Development in the Power Sector in Andhra Pradesh

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Introduction

In a span of four decades since its inception in 1959 APSEB increased power generation capacity by 36 times, power handled by 59 times, service connections by 40 times, and revenue by 747 times. During this period APSEB achieved 100 per cent electrification of towns and villages. 65 per cent of the hamlets, 85 percent of the backward classes colonies and 92 per cent of the Scheduled Castes' colonies are electrified.

Table 1: Power Position in Andhra Pradesh

Item	***1959***	***1999***
Generation Capacity	200MW	7330MW
Peak Demand	146MW	6480MW
Service Connections	2.7 lakhs (i.e., hundred thousands)	1.1 crore
Agriculture Connections	18,000	18.85 lakhs
Power supplied	686MU	40,574MU
Annual Revenue	Rs. 6.6 crore	Rs. 4932 crore

Source: Power Development in AP – 1998-99.

Financial Position of Andhra Pradesh State Electricity Board (APSEB)

Losses incurred by APSEB are shown as one of the main reasons for restructuring the power sector in Andhra Pradesh. But these losses have surfaced only recently. Both the state government and the World Bank concede this fact. In 1994-95 APSEB earned profits of Rs.87.25 crores. But during the very next year, i.e., 1995 - 96 losses stood at Rs.1244.68 crores. These losses climbed to Rs.1533.04 crores in 1996 - 97. One may wonder how losses of such magnitude surfaced so suddenly. According to the white paper published by the state government of AP on power sector in the past also the board incurred losses but they were compensated by additional mobilisation of resources by the state government. Additional resources worth Rs. 130.25 crores were mobilised in 1992 - 93, and Rs. 275.25 crores were mobilised in 1993 - 94. In 1994 -95 the state government has written off its equity of Rs. 944.11 crores in APSEB. After that, according to the government, there is no other way of compensating losses incurred by the APSEB.

During the same period revenues of APSEB were moving up. Revenues increased from Rs. 1935.5 crores in 1992 -93 to Rs. 3007.87 crores in 1996 - 97. The revenues of the board are not enough to cover the mounting costs. Fuel purchase, payments towards electricity purchased from other electricity boards and interest payments are important components of the costs incurred by the APSEB. Because of rise in prices of petroleum products in recent times and difficulties encountered in production and transport of coal led to fuel cost escalation. In order to balance supply and demand of power in the state APSEB resorted to purchase of power from other boards. The cost on this count increased from Rs. 591.66 crores in 1992 - 93 to Rs. 888.18 crores in 1996 - 97. Besides this, purchase price paid by the board is also above the national average. While the national average purchase price stood at 110.01 paise (i.e. one hundredth of a Rupee) per unit of power, APSEB paid 114.12 paise. On the debt front, in 1992-93 APSEB paid Rs. 330.36 crore towards interest payments, it increased to 1106.93 crores in 1996 - 97. This shows that one third of the Board's income is going to meet interest payments. At the end of March 1996 the outstanding loans stood at Rs.4851.02 crores. Added to this, the increasing burden of interest payments formed 20.31 per cent of the expenditure of the Board. It increased to 32.23 per cent in 1996 -97.

Table 2: Financial Position of APSEB

(Rs. Crores)

	1992-93	***1993-94***	***1994-95***	***1995-96***	***1996-97***
				Provi'nal	Estimate
1. Total Income	1935.50	2303.15	3220.44	2407.28	3007.86
2. Expenditure on Fuel	484.66	608.75	719.09	1000.94	1306.44
3. Expenditure on purchase of power	591.46	742.75	940.29	954.68	888.18
4. Total expenditure	1542.69	1914.14	2597.39	2991.79	3433.97
5. Operational Income (1-4)	392.81	389.01	623.05	-584.51	-426.11
6. Interest Payments	313.36	302.02	535.80	660.17	1106.93
7. Net surplus / Deficit (5-7)	79.45	86.99	87.25	-1244.68	-1533.04

Source : Finances of APSEB. APSEB, June - 1996

Table 3: Distribution of Electricity ***(in MU)***

Category		***1980-81***	***1990-91***	***1995-96***	***1996-97***	***1997-98***	***1998-99***
Power Distributed		6915	20233	29457	32092	36358	38721
Industry	Total	3363	7042	7798	8207	8595	8655
	%	8.63	34.80	26.47	25.57	23.64	22.35
Agriculture	Total	915	6285	11399	7835	9336	9866
	%	13.23	31.06	38.70	24.41	25.67	25.48
Domestic	Total	546	2079	3276	3801	4535	5090
	%	7.90	10.28	11.12	11.84	12.47	13.15
T&D Losses	Total	1523	3978	5551	10281	12020	12312
	%	22.03	19.67	18.85	32.04	33.06	31.80

Source: Power Development in Andhra Pradesh - 1998-99.

APSEB and Agriculture Sector

Whenever the issue of losses crop up the government and APSEB officials point their accusing finger at the agriculture sector. They argue that because of the subsidies given to the agriculture sector the Board has landed in losses. While the agriculture sector is consuming more power than any other sector, it provides least proportion of revenues. The losses are mounting as power is being diverted from industrial sector to agriculture sector. In 1985 -86 while agriculture sector consumed 28.8 per cent of power distributed, industrial sector consumed 54.8 per cent. In 1994 -95 while power consumed by the agriculture sector increased to 47.8 per cent, that of the industrial sector declined to 29.1 per cent. Subsidies to the agriculture sector cost Rs. 162.3 crores in 1985 -86. This increase to Rs. 1626.8 crores in 1995 - 96. But the question is how far these figures are reliable. Power supplied to the agriculture sector is not metered. All the power supplied, after deducting the power consumed by industrial and household sectors is shown as being consumed by agriculture sector. But this includes losses in transmission and distribution, and also power theft. If these losses are taken in to account then the proportion of power consumed by the agriculture sector will be low, lower than 47.8 per cent. M. Hariprasad Rao estimated that the government overestimated the number of pump sets by 25 per cent, working hours (1620 hours) in an year by 33 per cent and power consumption by one 5HP motor (4.55 units) by 20 per cent. Because of all these power consumed by the agriculture sector was shown to be two times more than its actual consumption (The Hindu, September, 5, 1997).

