People Power

Customers' perspective and role in determining electricity tariffs

Gaurav Bhatiani

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TERI Alumni Association

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About the series 'Books for the Concerned Citizen'

Leveraging the diverse expertise of its members in the subject domains and in publishing, the TERI Alumni Association proposes to publish a series of books on topics related to energy, resources, and the environment. The idea is to share information and, even more important, critical insights and understanding, with citizens who are keen to know more about some of the critical issues facing society and the world today but are lost in the deluge of information.

Our target audience is educated adults who are concerned about topical issues but lack the understanding to make sense of what they read or watch in the mass media—the series aims to equip them with conceptual tools and essential information not only to enrich their understanding but also to encourage them to act and thereby, albeit indirectly, further the UN Sustainable Development Goals.

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Suggested citation
Bhatiani G. 2026. *People Power: customers' perspective and role in determining electricity tariffs*. New Delhi: TERI Alumni Association. 28 pp.

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The voice of the people is the voice of God

[From Latin Vox populi, vox Dei, from a letter, written in AD 798, by Alcuin of York to Charles the Great]

FOREWORD

Electricity is not merely a commodity; it is an essential public service that underpins economic growth, social development, and the quality of everyday life. Over the past few decades, Indian power sector has undergone a significant transformation, moving from a vertically integrated, state-dominated framework to a more complex ecosystem shaped by competition, independent regulation, and evolving consumer choice. At the heart of this transition lies the determination of electricity tariffs, a process that is technically complex, institutionally sensitive, and socially consequential.

I have had the privilege of engaging with tariff determination from multiple vantage points during my years in public service, including my tenure as chairman of the Central Electricity Regulatory Commission. These experiences have consistently reinforced a central policy insight: while utilities, regulators, and governments design and operate the electricity system, it is the customer who ultimately bears the economic burden and experiences the outcomes of tariff decisions. Despite this reality, the customer's role has historically remained under-emphasized in regulatory discourse and academic analysis. This book makes a timely and important contribution by repositioning the customer as a central stakeholder in the tariff determination process.

Tariff regulation is often viewed as an exercise driven primarily by cost models, regulatory principles, and statutory provisions. While these elements are indispensable, they are means rather than ends. The credibility, acceptability, and sustainability of tariff outcomes depend on transparency, procedural fairness, and their alignment with consumer interests and broader public policy objectives. This work carefully examines the legal foundations governing tariff setting in India, particularly under the Electricity Act, 2003. Equally important is the book's treatment of the economic logic underlying electricity tariffs.

Independent regulatory commissions were envisaged as expert

bodies capable of balancing competing interests through transparent, consultative mechanisms. Instruments such as public hearings, consultation papers, and reasoned orders have since become integral to tariff determination. However, their effectiveness depends on the institutional capacity of consumers to participate meaningfully. By examining these processes, the book demonstrates how consumer engagement can be strengthened to enhance regulatory outcomes.

Perhaps the most practical and impactful section of this work is its focus on actionable steps for consumers and regulators. It moves beyond theory to offer guidance on interpreting tariff petitions, engaging in public consultations, presenting evidence-based submissions, and using regulatory and appellate remedies effectively. This pragmatic orientation is particularly welcome, as it empowers consumers to transition from passive recipients of tariff outcomes to informed stakeholders in the regulatory process.

From a broader perspective, the issues discussed in this book acquire even greater significance in the context of emerging challenges, namely energy transition, integration of renewable energy, decentralization, digitalization, and the growing emphasis on demand-side participation. As tariff structures evolve to accommodate these changes, the role of consumers will only become more critical. A well-informed and engaged consumer base is essential not only for protecting consumer interests but also for ensuring the financial viability and long-term sustainability of the power sector.

I am confident that this book will be of immense value to various stakeholders including regulators, policymakers, consumer advocates, and students of energy law and economics. More importantly, it has the potential to serve as a practical guide for consumers who wish to understand and influence the tariff determination process in a constructive and informed manner.

Gireesh Pradhan

Former Chairman, Central Electricity Regulatory Commission and former Secretary, the Ministry of New and Renewable Energy, Government of India

Electricity tariffs affect every household, farmer, and organization, but remain poorly understood by consumers. This primer on electricity tariffs traces India's electricity regulation from the pre-reform structures to the Electricity Act, 2003 and examines the process of determining electricity tariffs as a participatory regulatory process in which the customer, instead of being a passive beneficiary, is the central stakeholder. Further, this account also highlights the legal mandate for customer participation, the economic rationale for inclusive regulation, and institutional architecture and then goes on to suggest practical strategies that can be adopted to place the customer genuinely at the centre of decision-making.

1/ Introduction: electricity tariffs as a matter of public policy

Historically, electricity customers have been treated as beneficiaries of electricity delivered to them as a service by utilities or as captive customers of those monopolies. Electricity tariffs were determined by the utilities themselves, who were typically owned by the state or by local governments. Tariffs were based on cost-accounting rules, with limited consideration of economic or social aspects.

Nevertheless, electricity tariffs have a deep social connect not only at the business level but also at the individual level. Electricity pricing determines who can afford the comfort, who can run a business, who bears the cost of inefficiency, and who benefits from public subsidies.

