A. OPERATION & MAINTENANCE
Memo No. CE/O/DE/MT/A3/ 401/ /97 Dt.13.10.97

Sub: Transformer repairing agencies-Quality in repair to be maintained-
Instructions-Issued -Regarding.


Instructions were issued in reference cited regarding the quality of insulation materials to be used and the Brand names have been specified. The Superintending Engineers are requested to confirm whether it is ensured that the same are being followed. The payment towards repairs should be made only after ensuring the usage of specified quality insulation materials.

Further the following deficiencies have come to light recently and the Superintending Engineers are requested to ensure that the repairing agencies are complying with the requirements specified to reduce the failure rate.

1. The heating chamber should be so designed such that the core and windings are properly heated to 85°C to 90°C. At present the core and windings are not getting heated properly as they are being placed below the level of the heaters.

2. The filtering should be done with the oil at temperature of 60° C to 65°C. It may be noted higher oil temperature deteriorates the quality of oil.

3. The number of turns for HV and LV windings of transformers should be ascertained from the manufacturers and the same are to be maintained after repairs also. At present the total number of turns are being reduced than the designed number of turns.

4. Meters used for testing and HV testing equipment have to be got calibrated annually and error charts should be exhibited.

5. All joints and formation of delta and neutral to be made with lugs properly crimped.

6. A circulating fan has to be provided in the heating chamber to ensure uniform heating of the entire core and windings.

7. GI trays to be provided for keeping the core so that the oil does not leak on the floor.

8. Clean oil is to be provided for filling after repair.

9. Fire fighting equipment is to be provided near the heating chamber.

10. Tanks should be cleaned by brushing to remove deposited sludge.

11. Filtering of oil is to be from one drum to the other or a fabricated tank is to be used.

12. The Radiator pipes are to be cleaned by pressure oil, by providing a separate pump, so that the radiator sludge is removed.

All facilities should be created to see that these instructions are implemented from 1-11-97 strictly.

CHIEF ENGINEER ELECY.
OPERATION.

ANDHRA PRADESH STATE ELECTRICITY BOARD
Office of the
Chief Engineer, Operation
Memo. No. CE(O)/F.Misc/O & M /P.No. 1147/97. dt. 6.10.97

Sub:- Operation of service connection work orders Instructions issued - Reg.
Ref:- Memo.No.CE(O)/F corres/D.No. 148/97, dt.28.6.97.

During the inspection of Section Offices it is observed that in many instances section officers are operating large number of simplified work orders for release of service connections This practice is leading to non-closure of work orders and improper accounting.

To ensue proper accounting and prompt closure of service connection work orders the following instructions are issued.

1. Only two service connection work orders must be in operation at a time by section officer
2. Only after closure on one work order a new work order shall be opened.
3. As already instructed in Memo cited under reference all the meters issued shall be entered in the meter issue Register. The S.C. No. for which the meter is issued shall be painted on the meter before issue.

The receipt of this Memo may please be acknowledged.

for MEMBER (SECRETARY)
Reminder - II

Circular Memo No. CEP-231/DT-HVDS/D.NO 413/97, Date.30-9-97

Sub:- Conversion of Low Tension Distribution System to High Voltage Distribution System by erecting Single phase distribution Transformers - Reg.

Ref:-
1) B.P.Ms.No.17, Dt.27-5-97
3) Circular Memo No. CEP-23 I/DT-Gen/D.No.317/97 Dt. 30-7-97.

The attention of Superintending Engineers/Operation is invited to references 2nd & 3rd cited, wherein it was requested to instruct their Field Officers for implementing Board's decision in Switching over from the existing Low Voltage System in the villages, catering domestic, commercial and other non-agricultural services to High Voltage Distribution System in a phased manner by erecting Single phase distribution transformers available in the District Stores and furnish a monthly report, but so far no report is received.

The Superintending Engineers/Operation are requested to take necessary action for implementing the High Voltage Distribution System and furnish utilisation report of 15 KVA, Single phase Transformers urgently, as a report on this subject is to be submitted to Chairman/APSEB.

for Chief Engineer/Elecy (P&MM).
Sub: Defects at LT Services-responsibilities and accountability fixed – regarding.

Ref: 1) CE O-16/F.Misc/D.No. 96/96 dt. 27-4-96
     2) CE(O)-16/O&M/D.No 784/96 dt 11-12-96

Inspite of setting up clear norms, functions and duties followed up by repeated reiteration it is observed that the conditions at various LT services still remain wholly unsatisfactory.

During inspections by Members & Chairman and also during intensive inspections of services; large number of cases of direct tappings, defective meters, non attendance to Meter exceptional, low consumptions, multiple services at the same premises, wrong categorisations missing seals, meter boards hanging loose, meters at inaccessible and inconvenient places are observed. These are in addition to wrong meter readings, non review of MRBs, repetitive occurrence of Meter exceptional and non observance of even simple instructions like Meter readers to attest the readings noted.

As this cannot be allowed to continue any longer APSEB has decided to fixup accountability for each lapse and deficiency and designate the officer responsible to rectify and time limit there of and also the officer responsible to ensure that the instructions are followed against each item as per statements enclosed.

These instructions contain reiteration of some earlier instructions issued also for readings, check readings, review etc.

The field officers are requested to communicate copies to all distribution staff & also exhibit in notice boards of offices upto AE’s level.

These instructions shall be followed scrupulously and responsibilities fixed for lapses observed during inspections.

Encl: Statements

MEMBER
SECRETARY
<table>
<thead>
<tr>
<th>S.No</th>
<th>Deficiency/lapse at a service or in a distribution</th>
<th>Responsible for detection &amp; report</th>
<th>Action to rectify and time frame</th>
<th>Officers to ensure follow up of instructions in Col.3&amp;Col.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Direct tapping</td>
<td>JLM/ALM/LM to report</td>
<td>AE within two days</td>
<td>ADE</td>
</tr>
<tr>
<td>2.</td>
<td>Rampant direct tapping</td>
<td>JLM/LM &amp; LI</td>
<td>AE &amp; ADE</td>
<td>DE</td>
</tr>
<tr>
<td>3.</td>
<td>Defective Meters stuck-up/Burnt</td>
<td>Meter reader to note in Meier observation register</td>
<td>s ph services-AE 3 ph services excluding Indl. Indl &amp; HV – services }ADE }D.E.</td>
<td>DE</td>
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<tr>
<td>4.</td>
<td>Repetitive (more than twice) exceptional MS/MBO/DL/ RNF/NIL consumption</td>
<td>Separate table enclosed</td>
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<td></td>
</tr>
<tr>
<td>5.</td>
<td>No meter</td>
<td>Meier reader to note in meter observation register</td>
<td>s ph services – AE 3 ph services -. ADE excluding Indl. } Indl &amp; HV - DE Services</td>
<td>ADE }D.E.</td>
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<tr>
<td>6.</td>
<td>Low consumption</td>
<td>Meter reader to report</td>
<td>s ph services – AE 3 ph services -. ADE excluding Indl. } Indl &amp; HV – Services }DE</td>
<td>ADE }D.E.</td>
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<tr>
<td>7.</td>
<td>Multiple services at same premises for same purpose</td>
<td>Meier reader to note in meter observation register</td>
<td>s ph services – JLM/LM 3 ph services – other than. HV &amp; Indl. HV&amp;Indl Services</td>
<td>AE. Within a month ADE within a month</td>
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<td>8.</td>
<td>Suspected pilferage</td>
<td>Meter reader to note in MO. Register</td>
<td>AE &amp; ADE immediate</td>
<td>DE</td>
</tr>
<tr>
<td>9.</td>
<td>Seals broken &amp; Missing</td>
<td>Meter reader, LM, LI&amp;AE during taking readings &amp; checks.</td>
<td>s ph Cat 1 &amp; 11 - AE 3 ph services &amp; Indl. &amp; HV }ADE Immediate</td>
<td>ADE DE</td>
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<tr>
<td>10.</td>
<td>Meter board loose/slant or upside down</td>
<td>Meter reader /LM/LI to report in M.O. Register</td>
<td>HV services</td>
<td>AE</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cat 1 &amp; II</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Other LT services other than LT Indl.</td>
<td>AE</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>LM &amp; Meter Reader</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>3 ph HV &amp; Indl. Services A E. 10 days</td>
<td>ADE</td>
</tr>
<tr>
<td>11.</td>
<td>Meter at inconvenient or inaccessible location</td>
<td>Meter reader to report</td>
<td>AE for high value.</td>
<td>ADE</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>LI for others - 10</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Wrong categorisation</td>
<td>Meter reader to report. LM/LI &amp; AE during checks</td>
<td>AE - within 10 days</td>
<td>ADE</td>
</tr>
<tr>
<td>13.</td>
<td>No lop entries in MRB</td>
<td>AE</td>
<td>ADE also if not corrected (2 months)</td>
<td>DE</td>
</tr>
<tr>
<td>14.</td>
<td>No signatures of M.Rs</td>
<td>Meter readers</td>
<td>LI &amp; AE to ensure within next cycle.</td>
<td>ADE</td>
</tr>
<tr>
<td>15.</td>
<td>Tapping from incoming service wire for new services</td>
<td>Person who releases the services</td>
<td>AE (15 days)</td>
<td>ADE</td>
</tr>
<tr>
<td>16.</td>
<td>Disconnected services availing supply</td>
<td>Meter readers</td>
<td>AE (two days)</td>
<td>ADE</td>
</tr>
<tr>
<td></td>
<td>a) By unauthorised R.C.</td>
<td>Meter readers</td>
<td>AE (two days)</td>
<td>ADE</td>
</tr>
<tr>
<td></td>
<td>b) By unauthorised from other services.</td>
<td>Meter readers</td>
<td>AE (two days)</td>
<td>ADE</td>
</tr>
<tr>
<td>17.</td>
<td>Unauthorised extension to another premises.</td>
<td>Meter readers</td>
<td>AE (two days)</td>
<td>ADE</td>
</tr>
</tbody>
</table>

(Another table for readings, check readings & inspections enclosed)
## SCHEDULE AND RESPONSIBILITIES FOR REVIEW OF METER READINGS AND CHECK READING

<table>
<thead>
<tr>
<th>Activity</th>
<th>CE</th>
<th>SE</th>
<th>DE</th>
<th>ADE</th>
<th>AE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. HT services with CMD above 1 MVA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Meter readings</td>
<td>Quarterly review of Meter reading</td>
<td>Monthly review of Meter reading</td>
<td>Monthly Reading</td>
<td>-</td>
<td>-</td>
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<tr>
<td></td>
<td>CE to take check readings for all services with CMD above 4 MVA once in an year</td>
<td>SE to Cover all services once in an year</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>b) Check readings</td>
<td>Monthly review of Meter reading</td>
<td>Monthly review of Meter reading</td>
<td>Monthly Reading</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>CE to take check readings for all services with CMD above 4 MVA once in an year</td>
<td>SE to Cover all services once in an year</td>
<td></td>
<td></td>
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<tr>
<td>c) Inspection</td>
<td>Once in 6 Months</td>
<td>Once in 6 Months</td>
<td>Yearly by DE/MRT</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>As and when repetitive complaints on Metering</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. HT services upto 1 MVA as CMD</td>
<td>Review once in 6 months of all services</td>
<td>Quarterly review of all readings</td>
<td>Monthly review of all readings</td>
<td>Monthly meter reading</td>
<td>-</td>
</tr>
<tr>
<td>a) Meter readings</td>
<td>Quarterly review of all readings</td>
<td>Monthly review of all readings</td>
<td>Monthly review of all readings</td>
<td>Monthly meter reading</td>
<td>-</td>
</tr>
<tr>
<td>b) Check readings</td>
<td>Check readings of 10 services per month</td>
<td>Check readings for all services once in an year</td>
<td>Check readings for all services once in an year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>c) Inspection</td>
<td>All HT services once in half year by DE(MRT)</td>
<td>All HT services once in half year by DE(MRT)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3. LT High value Services</td>
<td>Annual review by CE of all MRBs</td>
<td>1/2 yearly review of all MRBs</td>
<td>Quarterly review of all MRBs</td>
<td>Monthly review of all MRBs</td>
<td>Monthly review of all MRBs</td>
</tr>
<tr>
<td>a) Meter readings</td>
<td></td>
<td>Check readings at exceptional quarterly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Check readings</td>
<td></td>
<td>Review of MRB annually once</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>4. LT services other than high value</td>
<td></td>
<td></td>
<td>Check readings at repetitive exceptionals</td>
<td>Monthly review of MRB every 6 months</td>
<td>Monthly review of MRB every 3 months</td>
</tr>
<tr>
<td>a) Meter readings</td>
<td></td>
<td></td>
<td></td>
<td>1% services per month</td>
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<tr>
<td>b) Check readings</td>
<td></td>
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<tr>
<td>5. LT services other than high value</td>
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</tbody>
</table>
# SCHEDULE AND RESPONSIBILITIES FOR REVIEW OF EXCEPTIONAL REPORTS

<table>
<thead>
<tr>
<th>First Occurrence</th>
<th>Subsequent Occurrence</th>
<th>Reptition More than 3 times</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. Readings</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Consumption too high (Over 100% of)</td>
<td>AE</td>
<td>ADE</td>
</tr>
<tr>
<td>b. Consumption too low (below 80% of)</td>
<td>AE</td>
<td>ADE</td>
</tr>
<tr>
<td>c. Reading not furnished</td>
<td>AE</td>
<td>ADE</td>
</tr>
<tr>
<td>d. Door lock</td>
<td>AE</td>
<td>ADE</td>
</tr>
<tr>
<td>e. Disconnected service Showing progressive</td>
<td>AE</td>
<td>ADE</td>
</tr>
<tr>
<td>f. Negative Reading</td>
<td>AE</td>
<td>ADE</td>
</tr>
<tr>
<td>g. Comparison of consumption for similar units per HP</td>
<td>AE</td>
<td>ADE</td>
</tr>
<tr>
<td><strong>II. Meter Defects</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Stuck up</td>
<td>AE</td>
<td>ADE</td>
</tr>
<tr>
<td>i. Burnt</td>
<td>AE</td>
<td>ADE</td>
</tr>
<tr>
<td>j. Not existing</td>
<td>AE</td>
<td>ADE</td>
</tr>
<tr>
<td>k. Meter Change</td>
<td>AE</td>
<td>ADE</td>
</tr>
<tr>
<td><strong>III. Services Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Under disconnection for more than 3 months</td>
<td>AE</td>
<td>ADE</td>
</tr>
<tr>
<td>m. To be dismantled</td>
<td>AE</td>
<td>ADE</td>
</tr>
<tr>
<td><strong>IV. Inspection of HT Services</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n. Low power factor</td>
<td>ADE - 1 MVA &amp; below, DE - above 1 MVA</td>
<td>DE/MRT</td>
</tr>
<tr>
<td>o. Stuck-up</td>
<td>DE(O)/DE/MRT</td>
<td>SE</td>
</tr>
<tr>
<td>p. Un-metered dueto CT/PT meter defective</td>
<td>DE/OP</td>
<td>DE/MRT</td>
</tr>
<tr>
<td>q. Max. demand low or high</td>
<td>DE/OP</td>
<td>DE/MRT</td>
</tr>
</tbody>
</table>
ANDHRA PRADESH STATE ELECTRICITY BOARD

Office of the Chief Engineer Elecy,
(Operation)
Vidyut Soudha, Hyderabad-49.


