

ENERGY PLANNING FOR SUSTAINABLE ENVIRONMENT IN NIGERIA

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Introduction:

The accomplishments of civilization have largely been achieved through the increasingly efficient and extensive harnessing of various forms of energy to extend human capabilities and ingenuity. Energy is similarly indispensable for continued human development and economic growth. Providing adequate, affordable energy is essential for eradicating poverty, improving human welfare, and raising living standard world - wide. And without economic growth, it will be difficult to address environmental challenges, especially those associated with poverty.

However and unfortunately, most developing nations of the world are not enjoying these benefits. Increasing access to clean and affordable energy services is highly complicated and expensive task that requires careful planning.

Poor planning (coupled with lack of commitment and political will for project implementation) has led to inadequate supply of energy services to the majority of the population; poor planning is also responsible for the inability to maintain the energy infrastructures, outdated network of electric generators (electric power stations), transmission lines, pipelines and refineries has been allowed to deteriorate. Oil pipelines and refineries are in need of repair and expansion. For example not a single major oil refinery has been built in Nigeria in nearly decades.

Most SME industries are closed down for lack of energy to operate; the big ones – the multinationals in most cases depend on their own energy system (IPP) and this makes their products very expensive and out of reach of the majority of the citizens. In addition to these challenges is the issue of adverse environmental impacts, which ranges from local deforestation driven partly by firewood consumption, oil spillages, water pollution to global warming caused largely by carbon dioxide emissions from energy use.

However, it has been discovered that the major organizational problem in many developing societies like Nigeria is lack of coordinated energy infrastructural planning, i.e. energy – related planning and decision making are scattered among public and private sector institutions such as Electric Power Authority, National Petroleum Authority or Private Oil or Gas Supply Companies, Power & Mining Authority, Town Planning Authority, Water Supply Authority, Industrial Development Authority, and others.

Often all of them pursue their own policies and agenda with little or no coordination and consideration of the effects of their policies on each other and the Country as whole.

Ideally, a single energy planning authority should determine overall energy policy and coordinate it all.

In Nigeria situation however, despite the fact that the National energy commission has sophisticated blue print for energy infrastructural development (**policy**) for the entire nation, one wonders why we are still where we are today.

This paper discusses the importance of planning, especially strategic planning in the provision of energy services in developing societies like Nigeria. In energy planning, there are analytical tools (Models) developed through dedicated research, development and demonstration (RDD) in electronics and computer simulation.

For years now, the IAEA has been championing the development of set of analytical tools (models) for energy planning, transferring them to the member states upon requests; this paper takes a look at these tools and how we improve on them and apply them to solve our energy problems.

Going through the models, none of the models actually addressed the issue of '**lack of coordinated energy development planning**' among public and private sectors mentioned above. The paper considers each of these models in relation to our energy challenges and how we can improve on them for the purpose of our peculiar situations. In conclusion, some suggested solutions are provided in the paper.

Energy is essential for all human activities, and its availability is critical to economic and social development. Energy is the engine for production of goods and services across all economic sectors. It is crucial to the provision of basic civic services in education, health care, clean water supply and sanitation, and also for wealth creation.

Lack of energy is a contributing factor to the poverty of individuals, communities, nations and regions. But however essential it may be for development, energy is only a means to an end; energy jointly with appropriate technologies and infrastructure, generates the services modern societies crave for (fast and convenient transportation, lighting, air conditioning, information exchange and processing, good health, sustainable economy etc.). Meeting the UN Millennium Goals can only be accomplished through access to affordable energy services

RECOMMENDATIONS AND SUGGESTIONS

From what have been said so far, to minimize our energy challenges, I humbly make the following recommendations and suggestions.

The National energy commission should be reorganized and empowered to function as its counterparts in the other parts of the world

All stake holders in energy development should be involved in the planning of energy development

I seriously advocate a coordinated planning among all the stake holders in the energy sector

All energy development vision and goals should be supported with enabling laws and must be backed with avowed commitment on the part of the Government

There must be political will and commitment for energy project implementation.

Every energy project must be given targets for completion backed by law.

I advocate for modernization and expansion of our energy infrastructure e.g. outdated national electric grid, both overhead and underground, aging power transformers, generation stations, transmission and distribution lines, gas pipelines, obsolete refineries, petroleum product distribution facilities etc.

I advocate for integrated energy planning for our nation

I advocate distributed electric power generation to boost our power generation capacity.

I advocate for dedicated research backed by adequate funding on renewable energy system

Encourage young Nigerians to study energy related programmes in higher institution to forestall shortage of manpower at the energy sector

Build more energy research centers.

CONCLUSION

In conclusion, for our energy to come on stream and to use it to better the life of the citizenry, all hands must be on deck; all stake holders must be involved in the energy development plan of the nation, region or the society. Planning must not be carried out in isolation

There must be commitment and determination on the part of the authority to provide enabling framework and ensure full implementation of all energy projects.