

**ADDRESS BY MINISTER FOR ENERGY,  
DR. JOE OTENG-ADJEI**

**AT THE WORKSHOP ON ACCELERATING UNIVERSAL ENERGY ACCESS  
THROUGH THE USE OF RENEWABLE ENERGY AND ENERGY EFFICIENCY  
AT MENSVIC HOTEL, ACCRA  
24-26 OCTOBER 2011**

Mr. Chairman,

- The Executive director for the ECOWAS Centre for Renewable Energy and Energy Efficiency
- Director of Energy at the ECOWAS Commission,
- UNIDO Director General and Chairman of UN Energy, International Year for Sustainable Energy for All,
- Dear Participants
- Distinguished Ladies and Gentlemen;

It is a great honour and privilege for Ghana to host this all important regional workshop aimed at accelerating universal access to modern energy services with particular focus on renewable energy and energy efficiency.

Permit me to use this opportunity to welcome all the participants, especially those visiting Ghana for the first time.

Mr. Chairman, it is an acknowledged fact that energy remains a dominant force in driving socio-economic developments in all world economies. In Ghana, our demand in energy is expected to grow in tandem to the GDP growth and it has been noted that one threat to this high growth rate is supply of energy.

Mr. Chairman, with the collaboration of our Development Partners, Ghana continues to explore ways of making energy a fundamental right of all of its citizens. Efforts to secure access to reliable and cheaper energy have led to continuous review of Government policies and strategies over the years. The objective of reform programmes in the energy sector is to advance Government plans to secure modern, innovative and cheaper energy services to the citizenry.

Accordingly, the main strategies of our energy policy include:

- Ensuring adequate, reliable and improved supply of electricity to meet national requirement and for export through consolidation, rehabilitation and expansion of electricity generation, transmission and distribution infrastructure;
- Increasing the installed generation capacity from approximately 2,000MW to 5,000MW and access to electricity from the current 72% to at least 80% by 2015;
- Increasing access to modern forms of energy;
- Securing sources of cost-effective and sustainable fuel supply for electricity generation.
- Supporting the modernization and expansion of energy infrastructure to meet growing demands and ensure reliability;
- Improving overall management, regulatory environment and operation of the energy sector;
- Minimizing the environmental impacts of energy supply and consumption through increased production and use of renewable energy and make delivery efficient;
- Diversifying the national energy mix by promoting renewable energy sources.

- Ensuring the productive and efficient use of energy.

Energy resource options available to Ghana include the hydro and thermal power, renewable, hydrocarbons and biomass. Biomass, particularly, wood fuel continues to be the dominant energy option used by Ghanaians.

Mr. Chairman, Ghana's energy system has experienced a rapid increase in the utilization of modern energy forms (i.e. electricity and petroleum products). However, their shares in the total energy mix are still low. Electricity and petroleum products as at 2008, accounted for about 8% and 32% of the total energy consumption respectively. Wood fuel provides the bulk of Ghana's current energy needs (it accounts for about 60%) and its users are mainly the rural poor. It is a key policy goal to reverse this trend in the short to medium term.

One key area that Ghana has recorded great success is the extension of electricity to rural communities using Grid or Renewable Energy mainly Solar Photovoltaic, through a National Electrification Scheme.

### **The National Electrification Scheme**

Ladies and Gentlemen, the National Electrification Scheme (NES) was instituted in 1989 as Government of Ghana's principal instrument to achieve its Policy of extending the reach of electricity to all parts of the country over a thirty-year period from 1990 to 2020. As part of the programme, a comprehensive National Electrification Master Plan (NEMP) was developed. All possible options of electrification including grid extension and off-grid renewable energy-based solutions such as biomass, solar, wind & small hydro were considered. Grid-based

electrification project packages were identified and prioritized for implementation over 30-year period in phases.

The Self-Help Electrification Programme (SHEP) is a complementary electrification programme instituted to support the main NES. The rationale of the SHEP is to accelerate the connection of communities to the national electricity grid. It was introduced by government to encourage communal participation and the self-help developmental initiatives of communities.

Under the SHEP, communities that initiate their township electrification projects receive government support for completion of the projects earlier than the scheduled date of connection under the NEMP.

At the inception of the NES, about 15% of the total population of Ghana had access to electricity supply. According to the 2000 Population Housing Survey the number of households that were connected to the national electricity grid was 43%. The rate stood at 54% in 2008. Ladies and gentlemen from January 2009 to date the rate has been increased from 54% to about 72% and indications are that with current projects slated for completion in 2013, this rate should increase considerably beyond the 80% mark.

