Managing the Transition to Renewables

What is the issue?

- The rise of renewables has implications for the finances of power distribution companies (Discoms).
- It calls for managing the transition strategically to prevent the negative impacts on small and rural consumers.

What was the earlier approach?

- For the most part of the 20th century, planning broadly involved estimating future electricity demand.
- The focus was on adding larger conventional power generation and connecting these to load centres through transmission lines.
- Electricity was supplied to consumers by a monopoly, a vertically integrated utility.
- Pricing was based on the principle of cross subsidy.
- So large industrial and commercial consumers paid higher tariffs to ensure affordable tariffs for agriculture and households.

What is the emerging trend?

- Energy choices are rapidly changing, largely due to national policy initiatives and global techno-economic changes.
- There is an increasing share of renewable energy in the supply mix due to -

i. competitiveness of renewables
ii. reducing costs of battery storage
iii. rising costs of coal-based power

- In the long run, this is likely to drive electrification of other sectors such as transport, cooking, and industrial processes.
- It would gain pace as an effort to addressing issues of local air pollution, energy security and rising energy import bill.
- In all, these trends can effect a paradigm change in the energy sector.

What is the current limitation?

- Currently, the government focus is very limited in critically evaluating and prioritising needs, anticipating risks and preparing for them.

- This can lead to serious long-term implications in terms of resource-lock-in and dependency.
- This is especially true considering the long life and capital intensive nature of the investments in the power sector.

What are the implications?

- The emerging trends in renewables and storage create numerous opportunities for large consumers.
- However, this could end the revenue that these high paying consumers were so far providing.
- In turn, this could mark the end of the current business model of the electricity distribution companies (Discoms).
- Given the uncertain demand, power purchase (accounts for more than 70% of the cost of supply) will become more complex and riskier.
- Simultaneously, the loss of cross-subsidising consumers would sharply increase either the tariff for small, rural, and agricultural consumers, or the State subsidy.
- If not managed appropriately, these changes can lead to -

i. severe financial stress for Discoms
ii. poor supply quality for small consumers
iii. stranded assets, and bailouts, with implications for the banking sector

What does it call for?

- There is an urgent need for fundamental changes in the way Discoms plan and operate.
- Increasingly, markets and competition would need to play a substantial role.
- Allowing large consumers to choose their suppliers for the long term helps them reduce costs, and also enable rational capacity addition.
- Solarising agricultural feeders can help in capping subsidy while providing day-time reliable supply to farmers.
- These measures can allow Discoms to focus on improving supply and service to small and rural consumers.
- Alongside, discoms should avoid adding new baseload capacity without rigorous demand-supply analysis.

How can the data deficiency be met?

- The gaps and discrepancies in public availability of crucial data should be addressed.
- To assist the government in policy and decision making, an analytical agency needs to be set up.

- This agency, tentatively called the Energy Analysis Office (EAO), should involve multiple ministries.
- It should be empowered to collect and reconcile data, analyse trends, publish reports and suggest policy interventions.
- The agency would leverage as much as possible from existing technical agencies in the sector.
- Two important prerequisites for it to be effective are policy relevance and independence from political influence.
- For this, the EAO could be placed under the administrative control of the Executive.
- But the Parliament should be made to approve its budget and review its work.

Source: Business Line

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