Struggle Against Privatization and Smart Meters

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Monopolies operating in the energy sector are aggressively working to transform electricity, a crucial component of social development infrastructure, into a profit-driven commodity. The central government is pushing for amendments to the Electricity Act in support of this agenda, sparking widespread and passionate protests across the nation against the proposed legislation aimed at privatizing the power sector. The call to withdraw the Electricity Act Amendment gained prominence during the farmers' strike, led by the Samyukta Kisan Morcha. Faced with mounting opposition, the central government was compelled to refer the amendment to the parliamentary standing committee. However, their commitment to privatization remains unwavering.

Privatization attempts have also been witnessed in Union Territories and states like Jammu Kazhmir, Chandighar, Puthusseri, Uttar Pradesh, Uttarakhand, and Maharashtra. Strong, unified protests by electricity employees, with the backing of the public, including farmers and the working class in various sectors, have pushed authorities to temporarily halt these efforts. Recognizing the challenges in directly implementing privatization measures, the central government is exploring alternative avenues to advance its agenda. The proliferation of Smart Meters, particularly under the TOTEX Mode, serves as an example of this strategy.

Smart Meters

Meters are traditionally employed to measure electricity consumption, with on-site meter readers manually recording readings. However, an alternative approach involves connecting these meters to the Internet network, allowing remote readings without the need for physical visits. Additionally, when these meters are equipped with disconnection and reconnection capabilities, these actions can also be performed remotely, particularly in cases of unpaid bills.

Smart meters operating over the Internet can provide continuous consumption data, offering valuable insights into consumers' usage patterns. This data can inform power sector development strategies and help manage demand effectively. Consumers can use this information to make informed decisions, optimizing their electricity consumption and reducing unnecessary usage.

Despite these significant benefits, it's worth noting that smart meter technology can be cost-prohibitive and may not be fully immune to security threats, such as cyberattacks. In a country like India, where uninterrupted 24/7 power supply is not guaranteed, and power quality remains a critical concern, ensuring electricity access for all is a paramount priority. Millions are still awaiting electric connections. Given these pressing challenges, the widespread adoption of smart meters may not be the highest priority in the Indian context. Nonetheless, the Union Government continues to emphasize the extensive deployment of smart meters with the goal of converting all meters to smart technology by December 2025.

TOTEX Mode

The Government of India has unveiled an ambitious program known as the RDSS (Revamped Distribution Sector Scheme) to comprehensively modernize and enhance the electrical distribution network. While the scheme does encompass proposals for network strengthening, its primary thrust centers on the widespread implementation of smart metering. Notably, to qualify for central financial assistance, the stipulation is to undertake smart metering using the TOTEX Mode.

In this context, the central government advocates the implementation of smart meters in a TOTEX manner, where projects receiving central government financial support, including the modernization of the electricity distribution network, are subject to this approach. TOTEX, or Total Expenditure, implies that the contracting company assumes full responsibility for the entire project cost, including maintenance over a predetermined period, recovering these expenses through monthly rents. This arrangement covers all aspects, from meters and related equipment to connectivity and billing software, effectively transferring these responsibilities to the contracting company.

Consequently, this shift results in the outsourcing of all activities currently managed by the revenue wing of the utility, encompassing tasks such as meter readings and bill preparation. Essentially, this marks the privatization of the revenue wing within the Distribution Utility itself.

Financial Burden on Consumers

When it comes to the implementation of smart meters, the central government has projected a cost of Rs. 6000 per meter, encompassing maintenance expenses throughout the project duration. This figure alone places a substantial financial burden on power utilities. However, in many states, the actual costs exceeded this initial estimate, even doubling in some instances.

In the case of Kerala, the cost exceeded the estimate by 45% after the initial phase tendering. The project was initially calculated at an average cost of Rs. 6,000 per meter, with a total budget of Rs. 8,200 crore. This first phase aimed to transition 37 lakh meters. However, following the tender process, the lowest price per meter was determined to be 9400 rupees. Consequently, the total project cost is now projected to surpass 12800 crores. Kerala's pricing was comparatively lower than other states, where the per meter cost often exceeded Rs. 10,000. These elevated expenses are ultimately transferred to the electricity consumers.

The central government argues that the TOTEX model offers the advantage of having the contractor finance the project. However, no contractor embarks on such projects solely for charitable purposes; they expect a profitable return on their investment. Under the TOTEX method, the contracting company spreads their capital and profits across a monthly fee structure. According to the latest tender quotations, each customer may end up paying more than 100 rupees per month. It's essential to note that out of KSEB's 95 lakh household customers, 58 lakh are regular consumers who use less than 100 units per month. Of these, 27 lakh people consume less than 50 units monthly, resulting in electricity bills below Rs. 150. Considering the additional cost of renting smart meters, their electricity expenses could potentially double.

