# Chapter 2

Power Sector Reforms in India and Gujarat

#### 2 Power Sector Reforms in India and Gujarat

## 2.1 History of Reforms

As stated in the foreword, a successful organization has to face challenges in its environment by pursuing sound strategies and achieving positive results. The electricity sector in India in general and the monolithic electricity setup in the state, in particular had undertaken comprehensive reforms to come out of the cesspool of problems it found itself in. Internationally the electricity sector had undergone comprehensive reforms, and in some cases major paradigm changes had taken place, as we have seen in the discussion in the preceding chapter. There were comprehensive changes, continuous thrust towards optimal performance and up gradation, rearrangement, and remodelling of existing parameters. The reforms process, though more visible and continuous since the 1990s, had its origin earlier, as we discuss subsequently.

As mentioned before, the power sector in India has evolved through three historic Acts. These are the Indian Electricity Act of 1910, the ESA of 1948 and the Electricity Regulatory Commission Act of 1998. All states, including Gujarat, developed their electricity supply industry through a monolithic State Electricity Board based on these statutory provisions. Their job was three-fold-generation, transmission and distribution. The central Government, through its PSUs like NTPC, NHPC, and NPC etc was mostly into generation and creating and maintaining a national grid through Power Grid Corporation of India Ltd and facilitated states by providing easy finance and also performed regulatory work. But it was not into power distribution at all.

Thus in this model of growth, the government, through the SEB, took upon the role of the developer, promoter and regulator of electricity. Physical infrastructure for the power sector in India (and Gujarat) showed healthy growth from independence onwards. Growth of energy infrastructure was made possible by four major policies -

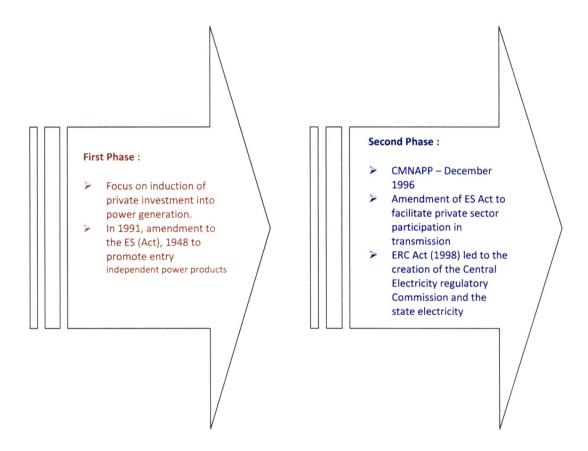
- Centralized supply and grid expansion (through both the central and state government PSUs and utilities).
- Large support from government budgets in the form of long term loans with little or no interest
- Development of the sector based on indigenous resources.
- Cross subsidization by charging industrial/commercial consumer a tariff above the cost of supply and charging agricultural/domestic consumers a tariff below the cost of supply.

India's Power Sector has grown tremendously since Independence in 1947, with installed capacity rising 8 per cent annually to more than 147965.41 MW as on 31<sup>st</sup> March, 2009. Despite this eighty-fold increase, the per capita consumption of electricity is only 631.5 kWh per annum, much lower than the world average of over 3,000 kWh/per annum. However, the Electricity Board could not generate adequate resources to sustain the development and growth in the Power Sector owing to inadequate tariffs, political compulsions and socialistic concerns for certain categories of consumers such as agriculture, water works, etc.

### 2.1.1 The earlier phase of reforms

Since the early 1990s, the power sector in India has been going through a slow process of reforms and restructuring. The reforms during the 1990s were in two phases as shown in Figure –5.

Figure-5 Snapshot of Power Sector Reform in India



Before we go to the enactment of the new comprehensive central legislation of 2003, it would be interesting to point out some major initiatives, which created the appropriate setting for liberalizing the power sector.

During the 1990s, a package of liberalization and reform measures was restarted in response to the changing economic and political conditions. The opening up of the generation activity for the private sector was the result of a major central government initiative in October 1991. This allowed private sector participation in generation thereby ending the monopoly of the state sector in generation activities. Through elaborate power purchase agreements, the independent power producers (IPPs) entered the generation sector. Gujarat, during this period also saw the entry of some major IPPs into the generation sector in the form of the Essar group and the GPEC group generating an additional 1,000 MW.

