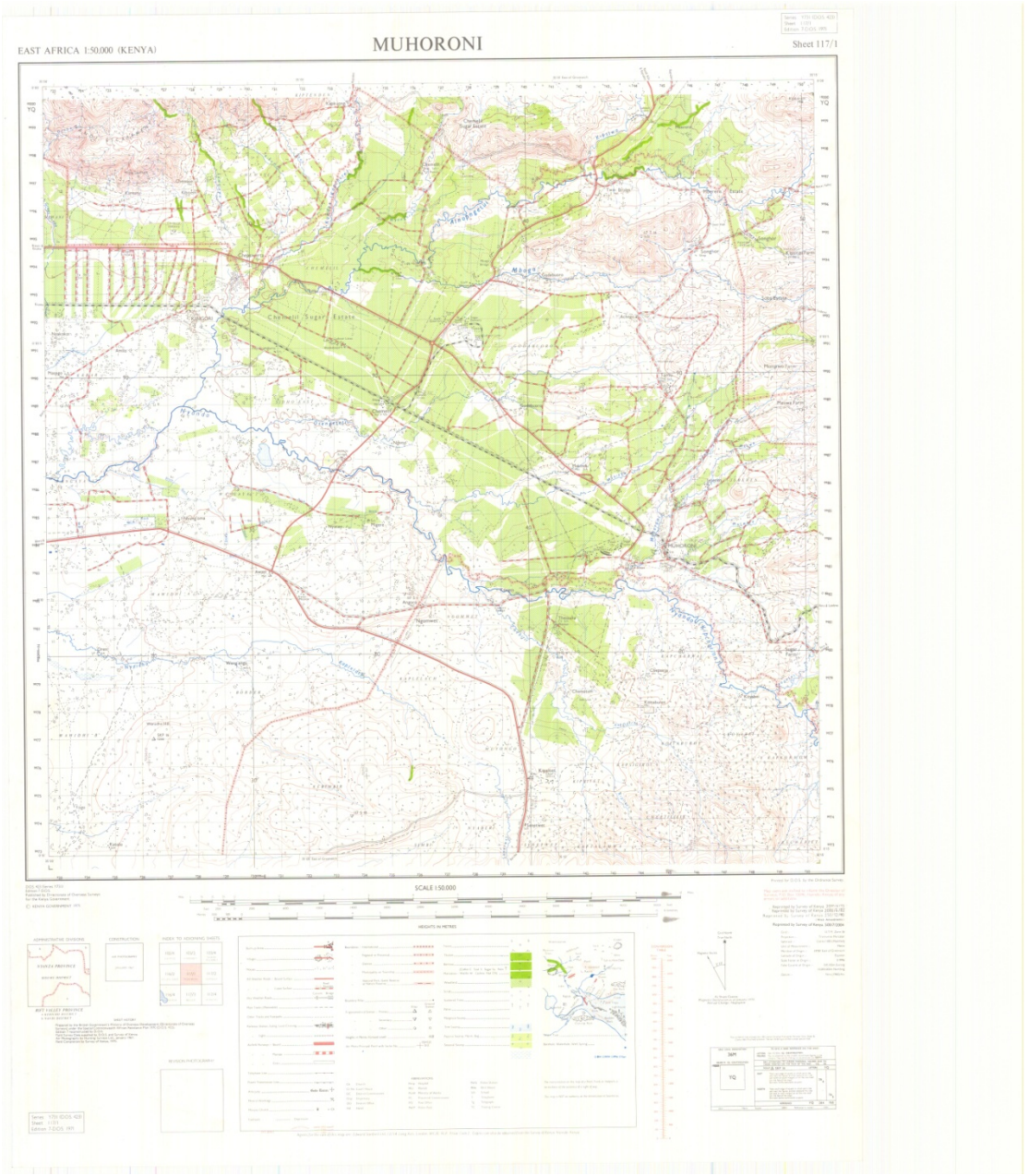
Coordinates: 0.195S 35.144E

Elevation: 1340 MAMSL

Morphology: flat

Substation: KETRAKO; 2.5 km from the land along the road

Planned power: 40 MWp



Infrastructures and connection