Further, electricity tariffs provide an important signal for achieving and enhancing economic and environmental efficiency. Therefore, determining electricity tariffs is inevitably a matter of public policy with a significantly broader role well beyond mere accounting.

Electricity reforms initiated in India in the late 1990s and consolidated by the Electricity Act, 2003 recognized customers as rights-bearing participants in the regulatory process. This shift reflected a broader global move toward participatory regulation, transparency, and accountability.

2/ Evolution of the process of determining tariffs for electricity in India

2.1 The pre-reform era

Prior to the 1990s, tariffs for electricity in India were determined administratively within the respective state electricity boards using the method of cost accounting as spelt out in the Electricity (Supply) Act, 1948.

Customer participation was virtually absent. Tariffs were determined behind closed doors and then notified, and rarely considered the perspective of customers. This lack of transparency and ad hoc approach led to mistrust, mounting losses, deteriorating infrastructure, and declining quality of service. Tariffs were revised only infrequently and considered politically sensitive. Over the years, cross-subsidization became excessive, with industrial and commercial customers being charged more and more to offset the cost of subsidizing agricultural and domestic consumption, which meant that electricity was much cheaper for farmers and households than it was for businesses.

2.2 The Electricity Act, 2003

The Electricity Act, 2003 unified and repositioned India's electricity laws consistent with the requirements of a fast-growing economy, which needed substantial investments in the electricity supply chain. The act explicitly linked tariff determination to the principles of transparency, cost-recovery, efficiency, and protection of the interests of customers.

Independent regulators – in the form of electricity regulatory commissions – were appointed at the central and state levels to determine electricity tariffs based on a combination of economic, financial, and social factors.

3/ Customer participation in determining tariffs under the Electricity Act, 2003

The Electricity Act requires that the regulators be guided by principles such as customers' interests are safeguarded; costs are recovered; efficiencies, competition, and renewable energy are promoted; and transparency is maintained.

The act stipulated that electricity tariffs must be determined through a transparent process, including publication of petitions submitted by utilities and consideration of stakeholder objections, and may follow regulations framed by the appropriate regulatory commission.

The act also provides for adopting tariffs as 'discovered' through competitive bidding, so long as they conform to the guidelines laid down by the regulators. To 'discover', in this context, means to use the market wherever possible, as an alternative route for determining tariffs. In other words, the result of a bidding process or an auction can be adopted as such for price determination. This is desirable because competition enables innovation and efficiency, thereby protecting customer interest.

3.1 Legal provisions

Section 61 of the Electricity Act, 2003 requires that regulatory commissions be guided by customer interest, efficiency, and a rational tariff design. Section 62 empowers commissions to determine tariffs through transparent processes, and Section 64 mandates that the proposed tariffs be notified publicly, responses invited, and hearings held in which the stakeholders should participate. These provisions make customer participation and protection obligatory.

3.2 Economic logic

Economic regulation of utilities is premised on the need to protect customer interest, given that electricity supply typically shows the characteristics of a natural monopoly, with high fixed costs and essential service obligations. Left unregulated, monopolistic suppliers can demand excessive charges or neglect service quality.

At the same time, the need to attract significant private investment to the electricity sector and to ensure reasonable profits – in short, to balance the profit motive and service to consumers – makes independent regulation a key to ensure profits that are adequate but not excessive.

Further, economic theory recognizes that information asymmetry is the central challenge regulators face. The asymmetry lies in the fact that the utilities have all the relevant details – the costs, operations, constraints, etc. – whereas their customers and the regulators have only limited information, expertise, and time.

Active and informed participation of customers partly addresses this imbalance, or asymmetry, by introducing some additional or alternative sources of information based on lived experience. For example, customers can provide information on service quality, billing accuracy, and reliability that is difficult to capture through statements filed by utilities. Customer inputs help regulators assess whether the tariffs are affordable and also the impacts of poor service quality: how often outages and shut-downs occur, how long they last, whether customers receive advance warning about outages, abrupt changes in voltage, etc.—aspects that pure cost-plus models of determining tariffs often ignore. In a 'cost-plus' model of determining the final price for a commodity, the price is arrived at simply by adding up all the costs of production and then adding a fixed profit percentage – the 'plus' component of the model – of that figure as mark-up, or the desired level of profit.

3.3 Social construct

Customer participation also serves an important normative function. Because customers have had the opportunity to be heard, decisions based on such hearings become legitimate. Thus, customer participation strengthens both the economic quality and democratic legitimacy of tariffs.

Customer participation also makes it less likely that regulators

will base their findings unilaterally by framing arguments that are supplier-centric. Customer participation thus serves to counter-balance this tendency and provides an alternative perspective so that the eventual tariffs are balanced and fair.

A transparent and participatory process thus helps in building trust, which is crucial to the long-term financial sustainability of the sector.

3.4 Institutional architecture

Customer participation cannot occur in a vacuum but requires adequate and empowered institutions, and its success depends on the ecosystem of institutions that enable participation and ensure that it is effective.

The Electricity Act, 2003 establishes an independent and multi-tiered institutional framework for determining tariffs, with the electricity regulatory commissions as central actors. At the apex is the Central Electricity Regulatory Commission (CERC), which regulates tariffs for those companies that generate electricity and are owned or controlled by the central government and for transmission and trade of electricity *across* states.