Sub: Providing Energy Meters & PTs at all 33/11 KV sub-stations Reg.

***

It is observed, during inspection of 33/11 KV SS that all KV PTs are not available at number of sub-station. At some, sub-stations even though PTs are available they are not connected to the energy meters and voltmeters. On several occasions the Superintending Engineers/Operation were impressed the necessity of providing energy meters and see that they are running properly on all 11 KV feeders.

The Superintending Engineers are once again requested to see that all the 11 KV feeders are provided with energy meters properly calibrated. Further 11 KV PTs must be provided at all the 33 KV SS wherever not available and get them connected to the energy meters. They may contact Chief Engineer/P&MM for any requirement of 33KV & 11KV. PTs.

All Superintending Engineers are instructed to see that all energy meters are kept in proper working condition at all 33/11 KV sub-stations and a completion report to that effect shall be sent to this office before 15.9.97.

Chief Engineer/Electricity
(Operation)
Sub:- Alarming rate of failure of Distribution Transformer in the first Quarter of 1997-98.


The percentage figures exhibited against 1997-98 are based on pro-rata basis as per failures in the first three months of the year. It is sad that on an average 150 Nos DTs are failing per day in the state and the highest loss in a day is 300 Nos.

The position is alarming and the S.Es of the circles where the pro-rata percentages are 1 1/2 times over 1996-97 (viz) Srikakulam, Prakasam, Ananthapur, Hyderabad and Ranga Reddy are requested to analyse the reasons for the spurt in failures and send a report to CE/O with copies to Member/Distribution and CE (Tech.). They should also mention the action being taken to substantially reduce the incidence of failures.

The failure rate is above 30% in W.Godavari, Prakasam, Chittoor, Cuddapah, Ananthapur, Mahaboobnagar, Medak, Nalgonda, Karminagar, Nizamabad, Ranga Reddy and Hyderabad districts. Immediate measures are to be taken to bring down the failure rate. The cost of repairs to failed DTs is causing heavy financial burden. Also, the high failures are causing loss of revenue and prestige to the Board.

Some of the suggestions that came up from S. Es who have achieved some reduction in failure rate are:
1. Switch over to open wiring in place of LT cables.
2. Providing new trfs. under OYT and releasing over load.
3. Providing perfect earthing by providing a new earth electrode.
4. Deployment of a mobile maintenance squad in every division by pooling up one person from each sub-division to attend to maintenance on trfs and revamping the structures.
5. Quality control in SPM sheds and private repair sheds (measuring neutral currents, magnetising currents, quality of winding wire, IR values at 60 degrees C, load test etc.).
6. Providing spacers for LT lines with loose spans.
7. Ensuring proper fuse protection.
8. Restoration of lightning arrestors.
9. Re-adjustments of loads on DTs taking village as a unit.
10. Transformer committees.

All Superintending Engineers & Chief Engineers are requested to study the problem and come up with practical suggestions so as to reach CE/O with copies to Member/Distribution and Chief Engineer/ Techl. positively by 20th July 1997.

CHAIRMAN
## FAILURE OF DISTRIBUTION TRANSFORMERS

<table>
<thead>
<tr>
<th>S.No</th>
<th>CIRCLE</th>
<th>No.</th>
<th>%</th>
<th>Failures of previous year</th>
<th>Failures in 1997-98</th>
<th>Prorata % for the year</th>
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<tbody>
<tr>
<td>1.</td>
<td>SRIKAKULAM</td>
<td>2748</td>
<td>202</td>
<td>8.07</td>
<td>238</td>
<td>9.10</td>
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<tr>
<td>3.</td>
<td>VIZAG</td>
<td>4087</td>
<td>227</td>
<td>6.33</td>
<td>321</td>
<td>8.50</td>
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<tr>
<td>4.</td>
<td>E. GODAVARI</td>
<td>6133</td>
<td>412</td>
<td>7.80</td>
<td>637</td>
<td>11.41</td>
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<td>5.</td>
<td>W.GODAVARI</td>
<td>9100</td>
<td>1194</td>
<td>15.75</td>
<td>1317</td>
<td>16.02</td>
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<td>6.</td>
<td>VIJAYAWADA</td>
<td>6029</td>
<td>550</td>
<td>10.76</td>
<td>609</td>
<td>10.66</td>
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<td>7.</td>
<td>GUNTUR</td>
<td>5130</td>
<td>714</td>
<td>16.95</td>
<td>972</td>
<td>19.87</td>
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<td>8.</td>
<td>ONGOLE</td>
<td>4995</td>
<td>342</td>
<td>8.06</td>
<td>434</td>
<td>10.53</td>
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<td>9.</td>
<td>NELLORE</td>
<td>6178</td>
<td>435</td>
<td>7.92</td>
<td>388</td>
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<td>10.</td>
<td>TIRUPATHI</td>
<td>9033</td>
<td>679</td>
<td>8.82</td>
<td>967</td>
<td>13.77</td>
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<td>11.</td>
<td>ANANTAPUR</td>
<td>7452</td>
<td>770</td>
<td>11.85</td>
<td>1057</td>
<td>11.64</td>
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<td>12.</td>
<td>CUDDAPAH</td>
<td>6065</td>
<td>1257</td>
<td>24.51</td>
<td>1008</td>
<td>13.78</td>
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<tr>
<td>13.</td>
<td>KURNOOL</td>
<td>6052</td>
<td>541</td>
<td>10.94</td>
<td>502</td>
<td>10.05</td>
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<tr>
<td>15.</td>
<td>KARMINAGAR</td>
<td>7007</td>
<td>1148</td>
<td>19.60</td>
<td>1587</td>
<td>26.50</td>
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<tr>
<td>16.</td>
<td>KHAMMAM</td>
<td>5015</td>
<td>695</td>
<td>16.15</td>
<td>744</td>
<td>15.44</td>
</tr>
<tr>
<td>17.</td>
<td>M.NAGAR</td>
<td>7610</td>
<td>1198</td>
<td>19.92</td>
<td>1585</td>
<td>24.80</td>
</tr>
<tr>
<td>18.</td>
<td>NALGONDA</td>
<td>10290</td>
<td>2418</td>
<td>34.09</td>
<td>2887</td>
<td>37.93</td>
</tr>
<tr>
<td>19.</td>
<td>MEDAK</td>
<td>7484</td>
<td>2044</td>
<td>38.11</td>
<td>2611</td>
<td>48.89</td>
</tr>
<tr>
<td>21.</td>
<td>NIZAMABAD</td>
<td>7822</td>
<td>2764</td>
<td>48.53</td>
<td>3098</td>
<td>49.97</td>
</tr>
<tr>
<td>22.</td>
<td>HYDERABAD</td>
<td>5739</td>
<td>303</td>
<td>8.23</td>
<td>340</td>
<td>8.84</td>
</tr>
<tr>
<td>23.</td>
<td>RANGAREDDY</td>
<td>7637</td>
<td>954</td>
<td>14.36</td>
<td>1073</td>
<td>15.13</td>
</tr>
</tbody>
</table>

STATE TOTAL: 147775

The failure rate are:

| 23.  | RANGAREDDY     | 7637  | 954    | 14.36  | 1073    | 15.13| 1928 | 28.30 | 3097  | 40.56 | 404  | 391  | 398  | 1193 | 15.62 | 64.59 |
Sub:- Ensuring of periodic maintenance of station batteries in EHT sub-stations-Guide lines-Communicated - Regarding.

Number of instance have occurred, where faults are not cleared due to failure of DC supply and resulted in grid disturbances.

The Chairman has emphasized to keep the station batteries in EHT sub-stations in perfect healthy conditions.

To keep the station batteries in healthy conditions, the guide lines to be followed by maintenance staff and MRT staff and in charge of EHT sub-stations are herewith enclosed at Annexure. The operation and maintenance chart of batteries including trouble shooting is also enclosed herewith.

All Superintending Engineer, TL & SS and operation are requested to communicate the maintenance schedules to all the concerned staff and see that they are followed scrupulously.

Encl: As above

for Chief Engineer (Transmission)
ANNEXURE

Periodic Maintenance Aspects:

a) Daily:
   i) The floating voltage of the charger across the battery should be noted at the charger end. as well, as at the battery end and it should be ensured that the floating voltage is kept at 2.16 volt per cell stabilized within ±1%.
   ii) The float charger has to be examined to check whether the same is working in 'Auto' mode only which the ± 1% voltage stability across the battery can be guaranteed. If the float charger has gone defective in the Auto mode and can work only in the manual mode, the charger manufacturer has to be called, to set right the float charger for ensuring its working in Auto mode.
   iii) Electrolyte specific gravities of a few chosen cells, have to be taken everyday 5% of the cells of the battery bank can be used as pilot cells for daily specific gravity measurements.
   iv) The cell containers, stands, insulators, connectors, vent plugs, terminals etc., have to be cleaned everyday.
   v) In order to ensure that the full battery is available across the DC load terminals, it is necessary to switch-off the float charger, for a one-minute duration everyday, at a specific time to note the battery discharging through the load of the busbar. This will also ensure that battery is healthy and that there is no open circuit anywhere.

b) Weekly:
   In addition to the daily maintenance procedure detailed above, the following additional maintenance has to be done every-week.
   i) Check the electrolyte level in each of the cells to ensure the electrolyte level to correspond to the top red mark on the float-guide. If the level is lower, top-up with pure battery grade distilled water
   ii) Tighten the various inter-connections so that there is no loose contact and apply petroleum jelly at the battery terminals to avoid sulphation.

c) Monthly:
   In addition to the daily and weekly maintenance procedure it is necessary to adopt the following procedures, every month:
   i) Check the electrolyte specific gravity of all the cells to ensure the same to be within 1.200 ± 0.005. If the specific gravity is higher than the upper limit, replace a little quantity of electrolyte, by an equal quantity of distilled water by using judgement. If the specific gravity of any or more cells is lower than the lower limit, charge the battery bank as a whole for a short duration at a current equal to, two and half percent of the Ampere-hour capacity so that the lower specific gravity of the cells could improve.
   ii) Only when it is found that the specific gravity are not uniform, discharge the battery bank for a short duration of 15 minutes to 30 minutes at 10 hour rate current or even less and then, recharge thereafter at equalising charge current, which is at a current equal to two and half percent of the AH capacity and the voltage applied could go upto 2.35 to 2.40 v per cell A specific gravity adjustment may be done at the end of this equalising charge, using only distilled water.

d) Quarterly:
   Apart from the daily, weekly and monthly maintenance procedures, we recommend your adopting the following procedure of curative discharge and recharge once in three months, after switching-off the float charger.
   Discharge the battery at its 10-hour rate discharge current for a period of 2-hours and recharge the battery at the normal recharging current till the specific gravities stabilise within 1.200+0.005 or adjust if required This discharge for 2-hours called curative discharge,
helps to correct some imbalance. Also, a battery continuously floated, when made to discharge, has a higher probability of a longer life. However, certain situations of clinks may prohibit any discharging the battery even for 2 hours. In such cases, a discharge for duration of one-hour at the 10-hour rate current may be adopted. However, whenever shut downs can be arranged by the user, the battery can be discharged for a period of 10-hours at the 10-hour rate current to be recharged back to the full charged state.
### OPERATING AND MAINTENANCE

**LEAD ACID STATIONARY BATTERIES AT EHV SUB-STATIONS**

**220 VOLTS 80 AH AND 200 AH**

<table>
<thead>
<tr>
<th>S. NO.</th>
<th>PARTICULARS</th>
<th>STANDARD BATTERIES</th>
<th>AMCO BATTERIES</th>
<th>UBHEC BATTERIES</th>
<th>ELECTROFLO BATTERIES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>80 AH</td>
<td>200 AH</td>
<td>80 AH</td>
<td>200 AH</td>
</tr>
<tr>
<td>1</td>
<td>INITIAL FILLING OF CELLS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electrolyte Specific Gravity</td>
<td>1.190 @ 27 deg.C</td>
<td>1.180 @ 27 deg.C</td>
<td>1.190 @ 27 deg.C</td>
<td>1.196 @ 27 deg.C</td>
</tr>
<tr>
<td></td>
<td>Soaking Time</td>
<td>12 to 16 Hrs.</td>
<td>12 to 16 Hrs.</td>
<td>Not less than 24 Hrs.</td>
<td>12 to 24 Hrs.</td>
</tr>
<tr>
<td></td>
<td>but not more</td>
<td>24 Hrs.</td>
<td>24 Hrs.</td>
<td>24 Hrs.</td>
<td>24 Hrs.</td>
</tr>
<tr>
<td>2</td>
<td>FIRST CHARGE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Initial Charging</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Duration</td>
<td>100 Hrs.</td>
<td>100 Hrs.</td>
<td>80 Hrs.</td>
<td>80 Hrs.</td>
</tr>
<tr>
<td></td>
<td>Rate of Charging</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5% of C 10</td>
<td>60 Hrs @ 4 Amps.</td>
<td>60 Hrs @ 4 Amps.</td>
<td>80 Hrs @ 4 Amps.</td>
<td>80 Hrs cont.</td>
</tr>
<tr>
<td></td>
<td>rest for 4 Hrs</td>
<td>40 Hrs @ 4 Amps.</td>
<td>40 Hrs @ 4 Amps.</td>
<td>40 Hrs @ 4 Amps.</td>
<td>@ 80 Amps.</td>
</tr>
<tr>
<td></td>
<td>Max. Permissible Temp.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Readings at the end of charge</td>
<td>2.55 V</td>
<td>2.53 V</td>
<td>2.48 V</td>
<td>2.40 V</td>
</tr>
<tr>
<td></td>
<td>Voltage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specific Gravity</td>
<td>1.200 +/- 0.005</td>
<td>1.200 +/- 0.005</td>
<td>1.200 +/- 0.005</td>
<td>1.200 +/- 0.005</td>
</tr>
<tr>
<td></td>
<td>@ 27 deg.C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>CAPACITY/DISCHARGE TEST</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Discharge Current: {i=0.1 C10})</td>
<td>8 Amps.</td>
<td>20 Amps.</td>
<td>8 Amps.</td>
<td>8 Amps.</td>
</tr>
</tbody>
</table>
**Test Procedure**

After completion of First Charge, allow the battery to stand on open circuit for not less than 12 Hrs. but not more than 24 Hours. Discharge the battery through a variable resistance OR Acidulated water load at a constant current equal to $I=0.1 \times C_{10}$ Amps. Discharge shall be stopped when the closed circuit voltage of the battery falls to 1.85 volts in each cell and specific gravity falls to 1.130. Contained duration shall be a minimum of 10 hrs. deg C.

