Clean Energy Technologies Policy

Preamble:

To United Nations sustainable development goals require transition to clean energy technologies in the coming decades. Modern societies and industries rely heavily on the availability of cheap and reliable sources of energy. Fossil fuels energy technologies like power plants, internal combustion engines and jet engines etc. have helped solved human energy problems living in high-density urban centres. Industrial revolution would not have been possible without high energy density fossil fuels. Modern urban centers require huge amount of primary energy to cater for the diverse demands of its occupants and visitors that could be easily met by fossil fuels. However, the use of fossil fuels has negative consequences in terms of greenhouse gas emissions, pollutant emissions, energy security and equity which renders them unsustainable for long term use. This require development of policies, directives, regulations and plans to shift towards more sustainable and clean energy technologies.

There are many alternative to fossil fuels which are now available at competitive costs like solar, wind and even biomass energy resources. These resources are available provide a viable alternative for the generation of cleaner energy both in the form of heat and electricity that can help meet most of the needs of a modern society. Also, the ever increasing energy demand due to economic uplift and increasing population provides a unique opportunity to invest in renewable energy technologies and shift towards cleaner energy production by replacing fossil fuels with cleaner and more sustainable fuels.

Objective:

The objective of clean energy technology policy is to assess, develop strategies and implement solutions that can reduce the negative impacts and externalities linked to both conventional and renewable energy technologies. This would help reduce carbon emissions, cost, and reliance on imported fuels and improve equity by making its accessible to under privileged parts of the society.

The shift towards a cleaner energy technologies require capacity to innovate and implement solutions that can support the wide spread penetration of cleaner technologies by making them technically, commercially and economically viable. In this regard a three stage approach based on following stages is proposed.

1. Assessment Stage

   A new energy technology especially renewable energy technology require a thorough assessment of resources, finances, needs and externalities to judge its potential impact. Solar, wind and biomass while commercially and economically feasible yet require a fossil fuel based or battery backup. A critical assessment through research and development is necessary to highlight strength and weaknesses, threats and clarifying micro and macro objectives. UCP will develop infrastructure, courses, laboratories and conferences in this regard.

2. Strategy Stage

   This stage focuses on details procedure and methodologies that will support innovation in clean energy technologies development. This stage require identification of key

technologies and area in which innovation activities can be directed with a more focused and specific objectives.

3. Implementation Stage

   This stage require establishing a governance structure and defining of roles and responsibilities for the implementation of solutions that can help meet objectives of clean energy technology shift. UCP has already starting investing in clean energy production will enhance its share to meet government goals of sustainable development.