At the state level, state electricity regulatory commissions (SERCs) are entrusted with the responsibility for determining tariffs for electricity generated *within* a given state and for transmission, wheeling, and retail supply of electricity. The state commissions regulate the operations of those who are licensed to distribute electricity (distribution licensees), approve power-purchase agreements, and ensure that tariffs balance customer interests with the financial viability of utilities. The commissions are guided by statutory principles laid down in the Electricity Act, the National Tariff Policy, and their own regulations and are required to follow transparent procedures in conducting public hearings, holding stakeholder consultations, and related matters.

The Electricity Act also provides for the establishment of an appellate tribunal for electricity, which hears appeals against the orders of the CERC and SERCs, including tariff orders. This

supervision by an appellate authority ensures consistency, accountability, and protection against arbitrary fixing of tariffs. Collectively, this institutional structure seeks to insulate the process of determining tariffs from executive interference; promote regulatory certainty; and ensure a rational, transparent, and economically sound regime for electricity tariffs.

4/ The customer's role in practice

In practice, customers can participate in the process in a variety of ways, ranging from individual submissions to organized advocacy. Domestic, or household, consumers often focus on affordable tariffs, correct metering, and accurate billing; farmers are concerned about the quality of supply and the timing of supply, because many farming operations are time bound; and small businesses tend to worry about reliable supply and cost competitiveness of grid-supplied electricity as compared to alternatives such as diesel generators.

Even when customers lack technical expertise, their day-to-day experience and anecdotal evidence help regulators distinguish between theoretical efficiency and practical reality.

However, customer participation must be informed and responsible: regulators cannot accommodate demands that undermine the viability of the system. Customers therefore share a duty to engage constructively, recognizing trade-offs between price, quality, and sustainability.

Building this maturity among consumers requires capacity development and repeated engagement.

4.1 Evidence from states

Statutory provisions alone, however, cannot bridge the significant gap between mere availability of opportunities for participating in determining tariffs and actual, effective engagement by ordinary consumers. The regulatory process tends to attract greater involvement from organized industrial and commercial stakeholders, whereas the voices of residential and agricultural consumers are often underrepresented, especially in public hearings and formal written submissions. The reasons for this are

many and include limited awareness of regulatory processes, inadequate publicity and outreach, lack of institutional support for customer groups, and constraints on resources.

Although some states such as Delhi attract greater participation, customer engagement in many others such as Bihar, Rajasthan, and several smaller states remains sporadic and weak. States such as Odisha, Punjab, and Uttarakhand have institutionalized the involvement of customer groups to varying degrees, although the depth and diversity of participation continue to be limited. The public at large may seem indifferent, but strong protests continue to erupt whenever tariffs are significantly increased, and such price hikes are nearly always perceived as inequitable or poorly justified.

4.2 Consequences of weak or limited participation

Although the Electricity Act, 2003 mandates public consultation, participation in practice is often low, uneven, or dominated by a small set of organized stakeholders. This gap between theory and practice – between formal processes and real engagement – affects the outcomes of regulatory processes as well as public trust in the electricity sector.

First, limited customer participation makes tariff decisions less representative. When ordinary residential customers, rural customers, or customers who own small businesses do not participate, regulators hear mainly from utilities, industry associations, and technically better-equipped stakeholders. These groups have greater resources and are more familiar with regulatory language, but their concerns do not always reflect those of average customers, such as affordable prices, accurate billing, and reliable supply. As a result, tariff orders may appear technically sound and yet fail to fully address the impacts on vulnerable or low-income users. This skewed representation can widen the gap between regulatory intent and lived customer experience.

Second, weak participation can mean that regulators are less accountable to the public at large and may escape scrutiny. Public hearings and objections are meant to function as a check on the

claims made by utilities related to costs, losses, and investment needs. When only a few customers participate in the process, regulators rely heavily on the data and narratives presented by the utilities. This increases the risk that gross inefficiencies, inflated costs, or poor service go unchallenged. Over time, such weak scrutiny can contribute to higher tariffs without corresponding improvements in performance, eroding the public's confidence in the regulatory process.

Third, limited participation also makes tariff decisions less legitimate and less acceptable. Electricity tariffs are politically and socially sensitive, as they directly affect household budgets and economic activity. When customers are not part of the decision-making, higher tariffs are more likely to trigger protests, litigation, or public backlash after the fact. Such an outcome often leads to inefficient subsidies and losses for the utility or fiscal stress on the state exchequer.

Ironically, this reactive resistance often emerges outside formal regulatory forums, even though mechanisms already exist for structured participation by the public *before* such price hikes. Meaningful engagement upfront can help explain to consumers the factors that drive the costs of generating and distributing electricity, temper their expectations, and build a sense of procedural fairness, even when tariffs are eventually raised and customers end up paying more for electricity.

Fourth, weak participation slows the process through which the regulatory system learns and responds. Customer feedback often highlights ground-level issues, such as indifferent meter reading, outages, or unfair charges that may not be visible in aggregate data. Without this feedback, regulators miss valuable information that could inform better tariff design, targeted and effective subsidies, and performance-linked incentives. Over time, regulation risks becoming overly technocratic and disconnected from customer realities.

