

# Executive Summary

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Independent regulators are a nascent institution in India. Perspectives on these bodies are widely varied. Some view them as an unwelcome additional overlay of the state, others as a relatively harmless irritant, and yet others as an institution with unrealised potential. This report aims to provide a systematic empirical examination of how regulatory bodies in one sector – electricity – function in practice, so as to add to both the academic and policy debates on regulation in India. Electricity has been selected both because of the critical role mandated for the regulator in reforming this sector, and because electricity offers opportunities for a comparative analysis across states over a relatively long duration. We examine electricity regulatory agencies in three Indian states – Andhra Pradesh, Karnataka and Delhi. The three cases were chosen to reflect specific and interesting contexts, while still sharing commonalities in their reform context. They all shared similar conditions of power sector mismanagement, and were established with similar policy objectives through state reforms that envisioned or enacted privatisation: Andhra Pradesh provides an example of best practice, by reputation; Karnataka has a sound reputation but also one of furthering consumer interests; and Delhi offers an actual case of private sector regulation.

This work is distinguished by an attempt to go beyond the legal framework of regulation to understand regulation in practice, and its politics. To do so, the study focuses on the processes through which regulatory decisions are made in the context of several key substantive areas of regulatory intervention. By examining how formal procedures and informal practice combine to shape regulatory decisions we develop heights into both the present and future of regulation.

Based on a review of international and Indian literature on regulation and electricity reform, the study is organised around three research themes and related research questions:

1. *Institutional and Political Context*: How are formal regulatory structures and capacities, and informal regulatory constraints shaped by the immediate political and reform context within which regulators are formed?
2. *Regulation in Practice*: How do regulators make decisions? How do they interact with regulated utilities, government and other stakeholders in the course of decision-making, and with what impact on their decisions?
3. *The Role of Stakeholders*: What does an evaluation of regulatory attitudes and procedures, stakeholder involvement and capacity, and perspectives of the stakeholder process from regulators and stakeholders suggest about the potential for a 'stakeholder approach' to regulation in India?

The data sources for this study include interviews, published documents, internal regulatory documents, and stakeholder and other submissions to regulators. Since a central focus of this study is to understand the real world of regulatory decision-making, we rely heavily on interviews with key actors in the regulatory process including regulators, regulatory staff, government officials, officials from regulated entities, consultants and stakeholders from industry, consumers, agriculture and NGOs.

Each state case study examines the following dimensions of the regulatory process in that state, which are discussed in detail in the state chapters, and summarised in the overview chapter:

- Institutional and political context: Scrutiny of the design of electricity reforms, the rationale for regulation, and the early history and context of each regulator;
- Regulation in practice: Examination of the decision-making process and the scrutiny, communication, and judgements of the regulator in several decision-making areas:
  - Interaction with utilities on validation of utility Expected Recovery of Cost (ERC) filings;
  - Estimation of agricultural consumption;
  - Performance assessment, including an analysis of compliance with regulatory directives;
  - Scrutiny of grid-related investments;
  - Tariff decisions;
  - Generation planning;
  - Regulation making process;
- Role of stakeholders: Analysis of stakeholder submissions, regulatory response and perceptions of effectiveness of stakeholder process.

Based on a comparative analysis of the three state case studies, the study suggests the following findings and recommendations.

## FINDINGS AND RECOMMENDATIONS

### 1. *New electricity regulators are constrained in acting as active stewards of electricity reform.*

Electricity reform inherently requires bold decisions to manage politically difficult trade-offs – on tariff rates and rationalisation, enforcement, and curtailing entrenched rent-seeking opportunities. As a political decision, the role of defining and laying out a reform trajectory falls to governments. In conventional thinking, independent regulators are a crucial component of reforms to ensure short-run political costs do not trump long-run gains. In practice, this study suggests there are substantial flaws in this logic.

As agents of reform, regulators have had to take bold decisions that take on entrenched interests in the sector. These may include better estimation of agricultural usage, deeper scrutiny of investment and generation decision, and more stringent monitoring of performance. However, in their early years, regulators have had to take on these challenging tasks without the benefit of a track record of credibility, and often with limited competence and experience. Furthermore, government support and commitment to reform influenced their credibility significantly, with positive findings in Andhra Pradesh, an undermining of the regulator in Karnataka, and a struggle for legitimacy in Delhi.

