

A Civil Society Organization and Networks Position Paper with Suggested Issues and Recommendations for consideration in the National Renewable Energy Policy (2007) Review Process.

"This position paper is an output from several CSOs engagements coordinated by Environmental Alert with financial support from Norad within the framework of 'Increasing access to sustainable and renewable energy alternatives in the Albertine Graben' that is implemented by WWF-Uganda Country Office."

November, 2017.

For more information, contact:
Executive Director, Environmental Alert
Tel: +256 414-510547 or 510215
Email: ed@envalert.org
Website: www.envalert.org
Plot 475/523 Sonko Lane,
Kabalagala Off Ggaba Road



WWF® for a living planet®



Norad

1.0 Introduction

This CSOs and Networks Position Paper presents key issues and recommendations for consideration by MEMD during the Renewable Energy Policy (2007) (MEMD, 2007) review process that is ongoing. The paper was generated through literature review, gap analysis coupled with highly consultative processes that involved key CSOs and networks players in the Renewable Energy sub-Sector in Uganda. This helped in the validation of the issues and recommendations presented in the position paper.

The CSOs position paper was compiled by Environmental Alert on behalf of the CSOs and Networks in the Renewable Energy sub-Sector in Uganda. Thus, this position paper is among the outputs of the phase II of the access to clean energy project that is implemented by Environmental Alert in collaboration with World Wide Fund for Nature-Uganda Country Office with financial support from NORAD.

The project is titled, 'Increasing access to sustainable and renewable energy alternatives in the Albertine Graben to conserve high value forest ecosystems to benefit people and nature in Uganda.' It focuses on strengthening the capacity of civil society organizations and Networks operating in the renewable energy sub sector to advocate and drive change towards sustainable and renewable energy access.

1.1 Objective of the Position paper

The major objective of the CSO Position Paper is to provide targeted recommendations for consideration during the Renewable Energy Policy, 2007 (MEMD, 2007) review by the MEMD.

2.0 Background

The energy sector is one of the key sectors in Uganda's economy with various energy resources including; biomass, geothermal, biomass-based cogeneration, small hydro wind, and biogas. The sector is dominated by biomass that contributes nearly 90% of the total primary energy consumed. This includes firewood and charcoal supplying about 78.6% and 5.6% respectively (MEMD, 2012).

The energy demand is growing between 10-15% posing more stress on the biomass resource partly as a result of the growing population currently which is estimated at about 34 million and with an annual growth rate of about 3.2%. It's projected to reach

3.4 million in the next 30 years (UBOS, 2017). The high demand for fuel wood has resulted in the depletion of forests (about 112,000 Ha lost per year) (Ministry of Water and Environment, 2016) and land degradation (WWF-UCO, 2015).

However the sector's policy framework has a number of policies and strategies that include; Energy Policy 2002 (MEMD, 2002), Renewable Energy Policy 2007 (MEMD, 2007), Electricity

Act, 1999 (MEMD, 1999), Biofuel Bill, Energy Efficiency Bill, Draft Electricity Connection Policy, Rural Electrification Strategy and Plan and the Biomass Strategy among others. These policies were put in place to achieve increased electricity

generation capacity and transmission networks, increased access¹ to modern energy services through rural electrification and renewable energy development as well as Promotion of efficient utilization of energy.

The energy sector is at the center stage for development as so government's key focus areas of the sector include: increasing power generation capacity to drive economic development; expanding the electricity transmission grid network; increasing energy efficiency; promoting the use of alternative sources of energy; and strengthening the policy, legal and institutional framework as per NDP II 2015/16 – 2019/20 (NPA, 2015). It is envisaged that the Renewable energy sub-sector through its policies, laws and programs must contribute to the Vision 2040 - a transformed Ugandan society from a peasant to a modern and prosperous country within 30 years.¹ This involves changing from a predominantly low income to a competitive upper middle-income country within 30 years. It is further envisaged that the country will graduate to the middle-income segment by 2017 and reach a per capita of USD 9,500 by 2040. Therefore, the Renewable Energy sub-sector through its policies, laws and programs must contribute the Vision 2040 (NPA, 2007).

2.1 Rationale for review of the Renewable Energy Policy, 2007 (MEMD, 2007)

Most of the policies in the energy sub-sector have matured; these have been in place for over 10 years and as thus they are due for review. Given the changes in the operating context, several issues have emerged and therefore policy commitments & strategies should be refined to meet the requirements. The GoU through MEMD embarked on the process to review the policies. CSOs in the renewable energy sub sector like other stakeholders will be consulted as part of the policy review process to give their views and inputs.

