REGULATORY FRAMEWORK AND POLICY INCENTIVES FOR CLEAN ENERGY

The worldwide shift towards energy transition has significantly influenced India's energy mix. Working in furtherance of its nationally determined contributions to achieve net-zero emissions by 2070, the Government of India has introduced various policies and regulations to promote clean energy. In this regard, other than the government's push to the renewable energy mix, the following initiatives also add towards the policy incentives for clean energy:

1. *Regulatory Framework and Policy Incentives*

(i) *Solar Pumps:* The Pradhan Mantri Kisan Urja Suraksha evam Utthan Mahabhiyan scheme was introduced for de-dieselisation of the farm sector and to provide subsidies up to 30% or 50% of the total cost for the installation of standalone solar pumps and for solarization of existing grid-connected agricultural pumps.

(ii) *Wind - repowering and offshore wind:* The National Repowering and Life Extension Policy for Wind Power Projects, 2023 facilitates the repowering of wind power projects by replacing of old generation wind turbine generators with technically advanced wind turbine generators. The National Offshore Wind Energy Policy, 2015 along with the Offshore Wind Energy Lease Rules, 2023 promote development of offshore wind energy projects.

(iii) *Green Hydrogen*: The National Green Hydrogen Mission and Green Hydrogen Policy are aimed at incentivizing the production and use of green hydrogen. Some of the incentives include providing open access and waiver of inter-State transmission charges. The mission introduced a comprehensive incentive programme (Strategic Interventions for Green Hydrogen Transition - SIGHT) which includes financial as well as non-financial measures.

(iv) *Hydrocarbons:* In line with other developing countries like Brazil, the government has mandated ethanol blending in petrol in India. Further, blending of Compressed Bio-Gas (CBG) with compressed natural gas (Transport) and piped natural gas (Domestic) is also being encouraged. Viability gap funding schemes like JIVAN also promote development of CBG plants.

2. *Conclusion*

Although India is actively transitioning towards clean energy sources, achieving the ambitious target of 500 GW of non-fossil energy capacity by 2030 will require a uniform regulatory framework amongst states and more. Although generation of electricity has been delicensed under the Electricity Act, being a concurrent subject under the constitution, certain States such as Gujarat, Maharashtra and Tamil Nadu have mandated registration requirements for renewable energy projects with State nodal agencies. In addition to registration, certain States have also started levying fees or facilitation charges on development of renewable energy projects. Even though Ministry of Renewable Energy has issued order for not levying these charges, states are continuing to do so. States also have different upper caps for net metering of solar power which results in non-uniform development of solar projects. E.g. In Maharashtra the cap is 5MW however West Bengal is proposing 0.5 MW. At the central level also, few more policy efforts are required. Eg.the SIGHT scheme only provides incentives upon production of green hydrogen however there are no centralized incentives for setting up hydrogen plants.