In sum, weak customer participation does not merely mean poor attendance at hearings but affects the substance, fairness, and credibility of the process of regulating tariffs. Encouraging

public participation through various ways is desirable not only for just tariffs but also for a more credible and responsive electricity sector.

4.3 International experience

International experience suggests that strong customer participation in setting electricity tariffs can lead to better regulatory outcomes and not merely more inclusive processes. In several sectors, consumer engagement has led to fairer tariffs, higher service quality, and greater acceptance by the public of difficult decisions, demonstrating that participation can materially shape outcomes when it is well designed and meaningful.

One of the best practices to that end is the institutionalization of consumer representation, as adopted by the United Kingdom, Australia, and some European countries. In the UK, statutory consumer bodies engage continually with regulators and utilities in determining tariffs. This has led to tariff structures that are better reflections of consumer preferences, such as stronger protection of vulnerable customers and clearer links between prices and service standards. The process of sustained engagement has made post-decision disputes less frequent and long-term investment plans more acceptable, even when prices have risen.

Another effective approach is to use consultative and deliberative mechanisms, rather than one-time public hearings. In Australia, regulators rely on consumer panels, reference groups, and structured submissions over extended periods of review. The outcomes have been more transparent assessments of costs and stronger incentives for utilities to justify capital expenditure. Evidence from the Australian mechanisms of determining tariffs shows that active challenges by consumers have contributed to lower allowed revenues in some periods and greater commitments to improved performance by network operators, demonstrating some direct financial and service-related impacts of greater participation.

Several countries have also adopted plain-language communications and evidence-based engagement, leading to quality participation and better outcomes. The regulators require utilities to present tariff proposals in simplified formats, supported by assessments of the impact of proposed tariffs on consumers. This requirement results in more informed feedback from non-expert participants and has influenced tariff design through smoother impacts of higher tariffs, more gradual transitions, and avoidance of sudden price shocks. As a result, consumers perceive tariff decisions as more reasonable and predictable.

Digital tools of participation offer yet another best practice with clear benefits in terms of outcomes. In parts of Europe and the United States, online consultations, surveys, and interactive modelling tools allow consumers to test how different options related to tariffs affect their bills. These tools have led to outcomes such as time-of-use tariffs being redesigned to reduce the risk to small consumers or offers of opt-out mechanisms after feedback highlighted some concerns in that regard. Greater participation through digital means has also improved data quality and broadened the range of consumer inputs beyond traditional interest groups.

Jurisdictions such as the European Union, the UK, Australia, and member-states of the OECD (Organisation for Economic Co-operation and Development) provide practical toolkits and templates that can be adapted to the Indian context. It is possible to build on these proven strategies by tailoring engagement to local institutions and context to deliver rapid and credible improvements.

Overall, international experience shows that the value of customer participation lies in better regulatory outcomes such as cost-reflective yet socially acceptable tariffs, stronger accountability of utilities, fewer disputes, and higher public trust. The key lesson is that participation works best when it is continual, well-resourced, and focused on influencing decisions, not merely on fulfilling procedural requirements.

5/ Practical steps to enhance customer engagement in electricity tariff regulation

5.1 Start engagement early

Regulators must open the opportunities for consultation early and with full intent. Simultaneously, customers need to be ready with evidence, structure, and system-level thinking.

What the regulators should do

- Issue a call for evidence or publish a paper on what they intend to do *before* drafting regulations or tariff methodologies.
- Frame open-ended questions around problems (affordability, reliability, losses, integration of renewable sources of energy, etc.) rather than around pre-selected solutions.

What the customers should do

- Engage early, and not only at the tariff-hike stage or after the draft regulations or tariff orders are circulated but before those stages, by responding to the relevant calls for evidence or other papers published by the regulator.
- Focus on evidence, not merely on opposition. Instead of generic statements such as "tariff hike is unacceptable", customers should submit data, comparisons, and arguments based on lived experiences.

5.2 Frame questions carefully

In the Indian context, tariffs are often determined so as to recover costs and avoid losses and are usually about the survival of the utility in question. Typically, the utility assumes that it is entitled to a permanent existence and has exclusive rights to supply electricity irrespective of outcomes such as reliable supply of electricity or finanically viable performance.

What the regulators should do

- Mandate staff to independently list important issues and organize hearings around those issues instead of being guided

by presentations made by utilities.

- Many decisions are a compromise between different outcomes such as between short-term savings and long-term pain, simple tariff structures and economic efficiency, and least cost (to the utility and the consumer) and less adverse impacts on the environment. Regulators need to balance these competing outcomes and arrive at a common understanding between customers and utilities.