### **Rural Electrification Funding Sources**

The NES programmes are financed through a mixture of Local and External Sources. The local funding sources include;

- Consolidated Funds (Government Budget)
- Levy on Consumers of Electricity (NES Levy)
- Contribution from Electricity Utility Agencies,

- Local government sources (District Assemblies & Members of Parliament Common Fund)
- Communities - they specifically provide Low Voltage Poles, Labour and Right of Way) and
- Suppliers Credit from local manufacturers of wooden poles and conductors & cables.

External funds on the other hand come from

- Grants,
- Export Credits,
- Concessionary loans from multilateral & bilateral funding agencies
- Suppliers Credit (Exim Banks)

### **Financing of Rural Electrification (RE) Projects**

To date a total of **USD696.9 million** has financed the electrification of 3,421 rural communities in Ghana. The funding for these projects came from a combination of bilateral, multilateral partners and the Government of Ghana. The Government of Ghana's share of this amount was **USD339.22 million**.

In pursuance of Government's plans to accelerate the programme for universal access to electricity, currently **USD966.55 million** from bilateral, multilateral and Government of Ghana has been committed to on-going electrification projects in about 4,880 communities nationwide. Upon completion of these projects, a combined total of 8,301 urban and rural communities in Ghana would have had access to electricity and the national electricity access would exceed 80%.

Despite this success there are some challenges to the National Electrification Scheme that includes;

1. Poverty level of the Rural People.
2. Growing High Cost of Grid Extension to sparsely populated areas
3. Inadequate funding due to Strict conditionalities of Development Partners and recently the Global Financial Crisis
4. Financial Constraints of the Utilities and Inadequate Tariffs
5. High investment cost for renewable Energy technologies
6. Pressure on existing Transmission /Generation facilities

In Ghana, we also realise that access to petroleum products in the rural areas is inadequate due to limited infrastructure for storage and equipment for distribution and use. The situation has led to the rural population having to purchase kerosene and LPG at higher prices than the official prices. Our medium term strategic objective is to increase access to petroleum products particularly LPG in rural areas which is basically used for cooking. It is intended to increase access to LPG from the current level of 6% of households to 50% by 2015. This will be achieved through the development of LPG infrastructure and pricing incentives to encourage distributors to expand their operations to especially the rural and deprived areas. With the increase in the electricity access rate, the use of Kerosene is expected to reduce as electricity is the preferred energy source for lighting.

Excellencies, It is the policy of Government to increase renewable energy in the supply mix using solar, wind minihydro etc. It is also our policy to encourage the production and use of bio-fuels as alternate to fossil fuels as a means of contributing to the reduction of greenhouse

effects but not at the expense of our arable lands that can be used for agricultural purposes.

A Renewable Energy Bill, aimed at increasing the contribution of renewable energy from 0.01% to 10 % by 2020 in the National Energy Mix has been approved by Cabinet and submitted to Parliament for approval. Solar PV Systems have been supplied installed and commissioned in rural health institutions across the country. In addition a number of Public Institutions including clinics, schools, and security posts in remote communities are being electrified using solar systems.

As I have already indicated, Biomass is Ghana's dominant energy source in terms of endowment and consumption and the major challenge is to improve the efficiency and sustainability of its utilisation and production.

The biomass strategy focuses on the regeneration of forest cover through afforestation and improvement in the production and efficient use of woodfuels. In the long term, the focus will be on fuel substitution to alternative sources of clean energy.

The way forward I believe, is not so much to change course but rather accelerate progress, especially toward increased energy efficiency. Governments must be committed to their energy policies and strategies and these must not change because of change in political leadership. Local content must be encouraged, mobilized and used to the utmost.

Rural Electrification is essential for reducing urban-rural inequalities. It is a catalyst for improving socio-economic development of the people

which empowers them to create wealth and reduce their poverty levels. Planning for energy access must be holistic to cater for the entire value chain, to avoid generation shortfalls and transmission system overloads.

Financing Access to modern clean energy to the poor is expensive and requires the collaboration and commitment of Governments, development partners, local communities, private sector, utility agencies and consumers.

It is my hope that this workshop will examine the prospects and challenges of similar initiatives by the other countries within the region so as to draw lessons on best practices aimed at reaching our ultimate goal of “Universal Access.”

Thank you for your kind attention!