

**Emergent Regulatory Governance in India:
Comparative Case Studies of Electricity Regulation**

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Abstract

This paper maps out the contours of an emergent politics of regulation in India by looking at the case of electricity regulation in two states. Electricity regulation was introduced through the intervention of donor agencies as part of a larger package of reforms. Following two faltering efforts at privatization, regulation has morphed from a means of signalling credibility to investors to being an institutional check on state authority, even under continued state ownership of utilities. The paper describes this national political context for the introduction of electricity regulation before considering two detailed case studies in the states of Andhra Pradesh and Delhi. We draw on Hancher and Moran's device of “regulatory space” to understand the forces that shape the structure and functioning of regulation. For each case, we examine the political context for introduction of regulation, the factors shaping the regulator's internal institutional form, regulatory practice with attention to interaction between regulator, state and utility, and the potential for new forms of regulatory governance. The paper highlights the extent to which regulation has been re-absorbed into the larger political and bureaucratic process, largely contrary to the hopes of its designers. However, the cases also show how procedures for transparency and participation are being evoked and productively used by a range of stakeholders. We discuss the implications of these developments for regulatory legitimacy and effectiveness, and the emergence of regulators as new embryonic democratic spaces. The paper concludes with some broader themes from the India case of relevance to the empirical study of regulation in other developing countries.

Introduction¹

Independent regulatory agencies have entered India through the back-door, little remarked upon and even less understood. Proponents of regulatory bodies – notably donor agencies – view the mechanism as a way to insulate politics from decision making. Insiders to Indian government and administration, notably including some regulators and regulated, dismiss regulatory bodies as one more layer of government, barely distinguishable from preceding layers. In this paper, we suggest that regulation in India has certainly not fulfilled the naïve expectations of the designers, but that it has led to a process of re-making governance in India, opening doors to the construction of regulation as a new democratic space. Our aim in this paper is to map out the contours of an emergent politics of regulation in India by looking at the case of electricity regulation.

By looking at India we also intend to contribute to what is currently a very thin literature on regulation in practice in the developing world, with the possible exception of Latin America. There are good reasons to believe that regulation in developing countries will have distinct features from that in either the United States, or the emergent regulatory state in Europe. Common features that shape regulatory outcomes in developing countries include the greater presence and authority of external actors, particularly donors, as vectors of policy transfer, the importance of consultants as knowledge carriers and as implementers, the overbearing but paradoxically also weak state, and the propensity for thin state legitimacy. From a practical perspective, states in the developing world are self-consciously re-orienting themselves toward forms of steering over ownership, without much reflection on whether and how this shift changes the nature of politics and concerns of democratic legitimacy and accountability. In the conclusion we reflect on some of these broader concerns that relate to regulation in the developing world.

Our point of entry to regulation in India is the electricity sector. As a leading concern of economic reformers for over a decade, electricity is a good example of efforts to re-make a state-owned and controlled sector around the new vision of private ownership and arms-length regulation. In addition, electricity regulators in India have been established at the state level, allowing for comparison of different states with different political and other conditions, but within the same larger administrative culture and legal traditions. In this paper we examine electricity regulation in Andhra Pradesh, a state with a reputation as a successful reformer, and in Delhi, an early example of an effort to privatize electricity.

We use Hancher and Moran's (1989) device of a “regulatory space” as the organizing framework for these cases. The utility of this approach lies not only in its avoidance of the absolutes of the public interest perspective and capture theory, but also its emphasis on specifics of the national context – political, legal and cultural. Mapping the regulatory space in these two states allows us to inductively capture what is potentially different about India in particular, and developing countries in general.

For each case, we begin with a discussion of the political context within which regulation was established and has functioned. Following Hancher and Moran we dwell on the

¹This paper is one output of a larger research project on electricity regulation in India. The authors are grateful to the Foreign and Commonwealth Office of the UK Government for their support of this project, and to the National Institute of Public Finance and Policy and Indian Institute of Management-Bangalore, with which the authors were affiliated, respectively, for much of the project. Finally, we wish to acknowledge Bronwen Morgan for fruitful discussions and guidance on relevant literature on regulation.

significance of historical timing in shaping regulatory structures, but also draw on Thatcher and Stone Sweet's (2002) discussion of contextual factors that mediate pressures for delegation, notably political leadership and larger patterns of state reform.

Next, we delve a little deeper into the shaping of institutional procedure and organizational structure. Hancher and Moran stress the everyday routines and customs that structure regulatory practice, leading us to explore the sources of these practices. This in turn leads us to understand how learning takes place, and to an understanding of "institutional isomorphism," in the design of regulatory agencies (DiMaggio and Powell 1991). We particularly examine the role of different networks in shaping regulatory bodies, and the practices and cultures that are imported along with networks.

Third, we explore the dynamics of interaction between regulator, regulated and state, by looking at interactions around specific issues trying to capture what Moran (2002) evocatively describes as the "spirit of regulation". Hancher and Moran's attempt to elide the public private distinction by pointing out that many private, regulated actors have important attributes of public status is almost a truism in the Indian context, where the regulated are, indeed, either still public entities, as in Andhra Pradesh, or only recently converted to private ownership, as in Delhi. In India, the discussion is about degrees of publicness, the manner in which that publicness is expressed, and the extent of continued control by the state. In looking at this three way interaction between the main actors, we are also attentive to evidence of straight capture (Stigler 1971; Posner 1974), and to the public choice literature's cynicism about the regulatory process.

Finally, we look at the role of additional players in the regulatory process – industrial, household, agricultural consumers, other public agencies, unions, and civil society organizations – using the umbrella concept of "regulatory governance." With their emphasis on publicness and organizations that exhibit this characteristic, Hancher and Moran are silent on regulation as a space for democratic deliberation, although they do draw our attention to understanding patterns of inclusion and exclusion. In his discussion of the rise of the regulatory state in Europe, Majone (1994) makes the point that procedural safeguards, such as public hearings, are an important part of building the legitimacy of a regulatory state.² Lodge (2004) catalogues and provides critical reflection on the instruments through which transparency and accountability can be facilitated. Prosser (1999) has perhaps developed this argument the farthest in his work on public utilities in the UK, elegantly arguing not only for procedural safeguards, but a form of reflexive proceduralism that examines the conditions under which participation provides necessary safeguards and regulatory legitimacy. By examining both these procedures and how they are used in practice, we explore the role of regulation as "government in miniature" (Prosser 1999).

In the following section, we briefly sketch the context of electricity in India and describe the introduction of electricity regulation in the state of Orissa, in order to set the stage for the detailed cases that follow. We then turn to the two cases, Andhra Pradesh and Delhi, organized along the four categories introduced above. We end with a concluding section that sketches the contours of regulatory space for Indian electricity, by drawing on the insights gained from the two cases.

²See Hira et. al. (2005) for an interesting cross-country empirical comparison of procedural measures in use in electricity regulation. See the Electricity Governance Initiative at <http://electricitygovernance.wri.org> for an attempt to develop and test indicators of regulatory governance across countries.

Indian Electricity and the Introduction of Regulation³

The recent past of Indian electricity is a story of lock-in to a cycle of destructive practice, a series of incomplete attempts at a quick fix, and a pervasive spiral into ever declining performance. For many observers of the sector, the problem is diagnosed simply as “politics” or political interference. The solution, equally simply, is politically independent regulation. To understand the nature of politics in the sector and the actual circumstances in which independent regulation was introduced it is necessary to briefly tour the recent past of India’s electricity sector.

The Tangled Legacy of Indian Electricity

Electricity is a “concurrent” subject under India’s constitution, which places it under both central government and state government control. In 1948, the sector was organised around state-level, publicly owned and controlled State Electricity Boards (SEBs). SEBs were crafted in the crucible of post-independence India, and strongly shaped by the idea that electricity was a tangible and realisable benefit that the state could demonstrate to its citizens as a gain from achieving independence. In particular, SEBs had a dual nature as commercial entities and as instruments of development policy.

Since the SEBs effectively operated as extensions of the state Energy Ministries, they have been prey to a range of garden-variety, but crippling, problems of government in India. These span everything from internal markets for staff promotion and placement, to graft for non-payment of bills, to incorporation into the election financing apparatus.