This overestimation of the agricultural consumption continued with the recent tariff hike exercise. According to the ‘Tariff Proposals for Retail Power Supply’ (page No.17) “ for the purpose of developing the ERC/ARR projections, APTRANSCO has adopted an estimate of agricultural consumption of 1200 hours This calculation is based on supply of power for six hours daily for 200 days in an year. But in actual experience it never crossed five hours. APTRANSCO has taken 9,815 MU as agricultural consumption for the year 2000-01. Actually this would not be more than 6600 MU. This means that more than 3200MU of power is wrongly attributed to agriculture. This fact is also conceded by APTRANSCO when it submitted before APERC that its “sample was not representative and it is likely that the extrapolated consumption derived from such sample metering is on the higher side”(p.16).

According to the official white paper released in 1999, while cost per unit of power at LT end was about 201.84 paise in 1997-98 the electricity board received only 16.12 paise from agriculture while supplying 9336MU of power; and as a result of it incurred a loss of Rs. 1,733.88 crore. But if we take 5398 MU as the actual consumption in the agricultural sector per unit income from this sector will be 28 paise and loss incurred will be Rs 938.40 crore. Industrial and commercial consumers are cross subsidising agricultural and domestic consumption. While the average cost of power supply is Rs. 2.29 per unit the industrial consumers are paying about Rs 3.19 per unit and commercial consumers are paying Rs 3.69 per unit. As a result of this additional income accruing to the board is about Rs 907.8 crore (Rs 778.02 crore from industry and Rs 129.79 crore from commercial). This amounts to Rs 31.4 crore effective subsidy provided by the state government/APSEB. Even if we add subsidy of about Rs 163.25 crore provided to domestic consumers the total subsidy will not cross Rs 200 crore. This show that subsidies to agriculture in particular are not the main cause of financial problems because the losses on this account are more than compensated by surplus from the industrial and commercial consumers.

Transmission and Distribution (T&D) Losses: Fudged Figures

While subsidy to agriculture is treated as villain, the T&D losses are escaping the attention it should have received. In fact effective addressing of this problem will solve the problems of the power sector. A substantial proportion of T&D losses were shown as being consumed by the agriculture sector on the pretext that it being non-metered sector it is difficult to measure its consumption properly. So after assuming a notional quantity of T&D losses the remaining quantity is attributed to agriculture. From 1982while T&D losses steadily declined as if showing improved efficiency in T&D, agricultural consumption was shown to be increasing, symbolising unbridled consumption in the wake of heavily subsidised power supply. But truth was otherwise. There were technical limitations to such an increase in agriculture sector power consumption, which include limited hours of supply, poor quality of supply and declining water table. At the same time commercial losses signifying theft of power was spreading alarmingly. But from 1996-97 the year in which power sector reforms in AP began to take a firm shape T&D losses were shown to be suddenly increasing, to 32 percent from 18.85 percent of the previous year. With the initiation of AP Power Sector Restructuring Programme extensive investments began to be made in transmission and distribution. Since the onset of reforms in 1995 more than Rs. 2000 crore were spent on improving transmission and distribution systems. Even then T&D losses instead of declining are increasing. According to the Power Development in Andhra Pradesh 1998-99 published by APSEB T&D losses during 1998-99 stood at 31.8%. In a written reply in Lok Sabha (i.e., the Parliament) on 17th April 2000 the minister for state for power stated that T&D losses in AP are 31.76%. But for the same year according to the ARR submitted by the APTRANSCO these losses were shown as 38.10%. This shows that the figures are fudged to their convenience. Substantial proportions of these losses are because of commercial losses/thefts. These could be and should be stopped without much investment. The Document released by the APERC "Issues in Tariff Philosophy" in October 1999 for public discussion has specifically mentioned, "APTRANSCO has already initiated programmes to alleviate these problems. Energy audit was conducted in October 1996 to assess a realistic level of non-metered agricultural consumption. Almost 7 lakhs of defective meters were replaced in 1997-98. Meter terminal covers were sealed for majority of services. Investigation of energy theft has been intensified in the last two years, and bill collections at the LT level has increased to 91.8% in the last year. All these measures have contributed to reduction of T&D losses and an increase in revenue of APTRANSCO to a small extent" (page No.4). This means that reducing these losses is within reach, provided will to achieve it is there.

Evolution of Reforms

It can be said that the reform process in AP started with the constitution of a high level committee under the chairmanship of Hiten Bhaya to suggest reforms to be introduced in the power sector. This committee was constituted in January 1995 and submitted its report in June 1995. The important proposals made by the Hiten Bhaya committee include, fixing of tariff structure to cover production costs, to separate generation, transmission and distribution activities and keep them in the hands of different companies, to keep these companies as subsidiaries of APSEB, to run them on commercial lines, to privatise power distribution companies gradually, to retain the Board only as a holding company in charge of long-term sector planning, supervision and co-ordination of the subsidiaries, monitoring of reform implementation and provision of policy advice to be with the government, setting up a regulatory commission to fix tariff structure, keeping licensing powers with the state government.

The World Bank team which subsequently assessed the sector pointed out that though the measures proposed by the Hiten Bhaya committee are in the right direction, they are not comprehensive and need to be further developed. According to them some shortcomings of the Hiten Bhaya committee are:

1. The proposal that ABSEB continue as a holding company for the new companies would continue to expose APSEB and consequently its subsidiaries to political pressure, and the power sector would not be insulated from short-term political expediencies. This would undermine the main objective of the reform programme.

2. The committee defines the role of the regulatory commission narrowly: to deal with retail tariffs. The responsibilities of the commission should be broadened to include regulation of the bulk supply tariffs, distribution tariffs, and connection charges. In addition, the regulator should also grant licenses to all transmission and distribution companies and enforce them.

3. The committee recognised the need for new legislation only for the establishment of the regulating system. Unbundling APSEB and creating separate companies are major changes that could be achieved only through new legislation dealing also with transfer of assets, staff and interests.

4. The committee's recommendation that all power generating assets be transferred to a single company that will also procure power from independent producers. This model would limit competition, reduce expected efficiency gains, and make the regulator regime too complex to administer.

The only way out of the present predicaments in the power sector in the opinion of the World Bank team is to implement all encompassing reforms. Some important components of the reform proposed by the World Bank are:

1. Define a structure for the sector consistent with privatisation of distribution and private sector development in generation.

2. Corporatise the power utilities and ensure that they operate without governments' interference.

3. Create an independent and transparent regulatory system for the sector with broad range of responsibilities including granting licenses and enforcing them.

4. Enact comprehensive reform legislation to establish the new regulatory framework and implement the restructuring measures.

5. Increase the tariff rate to agriculture to at least 50 paise/kWh in the near term. Continue to adjust tariffs to cover costs and reduce cross subsidies.

