

BEFORE THE ANDHRA PRADESH ELECTRICITY REGULATORY  
COMMISSION \* 11-4-660, 5<sup>th</sup> Floor Singareni Bhavan, Lakdi-ka-pool,  
Red Hills, Hyderabad – 500 004

File No  
Case No

IN THE MATTER OF

Petition requesting the Commission

1. To take necessary steps to increase people's participation in the regulatory process.
2. To reduce consumer tariff in proportion to the reduction in BST.
3. To review capital expenditure of the Licensees including HVDS.
4. To direct the Licensees to collect wheeling charges with out fail.
5. To direct the Licensees to take effective steps to reduce T&D losses and collect all arrears.
6. To allow the petitioner to be heard in person before APERC takes any decision on this petition.

IN THE MATTER OF

**Name and full address of the petitioner:**

People's Monitoring Group on Electricity Regulation  
C/o Centre for Environment Concerns  
3-4-142/6, Barkatpura  
Hyderabad – 27

**Represented by**

M.Thimma Reddy  
Convenor  
People's Monitoring Group on Electricity Regulation  
C/o Centre for Environment Concerns  
3-4-142/6, Barkatpura  
Hyderabad – 27

And

**Name and address of the Respondents:**

Chairman and Managing Director  
Transmission Corporation of Andhra Pradesh Ltd,. Hyderabad  
Central Power Distribution Company of Andhra Pradesh Ltd, Hyderabad  
Eastern Power Distribution Company of Andhra Pradesh Ltd, Visakhapatnam  
Southern Power Distribution Company of Andhra Pradesh Ltd, Titupathi  
Northern Power Distribution Company of Andhra Pradesh Ltd, Warangal.

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**AFFIDAVIT VERIFYING THE MEMORANDUM OF OBJECTIONS**

I, M. Thimma Reddy, son of M.Pothi Reddy, working for the Centre for Environment Concerns, 3-4-142/6 Barkatpura, Hyderabad – 27, do hereby solemnly affirm and state as under:

1. I am the Convenor of the People's Monitoring Group on Electricity Regulation (PMGER), the applicant in the above matter and am duly authorised by the said applicant to make this memorandum of objections on its behalf.
2. The statements made in the paragraphs of the accompanying memorandum of objections now shown to me are true to my knowledge, derived from the Filing of ARR and Proposed Tariffs for FY 2005-06 of the four DISCOMs and the material gathered by PMGER and made available to me and are based on information and advice received which I believe to e true and correct.

Solemnly affirm

Deponent

10 –01 – 2005  
Hyderabad

**BEFORE THE ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION \* 11-4-660, 5<sup>th</sup> Floor Singareni Bhavan, Lakdi-ka-pool, Red Hills, Hyderabad – 500 004**

**1.1** On 9<sup>th</sup> December 2004 Public Notices were published by APTRANSCO and the four DISCOMs notifying the filing of ARRs and proposed tariffs for the financial year 2005-06, and calling for comments/objections from the public. This filing is in response to this Public Notice.

**General Issues**

**1.2** A vibrant, knowledgeable civil society is essential for the success of the reform process. Consumer education is essential for this, since power sector is a complex one with many linkages. Initiative for this should come from the State, through institutions like APERC. There have been no efforts in this direction in the past many years and the situation continues to remain same. This is reflected in very few consumers participating in the regulatory process in the state through five years passed by since the introduction of power sector reforms in the state.

**1.3** APERC is expected to function as a neutral umpire for the sector, with a mandate to protect public interest. Many issues in the past have shown the limitations of APERC. Failure to force a review of the power purchase agreements, passing major orders like Load Forecast without public hearings, major investment projects like HVDS going ahead without a public debate etc are few examples. For the past one year or so, frequency of SAC meetings have been better than in the past, but the qualitative aspect of discussion in these meetings need to improve a lot. Forums like the SAC, seminars and public hearings should be better utilised by APERC to debate these issues.