<table>
<thead>
<tr>
<th>S.No</th>
<th>PARTICULARS</th>
<th>STANDRD BATTERIES</th>
<th>AMCO BATTERIES</th>
<th>UBHEC BATTERIES</th>
<th>ELECTRO BATTERIES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>80 AH</td>
<td>200 AH</td>
<td>80 AH</td>
<td>200 AH</td>
</tr>
<tr>
<td>4.</td>
<td>RECHARGING</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Normal Re-charge current &amp; End Voltage per cell</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8 Amps upto</td>
<td>11.2 Amps upto</td>
<td>28 Amps upto</td>
<td>8 Amps upto</td>
<td>20 Amps upto</td>
</tr>
<tr>
<td></td>
<td>2.35 to 2.4 V</td>
<td>2.4 Volts</td>
<td>2.4 Volts</td>
<td>2.4 Volts</td>
<td>2.4 Volts</td>
</tr>
<tr>
<td></td>
<td>Furnishing charge current</td>
<td>4 Amps upto</td>
<td>10 Amps upto</td>
<td>5.6 Amps.</td>
<td>14 Amps. Upto</td>
</tr>
<tr>
<td></td>
<td>2.55 to 2.65 V</td>
<td>2.4 or full Vol.</td>
<td>2.4 or full Vol.</td>
<td>2.60 Volts</td>
<td>2.60 Volts</td>
</tr>
<tr>
<td></td>
<td>End specific Gravity @ 27 deg.C Maximum charging rate</td>
<td>1.200+-0.005</td>
<td>1.200+-0.005</td>
<td>1.200+-0.005</td>
<td>1.200+-0.005</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12 Amps</td>
<td>30 Amps</td>
<td>16 Amps</td>
<td>40 Amps</td>
</tr>
</tbody>
</table>
CARE, CLEANLINESS & SAFETY

1. MAINTENANCE
   a) Keep the battery room well ventilated
   b) Keep the battery and its surrounding dry & clean
   c) Check and keep the electrical connections always tight
   d) Always keep the top surface of the battery clean and dry
   e) The joints and cell connections shall be kept clean and smeared with Vaseline or petroleum jelly
   f) Remove traces of corrosion promptly by cleaning with Pure distilled water
   g) Metal vessels should not be for topping up
   h) Protective measures (wearing apron & rubber gloves) should be taken when handling electrolyte or concentrated acid.
   i) Care must be taken when using metal tools to prevent them from coming into accidental contact with connectors and causing short circuit
   j) Naked lights, smoking of cigarettes or anything which may create a spark should be avoided in battery room.

2. TEMPERATURE
   If cell temperature is different from 27 deg. C correction to specific gravity to be applied +/-0.0007 per each degree of variation above or below 27 deg. C respectively

3. TOPPING UP
   a) Top up as often as necessary with distilled water (as per IS:1069) or demineralised water to avoid the necessary of adding a large quantity of water at a time which would cause pronounced drop in the specific gravity.
   b) Top up the black mark of the float is just visible above the top surface of the float guide and the level should never be allowed to go low that the red mark on the float-steer comes in line with the top surface of the plug.
   c) it is advisable, if necessary to top up cells during early part of charging or before charge so that the water would link (mix) with the electrolyte during charge.

4. WEAK CELLS
   Cells which do not pick up specific gravity inspite of repeated charging are called ‘WEAK CELLS’
   The weak cells must be removed from the battery and charged separately at normal charging rate until gassing point is reached and then reduced to half the normal rate. When the cells appear to be in fully charged condition i.e., specific gravity of the acid seems to be stationary, the charging should be stopped for an hour and then be resumed at half the normal rate until free gassing again takes place. Again, after another one hour stop, charging should be resumed at half the normal rate. These stops of one hour during alternated by charging should be repeated until gassing starts instantaneously with switching on the charging current.

5. CAUTION
   Which preparing the acid solution (electrolyte), it is very much important to note always acid is added to the water and Never add water to acid.

Sub: Repair of distribution transformer - Repair guarantee period - Reg.

Ref:-
2. Lr.No.CEO-16/F.Meetings/0&M/D.No.427/96. dt.2.9.96
5. Lr.No.CEE/NZ/NLR/Civil/F.729/D.No.42O/97, dt.4.4.97.

In the reference 1st cited instructions were issued for implementation in respect of repairs to sick distribution transformers by private repairing agencies. As per the instructions, the repair guarantee should be reckoned from the date of last repairs for another full term of six months after re-repair.

And in the minutes of the meeting of Zonal Chief Engineers & Superintending Engineers operation communicated in the reference 2nd cited, Zonal Chief Engineers were asked to examine enhancing the guarantee period for repaired distribution transformer from six months to one year and were asked to send a report.

Chief Engineer/Vizag zone/Visakhapatnem and Superintending Engineer Operation/Ranga Reddy have represented vide reference 3rd & 4th cited above, that no tenderer/contractor is accepting the re-repair guarantee clause and requested to modify the clause.

Chief Engineer/Nellore zone/Nellore, in the reference 5th cited above, has reported that while finalising the tenders for repairing of distribution transformers for 1997-98, had a meeting with the repairing agencies for negotiations to enchance the repair guarantee period from six months to one year But, it is reported that the repairing agencies have not accepted to enhance the repairing guarantee period for various reasons. And the Chief Engineer/Nellore zone/Nellore has sought Board's instructions in the regar d.

In view of the difficulties expressed by the field officers, the following instructions are issued

1) The re-reparing guarantee clause is limited to six months repair from the date of first repair
2) The Zone Chief Engineers may finalise the tenders for repairing of distribution transformers with six months guarantee period only.

However, the Zonal Chief Engineers shall take necessary steps to enhance the repairing capacity of departmental SPM centres and see that maximum number of failed transformers are repaired departmentally.

for Member Secretary
<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>BATTERY TROUBLES</th>
<th>SYMPTOMS/CAUSE</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Over charging</td>
<td>a) Excessive gassing</td>
<td>a) Reduce the Boost/Float voltage or charging rate reduced to lower value till the specific gravity attains 1.200</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) Falling active material positive plates</td>
<td>b) Add distilled water</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c) Buckling of plates</td>
<td>c) Check the accuracy of voltmeter in the charge if necessary</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d) Increased temperature</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Under charging</td>
<td>a) Low specific gravity</td>
<td>a) Increase the float voltage to 2.16 to 2.20 Volts per cell or increase the charging rate till specific gravity attains 1.200</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) Light colour of plates</td>
<td>b) Check for leakage of electrolyte of grounding of current carrying conductors in the charge and battery circuit</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>c) Reversal of cell voltage</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>d) Bucking of plates</td>
</tr>
<tr>
<td>3.</td>
<td>Corrosion of plates Impure electrolyte</td>
<td>a) Remove electrolyte</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) Flush with distilled water</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>c) Refill with pure electrolyte</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Shedding of active material</td>
<td>a) Over charging of plates</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) Charging done at high rate</td>
<td>Charging and discharging limits should be maintained at 2.4 volts an 1.85 volts respectively.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c) Material improperly applied on plates</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>A. Loss of Voltage</td>
<td>Excessive sulphation.</td>
<td>Sulphation at initial stage can be cured by low rate of repeated charging and discharging. Contact manufacturer/supplier for special treatment.</td>
</tr>
<tr>
<td></td>
<td>B. Battery Voltage falling too rapidly on Discharge</td>
<td>a) Loose connections</td>
<td>a) Check up connections</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) Corroded terminals</td>
<td>b) Corroded parts should be cleaned with warm distilled water and coated with Vaseline</td>
</tr>
<tr>
<td>6.</td>
<td>Continuous lowering of Electrolyte due to evaporation</td>
<td>a) leakage of electrolyte</td>
<td>a) Corroded parts should be cleaned with warm distilled water</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) Loss of water in the electrolyte due to evaporation by too high floating voltage or excessive charging.</td>
<td>b) Addition of distilled water to maintain the electrolyte level in the leaking cell will result in diminution of capacity and Continuous lowering of specific gravity.</td>
</tr>
<tr>
<td>6.</td>
<td>Overflowing in cells due to Increase in electrolyte level causing condensation on the cell covers.</td>
<td>Due to damp atmosphere in the battery room Improve ventilation in the Battery Room.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Even with the addition or distilled.</td>
<td></td>
</tr>
</tbody>
</table>
Dear Sri,

Sub: Maintenance of 220 KV and 132 KV substations - Regarding.

On a recent visit of some of the 220 KV and 132 KV substations, it has come to the notice of the Board that:

Adequate attention does not appear to be paid for the maintenance of Station Batteries. While, it is a welcome practice to take the specific gravity and voltage reading of a few cells daily in each shift and also take the readings of all the cells once in a fortnight, it appears that there is no review of the same to correct the status of poor cells/batteries as a follow up. As a result, the Station Batteries are found to have very low specific gravities and very very low voltages at some stations. At many of the stations while DC.Earth leakage is present and tripping of feeders and transformer breakers on no indication are taking place, there appears to be no analysis on the trippings which would have pin pointed to the DC.Earth leakages

At many stations healthy trip indication bulbs are not glowing, Annunciation and Alarm circuits are not functioning and the operators do not also seem to be aware of the importance of these simple but effective means to monitor the equipments. You will agree with me that a few minutes of attention paid daily by the concerned engineer and review by the supervisory officials will definitely set the things in order.

Similarly, simple regular condition monitoring tests like measurement of earth resistance, periodical monitoring of the insulation resistance of power transformers (by disconnecting all HV, LV and Neutral jumpers), testing transformer oil for dielectric, Acidity and DGA and maintenance of the on load tap changers atleast once in a year, are also being neglected.

Another important aspect requiring your attention is relay testing. It appears the periodical testing of relays is not being carried out. In many cases, testing appears to have been done at the time of commissioning. In some cases settings as approved are not adopted. In some more cases, the distance relays are found defective since long. In some other cases the abnormal time lever settings (2 to 6 Seconds) are adopted yet in some other cases the time switches for Zone-2, Zone-3, Zone-4 are kept off. In a few other cases it is noticed that modules of overflux relays, differential relays, distance relays are removed. An instance has come to the notice where the power transformer breaker has been tripping whenever a 33 KV feeder is tripping, the cause was found to be due to adopting very low settings for high set element. Another case came to light when a 220 KV feeder was tripping for a fault on a far end 132 KV feeder from a far end substation. These were traced out due to non-adoption of revised relay settings when an intermediate substation was commissioned and also the time switches kept in off condition. There were also instances where the power transformers were tripping on excessive winding temperature due to defective cooler fans, control circuits, low voltages etc.
It is a fact that the MRT Division under TL&SS circles have not yet become self sufficient for various reasons. You will however, agree with me that in the interest of better consumer servicing, it is necessary that MRT divisions which were earlier looking after protection of EHT Substations with full complement of testing apparatus, trained and experienced technical man power continue to assist and train the TL & SS organisation until it becomes an independent, self sufficient unit and takes the responsibility of reviewing the protection schemes periodically.

The Board is deeply concerned about the lack of proper maintenance. I shall therefore as a first step, request you to personally conduct an inspection of all the Substations, take prompt remedial measures wherever necessary and furnish me with all the details of present status of all the equipments and programme of action proposed for each substation as and when it is completed and complete all the inspections before 31.7.97.

Please acknowledge the receipt of this letter.

With best wishes.

Yours Sincerely,

(K.Y. VENUGOPAL RAO)
MINUTES OF THE MEETING OF DIVISIONAL ENGINEERS/METERS.
OPERATION OF METRO, HYDERABAD, WARANGAL AND NIZAMABAD ZONES
ON 25-5-97 HELD AT VIDYUT SOUDHA, HYDERABAD.

A meeting of Divisional Engineers/Meters. Operation of Metro, Hyderabad. Warangal and Nizamabad Zones was held at 9 a.m on 25-5-97 in the meeting hall Vidyut soudha, Hyderabad A list of the participants in the meeting is enclosed.

Opening the discussions, Member/Distribution reiterated that Divisional Engineer Meters of the circle would be the nodal officer in the circle for Energy Audit Further the following decisions are taken.

1. The input points through which energy is received into each circle are identified along with the export points through which energy is sent out to other circle. A list of these points is given to every DE/Meters present The DE/Meters shall verify the list and any additions or deletions may be made if necessary. The points may also be reconciled with their counterparts of TL&SS wings. The recorded units of all HT services are available in the circle office. The LT consumption shall be obtained from the private computer agencies immediately after billing without waiting till the financial returns are prepared. Agl. Consumption is to be assessed based on the sample metering data only. Thus the system losses return shall be furnished by 20th of succeeding month.

2. DE/Meters shall ensure that one percent of the total Agl.Services existing in the circle provided with meters for gauging the Agl.Consumption. The section officer concerned should take these readings along with the high value services every month. Check readings shall also be taken by ADE, DE/Opn and DE/Meters. Any defective meter shall also be got replaced/tested in time.

3. DE/Meters ensure that the meters fixed to all the feeders are working properly and accurately at various levels i.e., 220 KV, 132 KV, 33 KV and 11 KV

4. DE/Meters has to submit a report to SE/EA at headquarters on the numbers of existing feeders, number of feeders for which meters fixed and healthiness of meters and number of balance feeders requiring metering in the context of the revised guidelines as below.

A 33 KV feeder is to be metered at the emanating point from EHT substation and similarly a 11 KV feeder is to be metered at 33/11 KV substation. This may be kept in view while furnishing the number of existing feeders If 11 KV feeders are bunched but metered they may be treated as metered for the time being. However, in case a 11 KV urban feeder is bunched with Rural feeders, separate metering to segregate urban (Town) feeders shall be proposed. The indent for materials in case of 11 KV may be given as per the above guidelines as per proforma enclosed.

5. All the 11 KV Urban (Town) feeders shall be metered and meter readings taken every month and return of 11 KV urban feeder furnished to SE/EA.

6. Metering on the LV side of the Distribution Transformer @ 5% of the total D/Ts in each circle is also contemplated where theft is suspected to be significant. Priority to fix the meters shall be given to those transformers on which rampant theft is suspected All the services fed by each D/T (which is provided with metering) shall be identified. All the services fed by these transformers shall be sealed. Installation of meters on D/T shall be taken up on top priority and Energy Audit conducted in stages and reported.

7. Codification of all the Transformers, structures shall be completed and the codes shall be got entered into the consumers masters being maintained by P.A.A. so that the energy sales under each individual Trf/structure can be arrived at.

8. Meters of all the services shall be sealed. Status of seals shall be included in the top entries of the Meter Reading Books and consumers Master This should also be printed on the consumers bill. The location of the transformers on which the service is incident (Tr Code & Structure code Nos.) shall also be included in the top entries.

9. Hon’ble Chief Minister has instructed that the state energy losses shall be brought down by 12 1/2% or the 97-98. Rigorous steps shall be taken to reduce the system losses in the circle, as well as on 11 K V feeders, especially on 11 KV urban feeders wherever the losses are high.
10. DE/Meters shall convene a meeting every month on Energy Audit in the circle with the Field and counts staff.

11. Systematic analysis shall be done in case of the following.
   a) Repaired meters getting stuck up repeatedly. A system shall be evolved to indicate the No. of times a meter is getting stuck up repeatedly, the date of meter tested, shall be recorded inside the meter cover.
   b) Performance of new meters and meters replaced by the suppliers against defective supplies during the previous two, three years may be reported for ensuring procurement of standard quality meters.
   c) Performance of all meters make wise and age-wise.
   d) Performance of meters repaired by private agencies.
   e) Performance of meters of different makes provide to all HT services in the circle.

12. All the LT CT meters shall be tested once in a year, with the portable testing kits. All the LT CT services shall be released by LT CT meters staff only. Any changes of meters/CTs in such services shall be done by them only. Analysis report on the performance of the LT CT meter testing kits of different makes shall be furnished. Further, a report on the status of all the LT CT meter services shall be sent within a fortnight. Any modifications viz, change of box, change of CT, change of meter etc. if any required, shall also be incorporated.