The government of Andhra Pradesh released its power sector policy statement on June 14, 1997. According to it the aims of the state government are:

1. Providing operational, managerial and functional autonomy to APSEB/ other successor utilities to enable it/them to operate along commercial lines.
2. Besides separating policy regulatory functions from the management functions of the APSEB, ensure the establishment of a regulatory framework that would ensure cost

optimisation with securing operational efficiencies in generation, transmission and distribution of energy, collection of related revenues.

3. Ensuring that while Government may continue to direct and determine the overall policy framework for the power sector as a whole, it withdraws from regulatory functions.
4. Promoting increasing participation of the private sector in power industry.
5. Supporting progressive privatisation of distribution network under conditions and phasing that are sustainable.
6. Removing dependence of electricity utilities on Government budgetary assistance for achieving prescribed statutory financial returns.

To achieve the above aims the government strategy to restructure power sector as follows:

1. In Andhra Pradesh considerable generation capacity is being established in the private sector.

2. Under the reform while the transmission will be handled by the APSEB, which itself will be converted into a corporate body under the Indian Companies Act, 1956.

3. For purposes of distribution the State shall be separated into distinct distribution areas, each of which would be administered by a separate distribution company which would be sustainable, both technically and financially, on an autonomous basis. In the first instance, all such distribution companies would function as wholly owned subsidiaries of the APSEB. Based on further technical studies, steps would be taken to gradually privatise distribution.

4. Even prior to initiating the structural reform of the APSEB, an autonomous regulatory commission should be established to ensure fair play and equity between the separate entities that interact in the generation, transmission and distribution entities and consumers. Such commission should be set up under an appropriate statute, which will assure the independence of the Commission, as also the non-interference in the functioning of the commission, by the State Government.

The policy statement delineates the role and functioning of the proposed Electricity Regulatory Commission. The activities of the commission among other things, constitute promoting efficiency and economy in generation, transmission and distribution of electricity by establishing appropriate norms, undertaking licensing of companies providing services in all the areas of the power sector, duly prescribing performance standards. It also advises the state Government. Introduction of tariff structure that will progressively reduce cross subsidisation and to see that no sector shall pay less than fifty per cent of cost of supply of electricity within three years of setting up of the commission is also the duty of the regulatory commission. If the State government decides to deviate from this tariff, the financial implications of such deviation were to be explicitly provided by the State Government in the State budget.

A comparison of reforms undertake by the AP state government in power sector and reform proposed by the World Bank shows the influence of the World Bank on AP state government's policy formulation. The activities undertaken by the state government are only carbon copy of the measures proposed by the World Bank. Though the state government claims that it is not doing anything beyond hearing the advice of the World Bank, this policy paper shows that it is following the measures proposed by the Bank in letter and spirit.

The enactment of the Andhra Pradesh Electricity Reforms Act of 1998 is a watershed in the power sector reforms in AP, The speed at which this Act to restructure APSEB was passed in the AP Legislative Assembly stunned many an observer. The Telugu Desam government introduced the Bill on April 27, 1998 and the same sailed through all the motions in one day and it was passed on April 28, 1998. In order to facilitate smooth passage of the bill the entire opposition was suspended from the Assembly. Out side the Assembly the agitation called by the Boards' employees was suppressed ruthlessly.

The contents of the Bill also highlight the influence of the World Bank on AP government's policy making. This passage of the bill along with other measures taken by the AP government impressed the World Bank so much that sanctions in the wake of nuclear explosions have not come in the way of sanctioning new loan worth Rs. 2200 crores to the AP government under Andhra Pradesh Economic Restructuring Project and Rs 4400 crore loan for the Andhra Pradesh Power Sector Restructuring Programme.

The A P Power Sector Restructuring Programme (APPSRP) is being implemented parallel to the structural and fiscal reform programme: AP Economic Restructuring Project (APERP). Both the Bank and the Government of Andhra Pradesh (GoAP) considered the reform in the power sector as the single most important aspect of structural and fiscal reform in the state. This reform programme, covering a 10-year period, aims at establishment of a new legal, regulatory and institutional framework, functional un-bundling of the system, corporatisation of sector entities, privatisation of the distribution business, tariff reforms to achieve reliable, high quality and cost effective electricity supply, higher customer satisfaction.

Consequent to the enactment of the reform Act the AP Electricity Regulatory Commission was set up. Initially APSEB was bifurcated into power Generation Corporation (APGENCO) and Transmission Corporation (APTRANSCO). As a next step power distribution was separated from APTRANSCO and four distribution companies (DISCOM) were set up. For the present all these companies are under the government ownership. These will be privatised gradually.

Salient Features of the Reform Model

The ultimate objective of the reforms is for the government to withdraw from power sector as an operator and regulator of utilities and to have commercially operated, largely privately owned utilities functioning in a competitive and appropriately regulated power market. The reforms aim at removing dependence of electricity utilities on Government budgetary assistance, and ensuring that while Government may continue to direct and determine the overall policy framework for the power sector as a whole, it withdraws from regulatory functions.

Under the new dispensation, unlike the pre-reform days, power generation, transmission and distribution will be separated. In each segment there will be multiple operators. This is meant to bring in competition in to the sector.

Another important feature of the reform model is the regulatory mechanism. Establishment of a regulatory framework is meant to insulate the power sector from external influences, to reduce the interference of the state government, minimise the politicisation of key sector decisions (for example on tariffs). The new Reforms Act enjoins the Regulatory Commission "to promote competitiveness and progressively involve the participation of private sector".

Under the new dispensation electricity is treated as a commodity, but not as a development input. This is reflected in the tariff policy that this reform model brings in. Bringing in power tariff that equals cost to serve and remove cross subsidies is the essence of it. The new model looks down upon the subsidies as the main culprit in distorting the rational functioning of the economy. It expects the agriculture sector to pay for the electricity services full cost of supply as the industry can no longer bear higher tariffs. As an initial step it intends to increase the tariff rate to agriculture to at least 50 paise/kWh. And these tariffs will continue to be adjusted to cover costs and reduce cross subsidies. According to this reform programme no sector shall pay less than fifty per cent of cost of supply of electricity within three years of setting up of the Electricity Regulatory Commission, and it is the duty of this Commission to see that tariff is fixed in this manner. APTRANSCO shall adjust tariffs and take other measures so as to produce revenues from all sources sufficient to cover all expenses that include a return on equity. If the State government decides to deviate from this tariff, the financial implications of such deviation were to be explicitly provided by the State Government in the State budget.