Over time, the political fault lines in the sector have crystallised around three issues: farmers hanging on to populist subsidies, industrialists rebelling against the higher tariffs needed to support those subsidies, and increasingly affluent and mobilised urban consumers demanding better service. Meanwhile, finance ministries at state and central levels, backed by international donors, have given notice that budgetary subsidies to the sector must come to an end. State-level independent electricity regulatory commissions have been placed in the unenviable situation of untangling these knots.

Regulation Introduced: The Orissa Experiment

The genesis of state level electricity regulators can quite conclusively be traced back to a 1993 policy statement by the World Bank (1993) that made lending for the electric power sector conditional on a set of policy directions. First among these was that the “Bank will require countries to set up transparent regulatory processes that are clearly independent of power suppliers and that avoid government interference in day-to-day power company operations” (World Bank 1993, p. 14).⁴ The World Bank brought that policy to India later the same year and explicitly invited states to take up the bargain. Five states initiated discussion, but only the state of Orissa saw the process through. In Orissa the Bank's reform template was translated into terms that conformed to the then emergent global model of electricity reform: corporatization, privatization, tariff reform and independent regulation (World Bank 1996). The underlying aim was to demonstrate that a model other

³ This section draws on the historical review of electricity reform in Dubash and Rajan (2000).

⁴ The other conditions -- commercialisation and corporatisation, importation of services, and encouragement of private investment – would soon become intertwined with the emergent model of competitive electricity markets emanating from the UK, to become a standard model of electricity restructuring applied to the developing world (Williams & Dubash, 2004).

than the public monopoly model was possible in India, and to do this, privatization had to be made to work.

An army of donor funded consultants descended on Orissa to elaborate and assist implementation of this template. According to participants in the process, at any given moment there were 30-40 consultants in the state.⁵ While donor and consultant led, the reforms could not fairly be described as coerced; a substantial component of the political leadership and bureaucracy, including the then-Chief Minister, supported a fundamental reform orientation. However, even among these reformers, the role or value of independent regulation was not clear. In the opinion of an Indian consultant involved in the process, many officials saw regulation as a requirement of funding institutions or as a relatively costless diversionary tactic to signal seriousness about reform.

By contrast the World Bank had a very clear view of the role of the regulator: "...to ensure the sustainability of tariff reform... *inter alia* to attract sufficient private investment and protect the interests of consumers" (World Bank 1996, p.7). A key contribution of the regulator to achieving these goals was "...to insulate Orissa's power sector from the government and ensure its ... autonomy" (World Bank 1996, Annex 5.3, p. 2). In other words, the fundamental purpose of electricity regulation was to create an apolitical space for electricity decision, in large part to send a signal of credibility to investors.⁶

Once the Orissa Electricity Regulatory Commission (OERC) began its work, the double-edged nature of regulatory "independence" became apparent. The World Bank and reform advocates within Orissa assumed that an independent regulator would quickly raise tariffs to cost recovery rates, in order to attract private investment. Ironically, however, an independent OERC decided only a moderate rise in tariffs, thereby placing the privatisation effort in jeopardy and triggering an explicit request from the World Bank to further raise tariffs for investor comfort. The regulator denied this request, arguing that there were no grounds for placing the cost of high (and unknown) transmission and distribution losses on consumers, and that the utility should bear the cost of these losses as an incentive to reduce them. Even as the government lost control over use of tariff setting for populist and other political purposes, so too did reformers lose control over tariffs as a device to attract investors.

Two larger points immediately emerge from the Orissa experience. First, while the larger literature allows for contextual factors to mediate internal pressures to establish regulators,⁷ the Orissa case suggests these external factors can be determinative. In Orissa, the role of donor agencies as vectors of policy transfer led to a process that lay between mimetism and "coercive isomorphism" (DiMaggio and Powell 1991). Second, Orissa indicates that the need for a regulator to establish credibility not only with investors but also with the broader public is an important factor in explaining regulatory behaviour and regulatory success. This balancing act receives little attention in Levy and

⁵Interview with consultant in the Orissa process, 8/12/05.

⁶The goal of insulation from political process led to interesting design debates. According to Indian consultants, foreign consultants were naïve about how to achieve this outcome. For example, it was at the insistence of Indian consultants that the Orissa reform act explicitly prohibited elected officials from ever assuming office as a regulator.

⁷See, for example, Thatcher (2002).

Spiller's (1994) influential work on the need for regulatory restraints on arbitrary administrative action as a requirement for attracting investment.⁸

Regulatory uncertainty in Orissa, as the Bank saw it, combined with other factors – both idiosyncratic and predictable -- to undermine the Orissa experiment.⁹ Despite these overtones of failure, the Orissa approach to regulation has rapidly spread to other states, and was adopted by the Central Government in the form of an Electricity Regulatory Commissions Act (1998). The underlying presumption that it is indeed feasible to create an apolitical regulatory sphere simply by legislating one, has been retained more or less intact. The following two sections look in more detail at the experience in two states which adopted the reformist mantle – Andhra Pradesh and Delhi.

Andhra Pradesh: Regulation under Benign Political Control¹⁰

Political context: Political leadership, regulator as second fiddle

If politicians in India are accused of lacking the “political will” for electricity reform, then Andhra Pradesh (AP) is widely considered the one case that bucks the trend. At the time the regulator was established in 1999, the Chief Minister, Mr. Naidu, was firmly established as the leading light among state-level economic reformers and was heavily backed by the World Bank. While Andhra Pradesh had developed a home grown reform strategy in the mid-1990s, Naidu pushed implementation into high gear as part of a larger World Bank reform package.¹¹ The reform approach was designed with the help of a large number of consulting firms, funded by the UK Department for International Development. Indeed, Andhra Pradesh rapidly became the poster child of reform for the donor community.

At the time of reform, Andhra Pradesh faced a by-now familiar set of problems: high loss levels; abysmal monitoring of electricity use; threat of industrial flight from the grid; a work force potentially implicated in rent-seeking; and weak and declining infrastructure quality. The context for reforms, including creation of a regulator, was one of stimulating and guiding a dramatic change in the sector. The solution devised by the consultants but endorsed, and vigorously so, by Naidu, rested on privatization of the sector and the introduction of competition as a necessary end.

⁸Levy (a World Bank staffer when he wrote the article) and Spiller are highly sophisticated in their treatment of this link between restraints on administrative discretion and investment, allowing for a range of institutional forms to signal credibility, including continued public ownership. In the process of translating these ideas to policy in Orissa, this nuance appears to have been entirely lost.

⁹Notable among problems that could have been predicted was the decision to load the bulk of the public debt onto the transmission company that remained in state hands, which caused the financial situation of the sector as a whole into crisis. Idiosyncratic factors included a major cyclone that destroyed the electricity infrastructure in part of the state, and the financial problems of the parent AES corporation, one of the two private investors, which contributed to its eventual withdrawal from Orissa.

¹⁰This section is based on ongoing research in Andhra Pradesh conducted by the authors. This discussion draws on interviews with APERC regulators and staff, consultants, government officials, industrial and domestic consumers, farmers groups, and NGOs, as well as documentary analysis of APERC orders, regulations, and selected internal documents. Since many of the interviews were conducted on a not for attribution basis to protect confidentiality and encourage candour, only institutional affiliations of interviewees are reported here.

¹¹ Interview with former government and power sector official 1/5/06..

As a prelude to privatization, the state owned system was subjected to bread and butter management improvements, such as new and improved monitoring systems, re-aligning staff incentives around performance, and striking a wage for results deal with labour. These measures were actively supported by the political leadership, symbolized by weekly meetings held between Mr. Naidu and the top management of the electricity utility.