What the customers should do

- Engage with issues, not just with the numbers given out by the utility; in other words, customers should shift their participation from reacting to the data supplied by the utility, which usually take the form of ARR tables – short for aggregate revenue requirement – and increases in tariffs shown as percentages to responding to issue-based questions framed by the regulator. Such questions include "What level of reliability is acceptable at what cost?" and "Which inefficiencies should customers pay for, and which should be absorbed by utilities?".
- Frame demands as conditions, not entitlements; for example, instead of demanding that tariffs should not be increased, consumers should insist that tariffs may be increased only if the utilities ensure specific improvements in their performance.
- Actively question assumptions such as the growth in demand, inevitability of certain costs, lack of alternatives to hikes in tariff (alternatives such as higher efficiency, decentralized resources for generating electricity, and appropriate responses to increased demand), and repeated underperformance without any penalties to the utilities for its consequences. However, the assumptions should be questioned tactfully and supported with facts and figures with an intent to make the utilities more accountable and to improve the eventual outcomes instead of engaging in the blame game.

5.3 Strengthen the tariff-hearing processes

Tariff hearings are beneficial provided customers are aware of the facts and come prepared. Well-structured, evidence-backed inputs ensure that hearings are not just procedural formalities but actual instruments of accountability.

What the regulators should do

- Move beyond statutory public hearings to structured engagement that includes pre-hearing explainer sessions, simplified notes explaining the impact of different options on tariffs, and separate hearings for separate categories of customers (domestic, agricultural, industrial, etc.)

What the customers should do

- Review the sessions held before explainer hearings and also review the simplified tariff notes.
- Engage collectively where possible through RWAs (resident welfare associations), farmers' associations, industry chambers, customer groups, etc. The customers should consider filing joint submissions with shared evidence and relevant data from respective sector, such as agriculture or small industry, and use spokespersons in hearings to summarize points.
- Track follow-up and outcomes: after each hearing, customers should verify that the inputs given by them are acknowledged and considered in the final tariff order. Also, document instances of feedback being ignored and incorporate those details and observations into future hearings or annual engagement reviews.

5.4 Institutionalize customer representation

Customer advisory panels work best when customers take the responsibility of being on such panels seriously, not treating it as a platform for self-promotion. If customer representatives prepare themselves well, represent the interests of the group they represent fairly, and participate in a disciplined manner, it is not

only much harder for regulators to ignore customer interests but also much easier for them to defend their decisions publicly.

What the regulators should do

- Create customer advisory panels that are representative of different consumer groups, such as residential, agricultural, and MSMEs (micro, small, and medium enterprises) as well as consumers who are vulnerable because they are old or poor or may not have access to digital technologies or understanding of their rights, and so on.
- Require a formal response from the customer advisory panel so that the response serves as an input to the final orders.

What the customers should do

- Nominate credible and representative individuals as panel members.
- Focus on priority customer outcomes, not on every issue.
- Ensure that customer advisory panels submit well-structured written notes.
- File review petitions or formal dissent notes from panel members if inputs from customer advisory panels are routinely dismissed.

5.5 Embed 'customer challenge' to network investments

Given the cost-plus model of determining electricity tariffs adopted by Indian regulators, capital expenditure as a component of cost warrants detailed scrutiny because it forms a large part of controllable costs. Regulators need a clear demonstration of customer benefit expected from any proposed investment.

What the regulators should do

- Require transmission and distribution utilities to demonstrate the value to customers of any capital expenditure: greater reliability, reduced losses (by using 'smart' meters, automation, etc.), or other benefits.

What the customers should do

- Focus on outcomes, not technology. For example, the extent to which AT&C losses are expected to decrease by using the proposed technology, the category of customers who will benefit, and the category or categories of customers who are expected to bear the cost of the technology. Aggregate technical and commercial losses represent the proportion of generated electricity lost during distributing that electricity through the grid (technical losses) and that lost owing to other shortcomings such as theft or short billing or poor recovery (commercial losses).
- Track post-investment performance by requiring and reviewing the performance of the utility after the capital expenditure is incurred; compare the actual benefits, if any, against the promised benefits; and propose appropriate penalties if the expected benefits fail to materialize.

5.6 Prioritize vulnerable and high-risk customers

To prioritize vulnerable and high-risk customers, regulatory processes must explicitly recognize that not all customers or customer categories are capable of absorbing abrupt and steep increases in tariffs or some inadequacies in service (supply to hospitals, particularly to operation theatres, for example, has to be 24/7). To prioritize such customers, regulators must proactively assess how tariff changes will affect those least able to absorb shocks.

What the regulators should do

- Regulators should assess the impacts of any proposed changes in tariffs or service on vulnerable customers for analysing the magnitude of the proposed increase in tariff, payment stress risk, likelihood of disconnection in case of their inability to pay higher prices. This can be done by assessing how the proposed increase will change the proportion of income spent on electricity.
- Mandate that separate sessions be held to engage with

representatives of low-income households, slum dwellers, the underprivileged, and medically dependent users.

What the customers should do

- Given the constraints on the capacity and access, engage with regulators and utilities through civil-society organizations, local community leaders, self-help groups, etc. Ensure that representatives are accountable to the community and able to explain impacts clearly to regulators.
- Report all inadequacies including abrupt increase in electricity bills, disconnection from the grid, and poor service (outages, low voltage, irregular voltage, etc.), and also document whether promised safeguards, if any, were put in place. Continue to use civil-society organizations or customer panels as channels of communication.

5.7 Present choices with costs and benefits

Determining tariffs is less about finding an exact number and more about choosing between imperfect options. If regulators present choices transparently and customers respond with informed preferences, decisions related to tariffs become more acceptable and defensible.

