Electricity Tariff Reform in Uttar Pradesh, India

Challenges & Key Findings
May 2018
Electricity Subsidy Reform in India

- 80% of India’s electricity is generated from coal and therefore need attention
- Because of coal’s dominance, subsidies to the electricity sector therefore support fossil fuel based electricity
- Electricity subsidies to transmission and distribution in India increased US$ 6.7 billion in FY2014 to US$ 9.9 billion in FY2016
- These subsidies have been for:
  - Financial bailout packages for distribution companies
  - Provided subsidised electricity to poor households and farmers
  - Increasing grid access to rural households
Overview of Challenges with Electricity Tariffs

Uttar Pradesh (U.P.) – India’s most populous state (199.8 million) with only 44 per cent of households electrified in 2017*

- Like most Indian states, Uttar Pradesh’s electricity utilities have twin challenges
  1. Target of achieving universal household electrification before March 2019
  2. Simultaneously, ensuring financial sustainability of electricity utilities i.e. revenue recovery from consumers matches the cost of electricity supply

- Historically, utilities have not been able to charge the true cost of electricity to generate revenue leaving them financially unsustainable with a revenue gap peaking in FY16 at INR 21,486 crores (US$ 3.3 billion).

- Electricity tariff setting mechanism routinely influenced by state governments, state departments and political parties

- If tariffs are not routinely reformed, how can universal household electrification be achieved in a financially sustainable manner?
Utilities submit an Annual Revenue Requirement (ARR) to an independent agency, the U.P. Electricity Regulatory Commission (UPERC). UPERC clarifies information gaps in ARR with utilities, and reviews methodologies for tariff revisions. It then holds public hearings on tariff revisions.

After reviewing public views, utility financials and rules of the Electricity Act, UPERC revises tariffs. Annually revised tariffs are issued in a document titled Tariff Order.

However this tariff setting mechanism is influenced by several stakeholders.
Power Mapping: Identifying Stakeholders

Govt Agencies:
- Min of Power
- State Dept for Energy
- UPERC

Political Parties:
- BJP, SP, BSP, AAP

Utilities:
- DVVN, MVVN, Pash VVN, Poorv VVN, KESCO

Representative Associations:
- Consumer Groups, Resident Groups, Power Employees Association

Key Groups:
- Households
- Farmers
- Industries
- Commercial consumers

Domestic

Non-Domestic & Institutions

Industrial

Commercial

Agriculture

Railways

Public Works & Other Govt dept
Examples of Influencing

**Tariff Revisions Halted**

- Ruling political parties influence state owned utilities to delay submitting the ARR to the UPERC (the first step in tariff revision) or delay submitting their financial accounts.

**Price Subsidies are used as Political Sops**

- Ruling parties adopt populist measures, leaving the implementation of reforms as a problem for succeeding governments.
- Before elections, they announce reduced residential tariffs, free electricity to select voter groups like power loom weavers.

**Tariff Revisions Met with Public Protests**

- Occasionally, tariff hike announcements are met with protests and marches.
- They ask for roll backs and try to meet the state government to push for their demands.
Power Mapping: Interest Influence Matrix

Low Interest/ High Influence
- Industrial Consumers
- Commercial Consumers
- Rural Households
- Umbrella Organisation of Consumers
- Electricity Employees
- Bahujan Samaj Party
- Residents of Political Constituencies

High Interest/ High Influence
- UPERC
- Discoms
- Ministry of Power
- Bhartiya Janta Party
- State Energy Department
- Media

Low Interest/ Low Influence
- Aam Admi Party
- Farmers
- Informal Resident Groups
- Urban Households
- Electricity Employees

High Interest/ Low Influence
- Central Agencies - Niti Ayog, Ministry of Finance
Opportunities for Tariff Reform: A study of consumer attitudes

- 76 per cent of U.P.’s electricity demand mix is formed of households, agricultural consumers, and commercial and industrial firms.
- Studying attitudes of consumers can help identify opportunities for introducing tariff reform.
- Research includes consumer views on:
  - experiences as electricity consumers,
  - perceptions on subsidies and tariff reform,
  - coping mechanisms against tariff hikes and
  - means to channel influence.

- **Using Insights: choosing a narrative for tariff reform & designing compensation**
- Quantitative survey: 1917 households and 413 agricultural landowners using electric (129) and diesel pumps (284).
- Interviews: 67 agricultural landowners using electric pumps, 34 industrial and 31 commercial firms.
Opportunities for Tariff Reform with Households

• **No generalized sense of entitlement to free electricity** –
  - 60% and 75% of rural and urban households believe that electricity should not be provided free of charge to all.
  - 80% HHs of both groups believe that the government should provide free electricity only to the poor

• **Frequency of tariff hikes**: One time increase: 75% urban, 59% rural respondents prefer a one-time immediate increase as opposed to monthly hikes

• **Conditions under which households are willing to pay more for electricity**:

  - [Graph showing percentages of households willing to pay more for electricity under different conditions for rural and urban areas]
Opportunities for Tariff Reform with Farmers

- **Low awareness of subsidised electricity** –
  - 32% of electric pump users believe that it does so through customer fees alone
  - Only 7 out of 67 interviewed were aware that electricity tariffs for farmers were subsidized.

- **Frequency of tariff hikes**: 70% of electric pump farmers prefer to have a ‘single’ increase of their electricity bill if necessary

- **Conditions under which farmers are willing to pay more for electricity**:
  - 70% of respondents think this a highly unreasonable to pay higher tariffs for the utility to better cover its costs
  - For 55% farmers tariff hike will be acceptable if it is directly linked to an increase in hours of supply, a more stable voltage, or if the revenue from higher tariffs can help supply power to other farmers or villages
Opportunities for Tariff Reform with Industrial & Commercial Firms

- **Views on Cross Subsidy:**
  - 81% industrial and 68% commercial consumers are not in favour of continuing the current trend of cross-subsidy
  - Yet, industrial consumers (52%) are more in favour of providing subsidies to farmers and poor households compared to commercial consumers (35%)

- **Frequency of tariff hikes:**
  - 80% consumers prefer tariff hike every 2 to 3 years to control profits on their long term manufacturing and production cycles
  - Unpredictable hikes prevent passing costs on to consumers

- **Conditions under which firms are willing to pay more for electricity:**
  - 26% firms demanded compensation to offset any tariff hikes – like rebates on rooftop solar to control energy costs
  - Firms also ask for pass through of electricity tax as tax credit under the new taxation mechanism
Utilities can Create a Communication Strategy:

- Attitudes to electricity pricing are sensitive and communications can play a key role in building the political space that enables reform.
- A long-term strategy focused on awareness-raising on extent of subsidy received.
- Short-term strategies focused on specific initiatives to pass through higher tariffs.

Choosing a narrative
Communication campaigns should focus on what is important to consumers, rather than the financial health of discoms.

Prepare compensation measures
Investigate targeted compensation mechanisms - cash transfers for households, solar irrigation schemes for farmers; incentives on solar for commercial and industrial consumers.
Thank You

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