

Power Sector Reforms in Andhra Pradesh (India)

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1.0 Introduction – Genesis of Reform Process

Present power sector reforms are being taken up in the background of the liberalisation process that started in 1991 at the national level (when Congress party was in power) as a precondition to the IMF/WB bail out of India from the balance of payments (BOP) problem. Andhra Pradesh State Electricity Board (APSEB) was formed in the year 1959 and is responsible for all the three functions of the power sector, namely, generation, transmission and distribution of power. There are a number of rural electric cooperatives also functioning as supply licensees in the state. Besides generating power from its own power plants APSEB procures power from central sector generating stations, other states, joint venture power plants and more recently from the private sector. APSEB was the key power utility in the state of Andhra Pradesh and had a monopoly in the power sector under the overall guidance of the State government. Apart from its own generation capacity of 5612 MW, APSEB was drawing 885 MW capacity from the Central sector generating stations and around 940 MW of IPP & other private sector plants.

Power Position in AP (1985-99)

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

Source: Power Development in AP – 1998-99.

On many technical aspects, APSEB enjoyed a good reputation amongst the other utilities in India – some of the features continue even now. For example, the Plant Load Factor (PLF) of State owned generating stations in AP was 83.2% in 2000, much higher than the national average of 67% or the NTPC figure of 80.4%. Vijayawada Thermal Power Station (VTPS), one of the thermal stations, received the productivity award for the 17th time in 2000 (PLF of 86.9%) and Rayalseema Thermal Power Plant (RTPP) received the latest incentive award. Other aspects of good performance include fast erection of power stations, and low employee/consumer ratio. Though APSEB's performance on generation side was far better compared to other SEBs, performance on distribution and financial aspects proved to be very poor.

Despite the significant growth witnessed in power generation in Andhra Pradesh, the gap between demand and supply was increasing due to substantial increase in agricultural and domestic consumption in the state. Over the past few years the growth in installed capacity (which has increased from 5626 MW to 7355 MW over the last five years) has not kept pace with the increasing demand. In Andhra Pradesh, agriculture is the primary occupation of about 70% of the population, with only 36% of the land is covered through surface irrigation. Political processes enabled the expansion of electricity service for irrigation which has made the farmers more dependent on the technologies. APSEB thus had a vital role in creating such dependency. Currently, an estimated 75-lakh acres during Kharif and 35 lakh acres during Rabi season are under pump irrigation.

However, despite the significant physical growth, APSEB was finding it increasingly difficult to meet the demand of the State for adequate and reliable supply of electricity. Losses incurred by APSEB are shown as one of the main reasons for restructuring the power sector in Andhra Pradesh. Reasons for such losses of such magnitude are still debated. These losses were, however, reported when the revenues of the Board were increasing. APSEB has been paying more for loans and interest payments. Fuel purchase, payments towards electricity purchased from other electricity boards and interest payments are important components of the costs incurred by the APSEB. One third of the Board's income was going to meet interest payments - increasing burden of interest payments.

High transmission & distribution losses, increasing inefficiency in metering & collection, very low tariff to agricultural consumers and high cost of power from private generators are some of the factors that have contributed to the deterioration of financial health. One of the major impacts of this worsening financial situation was APSEB's inability to raise finances for the required investments in generation and T&D.

2.0 Evolution of Reform Process in AP

According to the government, financial problems of APSEB/APTRANSCO surfaced as early as 1990-91 when subsidy from State Government was required. Between 1990-91 and 94-95, the Board could achieve the 3% rate of return, as required under the Electricity (Supply) Act 1948, through a variety of adjustments. It was only from 95-96 onwards that the government has actually provided relief to APSEB by writing off loans etc. It can be seen that the annual deficits of APTRANSCO have been rising during the last few years. The main reasons for this are explained below:

1. Changing Hydro -Thermal Energy Mix over time. Hydel power is cheaper than thermal power. Until recently installed capacity of hydel power is more than thermal power. In 1960-61 while hydel power accounted for 58.2% thermal power accounted for 41.8%. In 1990-91 installed capacity of hydel power was 50.1% and that of thermal power is 48%. In 1997-98 hydel power capacity stood at 36.5% and thermal power capacity stood at 42.9%. Remaining power capacity is in gas projects. As the proportion of cheaper hydel power declines and the proportion of costly thermal power increases average unit cost of power increases.
2. Change in Load Mix: With steadily increasing demand from the agricultural sector disparity between agricultural and industrial tariff was steeply increasing over the years and was causing pressure on the industrial sector, leading to stagnation in industrial consumption as industry moved towards cheaper captive generation.
3. No reliable data for energy audit and estimation of losses: The major portion of the agricultural consumption is not metered. The technical losses are on account of power consumed by the system in Transmission and Distribution of electricity. The non-technical losses are due to theft of power. Theft of energy has become rampant and assumed alarming proportions threatening the very viability of Power Sector. In order to initiate effective steps to reduce the losses, it is important that realistic levels of losses are determined.
4. Unauthorized connections: A large number of consumers resort to unauthorised withdrawal of power.

In the background of the deteriorating situation on the power front, the then state government of Andhra Pradesh contemplated to restructure the power sector. As a first step it constituted a high level committee under the chairmanship of Hiten Bhaya, a former chairman of Central Electricity Authority, 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,
- Separate generation, transmission and distribution activities and keep them in the hands of different companies,
- Keep these companies as subsidiaries of APSEB,
- Run them on commercial lines,
- Privatised power distribution companies gradually,
- 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.