Environmental Alert in collaboration with the WWF-UCO and within the framework of the Clean Energy Access Project Phase II and with funding from NORAD is mobilizing and coordinating CSOs for value adding and structured engagements (e.g. dialogues) with MEMD to give input into the policy review process among other Renewable Energy sub-Sector development processes.

2.2 Methodology

The methodology used in the compilation of this CSOs position paper included review of relevant documents on renewable energy such as the MEMD, 2002; MEMD 2007; NPA, 2007 & 2015; and WWF-UCO, (2015). A gap analysis tool was used to review these policies and it involved comparison of the desired situation with the current situation with clear analysis of the underlying gaps/ limitations towards achievement of the desired situation. The challenges and opportunities there in are the basis for the suggested recommendations to enable the shift/transformation from the current to the desired situation. The review process further engaged key stakeholders from CSOs and networks in the Renewable Energy sub-Sector who provided views and input during the validation meeting at National level. The suggested recommendations were presented during the stakeholder's validation workshop on Renewable Energy Policy Review and Gap Analyses, held on 15th November 2017 at Hotel Africana. During the same meeting additional presentations were made by other key stakeholders (MEMD, Makerere University – School of Women and Gender Studies and the College of Agriculture, Forestry and Environment Sciences) to give a fair presentation of the achievements, emerging issues (challenges and opportunities) for the renewable energy sector over the 10 years of policy implementation.

These were discussed and validated to come up with shared/ joint issues and recommendations (Table 2) presented in this CSOs position paper or consideration by MEMD in the Renewable Energy Policy (2007), which is ongoing. Further input was provided during the Sub national (mid-Albertine region) stakeholders meeting. Additionally, CSOs and Networks in renewable energy also reviewed the vision, goal and policy objectives. In the review, participants were encouraged to give observations, comments and suggestions (Table 3) that the MEMD should consider during the policy review process as the new policy document is being developed.

3.0 Key findings from the policy review and gap analysis

Table 1 presents an analysis of the current and desired situation based on the Government of Uganda commitments and aspirations as stipulated in the Vision 2040 (NPA, 2007) and NDP II 2015/16 – 2019/20 (NPA, 2015).

Sub-section 3.1 Presents the key achievements and emerging (i.e. challenges and opportunities) issues from implementation of the Renewable Energy Policy, 2007 (MEMD, 2007) 10 years later.

Table 1. Key findings/results from the policy and gap analysis.

Current situation	Desired situation - based on Vision 2040 and NDP II
1. High Population growth of an annual rate of 3.2%. This is projected to reach 93.4 million in the next 30 years. This will exert more pressure on the environment and natural resources. Over 90% still depends on biomass WWF-UCO, (2015).	The NDP II 2015/16 – 2019/20 (NPA, 2015) also recognizes the need for increased access to electricity. Hence setting its target of percentage of the population with access to electricity from 14% to 30%. A situation where there is sustainable utilization of Renewable Energy.
2. Financing and investment in the renewable energy sector is still low. (a) There is still lack of appropriate financing mechanisms to facilitate the development and promotion of RETs. (b) Electrification access is still low, standing at approx. 9% nationally and 3% in rural areas due to low finances. 68% of the development budget allocation was provided for to support capacity payments for thermal power generation hence the limited budget for power transmission and distribution (CSBAG 2014).	i) Private sector can easily access funding for investments in RETs for sector development. ii) Government will invest in research and development (R&D) and provide incentives to encourage use of renewable energy.
3. Innovations and technologies: a) efficiency and effectiveness; b) standards and value for money; c) affordability and accessibility; d) Limited information on utilization of RETs by population.	i) Increased access to clean, affordable and reliable energy sources to facilitate industrialization as emphasized in vision 2040 (NPA, 2007). ii) A situation where people are aware of the various renewable energy technologies/alternatives to make informed choices. iii) Emphasis will be put on improving energy efficiency by promoting use of energy efficient technologies. Government will support upgrading of industrial technologies to less energy consuming technologies.
4. Weak Institutional framework to support effective extension support and guidance for sustainable utilization of renewable energy resources among beneficiaries at household and community levels .	Building the required institutional capacity at all levels (national, local and community) for effective implementation and enforcement of the policy and legal framework.
5. Legal framework for renewable energy i.e. current policy and legislation may not effectively address the emerging issues in the subsector.	To develop and enforce policy commitments through appropriate acts and regulations.