**1.4** A look at the tariff submissions by the 4 DISCOMs also show some lack of commitment towards public participation. These submissions (each about 200 pages long) have differences in formats, differences in the extent of information presented etc. For example, take Form 1.1d that provides information on investment. There is no uniformity among the four DISCOMs and it is very difficult to put them together to arrive at a statewide picture. Same is the case with T&D losses. Only CPDCL gave circle wise information. All these make it a very tough job to go through all the DISCOM submissions to study any one issue.

**Tariff Changes**

**2.1** No tariff hike is proposed for domestic and the free power scheme for LT and HT agriculture is proposed to be continued. Changes in energy charge, demand charge and incentive scheme imply 3-4% reduction of HT tariffs. HT tariff is also differentiated based on voltage levels.

**2.2** Ferro Alloy Tariff is proposed to be hiked from 212p/unit to 287 p/unit. The figure 287 is arrived at by reducing the incentive benefit from the EHT energy charge of 325p/unit. Offering the concessional tariff of 212p/unit was done without any public hearings. While the current proposal to increase the tariff is welcome, we suggest that Ferro alloy tariff be made same as other EHT tariff with demand charge (Rs. 2340/kW/year) also included.

**2.3** During elections the Congress party also promised free power to the domestic consumers who have single bulb. After coming to power they modified it and reduced the tariff to be paid by these domestic consumers. But the same is not mentioned in the tariff proposals. Whether these concessions stand or not.

**2.4** DISCOMs were to make tariff submissions under the Multi Year Tariff structure, but none have done that. Kindly clarify.

### **Wheeling Charges**

**3.1** All the DISCOM proposals mention scheme for wheeling charges, 40-70 paise/unit in cash and 6-24% in kind as transmission loss compensation for 33 kV, 11 kV & LT voltage levels (4.5, proposed tariff). But all the DISCOMs seem to be factoring wheeling charges as a part of their income. For example NDPDCL on non-tariff income indicate that “wheeling revenue for the current year and the ensuing year has not been assumed for calculation. Since the Wheeling Order is sub-judice and wheeling consumers are continuing to pay as per prior arrangements...” (Sec. 2.55). Form 1.4 on Non-Tariff income for all DISCOMs show no revenue from wheeling. But at least they should be showing what they are collecting according to the court order.

**3.2** While it is true that the previous Wheeling Order is sub-judice, is it not possible for APERC to propose a new scheme under the provisions of Electricity Act 2003 to charge T&D charges to wheeling consumers? The Electricity Act 2003 clearly mentions that wheeling charge will include cross subsidy surcharge. Even if issues related to cross subsidy surcharge etc are not finalised, DISCOMs could suggest a tentative figure for this and collect wheeling charges. The wheeling charges under the previous scheme was very meagre and that too mostly in kind. If this arrangement is not done, collection of arrears later (at a future date, when wheeling charges are introduced) will be a big problem.

### **Free Power to Agriculture**

**4.1** The tariff proposals propose to continue the free power policy announced by the State government in May 2004. As an immediate relief measure, free power policy was a welcome step. We have suggested that more than the economic dimension, problems with free power are in the area of ground water depletion, poor targeting and neglect of water use efficiency. Our suggestions in this area are:

**4.2** The consultation process to review the free power policy has not been systematic, transparent and representative. The APERC, many of the farmers associations and consumer groups have not been sufficiently involved in this process. Increase in consumption due to un-authorized consumption has been reported by all DISCOMs. A break-up of these un-authorized connections should be provided. Public hearing process should be used to collect views of farmers associations on this issue. Consultations should also address rural credit, ground water and agriculture practices.

**4.3** Since agriculture tariff is free or below the cost of supply, it is of great use to the DISCOMs if efficiency improvement schemes are introduced in pump based irrigation. Studies by institutions like Central Institute for Rural Electrification (CIRE) have indicated that increase in pumping efficiency to the tune of 20-2\30% is possible with minimum investment. DISCOMs should take up concrete steps in this direction.