However, World Bank wanted Government of Andhra Pradesh (GoAP) to go beyond the Hiten Bhaya committee recommendations as they are not in the right direction, not comprehensive and need to be further developed. World Bank wanted implementation of all encompassing reforms. (World Bank. 1997 p.35)

The AP 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 GoAP consider the reform in the power sector as the single most important aspect of structural and fiscal reform in the state. This reform programme is to be implemented over a 10-year period, starting from February 1999. The Adaptable Program Loan (APL) scheme was planned in 5 stages, APL-1 to APL-5. The total loan amount is US\$ 4460 million with World Bank contributing 22% of the amount. Interestingly, World Bank's contribution is 36% in APL-1 and goes down to 13% in APL-5. The other international lending agencies include DFID and OECF. The Indian agencies include Government of Andhra Pradesh, Power Finance Corporation and Rural Electrification Corporation. This loan has several conditionalities as laid down by the World Bank. At each stage, some conditions have to be satisfied so that the utility becomes eligible for the next stage loan. These include privatisation of distribution & generation, average annual tariff hikes of 15-20%, implementing cost based tariff and reducing government subsidy to zero.

3.0 Content of Reforms – Features and Structure

3.1 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. 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, and 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. Tariff policy declares the need for power tariff that equals cost to serve. The new model looks down upon the subsidies as the main culprit in distorting the rational and efficient functioning of the sector. It expects the agriculture sector to pay for the electricity services full cost of supply. 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.

World Bank released a report, "India: Power Supply to Agriculture" in October 2001. This report (dated June 2001) looks into the aspects of power supply to agriculture in two reforming states, namely Haryana and Andhra Pradesh. It criticises the poor quality of power supply, which adds to the indirect costs of the farmers and says the subsidies have missed their targets. Report suggests power reforms to solve problems: "Improving the quality of electricity services to agriculture, and therefore, improving farmers' income and agriculture growth, requires the in-depth power sector reforms that few Indian states have embarked upon. Farmers, notably the small and marginal farmers, will substantially benefit from these reforms."

3.2 Salient features of the regulatory mechanism

Regulatory Mechanism is defined by:

1. AP Electricity Reform Act
2. AP Electricity Regulatory Commission

3.2.1 AP Electricity Reform Act

The Andhra Pradesh Electricity Reform Act which was enacted in 1998, provided for the constitution of an Electricity Regulatory Commission, restructuring of a Electricity Industry, rationalization of the generation, transmission, distribution and supply of electricity, avenues for participation of private sector in the Electricity Industry, and generally, for taking measures conducive to the development and management of the Electricity Industry in an efficient, economic and competitive manner.

Enactment of the Andhra Pradesh Electricity Reforms Act of 1998 is an important event and instrument in the reforms in AP. This can be surmised from the speed at which this Act to restructure APSEB was passed in the AP Legislative Assembly, stunning many an observer. 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. Police were called to quell the protests by the Boards' employees. In fact, this is the only time when the State

Legislature came near enough to discuss the power reforms. The contents of the Bill also highlight the influence of the World Bank on AP government's policy making. According to the World Bank advice licensing powers are to be vested with the Regulatory Commission and the sector was to be completely unbundled. 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 conducted by Inida in May 1998 at Pokharan 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 \$1 billion (Rs.4400 crore) loan for the Andhra Pradesh Power Sector Restructuring Programme.

3.2.2 APERC

The AP Electricity Regulatory Commission was formed in March 1999. It has one Chairman and two members selected by the State government from the persons selected by the Selection Committee. The APERC is a quasi-judicial body, with the powers of a Civil Court. This Commission issues licenses to the companies involved in transmission and distribution of power, stipulates the standards of performance for these companies, 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.

The policy statement of the World Bank (World Bank 1997, p.35-37) and the State government (World Bank 1999, Annex.12) delineates the role and functioning of the proposed Electricity Regulatory Commission.

Apart from 'distancing' political leadership from the decision-making on power sector, power tariff is seen as an area of decision-making wherein 'rationality' needs to be brought in on urgent basis. In its 3-year work, particularly with the tariff formulation, APERC is still grappling to understand the entire process, though it has been deciding on tariff orders. Its decisions on tariffs, wheeling charges and third party sales have come under attack (Sankar 2002, p.4148) Due to several structural deficiencies, APERC just parrots the government's analysis, drawing criticism to itself about its autonomy. There appears to be no effort on its part to address these issues independently. Response of the Commission was to claim 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. (APERC, February 2002, p.3).

4.0 Practice of Reforms – Actions and Responses

4.1 Actions

Enacting the Reform Act was the first step in the process of reforms in AP. Subsequently, APSEB was unbundled into APGENCO and APTRANSCO in Feb 1999. In April 2000, APTRANSCO was further unbundled to APTRANSCO, managing the transmission system, and four Distribution Companies (DISCOMs) managing distribution in four zones, Central, Eastern, Northern and Southern, of the State. In March 2001, State government has signed a MoU with the Ministry of Power, Government of India on reform and restructuring which has the road map for reform, plans for tariff rationalisation, metering and maintaining grid discipline.