- Governments should work actively to establish regulatory credibility before entrusting them with reforms, not least by providing clarity and consistency on their respective role in reform policy
- Governments should strengthen early institutional capacity and credibility in the appointment of regulators, and actively promote competent staffing and supporting infrastructure
- Governments should also deliberately signal the importance of regulators to other government departments, notably state-owned utilities, and equally important, refrain from actions that appear to undercut regulatory autonomy.

### 2. *Uncertainty about selection processes for regulators and weak regulatory capacity hampers effectiveness and undermines legitimacy of regulators.*

Direct political control over the regulatory selection process has been the rule rather than the exception. Procedural loopholes in regulatory selection procedures leave scope for regulatory legitimacy to be undermined in particular cases, even if it is not always so. Regulatory staffing patterns have exhibited three axes of variation – under-capacity, reliance on employees from the public electricity sector, and heavy dependence on external consultants.

- Governments should strengthen procedures for selection of regulators by requiring that selection decisions be formally justified through a reasoned statement with reference to the qualifications of candidates, and that candidate names, qualifications, and reasoning for final selection be made public;
  - Remove constraints to stronger regulatory staff:
    - Governments should lift restrictions on hiring staff on a long-term rather than deputation basis, which currently undercut development of institutional memory;
    - Government, in conjunction with donors, regulators, utilities and civil society should develop training programmes and incentives to develop regulatory agencies as a long-term and viable career trajectory;
    - Regulators, with support of donors and governments, should structure consultant contracts to ensure transfer of skills and knowledge to build self-sufficiency.
3. *Ambiguity in the operating procedures and the lack of guiding norms around regulatory procedures leave scope for considerable variation in approach and exercise of individual discretion. Where there is a common approach, it is based on the prevailing mindset of public utilities.*

The broad scope of regulatory provisions in the Electricity Act and the lack of specificity or guidance in regulatory procedure and process leave considerable scope for a range of different regulatory approaches. While not every regulatory action can, or should be specified, the lack of experience with regulation in India has deprived regulators of norms of good practice which could otherwise serve as a guide. As a result, regulators' approach to their work varies based on the perspectives of key individuals, and on dominant contexts from which regulators and their staff are drawn. While it is important to maintain regulatory discretion with regard to the substance of decisions, greater standardisation of regulatory procedures would be beneficial.

- Regulators should collaborate with each other and external advisers to explicitly devise norms of good practice around procedures in key regulatory functions such as:
  - Technical validation process for annual revenue requirement filings;
  - Scrutiny of investment proposals;
  - Scrutiny of generation projects and approval of power purchase agreements;
  - Interpretation of information disclosure obligations;

- Where possible, regulators should seek to enshrine these norms in detailed procedural regulations and disclose their compliance with these regulations.
4. *Regulators exercise limited use of their powers due to an arms-length approach to scrutiny. While even this limited approach has led to non-trivial benefits, it has led them to avoid grappling with the most intractable problems in the sector.*

The dominance of utility insiders within regulatory staff has provided regulators with considerable knowledge of public utility systems. This background and experience has resulted in a detail-oriented approach to tasks of regulatory scrutiny.

However, regulators have stopped short of asking larger questions that potentially place them in conflict with entrenched and politically connected interests. Thus, no regulator has succeeded in undertaking a full census of agricultural users, understanding, as one regulator said, that the Commission has to 'realize its limits'. On performance and management, while all regulators have issued detailed, thoughtful and forceful directives, they have not done a very thorough job of monitoring compliance beyond the first year. In many cases directives have not been complied with, and regulators have not enforced compliance. Regulators cite the meagre penalty allowed in the law as an insufficient deterrent, the risk of undermining relations with the regulated utility, and the futility of fining a government entity that would only ultimately pass on costs to the public.

In the absence of a formal mandate on review approach, regulators carry out capital investment review with an implicit interpretation of their mandate as being limited to cost and implementation feasibility, and not project selection or viability. This judgement is influenced by explicit pressures to desist from 'micro-management', and self-driven concerns of appearing 'anti-development'. This puts a technical façade on review, but allows politically driven investment choices to escape scrutiny of regulators and stakeholders. Once investment schemes are approved, regulators also take a cautious approach to investigation of project implementation. These practices suggest a regulatory system that is better at studying details that can be defended on technical grounds, but is unwilling to engage in larger level questions that require judgements that are arguably more significant for the long-term future of the sector.