Current situation	Desired situation - based on Vision 2040 and NDP II
<p>6. Stakeholder engagement and participation:</p> <p>a) The renewable energy policy provides for participation of various Ministries, Departments and Agencies. However, it's silent on how CSOs in the sector should participate. Despite this, there is some space for CSOs participation through the annual Joint sector review, Energy week, sector working group.</p>	<p>Advance all-inclusive stakeholder participation and engagement to add value in policy formulation and implementation based on their mandates, interests, concerns and competences.</p>
<p>7. Low level of access to modern energy technologies. Low modern energy coverage throughout the country, especially in the rural areas. Current coverage is about 6% rural and overall 16%, (WWF-UCO, 2015).</p>	<p>i) Increased access to electricity and use of renewable energy technologies. The Uganda Vision 2040 (NPA, 2007) puts the target at 80% access to modern energy by 2040, up from the access rate of 14% in 2013.</p> <p>ii) In-vest in energy technologies and in Research & Development.</p>
<p>8. The current structure of energy consumption in Uganda accounts for much of the gender disparity with nearly 95% of total primary energy consumption due to cooking with biomass fuels. Lack of access to sustainable, clean energy services has economic, social, health and security-related.</p>	<p>i) Increased access to cleaner and more efficient renewable sources of energy to improve women's socio-economic status, reducing the time and effort spent on household chores thus giving them time to avail themselves of other social services such as education, and improving their health conditions.</p>
<p>impacts on women's lives, which hinders their economic empowerment. (UN DESA, 2010).</p> <p>a) The GoU is committed to a wide range of international, regional and national policies, legislations and agreements that inform gender. However, the current policies do not provide strategies on how the policy will contribute to these commitments.</p> <p>b) Access to finance for acquiring energy for some women is challenged by the fact that some women don't have collateral security to obtain a loan to install solar or UMEME.</p>	<p>ii) The NDP II 2015/16 – 2019/20 (NPA, 2015) advocates for promotion of renewable energy applications in rural areas.</p> <p>iii) Have strategies in the international, regional and national policies, legislations and agreements that inform gender.</p>

Source: Nalule et al., (2017).

3.1 Key sector achievements for the Renewable Energy sub sector

The sector policies have been implemented for over 10 years and as a result, there are key sector achievements as highlighted as follows:

- i. Established institutions with clear roles and responsibilities in the Energy sector. Some of these include Electricity Regulatory Authority among others;
- ii. Liberalized the energy sector (Concession companies, Private companies).
- iii. Commercialized energy business;
- iv. Created platforms for public awareness (e.g. annual Joint sector review process, annual Energy week)

- on the renewable energy technologies;
- v. Increased stakeholder participation e.g. during the Annual Joint Sector Review processes and presence of the Sector Working Group that enable joint planning for sector development;
- vi. Government has established financial frameworks e.g. Uganda Energy Credit Capitalization Company (UECCC) that facilitates investments in renewable energy sub-Sector;
- vii. Uganda Energy Capitalization Trust a framework for pulling resources from government and development partners for development of renewable energy projects;
- viii. Development of the scaling up renewable energy investment plan that is being implemented;
- ix. Government programs such as Promotion of Renewable Energy and Energy Efficiency Programme (PREEP), biofuels, waste to energy, have been implemented to increase access to renewable energy technologies among communities and stakeholders.

However, the sector still faces both policy and practical challenges. For example:

- a. Weak institutional and legal frameworks;
 - b. Inadequate financial support for RETs development;
 - c. Inadequate hydro power supply;
 - d. High costs of RETs, its poor dissemination rate;
 - e. Limited awareness on the available renewable energy technologies;
 - f. Limited data and information on resource base hindering development of bankable projects.
- Despite the highlighted challenges, there are opportunities that exist which can be tapped into to transit towards the desired situation in the sector. These include:
- i. Young population presents an opportunity that the country can capitalize on to increase its competitiveness and can participate in various renewable energy enterprises if organized. 77% of Uganda's population is dominated by the youth under 30 years of age (UBOS, 2017);
 - ii. Government programs/projects promoting renewable energy technologies (RETs) like improved cook stoves, solar, briquette making among others;
 - iii. Existing private companies and networks engaged in RETs;
 - iv. Existing financing mechanisms (e.g. UECCC) which facilitates investments in RE sector through financial and technical support for renewable energy projects and programs;
 - v. The abundant wind, sun, and thermal which can be developed further to enhance modern energy;
 - vi. Agriculture waste that can be used to make renewable energy alternative such as briquettes.