**4.4** Many suggestions have been proposed to ensure that the benefits of free power reach the marginal farmer. At the minimum, the corporate farmers should be excluded from this scheme.

**Estimation of agriculture consumption:**

(In MU)

DISCOM	2004-05		2005-06
	APERC Order	Revised Estimate	ARR Estimate
EPDCL	1150	1218	1238
SPDCL	2600	3314	3441
CPDCL	5000	6207	6396
NPDCL	2700	2913	2951
Total	11450	13652	14026

**5.1** Power consumption in the agriculture sector continues to be contentious issue. It is the case with the ARR filed for the year 2005-06. We are of the opinion that the figures shown by the Licensees as well as those adopted by the Hon'ble Commission are highly inflated. For the year 2004-05 the Commission allowed 11,450 MU for the agriculture sector in the LT section. But Licensees show that the actual consumption would be 13,652 MU. For the ensuing year (2005-06) Licensees estimate the consumption to be 14,026 MU.

**5.2** On the face of it is difficult to believe the above consumption figures. There are two bases for this contention. One, supply to agriculture is reduced from 9 hours per day to 7 hours. That is to say supply to agriculture is reduced by 20 percent. This should imply that agriculture consumption should come down by 20 percent. Besides this, because of continuous failure in rains and drought for the last five years ground water depleted enormously and more than a quarter of the well are not in use. These two added together the consumption in fact should have come down. But paradoxically, Licensees

show upward trend. We think this suits them to cover up their failure in reducing T&D losses.

**5.3** The method suggested by the Commission and being followed by the Licensees does not seem to be of much use in arriving at the agriculture consumption figures. Take SPDCL for example. For the current year they have revised the agriculture consumption figures to 3314 MU, but from the sampled DTR meter data they show it to be 3503 MU. Similarly in the case of ensuing year also while the estimated figure is shown to be 3441 MU sampled meter data show 3784 MU. Given the wide variation between the estimated figure and the sample DTR meter figure, on what basis did they arrive at the estimated agriculture consumption?

**5.4** Estimation of Tatkhal consumption also gives rise to some questions. For example NPDCL(2.4.1, page 37) takes the September 2004 consumption as the norm and multiplies it by 12 to get the consumption for 2006, equal to 116.28 MU. (Tatkhal connections will not increase, since they are stopped in August 2004). But from Table D page 36, the average units/hp/month for tatkhal pumpsets works out to be 73.1 and using the connected load of 196709 hp, one gets an estimate of 93.6 MU. The latter method should have been used for all DISCOMS.

**5.5** In tariff order 2004-5, there was a directive (Directive 2, carried forward in 2005 order) to complete metering of individual agriculture services by March 2005, NPDCL and EPDCL say that it plans to complete metering by 2007. Other DISCOMs also give similar reply with some caveats. How many meters been installed? How many are working? What is the specific agriculture consumption (units/hp/month) measured by them? How does it compare with the values given by Tatkhal scheme pumpsets or DT metering in similar circumstances? What is the cost of metering/consumer/year? This should include the annualised cost of meter installation, cost of taking reading, preparing bill and collection. How much of this activity is out-sourced?

**5.6** The important limitation in arriving at the correct power consumption figures in the agriculture sector is that these connections are not metered. A viable alternative to this is metering of all the DTRs feeding agriculture loads. As a part of the sample study 10 to 15 percent of these DTRs were metered and with that metering of DTRs is stopped. Even when some DISCOMs planned to go ahead with this metering we learn that Commission has objected to this on the grounds of cost. We are of the opinion that cost of metering of DTRs will be far less than metering all the agriculture connections. Also one would think that 100% metering of agriculture DTRs will give a good estimate of agriculture consumption.

## **Gearing up for Rural Electrification**

**6.1** The National Electricity Policy and Rural Electrification policy suggest ambitious targets for electrification. The definition of Village electrification has been changed and all villages are to be electrified by 2007. All households are to be electrified by 2012.

