



REGULATIONS FOR THE EVOLVING “GREEN GRID” OF THE 21ST CENTURY

R N SEN

Former Chairman WBERC

REGULATORY SUPPORT FOR ADOPTION OF NEW TECHNOLOGIES AND BUSINESS MODELS TO INCREASE FLEXIBLE RESOURCES ON THE GRID.

With the increase in the share of Renewable Energy in the energy basket the supply from major sources become unpredictable and uncontrolled.

To ensure 24X7 quality supply new technology has to play major role.

Integration of a wide range of RE generation to ensure uninterrupted supply will require Regulatory support for adoption of new technology and customer interface.

We will broadly discuss about the Regulatory support for adoption of new technologies and business models to increase flexible resources on the grid for Microgrid

REGULATORY SUPPORT FOR ADOPTION OF NEW TECHNOLOGIES AND BUSINESS MODELS TO INCREASE FLEXIBLE RESOURCES ON THE GRID FOR MICROGRID

Microgrid with solar and bio gas combination are going to be a viable option for providing Green power to all parts of the country for decarbonization of Indian energy sector.

Wherever main grid is available the Microgrid may get connected to get the balancing act done by the robust main grid and draw cheap and surplus power from them intermittently.

The solar generation will continue during the day time, evening peak from biogas and night power requirement from main grid at cheap price due to very low demand at mid night and surplus generation from wind and nuclear/thermal which may be operating at technical minimum load.

Regulation of microgrid may be formed with the flexibility of drawing power from the main grid based on Time of the Day (TOD) metering without any additional charges.

This will facilitate the main grid in balancing them by absorbing the surplus night generation of wind and thermal/nuclear.

REGULATIONS SUPPORTING INVESTMENTS FOR INFRASTRUCTURE UPGRADES, BUSINESS CONTINUITY AND CUSTOMER DEMANDS

- i) Ensure implementation of Standard Of Performance (SOP) regulation as envisaged in the Electricity (Rights of Consumers) Rules, 2020 published on 31st December 2020 and subsequent amendments the latest on 30th September 2021.
- ii) As and when the Electricity (Amendment) Bill, 2021 gets enactment to Electricity (Amendment) Act, 2021 for delicensing distribution get licensee, state government and MOP in developing the detailed action plan for ensuring smooth transaction to multiple operators as envisaged in the act this will require IT intervention for adoption of green power.
- iii) Implement ERP for online submission of tariff petitions and evaluating them through transparent mechanism to ensure towards cost reflective tariffs, including timely filing of tariff petitions, MYT and timely issuance of tariff orders. This will ensure transparent adoption of green power.

REGULATIONS SUPPORTING INVESTMENTS FOR INFRASTRUCTURE UPGRADES, BUSINESS CONTINUITY AND CUSTOMER DEMANDS

- i) Get actively involved in the implementation of reform-based result-linked power distribution program over the next five years, in exchange for financial support from central government to ensure that licensee takes the best advantage of the programme and fulfil all the milestones set by MOP within the specified timeline.
- ii) Ensure smooth transfer of all 33Kv assets from Distribution licensee to STU within specified timeline.
- iii) As and when the Electricity (Amendment) Bill, 2021 gets enactment to Electricity (Amendment) Act, 2021 for delicensing distribution get licensee, state government and MOP in developing the detailed action plan for ensuring smooth transaction.

PEER-TO-PEER (P2P) TRADING OF “GREEN” ELECTRICITY

Wherever main grid is not available/connected the Microgrid may get connected to each other for balancing act and draw cheap and surplus power from them intermittently.

Suitable regulatory support may be provided to enable this with the help of blockchain mechanism.

REGULATORY MEASURES TO BALANCE THE FINANCIAL VIABILITY OF UTILITIES IN THE CHANGING TIMES - CONCLUSION

By encouraging Microgrids at the periphery of the distribution network the AT&C losses due to agricultural and domestic supply may be substantially reduced including cross subsidy burden on the distribution licensee thus offering better tariff to industry.

Regulators to ensure implementation of MOP letter dated 01/09/2021 on Bringing 33 kV system under Transmission for performance improvement of sub-transmission system, this will help the Microgrids to get connected directly with the STU for smooth flow of power.

Customer through cooperative in promoting Microgrids may be encouraged through suitable regulations and soft funding by multilateral agency.

Get connected with the nature and save our planet through distributed green generation at the consumption point.

Let us live in harmony with nature without depending on fossil fuels and prosper for bright future with inclusive growth.



ANY QUESTIONS ?

You may contact: rabindra.nsen@gmail.com