As a step towards privatisation, these DISCOMs have been issued independent licences for distribution in April 2001. Spot billing in some circles in Hyderabad and Tirupati was started in October. AP has plans to introduce it for all consumers by early 2002. As per the reform project time table, 30% of the distribution system is expected to have private sector participation by 2002 and 100% by 2007. An investment of US\$103 million is planned as part of the first phase of reform project in the Distribution area to strengthen the distribution system, providing single-phase transformers and installing VHF based communication system. According to the World Bank's Project Appraisal Document on Andhra Pradesh Power Sector Reforms Programme at least one Distribution Company need to be privatised by the end of 2002-03.

In generation, several IPPs have been able to establish generation projects, including some by Central utilities. However, APGENCO is still the major generating utility in the state, having 73% of the installed capacity and 62% of the annual energy generation. Shares of APGENCO are to be listed in the market by 2004 and APTRANSCO by 2006.

Private sector involvement in the power sector is right now limited to generation. Most IPP projects are in a fluid stage with many changes over the projected plans. The current installed capacity is 940 MW and there is a plan to add about 3000-4000 MW capacity in the next 5 years. Contribution to the energy production from private producers has been increasing in the past 5 years. Flow of investment is pretty slow, considering the expectations of the IPPs to be 'cradled' by the government. Clearly favouring IPPs, reform process enabled the power purchase cost from these plants has been higher than that from state or central plants.

Norms were relaxed to attract private investment and the process involved signing a Memorandum of understanding with the state government. MOUs to set up nearly 119 projects with a capacity of 7841 MW (about 1 - 1.5 times the installed generation capacity) were signed in a short time. This process was a non-transparent one and was rushed through - even preliminary power planning procedures were given a go by. For example, in February 1995, the government/APSEB signed over a dozen MoUs for IPPs in just one night. But this initial enthusiasm did not last and many projects did not take off. Competitive bidding procedure was adopted for many subsequent projects. One of the first IPP to come on stream in India was the GVK combined cycle plant at Jegurupadu in Andhra Pradesh commissioned in July 1996. Today, there are 3 major gas based IPPs with a total installed capacity of 779 MW and many wind, small hydro & non-conventional energy plants in the private sector which add up to a capacity of 161 MW.

Andhra Pradesh was the first state to sign an agreement with central government to clear its dues to central utilities. As per the agreement, part of the dues, comprising interest payments, would be waived and the Reserve Bank of India (RBI) would allow the state government to issue tax-free bonds to finance the settlement of dues. In return, state government will have to pay all fresh dues in time to central utilities and if it fails to do so, then centre has the right to block resources earmarked for transfer to the states as central devolutions.

Since its inception, APERC has released several regulations and documents such as Business rules, Standards of performance Practice guidelines and Consumer's right to

information. APERC has issued licences to APTRANSCO for bulk supply, DISCOMs and the Rural Electricity Supply Co-operatives (RESCOs) for retail supply.

APERC has issued three tariff orders so far. Work on tariff started with a tariff philosophy working paper prepared in 1999 as one of the first acts of APERC. APERC has issued orders on regulation of third party sale of power by power plants and on incentives for non-conventional energy project developers. In Jul- Aug 2001, it has held public hearing on the PPA for the BPL Ramagundam coal based project to explore the possibility of reducing the foreign exchange component and to examine the feasibility of allowing 16% rate of return. It has given a consultancy order to CPRI, Bangalore to estimate technical losses in AP Power transmission system.

Government has appointed a steering committee headed by the Chief Secretary to review the reform process as a part of the project implementation programme. To assist the process, a Task Force was created headed by the Principal Secretary (Energy) and a Reform Project Management Group headed by a Chief Engineer (Reform). However, one of the hallmarks of the regulatory and reform process in AP has been the presence of a large number of consultants. They have been involved in policy formulation, analysis and stakeholder studies. It is to be noted that most of these consultants are multinational.

Government of AP has constituted a Task force on Power supply to Agriculture in February 2002. This Task Force was to address total power consumption by agricultural pumpsets, agricultural tariff, subsidy and revenue realization, and develop schemes for metering of agricultural power and targeting of subsidy.

In September 2002, the current Chief Minister completed 7 years in office. He has reiterated his resolve to go ahead with the power sector reforms as an integral part of the on-going reform program in the major sectors in the state. He has asserted that but for power reforms, the tariffs would have been higher and the quality of power supply much poorer. It is clear that issues of power sector will play a significant role in the elections to the State assembly, due in 2004.

4.2 Comments on the Practice of Reforms

At present a particular set of reforms proposed by the World Bank are being carried out in AP with out proper analysis of other alternatives available to redress the situation in 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, people were not aware of the changes taking place in the power sector. There is no public participation, transparency, and accountability in the whole reform process despite the claims of the state government to the contrary. Even the proceedings before the Regulatory Commission are not transparent and participatory to the extent desired. In the tariff hearings for the year 2000-01 general public were not allowed in to the venue on the pretext of lack of space. The Commission issued an order on power demand forecasting without consulting the public though

organisations like People's Monitoring Group and APSEB Engineers Association were demanding a public hearing on the same.

The reform process is supposed to engender competition and improve efficiency leading to cheaper power supply. But the way the reforms are being carried out in AP make these happen impossible. A major hindrance has been the PPAs entered into with several IPPS by the State government and APSEB/APTRANSCO, which stipulates the power purchase costs. These PPAs constrain the freedom of 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.