These efforts yielded results; between 1999 and 2005 Andhra Pradesh engineered the most dramatic financial turn-around of any state electricity utility. The state also successfully unbundled the sector, creating distinct generation, transmission and four distribution entities under separate management. However, the privatization effort was placed on hold, because of apprehensions that it would be politically unpopular in the 2004 state election, and because other state experiences – Delhi and Orissa – had garnered unfavourable publicity. In 2004, Mr. Naidu nonetheless lost the election, and privatization disappeared off the road map entirely.¹²

This context has several implications for the subsequent unfolding of the regulatory process. First, regulation was a necessary element in the reform scheme, but by no means the lynchpin. Indeed, Naidu viewed the regulator's role in quite circumscribed terms as being limited until competition began. By contrast to Orissa, where the state government was supportive but stepped back after the regulator was established, in AP the government was driving the implementation of reforms. Hence the regulator faced a less stern test; it did not have to be a gatekeeper against its own creators to nearly the same extent. Moreover, the responsibility for stewarding change did not lie with the regulator, but instead with the government, acting through the state utility. In Mr. Naidu's words, "government has to go for reform, not the regulator."¹³ Finally, the significant presence of reform consultants spilled over to the regulatory process and considerably shaped the structure and functioning of the regulator.

Inside the Regulatory Black Box: A Tale of Three Networks

Three networks shaped the internal organizational space of the regulator: the Indian Administrative Service, the technical electricity fraternity, and consulting firms. Before sketching out the role of these networks, it is worth noting that the APERC is established under an AP Reform Act of 1998 that closely mirrors the Orissa act with respect to regulatory structure and functioning.¹⁴ (Following passage of a national Electricity Act in 2003, the APERC comes under the purview of the broader national legal framework.) This instance of "institutional isomorphism" (DiMaggio and Powell 1991) may be due, at least in part to the presence of donors and some of the same consultants, but is also at least as likely to be simply following a path of least resistance. More intriguing than the legal framework is how the institution was shaped in practice.

The AP regulatory experience suggests that emergent electricity regulators are embedded within the strong traditions and deep networks of the Indian Administrative Service. Indeed, this very much the norm; a 2003 survey found that 10 of 21 electricity regulators were drawn from the IAS (Prayas 2003). While the Chair does not entirely control the

¹²Interview with consultant involved in AP reforms, 3/5/06.

¹³ Interview with Mr. Naidu, former Chief Minister of AP, Hyderabad, 1/6/06.

¹⁴ Government of Andhra Pradesh (insert url) and Government of Orissa (insert url). Main deviations are slight modifications to the selection committee for regulators that replace one government official with another, and the addition of three functions to an already long list of eight.

Commission, both AP Chairpersons have been strong figures who have played a leading role in the work of the Commission. The first Chair of the APERC brought a successful track record of turning around a struggling public sector coal unit, and a reputation as an individual with considerable management skills and probity. The second Chair was formerly the Chief Secretary in AP, the highest ranking civil servant in the state.

This strong IAS presence has several implications for an emergent electricity regulatory culture. First, IAS dense networks facilitate informal consultation and back-room decision making quite antithetical to the transparent and participatory ethos regulators are meant to foster. Second, regulatory independence from the executive is challenging to pull off if regulators themselves come from a career administering political decisions. This tension becomes particularly strong in the Indian context, where much of the rationale for regulators was to provide arms length separation from a predatory state. Where regulators are appointed directly from positions such as Chief Secretary, they would be required to shift, virtually over-night, from administering and defending the government's position, to acting as an impartial referee in the sector. While it is by no means necessary that these pressures are entirely determinative, it is quite likely that the predominance of individuals from an IAS background curtail the space for emergence of a new and distinct regulatory culture.

The technical fraternity of India's public electricity utilities constitutes the second network that shapes the regulatory space. Emerging from over fifty years of state ownership, employees of state owned electricity utilities constitute the only available pool for staff, and for regulators with technical expertise. The dependence on public employees is reinforced by the regulator's human resource rules, which closely follow government scales and promotion criteria. In AP, regulatory staff are often drawn from the regulated utilities. In 1996, three of the top five posts were occupied by individuals drawn from the erstwhile AP State Electricity Board.¹⁵ That said, APERC succeeded in attracting non-utility staff to a greater extent than other state regulators, particularly for key positions. For example, the Director of Tariffs was an important exception to the larger pattern and was occupied by an academic. In many cases, staff are appointed on deputation, and maintain their ties and loyalties to the regulated company.

The heavy representation of the technical fraternity within electricity regulators reinforces the image of the regulator as minimally distinct from the government; the APERC is just another government body to which a staff member can receive a posting. In addition, staff members drawn from the public utility bring insider knowledge and personal ties with the regulated company, which can induce a measure of conservatism and resistance to change. For example, APERC staff see little reason to release technical information on issues like new technical investments to laypeople.¹⁶ However, control of the use of new investments as means for political patronage are one potentially important contribution of regulation. Finally, with a background operating within vertically integrated monopoly utilities, regulatory staff bring little knowledge of regulatory practice, let alone new trends in the organization of electricity such as introduction of competition and markets.

This shortfall is made up by consultants, who play a substantial role in regulation well beyond the set up period and constitute the third network that shapes regulation in AP.

¹⁵Interview with APERC staff, 25/5/06.

¹⁶Interview with APERC staff, 1/6/06.

Since the inception of APERC, a consulting firm has had personnel posted within the regulator's premises to provide full time assistance. Consultants have defined the intellectual approach and agenda of the regulator, constructed the relevant models for implementation, and over a period of a few years handed over implementation to the staff, while they move on to design and implement new approaches.

For example, consultants set in place the basic "cost of service" methodology which seeks to set tariffs for consuming classes proportional to their costs.¹⁷ Over time, this orthodoxy of regulatory economics has been internalized by regulatory staff, who faithfully apply the model. More recently, consultants have urged the regulator to shift to a "multi-year tariff" approach that incorporates more attention to performance than a simple cost-plus approach would do. This shift is very much in keeping with the larger ideological position driving reforms of shifting from government control to signaling and incentives. Thus consultants are in many ways the intellectual change agents, and play the key role in translating broad policy directions into specific policy measures.

The intellectual positions that inform consultants are informed by their typical background as recent business school graduates, with a smattering of ex-public sector employees, and are further developed and propagated through broader consultant networks. For example, the desirability and indeed inevitability of performance based regulation is drawn from senior overseas colleagues who draw on international experience. Individual consultants working within the AP regulatory who gain expertise in performance based regulation, then in turn are delegated to assist other states, and thereby become a vector through which the approach spreads across states.¹⁸ Through consultant network-based propagation, new regulatory ideas are disseminated and implemented, without public debate and verification.

In a peculiarity of AP, regulatory consultants were also linked with consultants to the state government and those helping the public utility in a semi-formal network, all funded through a DFID contract. Bound by informal ties developed through considerable cross-pollination of staff between these firms and through a formal quarterly coordination meeting mandated by their contract, consultants became a back avenue for resolving contentious issues off line.¹⁹ These informal channels become the mechanism for attempting to forge an intellectual convergence on issues, some of which are highly political, such as details pertaining to an "open access" surcharge which could considerably change the effective cost of electricity for industrial users. This is not to say that client positions and perspectives did not play a role, but it is to point out that debates happened between proxies rather than the principals. In AP, consultants have not only played the role of knowledge shapers, but also as mechanisms for coordination across government departments.

Within the regulator, decisions are shaped by interaction within the three components of regulators, staff and consultants. The long-standing embedding of consultants within the regulator has led to a productive dynamic where consultants act as specialized members of larger teams within the staff, and where staff learn skills and techniques from consultants. This is particularly true in the tariff division, and may be facilitated by strong

¹⁷ This measure was taken prior to the passage of the Electricity Act, which requires cost of service as a matter of law, albeit somewhat controversially so.

¹⁸ Interview with consultant to APERC, 2/6/06.

¹⁹ Interview with consultants, 3/5/06, and 2/5/06.

capacity of staff members in this division, who notably do not come from a utility background. However, on occasion, consultants may over-ride staff and go directly to regulators. In one example, staff were in favour of using a restrictive definition of working capital, while consultants sought a more expansive definition that would provide more leeway to the regulated company.²⁰ Ultimately, consultants went directly to the Chair, who agreed that the situation called for a flexible approach.

Within APERC, regulators use judicial metaphors to describe internal interactions. Consultants often prepare base materials on the request of the Commission, particularly on new policy matters such as performance based regulation. Commissioners then listen to the range of arguments before making a decision. Staff are often seen as representing the consumers point of view and indeed, there is a separate section in each tariff order prepared exclusively by staff, independent from the Commission, which lays out a critical public perspective. Thus, the internal process appears to rest on dialogue, but with a considerable role given to consultants, who by framing issues can set the terms of the debate.