**6.2** The new definition for village electrification from 2004-5 is: Having a Distribution Transformer, Electrification of public places, 10% households electrified and Supply voltage at peak time suitable for lighting. AP has achieved 100% village electrification as per the old definition. How many villages do not meet the new criteria for electrification and should therefore be considered 'de-electrified'? What is the plan to electrify them?

**6.3** AP has over 51 lakh households (5,114,485 households, which is 40% of the total) which are not electrified (Ministry of Power, November 2004). Electrifying them by 2012 would require electrifying over 60,000 households per month or 2000/day. What is the plan to achieve this? What are the other steps planned in line with the National Rural Electrification policy? What are the institutional arrangements being planned? The DISCOM ARR's talk about only agriculture pumpset energisation targets of 50,000 for 2006 and 75,000 for 2007 for the 4 DISCOMs.

### **High Voltage Distribution System (HVDS)**

**7.1** For all the DISCOMs, HVDS is projected as one of the major capital investments. Looking at Form 1.1 (d) of the DISCOMs, it can be seen that Project cost estimates for HVDS are as high as 50% of the total capital expenditure. (1174 Cr out of 2024 for NPDCL, 1447 for CPDCL etc). The total planned HVDS investment for all the DISCOMs is said to be Rs. 5500 crore. These projects are planned to be completed by 2007. We wish to make the following submissions about HVDS:

**7.2** After hearing about the plans for HVDS projects from newspaper reports, we had written to the commission as early as 01/09/2004, requesting for copies of HVDS project reports submitted by the DISCOMs for APERC approval. Since there was no response for 2 months, we wrote to all DISCOMs in end November and sent a reminder to APERC. In November, we received a letter from APERC informing that we should approach the individual DISCOMs for project reports. On 9/12/04, we received a booklet from SPDCL with around 100 slides of a presentation made by CGM, SPDCL. To date, we have not received copies of the requested project reports either from APERC or the DISCOMs, despite our letters and offering to pay for Photostat charges. APERC and DISCOMs should clarify this hesitation and delay to give information, even to a member of the APERC Advisory Committee.

**7.3** HVDS should be implemented only for agriculture loads in low load density areas. DISCOMs should clarify this point. Why is the allocation for HVDS highest for CPDCL, is it being implemented in the urban centers?

**7.4** Implementation of HVDS should be prioritised based on few parameters, already mentioned in the DISCOM ARR's. EPDCL mentions HVDS for DTs with high voltage regulation (>6%); NPDCL suggests for DTs overloaded by >30% capacity or having >1.5 km LT lines. Few projects with such priority should be implemented, and a thorough cost benefit study conducted. Then only should massive HVDS implementation be taken up.

**7.5** Many DISCOMs seem to be planning use of single-phase low capacity DTs to supply rural domestic loads. SPDCL reports that part is 75% complete with thousands of DTs installed (section 3.4.1.1). What has been the experience with these in terms of failure rates and loss reduction? What are the benefits? Many single phase DTRs and small capacity 3-phase DTRs have been installed as part of the HVDS project. A break-up of failure rate of DTRs in different categories will be useful – high capacity (63, 100 etc kVA) DTRs, small capacity (15,25 kVA) 3-phase DTRs and single phase DTRs.

**7.6** DISCOMs should be transparent about the cost benefits of the HVDS system. ARR mentions data on loss reduction based on readings taken for a few days. Study should be more detailed and should be presented in the public hearings.

**7.7** From SPDCL presentation and ARR filings, DISCOMs are projecting high benefits from HVDS and short pay back period of 3-4 years. High savings are due to reduction of energy and capacity for agriculture. What is the plan to utilise this freed power? If there are avenues to make revenue out of it, an equivalent amount should be reduced from the ARR.