The pace and content of reforms seem to be moving towards replacement of public sector monopoly by private sector monopoly.

While the aim is to decrease political/government interference in the working of the sector, State government is not only interfering in the day-to-day work of the Companies, but also influencing the decisions of the APERC. For example, members of the Commission Advisory Committee, an important body in the regulatory process, are being appointed with the consent of the state government only. BSES power plant in AP was inaugurated in the presence of the Chief Minister of the state and central cabinet minister for power even without the consent of the Commission to the PPA of this plant.(A serious allegation, can we provide a couple of concrete examples?)

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 a cumbersome process to lay hand on it. Work of APERC is not available in the public domain and definitely not accessible to the common man.

4.3 Responses of Various Actors to Reforms

The regulatory process in AP is marred in controversy and legal battles. In less than three years of APERC's existence, over three dozen cases have been filed in the AP High court with APERC as one of the respondents. Most are from the industry and some from public organisations on issues like tariff, wheeling charges, and third party sales. Most of the filed cases are pending.

4.3.1 Public Protests

A mass protest took place after the first tariff hike was announced by the RC in June 2000. Congress and 9 Left parties who constitute the opposition group in the state legislature led this protest. There were meetings, rallies, call to boycott paying of power bills and boycott of electricity (voluntary switching off lights for few hours at night). Members of the Assembly went on an 11-day hunger strike in August. A big rally was called in Hyderabad on 28 August 2000 to march towards the Legislature assembly. There was police caning the people gathered, use of water cannons and firing in which 3

persons died. There was a state-wide strike on 29 August 2000 and a demonstration in New Delhi. Protests were held when the World Bank president visited Hyderabad in September 2000.

Even though all these did not help to roll back the tariff, it has helped to make power one of the key political issues in AP. Power was an important issue in elections (Loksabha in Sep-Oct 1999, Local bodies in July, 2001, assembly by-elections in September 2001) and is a subject of debate in many political forums. Probably as a result of these protests, tariff hearing in 2001 was much more participative and the tariff hike marginal. It can also be said that major steps like privatisation of distribution or finalisation of PPAs are given much more attention and thought by all the concerned players. In Andhra Pradesh, there is a wide spread concern on the impact of privatisation, large scale entry of multinationals in equipment manufacturing, consultancy & project execution, large loans that have to be repaid and possible tariff shocks.

4.4 Perceptions and Positions

4.4.1 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.

1. Increasing power requirement necessitates massive mobilisation of private financing. They point out that by the year 2002, additional power of 8000 MW is needed, and to generate and distribute it Rs.56,000 crore are needed.
2. Weak financial position of the State government.
3. Private sector is the solution. However, 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 needs to be reformed/restructured completely.

These protagonists observe that State government subsidies on power sector can be diverted to social sectors like education and health. As it is no longer advisable to neglect these sectors, subsidising of power sector must be stopped. In the absence of public funds flowing into the sector, there is no alternative to turn to private sector to mobilise funds. In order to attract the private sector, there is a 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.

4.4.2 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 the other 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. Significantly, there was consensus among the politicians that tariff hike is unjustified and the efforts to 'brutalise' farmers in the name of power reforms cannot be accepted – this opinion was reflected by TDP leaders too (not an official policy, though).

Yet, the mainstream parties like TDP, BJP and Congress would not take a stand against reforms. In fact, leaders across the parties are not averse to 'garner' the benefits of the reforms. One glaring instance is the indiscriminate signing of power purchase agreements

with private sector by both TDP and Congress governments, with persons close to the power centers. As the power policy of the Central government changed, following it in AP, N. T. Rama Rao's Telugu Desam government also entered into MOUs with many companies overnight. Some of these MOUs entered the stage of signing PPAs. A good number of PPAs were also signed/alterd by the Congress governments in the state.

4.4.3 Trade Unions

Employees and their unions in general were suspicious of the power reforms. Sensing this, State government and the State electricity board entered into tripartite agreements with trade unions to carry out reforms in the sector. Significantly, it is the Congress/INTUC affiliated APSEB employees' Union – Registered No.327 which first signed the tripartite agreement on behalf of the Board employees. This union contended that these reforms will protect the interests of the employees and also these are in keeping with the reforms set in 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 – Registered No.1104 along with the APSEB 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 leadership of the Engineers Association and see that it withdrew from the agitation and signed tripartite agreement against the wishes of the engineers. Later the newly elected office bearers expelled those who signed the agreement. The expelled members formed a new association called Transco Engineers Association and from the beginning it is known to toe the line laid by the establishment. 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 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 management has propped 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.

4.4.4 Media

Media has been a complex phenomenon to understand in the period of power reform implementation. Journalists in general were sympathetic to the 'victims' of power reforms, though the managements try to place the 'stories' in their power game. All in all, media was more balanced, if not entirely siding with the people, to the issues arising out of reform implementation.

4.4.5 Farmers' Organisations

Andhra Pradesh is a major agricultural State, and as such it remains an influential factor in most spheres of public interaction. However, despite this preponderance, power reforms

have been ‘targeting’ farmers in various ways. As a result, farmers are the most agitated community in the State in the context of the ongoing changes in the power sector, for all 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. 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 well irrigation to agriculture in the State, the number of families dependent on it and its contribution to food security, it is argued that there is a need to continue supply of subsidised power. In this context, they also demand that power produced in the hydro-electric stations be allotted to the agriculture sector.

