Shift to Prepaid Smart Meters

Why in News?

In the Budget 2020-21, the Finance Minister urged states and union territories to replace all conventional electricity meters with prepaid smart meters.

What is the significance of smart meters?

- Smart meters are the third pillar of the proposed technology-driven transition in electricity systems globally.
- [Other 2 pillars - Renewable energy and energy storage technologies.]
- In 2019, the Central Electricity Authority and the Ministry of Power (MoP) had envisaged a complete switch to prepaid smart meters.
- **Prepayment** is an additional feature of these meters that has gained prominence in India, based on two expected outcomes.

What are the expected outcomes?

- Prepayment is seen as a remedy for the financial ailments of the electricity distribution companies (discoms).
- Consumers would be empowered to plan consumption efficiently and can choose the supplier and tariff plan in a multiple supplier system.

Do these meters address major issues?

- They address only a small part of the problem of discom finances: **non-payment** of billed amounts.
- The two discom losses that are not addressed by smart meters are:
    1. Line losses in the distribution network, and
    2. Theft happening outside the meters.
- Non-payment accounts to far lower than theft, which is estimated to account for half of discom losses on an all India basis.
- Instead of imposing stricter discipline on a small number of defaulters (mostly government), the Centre is choosing to impose prepayment on all customers.

Do these meters' requirements increase the cost?

- Smart meters will require **access to network** and support **architecture** to

transmit and store data.

- There is no clarity on the network costs, who will bear it, and the impact on the electricity bills of the poor.
- Prepayment will imply elimination of security deposits, which offer cheap working capital. Both factors impose costs on discoms.
- On the positive side, prepaid meters will reduce meter-reading and billing costs, and working capital requirement.
- Ultimately, they will reduce the cost of supply and the retail tariff.
- However, it is not sure how these cost factors balance out, and whether transitional financing is needed.

Are these meters pro-poor?

- **Argument** - The pro-poor argument is that these meters allow payment in small, affordable fragments.
- It may offer a sense of control over consumption and thus relieving the poor of the debt they accumulate with the discom.
- **Presently** - However, poor agriculture-dependent households currently treat electricity dues as a credit option.
- These dues are accumulated during the lean period and are paid in the harvesting season.
- **Prepaid system** - These households can exercise autonomy to stay in the dark when they cannot pay for electricity.
- Or they can find ways to bypass the meter to access electricity which accounts for a substantial block of discoms' losses.
- The supposed gains of autonomy must be balanced against the fear of being left in the dark and the resultant impetus to bypass the meter.

What could be the outcome?

- Prepayment offers the promise of future consumption, but not the security that electricity will be available on demand.
- Prepayment in the current tariff structure does not eliminate the discoms' incentive to prioritise their affluent consumers over the poor.
- The likely outcome is an **unjust accountability** structure where,
    1. Consumers are accountable for their consumption, but
    2. There is no additional avenue to hold the discoms accountable.
- Electricity problems that were blamed on the corrupt and incompetent utility staff are now attributed to the meter itself.

Source: The Indian Express

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