13. Spares required to repair LT energy meters of different makes shall be furnished to P&MM wing.

14. All the LT test benches shall be under the control of DE/Meters only. Proposals for the following if any shall be furnished.
   A) Additional Staff
   B) Sealing Pliers
   C) Vehicles

15. It is reported by some of the DE/Meters that paper seals are being used for the meter covers. This shall immediately be stopped. Paper seals are to be used only for sealing the terminal covers.

16. The usage of removed old IMP trivetor meters was discussed. It is opined that these meters which were removed 3, 4 years back will have to be repaired and MD mechanism disengaged before trying to utilize them. All the IMP meters available in all circles; may be arranged to be sent to Hyderabad for getting them repaired by the companies representative. (Action: CE/P&MM).

17. Rolling stocks of LT meters in every circle shall be reviewed. There are some cases of large number of meters unaccounted by the field. The number of meters drawn, meters returned and balance number of meters to be returned by each section officer in the circle shall be arrived at and the balances as on 31-5-97 shall be reported to concerned SE/O. The particulars of the meter changing shall be incorporated in the consumers master by PAA and sent to the section officer.

18. All the circles are provided with computers. They shall be used for day-to-day functioning of the circle. All the SE’s shall take immediate action in this regard.

19. The terminal covers shall be standardised uniformly to suit all LT energy meters of different makes. Similarly the terminal blocks also shall be standardised. (Action CE/P&MM)

Signed

MEMBER/DISTRIBUTION

Endt. No. SE/EA/F-36/410.DT 18.6.97
# STATUS OF 11 KV METERING

CIRCLE

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the 33/11 KV SS</th>
<th>Independent Feeders</th>
<th>Breakers controlling Bunched feeders</th>
<th>Breakers required with meters</th>
<th>Total No. of feeders</th>
<th>Materials required</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total No. of feeders existing</td>
<td>No. of feeders with meters</td>
<td>Bal. No. of feeders to be metered</td>
<td>No. of breakers controlled</td>
<td>Total no. of Brs having meters</td>
<td>Brs requiring meters</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Ratio Qty 1A 2A
## STATUS OF 33 KV METERING

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the 220/132 KV SS</th>
<th>No of 33 KV feeders existing</th>
<th>No of breakers controlling the feeders</th>
<th>No of feeders with meters</th>
<th>No of balance feeders to be provided with meters</th>
<th>Total requirement of meters</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Working</td>
<td>Not-working</td>
<td>S CTs</td>
<td>3 FTs</td>
<td>Meters</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ratio</td>
<td>Qty</td>
<td>1A</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
</tbody>
</table>

Note: A 33 KV feeder is a feeder emanating from EHT substation
ANDHRA PRADESH STATE ELECTRICITY BOARD
VIDYUT SOUDHA: HYDERABAD

Chairman, APSEB

Sub: Inspection of Distribution Sections - Format.

A format developed covering all aspects for check during inspection of a distribution section is enclosed herewith.

This format shall be followed with any additional items specific to sections during inspection of Section Offices (Distribution). Any additions to be made may be suggested and sent in the name cover of TS to Chairman.

The Chief Engineers/Superintending Engineers/Divisional Engineers (Operation) are directed to critically check all aspects in the sections and copies of their inspection notes in the format duly filled up may be sent to superintending Engineer (Energy Audit), APSEB, 1st floor, Vidyut Soudha, Hyderabad -500 049

Encl: Format

(J.PARTHA SARATHY)
31-5-97.
PERFORMANCE OF

Distribution section …………./ Subdivision………/ Dn…………………………..

Date of Review ………………………

Name of the AE/AAE…………………………………………………Date of Joining in the Post...

1. Details of Category wise Services :- ……………….. As on

<table>
<thead>
<tr>
<th>Cat-1</th>
<th>Cat-II</th>
<th>Cat-III</th>
<th>Cat-V</th>
<th>Other LT</th>
<th>Total LT</th>
<th>HT</th>
<th>Grand total</th>
</tr>
</thead>
</table>

2 Questionnaire :-
a) Are meter readers being changed
b) i are meter observation registers opened & maintained
c) How missing seals are being reported to AE
d) Is the AE taking HV readings personally
e) Is RC fees being collected after issue of D’ lists
f) Are the D’ lists being received by 23rd
g) Are operated D’ lists being returned promptly
h) Action taken towards UDC services
i) Is BP Ms. No. 18 being followed in respect of D/L & RNF services.
j) Are all the S phase & 3 phase meters drawn since last 1 yr accounted for

3 Exceptional as per latest PAA reports of all groups put together

<table>
<thead>
<tr>
<th>Month (a)</th>
<th>No. of metered services (b)</th>
<th>Stuck up (c)</th>
<th>Burnt (d)</th>
<th>Door lock (e)</th>
<th>Nil consn (f)</th>
<th>RNF (g)</th>
<th>Total (c to f)</th>
<th>%exceptionals excl. NIL &amp; UDC</th>
<th>UDC Cases (l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-2 month</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N-1 month</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Sealing of meters :-

<table>
<thead>
<tr>
<th>No. Of Single phase meters</th>
<th>Total existing</th>
<th>Nos. Sealed</th>
<th>Balance to be done</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. Of 3 phase meters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nos. Sealed in last 1 month</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program &amp; date by which sealing will be completed</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. No. Of Dn. Trs :-

<table>
<thead>
<tr>
<th>Above 250 KVA</th>
<th>250 KVA</th>
<th>100 KVA</th>
<th>63 KVA</th>
<th>Other Capacities</th>
<th>S ph.</th>
<th>Total</th>
</tr>
</thead>
</table>

6. Failure of D/Ts :-

<table>
<thead>
<tr>
<th>Total existing</th>
<th>Failures in 95-96</th>
<th>Failures in 96-97</th>
<th>%in 95-96</th>
<th>%in 96-97</th>
<th>increase / decrease in 96-97 compared to 95-</th>
</tr>
</thead>
</table>

7. Energy Audit:-

<table>
<thead>
<tr>
<th>Month</th>
<th>Av. monthly input to section (lakh units)</th>
<th>Av. Sales as % (lakh units)</th>
<th>Balance as % (loss)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-1 month</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nth Month</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8. **Energy Audit on D/ts:-**

<table>
<thead>
<tr>
<th>No. Of D/ts for which meters are</th>
<th>Nos. For which EA is</th>
<th>Nos. With range of losses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Below 10% 11-20% 21-30% 31-40% 41-50% Above</td>
</tr>
</tbody>
</table>

9. **Monthly demand of section:**

<table>
<thead>
<tr>
<th>Collection of Section</th>
<th>N-2 month</th>
<th>N-1 month</th>
<th>Nth month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closing Balance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CB as No. Of days demand</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. **Specific Consumptions in the section:**

<table>
<thead>
<tr>
<th>Category</th>
<th>No. Of services</th>
<th>No. of units sold in 96-97</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td>Nos</td>
<td></td>
</tr>
<tr>
<td>Commercial</td>
<td>Nos</td>
<td></td>
</tr>
<tr>
<td>Indl.</td>
<td>Nos</td>
<td></td>
</tr>
</tbody>
</table>

In case of Industrial: ………………………………….. units per HP per year

11. **Action taken to reduce losses:**

<table>
<thead>
<tr>
<th>Name of D/t attempted</th>
<th>Date of first audit</th>
<th>% loss during 1st audit</th>
<th>Date of subsequent audit after plugging up leakages</th>
<th>% of losses during subsequent audit</th>
<th>Reduction in losses %</th>
</tr>
</thead>
</table>

12. **Work order closing:**

<table>
<thead>
<tr>
<th>S.C WOs</th>
<th>Capital W.O</th>
<th>Other WOs</th>
<th>WOs pending closure as on date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1995-96 1996-97 Total

13. **Theft of materials:**

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Date of occurrence</th>
<th>Material</th>
<th>Cost of materials lost</th>
<th>Present status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14. **Action towards TE/MP cases:-**

<table>
<thead>
<tr>
<th>No of cases inspected</th>
<th>No. of cases detected</th>
<th>Amount assessed Rs. (lakhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>By DPE</td>
<td>By Opn.</td>
<td>By DPE</td>
</tr>
</tbody>
</table>

15. ** Registers & Returns:**

   a) Review of MRBs
   b) Review of register of check readings
   c) Review of D'lists % of services in D'list/Attended
      Is it returned to ERO
   d) Review of S.C. ledger
   e) Review of A form Register
   f) Review of returns being sent
   g) Are test reports sent upto last month end
   h) Review of meter change slips

**PERFORMANCE OF D-LIST**

<table>
<thead>
<tr>
<th>Total services</th>
<th>Month</th>
<th>No. of services appeared in D-list</th>
<th>% of Services appearing in D-list</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
ANDHRA PRADESH STATE ELECTRICITY BOARD

ABSTRACT

Electricity - HVDS for Village Distribution System and Segregation agricultural loads - Orders - Issued

B.P. Ms. No. 17 Dt: 27-5-1997

Ref: Board's Resolution No. 14 dated 12-4-97

Read the following:-

The APSE.Board has decided to change over in a phased manner existing low voltage distribution system in the village proper catering domestic, commercial and other non-agricultural services to High Voltage distribution system by erection of single phase transformers to prevent direct tapping of LT network and also segregate agricultural loads from the other loads.

All the Zonal Chief Engineers are requested to implement these instructions accordingly The estimates for the HVDS works may be got sanctioned from competent authority, under Board's T&D funds.

(BY ORDER AND IN THE NAME OF A.P.S.E. BOARD)

A.K. KUTTY

Member Secretary
An instance has come to the notice that for want of AC supply, the pressure could not be built up in the BHEL Hydraulic system to operate the breaker resulting in long interruption to the Visakhapatnam City. In a similar incident for failure of charger, the unit at RTS 'B' could not be taken into service. In the light of the above the following instructions are reiterated to ensure the same.

1) Diesel generators already available in major substations and generating stations shall be started weekly once and loads changed over to the capacity. The performance recorded in the log book. All the inspecting officers shall invariably check this and lapses if any shall be corrected.

2) The DC source, chargers are in trim condition.

3) The alternate feeds for auxiliary supplies shall be availed once in a day during a week.

4) Emergency lamps and torch lights must invariably be ensured along with DC emergency lamps in control room and yard.

5) The shift staff must be educated to act as per standard instructions and load dispatch in distress condition.
ANDHRA PRADESH STATE ELECTRICITY BOARD

From
Chief Engineer Elecy., (Operation)
Vidyut Soudha,
Hyderabad – 49.

To
Chief Engineer/Zone

Lr.No.CE(O)/F.Misc/O&M/D.No. 546/97. dt.24.5.97.

Sir,

Sub: Inspection of HT services to check the availability of LT services in the same premises - Reg.

Ref: 1. Lr.No.CEO-16/F.Meetings/O&M/D.No 376/97. dt 21.4.97 - Minutes of Meeting on 19.4.97 with Telengana region CEs/SEs.

2. Lr.No.CE(0)-16/D.No 151/97, dt 25.4.97 - Minutes of Meeting on 22 4.97 with Andhra region CEs/SEs.

ATTENTION IS INVITED TO item 10 of reference (1) cited and item 10 (i) of reference (2) cited regarding separate LT services in premises having HT services.

All Divisional Engineers and Assistant Divisional Engineers in charge of HT services shall inspect and report on availability of LT services along with HT in the same premises. Superintending Engineers (Operation) are responsible to collect the details and furnish the same to Chief Engineer (Operation) and 1 G P & Advisor (V&S) by 31.5.97 POSITIVELY.

If both LT & HT services are found existing in the same premises at a later date and not reported severe disciplinary action will be initialed against the concerned officers.

Yours faithfully,

Chief Engineer Electricity
(Operation)
M/T/DE/T/W.Instructions/Task Force/D.No.22/97. dt.23-5-97

Sub.      Effective maintenance of EHT Sub-stations - Formation of Task Force - Regarding.

***

1. The present installed capacity of 6759 MW including the share from central generating stations and assistance from other regions is being evacuated through the barest minimum transmission network. Due to financial constraints, much redundancy could not be established. Therefore there is need to keep the transmission lines and the equipment in EHT substations in trouble free condition to ensure maximum availability.

2. TL& SS organisation has been created for effective maintenance of the transmission network. This TL & SS organisation will be busy in attending to the day to day operation and maintenance works and as such are not able to bestow needed attention in identifying some of the urgent problems to be attended. In order to identify the urgent preventive maintenance works for taking timely action to avoid outage of equipment and also to guide the maintenance staff in the rectification of sick equipment is found necessary to constitute a task force to perform this job and advise the EHT/Lines & sub-stations organisations on the imperative requirements.

   The task force committee in the Field consists of Engineers from TLC wing and a few trained MRT/ Maintenance Engineers for different areas and a task force committee at Headquarters under Chief Engineer (Transmission) as indicated in the Annexure. It is made clear that the task force is to assist the TL & SS organisation in identifying the problems and provides them needed assistance. The over all responsibility for the O&M lies with TL & SS organisations.

3. The following guidelines are issued for effective working of the task force.

   a) Task force committee shall visit all EHT sub-stations in the area concerned and critically. review the condition of each and every equipment and identify the items on which immediate attention is needed and the spares required for regular maintenance/rectification and submit a detailed report to the S.E/TL&SS, CE/TL&SS concerned. CE/Zone concerned and to CE (Transmission) Hyderabad

   b) The task force committee shall review the various maintenance works carried out on the equipment and ensure that the maintenance schedules communicated from headquarters arestrictly followed.

   c) The SE/TL & SS/CE/TL & SS concerned or CE(Tr.) shall arrange for procurement of identified sares on war footing.

   d) The members of the task force should render all the help required to the extent they can to elp in expediting the rectification works

   e) The task force shall meet at least once in a month chalkout a programme for inspection and eview the position of availability of spares and balance requirement, and arrange for replenishment of utilised spares.

   f) Every effort shall be made by maintenance/MRT Engineers of TL & SS organisation for rectification of defective equipment in the first instance. Inspite of best effort if they fail to set ight the defect they must immediately refer to the task force committee which shall attend to the problem on priority. All necessary assistance such as tools, spares, manpower shall be xtended by the maintenance Engineers to the task force.
g) The services of the company's Engineer shall be sought as a last measure only if the task force with its best efforts can not rectify the defective equipment. The task force committee in such case shall refer the nature of defect and details of defective equipment to the company and to the task force committee at headquarters.

h) The task force committee shall conduct a detailed study on the nature of defect, details of rectification and analyse the reasons for failure and submit a report to CE/TL&SS and CE/ Transmission) for taking remedial action in future.

i) The task force committee at headquarters shall ensure that the task force of each area promptly meets for the entrusted task. They shall also study all such reports received from field and evaluate the performance of equipment supplied by various manufacturers. Members of the task-force committee at headquarters shall associate themselves with the field task force committees during periodical meetings, to have better interaction. Members of the task force committee at headquarters shall attend, to the problems at various EHT sub-stations as and when required.

4. The above guidelines are indicative and not exhaustive. Any further items to be included in the preview of the task force may be brought to the notice for taking further action. The guidelines shall be strictly followed for ensuring maximum availability and minimum outage of substation equipment.

The CE&TL&SS and CE/Zones concerned shall act in cohesions to ensure maximum availability of all equipments.