4.4.6 People’s Monitoring Group on Electricity Regulation (PMGER)

People's Monitoring Group on Electricity Regulation (PMGER) was formed in November 1999 and has emerged as one of the active groups. PMG has been supporting people’s participation, advocating transparency, debate and discussions on the reform steps. It was also opposed to emphasis on privatization, cost-to-serve and such other major premises of the reform programme. (More details are discussed elsewhere in this Paper).

4.4.7 Jana Vignana Vedaka

Jana Vignana Vedika is a people-based science movement formed by intellectuals and educationists in Andhra Pradesh, in late 1980s. JVV has 25,000 active members working at the grassroot level. They joined efforts of PMG in educating the people on issues related to power reforms by conducting seminars, workshops and impromptu meetings. They have published and distributed scores of pamphlets on the ill-effects of reforms, particularly on the farm sector. Of late, they took active part in representing before APERC. They have filed about 150 petitions against tariff proposal for the FY 2003. Similar to PMG, it took a stand against reduction of power reform programme into tariff hike, with no actual improvements in the system of generation and distribution.

4.4.8 CSIs with a middle path (Lok Satta, GONGOs and farmers organizations)

Civil society institutions in AP largely remained neutral to the World Bank reform process, even in the case of the most visible power sector reforms. However, ‘consultant’ research institutions helped in generating results and studies, aimed at reinforcing the argument for power reforms. Universities and University faculty, apart from a few individuals, remained passive during the entire period, depicting a depressing scenario of the institutional structure. Reform argument was also furthered through a number of workshops and a set of ‘willing’ research institutional structure. Non-governmental organizations took a ‘distant’ view of the reform process, and have failed to see the linkages between the reform impacts and results with their ‘targeted’ population. Some NGOs were in fact working on both sides, reflecting their confusion and/or opportunism. CBOs were concerned with their own agenda, like an ostrich. In fact, a deeper analysis is required to understand this lackadaisical response of CSIs to the entire reform package of the World Bank in Andhra Pradesh. It needs to be studied as to whether there was deliberate strategy to ‘co-opt’ the CSIs to weaken any anti-reform struggle.

There are a few other CSIs who have been working on reform issues, but choosing a middle path. One such organization is Lok Satta, which formed Citizens Organisation for Regulated Electricity (CORE). Membership of CORE includes former Chairmen of APSEB and some retired government officials. CORE believes that once much acclaimed APSEB and its successor organisations are now facing severe financial crisis as a result of several years of criminal neglect, rampant corruption and rank incompetence. It also locates the source of crisis in huge system losses, government’s failure to remove subsidies, failure to adopt

rational policies to encourage energy saving in agriculture and political 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.

Despite all this, these organizations maintained ‘silence’ on important components of the reform programme like privatisation of the sector and its impact. Shorn of the jargon and vocabulary, their stand appears no different from the justification for reform, especially privatization. This is too harsh, an outsider may find this remark unjustified. One could say that despite its written position LS failed to act effectively for their beliefs and thus, effectively, strengthened the hands of pro-reform policies.

4.4.9 Individuals

There have been several individuals who became ‘resource persons’ for both protagonists and antagonists of reforms. While the resource persons for protagonists were ‘paid’ in the form of consultancies and research studies, resource persons for anti-reform struggle fulfilled their role voluntarily. These consultants helped the reform process to ‘localise’ its content to the extent possible (a difficult task for the government and the World Bank). On the other hand, voluntary workers helped in exposing ‘hidden’ caveats in various reform steps, which benefited the anti-reform struggle enormously. Their contribution came because of their experience in the power sector, knowledge, skills and intelligence.

5.0 Work of Civil Society Institutions

Employee unions had agitated against the government reform plan at different stages of the process. Since 1990's, there has been consistent opposition to the non-transparent process of introducing private generation. Media has highlighted the possible irregularities in the PPAs and the MOUs. Participation of employees, CSIs and public in the power sector issues has increased.

Few committed retired bureaucrats have also significantly contributed to the regulatory process. This has been through participation in public hearings, writing articles and publishing books. There have been many pamphlets and one comprehensive book on the power reforms. One of the senior retired bureaucrats had filed a Public Interest Litigation (PIL) in the High Court on the subject of low frequency operation of the grid and resulting inefficiencies. Participation by industry associations have been mostly confined to protecting their own interests. Academia and professional bodies have not involved themselves to any significant extent as yet.

5.1 Role of People’s Monitoring Group on Electricity Regulation (PMG)

PMG is a voluntary group, wherein different organizations and individuals have come together to monitor the power reforms in Andhra Pradesh on behalf of people, and has been working to protect the interests of the people. PMG was formed by a voluntary group of individuals and organizations, who had a perfect understanding of their role and mission. This was started in 1999. When this Group was initiated, it was felt that there was a necessity to make a organized monitoring effort, considering the pace and method of the reform process in Andhra Pradesh. Power reform process in AP by then was out of its initial stages and has

just set up institutional mechanism to regulate the reform process, namely the AP Electricity Regulatory Commission (APERC). Individuals who came together felt that APERC would mark the need for interventions for protection of public interest on single platform. PMG chose to represent the people and their interest in this platform, while it was always circumspect of the 'neutrality' of the Commission in deliberating and deciding upon issues in power sector fairly and equitably. It was felt that APERC would occupy the center stage in the reform process and there is every likelihood of it being used as a 'democratic' tool to legitimize the reform process. It was surmised that APERC would be given controlling power to regulate the reform process, as given the Act, atleast in the initial stages. This is based on the assumption that while the government is full bent on implementing the World Bank-planned reforms in the power sector, APERC was created to give an objective look to the entire process.