Regulation in Practice: Regulation Sidelined?

The regulatory task in India's electricity sector is strongly conditioned by the current historical context, defined by failing public utilities and hesitant attempts at privatization. In Andhra Pradesh, this process resulted in a sector under continued public ownership, but where the determining context was one of reducing theft, retaining the custom of industries and forging a healthier bottom line.

Under these circumstances, the dominant dynamic defining the regulatory space is the interaction between the APERC, the government and the Andhra Pradesh Transmission Company (APTransco), which retains authority over transmission and distribution segments despite functional unbundling. By contrast with other states, in AP the public utility itself led a process of management reform, allowing APTransco to meet and preempt annual performance improvement targets set by APERC. For its part, the Government not only backed the reforms put in place by the Transco, but also regularly paid the subsidy required to compensate for the continuing losses, albeit declining over time. The APERC did play a useful role in this process by fostering accountability through a system of reporting, undertaking site visits, and by establishing a timely and credible process of tariff revision. On these grounds, the APERC deserves its reputation within India as among the best functioning electricity regulatory body.

However, this is far from a story of regulator-driven reform and change made possible by strong and political independent regulation through target setting and oversight. In particular, changes have not been driven by a strong regulator willing to raise tariffs to cover costs in the face of political objectives, as the World Bank narrative has it. Instead it is more of a story of coordination between the three parties, all of whom share similar objectives. On occasion, the objectives have diverged, but these divergences do not threaten the common purpose of improving performance and bringing down theft and losses.

This understanding of the interaction between the three primary organizational players is illuminated by the tariff review process. The APERC is statutorily empowered to independently set tariffs. In practice, the APERC has to balance the political realities of

²⁰Interview with consultant, 2/5/06.

tariff hikes, the budget available for subsidies, and the requirements of financial health for the utilities.²¹ Interviews suggest that the available subsidy amount is known to the regulator up front whether through informal communication or through the up front budget exercise. Tariffs have not increased for the subsidized consumer groups. In practice, the balancing act is maintained by setting a performance target for the AP Transco to meet in the event of a discrepancy between utility filings and APERC judgement. This judgement is vetted by the Energy Secretary of the Government, who scrutinizes the tariff order prior to release.

This balancing act is made possible by the financial space gained by management reforms initiated by AP Transco. In particular, the utility has worked to improve service to well paying industrial consumers by setting up dedicated lines, giving them preferential access to scarce power and so on. These measures have kept industrial users from exiting the grid to purchase power from private producers or setting up their own plants, both options newly available under India's Electricity Act of 2003. The APERC has done its part by resisting the temptation to raise them as a way of paying for other loss-making sectors, and indeed by reducing them somewhat. As a result of the elasticity of industrial consumption and the cost of self-generation, industrial revenues have increased, leading to a gain in coverage of costs from 53% in 1999-2000 to 83% in 2004-2005.²² Significantly, these gains have come without having to unduly ruffle the feathers of any major political constituency, with the possible exception of farmers. This result is enormously significant to the AP regulatory experience. It has allowed the regulator to play its balancing role without having to substantially transgress boundaries of either political or economic acceptability.

This said, the interests of the three primary organizations in the AP regulatory space do diverge and require negotiated settlement, often with the government being the final arbiter. Here we discuss one such example of the "open access" regime.

Given the importance of industrial consumers to the financial health of the system, there was considerable battle over introduction of an "open access" regime allowing large consumers to exit the grid and purchase power from private producers. The APERC was charged with setting a "cross-subsidy surcharge" payable by exiting users to compensate the public system for the loss of subsidy. Set too high, this surcharge would undermine open access and the underlying principle of competition; set too low, it could facilitate industrial flight and devastate the public system.²³ The AP Transco provided "fierce representation" against an economic methodology that would facilitate open access, while consultants within the APERC argued strenuously for a methodology that would unleash open access and competition and even presented this approach to other regulators.²⁴ The government issued a letter saying that they could not guarantee a sufficient increase in subsidy to cover the financial losses that might result from an open access regime.²⁵ Stepping back from the advice of their consultants, the APERC chose the more conservative approach, citing consumer interests but also consistent with the path of least political resistance.

²¹Interview with APERC staff, 26/5/06.

²² APERC tariff order 2004-05 available at www.ercap.org

²³ That the regulator was charged with such an intensely political issue itself reinforces the political nature of the regulatory task.

²⁴Interview with consultants, 2/5/06 and 3/5/06.

²⁵APRC order on Open Access. Available at www.ercap.org

In sum, post reform the AP electricity sector remains substantially governed through negotiation outside the formal regulatory process between the three main organizations that are statutorily, at least, independent. In a pre-reform world, these same actors were bundled together with clear lines of authority emanating from the Energy Department of the government. How important was the unbundling and establishment of a regulator compared to political determination and skilful politics? Unbundling and creation of clear functional authorities has introduced a measure of transparency and, in a sense, forced a measure of explicit negotiation and set overall constraints that prohibit postponing difficult decisions to the future. The regulator is the site at which these accommodations are made. However, it is difficult to avoid a conclusion that the institutional innovations at best facilitated what was a larger act of creative politics.

Regulatory Governance: The Potential of Small Players

Although the introduction of regulation has had a relatively muted impact on intra-governmental interactions, it has had a considerable impact – procedurally and to some extent substantively -- on decision-making in the sector. The introduction of an independent regulatory body has created a new institutional space for engagement by a broad range of interests in the regulatory process. Here we discuss the contours of that space, how it is being used and by whom, and the resultant beginnings of substantively different outcomes.

Once again following the Orissa example, the APERC has established a procedural framework enabling access to information about the sector, a required process of public hearings in particular for tariff orders, and a mechanism for filing petitions and pleadings. For example, the APERC has a well functioning and useful website, diligently holds hearings that are well attended, including in locations outside the capital city, has translated regulatory materials into the local language, and has established an Advisory Committee including labor, agricultural and consumer representatives. All of these procedural changes constitute a sea change from the entirely non-transparent closed decision-making process under the pre-reform regime.

There remain, of course, some substantial holes in full implementation of the spirit of these procedures. For example, in one case the APERC convened a hearing on an issue only after substantial external pressure, and once it did so, issued a sixty page order the very next day, which clearly could not have incorporated insights from the hearing process (Electricity Governance Initiative – India, 2006). In addition, there remain grey areas on information disclosure, such as on investment plans, where the APERC has no clear policy and procedure, and by default withholds access to these materials.²⁶ Hesitation and confusion on such matters has a great deal to do with the newness of the institution and its staffing by individuals who bring parochial and paternalistic attitudes characterized by former monopoly state utilities. There is little doubt, however, that under external pressure, the institutional space for regulatory governance is slowly but certainly becoming more open.

Regulatory procedures on information and participation have expanded the regulatory space in AP, to include labor groups, political parties, consumer groups, individual consumers, industry associations, farmers, and other public bodies such as municipalities.

²⁶ This observation is based on a personal visit, during which the authors were allowed to open and view files on investment plans on the premises, but only after initial denial followed by a personal appeal to the Chairperson.

A scan of the tariff order for 2006-07 suggests that these opportunities are, in fact utilized. A total of 46 different individuals or institutions filed a total of 330 objections to the tariff orders of the three distribution companies in the state.²⁷ Of these, we categorized 302 as “substantive” pertaining to issues that had to do with details of the tariff process, as compared to 28 “grievances” that were related to more narrow concerns that affected only the complainant or contained little or no substantive argumentation. Not surprisingly the largest number, 106, were by individual consumers, but substantial numbers of comments, in each case between 25 and 70, were filed by political parties (42), public entities (28), industry (36), unions (68) and consumer organizations (43). Interestingly industrial buyers and others with deep pockets are not disproportionately represented in these comments.