### Study of T&D Losses and Energy Audit

#### Distribution Losses in DISCOMs

DISCOM	2003-04		2004-05				2005-06	
	Actual		APERC Order		Present Estimate		Present Estimate	
	MU	%	MU	%	MU	%	MU	%
EPDCL	993	15.40	1037	15.50	1099	15.00	1139	14.40
SPDCL	1939	19.34	1789	18.50	1968	18.00		
CPDCL	4084	22.33			4101	19.86	3747	17.91
NPDCL	1513	20.24	1491	19.50	1547	19.60	1494	18.56
Total	8529	20.14			8715	18.62		

**8.1** The above table shows that between 2004 and 2005 distribution losses declined by only 1.52 percent. Given the fact that some of the distribution losses are loaded on to agriculture, which figure continued to be inflated actual distribution losses would be much more.

#### Assets Added during the Year (Rs. in Cr) (Form 1.1a)

DISCOM	2004	2005	2006	Total
EPDCL	197.79	222.42	167.17	587.38
SPDCL	193.91	283.25	276.50	753.66
CPDCL	426.47	456.19	483.00	1365.66
NPDCL	193.56	287.19	328.52	809.27
Total	1011.73	1249.05	1255.19	3515.97



**8.2** During the year 2004-05 Rs. 1249.05 crore is spent on system improvement among the DISCOMs. But through this they could reduce distribution losses by 1.5 percent only. During this year they spent Rs. 250 crore more than estimated in the last years ARR. Even after such a high expenditure on distribution system they were not able to reduce system losses to the commensurate level. This also shows the limitation of technical solutions in curbing distribution losses.

**8.3** Regulatory Formats 3.1 to 3.3 are supposed to contain information on power input at different levels of the distribution network and calculation of the resulting distribution losses. Except APCPDCL no other DISCOM provided calculations for circle level distribution losses. We request the Commission to direct these DISCOMs to provide the calculations regarding circle level distribution losses.

**Distribution Losses in CPDCL April 04 to September 04**

CIRCLE	Distribution Losses (%)	Metered Sales (%)
Anantapur	17.63	42.14
Kurnool	21.55	54.02
Mahabubnagar	21.41	26.05
Nalgonda	14.60	39.26
Medak	16.95	50.64
Ranga Reddy - N	13.29	79.58
Ranga Reddy - S	16.40	48.08
Hyderabad - N	10.54	89.34
Hyderabad - S	44.22	55.68
Hyderabad - C	23.09	76.78
APCPDCL	18.37	53.06

**8.4** Low percentage of metered sales in some divisions need to be explained. In Hyderabad there is almost no agriculture consumption. But still metered sales are far from 100 percent. In Hyderabad - South it is 55.68%, Hyderabad – Central it is 76.78% and in Hyderabad – North it is 89.34%. In Mahabubnagar circle metered sales is 23% only.

**8.5** High losses could be due to theft, which many claim to be high when power is not metered. But then we see that with 56% metering, loss in Hyderabad south is 44%, whereas, with 26% metering, loss in Mahabubnagar is only 21%.

**8.6** Distribution losses are higher in Hyderabad – Central (23.09%) and Hyderabad – South (44.22%) circles, which almost do not have agriculture loads compared to Anantapur (17.63%) and Nalgonda (14.60%) circles which have substantial agriculture loads. This implies that theft is taking place right under the nose of APCPDCL bosses. And vigilance raids are a big farce!

**8.7** What is the status of online metering of 11 kV feeders? This energy data should be submitted to the APERC and made available to public for verification.

## **Arrears**

**9.1** As per the directive 19 of APERC in its last tariff order, all DISCOMs are to publish details of consumers with arrears greater than 50,000 as part of the tariff filing. SPDCL and NPDCL have filed these reports, whereas CPDCL and EPDCL have not.

**9.2** CPDC and EPDCL should explain why they have not met this directive. They should file this report before public hearings and make it available to public. They should provide this information to the present objector as part of the replies so that it is available by the time of public hearings.