Roads : the land is on the main road which is always viable

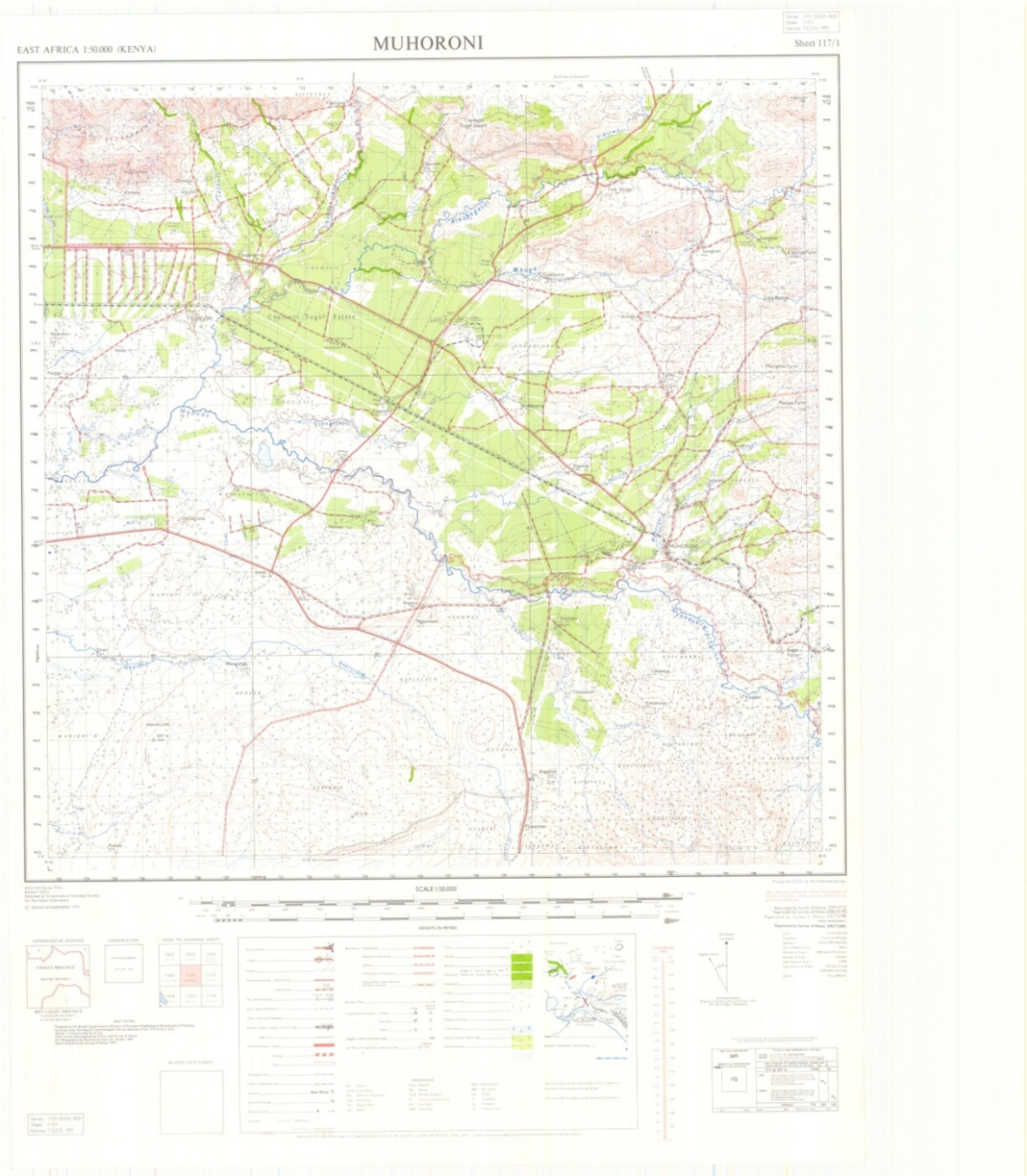
Connections: no telephone land lines but mobile works well

Closer city: Kipsitet (2000 inhab.) is 5 km away, Kapsoit 19 km and Kericho (35,000) 40 km