The Central Government also prodded the inefficient generation stations belonging to the state utilities to go for extensive Renovation and Modernization (R&M) activities by extending soft loans through the state Power Finance Corporation (a central government company). Regarding transmission, the Centre's role largely was to develop the national grid through a central transmission company and enforce grid discipline. Enforcing grid discipline through a separate institutional mechanism was useful in order to prevent states from overdrawing and preventing massive blackouts and tripping.

Regarding actual supply (or distribution) of power to the consumers, which was largely done by the SEBs, the Centre tried to create a political consensus through some commonly agreed principles between the Centre and the States.

The Central Government had two major conferences of the Chief Ministers of all the States in 1996 and 2001 on the issue of power sector reforms. In between, several meetings of the Power Ministers and the Secretaries' level meeting of the States were also held to develop a framework and certain agreed ground rules for reforms. In the 1996 Chief Ministers' conference, the Common Minimum National Action Plan for Power (CMNPP) was adopted. This attempted comprehensive reforms programme for power sector, including reforms in the power sector. The CMNPP inter alia, included (a) finalization of national energy policy, (b) establishment of a central regulatory authority, (c) rationalization of a retail tariff wherein it was agreed to charge a minimum of Rs.0.50 paisa (half of a Rupee) per kWh by all states for agriculture and progressively it would be raised to fifty per cent of the cost to serve (d) gradual private participation in distribution and allow private participation in transmission, (e) improvement in all physical parameters including PLF etc,(f) compulsory metering at all substations and all major feeders, including compulsory metering for all new connections including agricultural connections by 2002, (g) compulsory energy auditing, (h) encourage cogeneration and captive generation (Abraham, 2003)<sup>27</sup>. This was an important consensus as agricultural tariff was too low to be viable and in the competitive politics of democracy, it was difficult for any individual state government to agree to such principle for the agricultural sector, a powerful lobby. In the 2001 conference the urgent need to depoliticize power sector reforms and to speed up the reform process was stressed.

Abraham P., Power Sector Reforms: Focus on Distribution, New Delhi, Suryakumari Abraham Memorial Foundation, 2003,p.29.

As part of the above political consensus, it was decided to sign a memorandum of understanding between the centre and the respective state governments in order to consolidate the process of reforms. It was further decided that only such states, which agreed to sign the MoU would be allowed to receive central help and finance in a big way through a new programme Accelerated Power Development Programme (APDP). Simultaneously a waiver scheme of long standing dues of the state electricity boards (as suggested by the Ahluwalia committee) was also introduced as an incentive for reforms and to improve the financial position of the state utilities. Majority of the states had signed the pro-reform MoU very soon, thereby reflecting the changing pro-reform mood prevailing in the country.

Some other developments prior to the enactment of the Electricity Act need to be mentioned, for these resulted in the gradual unshackling of the power sector in India. The laws were amended to permit private sector participation. Norms were relaxed to encourage IPPs with 100 percent foreign equity participation, and higher rate of depreciation was allowed. The procedure of project approvals by CEA was streamlined in order to make the procedure faster and remove cumbersome procedures and delays. Along with generation, this made it possible to allow private investment in the transmission sector. Provisions were made to encourage captive and co-generation facilities to come up. Also it was made possible for the generators of captive and cogeneration to wheel the power to their preferred units using the transmission network by paying the wheeling charges. These activities cumulatively had the effect for setting the background for more comprehensive statutory initiatives, which would pave

the way for more far-reaching reforms in the power sector (Dubash and Rajan, 2001)<sup>28</sup>.

#### 2.1.2 The later phase of reforms

Though the first phase of reforms emanated from the Central Government, but the mindset of reform created the political space that allowed several States to begin structural reforms of their SEBs. The front-runner for structural reform was Orissa, one of India's poorer States. Orissa unbundled the SEB starting in 1996, and by 1998 it had created two Generation companies, one Transmission enterprise, and four Distribution companies. By the late 1990s several other States (Haryana, Andhra Pradesh, and Rajasthan among them) had undertaken power sector reforms.

This second phase of reforms also included the establishment of independent Electricity Regulatory Commissions (ERCs). Several States created ERCs from 1998 onwards under ERC Act adopted by the Central Government legislation. A primary motivation for creating independent Regulators was to introduce competition and rationalize tariffs.