There is a case for regulators to shift from their current hands-off and quasi-judicial style to a more explicitly investigative style. While a balance needs to be struck between regulatory micro-management and regulatory laxity, this evidence suggests that regulators in India may be erring too far on the side of laxity. The case for greater scrutiny is strengthened in the

Indian context of not only information asymmetry, but also a considerable information vacuum in some key areas. It may be argued that in a rapidly changing sector with large investment needs it is important for the regulator not to be a hindrance. While this view has some validity, it is equally if not more the case that with little public appetite for tariff increases and a considerable credibility deficit in the sector, regulators must ensure that every rupee of investment be made to count, and that the data exists with which to monitor progress. At the same time, to credibly undertake a proactive approach to regulation requires a regulator with a minimum threshold of both competence and credibility.

- Regulators should develop and adhere to a more proactive approach to regulatory scrutiny in key areas that include methods such as:
  - site visits of investment schemes and to back up studies to critical information such as agricultural consumption;
  - detailed, transparent and ongoing data collection backed by visits to utilities, if necessary, to monitor performance;
  - regulatory scrutiny that includes not only implementation details but also larger questions of rationale, design and justification;
- Regulators should collaborate with each other to articulate and justify norms around reasonable scrutiny and intervention so that their actions are more predictable and do not arouse resistance from utilities and other bodies such as the Appellate Tribunal.

*5. Regulators side-step overtly political decisions by erring on the side of safety and defensibility, balancing pressures to accommodate while striving to maintain an apolitical façade.*

Regulators face not only decisions in which politics are embedded – such as those around investment, performance, and generation – but also conspicuously political decisions such as tariff setting and implementation of open access policy. Nonetheless, regulators strive to project their performance on these issues as technical and free of politics, in keeping with the theoretical conception of regulators as implementing, rather than policy-making, bodies. The evidence presented here suggests that this fiction is hard to sustain, and may even be counter-productive.

Tariff setting is perhaps the most closely watched indicator of whether regulation is apolitical. However, in all three states there are clear indications that regulators certainly factor in public sentiment. In all three states there are instances of creative regulatory measures that could be interpreted as valiant efforts to limit tariff hikes and are often so interpreted. While these examples need not mean that the regulator is following government direction, they do suggest regulators have concluded that they cannot avoid the political

implications of their decisions. Indeed, this is a reasonable conclusion; public perception of whether increases in quality and increasing costs warrant a tariff increase are salient to the regulatory process.

As with tariff, regulators' rule-making function is constructed as an apolitical and technical role. However, some rules, notably the open access regulation and related cross-subsidy decision stand to create substantial winners and losers, and are intensely political decisions. These decisions have been passed on to regulators precisely because governments are unable or unwilling to bear their political costs. However, placing them in the regulatory domain does not erase their political content; technical considerations remain at best part of the story. Given this reality, a more productive outcome may be achieved if regulators explicitly acknowledge the political content of some of their decisions and embraced their *de facto* role in balancing interests. From this stakeholder view of regulation, the regulator should strive not for insulation, but for equal engagement with all stakeholders. To achieve this, the hearings and consultations process would have to go beyond identifying interests, to begin the process of mapping out a path to reconciling interests. For example, in the open access discussion, regulators could provide a forum for mapping out a trajectory for cross subsidies that minimise damage to utilities while also allowing open access to emerge over time. In the tariff context, the hearings process could provide a basis for constructing a 'social compact' that governs both public expectations of tariff and service quality, and utility targets for performance.

To accomplish this, regulators and government will have to re-imagine their role, shifting from a doggedly apolitical stance, to one that utilises the potential for regulation as an instrument of deliberative governance.

- Regulators should consider using the regulatory platform for debate and discussion on overtly political issues, as a way of gathering more information, building credibility and reconciling competing interests by:
  - building on and expanding the current use of discussion papers through explicit consideration of different interests;
  - reorienting hearings from an adjudicatory process to a deliberative process aimed at constructing 'social compacts' or negotiated ways out of conflicted problems.