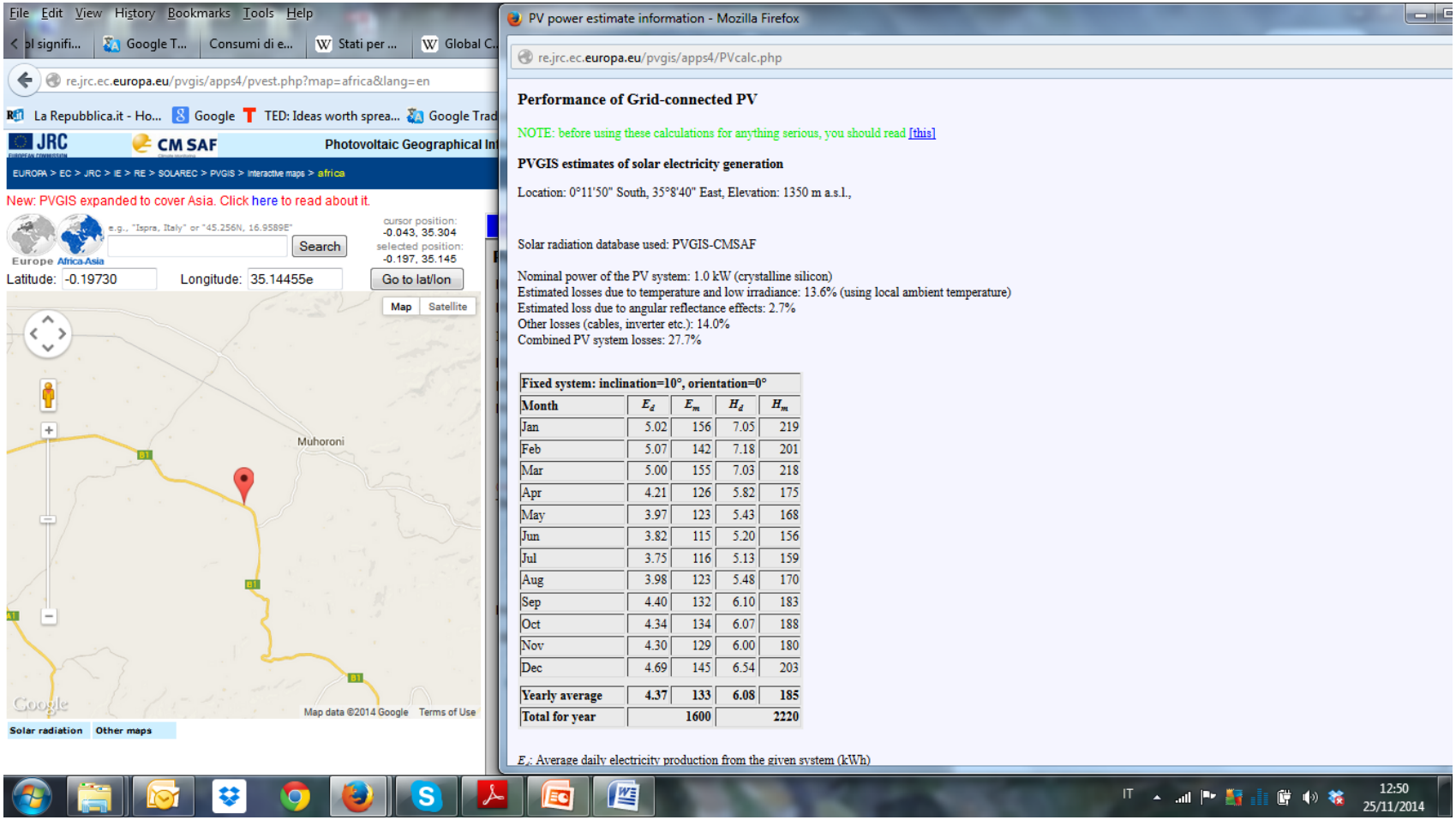
Water: no running water. Underground capacity for boreholes

Power Availability: yes 240 v

Substation: Kericho, medium high Voltage : 33/66



PVGIS Estimate of solar electricity generation (10% inclination)



Land acquisition

- A MOU between the owner of the land and APGL has been signed as of October 23rd 2014,
- The leasing has a lifespan of 25 years (renewable),
- APGL will pay the lessor 2 Million Ksh (22,000 US $) when the project is authorized and other 2 Million Ksh after six months,
- The lessor will be also sharehold 1.5 % of APGL and therefore be entitled to the relevant dividends.

Permitting process as to-day

- land has been acquired,
- EOI presented on september,
- EIA is beeing prepared,
- Study for Grid connection has been entrusted to the relevant experts in Kenya

Main Financial Outputs

Unlevered IRR pre Tax	16.35%
Unlevered IRR post Tax	10.24%
Unlevered IRR post Tax to Investor	10.01%
Cash flow post Tax (sum)	53,888,000 US $
Cash Flow post Tax to investor (sum)	52,475,000 US $
Levered IRR (20% Equity/80% Debt) to investor (Debt cost 5.9%)	34.64%

Main Assumptions

Power Capacity	40 MWp
Production net of losses	1600 h/y
Panels degradation per year	0.5 %
Incentive	12 US $ cents per KWh per 20 years
Total Capex	40.035.000 US $
Total Opex	12.348.000 US $
Opex year 1	600.000 US $

Business Proposal

- The property wants to sell the 98.5% of the SPV (the remaining 1.5% belonging to the land owner),
- The Selling of the SPV will take place when all Authorizations are obtained,
- The Selling Part will make it available to the investor all documentation becomingly organized and retrievable in a Data Room,
- Sebsequent D.D. will be carried out by the investor at its own expenses.