A third phase of reforms emerged at the end of the 1990s, as the Central Government attempted to coordinate a reform strategy for India as a whole. In addition to institutionalizing reform process that was underway in several States, this third phase of reform sought to improve the Distribution of electricity. This new phase of reforms aims to break this vicious circle with special central funding mechanisms such as the APDRP/APDP schemes that

Dubash N.K., and Rajan S.C., Power Politics: Process of power sector reforms in India, Economic and Political Weekly, Delhi, 1 September, 2001,pp.3367-70.

offset the cost of improvements that are pre-requisites for long-term viability with the Electricity Act 2003 providing the required policy and Regulatory framework for national level co-ordination of reforms.

The pace of reforms has been gradual in India, as shown by the changes in the electricity sector. The slow pace has been blamed on the populist compulsions of democratic government and the deep-seated corruption in the Indian economy.

However, it may be argued that the slow pace has made the process sustainable and has thus been supported by successive governments - the Congress (1991-95), the United Front (1996-97) and the BJP (1998-2003)), which had declared its intention to continue structural reforms. Sustained measures over the past decades have led to more opening up of the Indian economy and the power sector and ultimately have more closely aligned it with the major economies of the world.

#### 2.2 Major Statutory Enactments and their intent

During the preceding discussion, we dealt with various reform initiatives that were undertaken. Some very important legislations were made, which had farreaching consequences on the power sector and gave a new forceful thrust to reforms.

Keeping in tune with the changing trends of the government towards liberalization, privatization and globalization in the economic sphere, and due to the inadequacies of the path of development in the power sector so far, it was felt necessary to enact a more comprehensive legislation that would usher

the desired changes. The need for a new legislation was felt mainly in order to harmonize and rationalize the provisions in the existing laws to create a competitive environment for benchmark competition which will result in enhancing quality and reliability of service to consumer, distancing regulatory responsibilities of Government, to obviate the need for separate reform legislation by several States separately, to facilitate the introduction of newer concepts like power trading, open access, Appellate Tribunal etc. and to make special provisions to ensure full electrification of the rural India.

The Electricity Act, 2003 was a landmark comprehensive legislation in the power sector and it replaced the three existing legislations. The Electricity Act, 2003 seeks to bring about a qualitative transformation of the electricity sector through a new paradigm. The Act seeks to create a liberal framework of development for the power sector by distancing Government from regulation. It replaces the three existing legislations, namely, Indian Electricity Act, 1910, the Electricity (Supply) Act, 1948 and the Electricity Regulatory Commissions Act, 1998. The objectives of the Act are to consolidate the laws relating to generation, transmission, distribution, trading and use of electricity and generally for taking measures conducive to development of electricity industry, promoting competition therein, protecting interest of consumers and supply of electricity to all areas, rationalization of electricity tariff, ensuring transparent policies regarding subsidies, promotion of efficient and environmentally benign policies, constitution of Central Electricity Authority, Regulatory Commissions and establishment of Appellate Tribunal for conflict resolution. The salient features of the Act are given on next pages (www.powermin.nic.in). The exact sections pertaining to the provisions are shown in parenthesis.

- The Central Government is to prepare a National Electricity Policy in consultation with State Governments. (Section 3)
- Thrust to complete the rural electrification and provide for management of rural distribution by rural local bodies, Cooperative Societies, non-Government organizations, franchisees etc. (Sections 4, 5 & 6)
- Provision for license free generation and distribution in the rural areas.

  (Section 14)
- Generation has been delicensed and captive generation is freely permitted. Hydro projects would, however, need clearance from the Central Electricity Authority (mainly due to the large scale environmental and inter-state implications of hydro bodies) (Sections 7, 8 & 9)
- Transmission Utility at the Central as well as the State level is to remain
  as a Government company with responsibility for planned and
  coordinated development of transmission network. (Sections 38 & 39)
- Provision for private licensees in transmission and entry in distributionthrough an independent network, (Section 14)
- Open access in transmission from the outset. (Sections 38-40)
- Open access in distribution to be introduced in phases with surcharge for current level of cross subsidy to be gradually phased out along with cross

subsidies and obligation to supply. SERCs to frame regulations within one year regarding phasing of open access. (Section 42)

- Distribution licensees would be free to undertake generation and generating companies would be free to take up distribution businesses. (Sections 7, 12)
- Setting up of a separate SERC is a mandatory requirement. (Section 82)
- Provision for payment of subsidy through budget. (Section 65)
- Trading, a distinct activity is being recognized with the safeguard of the Regulatory Commissions being authorized to fix ceilings on trading margins, if necessary. (Sections 12, 79 & 86)
- Provision for reorganization or continuance of the SEBs. (Sections 131&172)
- Metering of all electricity supplied made mandatory. (Section 55)
- An Appellate Tribunal to hear appeals against the decision of the CERC and SERCs. (Section 111)
- Provisions relating to theft of electricity made more stringent. (Section 135-150)

 Provisions safeguarding consumer interests. (Sections 57-59, 166) and setting up of Ombudsman scheme (Section 42) for consumers' grievance redressal.

