



Sustainable Action Dialogue- Pre- event of WSDS in Monaco

Renewable Energy - a viable tool for clean energy transition

Background Note

Energy systems globally are going through rapid transitions that will bring important changes to the way we use energy in our industry, transport and homes. These trends would have significant implications for governments, businesses and individuals in the next decade and thereafter. Electricity constitutes a key element of energy transition. Recent developments amply indicate rising growth in wind and solar capacities resulting in their increased share in the overall energy mix. During 2015-2017, wind and solar capacities have accounted for more than half of net capacity additions and their tariffs have become lower than coal and gas in many countries. It is estimated that nearly half of global total capacity will be in solar and wind by 2035. In addition, bio energy is emerging another renewable source of energy and has significant potential to generate power and also to meet heating and cooling requirements of the industry and buildings. As per the IEA 2018, modern bio-energy is seen as an essential component of the future low carbon global energy system, if global climate change commitments are to be met.

The plenary session envisages having discussions around renewable energy usage through utility-scale power development (megawatt scale solar and wind power), small scale applications (containerized PV solution, PV-port on roof top, roof-top solar systems) and heating, cooling and power applications using biomass waste streams.

Key questions the session will address:

1. What is the level of current technology for utility scale solar and wind power and how innovations are seen to affect to tariffs further?
2. With scaled up sizes of RE power projects, how project development practices including designing and management become important for sustainability with regard to challenges of competitive pricing?
3. What are the viable electricity storage options for large scale penetration of RE into the main grid?
4. What are the key drivers to develop decentralized solutions to meet demand of un-served communities and households?
5. What are the recent technological advancements and development to mainstream of mini/micro grids with utility grid?
6. What are the sustainable technology options for waste to energy applications?