The reform process is supposed to engender competition and as a result improve efficiency leading to cheaper power supply. But the way the reforms are being carried out in AP make these happen impossible. In order for competition to be real transmission/distribution companies should be free to buy power from whichever source is cheap. But Power Purchase Agreements (PPAs) entered in to with several IPPS by the state government and APSEB/APTRANSCO, which stipulates the power purchase costs, constrain the freedom of these transmission and distribution companies. Further, the contents of these agreements also impose exorbitantly high power purchase costs.

In the case of distribution also scope for competition is very limited. For each distribution zone there will be only one distribution company. The consumers of that zone will have no choice but to buy power from that company only. In the absence of bench marking the performance consumers cannot be assured of efficient and cheaper supply of power.

With additional power demand at 2002 projected at 8000MW the government/Board entered into PPAs for generation of additional power of more than 9000MW. Later additional power demand projection was scaled down to 3500MW. But in response to the changed estimation of power requirement PPAs were not altered. If all the companies which have entered into PPAs set up generation stations by 2005 as agreed there will be surplus generation capacity of about 4400MW to 7250MW. If one were to follow these agreements, consumers will be forced to pay for this surplus/unused power also.

The end result of the reforms will be replacement of public sector monopoly by private sector monopoly, which is far more dangerous.

One of the important aspects of the reforms is that there should be no political/government interference in the working of the sector. But the scene in AP is totally opposite to it. Here the state government is not only interfering in the day to day work of the Corporations, but also influencing the decisions of the APERC.

Salient Features of the Regulatory Framework

The AP Electricity Regulatory Commission was formed in 1998. It has one chairman and two members. While the present Chairman is a retired IAS officer, one of the members was a serving engineer of the erstwhile APSEB and another is a retired tax official. According to the Act the chairman as well as members will be appointed by the state government from the persons selected by the Selection Committee. This Committee consists of a retired chief judge of any high court or a retired judge of Supreme Court as Chairman, and Chief Secretary of the state government, Chairman of the Central Electricity Authority as members and Secretary of the Energy Department of the state government as the member secretary.

The APERC is constituted as a quasi-judicial body. It is supposed to act independently and keep politics out of the functioning of the power sector. The APERC is brought into the picture to shoulder the regulatory function in the state, which hitherto has been done by the government. As a part of its regulatory work the Commission issues licenses to the companies involved in transmission and distribution of power, it stipulates the standards of performance for these companies, it addresses the disputes between different stakeholders in the sector including consumers, and more importantly decides the bulk and retail tariff for power supply. It is the responsibility of the APERC to protect the interests of different stakeholders. The Act stipulates that it has to consult the stakeholders who are going to be affected by its decision. It is also its responsibility to see that the sector works in transparent, economic and efficient manner.

As the Reforms envisage an important work of the Commission is to insulate the power sector from political interference. It was pointed out that the root cause of the crisis engulfing the power sector is the pervasive politicisation of most decisions affecting APSEB's operations and expansion, and the resulting lack of commercial orientation in its functioning. Subsidies are spiraling up because of political interference in the running of APSEB. The only way, according to them, to reduce subsidies and consequently losses is to keep APSEB, power sector away from political interference.

Power tariff is being seen as an area of decision -making wherein rationality needs to be brought in on urgent basis. Especially consumers now look up to regulatory commissions to protect them from the earlier unjust practice of burdening them with the costs of distortions and perversions in the functioning of the state electricity boards (SEBs) such as theft, corruption, mismanagement, and inefficiency. Recent experience with the tariff formulation shows that the APERC is seriously lacking in bringing rationality prevail in decision making. Rather the Commission is interested only in carrying out the dictates of the World Bank and the state government.

Bringing in rationality in tariff-related decisions requires rigorous and detailed analysis of costs and revenues of utilities. This, in return, requires full information on calculation of costs and revenues as well as data and information on key aspects of functioning of the utility, which have implications for costs and revenues of the utility made available to the public, that too well in time. It is the duty of the Commission to see that this happens. In the recent case, while the APTRANSCO submitted their Annual Revenue Requirement, on the basis of which new tariff are decided, in December 1999, it was not made public until April 2000, in spite of several requests to make them public. Further, public were given less than three weeks time to make submissions. In the mean time public faced difficulties in obtaining these documents. Added to this, though the Commission claims to have conducted 'public hearings', only 24 members of the public are allowed to appear before the Commission. They restricted entry on the pretext that there is no space to accommodate many. Ironically there was enough space to accommodate hordes of government, APTRANSCO and World Bank officials and their consultants. Even press was not allowed in to venue.

The proceedings before the APERC on tariff revision are to be transparent if it is to be meaningful and productive. But the experience with the proceedings shows that they are not at all transparent. 83% of the proposed revenue goes towards power purchases by the APTRANSCO. The documents supplied by the licensee do not contain all the details, particularly, Power Purchase Agreements (PPA). Without the knowledge of the fixed costs, variable costs, penalties, incentives, heat rate, nature of capital, debt-equity ratio, etc., it is not possible to judge the expenditure requirement. While these documents are made available to the Commission the same were kept away from the public. This was brought to the notice of the Commission. But the Commission did not give a serious thought to it. The whole exercise shows that it is neither transparent nor participatory.

Initially the Commission decided to hike tariff by 15%. This is the rate stipulated by the World Bank and demanded by the state government. This is borne out by the news headlines carried by the Eenadu (Telugu daily, mouthpiece of the present Telugu Desam government) in its May 27th, 2000 edition. The news item also mentioned that because of problems with the computers the Commission has delayed the announcement by a day. On the next day all the newspapers including Eenadu carried the news that power tariff is hiked by 20%. In the intervening period some thing different from problems with computers happened. The Telugu Desam led state government has the inkling that there will be public opposition to hike in tariff. To appear popular it has to bring down hike. If the announced hike is 15% and if it is reduced by some percentage points in response to public demand it will be violating one of the important conditionalities of the Bank. So, in order to save it self from the devil and Deep Sea it has made the Commission to declare the hike as 20%. After a few days as if in response to the public demand the hike was brought down from 20 to 15%. It is another matter that public were not fooled by this drama, and protests continued. This shows that the Commission allowed itself to be used as a puppet. Independence is the last word that will come to our mind in this context.

In its day to day functioning the Commission proved itself to be as bureaucratic as any other government department. Rarely one will get response for repeated requests made to the Commission to give some clarification or information. Even if some information is readily available one has to follow cumbersome process to lay hand on it.