**9.3** A cursory analysis of NPDC report brings out the following:

- 123 HT Consumers amount to an arrears of Rs 60.27 Cr
- 524 LT Consumers amount to an arrears of Rs. 5.5 Cr
- Total arrears from these consumers are about Rs. 65 cr. The ARR for NPDCL is 1586 cr.
- Total LT Consumers in NPDCL = 29.88 lakhs
- Total HT Consumers in NPDCL = 421. This means that 30% of the consumers have arrears!
- In the 524 LT defaulters, nearly 54 (i.e. 10%) are from the Police department! Many are from the government departments.
- Only few of the cases are under litigation (8.9cr NPDCL Sec 7.15)

**9.4** The APSPDCL list of arrears also provide similar picture. Out of 1,077 HT consumers 285 of them have arrears more than Rs, 50,000. That is more than 25% of the HT consumers have arrears of more than Rs. 50,000. Among LT consumers 1065 have arrears more than Rs. 50,000. Out of them 134 connections belong to domestic category. Most of these connections are from Prakasam and Kadapa districts. The remaining connections belong to commercial and industrial categories. There are also large number of government departments which are due more than Rs. 50,000.

**9.5** The state government announced writing off of agriculture arrears of nearly Rs. 1200 crore. We learn that the state government did not pay these arrears. What is the present status? If it is not paying arrears is it paying late payment surcharge? If so, whether it is shown as part of the non-tariff

**9.6** There is lot to be done to realise these arrears. It is a welcome step that the details are being published in the tariff proposals. More stringent steps should be taken to realise these arrears. As has been suggested before, names of defaulters may be published in newspapers etc.

## **Financial impact on DISCOMs due to E-Act**

**10.1** Captive policy has been liberalised and non-discriminate open access is permitted as per the E-Act 2003. APERC has already prepared the schedule for intra-state open access. This being the case, it is surprising that the DISCOMs have not worked out scenarios detailing the possible impact on them due to these policies. Sections 3.2 and 3.3 state that 'licensee has not factored any revenue loss' on account of these factors. 'They would be classified as uncontrollable change arising out of changes in law of the land etc and therefore request for complete pass through'. This is a classic case of the ostrich burying its head in the sand! DISCOMs should make assessment of possible impact and relate its plans to overcome problems (like attracting industrial consumers, or its suggestion on cross subsidy surcharge, its suggestion on captive policy etc). Any impact of these changes should not be categorized as uncontrollable.

### **Standards of Performance Grievance Redressal Mechanism**

**11.1** Section 7.9 of the tariff submissions gives details of interruptions and some other standards of performance. APERC regulation on standards of performance is already in place. Reports on all aspects are not included in the submissions (e.g. Voltage variations, time taken to extend connection etc). The extent of meeting these benchmark parameters (e.g. Fuseoff calls to be attended within benchmark parameters in 99% of the cases) are not included.

**11.2** Looking at some reported parameters (e.g. Average time to attend fuse off call in urban NPDCL is 2-3 hours), there is scope to improve the benchmark parameters specified in the SoP regulation. DISCOMs should give their plans to improve their performance based on experience. Compensation to consumers for not meeting these guidelines is supposed to be operational from this year. What are the estimates made by the utilities for the quantum of these compensations?

**11.3** Regulation regarding Consumer Grievance Redressal Forums and Ombudsman are in place. They need to be constituted at the earliest and should include consumer representatives. Publicity should be given to GRF and SoP regulations by the DISCOMs. What are their plans for these?

### **Cost of Service Study**

**12.1** It is a welcome step that brief documents on the cost of service of the DISCOMs and TRANSCO are made available as part of the tariff submissions. The 45 odd page document of a DISCOM has over 25 pages of tables & data. Without sufficient explanations, it is not possible to understand the approach and logic behind this study. Cost of supply has serious implications on subsidy determination and other issues. We request that each utility should make a brief presentation on this study during the public hearing process.

## **Prayer to the Commission**

We earnestly request the Commission

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