4.0 Key issues and recommendation for consideration in the Renewable Energy policy review process

In **Table 2**, the issues and associated recommendations suggested by CSOs for consideration by MEMD in the ongoing Renewable Energy Policy review processes are presented.

Table 2. Policy issues and recommendations suggested by CSOs for consideration by MEMD during the ongoing Renewable Energy Policy Review processes."	
Key issues which require policy review attention	Key suggested recommendations for consideration in the Renewable Energy Policy review processes
A) Financing and Investment <ul style="list-style-type: none"> a) Inadequate public financing to develop sustainable and affordable energy supply to match the growing demand. b) High investment costs for energy projects c) Low financing at the lower level. 	<ul style="list-style-type: none"> i) GoU through the Ministry of Finance, Planning and Economic Development should increase the budget ceiling and allocations to the Renewable Energy sub-sector. ii) MEMD should pursue/fast-track financing and investment in the sector through public private partnerships (PPP), to increase finance and investment in the sector iii) MEMD should set aside a renewable energy fund iv) Financing at the lower level through tapping into the oil revenues. This could be through the following strategies when integrated in the policy:

Key issues which require policy review attention**Key suggested recommendations for consideration in the Renewable Energy Policy review processes****A) Financing and Investment**

- Cooperate social responsibility requirements by the private sector should also support investments to advance access to renewable energy technologies by the vulnerable/poor communities;
- A portion of royalties to the local governments should be allocated to promote renewable energy technologies invest and access;
- Setting aside – for each litre of oil sold at least 1 shilling should be reserved for investment in access to renewable energy at all levels.

B) Research and development

a) Inadequate research and development
b) Limited information and various research gaps in the renewable energy sub-Sector. For instance:

- On utilization of RETs by population; Thus, what proportion of the population (by location) is using which RETs?
- Recent frequent premature failure of treated wooden utility poles.
- There is inadequate dissemination of energy data.
- Inadequate information on resource availability for energy projects such as (geothermal, solar, wind, and mini- and micro-hydro).
- There are uncoordinated efforts in energy research and development.

- i) MEMD & Ministry of Finance, Planning and Economic Development should allocate and commit more funds for research and development, especially in geothermal energy.
- ii) MEMD, R&D institutions (such as UBoS, NAFORRI, Academia, Academia and CSOs) should carry out studies/ research on RETs consumption.
- iii) Advance improved technologies for utilization renewable energy sources especially charcoal e.g. improved charcoal kilns; establishing early maturing tree species for wood and charcoal production; Establish Biomass energy plantations in collaboration with Agricultural Private companies.
- iv) More effort should be made (by MEMD) to disseminate useful energy information to stakeholders.
- v) MEMD should enhance coordination of R&D in renewable energy through effective coordination with R&D institutions (such as Academia, NAFORRI, CSOs).

C) Policy legislation, enforcement, monitoring and reporting

a) Enforcement and regulation:

- Biomass safety – how can it be regulated?
- Illegal power connections .
- Unregulated charcoal trade and illegal timber trade.
- Weak governance in the renewable energy sector.

b) Weak coordination, monitoring, reporting of activities, data collection, accountability, by various actors;
Reporting and tracking the impact of funding and investment in renewable energy sector.

c) Weak/inadequate coordination of different players and stakeholders;
Overlapping and at times conflicting institutional mandates (MEMD, MWE,MAAIF).

d) All the policies in the MEMD have been implemented/matured – impact evaluation studies of the policies were done and published.