What the regulators should do

- Instead of a single 'proposed tariff', insist that utilities present 2–4 clear options, such as a lower tariff today versus a higher tariff but with rapid improvements in the reliability of supply.
- Invite preference-based feedback; for example, regulators should ask customers which option they prefer and which risks they are willing to accept.

What the customers should do

- Articulate what they value more – stable prices or reliable supply, a simple tariff structure or a complex but more efficient structure – and what their limits or 'red lines' are (such as the threshold of any steep increase in tariff).
- Ask questions such as whether the promised benefits are

credible or if and how and when the benefits will be measured; demand that the utility be held accountable if the proposed benefits fail to materialize.

5.8 Encourage digital platforms, but offer multiple channels

Digital tools expand the reach of those otherwise unable to participate and can also make it easier to participate. Offering multiple channels ensures that those who do not have access, particularly the poor and the underprivileged, can participate and also makes the engagement broader, fairer, and more effective.

What the regulators should do

- Maintain high-quality and easy-to-access websites and open e-consultation portals for submissions.
- Combine digital tools with physical hearings, especially in rural areas.
- Allow the use of regional languages in official proceedings.

What the customers should do

- As far as possible, submit comments through e-consultation portals rather than relying only on verbal statements. Use online tools to track proceedings and implementation of final orders.
- Explicitly report whenever websites are difficult to navigate or documents are not device-friendly, submission windows are too short, or portals fail to operate as desired or exclude some users.
- Customer groups and housing societies or resident welfare associations can translate consultation summaries into local languages, create simplified explainers (pamphlets, WhatsApp notes, short videos), and support others to submit responses digitally or offline.

5.9 Ensure that all submissions by utilities are open and searchable

Access to submissions and claims by utilities is not a matter of administrative detail but the very foundation of informed participation and accountability. If regulators own the infrastructure required for transparency, tariff proceedings decisively become evidence based, focused on facts, figures, and outcomes. Transparency builds and increases trust in the process and enables researchers and media to analyse the process and the outcomes independently.

What the regulators should do

- Ensure that all submissions including annexes, addendums, and modifications if any are published in good time on the website of the utility as well as that of the regulator and remain available intact – without any redaction – for future use as well.
- Maintain a central, public repository that supports bulk download; is searchable by utility, year, type of proceedings; and allows a keyword search within documents.
- Reject incomplete or non-compliant filings and penalize delayed publication or non-compliance with orders.

What the customers should do

- Track compliance with disclosure rules by monitoring whether documents are published on time and whether versions and addendums are clearly marked and remain accessible over time.
- Formally report any non-compliance and raise the matter in annual engagement reviews.

5.10 Review and improve engagement annually

Reviewing and improving engagement annually is a strong closing principle—it turns participation into a continual loop, a learning system instead of merely a one-off event. Annual engagement reviews contribute to better regulation only if customers treat

them as an opportunity to offer feedback and respond systematically, which ensures that the quality of participation keeps improving year after year, building trust in the system.

What the regulators should do

- Publish an annual stakeholder engagement review giving details of the extent of participation, the categories represented, type of responses, etc. The review should also highlight what changed because of the engagement, the gaps identified, as well as improvements planned.

What the customers should do

- Participate proactively in the review and provide inputs to validate data; even more important, go beyond the number of hearings to share information on whether the inputs were acknowledged and responded to, whether the consultation materials were accessible and clear, whether the consultations were structured to be useful (written submissions versus hearings versus workshops), whether adequate time was allotted to provide a detailed response, etc.
- Suggest practical improvements: for example, instead of vague criticism, customers should propose specific notice periods that allow adequate time for preparing a response, simpler summaries and explainers, more local or sector-specific sessions, and pilots of new formats of engagement.
- Build institutional memory by maintaining internal records of submissions and outcomes, tracking changes in regulator behaviour year by year, and passing on knowledge and lessor learnt when representatives change.

Taken together, these practices move regulation from a posture of 'consultation as box-ticking' to one of constructive partnership with the public. The operational pattern is straightforward: start early, design inclusively, mix evidence and deliberation, be transparent about trade-offs, protect vulnerable voices, close the loop, and treat engagement as an investable capability.

6/ Goods and services tax in the electricity sector: a missing link

At present, electricity is outside the framework of the GST (goods and services tax). Instead, electricity consumers pay a duty on electricity and other state-level levies as part of what they pay for electricity. These duties are an important source of revenue for states. However, the coexistence of a duty on electricity and exclusion of electricity from the GST framework creates distortions and inefficiencies.

Electricity consumers currently face a dual tax burden. On the one hand, they pay a duty on electricity; on the other, they indirectly bear the cost of the GST paid by power utilities on inputs such as equipment (machinery and spare parts), transport of fuel (services provided for transporting coal to thermal power stations, for example), construction, maintenance, and services (such as experts for specialized repairs). Because electricity is outside the purview of the GST, utilities cannot claim any credit on the tax for inputs—and therefore have to pass on the taxes to consumers by embedding them in tariffs.