While in some cases the comments reflect only a basic knowledge of the electricity sector and a nascent understanding of regulatory process, a handful of consistent interveners have won the respect of the Commission, being described as “almost equivalent to Commission staff in caliber”.²⁸ These regular and respected interveners are almost all from consumer groups, in some cases are individuals, rather than from industrial groups. Indeed, the latter were dismissed as narrow and parochial in their comments, rather than focusing on issues in a broader public interest. Respondents at the AP Transco also express enthusiasm for consumer involvement, particularly in scrutinizing power purchase costs, which directly affect their own bottom line.

The flurry of public engagement stimulated by creation of the APERC has begun to re-shape regulatory politics at three levels. First, consumer groups have actively worked to broaden and deepen the procedural rules. For example, they have demanded hearings at district levels, requested and won local language translation of orders, and forced broader and transparent review of power purchase agreements.

Second, they have somewhat disrupted and injected themselves into the triangular negotiation between APERC, the Government and APTransco. The main avenue for doing so is forcing release of information, and forcing public, documented, responses to raised objections, thereby limiting the extent to which adjustments in key parameters can be made behind the scenes. For example, farmer and consumer groups sought release of the agricultural census to measure rural power use conducted by the APERC. They have also sought and obtained public disclosure of the dispatch order of generating plants to ensure that one generator is not unfairly favoured over another.

Finally, they have achieved some substantive gains, most significantly in the area of power purchase and approval of new generating plant investment, which accounts for the majority of total electricity cost.²⁹ Significantly, this is truly a public interest issue, as savings in power cost accrue to all consumers, and cannot be captured by any single group. Gains in power purchase were achieved by forcing open the issue for debate before the regulator. In addition to arguments made by consumer groups, the resultant opportunities allow powerful actors such as the APTransco (for whom lower costs mean healthier finances) to pursue the issue to a greater extent than they otherwise would have. Indeed, in one case the process has led to strange bedfellows, with a petition jointly filed

²⁷ Based on analysis conducted by the authors using data from tariff orders supplemented with information from APERC. This analysis excludes local language petitions, which are currently being translated.

²⁸ Interview with APERC, 2/5/06.

²⁹ Interview with senior management of APTransco, 19/5/06.

by APTransco, the Peoples Monitoring Group on Electricity Regulation, and a journalist with Communist Party affiliation acting in his individual capacity. The expanded scope of regulatory governance has created new strategic opportunities for key actors in the sector.

The power purchase issue also illustrates how the APERC reacts to the various pressures it faces. In the case of one new generation plant, it withstood substantial pressure from the government, informally expressed, to considerably lower profit rates and therefore costs to consumers.³⁰ In another case, faced with considerable government pressure, the regulator was arguably lax about ensuring adequate fuel supply for the plant, and in the process allowed the risk of fuel supply to be passed on to the consumer, potentially substantially hiking costs.³¹ The latter case is currently under further appeal. The implications of these two cases for the regulator's independence from versus control by the government rests in the details of each case. However, that these issues are debated, and that any gains are made at all, is almost certainly facilitated by public engagement and scrutiny.

The broadening of regulatory space to include consumers of all sorts, public interest groups, and media may yet be the most far reaching change brought about by independent regulation. While regulatory governance is at an early stage, the AP experience suggests that future developments will be well worth exploring.

Delhi: Regulation in the Shadow of Privatization³²

Political context: Regulatory Design to Accommodate Privatization

The early years of the Delhi Electricity Regulatory Commission (DERC) have entirely been dominated by the larger context of a high profile privatization in Delhi. Following the experience of Orissa, widely viewed as a failure, Delhi's attempt at privatization was a high stakes effort to get it right. The pressure has been enormous; failure in Delhi would reinforce a signal that privatization in Indian electricity is a hopeless cause, and cause investors to be even more wary of entering the country's electricity sector. The local political stakes are also high. The privatization effort has been personally backed and supported by the Chief Minister, Shiela Dixit, and is a centrepiece of her efforts to transform and modernize the capital city. Electricity, along with water, is a central electoral issue in Delhi.

In addition to a charged political climate, the privatization context also meant that the DERC was called upon to regulate in the midst of a complicated and high profile privatization effort at its very inception. The DERC was legally established in early 1999 but only got under way with a Regulatory Commissioner and skeletal staff in early 2000, and had hired its first professional staff (other than the Secretary) by the end of 2000.

³⁰Interview with APERC official, 1/5/06.

³¹Interview with citizen petitioner before APERC, 2/5/06, and with senior management of APTransco, 19/5/06.

³²This section is based on ongoing research in Delhi conducted by the authors. This discussion draws on interviews with DERC regulators and staff, consultants, government officials, industrial and domestic consumers, NGOs, and media as well as documentary analysis of DERC orders, regulations, and selected internal documents. Since many of the interviews were conducted on a not for attribution basis to protect confidentiality and encourage candour, only institutional affiliations of interviewees are reported here.

With the introduction of the privatization plan in end 2001, the DERC was required to make important decisions and set benchmarks on which the success of the privatization depended within a year of its formation.

It is necessary to briefly spell out some details of the reform to understand its full implications for the regulatory process.³³ As in other states, the central objective of reform was to lower technical and, more important, commercial loss levels that together hovered above 50%, and to improve service quality. The context within which the regulator was set was one of rapid and dramatic sectoral reform and change. The reform followed the standard trajectory of separating out transmission and distribution components, and further split distribution into three distribution companies which were offered for sale. The privatization bid structure was a most interesting one; bidding was based on a trajectory of reductions in technical and commercial losses, with the company promising the biggest loss reductions declared winner. Financial incentives and disincentives were based on meeting those loss reduction trajectories. At the end of a five year transition period, the system as a whole was expected to break even, requiring no further subsidies. The three distribution companies were restructured as a joint venture between the Delhi government and Tata Power in one area and Reliance Power in the other two areas. These two industrial houses are among the largest, most powerful, and politically connected in the country.³⁴

The privatization arrangements constrained the regulator in several ways. The regulator lost control over performance targets, since they were based on bids and embedded in privatization contracts. The Delhi government's policy directive also set the rate of return, and required the regulator to set tariffs uniformly for all companies, thereby losing the ability to link tariffs and economic performance. The regulator retained control over scrutiny of costs and investments, and formal tariff setting authority. However, the regulator was further boxed in by the Delhi government's declaration up front of a total subsidy cap for the transition period, which necessarily included assumptions about the trajectory of tariffs. Without control over performance targets, or means of differentially rewarding the companies based on performance, the regulator faced the challenging task of balancing the hard constraints of available subsidy and required return against the political appetite for tariff increases.

Underlying this arrangement was a perceived need by the Delhi government for stability and predictability, especially in tariff setting, in order to reassure new private investors. Indeed, the government had initially asked the DERC to prepare "multi-year tariffs" to grant just this predictability. Citing the enormous information vacuum then prevalent, the regulator refused. The loss-reduction based privatization bid was a way around the problem, but at the cost of curtailing regulatory scope. The DERC vigorously protested the policy directive, but to no avail. Ultimately, the Delhi regulator began its work with a somewhat contentious relationship with the government, a shortened list of instruments with which to do its work, minimal experience and capacity, a highly charged political context, and two very powerful and sophisticated companies to regulate.

³³These details are available in the early orders (1999-2002) of the DERC at www.dercind.org and succinctly summarized in Prayas (2006). They are also discussed in some detail in Agarwal, Alexander and Tenenbaum (2003).

³⁴It is worth noting that the initial bids failed to meet the minimum loss reduction trajectory set by the government. The floor level of reduction had to be abandoned to entice private actors to participate in the sector.

Inside the Regulatory Black Box: Compensating for Weak Capacity

As the foregoing discussion suggests, the DERC began life with a stern challenge and little time to find its feet. The striking features of the Delhi regulatory experience are the use of a single person Commission, a paucity of staff and capacity, and dependence on consultants, but in a very different manner to AP. By way of legal backdrop, the DERC was established under central legislation, the Electricity Regulatory Commissions Act 1998, but this was strongly shaped by the Orissa Act. As in AP, there were few legislative innovations that would shape or structure DERC differently from other regulators in the country. Indeed, even DERC's operational regulations were largely drawn from existing APERC regulations.³⁵

With regard to the regulator, the DERC differed from APERC in two important aspects. First, DERC was led by a single regulator instead of a three person panel for its first several years. The choice of a single regulator seems to have initially been somewhat accidental rather than deliberate, but appointment of subsequent regulators was caught up on local politics which delayed appointment of subsequent regulators until after the term of the first regulator.³⁶ Participants in the regulatory process suggest that having a single regulator has undermined the checks in the system and permitted more idiosyncratic regulatory behaviour. Second, the Delhi regulator was a rare example of a Chairman not drawn from the IAS but in this case from the electricity fraternity. This relatively weak access to IAS networks may explain why the regulator expended considerable efforts early on to cultivate relationships with politicians and bureaucrats in the Delhi government.