- i) MEMD, MWE and UNBS should develop and advance enforcement of appropriate regulations and standards.
- ii) MEMD and MWE should support Local Governments i.e. district and sub counties to development and implement Renewable energy strategies, ordinances and bylaws to advance sustainable Renewable energy utilization.
- iii) The renewable energy policy should streamline and strengthen Governance including transparency, accountability, social responsibility, rule of law.
- iv) More effort should be made (by MEMD) to disseminate useful energy information to stakeholders.
- v) Charcoal transporters and traders need to be involved in the awareness creation and trade in briquettes/pellets.
- vi) CSOs should strengthen their targeted awareness, training, advocacy and monitoring function through value adding partnership and collaboration with MEMD.
- vii) MEMD should strengthen collaboration with CSOs, Religious and Cultural Institutions advance targeted aware-

Key issues which require policy review attention	Key suggested recommendations for consideration in the Renewable Energy Policy review processes
<p>e) Weak Institutional framework to support effective extension support and guidance for sustainable utilization of renewable energy resources among beneficiaries at household and community levels.</p> <p>f) Weak integration of the RE initiatives in local government (district and sub county) planning and implementation.</p> <p>g) Clarifying the new roles of institutions given the current operating context and based on their capacities and competences.</p>	<p>ness to change attitudes, knowledge and practices in respect RETs.</p> <p>viii) MEMD should ensure that the Renewable energy policy is consistent and coherent with several other relevant policies in the energy and other sectors (ENR, Agriculture).</p> <p>ix) MEMD should establish a decentralized coordination at District Local Government levels to support the promotion of renewable energy investments at the lowest level.</p> <p>x) MEMD should support Local Governments to mainstream RE in local government (district and sub county) planning and implementation.</p> <p>xi) Support CSOs, Religious & Cultural Institutions to enhance their knowledge in RETs as well as to be able to reach more people.</p>
D) Energy consumption and utilization	
<p>a) Increasing power consumptions per capita.</p> <p>b) Low modern energy coverage throughout the country, especially in the rural areas. Current coverage is about 6% rural and overall 16% (WWF-UCO, 2015).</p> <p>c) There hasn't been enough effort in utilization of liquid biofuels as well as municipal and industrial waste for energy.</p> <p>d) High tariffs for electricity (i.e. HEP from the main grid).</p> <p>e) The current practice of disseminations of energy through use of above-ground electric poles results in destruction of vast vegetation and tree cover in the urban and peri-urban areas.</p> <p>f) The risk and hazards associated with the RETs tools and fire, especially in the case of on-grid energy where there are fire break outs.</p>	<p>i) MEMD should upscale establishment of mini-hydro power generation targeting remote and rural areas with potentials to have these developed.</p> <p>ii) MEMD in collaboration with Urban Authorities should invest in development of resources like agricultural, municipal wastes, peat, sun, wind power and geo thermal energy.</p> <p>iii) MEMD should consider subsidizing/reducing on the cost of electricity so that a large proportion of the population access the main grid can afford.</p> <p>iv) MEMD should establish the practice of distribution of power through the under or below ground by using appropriate infrastructure MEMD should come up with mitigation actions that can be integrated in the Strategic Environment and Social Impact Assessments for the policy before implementation.</p>
E) Emerging issues in the operating environment	
<p>i) New GoU policies and international commitments (UNFCCC, UNCBD, UNCCD) developed outside the RE sub-sector that have impact on the sub sector e.g. Climate change policy & draft bill; draft Environment policy and bill; National REDD+ strategy.</p>	<p>a) MEMD should ensure that the Renewable energy policy is consistent and coherent with several new GoU policies and international commitments and include strategies on how the policy will contribute to these commitments.</p>
<p>iii) News emerging roles for the institutional framework due to changes in the sector,</p>	<p>b) MEMD should review the roles and responsibilities of the various institutions in the sub-sector based on the emerging issues to fit with the current and future demands and energy requirements for the country.</p>