An essential feature of the new Central Act of 2003 is that the central government comes up with a National Electric Policy through which the central government spells out its policies in the electricity sector. Accordingly the central government brought out its new national policy in 2005 (www.powermin.nic.in). The National Electricity Policy aims at laying guidelines for accelerated development of the power sector, providing supply of electricity to all areas and protecting interests of consumers and other stakeholders keeping in view availability of energy resources, technology available to exploit these resources, economics of generation using different resources, and energy security issues.

The National Electricity Policy aims at achieving the following objectives:

- Access to electricity available for all households in next five years.
- Availability of power demand to be fully met by 2012. Energy and peaking shortages to be overcome and adequate spinning reserve to be available.
- Supply of reliable and quality power of specified standards in an efficient manner and at reasonable rates.
- Per capita availability of electricity to be increased to over 1,000 units by 2012.
- Minimum lifeline consumption of 1 unit (kWh) /household/day by year 2012.
- Financial turnaround and Commercial Viability of Electricity Sector.

#### Protection of consumers' interests.

A brief critical appraisal of this landmark central legislation needs to be done now. The Electricity Act replaces the three previous statutes for the sector and signifies a bold direction for electricity reform while simultaneously removing the political cover the states have been hiding behind to slow down electricity reform. Active participation by small operators is encouraged in many parts of the Electricity Act as well as a direct injunction to phase out cross-subsidies and ensure open access to the transmission and distribution system.

The Central Act attempted to move away from the single buyer model followed so far and allowed relatively free entry to generation and captive generation. The removal of restriction on captive power and broadening the scope of captive generation by including the association of consumers would help promote proliferation of captive power, which in turn would reduce the creamy consumers providing cross subsidy to distribution companies. The loss of creamy layers would allow introduction of open access to certain class of consumers and perhaps entry of IPPs in generation in a big way. The above phenomenon is expected to allow removal of cross-subsidies and promotion of cost-reflective tariff regime in the distribution (supply) business. It also introduced a better arrangement for funding of commissions and strict provisions for subsidy payment by government. The tariff determination has been made flexible, as regulators are now free to move to a multi-year tariff regime and decide the tariff principles.

The Central Act has been criticized for not addressing the crucial agriculture subsidy issue, except to require that it be explicitly paid through the state budget, but the problem of differential power prices between sectors remains (Godbole, 2002)<sup>29</sup>. This will continue to provide incentives for price arbitrage, manifested as corruption and theft (Morris, 2002)<sup>30</sup>. As a counter, the Act does include several measures to combat theft, such as special court for prosecuting offenders quickly. It also reduces some regulatory uncertainty by decreasing the number of approvals needed for new captive and rural energy projects, but it does not adequately reduce the complex overlapping structure of regulation from the centre to the state bodies (Pandey, 2002)<sup>31</sup>, or the large number of approvals needed for some power projects which do not sell power across state lines. The outcome on the ground may be the continuation or expansion of some forms of corruption, a distinct possibility when considered within the corruption framework that stresses the propensity of liberalization efforts to create new spaces for corruption instead of streamlining systems

### 2.3 Effects of Statutory Enactments on State Monopolies

The effects of the Central Electricity Act and the other state Acts brought about far-reaching changes in the electricity supply industry in the states. Of course, in some of the states like Orissa, the unbundling process had started prior to the 2003 Act. After three years of enactment of the Electricity Act and various policy papers and regulations issued by CERC, the Electricity Sector had witnessed significant changes. The key provisions of the Act have made remarkable changes in all aspects of segregated business - Generation, Transmission, Distribution, State Load Despatch Centre (SLDC) and Trading. The power reforms status in various States can be known in two ways;

<sup>&</sup>lt;sup>29</sup> Godbole M., Power Sector Reform, if Wishes were Horses, Economic and Political Weekly, Delhi, 18 May, 2002,p.622.