Member (Transmission)
ANNEXURE

AREA-I. (HYDERABAD, RANGAREDDY, MEDAK, MAHABOOBNAGAR AND NALGONDA)

1. Sri J. Surya Prakash, D.E./MRT/TL. & SS/HYD.(To organise)
2. Sri V Krishna Kishore, A.D.E/TLC/Warangal
3. Sri S. Ganesh Babu. A D E./Maintenance/Moulali Sub-station
4. Sri B. Hari Shankar A.D.E./Protection/Mahaboobnagar
5. Sri K. Uma Maheswar Rao, A D E./Maintenance/Kalwakurthy
   220 KV Sub-station.
8. Sri K. Shiva Ramulu, A E./MRT/EHT/TLC/Hyderabad
10. Sri M. Satya Srinivas, A E./Protection/Nalgonda

AREA - II: (WARANGAL, KARIMNAGAR, ADILABAD, KHAMMAM AND NIZAMABAD)

1. Sri M. Venkata Reddy. D E /MRT/TL & SS/Warangal (To organise)
2. Sri Eknalh, A.D.E./TLC/MRT/Warangal
3. Sri K Komaraiah, A.D.E./MRT/Karimnagar
4. Sri V. Shiva Kumar A.D E /TL & SS/Warangal
6. Sri T. Narasimha Murthy, A.E./Protection/Karimnagar

AREA-III (KRISHNA, GUNTUR, WEST GODAVARI AND PRAKASAM)

1. Sri Narasimha Rao, D.E./EHT/MRT/TLC/Rajahmundry (To organise)
2. Sri Satyanarayana, D.E./(M&P)/Ongole
3. Sri Surya Prakash A.D.E./TLC/TRE/Vijayawada
4. Sri C.S.Prabhu. A D E./MRT/Guntur
5. Sri P Ratna Rao A.D.E./Protection/Eluru
6. Sri MR. Krishna Rao, A E /Protection/Guntur
7. Sri P.S.S.V.Ramana Murthy, A.E./MRT/Vijayawada
8. Sri Satyanarayana Raju, A.E./MRT/Eluru
9. Sri T. Balaji, A.E./Protection/Ongole

AREA - IV. (VISAKHAPATNAM, EAST GODAVARI, SRIKAKULAM AND VIJAYANAGARAM)

1. Sri Nageswara Rao, E.E./TLC/Rajahmundry (To organise)
2. Sri G. Dali Swamy, A.D.E./MRT/Vijayanagaram
3. Sri D.V. Krishna Rao, A.E./MRT/Visakhapatnam
4. Sri Kumar, A E./EHT/MRT/TLC/Rajahmundry
5. Sri L.V.Swamy Naidu, A.E./MRT/Vijayanagaram
6. Sri Ch.N.M. Krishna Murthy,A.E./Maintenance/Srikakulam. sub-station
7. Sri Y.V.R. Sarma, A.E./Protection/Rajahmundry

AREA - V:- (CUDDAPAH, NELLORE, CHITTOOR, ANANTHAPUR AND KURNOOL)

1. Sri D. Madduleti, E.E./TLC/Ananthapur (To organise)
2. Sri P. Jayaramaiah. A.D.E./MRT/Ananthapur
5. Sri R. Naga Raja Swamy, A.D.E /Maintenancce/Gooty S.S.
7. Sri P. Nagaraja Rao, A.D.E./M&P/Tirupathi
8. Sri G. Adinarayana, A.D.E./Maintenance/Renigunta 220 KV Sub-station
10. Sri P. Srihari Rao, A.E./Protection/Nellore

HEAD QUARTERS/VIDYUT SOUDHA/HYDERABAD

1. S.E.T. (TR.&SS)/VS/Hyderabad (To organise)
4. Sri C. Venkateswarlu, E.M.E. (Protection)
5. Sri Seetharama Sarma, A.D.E. (Protection)
7. Sri D. Jagadeesh Kumar, A.D.E. (Transmission)
Sub. EHT Sub-stations - Maintenance of Power Transformers - with specific reference to OLTCs - Instructions - Issued

It is observed that the OLTCs of Power Transformers are operated quite frequently to maintain satisfactory bus voltages at sub-stations. The frequency of operation has increased considerably during the recent times owing to lot of system fluctuations and due to increased in range of taps (25 steps in most cases)

The manufacturers of OLTCs/Power Transformers recommend first inspection of diverter switch after about one year of service and subsequent inspection of diverter after about 50,000 to 1,00,000 tap operations or five years whichever is earlier. Replacement or testing and filtering of oil in the diverter is recommended after 3,000 to 5,000 operations.

Testing of oil of OLTC diverter involves, sucking out oil from the diverter, take out the sample in a well cleaned bowl and cleaning all the equipment used for suction. Moreover testing of oil sample periodically involves shut down on the transformer.

The following instructions are issued with regard to special maintenance of OLTCs of power transformers.

i. Oil in the diverter switch compartment of all power transformers in service for more than 2 years shall be replaced with filtered and tested oil. Before replacing with fresh oil, flushing of the diverter switch with oil shall be done and the flushed oil sucked out.

Thereafter the oil sample shall be tested once every six months and values recorded. If the results are poor the oil shall be immediately replaced availing shut down. This is compulsory

ii. A plan of action for thorough inspection of diverter switch for loosening of bolts and connected parts, excessive or uneven burning of the contacts, damage to braided contact leads, carbonization of oil and deposition of carbon on diverter switch etc., shall be made, on all the diverters of power transformers in service for over 5 years, and the defective diverters rectified within a span of 6 months.

The Superintending Engineers/TL&SS are requested to follow the instructions issued above and report compliance.

Replacement of oil as given under instructions (1) shall be done on top priority and the progress intimated to this office.

MEMBER (TRANSMISSION)
Sub: 33 KV Capacitor Banks-Maintenance and balancing of capacitors in the event of failure of one or more capacitor units guidelines - Issued.

In the 33 KV Capacitor banks existing at various sub-stations, the capacitor units in each phase are connected in two or three series groups to maintain uniform voltage distribution depending upon the rated voltage of the capacitor unit. At present capacitor units are supplied at rated voltage of 7.3K V or 10.3KV Also to obtain the required MVAR, the capacitor units are connected in parallel (numbering 2 to 8) in each series group. Typical examples of parallel/series combination of capacitor units in each bank are given below in Fig.(1) and Fig.(2). Double star bank with 4 parallel/series groups rated voltage of 2 Nos. series groups/phase capacitors unit is 10.23 KV.

Whether it is single star or double star, the number of series groups/phase depends upon the rated voltage of the capacitor unit viz., 3 series groups if the rated voltage is 7.3KV and 2 series groups if the rated voltage is 10.3KV.

In the event of failure of one capacitor unit (say in R phase) it is observed that balancing is done by removing one capacitor each from Y and B phases as shown in Fig.(3)

The above arrangement is not correct, since it results in unequal voltage distribution between the capacitors in series groups. An example of the voltage distribution between the capacitors in the above case is given in Fig.(4).

It can be seen from the Figure that against a normal voltage distribution of V/3 across each series group, the series group containing less capacitors in parallel gets V/2 i.e., gets overstressed Whereas, the other series groups get V/4 i.e., gets under stressed. This results in ultimate failure of the overstressed capacitor.

It is therefore necessary that number of capacitor units in parallel in each series group in all the three phases on one star bank shall be same.

The correct arrangement of capacitors in the given example is illustrated in Fig (5)

It may also be ensured that the healthy capacitors removed from the banks due to balancing are properly stored, for use at a later date.
DOUBLE STAR BANK WITH 4 PARALLEL/SERIES GROUPS, 2 NOS. SERIES GROUPS PER PHASE
RATED VOLTAGE OF CAPACITORS UNIT 10 23 KV

FIG. 2

FIG. 3
ANDHRA PRADESH STATE ELECTRICITY BOARD

Lr.No. CPT/TA/Technl./539/97 dt.21.4.97

From
Chief, Engineer (Transmission)
A.P.S.E. Board,
Vidyut Soudha, Hyderabad.

Further to instructions given by Chief Engineer (Transmission) to all S.Es/TL&SS, the Member (Transmission) and Chairman desire that sand filling of Cable trenches be completed in all EHT Sub-stations in their jurisdiction by 25.4.97 to prevent recurrence of fire accidents in EHT Sub-Stations due to burning of control cables. The daily progress of sand filling of cable trenches in EHT Sub-stations may be faxed to Chief Engineer (Transmission) to enable him to apprise Member (Transmission) and Chairman in this regard.

CHIEF ENGINEER (TRANSMISSION)
Office of the Member (Transmission)

Sub:- Transmission-formation of TL&SS - WORKING INSTRUCTIONS - issued

1. With the installed capacity of 6759 MW including share from Central Generating Stations and assistance of about 150MW from Eastern Region, the Grid was able to meet a demand of 5022 MW through its present Transmission network consisting of 7411 ckm of 220kv lines, 10141 ckm of 132kv lines, 50nos. 220kv sub-stations and 159nos. 132kv sub-stations This Transmission network is the barest minimum and does not have any spare capacity. It is therefore imperative that the EHT lines and all the Switchgear in the EHT sub-stations are maintained trouble free to ensure maximum availability.

2. Earlier the TL&SS circles were under the control of Chief Engineer Zones to have effective coordination. But keeping in view of the tasks to be performed by the Chief Engineer Zones in carrying the power to all sections of consumers with better operational conditions, collection of maximum Revenue, and plugging in the Technical and commercial losses, the posts of Chief Engineers (TL&SS) were created with Hqrs. at Cuddapah and Vijayawada to look after the maintenance of EHT Transmission and also to supervise the TLC construction works on hand. The post or C E (TLC) at Hyderabad was redesignated as C E (TL&SS).

3. As it will take sometime for the TL&SS wing to have full-fledged organisation, for effective functioning, the existing arrangements at the EHT sub-stations for operation and maintenance may be continued till the TL&SS wing takes full control of the O&M of the EHT Transmission The C E Zones are requested to extend all the necessary cooperation in the day to day discharge of duties of TL&SS wing and in particular in attending to emergencies. This is necessary to ensure the Maximum availability of lines and equipment for Power Transmission.

4. The following working instructions are issued in this regard.

   i. The C Es (TL&SS) will be in charge of the (O&M) of all EHT lines and sub-stations and also the construction of Transmission lines and sub-stations of 220kv and below

   ii. Even in respect of 400kv lines and sub-stations, while the execution of lines and sub-stations will be handled by the C E 400kv, they should assist the C E 400kv in preliminary works pertaining to their area till the lines and sub-stations come up for execution

   iii. While C E (TL&SS) Hyderabad is already having an established office, it would take a little more time for the C Es (TL&SS) Cuddapah and Vijayawada to have full fledged offices. Therefore in order to have smooth functioning of day to day works, the CE (TL&SS) Hyderabad should arrange for materials etc. required by issuing diversion orders from the existing stocks CE (Transmission) Hyderabad should be kept informed of the transactions. The C E (TL&SS) Vijayawada should establish his office in Guntur sub-station and CE (TL&SS) Cuddapah in Cuddapah sub-station. Orders have already been issued diverting posts of one ADE and two AEs from VTPS/RTPP to CEs(TL&SS) Cuddapah and Vijayawada.

   iv. Orders are also issued for the provision of Car and Telephone. They may utilize the services of one JAO and Attenders from the TLC circles under their control. The payments for the staff under CE(TL&SS) Vijayawada and Cuddapah should be got done through their Headquarters TLC Circles.

   v. The CEs(TL&SS) should first concentrate on the inspection of lines and substations to ensure that the preventive maintenance is being carried out as per norms. They should take immediate action wherever there is any slippage in this regard.
vi. The C Es(TL&SS) Circles are already getting the maintenance works done on contract in places where there are no departmental organisation. The C Es (TL&SS) are requested to review the arrangements and take necessary action so that the periodical maintenance of lines and sub-stations are earned out timely and arrangements made for attending to emergencies are effective.

vii. At present some of the EHT SUB-STATIONS are under the control of Operation sub-division/ Divisions The C Es(TL&SS) are requested to ensure that these are taken over at the earliest by the respective TL&SS divisions.

viii. Till such time the offices of C Es TL&SS Vijayawada and Cuddapah are effectively established, the C Es are requested to give instructions to the respective TLC (TL&SS) circles to obtain approval of estimates etc from C E (TL&SS) Hyderabad / CE (Transmission) Hyderabad.

ix. The C E (TL&SS) Hyderabad, Cuddapah and Vijayawada are requested to review the availability of spares and T&P for the lines and sub-stations to cater to the needs of atleast six months and come up with proposals to the C E (Transmission) for their procurement immediately.

x. The C.Es(TL&SS) are requested to arrange for premonsoon inspection of all lines in order of priority as per the check lists already available and to get the defects rectified on war-footing.

xi. The C.Es(TL&SS) are requested to ensure that O&M estimates are prepared without any delay and budget proposals are sent under intimation to C.E (Transmission).

xii. The C.Es Zones are requested to extend all the help that is needed to ensure maximum availability of Lines and Sub-stations equipment so that the consumers are effectively served. This should be done particularly during emergencies without any reference to the jurisdiction problems.

xiii. Instructions are issued separately creating TASK FORCE who will periodically go round the sub-stations and suggest to the S E (TL&SS) the points on which urgent action is needed so that the SE(TL&SS), who is otherwise busy on Operational urgencies can take remedial action.

xiv. The C.Es(TL&SS) are requested to give suitable instructions that the outages of Lines and equipment are promptly reported to them so that they can monitor the rectifications.

xv. The C.Es(TL&SS) should be in touch with C.E (PS) and Load despatch to ascertain the system conditions and effectively monitor the loads keeping in view of the instructions issued from time to time.

The above instructions are only indicative and not exhaustive and they may contact Member (Transmission) for any further details. The C Es(TL&SS) are requested to be in contact with CE (Transmission) and CE (PS) and appraise them of their requirements to ensure proper no keep of lines and sub-stations.

Member (Transmission)
Sub: Reported occurrence of bus touching power conductors in Chandanagar on 3-4-1997-Reg

An incident is reported in press where a bus carrying journalists accompanying the Hon'ble Chief Minister has touched overhead power lines near Chandanagar in Rangareddy District on 3-4-1997 and that there was no supply in the lines at that time due to power restrictions. It is reported that they are High Tension lines with 8 feet clearance from ground.

The schedule for patrolling on 33KV, 11KV and LT lines is reproduced below:

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Details of Lines</th>
<th>Routine patrolling</th>
<th>Test check of routine patrolling of 25% of lines</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cadre</td>
<td>Periodicity</td>
<td>Cadre</td>
</tr>
<tr>
<td>1</td>
<td>All poles &amp; lines</td>
<td>Wireman Lineman</td>
<td>Once in 2 months (25% of lines)</td>
</tr>
<tr>
<td>2</td>
<td>All poles &amp; Lines above 400 V upto and including 11KV</td>
<td>Wireman Lineman Lineman</td>
<td>Monthly</td>
</tr>
<tr>
<td>3</td>
<td>All poles and distribution lines 400V</td>
<td>Helper Jr. Lineman</td>
<td>Fortnightly</td>
</tr>
<tr>
<td>4</td>
<td>Telephone Lines</td>
<td>Helper Jr. Lineman</td>
<td>Fortnightly</td>
</tr>
</tbody>
</table>

Chief Engineer/Metro Zone and Superintending Engineer (operation), Rangareddy circle are instructed to investigate whether patrolling of lines and rectification of defects is being done as per schedules and take action on personnel responsible if there are lapses on the part of any individuals.

