

Renewable Energy in Clean Energy Revolution

ABSTRACT

The impacts of climate change globally cannot be ignored any longer as they are getting more frequent and accentuated ranging from stronger hurricanes, flash floods, to periods of droughts, and bushfires. Mauritius, being a Small Islands Developing State (SIDS), is not spared and already experiencing coastal erosion, flash floods and sea level rise amongst others. Greenhouse gases (GHG) are the main contributor to climate change, emitted majorly from the energy sector. This has been recognized worldwide and at the COP 21, 196 Parties adopted the Paris Agreement in a bid to limit global warming to less than 2°C. Renewable energy (RE) has been touted as one of the main mitigation actions worldwide. The importance of RE cannot be understated in the clean energy revolution. As per the Renewable Capacity Statistics 2021 published by the International Renewable Energy Agency (IRENA) in March 2021, despite the pandemic, capacity addition of RE reached a record high of 260 GW in 2020, doubling that of the previous year. Replacing fossil fuels by RE ensures GHG emissions mitigation as well as strengthens the country's energy security and provides savings from fossil fuel imports. Rapid deployment of RE has been mostly enabled by falling prices of RE Technologies, especially photovoltaics and wind energy. In line with the global endeavor, the Government of Mauritius has set renewable energy targets of 35% and 40% in the electricity mix by 2025 and 2030 and has published a "Renewable Energy Roadmap 2030 for the Electricity sector" to this effect. In its Nationally Determined Contributions, Mauritius has pledged to abate its GHG emissions by 30% by 2030, relative to the business as usual scenario. Renewable energy needs to be incentivized further to ensure deployment, at not only utility scale, but also residential and commercial ones. The National Scheme for Emerging/Innovative Renewable Energy Technologies launched by the Mauritius Renewable Energy Agency (MARENA) in collaboration with the Central Electricity Board (CEB) and Mauritius Research and Innovation Council (MRIC) is enabling to implement and test innovative RE technologies on a pilot basis in Mauritius. Barriers to further implementation of RE in Mauritius also need to be addressed to pave the way for smooth deployment of RE and decrease in GHG emissions.

Biography



Dr Kajal Fowdar

Married with 2 kids;

Interest: Renewable Energy and Energy policy

Education

MSc Biomedical Engineering (2011-2012)

PhD Biochemistry (2014-2017)

Accredited Masters in Renewable Energy (2019-2021)

Professional Certificate in Clean Power (2021)

Experience

Working experience: R&D engineer at Natec Medical Ltd (Jan 2017-Dec 2017)

Research Assistant at Mauritius Research and Innovation Council (Jan 2018- Jun 2019)

Research and Development Officer at Mauritius Renewable Energy Agency (Jun 2019-till now)