Morris Sebastian, The Challenge to Governance in India, in, India Infrastructure Report 2002,ed. Sebastian Morris, New Delhi, Oxford University Press,p.109.

Pandey Ajay, Power Sector Reforms and Proposed Electricity Bill, India Infrastructure Report 2002, New Delhi, Oxford University Press, p.273.

Regulatory Framework & Restructuring of the SEBS. For a broad overview as to where the various states stand in terms of key indicators of the Reform agenda, we can classify the states on the basis of stage of reforms achieved.

Restructuring/ Unbundling of State Electricity Board - All Northeast States in India, except Assam have the Electricity Departments (ED) instead of State Electricity Boards, who are responsible for the Generation, Transmission and Distribution of power within the State. The structure of Power Sector in West Bengal is still vertically integrated and now in the process of restructuring. Other States like Punjab, Himachal Pradesh, Tamil Nadu, Chhattisgarh, and Jharkhand have vertically integrated power utilities that are looking after Generation, Transmission and Distribution of power in the State. The following table shows the status of unbundling of State electricity boards in various States.

Table-6 Status of Restructuring of State Electricity Boards in various States

States	Companies				
ANDHRA PRADESH	APGENCO for Generation and APTRANSCO for Transmission				
	4 Distribution Companies -				
	Andhra Pradesh Central Power Distribution Company Limited				
	(APCPDCL),				
	Andhra Pradesh Eastern Power Distribution Company Limited				
	(APEPDCL),				
	Andhra Pradesh Southern Power Distribution Company Limited				
	(APSPDCL),				
	Andhra Pradesh Northern Power Distribution Company Limited				
	(APNPDCL)				
ARUNACHAL PRADESH	Electricity Department				
ASSAM	Unbundled into one Generation Company – Assam Power				
	Generation Corporation Limited				
	One Transmission Company – Assam Electricity Grid				
	Corporation Limited				
	Three Distribution Companies –				
	Central Assam Electricity Distribution Company Limited				
	Lower Assam Electricity Distribution Company Limited				
	Upper Assam Electricity Distribution Limited				
BIHAR	Vertically Integrated Utility				
CHHATTISGARH	Vertically Integrated Utility				

States	Companies					
DELHI	One Generation Company – Delhi Genco					
	One Transmission Company – Delhi Transco Limited					
	Three Distribution Companies –					
	BSES Rajdhani					
	BSES Yamuna					
	North Delhi Power Limited (NDPL)					
GUJARAT	One Holding Company – Gujarat Urja Vikas Nigam Limited					
	One Generation Company – Gujarat State Electricity Corporation Limited (GSECL)					
	One Transmission Company – Gujarat Energy Transmission Corporation Limited (GETCO)					
	Four Distribution Companies –					
	Madhya Gujarat Vij Company Limited (MGVCL)					
	Uttar Gujarat Vij Company Limited (UGVCL)					
	Paschim Gujarat Vij Company Limited (PGVCL)					
	Dakshin Gujarat Vij Company Limited (DGVCL)					
GOA	Electricity Department – looking after Transmission and					
	Distribution. No Generation on its own.					
HARYANA	One Generation Company – Haryana Power Generation					
	Corporation Limited (HPGCL)					
	One Transmission Company – Haryana Vidyut Prasaran Nigam					
	Limited (HVPNL)					
	Two Distribution Companies –					
	Uttar Haryana Bijli Vitaran Nigam Limited (UHBVNL)					
	Dakshin Haryana Bijli Vitaran Nigam Limited (DHBVNL)					
HIMACHAL PRADESH	Vertically Integrated Utility					
JHARKHAND	Vertically Integrated Utility					
KARNATAKA	One Generation Company – Karnataka Power Corporation Limited (KPCL)					
	One Transmission Company – Karnataka Power Transmission					
	Corporation Limited (KPTCL)					
	Four Distribution Companies –					
	Bangalore Electricity Supply Company (BESCOM)					
	Hubli Electricity Supply Company (HESCOM)					
	Gulbarga Electricity Supply Company (GESCOM)					
KERALA	Mangalore Electricity Supply Company (MESCOM)  Vertically Integrated Utility					
MADHYA PRADESH	One Generating Company – Madhya Pradesh Power Generating					
MADHTAFRADESH	Company Limited					
	One Transmission Company – Madhya Pradesh Power					
	Transmission Company Limited					
	Three Distribution Companies –					
	Madhya Kshetra Vidyut Vitaran Company Limited					
	Paschim Kshetra Vidyut Vitaran Company Limited					
	Poorva Kshetra Vidyut Vitaran Company Limited					
MAHARASHTRA	One Generation Company – Maharashtra State Power Generation					
	Company Limited (MSPGCL)					
	One Transmission Company – Maharashtra State Electricity					
	Transmission Company Limited (MSETCL)					
	One Distribution Company – Maharashtra State Electricity					
	Distribution Company Limited (MSEDCL)					