(J Partha Sathy)
4-4-1997
In order to strengthen the operation and maintenance of EHT system, Board has sanctioned exclusive TL & SS circles one each per/one by redeploying the existing man power. Further three Chief Engineers TL & SS with Head quarters at Hyderabad, Vijayawada and Cuddaph are posted for looking after maintenance of EHT lines and sub-stations apart from construction works being done by the TLC Circles.

To ensure that the supply is made available to all sections of the consumers as per the commitments given by the Board, it is imperative to ensure that all in EHT Transmission Lines are maintained in healthy condition with maximum availability. Timely patrolling of all in EHT lines is therefore essential to ensure preventive maintenance. The schedules for patrolling of EHT lines were communicated once in CE(0)Memo.SE/GO/F 11/434/68, Dt. 10-12-68 and revised in B.PMs.No. 94. Dt.31-5-94. Consequent to the reorganized set up, it has become necessary to redefine the schedules with special emphasis on causes observed during recent breakdowns on lines like tower collapses, breakdown of joints, missing tower members, snapping of conductors, etc.,

The following schedules are approved fixing patrolling norms for HT lines. The line maintenance staff will attend to the works as detailed below.

i) HELPER/ASST. LINEMAN
1. Routine and special patrolling and maintenance of patrolling diaries.
2. Bush/ Tree clearance
3. Carrying T&P
4. Carrying out other related works.

ii) LINEMAN
1. Routine patrolling cum special patrolling and maintenance of patrolling diaries.
2. Assisting in routine maintenance/ breakdown/emergency line clear operations/premonsoon inspections.
3. Carrying out other related works

iii) LINE INSPECTORS/FOREMANS
1. Arranging routine patrolling and special patrolling.
2. Arranging patrolling and supervising routine maintenance including T & P maintenance.
3. Assisting in breakdown operations/Emergency line clear operations/premonsoon inspections.
4. Checking up of all aspects of transmission lines.
5. Checking of patrolling diaries of staff and maintaining self patrolling diaries.
6. Assisting AAE/AE in all related operations.
7. Attending to patrolling as per schedule.

Note: Routine patrolling of entire length of lines must be done at least once in a month
iv) AAE/AE (Lines)

1. Arranging
   1) i) Routine patrolling and special patrolling
      ii) Routine maintenance
   2) Conducting Breakdown/ELC Operations and premonsoon inspections.
   3) Attending to patrolling as per schedule.
   4) Upkeep of T&P with the assistance of staff.
   5) Review of staff diaries with follow up action
   6) Maintenance of registers and files
   7) Attending to all other responsibilities fixed by the Board from time to time.

v) EHT LINES AND PATROLLING NORMS

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Voltage</th>
<th>Routine Patrolling of 50% of the line in his jurisdiction</th>
<th>Test checking of Routine patrolling 25% of lines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>66 KV</td>
<td>LM/LI/FM - once in 2 months</td>
<td>ADE - once in 4 months.</td>
</tr>
<tr>
<td>2</td>
<td>132 KV</td>
<td>LM/LI/FM - once in 2 months</td>
<td>ADE - once in 4 months</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AE/AAE - once in 6 months</td>
<td>DE - once in 6 months</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SE - once in 12 months</td>
</tr>
<tr>
<td>3</td>
<td>220 KV</td>
<td>AE/AAE - once in 2 months</td>
<td>DE - once in 6 months</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADE - once in 4 months</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SE - once in 12 months</td>
</tr>
</tbody>
</table>

a) AE/AAE shall submit a monthly report within 2 days after patrolling and in any case of missing tower members and all important observations made and in particular about damage to stubs, damages to tower parts. Follow up action is to be taken in case of missing members to replace them on top priority and also take action to trace the culprits by reporting to the police.

b) ADE shall review the same and submit a report to the Divisional Engineers ADEs shall themselves inspect the lines as per schedules given.

c) Premmonsoon inspection of items (2) and (3) should be arranged by DE and should be finished in a short time so that rectification can be carried out before monsoon sets in. This can be done by engaging additional staff. DEs shall inspect all the following important items once in a year in respect of all 132 KV/220 K.V. lines in their jurisdiction.

A. Tower footing resistance at locations where flash over of discs are reported. Vertical and horizontal clearances where the clearances arc minimum and exemptions are accorded for the lower clearances.

C. Jungle clearance wherever thick growth is expected.

DE shall submit a monthly report on missing tower members to Superintending Engineer.

a) When-ever a breakdown occurs they should be monitored very closely by the Superintending Engineers and Chief Engineers till the rectification is completed. The superintending Engineers should personally inspect the locations to take remedial steps to avoid recurrences.

b) The following main points are to be observed during patrolling of Transmission Line's
   1. Insulators: a. Broken
      b. Chipped
   2. Hardware - visible cracks
3. Foundations:- Any cracks developed in the frustum/Chimney on all the four legs.
4. Stubs: Any damage caused to stubs due to standing water or due to stubs covered by earth.
5. Conductor & Earth wire: Condition of joints and repair sleeves and burnt or black marks or cut strands if any.
6. Vibration dampers - Whether they are in proper position
7. Tower Members - Missing members and bolts and nuts.
8. Drainage arrangements at locations where revetments are provided.
9. Clearance
   i. Vertical
   ii. Horizontal
   iii. Tree clearance
   iv. Clearance over LT, 11 KV & 33 KV and other lines
      In cases of doubt regarding adequacy of clearances, actual measurement shall be taken during shutdowns.
10. Maintenance of roads and footpaths specially made for patrolling.
11. Bird nests
12. Condition of paint in case of painted supports
13. Any foreign materials on lowers or conductors.

5. Patrolling diaries should be maintained Line wise and the patrolling results recorded promptly. The defects should be attended on top priority and noted in diaries. These patrolling diaries should be reviewed by the officers periodically.

6. While a separate TL&SS organization has been created to ensure the availability of lines and equipment, the Zonal Chief Engineers, Superintending Engineers & Divisional Engineers/Operation should continue to extend assistance to the TL&SS wing to achieve the task of ultimately serving the consumers better. This should be more so when break downs are attended. Attending to any emergency should not be delayed due to Jurisdictional problems.

Member Transmission
Sub: Inspections and Review by various officers checks to be conducted - Reg.

Instructions were issued from time to time fixing functions and duties for officers at various levels in order to ensure that all activities of the Board, like billing and revenue, transformer repairs, upkeep of substations etc. are executed efficiently with appropriate checks at every stage.

During inspections it is found that the norms communicated for various checks and inspections are not being followed. The field officers are not readily able to pick up the relevant orders on each subject.

In the annexure enclosed, the checks, reviews and inspections to be conducted by officers at every level in respect of every activity are brought out into one Annexure. This is being communicated to all Chief Engineers. Superintending Engineers and Divisional Engineers and they shall ensure that copies made available to all ADEs, AEs, AAOs, AOs and SAOs in their respective jurisdictions.

All officers shall maintain a register of inspection/reviews in the following proforma, communicate notes to the officers concerned with copy to his superiors upto Chief Engineer/Zone.

Also a register of check readings taken shall be maintained as per proforma given below.

These two registers shall be produced during inspections for review.

Encl: Annexure

Chief Engineer Electricity
(Operation)
<table>
<thead>
<tr>
<th>Activity</th>
<th>CE</th>
<th>SE</th>
<th>DE</th>
<th>ADE</th>
<th>AE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Annual inspection of offices</td>
<td>SE’s Offices &amp; also one division office in each circle annually. Also one sub-division in each circle per year</td>
<td>DE’s Offices</td>
<td>ADE’s Offices</td>
<td>AE’s Offices</td>
<td>-</td>
</tr>
<tr>
<td>2HT services with CMD above 1MVA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Check reading</td>
<td>Quarterly review</td>
<td>Monthly review of Meter Reading</td>
<td>Monthly reading</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>b) Meter reading</td>
<td>CE to take check reading for all services with CMD above 4 MVA once in an year</td>
<td>SE to Cover All services Once in an Year</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>c) Inspection</td>
<td>As and when repetitive complaints on Metering come</td>
<td>Once in 6 months</td>
<td>Once in an year by DE/MRT</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3. 1 MVA as CMD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Meter reading</td>
<td>Review once in 6 months of all services</td>
<td>Quarterly review of all readings</td>
<td>Monthly review of all readings</td>
<td>Monthly meter reading</td>
<td>-</td>
</tr>
<tr>
<td>b) Check readings</td>
<td>-</td>
<td>Check readings of 10 service per month</td>
<td>Check readings for all services once in an year</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>c) Inspection</td>
<td>-</td>
<td>-</td>
<td>All HT services once in half year by De (J) and</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Activity</td>
<td>CE</td>
<td>SE</td>
<td>DE</td>
<td>ADE</td>
<td>AE</td>
</tr>
<tr>
<td>----------</td>
<td>----</td>
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<td>----</td>
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<td>----</td>
</tr>
<tr>
<td>4 LT High value services</td>
<td>Annual review by CE of all MRBs</td>
<td>1/2 yearly review of all MRBs</td>
<td>Quarterly review of all MRBs</td>
<td>Monthly review of all MRBs</td>
<td>Monthh meter reading</td>
</tr>
<tr>
<td>(a) Meter readings</td>
<td>-</td>
<td>-</td>
<td>40 check readings per month</td>
<td>40 check readings per month</td>
<td>-</td>
</tr>
<tr>
<td>(b) Check readings</td>
<td>-</td>
<td>Check readings at exceptional quarterly</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5 LT services other than high value</td>
<td>Review of MRBs annuity once</td>
<td>Every MRB once in 6</td>
<td>Every MRB once in 8</td>
<td>Month 1\ review</td>
<td></td>
</tr>
<tr>
<td>(a) Meter Reading</td>
<td>-</td>
<td>Check</td>
<td>100 check readings at monthly</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(b) Check Reading</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6. Complaints &amp; exceptional</td>
<td>Repetitive occurrence more than twice if it is high value service</td>
<td>Sebsequent occurrence - do-</td>
<td>AE on first occurance</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(a) consumption too high above 120% of normal</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(b) Consumption too low below 80% of Normal</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(c) Readings not furnished</td>
<td>Repetitive occurrence more than twice</td>
<td>2nd occurrence - do-</td>
<td>AE on first Occurrence 1st occurance</td>
<td>- do-</td>
<td>- do-</td>
</tr>
<tr>
<td>(d) Door lock</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(e) Progress at disconnected service</td>
<td>Repetitive occurrence</td>
<td>- do-</td>
<td>2nd occurrence</td>
<td>1st Occurance</td>
<td>- do-</td>
</tr>
<tr>
<td>(i) high value</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(ii) Others</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Activity</td>
<td>CE</td>
<td>SE</td>
<td>DE</td>
<td>ADE</td>
<td>AE</td>
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<td>-------------------------------</td>
<td>---------------------------</td>
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<td>---------------------------</td>
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<td>---------------------------</td>
</tr>
<tr>
<td>f) Negative reading</td>
<td>Repetitive if high value</td>
<td>Repetitive if low value</td>
<td>2nd occurrence</td>
<td>1st Occurrence</td>
<td></td>
</tr>
<tr>
<td></td>
<td>services</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(g) stuckup</td>
<td></td>
<td></td>
<td></td>
<td>AE</td>
<td></td>
</tr>
<tr>
<td>1st occurrence</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd repetition</td>
<td>-</td>
<td>DE if high value</td>
<td>ADE for Low Value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd Repition</td>
<td>SE if high value</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(h) Burnt</td>
<td></td>
<td></td>
<td></td>
<td>AE</td>
<td></td>
</tr>
<tr>
<td>1st occurrence</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Low Value</td>
<td></td>
</tr>
<tr>
<td>2nd repetition</td>
<td>-</td>
<td>DE for high value</td>
<td>ADE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd Repition</td>
<td>SE if high services</td>
<td>DE for low value</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) Meter change</td>
<td>If done thrice</td>
<td>If done twice</td>
<td>If done twice</td>
<td>AE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>in an year</td>
<td>in the same year</td>
<td>in the same year</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>For HV services</td>
<td>for HV services</td>
<td>for HV services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Inspection of other than offices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPM sheds</td>
<td>Once in an Year</td>
<td>1/2 year</td>
<td>Every month by DE (MRT)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EHT stations</td>
<td>Once in an Year</td>
<td>Quarterly by SE (L&amp;SS)</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33 KV sub-station</td>
<td>Only where once in an Year</td>
<td>Once in 6 months both Operation &amp; MRTs one ERO/ sub ERO per month</td>
<td>Once in 3 months</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EROs</td>
<td>One ERO in each circle per year</td>
<td>one ERO per month</td>
<td>Also the SAC in the circle and AO (Rev) of the circle are to inspect different EROs &amp; their sub EROs one per month</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Sub: Replacement of burnt/stuck-up Meters -Reg.

The position of burnt and stuck-up meters was reviewed. It is found that there is large pendency in replacement of stuck-up and burnt meters and the number being replaced per month is very low compared to the pendency. As on 31.3.1996, 2,31,383 stuck-up meters and 20,552 burnt meters have to be replaced. As the pendency of stuck-up and burnt meters has a direct bearing on the revenues of the Board, the Chief Engineer (Zones) are requested to take action as indicated below:

A programme may be drawn to replace all the stuck-up and burnt meters in the next 8 months. The work should be completed by 31.7.96.

The Superintending Engineers should organise groups consisting of the Sub-Engineer, the Lineman and contact persons for attending to this work.

The Divisional Engineer (Operation) may be made responsible for completion of this work within the time frame. Daily targets may be fixed for each group.

Top priority should be given to replace burnt/stuck-up meters of all the industrial and high value commercial services.

Random check of the services where the meters are frequently stuck-up/burnt may be arranged.

In case the consumer is not coming forward to pay the cost of the meter for replacement, the burnt meter shall be replaced and the cost of the meter and replacement charges may be included in the current consumption bill.

The field Officers may be instructed to replace the defective, stuck-up and burnt meters in the same month of detection, specially in the case of LT Industrial and other high value services.

The Chief Engineer (Zones) are requested to furnish information regarding make-wise/capacity-wise meters failed during 1995-96. The performance of meters of various makes and the defects noticed may also be reported.

Member (Distribution)

Ref: Circular No. E.P./2/96 dt. 1.5.96

***

Please refer to the circular on sealing or Meters. The Chief Engineer (Zones) are informed that sealing of terminal cover should be completed within 3 months time positively by 31.7.96. They are requested to organise the works as indicated below:

1) The Divisional Engineers (O) may be made responsible for organising scaling work distribution-wise for all the services other than high value services.
2) The line inspectors of the Section may be asked to inspect the services and provide seals for the terminal cover.
3) The Divisional Engineer (Meters) may be made responsible for scaling of all high value services for which monthly bills are issued.
4) Assistant Engineer (Meters) along with Sub-Engineer of section may be asked to inspect all high value services and seal terminal cover.
5) The superintending Engineer (O) should review the progress of this work weekly and should report to Head Quarters in the proforma given below:

<table>
<thead>
<tr>
<th>S.No</th>
<th>Name of the Division</th>
<th>High Value Services</th>
<th>Other than High value services</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No. of Services</td>
<td>No. of Services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No. scaled</td>
<td>No. scaled</td>
</tr>
</tbody>
</table>

MEMBER
(Distribution)
Sub: Sealing of terminal cover seals - Reg.