Key issues which require policy review attention	Key suggested recommendations for consideration in the Renewable Energy Policy review processes
iv) High Population growth of an annual rate of 3.2%. This is projected to reach 93.4 million in the next 30 years. This will exert more pressure on the environment and natural resources. Over 90% still depends on biomass (WWF-UCO, 2015).	c) Advance access to alternative clean energy RETs beyond biomass. d) Support youth to participate actively to invest in RET enterprises for employment and income generation.
v) Developments in the oil and gas sub-sector and associated ambitious targets.	e) MEMD should explore synergies between the Oil and gas sector developments with those for the renewable energy sub sector.
vi) Technological advancement in the renewable energy sub-Sector e.g. in respect to the RETs and Information Communication and Technology.	f) MEMD should promote the use of various technologies in the renewable energy sub-sector to advance universal access and sustainable utilization of clean energy at all levels.
F) Renewable Energy Technologies	
i) Protection of the local industry/private sector manufacturing RETs. ii) Limited technology transfer for the various RETs e.g. for stoves. iii) Quality and standard assurance, certification and regulation of the RETs and associated equipment . iv) Commercialization and liberalization is good, but over doing it is not good. It must be balanced . v) Inefficient uses of the energy sources. vi) The high upfront costs for renewable energy technologies. vii) High cost of RETs (especially gas).	a) The Renewable energy policy should maintain and increase tax barriers on some RETs e.g. improved cooking stoves from foreign countries. b) The Renewable energy policy should advance tax relief on machinery for transfer of appropriate technology and machinery. c) MEMD, MWE and UNBS should develop and advance enforcement of appropriate regulations and standards MEMD should strike a balance in commercializing the sector. d) MEMD through collaboration with Urban Authorities should advance utilization of municipal waste for energy production as well as liquid biofuels require emphasis too. e) Government to provide incentives to subsidies the cost of technologies. f) The RE policy should subsidize the prices for LPG.
G) Social and environment impacts of the policies and laws	
i) Poor management and disposal of wastes from RETs.	a) MEMD should consider conducting the Social and Environment Impact Assessment (SESA) for the policy to generate clear mitigation plans and actions.
H) Gender and renewable energy	
i) Limited access to the RETs by the most vulnerable communities (need for the definition of the vulnerable). ii) Culture and attitude barriers in utilization and adoption of clean RETs. For instance, in Karamoja due to strong culture, men have power to decide on very sensitive issues like if a woman is charging using solar for income the man might refuse because he wants brewing for example 98% of the households are male headed (Akwan-	a) MEMD should develop a gender guidelines and strategy to support gender mainstreaming; b) Provide significant subsidies to enable the most vulnerable communities access clean RETs. c) MEMD should enhance collaboration between the Ministry of Gender, Labor and Socio Development to support and advance mainstreaming of gender in RE sector policies planning and implementation at all levels; d) A participatory planning approach specifically in rural areas actively involving all the gender categories (men,

Key issues which require policy review attention	Key suggested recommendations for consideration in the Renewable Energy Policy review processes
<p>go et al 2017); Preference for food (e.g. matooke, millet) cooked using rudimentary RETs as opposed to improved and clean RETs in several rural communities.</p> <p>a) <i>Urban communities in Kampala prefer meat roasted using biomass (i.e. firewood & charcoal).</i></p> <p>iii) Poverty levels in Uganda which are in all types, like Karamoja were approximately 82 % the population lives in absolute poverty, compared to the national average of 31% (World Bank, 2016), with Only 1.5% of the households earning a salaried income and over 94% living in mud and grass thatched houses (Akwango et al 2017).</p> <p>iv) Limited access to finance for acquiring energy by some women and men. Some women don't have collateral security to obtain a loan to install solar or UMEME.</p> <p>v) Non-recognition and acceptance of energy as a basic need, just like is water & food within within development circles as a basic need, as have water and food.</p> <p>vi) Limited access to improved & clean RETs by schools and health centers in very remote areas.</p> <p>vii) Issues of control and ownership and how it impacts on access and utilization of RETs.</p>	<p>women, boys, girls, old, people with disabilities);</p> <p>e) Gender methodological approach backed with disaggregated data;</p> <p>e) Advance targeted gender awareness and training among all stakeholders at all levels (village, community, local and national level;</p> <p>f) Financial commitment is crucial for realizing gender-aware policies;</p> <p>g) Promote installation and use of incinerators in schools;</p> <p>h) Promote use of Village Loan and Saving Scheme to scale up RETs for improved access and benefit to women groups.</p>

Source: Nalule et al., (2017).

The vision, goal and policy objectives of the current Renewable Energy Policy, 2007 (MEMD, 2007) were also reviewed in context of the current operating situation. In Table 3, some observations and suggestions are presented for consideration by MEMD during the renewable energy policy review process.

Table 3. CSO's reflection and Appraisal of the Renewable Energy Policy, (2007) Vision, Goal and Objectives in the context of the desired situation for Uganda in respect to Renewable Energy.

Current Overall Policy Vision as is in the Renewable Energy Policy, 2007.	Key observations and comments
To make modern renewable energy a substantial part of the national energy consumption.	<p>This is still relevant because the Uganda Vision 2040 (NPA, 2007), commits that GoU will develop and generate modern energy to drive the industry and services sectors. It is estimated that Uganda will require 41, 738 MW by 2040, thus increasing its electricity per capita consumption to 3,668 kWh. Furthermore, the access to the national grid must significantly increase to 80%.</p> <p>That the required capacity will be generated from different energy sources namely: hydro power (4500MW); geo-thermal (1500MW); nuclear (24000MW); solar (5000MW); biomass (1700MW); peat (800MW) and thermal</p>

Current Overall Policy Vision as is in the Renewable Energy Policy, 2007.