States	Companies					
	One Holding Company – MSEB Holding Company					
ORISSA	Two Generation Companies –					
	Orissa Power Generation Corporation (OPGC)					
	Orissa Hydro Power Corporation (OHPC)					
	One Transmission Company – Grid Corporation of Orissa					
	Four Distribution Companies –					
	North Eastern Electricity Supply Company of Orissa Limited					
	(NESCO)					
	Central Electricity Supply Company of Orissa Limited (CESCO)					
	Western Electricity Supply Company of Orissa Limited (WESCO)					
	Southern Electricity Supply Company of Orissa Limited (WESCO)					
	(SouthCo)					
PUNJAB	Vertically Integrated Utility					
RAJASTHAN	One Generation Company – Rajasthan Vidyut Utpaadan Nigam					
Maria III II	Limited (RVUNL)					
	One Transmission Company - Rajasthan Vidyut Prasaaran Nigam					
	Limited (RVPNL)					
	Three Distribution Companies –					
	Jaipur Vidyut Vitaran Nigam Limited (JVVNL)					
	Ajmer Vidyut Vitaran Nigam Limited (AVVNL)					
	Jodhpur Vidyut Vitaran Nigam Limited (AVVNL)					
TAMIL NADU	Still a Vertically Integrated Utility and now being proposed for					
TAMIL NADO	restructuring.					
UTTAR PRADESH	Two Generation Companies –					
UTTAK FRADESH	Uttar Pradesh Rajya Vidyut Utpaadan Nigam Limited					
	(UPRVUNL)					
	Uttar Pradesh Jal Vidyut Utpaadan Nigam Limited (UPJVUNL)					
	Transmission is being handled by Uttar Pradesh Power					
	Corporation Limited					
	Four Distribution Companies –					
	Madhyanchal Vidyut Vitaran Nigam Limited (MVVNL)					
	Poorvanchal Vidyut Vitaran Nigam Limited (PoVVNL)					
	Paschimaanchal Vidyut Vitaran Nigam Limited (PVVNL)					
LITTADANICHAL	Dakshinanchal Vidyut Vitaran Nigam Limited (DVVNL)					
UTTARANCHAL	One Generation Company – Uttaranchal Jal Vidyut Nigam Limited					
	One Transmission Company – Power Transmission Corporation of Uttaranchal Limited					
	One Distribution Company – Uttaranchal Power Corporation					
	Limited					
WEST BENGAL						
WEST BENGAL	Vertically Integrated Utility; West Bengal Power Development					
	Corporation Limited is also in Generation;					
	Private Companies in Distribution – Calcutta Electricity Supply Company Limited (CESC Ltd.) and					
	Dishergarh Power Supply Company Limited (CESC Ltd.) and					
NAGALAND	Electricity Department					
MEGHALAYA	Vertically Integrated Utility					
MIZORAM	Vertically Integrated Utility					
MANIPUR	Electricity Department					
TRIPURA	Electricity Department					
SIKKIM	Electricity Department					

Regulatory Framework - Twenty two States in India have either constituted or notified the constitution of State Electricity Regulatory Commission. One SERC has been constituted to regulate the sector for all north-eastern States except Assam. Eighteen State's ERC have issued Tariff Orders at least once. The important Regulations/Orders issued in various States by the State Commissions are Intra State ABT concept, Open Access regulations, Tariff Orders on ARR filings by the utilities, Multiyear Tariff etc.

The following Tables–7& 8 show the level of regulatory framework of the State power sectors.