It is brought to notice that terminal covers are not sealed for large number of services and consequently theft of energy bypassing the meter is rampant. The campaign for sealing of services was done on earlier occasions. It is distressing to note that number of services are not provided with terminal cover seals in spite of the fact that certificates were furnished by the field officers that all the services are sealed. It is necessary to fix up the responsibility for sealing of terminal cover seal on the staff. The consumer should be also be made responsible for availability of seal, similar to purchase of ticket for traveling in RTC Bus. Hence all officers are requested to implement the following instructions.

1. Numbered lead seals may be procured by Superintending Engineers and used for sealing terminal cover. These seals are marginally costlier than ordinary seals but will help in prevention of theft. Four lakh plastic seals in yellow colour are ordered and expected to be available from 5/96 and they may be used exclusively for high value services and LT/CT meters.

2. The seals may be issued to the line staff and acknowledgement may be taken for the batch number given to them.

3. The field staff may be asked to seal terminal cover with numbered lead seals and obtain an acknowledgement from consumer. A copy of the acknowledgement is also given to the consumer. The proforma for acknowledgment is given in an annexure. The private accounting agency may be requested to print the acknowledgement in duplicate.

4. The terminal cover seal number may be entered in the consumers master by opening an additional field in the database. The private accounting agency may be asked to organise data entry.

5. The monthly bills issued should print the terminal cover seal number on the bill.

6. A pamphlet should be printed informing the consumer that

* The terminal covers are scaled by the Board with the sealed number indicated on the bill.

* They shall check the seal number for correctness and inform APSEB if any discrepancy is noticed.

* They are responsible for proper maintenance of seal.

* If the seal is not available or tampered, they shall be booked to theft of energy.

A format for the notice to be printed and is given in Annexure and same shall be printed and served on the consumer along with bill.

7. Whenever a meter is removed for any reason, a revised certificate shall be obtained on the consumer for terminal cover seal.

8. After completion of the sealing, whenever officer finds that the terminal cover seal is not available or terminal cover seal number is not tallying with what is printed in the bill, a case for theft of energy is booked and preferably prosecutes the consumer.

9. Terminal covers may be procured by Superintending Engineers to provide the same, wherever it is missing. A common terminal cover for most brands of single phase meters is designed by SE/ Secunderabad and the same may be adopted by all circles.

10. It is seen that whenever a meter is removed from consumer premises, the terminal cover is retained at section office and only meter is handed over to MRT. On return from MRT, the terminal cover is not linked up with meter and meters are installed without terminal covers. Hence forth, all meters shall be handed over to MRT with terminal covers, duly tagged. No meter should be accepted by MRT without terminal cover, MRT should issue also the meter in complete shape with terminal cover.
The sealing of meters should be taken up on war footing and completed by 30-6-96 A
weekly progress report on number of meters sealed may be submitted to Head quarters in
the proforma given in Annexure. DE/Meters is responsible to organise sealing of all high
value services, for which monthly bills are issued. He shall keep one or two A. Es,
exclusively on this job. DE/Operation shall be made responsible to organise sealing work
distribution wise for all services other than high value.

Member (Distribution)
NOTICE

The terminal cover of meter installed for your service is sealed with lead seal bearing No.______, and acknowledgment is obtained as proof of sealing. A copy of acknowledgment is also handed over to your representative available at your premises. The seal number is printed on electricity bill served.

Please check the seal number indicated on your bill with the number available on the seal bit and inform the under-signed if any discrepancy is noticed.

Please note that consumer is responsible for safe custody of seals and any interference is punishable crime as per Clause (d) of Section 44 of I.E. Act, which is reproduced below.

"The meter, indicator or apparatus if under the custody or control of the consumer, whether it is his property or not. It shall be presumed, until the contrary is proved, that such connection, communication, alteration, prevention or improper use, as the case may be, has been knowingly and willfully caused by such consumer."

Divisional Engineer (Operation)
ACKNOWLEDGMENT FOR METER TERMINAL, COVER SEALING

Service Connection No. Distribution Name
Name of Consumer Category
Address :

Meter Make Meter No.

Your meter is sealed with seal bits bearing the following numbers
1. 
2. 

and the same is shown to your lead seal bits bearing the following numbers
1. 
2. 

and the same is shown to you or your representative on ________________

Name & Designation of
APSEB officer sealing the terminal cover

Received the above acknowledgement.
Signature of Consumer or his representative
Name of the Consumer or his representative

Weekly report on sealing of Meter Terminal Covers

<table>
<thead>
<tr>
<th>S.No</th>
<th>Name of Division</th>
<th>Category</th>
<th>Total No of Services</th>
<th>No of Services scaled</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>XXX</td>
<td>Domestic High Value Domestic Other than High Value Commercial High Value Commercial Other than High Value Industrial Other Services High Value Other Services other than High Value</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

57
Sub: Verification of tools & plant & spares by Accounts Office/Expenditure - Reg.

The attention of the Superintending Engineers/Operation is drawn to the para 480 of APED manual-I. Wherein it is stated that Tools & Spares shall be got verified by the Assistant Divisional Engineer once in a year and also by Accounts Officer/expenditure once in every three years, to ensure financial checks It is observed that the above practice is not being followed.

Hence all the Superintending Engineers (Operation) are requested to instruct the A.O.(Exp) in their circles to verify the tools and spares. Articles found surplus should be shown as receipts in the register maintained and the deficit/shortage should be adjusted by recovery or sanctioned write off.

The above instructions shall be followed scrupulously.

The receipt of this memo shall be acknowledged and action taken reported by 15 3.97.

Chief Engineer Electricity
( Operation)
Sir,

Sub: Review of performance of private repairing agencies in repairing distribution transformers while approving the repairing agencies.

On a review of the failure of distribution transformers within guarantee period it is found that the percentage failure rate in respect of certain agencies is as high as 40%. It is opined by Board that the Zonal Chief Engineers Superintending Engineers are not reviewing critically the performance of repairers while approving the repairing agencies.

Instructions were already issued vide Memo.No.CEE/O/MRT/A3/F.DTRs/784/93, dt.29.7.93 not to entertain the repairers whose percentage failure under R.G.P is more than 15%.

Member distribution desires that the Zonal Chief Engineers should review and monitor the performance of the private agencies every month. The Chief Engineers are requested to exercise control over the performance of the private agencies and see that the percentage failures are reduced to below 15%. As a first step the agreement of the repairers with more than 25% and above failures may be terminated. And also as a second step the repairers with 20% to 25% failure may be cautioned to reduce the failure rate to below 15%.

In addition to the above more encouragement may be given to the repairers whose failure percentage is low by issuing more number of failed distribution transformers.

Chief Engineer Zones are requested to review monthly performance of private agency-wise and circle-wise and submit action taken report with their comments to Chief Engineer/Operation/Electricity/ Vidyut Soudha. along with 7/96 M.I.S.

A separate report in the matter may be submitted for 4/96, 5/96 and 6/96 along with 7/96 M.I.S.

The receipt of this letter may be acknowledged.

Yours faithfully

Chief Engineer Electricity
(Operation)
Memo.No.CEO/MRT/A1/D.No.1753/96 Dt. 9.7.96.

Sub:      Repairs to Distribution Transformers by private agencies - Reg.

1. It is brought to the notice of the Board that irrespective of the extent of damages to the windings, all the coils in all the three HV limbs are being got replaced and all the three LV coils are getting re-insulated and re-wound. This is resulting in boosting of expenditure towards repairs apart from lot of delays in repairs.

2. The field officers are hereby instructed that only such of the coils which are damaged should be got replaced and there is no need to re-insulate or replace all the limbs.

3. Also the repairs guarantee should be reckoned from the date of last repairs. That means if a rectified transformer gives service after repairs for four months and returned after re-repair after one month, the guarantee gets extended for another full term after re-repair.

4. Repairs to distribution transformers may be entrusted to private repairers who are prepared to carry out repairs as described in paras 1 to 3 above at the same rates as per agreements in vogue.

Sd..
Member (Distribution)
Memo.No.CEO/MRT/A1/D.No.1744/96 Dt. 8.7.96.

Sub: Facilities at private repair sheds

It is proposed to check availability of minimum facilities available at every private repair shed to carryout repairs to transformers and for maintaining quality. This is apart from using good quality materials and maintaining good work-manship for reliable repairs.

A format for checks to be done is enclosed herewith. The Superintending Engineers (Operation) are requested to depute the Divisional Engineers/M&T as indicated below and ask them to send reports to Chief Engineer/Operation before 15.7.96. They may also asked to checkup the records maintained towards receipts, repairs, accounting of winding wires, oil, etc. and also reference to guarantee period.

<table>
<thead>
<tr>
<th>All sheds in</th>
<th>To be inspected By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medak</td>
<td>Divisional Engineer/Transformers/Warangal</td>
</tr>
<tr>
<td>Nizamabad</td>
<td>Divisional Engineer/Transformers/Ranga Reddy</td>
</tr>
<tr>
<td>Nalgonda</td>
<td>Divisional Engineer/Transformers/Hyderabad</td>
</tr>
<tr>
<td>Warangal</td>
<td>Divisional Engineer/Transformers/M Nagar</td>
</tr>
<tr>
<td>Mahabubnagar</td>
<td>Divisional Engineer/Transformers/Karimnagar</td>
</tr>
<tr>
<td>Karimnagar</td>
<td>Divisional Engineer/Transformers/Nizamabad</td>
</tr>
<tr>
<td>Khammam</td>
<td>Divisional Engineer/Transformers/Nalgonda</td>
</tr>
<tr>
<td>Adilabad</td>
<td>Divisional Engineer/Transformers/Khammam</td>
</tr>
</tbody>
</table>

Similarly CEs/Zone Vizag, Vijayawada, Nellore and Cuddapah are requested to get private repairing sheds in their circles inspected by DEs/Transformers of neighbouring circles in the proforma and send by 15.7.96.

Member (Distribution)

Encl: As Above
Inspection Report of Transformer Repairs shed of M/s. __________________________

By: Name: Designation:
Date of Inspection Name and Designation of
officer who has Inspected previously

Are they repairing only Distribution Transformers but also power transformers.
Details

1. Lifting capability
   a) 041. T Crane/gantry/Others,
   b) Lifting capacity ____ tanks
   c) Height upto which C&W ____ Mtrs can be lifted above level.

2. Details of filters
   Make Capacity Sl.No. Remarks.
   a) KL/hr
   b) 
   c) 
   d) 

3. Hot Air Chamber
   Dimension Heaters Thermostat Any special features
   L x B x Ht Capacity Set at No. KW Available
   a) 
   b) 
   c) 
   d) is the chamber provided with circulating fan or vacuum facility.

4. HV Winding m/cs
   Make Sl.No. Hand Counter upto (dia) details
   Semi-automatic
   Automatic
   a) 
   b) 
   c) 

Type of jointing being made for the wire.

5. L.V Winding m/cs
   Make Sl.No. Reduction gear Working Condition
   a) 
   b) 
   No. Capacity (tt)

6. Pulling & Lifting: Chain Blocks
   Tirers
   Mech Jacks
## Hydraulic jacks

### 7. Testing Equipment

<table>
<thead>
<tr>
<th>Voltage class</th>
<th>No.</th>
<th>Range of Meters</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Meggers</td>
<td>a)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c)</td>
<td></td>
</tr>
</tbody>
</table>

### b) Voltmeters
- tong testers
- meters
- Ammeters
- K.W. meters
- D.C. resistance measurement bridge
- frequency meters

### c) High voltage equipment

### d) Induced double voltage/ double frequency test.

### e) Load test upto...KW

### f) No load loss measurement

### g) Hydraulic test on tanks

### h) Equipment available for other test as per I. S.

### i) Nitrogen filling equipment

#### Quality of repairs:
- a) Winding of Coils
  - Proper insulation between layers
  - Compactness of coil
  - Provision of vertical ducts
  - General workmanship (for both HV & LV)
b) Assembly: Cleaning of all core plates, core assembly for tightness insulation of through bolts, placement of insulator drums between LV & Core. HV & LV. tap leads insulation placement of separators for horizontal ducts, quality of jointing. Provision of end rings

c) Dry out & reconditioning: I.R. values after dry out at temperature of 60 Degrees C. Hot air chamber environment core & windings the time taken to put in hot oil from the time the core & winding are taken out from hot air chamber.

d) Filteration & reclamation of oil: Vaccum applied: I.R. values before flushing with oil & after completion of filtration, whether oil is reclaimed before use etc.

c) Testing: All tests as per IS 2026.


Signature and Date
Sub: Elecy-Repairmg of failed distribution transformers - Monitoring of information to be furnished - Reg.

In the recent review meeting of the power supply position by the Hon'ble Chief Minister the importance of reduction of transformer failure and speedy replacement of failed units was stressed upon. At present repair work of transformers are carried out in Board's SPM centres located at various districts as well as enstrusting the repair work to private agencies. No factual and correct figures of the work turned out in SPM centres or by private agencies are being received in the Head Quarters without any discrepencies in the various reports being sent out by the field. Whenever information is sought for by the Head Quarters from the field, conflicting reports are being received which are at variance with one another.

It has become imperative for the Board to monitor repairing of distribution transformers to enable it to provide necessary information to the Government whenever sought for as well as for continuous review of the performance of SPM centers/private agencies at the Head Quarters level.

All the Divisional Engineers/Transformers are requested to send the data in the format enclosed. This data shall be computerised using DBASE with file name "TRANSREP" and entered in a 31/2" floppy and send to Chief Engineer (Operation). Necessary explanatory notes as to how to enter the data so as to have the uniformity of the data received is also enclosed. The data shall be entered strictly as explained and no deviations whatsoever are permitted which would make very difficult to reconcile data being furnished by all the circles. In other words, the Board wants the data sent by all Divisional Engineers/Transformers to be strictly identical.

The information shall be furnished for the years 1995-96 and 1996-97 upto 30.6.96. The floppies containing the above information shall be sent to this office by special messenger positively before 15 7 96. Thereafter, monthly reports in the above format from July, 1996 onwards shall be sent regularly in floppies before 10th of the subsequent month.

This may be treated as top priority and any laxity in sending the reports will be viewed very seriously by the Board.

The receipt of this memo shall be acknowledged.

Chief Engineer Elecy.
Operation.
Memo.No.CE(O) F.Corres/D.No.148/97 Dt. 28.6.97.

Sub: Assigning S.C. No’s & Meters the same day-Issue & receipt of meters-
Maintaining Meters Issue Register – Reg.

Experience of Officers inspecting distributions indicate existence of several services without Sc Nos assigned. The date on which the S.C. was released is not available and certain consumers have revealed that supply was extended to them two/three years back and bills are not being served on them.

In a recent inspection one Nursing Home is detected to be having a service connection without number and not billed for 2 years.

The declaration by the consumer about the date of release of supply is being taken and back billing done where meters are stuckup. In the case of running meters; the consumers are called upon to pay huge amounts as arrears.

To obviate the above the following instructions are issued.