Hardships on Consumers

The opposition to the Scheme isn't solely driven by the financial burden it imposes on consumers. In the TOTEX mode of project implementation, the contractor assumes complete control over the electricity meters and associated systems. It becomes the contractor's responsibility to address any consumer grievances. However, profit-oriented companies of this nature may not establish local offices, which can lead to complications in the customer grievance redressal process.

When someone needs a new electricity connection, they must approach the Utility for tasks like service line installation and other network-related activities. But for meter installation and enabling electricity supply, they must engage with the contracting company. This coordination among multiple agencies can create significant hardships for the public.

Entrusting metering to a third party doesn't necessarily yield operational advantages or efficiency improvements. For consumers, it can result in a host of challenges. So, the question arises: Why is the central government pushing utilities to implement smart metering in the TOTEX Mode?

Introducing Market Dynamics into Retail Electricity Supply

The central government's objective is to infuse market dynamics into the retail electricity supply sector, where electricity rates would be determined based on supply and demand dynamics. Currently, in wholesale power markets, such as Energy Exchanges, power prices are adjusted on a daily basis, taking into account real-time demand and supply conditions, often in 15-minute increments. During peak hours, electricity prices can soar to as high as Rs 18-20.

However, in retail supply, electricity is typically provided to consumers under a monthly tariff structure, with different rates for various consumer categories. Domestic consumers with lower consumption, agricultural consumers, and small-scale industries enjoy lower tariffs, while higher-end consumers, including large shopping malls and heavy industries, face higher rates. This pricing structure can deter private capital from entering the electricity distribution sector and making a profit.

As a result, there's significant pressure from these stakeholders to introduce time-based pricing and accommodate changing demand patterns. This would also entail eliminating cross-subsidies. However, to implement this, it's imperative to record consumer readings in time blocks as short as 15 minutes. This precision can only be achieved through the use of smart meters, which is why the central government is prioritizing the widespread adoption of smart metering, even in the face of other considerations.

As part of its drive to privatize the power sector, the central government is actively promoting the concept of multiple licenses in distribution. This approach allows several companies to distribute electricity through the same network, serving their respective customer bases, ostensibly to provide consumers with more options and choices. The linchpin for the success of this multiple licensing model is the widespread adoption of smart metering. Without smart meters, reconciling accounts among the various stakeholders using the same network becomes a complex and contentious process, primarily due to the varying price points of electricity injected into the network at different time zones.

In the event that smart metering is conducted by the public sector utility itself, new entrants under multiple licensing would need to rely on them for metering data and account reconciliation. Consequently, entrusting metering to a third party becomes a more practical approach, and this is the rationale behind the central government's insistence on the TOTEX Mode of implementing smart metering.

Therefore, the central government's strong emphasis on smart metering, particularly in the TOTEX mode, appears to align with its privatization objectives. However, this approach raises concerns regarding its potential impact on the cross-subsidy system and tariff structures founded on principles of social justice. Everyday citizens may face heightened costs and increased vulnerability to market fluctuations.

Kerala's Alternative Model

KSEB Ltd., Kerala's power utility, initially embarked on smart meter implementation under central government pressure. However, EEFI constituents in Kerala, along with organizations like AITUC, INTUC, and NCCOEEE, advocated an alternative approach. As a result, the LDF Government intervened, deciding to abandon the TOTEX model in favor of an alternative CAPEX model, marking a significant victory.

One key challenge is procuring the necessary smart meters. Most of these meters are not domestically produced. C-DAC Thiruvananthapuram has developed smart meter technology, which can be transferred to KSEB. Public sector undertakings like Keltron and UNILEC have the capacity to manufacture meters. To mitigate time delays, an initial purchase from the open market, followed by a transition to locally manufactured meters, is a viable strategy. Leveraging Existing Infrastructure KSEB's K-Fone fiber network provides a connectivity advantage. While not covering the entire state yet, it serves as the primary connectivity infrastructure. Data centers in Trivandrum and Ernakulam can be utilized for collecting metering information.

The Role of Software Software is critical, with solutions like C-DAC's HES and MDM. Customization to align with KSEB's requirements may require additional resources. Implementation and Oversight KSEB's revenue wing can oversee meter replacement and installation. An IT Steering Committee should make policy decisions. Prioritizing Commercial and Industrial Sectors The initial phase should focus on commercial and industrial establishments. Costs can be included in the capital investment plan, with regulatory approval for cost adjustments.

Conclusion

It is vital for power sector employees to actively oppose the central government's policies that adversely affect the common people. The adverse effects of these policies must be clearly conveyed to the public, making them aware of how these measures will burden them, weaken cross-subsidies, and eventually make electricity a luxury, particularly for marginalized communities, including farmers. Kerala's alternative model can serve as a compelling focal point for our campaign. We are unwavering in our commitment to this struggle, with victory as our sole objective.