Since its inception the Commission has brought out many regulations. However, for the public there is no way of knowing about them. Recently the Commission has opened its web site. Hope that it will serve some useful purpose.

At the same time it is wrong to think that the Commission is inaccessible to all. The Commission has passed exemptions in favour of many companies, which in turn will adversely affect the APTRANSCO. Few outside the commission and beneficiaries know about these exemptions.

Above all the Commission's stance towards PPAs is even more dubious. It is unwilling to make these agreements open to the public. On its own it is desisting from examining them on the pretext that all these agreements were entered before its formation. It is also unwilling to talk about the PPAs that are revised after its formation.

The experience with the Commission until today show that it is more interested in carrying the dictates of the state government and the World Bank conditionalities, rather than making the whole process transparent and participatory. Its present functioning defeats the very purpose of its formation, i.e., keeping politics away and let rationality reign.

Status of the Independent Power Projects (IPPs)

In the wake of the liberalisation process at the national level the state government of AP also attempted to attract private participation in power generation. It entered into MOU with many private companies for setting up 119 power projects in the private sector to generate an additional capacity of 7841 MW power. Besides this, the state government also has gone ahead in giving green signal to eight short gestation power projects in the private sector and entered into Power Purchase Agreements (PPAs) with these private companies. The total generation capacity of all these 8 plants is 1950 MW (Please refer Table 4).

Table 4: Information on Independent Power Projects

Sr. No	***Name of the company***	***Location***	***Capital Cost***	***Capacity***
			Rs in crore	MW
1	Gautami Power Ltd.	Peddapuram/EG	984.47	300
2.	Lanco Power Ltd.	Kondapalli/Krishna	1100.00	355
3.	Snehalaa Power Ltd.	Vemagiri/EG	351.66	100
4.	Snehalata Generation Ltd.	Samarlkota/EG	351.66	100
5.	Ispat Power Ltd.	Vemagiri/EG	1437.00	468
6.	Nagarjuna Constn.Co.,Ltd.	Ammanabrolu/Prakasam	739.35	227
7.	Oakwell Engineering Ltd.	Kakinada 'A'	379.22	100
8.	Oakwell Engineering Ltd.	Kakinada 'B'	379.22	100

Besides this 32 mini thermal power plants with the total capacity of 1019.35MW, 19 mini hydel stations with the capacity to generate 81,200KW of power, and 62 wind power stations with the generation capacity of 370.20MW of power are allotted to private companies..

Apart from these the state government has entered into PPAs with GVK Industries Limited for gas based power project of 216 MW capacity at a cost of Rs 816 crore at Jeegurupadu, Spectrum Power Generation Ltd for gas based power project of 208 MW at a cost of 748.43 crore at Kakinada, Hinduja National Power Corporation Ltd. for coal based power project of 1000 MW at a cost of Rs 4297 crore at Visakhapatnam, National Thermal Power Corporation (NTPC) for 1000 MW coal based power project at a cost of Rs 3645 crore at Visakhapatnam. Among all these only GVK's Jeegurupadu project, Spectrum's Kakinada project, and Lanco's Kondapally projects became operational.

Following are the rates at which power is being procured from the IPPs for the year 2000-01:

Table 5: Power Purchase Tariff

IPP	***Rs/kWh***
GVK	2.52
Spectrum	2.50
Lanco – Open Cycle	5.20
Lanco – Combined Cycle	3.72

The average price at which the AP Transco is to purchase power from private generating companies for the ensuing year (2000-01) is Rs.3.05 per kWh, whereas the average price it will pays to all suppliers put together is 1.73 only. To Andhra Pradesh Generation Corporations (APGENCO) thermal stations it will pay Rs.1.93, to the central generating stations (Thermal and Nuclear) it will pay Rs.1.64, to other State Electricity Boards it will pay Rs. 2.05(p).

In all the cases where the government/board has entered into agreement with IPPs, the power purchase agreements (PPA) are not made public. Given the impact and implications of the PPAs, it is in the best interests of all parties in the sector that these PPAs are made public. Even while these PPAs are being negotiated also, the process should have been transparent. With the coming into force of the new Andhra Pradesh Electricity Reforms Act 1998 the PPAs acquired added significance/ altogether new dimension. The Act stipulates that PPAs be entered in a transparent and economical manner. APERC has the duty to see that PPAs are entered so and protect the interests of consumers. The contents of the PPAs, to the extent they that have come to the notice of the public show that they very adverse to the interests of the consumers. But APERC is refusing examine these PPAs saying that these PPAs were entered before it was constituted. The state government, which brought these changes into force, is unwilling to play according to the rules of the game that itself helped to usher in. The state government is still unwilling to make the PPAs public.

Some contents of only two PPAs (GVK and Spectrum) became public, thanks to the CAG report placed before the Assembly in 1998 and 1999. The CAG report shows that these two PPAs adversely affect the People's interest through burdening them with increased tariff. (See Annexure I)

Perceptions and Positions of the Main Actors

Government/APSEB/ APTRANSCO/Lenders

It can be said that the stand taken by the protagonists of the reforms, who consist of the World Bank, the state government and the Electricity Board has three elements.

They contend that the state's power requirement is huge and it cannot be met without a massive mobilisation of private financing. In the case of AP they point out that by the year 2002 additional power of 8000MW is needed, and to generate and distribute it Rs. 56,000 crore are needed. In the present financial situation the state government is not in a position mobilise that much amount. The only way is to turn to the private sector. Then, substantial expansion of supply through private power producers is not possible without restoring the creditworthiness of energy off-takers. In order to attract private capital into the power sector, the sector need to be reformed/restructured completely.

These protagonists observe that the power sector crisis is represented by the growing losses of the electricity board, and in order to save the Board from losses the state government provides subsidy. In turn these subsidies are eating in to scarce government funds, As a result of diverting the funds to meet the needs of the power sector social sectors like education and health are suffering. As it is no longer advisable to neglect these sectors, so subsidising of power sector must be stopped. In the absence of public funds flowing into the sector as the government is starved of funds, there is no alternatives to turn to private sector to mobilise funds. And in order to attract the private sector there is need to reform the power sector.

At a more fundamental level the protagonists of the reforms locate the ills of the sector in the lack of competition and private sector involvement is sought to infuse competition into the sector. Hence the reforms.