Despite the regulator's connections to the electricity fraternity, the DERC has consistently suffered from weak capacity, and an inability to attract and retain staff. For example, several years after the establishment of DERC, two of the key functional positions, Director of Law and Director of Tariff, were vacant for over a year.³⁷ The majority of staff are drawn from the electricity fraternity, although often from central government electricity bodies rather than from the regulated utility. DERC administrators cite mundane problems of availability of housing, scope for promotion in a small organization and the like as the main reasons for the scarcity. The constraints of government salaries and human resource policies restrict DERC, as in AP, to the existing pool of public employees from which to attract DERC employees. This is a common theme in other regulatory commissions as well, with AP being more of an exception than the rule.

The shortage of competent and trained staff with knowledge of regulatory practice has led to a heavy reliance on consultants, as in AP. However, unlike in AP, where staff were able to develop the requisite knowledge and skills to take over the bread and butter operations of the regulator, the DERC continues to rely on external consultants to conduct analysis for and write the annual tariff filing seven years into its existence. This characteristic is typical of other regulators in the country.

As a result, the tariff process is not based on the deep knowledge and familiarity that a long-standing relationship between regulator and regulated could bring. Although the DERC used the same consultant for much of its operational period, the consultants only

³⁵Interview with former staff of DERC, 2/2006.

³⁶Interview with former Delhi government official, 22/2/06.

³⁷Interview with DERC staff, 7/12/05.

come for relatively brief spells, during which they are also working on tariff orders for other states, often using similar templates. This pattern of functioning almost certainly precludes the in depth knowledge of the nuances – technical, economic and political – that go into regulating electricity. For some, this is seen as an advantage and a way of ensuring arms length relationships and avoiding the cozy relationships that characterized the pre-reform period. It also, however, almost certainly rules out the give and take necessary for the sort of “responsive regulation” of the sort advocated by Braithwaite (2005). In the following section, we discuss specific examples of the costs introduced in the regulatory process by DERC’s seeming lack of deep familiarity with Delhi’s electricity sector.

In describing the interaction between regulator, staff and consultants, consultants are presented as simply providing technical input when required by the regulator. However, it is clear that many staff do not have familiarity with the necessary models, and by controlling the models, consultants may also be over-determining the direction and approach to regulation. This is not to argue that the regulator does not have authority and control over the consultant, but rather that through their ability to frame regulatory issues, and by providing first drafts of almost all significant regulatory orders, including tariff orders, the consultants potentially shape and circumscribe regulatory functioning. The extent to which this occurs in practice requires further exploration.

Regulatory Style: The Pitfalls of Hands-off Regulation in an Information Vacuum

The underlying presumption behind the Delhi privatization was that private sector resources and competence, when mated through contract to an appropriate incentive framework, would achieve the desired goal of loss reduction and service improvement. In this scheme the regulatory role was circumscribed; DERC was expected to not queer the pitch and to provide regular and predictable tariff increases. How did the interaction between the private providers, the DERC and the Government of Delhi work in practice?

The Delhi electricity sector suffered from a history of mis-management which had left an information vacuum and a considerably weakened basis for monitoring and accountability, which left the door open to gaming of all sorts by the utilities, a loophole that was encouraged, if anything, by the complexities of the privatization contract. For example, under some conditions, companies stood to earn more money by shuffling around consumption patterns than actually working to reduce losses. Under the terms of the policy directive, the regulator did not have control over the specifications or levels of performance targets, but could only undertake detailed scrutiny as a way of proactively improving performance.

However, citing the need to give private companies a chance, and not to micromanage, the regulator chose a consistently light-handed approach. He sent signals to his staff that they not be seen as investigators and in interviews repeatedly argued that his role was not that of an auditor.³⁸ Not all of his staff saw eye to eye with this position. Several efforts at proactive scrutiny were squashed by the regulator. In one case, a staff member found outright fraud – the reporting of old transformers as brand new ones for the purpose of capital investment. While the books were adjusted for the case in question, no further

³⁸Interview with former DERC Chairman, 24/3/06.

action, such as imposition of a penalty, was taken, and the staff member was discouraged from further detailed field-based scrutiny.³⁹

Independent analysis conducted by a research organization suggests there are some grounds to doubt the efficacy of the regulator's light-handed approach (Prayas 2006). This analysis suggests that the DERC paid insufficient attention to scrutiny of the companies' investment plans, potentially increasing the rate base unnecessarily. This analysis also finds anomalous consumption patterns in two of the companies suggesting some gaming of the loss reduction incentives. This also went un-scrutinized and un-reported by DERC.

Two additional factors have damaged the regulator's credibility. First, the first regulator issued a controversial "parallel license," allowing competition in a lucrative distribution zone that had been retained in public hands, on his very last day in office. To some, including in the Delhi bureaucracy, this was a dubious move that conferred considerable potential benefits to the company in question.⁴⁰ Second, the regulator has aroused the ire of wealthy consumers in Delhi because of its failure to proactively address and resolve what were seen as heavy handed tactics over metering and monitoring by one of the distribution companies.⁴¹

The regulatory politics are made even more interesting by the differing performance turned in by the two companies. The scrutiny discussed above on possible gaming, over-investment and consumer interface, has largely focused on one of the two companies. This company has also turned in a far less creditable loss reduction performance, only barely meeting its benchmarks. The other company has met or exceeded its benchmarks and has also received praise from consumers for its attention to service. Over time, the flawed performance of the former company has become associated with a weak DERC and has certainly contributed to tarnishing its reputation, whether fairly or not. In the words of one sceptical former Delhi bureaucrat (albeit also an insider with his own stakes in interpreting the performance of reforms), it is "hard to draw a line between incompetence and capture."

As a result of the indifferent loss reduction performance of the private companies taken together, the regulator has been subject to enormous political pressure in its tariff setting role. It is one of the less well kept secrets of the Delhi regulatory process that in assessing and negotiating these pressures the regulator has maintained close channels of communication to the highest levels of government.⁴² Such is the public perception, and it is confirmed by insiders.⁴³ While the regulator's role within the reform narrative is precisely to create a bulwark against political pressures, the reality is that the political cost of unpopular tariff hikes still rest with the government, and no regulator is willing to blindly impose those costs on its government with no regard to consequences. A tariff setting incident helps illustrate this dynamic.

In the tariff year 2004-05, the straight accounting of costs, returns and revenues required the regulator to approve a tariff hike of 35% to balance the books. A hike of this magnitude would have been politically ruinous, particularly given the failure of one of

³⁹Interview with former DERC staff, 16/2/06.

⁴⁰Interview with former Delhi government official, 22/2/06.

⁴¹Interview with consumer representative, 20/1/06.

⁴²Interview with consumer representative, 20/1/06.

⁴³Interview with former Delhi government officials, 30/1/06 and 22/2/06.

the private companies to deliver on the promise of better service. The regulator came up with the creative solution of requiring the companies to create a “regulatory asset” in effect using financial jugglery to spread the tariff hike out over future years. The companies disputed this order and the national Appellate Tribunal for electricity matters ruled in favour of the companies, but only two years later, after the regulatory asset had substantially done its work of deferring the tariff hike.

In the subsequent year, under a new regime of two newly appointed regulatory commission members, there was a public backlash against a 10% tariff hike for residential consumers (Indian Express 2005). Consumer groups argued that the hike was undeserved in the face of poor service and faulty meters. The regulator said they were only going by the letter and spirit of the law in trying to shift toward cost-reflective tariffs.⁴⁴ While the government at first held firm in arguing that they supported this decision of an independent commission, under growing political pressure the Delhi government relented and announced a roll-back of the hike (Roy 2005). This episode entirely punctured the fiction that creation of an independent regulatory body had created a wedge between the economic and political content of electricity decision making in Delhi.