From a consumer's perspective, lack of input credit increases the cost of electricity in a non-transparent manner. Whereas the duty on electricity is shown explicitly, the embedded costs of the GST are hidden within the tariffs approved by regulators. Consumers, therefore, end up paying more taxes than what are apparent from the bill. If electricity is brought under the ambit of the GST, it will make the structure of the tariff more rational because the duty on electricity will be subsumed, fully or partially, into the GST, reducing the cascading of taxes and increasing transparency. For consumers, this means a clearer understanding of what they are paying and why.

Further, the duty on electricity varies significantly across states, leading to unequal cost burdens on consumers depending on where they live, whereas the GST, by design, offers a more uniform and predictable tax framework. For consumers, bringing electricity within the framework of the GST narrows regional

disparities and makes tariffs fairer, particularly for businesses that operate across multiple states.

More important, unlike the duty on electricity, the GST allows input credit. This is a critical distinction. Under the current system, the duty on electricity adds to the final bill but does not reduce costs elsewhere in the value chain; the GST, on the other hand, allows utilities to claim credit on the taxes paid on inputs, lowering the net tax burden of utilities. Over time, these gains can ease the pressure on tariff and avoid frequent increases in tariffs.

A common concern of consumers is whether the GST on electricity would increase their utility bills, especially because the consumers already pay a duty on electricity. This concern is valid and must be addressed by designing the policy carefully. A revenue-neutral rate of the GST, aligned with the current duty on electricity, can ensure that consumers are not worse off in the short term. Furthermore, given the essential nature of electricity, there is a strong development rationale for lowering the GST on electricity.

The resultant loss in the revenue to the states can be compensated for through appropriate revenue-sharing mechanisms within the GST, ensuring that the transition does not lower the states' fiscal capacity. More important, revenues from the GST tend to be more stable and compliance-driven than fragmented duties, a difference that benefits both states and consumers over time.

6.1 Why and how consumers should advocate for this reform

Electricity consumers have a strong reason to advocate that electricity be included within the GST framework because such a move directly affects transparency, fairness, and long-term affordability. Consumer advocacy should emphasize that the GST is not an *additional layer* of taxation but a *replacement* for existing duties that currently coexist with the 'invisible' GST that is already part of the value chain.

Replacing electricity duty with the GST would align the power

sector with the broader indirect tax framework of the economy. A seamless rebate on the tax on inputs lowers production costs across sectors, makes them more competitive, and supports investment and job creation.

Healthier power utilities, benefiting from rebates on the tax on inputs and the resultant lower costs, are better positioned to invest in infrastructure, renewable energy, and reliability of service. These improvements ultimately benefit consumers through better quality of supply and more predictable tariffs.

Participation in regulatory consultations, tariff hearings, and policy forums provides consumers with platforms to consistently raise these issues. By asking for greater and clearer disclosure of all the taxes embedded in tariffs, consumers can strengthen the case for bringing electricity within the ambit of the GST as a reform that brings in greater transparency in tariffs.

Collective and coordinated advocacy is particularly important. If diverse consumer groups all agree that the GST should replace the duty on electricity and thereby reduce hidden costs, it reassures policymakers that the proposed reform is both economically sound and publicly acceptable.

Industry bodies, micro, medium, and small enterprises, residential associations, and large power users can engage policymakers by highlighting the inefficiencies in the current system and benefits of the GST over the current duty on electricity. Representations should focus on revenue neutrality, elimination of cascading taxes, and clearer billing structures. Electricity consumers contribute significantly through the duty on electricity and embedded taxes. Bringing electricity under the GST framework offers an opportunity to replace fragmented and inefficient levies with a transparent, credit-enabled tax system. By supporting and advocating for this reform, consumers can help shape a policy outcome that protects state revenues, improves sector efficiency, and delivers long-term value to households and businesses alike.

7/ Conclusion: from formal consultation to meaningful participation

The legal framework created by the Electricity Act, 2003 recognizes tariffs as a matter of public policy, not merely a technical accounting exercise. The act embeds transparency, reasoned decision-making, and customer interest at the heart of regulation. Yet, the promise of participatory tariff regulation remains only partially realized. Although procedural mechanisms for consultation exist on paper, meaningful customer engagement remains uneven, limited in scope, and often disconnected from final outcomes.

This is an important and unfinished agenda of the electricity reforms initiated under the Electricity Act, 2003. Electricity tariffs affect householders, farmers, businesses, and the overall pace of economic and environmental transition. If customers are treated as passive recipients rather than as informed stakeholders, decisions related to tariffs risk becoming technocratic and supplier-centric, lacking public acceptance. Weak participation not only undermines the legitimacy of the process but also deprives regulators of valuable information about affordability, service quality, and the impacts of shortcomings in the distribution of electricity.

This book emphasizes that customer participation is not a threat to system viability or investment. On the contrary, well-designed engagement strengthens regulation. By helping to reduce information asymmetry, customer inputs improve the scrutiny of costs, capital expenditure, and claims of improved performance. By highlighting lived experience, participation allows regulators to distinguish between theoretical efficiency and real-world outcomes. By enabling transparent trade-offs between competing objectives such as lower cost versus greater reliability, efficiency, and sustainability, participation makes difficult tariff decisions more defensible and durable.