PMG decided to effectively utilize this platform and strengthen it to articulate and protect the interests of the people. PMG has actively participated in the public hearings and played a catalyst role to involve different stakeholder organisations apart from political parties in regulatory interventions. It also worked towards increasing media's interest in power sector issues. Through seminars, papers and articles, it has helped to improve the quality of interventions in regulatory process. In fact, PMG had helped in the strengthening of APERC as a regulatory institution through some of the most innovative methods. Over a period of two years, PMG has successfully collected and analysed information, and was able to communicate the same to the people through different channels. Over the period, PMG developed into a source of 'critiquing' of the reform steps for various groups working on different issues in the reforms, especially media and political parties.

Work of the PMG was also achieved by the presence of strong research capabilities within its membership, the commitment to the critical analysis of information available and the enthusiasm to develop alternative policies in the interest of the people. Dissemination of information to the people was enabled through different networks and the access of members of the PMG to such networks. The strength was within its fold – the membership of organizations such as the employee's unions, associations of farmers and farm labourers. In addition, members of the PMG were in regular touch with leaders of political parties, trade unions, media groups, NGOs, and various other civil society groups. In times of need (whenever the decisions of APERC were critical, such as Tariff hearings and PPAs), special efforts were put in to reach out to the people through public meetings, pamphlets, booklets and evening meetings. Many civil society organizations, independent and also affiliated to the Left, had done their own work in taking forward this information in their own manner, style and content.

Based on the information provided by the PMG, leaders of the Opposition were able to bring various issues into discussion in the State legislature, though they were not able to 'influence or change' any major reform-related decision. However, discussions in the assembly were able to mould the public opinion since all the proceedings of the assembly are telecast live. This had also exposed the claims of the government over the reform-related decisions.

PMG has made APERC as its primary platform to 'resist' all anti-people aspects in the reform agenda. Its work with APERC has five dimensions:

I. PMG's interventions helped to correct some anomalies/distortions in the reform process. The reform programme generally aims at promoting private investment. Under this guise the state government tried to push through costly mini power plants. In response to PMG and other organisations' submissions APERC decided against permitting mini power plants. Higher wheeling charges were introduced reflecting the cost of transmission and T&D losses in the place of nominal charges. PPAs of the gas based power plants are being reviewed in the background of revised load forecasts and realistic estimates of gas availability in response to PMG's submissions. At the instance of PMG the Commission also ordered review of escrow facilities offered by APTRANSCO. The

Commission ordered opening of non-drawl bank accounts to deposit employees terminal benefits until the creation of Trusts.

II. PMG tried to use APERC as a platform to expose the hollowness of the reform process. PMG decided to use this platform considering the focus and attention of the media and the people towards the public hearings of APERC after exposure of the initial tariff hearing in 2000. PMG also thought it would be ideal platform to test whether APERC would be able to hold onto its mandate of protecting the interests of the people in the reform process. Several issues were brought before the Commission through the public hearings.

Some of the issues include futility of the multi-buyer reform model, advocated by the World Bank, discrimination against APGENCO, vis-à-vis IPPs, dangers with the clause in distribution and retail supply licenses issued to distribution companies providing for sale of distribution assets with book value of less than Rs.5 crores without consent from the Commission, extravagant and futile investments in the sector and their failure to achieve adequate returns (Ex. Rs.2,600 crores in Srisailam Left Bank powerhouse, About Rs.890 crores in T&D for reduction of one percent technical losses)

III. PMG brought pressurize to bear on APERC to decide in the public good. As a result of these efforts PPAs of all IPPs which failed to achieve financial closure before the formation of APERC are to be reviewed by the Commission. All the PPAs of IPPs which are in operation are to be made available to the public. Public hearings are also being conducted in places other than the state capital, Hyderabad. The load fore cast plans are also being reviewed.

IV. PMG attempted to educate general public and motivate them to participate in APERC proceedings. PMG believes that the reform process has to be democratized through more and more public participation in the proceedings and decision-making in the various steps of the reform process. For this, it had made substantial efforts to involve the people in the proceedings of APERC through special and innovative initiatives, taking the support and infrastructure of various civil society organizations. It brought out reports on various issues and disseminated them widely. Media has published a number of news stories and detailed investigations, at the active provision of information from PMG, some of which have been sourced, but mostly unsourced. These series of stories have sustained the public spirit to monitor and fight the reform process, apart from the direct impact in the form of tariffs.

Through active efforts, PMG strove to increase the number of petitions filed before the APERC. This was done as in the first tariff hearing by APERC, 78 petitions were received, and it fell to 68 in the subsequent year. This fall was because of the complex process of filing petitions, inadequate information available to the public about the process and lack of appreciation of these problems by the Regulatory Commission. Realising that this would harm the public interests, PMG decided to take up a special drive to facilitate and encourage more petitions to be filed before APERC. As a result, a total of 585 petitions were filed in FY2003 tariff hearing, of which 350 petitions were filed by engineers, 125 petitions were filed by Jana Vignana Vedika members, and about 25 petitions from political parties, purely due to the efforts of PMG. PMG facilitated filing of these petitions by providing proforma for filing petitions, holding special sessions and helping the people in understanding the process and personally guiding them to file the petitions.