The narrative above suggests the Delhi regulatory experience was defined by a highly restrictive privatization arrangement. The DERC had neither the control over the regulatory instruments needed to stamp its authority on the companies, nor the capacity with which to do so, nor even a store of credibility with the public that it could draw upon for support of tough decisions. Confronted with this situation, the regulator followed an accommodationist approach, seeking to limit political fall-out for the government, not unduly threaten the interests of powerful private companies and maintain credibility with consumers. In the process, by failing to take tough decisions either to further hike tariffs or to subject the companies to greater scrutiny, the DERC may have substantially undermined the aim of moving toward financial health that underlay the reform plan. The efforts to shift the regulatory process to a politically more predictable contractual terrain only temporarily concealed political pressures that sporadically re-emerged to shake the government and undermine the regulator's credibility.

Regulatory Governance: A Retreat from Regulatory Space to Political Space

As in the Andhra Pradesh case, the statutory requirements for hearings, access to information and mechanisms of recourse have created an important new space for regulatory governance in Delhi. However, the weaknesses in the practical application of these procedural requirements are also considerable. For example, the DERC website is incomplete and ill-organized, which along with the lack of an effective library or an organized index of documents makes accessing documents extremely difficult in practice. The hearings are not open to the public, but only to those who have submitted comments. This said, the wide availability of detailed tariff orders to the public, and the ability of consumers and interested parties of all sorts to present their views before the DERC, and obtain an answer from the distribution companies, represents an entirely new institutional space for public deliberation.

⁴⁴The average required tariff hike was 6.6%. The DERC raised the tariffs of subsidized customers by 10% and subsidizing customers, largely industry by 4-5% in order to shift toward cost reflective tariffs.

In 2004-05 the DERC received 212 objections to its tariff orders from 69 different objectors.⁴⁵ Consumer groups or individuals accounted for about 40 of these while there were about 20 objectors from within industrial user groups. Of the total concerns expressed, by far the majority, (625 out of 683) were substantive complaints as compared to more narrow grievances.

By contrast to Andhra Pradesh, however, no small core of competent and knowledge intervenors had appeared to win the respect of the regulators. For example, DERC staff say they do not find public submissions helpful in improving the quality of tariff orders. And indeed the capacity base of intervenors is thin. Thus, the apex body of Delhi's Resident Welfare Associations (RWAs) which includes the wide spectrum of neighbourhoods, including well to do areas, files petitions based on patched together pieces of information, without deploying any resources to obtain specialized knowledge or skills.⁴⁶ Similarly, the Chamber of Commerce hires a single consultant to write their comments, with little involvement or feedback from the staff, or mechanism of either quality control or ensuring that comments truly represent member interests.⁴⁷

However, Delhi consumers are extremely active and skilled in the broader political arena around electricity. The apex body of RWAs skilfully uses the media to directly critique the companies and the DERC and to force engagement and consideration of their appeals at the highest political levels. While it is an effective tactic in the context of any particular skirmish, this approach has the effect of de-valuing and de-legitimizing the DERC as a forum for reconciling competing interests.

A political mapping of consumer voices in Delhi is also instructive and helps explain the emphasis on organized politics rather than on the DERC. The most vocal subgroup, the RWAs, speak for a distinct sub-section of Delhi's consumers self-identified as "middle class", but who include the top end of Delhi's income strata. They place themselves in opposition to small scale and illegal industry owned by local politicians and slum dwellings which contain those politicians vote banks. Both of these categories of consumers, they argue, receive free power at their expense. From this perspective, the DERC is relatively helpless; the problem and the solution, lies in the political process.

As a result of the dominance of the RWAs in the public discourse around electricity, the issues that have attained the highest profile in the DERC are questions of metering and billing and other consumer grievance issues, after an initial period when the DERC was seen to be non-responsive. Some of the upstream and more technically detailed matters also before the regulator, notably investment scrutiny, have tended to be ignored. Another important consequence is that voices of lower income groups, and especially slum dwellers are seldom heard within the DERC process.

In sum, the effect of creating a new institutional space for regulatory governance has had relatively little beneficial effect on the regulatory process in Delhi. To the extent there are any substantive wins, they are on the issues closest to consumers – metering, billing and grievance redressal. The more significant observation is that, if anything, consumer action has by-passed the DERC, to re-focus attention on organized politics.

⁴⁵Based on analysis conducted by the authors using data in DERC tariff orders.

⁴⁶Interview with consumer representative, 20/1/06.

⁴⁷Interview with Chamber of Commerce representative, 31/1/06.

The Contours of Regulatory Space in Indian Electricity: Andhra Pradesh and Delhi Compared

India is far from being a regulatory state in Majone's (1994) characterization of the shift from public ownership, planning and centralized administration to regulation through structuring of incentives and signals. Understood as an essential complement to privatization, regulation has persisted and multiplied even as efforts at privatization have ground to a near halt. Intended as a buffer against political forces to enable private participation, regulation has now become an end in itself, the most tangible expression of, or even a substitute for political reform. At least in electricity, the state itself is most frequently the object of regulation. The result is a regulatory landscape with some quite distinctive features. In this section, we draw on Andhra Pradesh and Delhi experiences, also occasionally drawing in additional state experiences by way of comparison, to sketch the contours of an emerging regulatory space in Indian electricity.

First, the sectoral context of a deep and systematic crisis in electricity often places regulators in the situation of being stewards of rapid change. As such, the distinction between policy and regulatory roles, which as Prosser (1999) points out is hard to sustain in the best of circumstances, becomes particularly strained. The debate in AP over the shift toward more competition, and in particular the open access policy is a case in point.

While the pressure to be a steward of change is a general structural attribute, it manifests itself and is addressed differently in the two states. In AP, the driver of reform was clearly the government, operating through its public utility, with the regulator a bystander to utility reform, and in a supporting role at most. In Delhi, the story is more complex. The responsibility for stewarding change was scattered, as was authority over the sector, leading to confused lines of accountability. The privatization framework was intended to be the driver of utility reform and the private utilities the agents of change. Having set in place the framework, the Delhi government, formally at least, took a big step back. The regulator was appointed the overseer and monitor, but when the privatization framework failed to extract the necessary result, the onus for stewarding change shifted to the regulator. However, the regulator's wings were clipped by the privatization framework. As a result, the DERC had little authority and capacity to undertake any course corrections and as a newly established regulator, it did not have the track record and therefore credibility to be aggressive stewards of change. In a climate of pervasive information asymmetry, the lack of flexibility may well have imposed a cost.

In both cases, regulators appear to have been set in place as reform tokenism, as a mechanism considered necessary as a signaling device to donors and investors. However, the larger point that emerges is that establishing a regulator, however well designed, is not a substitute for politically led reform in a context of rapid change. This observation has implications for donor led programs that lean heavily on institutional design as the solution to political problems.

Second, that regulatory capacity and expertise are often extremely thin reinforces the point above – the limited ability of regulators to steward change – but also structures individual regulators to a considerable extent. To begin with, weak regulatory capacity contributes to the phenomenon of isomorphism. The framing legislation for most states in India have cascaded down directly from the limited example of Orissa reforms, which, as a small and relatively poor state, received little scrutiny. The operating regulations for Delhi were directly copied from the consultant-aided experience in Andhra Pradesh by a beleaguered and under-resourced Secretary of the Delhi regulator. However, this point

has to be tempered by the potential for individual personalities to forge a different trajectory. In the state of Karnataka, for example, an innovative Secretary put in place robust and original internal mechanisms of functioning that deviated from the norm.