To increase the use of modern renewable energy, from the current 4% to 61% of the total energy consumption by the year 2017'.

Key observations and comments

(4300MW).

The National Development Plan II, 2015/16-2019/20 (NPA, 2015) also commits the Energy Sector to focus on the following areas: a) Increasing power generation capacity to drive economic development; b) Expanding the electricity transmission grid network; c) Increasing Energy Efficiency; d) Promoting the use of alternative sources of energy; and e) Strengthening the policy, legal and institutional framework.

Therefore, in the current vision it's important to define substantial part i.e. by what proportion based on the commitments in the National Development Plan II, 2015/16-2019/20 (NPA, 2015) and Uganda Vision 2040 (NPA, 2007).

This is still relevant because the Uganda Vision 2040 (NPA, 2007), commits to increase access to electricity and use of renewable energy technologies. The target is at 80% access to modern energy by 2040, up from the access rate of 14% in 2013.

The National Development Plan II, 2015/16-2019/20 (NPA, 2015) also commits the Energy Sector to focus on the following areas: a) Increasing power generation capacity to drive economic development; b) Expanding the electricity transmission grid network; c) Increasing Energy Efficiency; d) Promoting the use of alternative sources of energy; and e) Strengthening the policy, legal and institutional framework.

Also the commitments in the Uganda's Sustainable Energy for All Initiative Action Agenda, (MEMD, 2015) commits by 2030 the following:

a) Universal access to modern energy – >98% of the population must access electricity by 2030; >99% of the population with access to modern cooking solutions;

b) Doubling share of renewable energy in global energy mix - >90% for Power and 36% for Thermal.

i) The targets in the current Renewable Energy Policy goal (4%-61%) seemed too ambitious;

ii) The progress/achievement towards the target have not been assessed/established;

iii) New targets in the goal should be based on National Development Plan II, 2015/16-2019/20, (NPA, 2015); Uganda Vision 2040 (NPA, 2007), Uganda's Sustainable Energy for All Initiative Action Agenda (MEMD, 2015) targets and commitments;

iv) Appropriate and ambitious investments (institutional capacity, human resource financing technological capacity) should be in place to achieve the set targets in the goal;

v) Regular performance reviews to track progress towards achievement of the policy targets should be planned and conducted.

The Renewable Energy Policy Objectives

Current objectives as is in the Renewable Energy Policy, 2007	Key observations and comments
<p>Objective i) Develop, implement, maintain and continuously improve the legal and institutional framework that responds to the prevailing conditions, in order to maintain interest in renewable energy investments.</p> <p>Objective ii) Establish an appropriate financing and fiscal policy framework that will attract more investments in Renewable Energy Technologies.</p>	<p>The objective is still relevant. However, the new policy objective should focus the following:</p> <ul style="list-style-type: none"> <i>i) Strengthening the capacities of institutions established for effective and efficient delivery of their mandates, roles, responsibilities and obligations;</i> <i>ii) Enhancing coordination of different stake holders/key players from within and outside the Energy sector;</i> <i>iii) Developing regulations, standards and guidelines and related implementation for enforcement of policy commitments and strategies.</i> <p>The objective is still relevant, however -- financing/ investments should also include other pertinent issues beyond technologies. For instance, Research and Development; Institutional capacity building; Technology development and Transfer.</p>
<p>Objective iii) Mainstream gender and poverty issues in renewable energy development strategies to improve the socio-economic wellbeing of women and the poor in general.</p>	<p>The objective is still relevant, but should include other gender categories such as Youth – Boys & Girls; Vulnerable & Disadvantaged Groups and Communities (e.g. Children, People With Disabilities, Internally Displaced People, Minority Groups/Direct Forest Dependent Communities – e.g. the Tepeth, Benet ..., Aged, Communities in hard to reach areas – Schools & Health Centers in Islands, Mountain...).</p> <p>The mainstreaming of gender should be supported with adequate budget allocation through gender planning and budgeting at all levels of policy implementation.</p>
<p>Objective iv) Disseminate information and raise public awareness on the benefits and opportunities of renewable energy technologies and build capacities in appropriate institutions.</p>	<p>The objective is still relevant, but should not be limited to benefits and opportunities in the sector. Thus, it should also include targeted dissemination and awareness for other requirements (e.g. overall policy and legal framework, information from research studies...) for effective and efficient policy implementation.</p>
<p>Objective v) Promote Research and Development, technology transfer, international cooperation and adoption of standards in RETs.</p>	<p>The objective is still relevant, but additionally focus should as well target at strengthening coordination among Research and Development Institutions in the Renewable Energy Sector.</p>
<p>Objective vi) Manage the biomass resource base in a sustainable manner.</p>	<p>Objectives vi, vii, and viii are still relevant, but they leave out other key Renewable Energy sources (e.g. Geothermal, Gas-LPG, Biogas, Solar...) that are not yet harnessed and tapped to full potential. Thus, these should as well be equally considered at objective level.</p>
<p>Objective vii) Promote the use of biofuels.</p>	
<p>Objective viii) Promote the conversion of municipal and industrial wastes to energy.</p>	

