Solar Energy Policies and Regulations: Analysis of government policies, regulations, and financial incentives offered to promote solar energy adoption in India.

MS. REETA MOHANTY

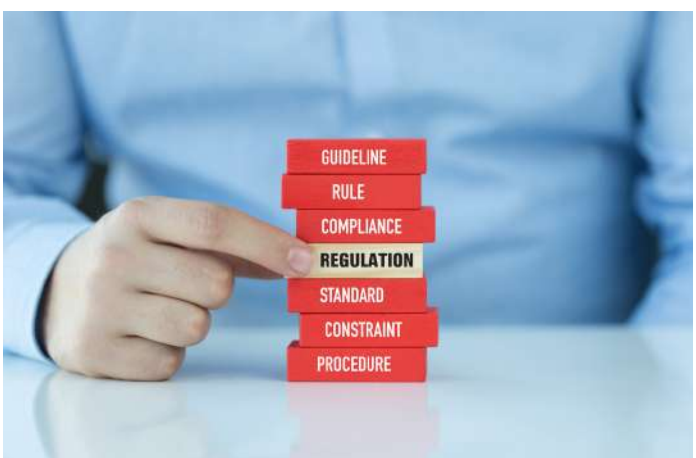
GENERAL MANAGER- CONTRACTS
AMPIN ENERGY TRANSITION

Introduction

Regulation covers all activities of Public or Private behaviour that may be detrimental to societal or governmental interest but its scope varies across countries. It can be operationally defined as "taxes and subsidies of all sorts as well as explicit legislative and administrative controls over rates, entry and other facets of economic activity". The rules laid down by regulation are supported by penalties or incentives designed to ensure compliance.

The process of domestic reform and external liberalisation is still ongoing. However, the producer profile in various sectors has undergone a significant change with private firm co-existing with government firms in many sectors which were previously government monopolies.

Regulation in India can be mapped under three broad categories; Economic Regulation, regulation in public interest and environmental regulation.



Analysis

There is little doubt that the power sector has come long way in the last two decades. The power sector has opened doors to private participation, increasing competition and transparency in the process and greater certainties in the policy level interventions today. Record capacities are added each year in electricity generation, the transmission system is more robust and tariff petitions and revisions have become more regular, AT&C (Aggregate Technical and Commercial) losses have come down and rural electrification levels have improved significantly. Yet, two persistent problems over the past two decades have undermined the sector's true potential. One, DISCOMs continue to be in a bad shape and are unable to procure the power on offer and two, tariff are still not viable. This along with finding efficient ways of energy storage, finding clean coal technologies to drastically reduce CO2 emissions and improving electricity and data safety in this age of rampant hacking is where the challenges lie and the growth of the sector will depend on how fast they can mitigate those challenges and move ahead.

Incentives for Adoption of Renewable Energy

The Government has taken several steps to promote renewable energy in the country. These include;

- Permitting Foreign Direct Investment (FDI) up to 100 percent under the automatic route
- Waiver of Inter State Transmission System (ISTS) charges for inter-state sale of solar and wind power for projects to be commissioned by 30th June 2025
- Declaration of trajectory for Renewable Purchase Obligation (RPO) up to the year 2022
- Setting up of Ultra Mega Renewable Energy Parks to provide land and transmission to RE developers on a plug and play basis

The Ministry supports a scheme "Renewable Energy Research and Technology Development Programme" through various research institutions and industry which is being implemented to enable indigenous technology development and manufacture for wide spread applications of new and renewable energy in an efficient and cost effective manner across the country.

In addition to this If there remains a sore spot in India's growth story, it is manufacturing. The government has been attempting to spruce up the sector for a long time now. Production Linked Incentives (PLI) scheme is one such initiative under the flagship Atmanirbhar Bharat Abhiyaan. With the objective of transforming domestic manufacturing by augmenting its capacity and competence, the scheme aims at creating more jobs, attracting greater investments, reducing imports and making India a global manufacturing hub. In fact, PLI is often touted as the panacea to India's manufacturing problems. Other new scheme is introduced by the Ministry of Power is Revamped Distribution Sector Scheme (RDSS), for strengthening of sub-transmission and distribution networks in urban areas.

India is now amongst the fastest developing countries in the world in terms of GDP as well as the electricity consumption. The challenge is to meet the energy needs of high economic growth & electricity consumption of about 1.3 billion people. The development of an efficient, coordinated, economical and robust electricity system is essential for smooth flow of electricity from generating station to load centers (as per Electricity Act, 2003) and for optimum utilization of resources in the country, in order to provide reliable, affordable, un-interruptible (24x7) and Quality Power for All. As per Section 3 of the Electricity Act 2003, Central Electricity Authority (CEA) has been entrusted with the responsibility of preparing the National Electricity Plan (NEP) in accordance with the National Electricity Policy and to notify such plan once in five years. The National Electricity Plan (Volume I) on Generation Planning has been prepared by CEA. National Electricity Plan Volume II (Transmission) is being prepared, incorporating the review of Planning for the ongoing plan period 2022-27 and Perspective plan for 2027-32 keeping in view various factors, such as inter-regional transmission links, reactive compensation, cross border exchange of power etc.

Drawback

An important aspect of regulatory independence is financial independence. Dependence on uncertain budgetary allocations reduces the independence of regulatory bodies. In India, ERCs, with few exceptions, depend upon state exchequers although the Electricity Act 2003 empowers them to generate revenue through license fees etc. The lack of financial independence also leads to problems relating to quality and capacity of personnel.

Policy guidelines require regulatory bodies to adopt transparent and participatory decision making processes. However, on the brighter side, ERCs have been successful in ensuring fast redressal and this in turn has led to an improvement in the quality of service. To sum up, political issues have played a very important role in the regulation of this sector, by and large, political interests have been able to regulate the regulators. However, ERCs have been able to augment transparency and accountability to some extent.

Conclusion

Regulatory reforms in India have been initiated as these have become essential in the light of changing macroeconomic policies. At the level of the central government, the progress is quite satisfactory but state government need to supplement it by taking similar initiatives. At the sector level, many sectors remain unexplored from a regulatory point of view. Coal sector promises to be an important sector because of the importance of coal in the Indian context. Another competition issue that needs to be given priority is simulation of competition in natural monopolies through public-private partnerships (PPPs). Finally, creating independent regulators in the true sense is equally important.