Even though the Commission has invited only 116 individuals to represent personally, the whole process of petitioning has created interest, discussion, greater awareness and demystification of the petitioning process. It also exposed the limitations of the Commission in dealing with the 'real' public hearing process and increasing public participation.

V. Through its consistent efforts PMG tried to expose the limitations of APERC. Its reluctance to examine the PPAs of IPPs already in operation is a case in point. The Commission also failed to see that past liabilities to the extent of Rs.4,600 crore are not again imposed on the public. Even when APTRANSCO and DISCOMs did not adequate steps to fulfil the directives issued by the Commission it could not do much to set the things right.

5.2 Future work for Civil Society Institutions

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 shows the need for capacity building of the CSIs to effectively champion the interests of the people, in the reform process. Improving capacities of the civil society would help in proactive engagement of the Commission. Instead of trying to cope up with the issues thrown up by the decisions of the Commission, studies can be initiated on impact of reform steps to be brought to the notice of the Commission.

There is a 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 to build a 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. At the same time talented and capable organisations/individuals with the knowledge of the power sector at national and state level have to be brought together to enable exchange of experiences, information and ideas with the campaign organizations, individual campaigners and civil society networks.

Power reforms and the process of implementation of power reforms have to be questioned for their tilt towards profiteering at the costs of people's access to power. The corporate structure which aggrandizes from such processes have to be exposed for their vested interests in the ongoing reform programme. People have to be informed and educated continuously to think and act for sustainable power policies, programmes and structures in the interest of sustainable development which is socially-equitable, economically-viable and resource-wise sustainable.

6.0 Crucial Issues in AP Power Sector

6.1 Power Consumption by farmers

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. 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 increased 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. In the absence of meters to measure power consumption, the quantum of power consumed in the agriculture sector is arrived at by deducting the power consumed by industrial and household sectors from the total power supplied in the state. But this includes losses in transmission and distribution, and also power theft. If these losses are taken into account then the proportion of power consumed by the agriculture sector is expected to be low, lower than 47.8 per cent. Mr. M. Hariprasad Rao, a retired power official, 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 continues to be a convenient tool for reform process to bring in changes.

6.2 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.

From 1982, while 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.

6.3 Status of 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 8 short gestation power projects in the private sector and entered into Power Purchase Agreements (PPAs) with these private companies.

Besides these, 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 370.20 MW of power have been 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, 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.

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 pay to all other suppliers put together is Rs.1.73 only. To APGENCO's 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).

Without addressing the issue of power purchase costs, it is very difficult to visualise that reform process leads to efficiency and increased supply. The IPPs armed with PPAs are holding the State to ransom with cost plus principle. According to this principle the investors will automatically get 16% rate of return on their investments. This guaranteed investment encourages them to escalate the capital costs of the projects to claim more returns. The application of similar principle to transmission and distribution shows that apprehensions about impending burden of increased tariffs are very much real.

7.0 **SWOT Analysis of Alternative Interventions**

Power reforms in Andhra Pradesh has been marked by protests and struggles of the people, championed variously. However, the 'core' of this struggle comes from a limited number of dedicated group of people, positioned in the society at different places, who played a pioneering and innovative efforts. This has been the strength of this struggle. Such efforts were facilitated by the work and efforts of groups such as political parties and their affiliations, civil society institutions like People's Monitoring Group, Jana Vignana Vedika, farmers organizations and media. An analysis of the situation is presented below:

Strengths

1. There is a broad consensus against certain aspects of power reforms such as concept of cost-to-serve, sale of distribution and generation assets, burdening agriculture and SSIs, steep tariff hike, among all opposition political parties.
2. Many victories of the people's struggles (refer section on PMG for more details). Regulatory Commission was forced to take decisions in people's favour such as reduction in load requirement for the State thus reducing the scope for high investments and resultant fixed charge burden, denial of consent to BPL and BSES (IPPs).
3. Mass movement against tariff hike during June-August, 2000, impacting on the credibility of the government and its claims.
3. Good reactive work capability of civil society institutions. Organisations like PMG, JVV and Engineers Association could react creatively to the various steps proposed by APERC.
4. CSI's had succeeded in making power a major political issue in the local government elections and also by-elections to the State Assembly.
5. Reputation of the constituents of PMG for championing the cause of the people. AP Rythu Sangham and AP Rythu Cooli Sangham have reputation of leading many militant struggles.
5. Strong voice of farmers and their organizations in the reform process like APERC hearings.
6. Role of media in anti-power struggle. Sections of media stood by the people's struggles and highlighted the spirit and rationale of these struggles.

Weaknesses

1. Limited resources – struggle was taken up by individuals and organizations from their contributions.

2. Congress takes a categorical stand only in particular tariff related issues. While Left parties are constrained by their anti-government attitudes. Some people think that Left parties always take negative, anti-government stand.

3. Failure of political parties to take up educational work and struggle to grassroot level. Participation is mostly limited to their own cadre.

3. Not enough out-reach programs to general public, and interested groups. Large sections of the public are in the dark about the reform programme.

4. Lack of substantial pro-active work in developing and building consensus on alternative policies. Some organisations which are working on the power sector are doing more reactive work than pro-active work.