It is no exaggeration to say that the APERC just parrots the government's analysis.
There appears to be no effort on its part to address these issues independently. Further, the Commission tries to shield it self by claiming that as stipulated by the new Electricity Reforms Act it is duty bound to promote privatisation and competitiveness. The Regulatory Commission sees its role as creating favourable conditions for private sector investments and assisting the state government in implementing the reform agenda.

Political Parties

The recent people's movement against the power tariff hike saw all the opposition parties on one side and the ruling TDP on one side. This does not mean that all of the opposition parties are opposed to the reforms. One can say that while all the left parties are opposed to the World Bank led reforms in the liberalisation, privatisation, globalisation (LPG) mode, other parties are in support of the reforms. Only in the face of people's vehement opposition to power tariff hike they mouthed some anti-reform statements.

It is significant to note that the present power sector reforms are being taken up in the background of the liberalisation process that started in 1991 at the national level as a precondition to the IMF/WB bail out of India form the BOP problem. At that time Congress was in power at the Centre. As the power policy of the centre changed, following it in AP NT Rama Rao's Telugu Desam government also entered into Memorandums of Understanding (MOUs) with many companies overnight. Some of these MOUs entered the stage of PPAs. A good number of PPAs are also signed/altered during congress led governments' regimes in the state.

Trade Unions

The state government and the electricity board entered into tripartite agreements with trade unions in the Board to carry out reforms in the sector. Significantly, it is the Congress/INTUC affiliated APSEB employees' Union - 327 which first signed the tripartite agreement on behalf of the Board employees. This union leaders contended that these reforms will protect the interests of the employees and also these are in keeping with the reforms unleashed by the P.V.Narasimha Rao led Congress government at the centre. The TDP affiliated TNTUC, which does not have much membership, also signed the agreement.

The major trade union APSEB Employees Union - 1104 along with the Engineers Association opposed the reforms of the sector. They called for agitation against tabling of the reform Bill in the Assembly in 1998. Later the state government could manipulate the Engineers Association and see that it withdrew from the agitation and signed tripartite agreement against the wishes of the engineers. The Employees Union 1104 went ahead with the agitation. Once the Bill was passed in the Assembly this Union also has no other alternative to sign the tripartite agreement.

When the state government came out with a policy paper the Engineers' Association criticised it saying that it is based on wrong and misleading projection of future power requirement and capital needed to meet that requirement. It also pointed out that there are avenues to improve the functioning of the board. It also recommended formation of a consortium at the national level with BHEL, NTPC and SEBs to pool resources. The then office bearers succumbed to the manipulations of the government and signed the agreement. The new office bearers who succeeded them again raised the banner of revolt. They led a three month long agitation from April to June 2000 against privatisation of the board. In the face of the Association's opposition to government's reform programme the establishment is trying to shore up a rival Association, which is promoted by those who initialed the tripartite agreement on behalf of the engineers of the Board in the past.

Media

These days it is difficult to find analysis of any problem, including electricity, that is critical of the state government in the local press including the English press. It is a widespread belief that the Chandrababu Naidu led state government has effectively kept the media in its control. Yes we do find news reports on the conditions of the power supply or people's movements against power tariff hike. That is all.

Farmers' Organisations

Farmers are the most agitated community in the state in the context of the ongoing changes in the power sector, for al the ills in the power sector are attributed to their power consumption. Many of the farmers' organisations argue that the sector does not consume the quantity of power attributed to it. This is because the duration in which they are supplied power and quality of power is such that consumption of that much power is practically impossible. They contend that the number of pump sets, their capacity and the duration during which they are used are over estimated.
Given the contribution made by the well irrigation to agriculture in the state, the number of families dependent on it and its contribution to food security they argue that there is need to continue supply of subsidised power. In this context, they also demand that power produced in the hydroelectric stations be allotted to the agriculture sector.

People's Monitoring Group on Electricity Regulation (PMGER)

People's Monitoring Group on Electricity Regulation (PMGER) emerged from a two-day workshop organised by the Centre for Environment Concerns, Hyderabad on 15th and 16th of November 1999 on power sector reforms in AP. The workshop was facilitated by members of the PRAYAS, Pune; and attended by more than 50 participants drawn from domestic consumers, farmers, farm workers, power sector employees, environmentalists, academicians, and NGO activists.

The PMGER is making efforts to utilise the space available for people's participation in the present dispensation under the APERC.

Lok Satta

Lok Satta, is an organisation working for democratisation of public institutions, formed Citizens Organisation for Regulated Electricity (CORE). Some former Chairmen of APSEB and some retired government officials are its members. According to it as result of several years of criminal neglect, rampant corruption and rank incompetence, the once much acclaimed APSEB and its successor organisations are now facing severe financial crisis. It also locates the source of crisis in huge system losses, government's failure to provide subsidies, and failure to adopt rational policies to encourage energy saving in agriculture. In addition there has been interference in day to day functioning and routine executive decisions. Pilferage, hefts and corruption continued unchecked on account of political patronage and lack of political will to improve the system.

Lok Satta believes that the real issues in power sector are better management, more transparent policies and decisions and reduction of expenditure and losses now and in the future. It shows that increasing tariffs in themselves provide no solution in the long term without addressing the fundamental problems plaguing the power sector. According to it the real answer to the crisis lie in effectively dealing with T&D losses, transparent and fair policy in the case of PPAs to protect consumers from arbitrarily high tariffs, and decentralisation of power distribution.

Salient Features of the Tariff Order

According to the Act proposals for revision of tariff shall be submitted three months before the beginning of the next financial year, i.e., on 29th December 1999. Though APTRANSCO submitted ARR by that date it did not submit tariff revision proposals. It did so only on 6th April, full six days into the financial year.

Though the Commission held public hearing, the terms of the discussion in the hearing were different from the terms of the latter determination made by the Commission. The original proposal made by the APTRANSCO, on 6th April 2000 with the consent of the state government was that it anticipated a revenue requirement of Rs.9211 crores but expected only revenue of Rs.5437 crores at the then prevalent tariffs. It expected a subsidy of Rs.2100 crores from the State Government and sought tariff increase of 14.8% to raise its revenues by Rs.808 crores. According to the Retail Tariff Proposal Summary (page.3) "APTRANSCO has considered various tariff options and has had extensive discussions with its 100 percent shareholder, GoAP, before deciding upon the proposed tariff increases to bridge the shortfall. APTRANSCO has made efforts to balance the objective of ensuring its financial viability without causing a rate shock to its consumers. Accordingly, APTRANSCO has filed its FPT with the Honourable Commission for its consideration and approval, to raise additional revenues of Rs.808 crores. This will result in an overall increase of 14.8 percent for its consumers, although the specific increases will vary amongst individual consumer categories and between slabs in each category. The additional revenues expected to be mobilised will still leave a gap of Rs.866 crores, after considering a GoAP subsidy of Rs.2100 crore". This was the proposal that the public hearing discussed.