International experience reinforces this conclusion. Jurisdictions that institutionalize customer representation, use structured and continued engagement, and present clear choices

with costs and benefits tend to achieve better regulatory outcomes: fewer disputes, improved accountability, more predictable tariffs, and higher public trust. These experiences show that participation works best when it is early, informed, issue-focused, and linked to decisions—not when it is treated as a procedural formality.

For India, the way forward lies in operationalizing the intent of the Electricity Act, 2003 through practical reforms. Regulators must take ownership of the engagement: they must frame issues clearly, strengthen hearings, institutionalize the challenges that customers face, prioritize vulnerable consumers, and ensure that the submissions made by utilities are transparent by making them simpler to understand and by adopting multiple channels of engagement.

Equally important, customers must evolve from merely offering reactive opposition to constructive engagement, grounding their inputs in hard evidence, articulating preferences and trade-offs, and holding both utilities and regulators accountable for outcomes.

Ultimately, putting the customer at the heart of determining tariffs is not about shifting power but about improving the quality of regulatory decision-making. Participation transforms tariffs from numbers imposed on customers into outcomes shaped with their cooperation and participation. Participation ensures that customers understand why tariffs change, how benefits are delivered, and what safeguards exist. This enhances trust and compliance with rules.

A mature participatory process for determining tariffs is therefore not an optional enhancement—it is a prerequisite to a financially sustainable, socially legitimate, and future-ready electricity sector.

The challenge ahead is not to invent new rights but to give life to those rights already embedded in law, to turn formality into dialogue, transparency into scrutiny, and participation into accountability.

Appendix A Some consumer groups active in electricity sector

Prayas (Energy Group)
https://www.prayaspune.org/
A Pune-based NGO focused on energy policy research and advocacy, including electricity governance, regulation, quality of supply, tariff, and equitable energy access

Centre for Energy, Environment & People
https://ceep.co.in/
Based in Jaipur, CEEP works on inclusive and equitable electricity governance, consumer-centric policies, participative regulation and energy justice

Citizen Consumer and Civic Action Group
https://www.cag.org.in/
A Chennai-based consumer advocacy group engaged in electricity consumer education, support to redressal of grievances, and regulatory participation, especially in Tamil Nadu

CUTS International (Consumer Unity & Trust Society)
https://cuts-international.org/
Based in Jaipur, CUTS is a registered, recognized, not-for-profit NGO, public policy research and advocacy group, and aims to influence the process and content of inclusive growth

Consumer Guidance Society of India
https://www.cgsiindia.org/
A Mumbai-based prominent consumer rights organization offering counselling, education, mediation, and assistance in filing complaints in consumer courts

Consumer VOICE (Voluntary Organisation in Interest of Consumer Education)

https://consumer-voice.org/

A not-for-profit organization based in New Delhi helping consumers to make Informed choices and decisions and to institutionalize and expand the consumer movement in India to make it self-sustainable

Consumer Education and Research Centre

https://cercindia.org/

An Ahmedabad-based not-for-profit organization working extensively on electricity consumer rights, accuracy testing of meters, advocacy in energy efficiency, and related matters

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Our mission: Our books offer a glimpse of our beautiful yet fragile planet to young minds. They inform, educate, and stimulate students and sensitize them to the environment and its related problems. The aim is to transform children and young adults into conscientious individuals who can grow up to be future green citizens.

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The TERI Alumni Association is a society registered under the Societies Act, and donations to the association qualify for tax rebate as the association is recognized as a charitable institution under Sections 12A and 80G of the Income Tax Act. The Association has about 500 members, comprising about 400 alumni and 100 current employees of TERI. The President (currently Dr Priyanka Kochhar, CEO and Co-founder of The Habitat Emprise, Delhi) and the Secretary (currently Ms Ambika Shankar, Founder and CEO, A Writing Venture (AWV) and Head, Content and Communications, Pratyusha Foundation, Delhi) are the elected office-bearers of the Executive Committee whereas other office-bearers are nominated by TERI.

All consumers of electricity should read *People Power: customers' perspective and role in determining electricity tariffs* to understand how they can participate in decision-making that shapes what consumers pay for electricity. Determining electricity prices, or tariffs, is often seen as a technical matter, to be handled by experts, utilities, and regulators among themselves – the inner circle as it were – but this book shows that consumers have a recognized role in the process and explains the place of that role in law and how such participation is meant to work in practice.

The book describes the formal spaces in which consumer participation is expected, such as formal public hearings related to electricity tariffs, public consultations, and regulatory reviews. By understanding these mechanisms, customers can see that their participation is not symbolic but an integral part of the decision-making framework itself.

At its core, the book contains practical strategies – what consumers should do – to guide customers to engage in the process in a structured way. Simultaneously, the book also outlines the role of regulators– what regulators should do – to enable consumers to participate and contribute in a meaningful manner.

Overall, *People Power: customers' perspective and role in determining electricity tariffs* helps consumers move from being passive recipients of electricity bills to active participants in determining how much they should pay. The book provides the insights you need as a consumer to engage with institutions, follow procedures, and contribute to more transparent and balanced electricity pricing decisions.

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ISBN 978-93-94657-68-7