In addition, weak capacity means that the regulator is established as an empty institutional shell, which is filled out by the operation of networks that early appointees bring to their new positions. The three important networks present in AP and Delhi are the IAS, the electricity fraternity and consultants. The tight embrace of the IAS brings not only paternalism and secrecy as a default mode of operation, but also direct channels to the executive and well developed norms and customs about their use. Direct evidence of this influence is hard to come by, precisely because it is so deeply internalized. However, it seems likely that developing a distinct regulatory culture organized around open debate and transparency is an uphill battle from this starting point. Instead, regulators demonstrate what might be called “everyday forms of state capture.”⁴⁸

The importance of consultants is considerable, in particular through their role in framing regulatory issues. Consultants bring an ideologically pro-competition and pro-privatization perspective, one that may run counter to the more mundane realities of the Indian context.⁴⁹ As the AP and Delhi cases show, however, the extent to which consultants are analysis providers versus *de facto* decision-makers rests considerably on the robustness of the regulatory institution – regulators and staff – within which they are embedded. In AP their influence was reduced over time, but they continued to play a leading role in new shaping new areas of work. In Delhi, consultants come perilously close to serving as a *de facto* staff for the regulator.

Third, the central dynamic of Indian electricity regulation is the interaction between three complex organizations with different facets of publicness, the regulator, the executive and the regulated utility. The specific nature of this interaction, in each case is structured by the larger political context. In AP, it was framed by the government's strong insistence on internal management reforms that contributed to performance improvements. These improvements created some political space for accommodation of differences among the three state bodies – on issues like open access -- without upsetting the overall dynamic. In some ways, the relative success of the AP regulator is explained by the fact that it was almost never forced into a position of making hard decisions and politically sensitive judgements. In Delhi, the interaction was governed by the policy directive and contractual arrangements underpinning privatization. Here, in the absence of performance gains, the sector did bump against political constraints – public willingness to accept price hikes – and economic constraints – the overall subsidy provided by the government. And it was the regulator that was placed in the position of resolving these tensions, with all the limits on its functioning described earlier. The attempt by the Government to distance itself from sectoral politics failed, however, as public unrest forced the Government to re-occupy centre stage. Notably, the act of privatizing did not de-politicize the sector or contain interaction within the regulatory process alone. The effects of privatization would appear to depend more on the willingness of the private actor to self-regulate, than on the ability of the regulator to provide checks.

⁴⁸The phrase is, of course, taken and adapted from James Scott's fascinating work in the entirely separate context of peasant resistance.

⁴⁹For a critical discussion of the global approach to electricity restructuring and specifically of its applicability to India and other developing countries, see Dubash and Singh (2005).

A third case of AP's neighbouring state of Karnataka provides an interesting counterpoint. Like AP, the regulated utility is unbundled but remains in state hands. Karnataka illustrates a form of parallel regulation, where the state government continues its regulatory function as if the regulator did not exist, and fails to discipline the utility when it disregards the regulatory commission's orders. Taken together the three cases illustrate how strongly the immediate political context shapes regulatory experience.

Fourth, while the points above highlight conservative forces that substantially mute the contribution of independent regulation, the broadening of decision-making through regulatory governance holds promise as a genuine departure from business as usual. The availability of procedural safeguards that enable transparency and public debate hold the potential for a new, and influential political space for democratic deliberation and the exercise of accountability. The AP and Delhi examples provide fruitful material to reflect on the implications of this trend.

Regulation can only provide an alternative political space for resolution of conflicting interests if it can win broad legitimacy with those interests. This would seem an uphill task, with the re-politicization of Delhi a case in point. Several factors worked against the construction of DERC as a legitimate political space: a single rather than multi-person regulator; weak authority due to the privatization framework; dubious regulatory decisions; and a weak and politically conflicted consumer presence. AP provides insufficient basis to test this claim, as the regulator never became the site of contested politics.

At the same time, there are factors that work in favour of constructing regulation as democratic space. In the current political climate, the bar to legitimacy is set quite low. While the literature is more often concerned with regulators matching the assumed legitimacy of elected representatives (Prosser 1999), in India, the legislature is viewed with considerable skepticism. If regulatory procedural safeguards, which as AP and Delhi show are well constructed on paper, can be made robust in practice, it would considerably enhance regulatory legitimacy.

In addition, the regulatory process is currently undermined by the narrow base of participation by wider societal groups. The exclusion of urban slum dwellers in Delhi is a poignant example. Regulatory legitimacy will require more than an open ended stakeholder approach to regulation. It will take a shift toward a reflexive form of the stakeholder approach which also includes proactive measures to equalize the imbalance in bargaining power and capability across stakeholders Prosser (1999).

Because the regulatory space is so thinly occupied, this may be easier to achieve in India than in advanced regulatory societies. Both cases show that industrial consumers and others with deep pockets are, so far at least, relatively absent from the regulatory process. Indeed, in AP, among the most effective and influential participants have been individuals and small groups. These observations suggest that Hancher and Moran's (1989) insistence that regulation is a game for and decided by only large organizations, leaving little space for individuals and smaller NGOs may not prove entirely true in India. That regulatory capacity of civil society organizations will grow in India is suggested by a groundswell of organizing and efforts to train and disseminate

information, led by a relatively small and effective group of regulatory interveners in the state of Maharashtra.⁵⁰

However, procedural integrity and participation will have limited value without substantive gains. Here, the experience of AP, where a small number of consumer groups obtained greater disclosure, forced deeper consideration of new power purchase agreements, provided an opportunity for new strategic alliances in bureaucratic games, and ultimately managed to achieve savings for consumers is both surprising and heartening.

While the experience in India is in its nascent stages, the cases suggest that careful proceduralism, a reflexive attention to stakeholder capacity, and demonstrated gains may yet create a constructive form of tripartism between stakeholders, regulator and regulated (Ayres and Braithwaite 1992).

Conclusion

Electricity regulation in India risks being absorbed and accommodated within the existing political-bureaucratic system with very little impact on decision making. The creation of separate agencies has introduced an element of transparency in decision making, but the impact of this is reduced by the embedding of the process within well worn networks. The signaling and credibility functions are muted by the overarching control of the political process. At root, the pattern of decision making in the sector is only transformed if there is a sustained political impetus to change, as in AP. The only way beyond this dependence on the favourable alignment of larger political forces on a state by state basis is through re-conceptualizing regulation as a new political space, an intent quite removed from the original designers of electricity regulation. In other words, since the problem of electricity in India is at root a political problem – unchecked state control – the way out lies not in institutional design, but in the explicitly political solution of new, democratic and legitimate regulatory spaces.

The Indian electricity example also suggests considerable diversity in outcome at which two cases can only hint. It reinforces the importance of understanding historical timing, bureaucratic traditions and customs, and organizational attributes. In India, the story is particularly bound up with understanding the shifting nature of the state. An inductive approach to regulation would appear necessary to fully sketch out the character of regulatory spaces.

At the same time, the Indian experience does suggest some systematic influences that come into play when independent regulation is introduced to developing countries. We conclude this paper with a short discussion of these influences, which might be taken to the study of regulation in other parts of the developing world.

Attention to the role of donor agencies as vectors of policy transfer may be a fruitful line of inquiry in many developing countries. The often uncritical acceptance of regulatory institutions as part of a package deal also comes with a lack of reflection on the role of regulation as a shaper of politics, other than the unchallenged assumption that regulation can make politics less relevant. That regulators are often introduced as part of donor driven and defined agendas may homogenize regulatory experience in some respects, and mute the impact of historical timing and geographic specificity.

⁵⁰ Maharashtra is the fourth case in the larger project of which the AP and Delhi cases are a part.

In a climate of low capacity, a condition that holds true in much of the developing world, the role of consultants and consulting firms becomes particularly important. Consultants constitute an increasingly global network that act as generators and transmitters of knowledge, and framers of decision choices. Consultants have increasingly taken on various attributes of publicness through their training functions and their embedding in regulators, and their advisory role to various governmental agencies. The extent and type of consultant influence will be shaped by their entry point-- often through donors, the extent to which they are deployed as knowledge providers versus a substitute for weak capacity, and whether their role is subject to external checks through procedural safeguards.

Finally, the Indian experience suggests that attention to “regulatory governance” – the potential for regulation to be conceived of as a new and democratic political space – is worth exploring. Regulatory governance in developing countries brings the challenge of weak and under-resourced civil society and possibly an over-bearing state with little regard for procedural safeguards. However, in the context of other weak and illegitimate public institutions, regulation has the benefit of being a newcomer without the baggage of the past. If the Indian example proves to be more generally true, the theoretical interest and normative contribution of regulation may well lie in its democratic potential.

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