However, after the conclusion of the hearing the commission advised the APTRANSCO about ways of reducing costs by about 823 crores. Instead of making that advice part of its award, the commission put it before the State Government. The government promptly took advantage of the proposal and reduced the subsidy it offered from Rs.2100 crores to Rs.1345 crores. The order of the Commission shows that the tariff hike is to the extent of 20% to mobilise 1095 crore. Thus the final tariff determination by the commission was made on this altered basis, which sets the earlier public hearing at naught. Public's reaction would have been different if the changed premises were the basis on which hearings were held. In effect, the final order is merely an agreement worked out by the Commission with the State government, and not a fair and transparent determination as envisaged by the Act.

Further the figures worked out by the APERC show that there is no need to raise tariff any more. While APTRANSCO has mentioned the annual revenue requirement (ARR) as Rs.9234 crore, APERC reworked ARR to Rs. 8366 crore. This implies that revenue requirement is reduced by Rs. 868 crore. This is higher than the revenue, Rs. 808 crore, that APTRANSCO intended to mobilise through tariff revision. This leads to the unambiguous conclusion that there is no need to raise electricity tariff.

APERC shows that the losses to be incurred by APTRANSCO are to the extent of Rs. 2417 crore. The state government has agreed, through the original proposal submitted by APTRANSCO, to pay Rs. 2100 crore. If this is so the additional resources to be mobilised are Rs.317 crore. This amount can be easily mobilised from the present tariff itself through plugging loopholes in the present distribution system. There is no need to burden the people with increased electricity tariff.

Another important feature of the tariff order is that the Commission set the tariff payable by the Consumer without having had a decisive say in determining the supply price. The Commission has merely taken as given the numerous Power Purchase Agreements (PPAs) entered into by the AP Transco, with private suppliers. Thus the purchase price of power underlying the tariff determination has been determined without reference to the Commission.

For the present tariff order PLF of 68.5% is taken for giving incentives to the power generation companies as against 80 to 85% as recommended by Central Electricity Regulatory Commission.

In the present tariff order tariff is hiked in such a way that 12 months' revenue would be realised in 10 months merely because AP Transco submitted its tariff proposals too late.

Cross subsidies that amount to a certain transfer of resources in this case power, from the better off to the poor is in accordance with Article 39 of the constitution of India. But it is one of the causalities in the tariff order. It appears that the Commission sought to carry out the World Bank's recommendation of removing subsidies as a way of fiscal discipline. It is a part of the power sector reforms programme to eliminate the subsidies. From the tariff order it is quite obvious that it is the lower end consumers and agriculture sector that experienced highest hike in power tariff.

Future Course

At present a particular set of reforms are being carried out in AP as if they are the only solutions for all ills of the power sector. More over the same set of reforms are imposed on several other states. In other words a uniform system is being imposed on all states. There is no attempt to examine specific experiences of different states and tailor the changes needed according to the requirements of the particular states. The problems faced by the electricity establishment in Andhra Pradesh are not the same as that of Orissa. One can see that not only the Electricity Reforms Act passed in AP is a carbon copy of the Orissa Act, even the regulations formulated by the APERC are only a copy of the OERC.

In AP no other alternatives are explored to solve the problems facing APSEB. Even the recommendations made by the Hiten Bhaya Committee were brushed aside to impose the World Bank recommendations. While taking up these reforms stakeholders were not consulted. Until the recent tariff hike public are not aware of the changes taking place in the power sector. There is neither participation nor transparency, let alone accountability in the whole exercise. Even the proceedings before the Regulatory Commission are not transparent and participatory.

The ongoing changes in the power sector demand two things: one is to comprehend the process and its implications, another is to enable citizens to interact with the

Regulatory Commission and participate in its proceedings effectively as this exercise is new to the people in this state.

Hitherto experience with the APERC show the need for capacity building of the members of this and similar civil society organisations. This capacity building should encompass economic, technical, regulatory/legal issues. There is the need to involve more and more people from different parts of the state in this regulatory exercise. It should not be confined to a few people in the capital city of the state, for stakeholders are spread to the nook and corners of the state. It should be seen that the Regulatory Commission is accessible to people from all corners of the state. Then only concerns of different sections of the people could be reflected in the functioning of the regulatory mechanism.

The civil society should proactively engage with the Commission. Instead of trying to cope up with the issues thrown up by the decisions of the Commission it should be able to bring to the notice of the Commission the things to be done in the people's interest, and see that the need full is done.

There is need to critically examine the functioning of the APERC and its mandate to protect the rights of the consumers. The functioning of APERC itself should be transparent and participatory in order to see that the power sector as a whole works in a transparent and efficient manner.

In order to cope up with the emerging situation there is need build strong network of civil society organisations at the state as well as national levels. Wherever there already exist such networks the same must be strengthened. As a starting point interested organisations, individuals need to be identified. The capacities of these organisations and individuals need to be enhanced to deal with the emerging situation. At the same time talented and capable organisations/individuals with the electricity back ground at national and state level need to be brought together and see that there is exchange of ideas with these capable organisations/individuals and civil society networks.

CHRONOLOGY OF EVENTS

June 1995	Hiten Bhaya Committee Report
September 1996	World Bank's Agenda for Economic Reforms in Andhra Pradesh
March 1997	AP State Government's Policy Statement on Power Sector Reforms
April 1998	Passing of AP Electricity Reforms Bill in the State Legislative Assembly
May 14, 1998	Chief Minister's letter to the World Bank's President reiterating the state government's reform policy
May 1998	World Bank's PAD on AP Economic Restructuring Project
January 1999	World Bank's PAD on AP Power Sector Reforms Programme (APPSRP)
February 1999	AP Electricity Reforms Act 1998 comes into force
February 1999	APSEB unbundled into APGENCO and APTRASCO
February 1999	Agreement between the World Bank and GoAP on APERP signed
March 1999	Agreement between the World Bank and GoAP on APPSRP signed
April 1999	AP Electricity Regulatory Commission starts functioning
November 1999	First Public Hearing conducted by the APERC on Tariff Philosophy
March 2000	APTRANSCO unbundled into APTRANSCO and four DISCOMs
April 6, 2000	APTRANSCO files its first Filing of Proposed Tariff
May 27, 2000	First Tariff by APERC
May 28, 2000	People's Movement against tariff hike starts
August 28, 2000	Police firing on demonstrators in the centre of Hyderabad city
October 2000	High Court Judgement upholding the APERC order on tariff hike

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ANNEXURE - I

CAG's observations on GVK's Jeegurupadu Power Project

(Extracts from CAG Report – 1998 on Andhra Pradesh)

In the place of a plant of 400 MW capacity estimated to cost Rs 518.20 crore the plant being established by the Developer would be of 216 MW but costing Rs 816 crore.