Table-7 Level of Regulatory Framework

	AP	Gujarat	Karnataka	Rajasthan	Punjab	TN.	MP. e.	Kerala	Jharkhand
Open Access Regulation									
Transmission	1	<b>✓</b>	<b>'</b>	✓	<b>√</b>	✓	✓	✓	<b>✓</b>
Distribution	1	~	1	1	~	<b>'</b>	<b>v</b>	<b>~</b>	~
Terms & Conditions of Tariff	1	1	1	<b>*</b>	1	<b>v</b>	1	<b>√</b>	<b>✓</b>
Intrastate ABT Concept	<b>v</b>	1	<b>✓</b>						
Multi Year Tariff Concept	FY08		~	·			<b>~</b>		<b>~</b>
Power Procurement Guidelines	~	✓.		<b>✓</b>			<b>√</b>	<b>✓</b>	
Supply Code Regulations	1	~	1	<b>✓</b>		~	~	<b>~</b>	/
Standard of Performance Regulations	. 🗸	·	<b>'</b>	<b>✓</b>		1	~		/
State Grid Code Regulations	1	1	· /	1	· .	<b>v</b>	1	1	. 🗸 =
Intrastate Trading Regulations	~	~	~	~			~		·
Cost of Supply/Cross Subsidy Order	~	<b>'</b>	~	~					
Tariff Orders issued for FY 06-07				·					
Generation Tariff	1						1		
Transmission Tariff	~						1		

	AP	Gujarat	Karnataka	Rajasthan	Punjab	TN	MP	Kerala	Jharkhand
Distribution Tariff	✓		✓				✓		
MYT Order							~		

Source: CERC & relevant State websites.

Table-8 Level of Regulatory Framework

			Level of 1	restructuring			
		Vertically Integrated Utility (VIU)	STU Separation under VIU	Unbundling and Corporatised Companies	Multi Buyer Model	DISCOM PSP	Genera- tion PSP
Regulatory Framework	Intra State ABT Concept				AP, UP, Rajasthan		
	MYT Concept	Punjab		Karnataka, Gujarat, MP, Maharashtra		Delhi	Orissa
	Terms & Conditions of Tariff	Kerala		Uttaranchal, Haryana			
	Open Access Regulations	Chhattisgarh, West Bengal	Tamil Nadu				
	Tariff Order Issued	Jharkhand					
	Functional SERC						

Source: CERC & relevant State websites.

**Privatization** - A significant feature of the new Central Act of 2003 was the provision for privatization of generation and distribution assets. To promote private sector participation and induce competition, Generation is being delicensed and captive Generation is being freely permitted. Also group of consumers are allowed to exercise choice to purchase power directly from a generating company or such intermediaries as trader or Distribution companies. To facilitate the same, the Act provides for Open Access to Transmission/Distribution systems of the incumbent licensees. This proposal to provide a direct contact between the generator and the consumers should provide a strong incentive for the SEBs to improve efficiencies so as to retain their customers. Further, to augment the availability of power, Captive Power

Plants (CPPs) have been freely allowed. The provisions of the act also allow the CPPs to make third party sale of power through Open Access. It may also be possible for industrial units to cluster up and set up a CPP. This will act towards limiting the tariff that can be levied for supply to such customers.

However, it may be noted that except Orissa in the very beginning and Delhi later, no other state has gone for privatization of either its generation or distribution assets. But many states, including Gujarat, have made significant progress in setting up CPPs and IPPs in generation. The hesitation to privatize distribution assets in other states probably stemmed from the early disappointing results from Orissa, where financial losses as well as theft and technical losses of electricity continued to swell even after the reforms (Sinha, 2002)<sup>32</sup>. Even in Delhi, the initial results were not very encouraging (Dubash, N.K and Rajan, S.C, 2002)<sup>33</sup>.

However, it can be said that following the passage of the new enactments, many states in India have recognized the need to separate social obligations from commercial considerations and embarked upon energy sector reforms. It may be noted here that at this stage neither the Central nor the state Government had not touched upon improving the human resource of the power utilities by way of special orientation activities or intensive training or incentives for the personnel of the state electricity utilities.

Sinha Sidharth, Orissa Power Sector Reforms: Getting Back on Track, India Infrastructure Report 2002, New Delhi, Oxford University Press, pp.260-62.

Dubash N.K., and Rajan S.C., India: Electricity Reform under Political Constraint, in Dubash, Navroz.ed., Power Politics: Equity and Environment in Electricity Reforms, World Resource Institute, Washington D.C.,2002.p.60.