6. *Procedures for stakeholder involvement have introduced a welcome measure of transparency, but loopholes in procedures and their implementation remain, particularly with regard to information disclosure and regulators' responsiveness to stakeholder interventions. Stakeholder participation overall is weak, and the*

*impact of stakeholder participation falls well short of a desirable 'stakeholder model' of regulation.*

Electricity regulation in India has only taken small steps toward a 'stakeholder model' of regulation, in which independence is ensured not through isolation, but through being subject equally to the voice and representation of all stakeholders. From this perspective, regulatory legitimacy and effectiveness rests in a fair decision-making process, accessible to and used by all stakeholders, all of who have adequate capacity to participate in regulatory decisions. Under these conditions, stakeholder support could potentially support regulatory legitimacy and provide a bulwark against undue government interference. At the moment, however, the stakeholder process falls well short of this ideal.

Regulatory procedures for transparency and participation are reasonably sound, but implementation of them is cursory and ineffective. For example, none of the three regulators studied had an indexed database of documents readily available. Procedures and practice of transparency in some areas, notably around investment schemes, remains murky, and investment scrutiny in all states falls outside the regular tariff process, and hence outside the consultative process. Hearings are regularly held in all three states and well attended, but the hearings are structured in a quasi-judicial manner rather than as a back and forth that allows scope for developing new shared understandings. Moreover, the one way communication leaves stakeholders no opportunity to query further should they feel their objections are inadequately addressed. The standard of reasoning in response to stakeholder involvement is uneven and the credibility of the process suffers enormously when stakeholders feel their voices are not acknowledged or responded to, as in one case where a order was produced a mere 24 hours after a hearing.

Even if procedures and practices within regulators could be improved, the full value of stakeholder engagement requires considerably enhanced capacity to participate in regulatory debates and decisions. Current capacity is extremely thin and limited to a few groups or individuals in each state representing the full range of consumer interests. Even industry and commerce groups, which have the capacity to bring considerable greater resources to the process, have so far devoted little to informed participation. For their part, regulators have not proactively sought to enhance stakeholder capacity to engage in regulatory consultation, with the partial exception of Karnataka, who have set up an consumer advocate office. More complete measures in this direction would require proactive outreach, training, identification of unrepresented groups, provision of financial support and perhaps a dedicated institution to represent consumer views.

Currently, stakeholders view transparency gains from regulation as an unambiguous positive, but do not, as yet, view regulation as a viable arena



within which to ensure their interests are taken into account. This is driven largely by a perception that regulators hear stakeholders, but are opportunistically responsive to them. As a result, stakeholders continue to hedge their bets by keeping open the option of direct political action. Hence, the regulatory objective of depoliticising decision-making in the sector stands unfulfilled. As suggested above, the solution to this conundrum may ironically be more rather than less politics in regulation, but only if conducted on a level political playing field, with effective procedures of transparency, participation, adequate reasoning and proactive capacity building. Under these circumstances, stakeholder engagement could itself be a source of regulatory legitimacy by serving as a bulwark against undue influence by government or any single other stakeholder. Shifting toward a stakeholder model of regulation requires that regulators -

- Provide greater attention to governance considerations in the start up period, to ensure that there are no procedural loopholes and that regulators and their staff understand and appreciate the reasons for stakeholder engagement;
- Strengthen implementation of procedures and plug existing procedural loopholes in the stakeholder process relating to:
  - Measures for easy access to available documents such as a well indexed database;
  - The terms and conditions for exclusion of documents from transparency provisions;
  - Regular production of annual reports with a minimum specified information content;
  - Terms and conditions of transparency for investment schemes;
  - Conditions under which hearings are required;
  - Format and conduct of hearings to allow for greater two way engagement.
- Develop and follow norms around an appropriate standard of reasoning in response to stakeholder comments and input;
- Support quality and quantity of stakeholder engagement with particular attention to ensuring a balance of perspectives by:
  - Proactive efforts at disseminating information;
  - Developing training programmes on regulatory engagement in association with research organisations and NGOs, particularly targeted at unrepresented groups and vulnerable populations;
  - Provide a mechanism to financially support responsible and credible stakeholder engagement;
  - Consider an institutionalised mechanism to regularly voice consumer interests, such as an Office of Consumer Advocate.