Due to delay in completion of the project and the consequent exchange rate variations, the project cost may go up by Rs 113.62 crore. This increase entails an additional burden in the shape of higher tariff on the Board by Rs 17.76 crore per annum.

The PPA provide for recovery of a maximum of Rs 30 crore by way of liquidated damages (LD) for the period of delay in commissioning of the individual units…However, on the basis of time allowed for commissioning for the second and subsequent units, the Board became entitled for levy of LD of Rs 23.20 lakh. But this was not recovered so far.

Unlike in the case of payment of taxes on income to the Developer, the Board agreed for payment of return on equity (ROE) on monthly basis instead of on annual basis. Payment of ROE monthly at 16 per cent per annum (Rs 39.17crore) thus would work out to 17.17 per cent per annum (Rs 42.03 crore).

Depreciation charges were computed for payment of fixed charges on the entire project cost without excluding the cost of land. Since land does not attract depreciation provision, failure to exclude it for computation of depreciation results in an over payment of Rs 78.40 lakh to the developer per annum.

The PPA stipulated for computation of incentive for achieving higher PLF (above 68.49%) on the equity instead on ROE. This results in undue benefit of Rs 1.07 crore per annum to the developer for every one per cent increase in PLF above 68.5 per cent. As compared to return of Rs #(.17 crore at 68.5 per cent at 90 per cent PLF would be Rs 66.81 crore.

In deviation to PPA conditions, the Developer reduced the proposed equity in Indian currency by Rs 61.20 crore with a corresponding increase in the equity in foreign currency. This results in increase in the Boards liability towards foreign exchange variations on the return on foreign equity which would be around Rs 1.35 crore per annum.

The foreign currency component of the total debt for project financing was fixed in Indian rupees at November 1993 rates of exchange. As this value in Indian rupees is fixed and does not undergo change and vary with exchange rate variations, the Developer had an undue benefit due to exchange rate variations between November 1993 and actual dates of drawl of loans. On the loans drawn till May 1996, such gain amounted to Rs 23.38 crore and there would be a further gain of Rs 56.06 crore with reference to the prevailing exchange rates on the loans yet to be drawn. The PPA was silent as to the treatment of such gain to the Developer due to exchange variations.

The Board so far purchased 432.13 MU of energy from the Developer on payment of Rs 94.69 crore. As against the projected unit rate of Rs 2.06 the actual purchase cost per unit worked out to e Rs 2.19 resulting in an extra expenditure of Rs 5.62 crore on the energy so far purchased.

In contravention to the PPA terms providing for fixation of variable cost (cost of fuel) duly taking into account the transportation charges of gas, the Board paid transportation charges separately without any regard to actual quantity of gas used. This resulted in over payment of transportation charges by Rs 3.84 crore relatable to the gas not used for the period from July 1996 to April 1997.

The land costing Rs 10 crore acquired by the Developer was adequate for two stages of the project. But, the entire cost of land was loaded into the project cost of first stage (216 MW). Non-apportionment of the cost of land equally between the two stages of the project, results in undue benefit of Rs 1.13 crore per annum to the Developer.

CAG's observations on Spactrum's Kakinada Power Plant

(Extracts from CAG report – 1999 on Andhra Pradesh)

With a view to encourage private investment in power sector, the state government selected Spectrum Power Corporation Limited (Developer) who had initially agreed to set up 400 MW gas based power plant at an outlay of Rs 780 crore. Due to reduction in the allotment of gas from 1.5 to 0.75 Mcmd, the size of the plant was scaled down to 208 MW and the outlay was revised to Rs 748.43 crore. As a follow up, the Board and the Developer entered into a Power Purchase Agreement (PPA) according to which the former agreed to buy the entire power generated on payment of fixed and variable charges at rates mutually agreed upon.

Due to postponement of combined cycle commercial operation date (CCCOD) the Board had to bear the extra burden of Rs 17.05 crore towards higher fuel cost (Rs 11.71 crore) and additional fixed charges (Rs 5.34 crore) during the period from 29 September 1997 to 18th April 1998.

By agreeing for payment of ROE monthly on pro rata basis instead of annually the Board extended additional benefit of Rs 2.63 crore per annum to the Developer.

As the foreign exchange component of total debt for the project was fixed in Indian rupees at December 1993 rates of exchange, there was an exchange gain of Rs 38.94 crore to the Developer and further exchange gain of Rs 1.27 crore on the balance debt yet to be drawn. But the PPA was silent on the treatment of such favourable gains in arriving at the final project cost.
In contravention to the PPA terms providing for fixation of variable cost (cost of fuel) duly taking into account the transportation charges of gas, the Board paid transportation charges separately without any regard to actual quantity of gas used. This resulted in over payment of transportation charges by Rs 6.63 crore relatable to the gas not used for the period from 9 January 1997 to 31 December 1997.

The minimum PLF to be achieved during the stabilisation period was fixed at 51.37 per cent. This was low when compared to the PLF of 68.49 per cent fixed in respect of another project implemented around the same time. The fixation of PLF on lower side during stabilisation period resulted in forgoing recovery of Rs 9.50 crore from the Developer by way of disincentive.

The threshold level of PLF at 68.5 per cent fixed for computation of incentive was not realistic as the O&M contractors of the Developer guaranteed operation of the plant at an annual PLF of 85.6 per cent and agreed to pay penalty for every 1 per cent fall in PLF below 85.6 per cent. At 85.5 per cent of PLF the incentive payable to the Developer by the Board would be Rs 19.08 crore per annum while the PLF at this level was assured by the O&M contractors of the Developer without any extra payment.

As against the projected unit cost of Rs 2.22, the actual cost per unit of energy purchased was Rs 2.46. This resulted in an extra financial burden of Rs 18.51 crore in respect of 771.33 MU of energy purchased during the period from 11 February 1997 to 18 April 1998.

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