Opportunities

1. Power touches all walks of life and if utilized effectively can become potential weapon to organize and fight reforms.

2. Public has suspicion on the reform programs and dangers as the reform programme is kept under wraps away from public view despite the state government's declaration that there was extensive public debate.

3. Small, good, committed political leadership.

4. Participation of electricity sector employees in general and particularly APSEB Engineers' Association in the struggles against the reform programme.

5. APERC as a platform to ventilate anti-reform stance. Despite its limitations the Commission through its public hearings on tariffs and PPAs provided platform to express misgivings of the masses.

6. Solidarity of journalists to anti-reform struggles, since they have published several investigative stories, which helped in educating the people.

7. Power has been a major issue in all elections. It will be one in the next Assembly elections of 2004.

Threats

1. APERC might be 'used' by the governments to further the reform agenda, for example Long-Term Tariff Principle which severely harms the interests of the people.

2. Considering the backing of World Bank to the power reforms, which cannot be matched by CSIs, which do not command the same level of resource deployment such as consultants.

3. Government is a one man show. It is more of Chandrababu Naidu's rule rather than that of the Telugu Desam Party's.

4. Victimisation of employees active in promoting democratic participation of people in the reform process.

5. Corruption and political vested interests. Those who have vested interest in the reform programme because of the scope provided to them to enrich themselves will spare no effort to weaken people's opposition to the reform programme.

6. Business control over the media content. Some of the business houses which have interests in media are also exploring opportunities in the power sector.

7. Political opportunism – ambiguous stand of Congress on reforms per se. Congress, while it follows the reform programme at the national level and has no substantive difference on the reform programme in the state, raises objections against tariff hike and PPAs only.

8.0 Conclusions

Government of Andhra Pradesh has thus taken several policy and implementation initiatives to accomplish the reform process. The required legislative and regulatory framework has been put in place with the passing of the reform bill and the establishment of APERC. The required institutional changes in the power sector are to take place in the coming months, especially privatisation.

Given the prevailing conditions in the State, it is very difficult to believe that power sector is in for better conditions. Private investors are interested more in making a fast buck rather than follow the rules of the game. And they are ready and capable of bending the rules of the game in their favour.

CSIs are concerned about the unpredictability of the outcomes and the efforts of the government to provide cushioning to the private investors. It is the consumers, unorganized and unknowingly, who end up suffering from uncertainties and unpredictable outcomes. Instead of grappling with this, APERC seems to be interested in doing away with subsidies and cross subsidies through Long Term Tariff Principle and Cost-to-Serve approaches.

The emphasis on quality of supply should not be used as a pretext to make electricity inaccessible to nearly half of the population in the State. It is to be noted that quality of power supply could be improved within the existing conditions through several measures. Financial signals alone will not work. In a country where one third of the population is below the poverty line and who are not able access basic amenities to depend on financial or market signals will automatically deny them access to basic facilities like electricity. Welfare components need to be infused in to the policy framework.

Further, given the overall direction of the present reform programme in “rationalising” tariff in which industrial and commercial consumers are rewarded with declining tariff, other sectors, particularly domestic and agriculture sectors may have to face increasing burden. Given the present direction of reforms, negative impact of reforms is to be borne by the under privileged, domestic and agriculture consumers. In the logic of the programme, it is they who need to be given comforts!

Markets/tariff changes alone cannot work in addressing the crisis facing the sector. In the given circumstances application of cost based pricing is fraught with many dangers. At present the average tariff collected from the agriculture sector is Rs.0.30 while the cost of supply is calculated to be Rs.2.38 per unit. If the agriculture tariff is to be in accordance with cost of service then it has be increased by nearly eight times which is practically impossible. Also, at a time when the agriculture sector is in the midst of crisis burdening it with higher power tariff will only further worsen the situation with out in any way helping the power sector in terms of higher revenue collection. The mounting commercial losses, which are a major drain on the finances of the sector, cannot be dealt with financial measures but only by changing the overall atmosphere in the sector. There is vast scope to improve the revenues of the licensees through improving efficiency and reducing T&D losses without imposing higher tariff on the consumers.

The way subsidies and cross subsidies are treated gives rise to an impression that social issues related to the supply of power are being set aside. This will lead to deprivation of increasing number of people as in the present conditions only about half of the population has direct or indirect access to power. The prevailing situation calls for a societal response.

It can be concluded that the power reform process, as is being done, has only managed to empower the anti-people processes, individuals and institutions, who have been responsible for the present crisis situation through finances, new concepts and approaches. The decision-making process has not changed, essentially it is the same

which brought in the present crisis situation – opaque, no local participation, fudged information and statistics, adhoc planning, etc. The decision-making setting or environment has not changed, only the actors have changed. A true review of the reform process should go into the question of *who is getting the free lunch*, supposed to have been provided to the poor people of India.

Annexure: I**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 APTRANSCO
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 further unbundled into APTRANSCO and four DISCOMs
May 27, 2000	First Tariff Order 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
March 24, 2001	Second Tariff Order by APERC
April 1, 2001	Regular licenses to DISCOMS
March 24, 2002	Third Tariff order by APERC
April 1, 2002	Financial autonomy to DISCOMS
August 17, 2002	Employee division (option process) among APGENCO, APTRANSCO and DISCOMS on permanent basis

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