Source: Nalule et al., (2017).

5.0 References.

- Akwango, D., Bonton, B., Obaa, D., & Turyahabwe, N. (2017). Effect of drought early warning system on household food security in Karamoja sub region, Uganda. *Agriculture & Food Security* 2017, **6**:43. DOI: <https://doi.org/10.1186/s40066-017-0120-x>
- CSBAG (Civil Society Budget Advocacy Group), (2014). Financing Renewable Energy. CSO position paper FY 2014/15. Kampala. Retrieved from: <http://csbag.org/wp-content/uploads/2015/10/CIVIL-SOCIETY-POSITION-PAPER-ON-THE-ENERGY-SECTOR-BUDGET-FY-201415.pdf>.
- MEMD (Ministry of Energy and Mineral Development), (1999). The Electricity Act. Ministry of Energy and Mineral Development. Kampala.
- MEMD, (Ministry of Energy and Mineral Development), (2007). The Renewable Energy Policy for Uganda (2007). Ministry of Energy and Mineral Development. Kampala.
- MEMD, (Ministry of Energy and Mineral Development), (2002). The Energy Policy for Uganda. Ministry of Energy and Mineral Development. Kampala.
- MEMD (Ministry of Energy and Mineral Development), (2012). Energy Balance. Ministry of Energy and mineral Development. Kampala.
- MEMD (Ministry of Energy and Mineral Development), (2012). Uganda's Sustainable Energy for All (SE4All) Initiative Action Agenda. Ministry of Energy and Mineral Development. Kampala.
- Ministry of Water and Environment, (2016). The State of Uganda's Forests, 2016. Kampala. Retrieved from: <http://www.mwe.go.ug/sites/default/files/State%20of%20Uganda%27s%20Forestry-2015.pdf>.
- Nalule R., Bugaari, A., & Zake, J. (2017). Renewable Energy Policy Review and Gap Analysis Report. Environmental Alert. Kampala.
- NPA (National Planning Authority), (2007). Uganda Vision 2040. National Planning Authority. Kampala. Retrieved from: <http://npa.ug/wp-content/themes/npatheme/documents/vision2040.pdf>.
- NPA (National Planning Authority), (2015). The Second National Development Plan. National Planning Authority. Kampala. Retrieved from: <http://npa.ug/wp-content/uploads/NDPII-Final.pdf>.
- UBOS (Uganda Bureau of Statistics), (2017). State of the population report. Kampala.
- UBOS (Uganda Bureau of Statistics), (2012). Energy sector: Gender statistics profile. Kampala.
- UN DESA, (2010). Retrieved from: www.un.org/en/development/desa/news/2010.html
- UNDP (United Nations Development Programme), (2014). Biomass Energy Strategy Uganda UNDP, (2014).
- UNDP (United Nations Development Programme), (2014). Gender Equality Strategy 2014-2017. Investing in Gender Equality for Uganda's social economic transformation.
- World Bank, (2016). Uganda Assessment Fact Sheet. Retrieved from: <http://www.worldbank.org/en/country/uganda/brief/uganda-poverty-assessment-2016-fact-sheet>.
- WWF-UCO, (2015). Energy Report for Uganda, A 100% Renewable Energy future by 2050). The World Wide Fund for Nature – Uganda Country Office. Kampala. Retrieved from: <http://wwf.panda.org/?257840/Uganda-100-renewable>.