1. The release of service and issue of meters should be entered in a register on the same day. The Sc. No. for which the meter is issued should be painted on the meter at Section Office before issue.

2. Meters from Rolling stock of replacement of defective meters of new meters for release of services etc., should be issued only after an entry in the “Meter Issue Register” as per format enclosed which should be updated continuously.

3. In the case of issue of a meter to replace an existing meter; the meter particulars of removed meter along with final reading should be noted in red ink in the same column and attested by Section Officer of having received the removed meter.

4. The maintenance of Meter Issue Register is already in vogue in Vizag and Vijayawada Zone and this is to be followed by every operation section from 1st July’97 onwards WITHOUT FAIL. The painting of S.C.No. on meters at section office shall also be done and every meter shall be installed only at the specific service for which it is allotted.

End: 1 format

Member Secretary
## Meters Issue Register

(To be maintained at Section Office)

**Format with example of entries**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>S. C. No.</th>
<th>Cat</th>
<th>Distribution</th>
<th>Meter issued</th>
<th>Purpose for issue of meter</th>
<th>Dr./ initials of person who received the meter</th>
<th>Meter Removed</th>
<th>Signature of AE who received the removed meter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Make</td>
<td>Serial No</td>
<td>S ph/ 3 ph</td>
<td>Amps</td>
<td>Initial Rdg</td>
</tr>
<tr>
<td>1</td>
<td>46</td>
<td>I</td>
<td>Rampur</td>
<td>ECE</td>
<td>26317</td>
<td>8 ph</td>
<td>2.5-10 anths</td>
<td>0001</td>
</tr>
<tr>
<td>2</td>
<td>925</td>
<td>II</td>
<td>Laxmipur</td>
<td>ECE</td>
<td>36901</td>
<td>3 ph</td>
<td>10 amp</td>
<td>0001</td>
</tr>
</tbody>
</table>

3
4
5

---

**Note:**

- Sd/-: Signature of AE
- DM: Distribution Manager
- L.M: Line Manager
- NEW SERVICE: New Service
Bd’s Memo.No.CE/Trg/SP/MRT/D.No. 777/96. Dt.9/6/96

Sub: Developing core MRT staff-Operation circles –Reg.

APSEB has decided to promote a core group of Engineers in operation circles to develop expertise in protection, Switch gear, Metering and Transformers to be in charge of MRT divisions of operation circles. These Engineers will be drawn from Asst. Engineers Cadre at the rate of four/five from each circle.

These Engineers will be imparted intensive training at works and testing Laboratories of manufacturers of relays, switchgear, transformers, electronic meters etc. They shall be recognised as specialists in the field and shall be continued to work in the field for next 10 years so that they can in turn train up fellow Engineers at least on one to one basis. Providing incentives by way of extra allowance or placing them ahead in ranking for award of promotions is also under active consideration.

Each Superintending Engineer (Operation) is requested to identify and recommend a panel of five Asst Engineers from their circles who are suitable and possessing the required aptitude for the jobs cited above.

Member Secretary
ANDHRA PRADESH STATE ELECTRICITY BOARD

Office of the Chief Engineer Elecy -
(Operation) Vidyut Soudha,
Hyderabad.


Sub: Elecy-Failure of DTRs – Preventive maintenance – Reg.

It is observed that number of Distribution Transformers have failed repeatedly in some locations due to various reasons including bad maintenance of lines and D.P. structures and over loading of the transformers. But generally the failures of distribution transformers are attributed to over loading. To minimise such failures all the Superintending Engineers/Operation are requested to form special squads at each division level consisting of one Assistant Divisional Engineer and one Assistant Engineer to thoroughly inspect the distribution transformers and structures and the connected lines wherever transformers have failed repeatedly. During the proposed inspections, the squads should invariably examine whether the following protections are provided to the distribution transformers.

i) HV side and LV side connections are as per Standards.

ii) Whether L.A.S. are provided on the HV side of the transformer.

iii) Whether HG fuses provided are of proper rating.

iv) Whether the A.B. Switch is in working conditions.

v) Whether there are illegal and unauthorised connections on the transformers. All such unauthorised services should be identified. These consumers may be asked to avail the opportunity given by the Board to regularise their services. The L.Ts/L.Ms may be made personally responsible to persuade the consumers and to get their services regularized.

The special squads shall submit their inspection reports to the concerned Assistant Divisional Engineers, Divisional Engineers/Operation and also to the Superintending Engineers/Operation. The commissions, and defects pointed out in the reports may be get rectified most expeditiously. All unauthorised service connections may be regularized as per the Board’s instructions issued from time to time.

The Divisional Engineers/Technical shall monitor the progress of rectification of the defects reported by the special squads and also regularization of unauthorized services.

Chief Engineer Electricity
(Operations)
ABSTRACT

Estt-APSEB-Operation circles-Distribution Transformer Failures - Adherence to schedules of maintenance - Orders - Issued

(PERSONNEL SERVICES)

B.P.(P&G-Per) Ms.No.41

Dt: 22.5.96

Read the following -

1. B.P(P&G-Per)Ms.No.94, dt.31.5.94.
2. B.P.(P&G-Pcr)Ms.No.193, dt. 11.8.94.

PROCEEDINGS:

The rate of incidence of failures in Distribution Transformers has increased to alarming proportions in the recent past. On a review, it is observed that the maintenance schedules are not being strictly followed and personnel are not specifically identified to perform and ensure each maintenance activity.

2. After careful consideration, it is hereby ordered that the items of maintenance of distribution transformers shall be carried out as per the table indicated below and the following job chart has been worked out for the proper maintenance of distribution transformers. This work should be checked by the person identified as indicated below.
### Maintenance schedule for distribution transformers:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the work to be carried out</th>
<th>Persons responsible to do the work</th>
<th>Persons responsible to ensure that it is done</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td><strong>Monthly items:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td>Maintaining Distribution Transformer yard and keeping the earth pits tidy and watering of earth pits</td>
<td>Area L.M.</td>
<td>Area L.I.</td>
</tr>
<tr>
<td>b)</td>
<td>Cleaning the transformer including the bushings</td>
<td>Area L.M.</td>
<td>Area L.I.</td>
</tr>
<tr>
<td>c)</td>
<td>Checking up of oil level and reporting if it is low</td>
<td>Area L.M.</td>
<td>Area L.I.</td>
</tr>
<tr>
<td>d)</td>
<td>Checking for oil leaks and reporting</td>
<td>Area L.M.</td>
<td>Area L.I.</td>
</tr>
<tr>
<td>e)</td>
<td>Checking of earth connections</td>
<td>Area L.M.</td>
<td>Area L.I.</td>
</tr>
<tr>
<td>f)</td>
<td>Reconditioning breather on reactivating silicage or replacement and maintaining oil seal</td>
<td>Area L.M.</td>
<td>Area L.I.</td>
</tr>
<tr>
<td>g)</td>
<td>Checking the L.T. fuses and renewing them</td>
<td>Area L.M.</td>
<td>Area L.I.</td>
</tr>
<tr>
<td>h)</td>
<td>Topping up of oil where necessary</td>
<td>Area L.M.</td>
<td>Area L.I.</td>
</tr>
<tr>
<td>II.</td>
<td><strong>Quarterly items:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td>Renewing the HG fuses</td>
<td>Area L.M</td>
<td>Area L.I.</td>
</tr>
<tr>
<td>b)</td>
<td>Measurement of insulation resistance and recording HV to E, LV to earth, and HV to LV with 1000 V Megger and recording along with temperature of the winding</td>
<td>L.I.</td>
<td>A.D.E.</td>
</tr>
<tr>
<td>d)</td>
<td>Measurement of voltages at the transformers and at tail end of L.T. feeders and noting down RY YB BR RN YN &amp; BN</td>
<td>A.E.</td>
<td>A.D.E.</td>
</tr>
<tr>
<td>III</td>
<td><strong>Annual items</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td>Lubricating AB switch and checking for proper operation</td>
<td>L.M.</td>
<td>L.I.</td>
</tr>
<tr>
<td>b)</td>
<td>Checking line and earth connections at AB</td>
<td>L.M.</td>
<td>L.I.</td>
</tr>
<tr>
<td>c)</td>
<td>Checking line and earth for lightening arrestors</td>
<td>L.M.</td>
<td>L.I.</td>
</tr>
<tr>
<td>d)</td>
<td>Checking connections for HV and LV bushings including LV neutral</td>
<td>L.M.</td>
<td>L.I.</td>
</tr>
<tr>
<td>e)</td>
<td>Getting oil samples tested for Breakdown and acidity and recording</td>
<td>L.I.</td>
<td>A.E.</td>
</tr>
<tr>
<td>f)</td>
<td>Measurement of earth resistance</td>
<td>L.I.</td>
<td>A.E.</td>
</tr>
</tbody>
</table>

These orders shall come into force with immediate effect. Non-compliance of the schedules shall be regarded as dereliction of duty and disciplinary action taken.

The receipt of the B.P. may be acknowledged.

A.K. KUTTY  
MEMBER SECRETARY
Memo.No.CE/OP/SP-85/96,dt.25.4.96.

Sub: Estt-Officers & Staff- Stay at their respective Head Quarters – Reg.

The attention of Superintending Engineers is invited to the memo cited. APSE.Board has taken a serious view of officers and staff not residing at their designated Head Quarters.

Residing in their respective Head Quarters is a MUST in a service oriented institution like APSE.Board and Electricity is declared as an essential service.

All Superintending Engineers are requested to issue instructions to Divisional Engineer (Operation) to ensure that all staff under them reside at their designated Head Quarters collect their house Addresses and confirm to the Superintending Engineers before 15.5.96 positively.

The Superintending Engineers in turn should confirm to Chief Engineers (Zone) with copy to Director (Personnel) that all staff members are residing at their respective Head Quarters. Names of personnel who disobey these instructions may be reported positively before 31.5.96 and disciplinary action initiated against him.

Chief Engineer, Electricity
(Operation)
ANDHRA PRADESH STATE ELECTRICITY BOARD

From
Chief Engineer
Transmission
Vidyut Soudha,
Hyderabad – 49.

To
All the Chief Engineer.
Operation

____________________ Zone
____________________

Lr.No.CPT 412/O & M/Lines/Calibration of Energy/Meters/D.No.93 /96, dt.23.4.96.


Ref: CE/Operation, U.O.No CE(O) EC/F/EMB/D.No.23 Dt. 14.3.96.

The Chief Engineer _______ Zone is requested to take action in calibrating/replacing of energy Meters wherever necessary in 220/132 KV substation and 132/33 KV substation for proper accounting of the energy received/Transmitted for arriving the line lossess in Transmission based on the actual reading recorded at the EHT substations.

A report in this regard may be sent on Top-priority i.e., before 30.4.96 positively, confirming that all the Energy Meters existing in the EHT substations are functioning properly for appraising the Member Transmission and Chairman.

Further the energy meter reading in the 220 KV and 132 KV substations may be taken positively on 1st of every month and furnished to this office from the month of May, 1996 without fail for calculating the line lossess in Transmission lines. If any meter is found not functioning, properly, action may be taken for replacing it immediately.

This may be treated as "Most-urgent"

The receipt of this letter may be acknowledged.

Chief Engineer (Transmission)
Circular No.CAP/2/96 dated 15-4-96.

Sub: Distribution Transformers loading and LT layouts – Reg

1.1 During 1995-96, 28765 transformers have failed out of 136104 transformers existing on 1-4-96 which works out to failure rate of 21.13%. The amount spent on repairs of transformers is Rs 25 Crores during 1995-96 with average repair cost of Rs 9000 per transformer. The failure rate and amount spent on repairs is abnormally high. The most distressing fact is the increasing trend of failure rate and repair expenditure year after year. The high failure rate is attributed to over loading of transformers. The obvious question that arises is how the transformers are allowed to be over loaded and who is responsible for it. Unfortunately, the officers who are complaining of over loading of transformers are responsible for this sorry state of affairs and they are still releasing additional services on already over loaded distribution transformers, unmindful of damage caused to the organisation and disservice to consumers. The sorry state of affairs cannot go for ever and must be stopped forthwith as

* The resources to pay such huge repair bill are not available, as the financial position of Board is bad.
* The consumers have become more conscious of their right and are demanding replacement of failed unit within 24 hours.

1.2 It is also seen that the theft of energy is a rampant in domestic and commercial sector and the revenue loss due to theft is very high. It is necessary to identify the areas of theft through energy audit and publicize the same with facts to prevent theft.

2 Hence the following instructions are issued for strict compliance.

2.1 A register on loading of Distribution Transformer can be maintained in each section office. The proforma for the register is shown in Annexure. A folio shall be opened for each Distribution Transformer and the names of services incident on it should be listed out. The corresponding cross entry shall be recorded in the consumers master maintained for billing. The private accounting agency may be requested to open an additional field transformer location code, transformer Name in the master and get the data entered.

2.2 The Distribution Transformer locations shall be coded as indicated below.

The code member for rural area transformer consists of nine digits. The significance of code is indicated below.

<table>
<thead>
<tr>
<th>Digit Number</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>One and two</td>
<td>District Code</td>
</tr>
<tr>
<td>Three &amp; four</td>
<td>Mandal Code</td>
</tr>
<tr>
<td>Five, Six, &amp; Seven</td>
<td>Village census code</td>
</tr>
<tr>
<td>Eight &amp; Nine</td>
<td>Serial No of Transformer in the Village</td>
</tr>
</tbody>
</table>
In respect of urban areas, the code will have 12 digits.

<table>
<thead>
<tr>
<th>Digit Code</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>One and two</td>
<td>District Code</td>
</tr>
<tr>
<td>Three &amp; four</td>
<td>Mandal Code</td>
</tr>
<tr>
<td>Five, Six, &amp; Seven</td>
<td>Town census code</td>
</tr>
<tr>
<td>Eight &amp; Nine</td>
<td>Ward</td>
</tr>
<tr>
<td>Ten, Eleven &amp; Twelve</td>
<td>Serial No. of Transformer in the ward</td>
</tr>
</tbody>
</table>

2.3 The above linkage between the distribution transformers and service connections will enable computation of energy sales on each distribution transformer. This inturn will enable to identify the areas of theft as the reasonableness of energy billed can be checked up with the transformer capacity and the pattern of consumption.

2.4 Obtain village maps indicating survey field No. etc., from Revenue Authorities and mark the 11 KV and LT layouts showing of all distribution transformers in the village. This map should be updated as and when new agricultural and industrial loads are released. In case of urban areas, the municipal ward maps may be used for plotting the network.

2.5 The Service should not be released unless the transformer capacity is adequate to eater the existing and the proposed loads with diversity of 1.0 on transformer having power loads. In respect of transformers feeding purely domestic loads, the adequacy of transformer capacity shall be checked by taking long tester reading invariably in addition to computation of loading based on the average maximum demand per consumer.

3. The above instructions shall be implemented with immediate. Severe disciplinary action will taken if any violation or instructions are noticed. The inspecting officers should invariably check the LT layouts and distribution transformers loading registers. The private accounting agency should be asked to furnish every month the energy sales distribution transformer wise. The outputs should be reviewed by the distribution officers and DPE officers and effective step should taken to curb theft of energy.

Member (Distribution)
Memo. No. CE(PS)/F.Misc/D.NO.34/96 dt. 10-4-96.

Sub: Elec-Non-maintenance of required clearances for electrical lines-Posing public Hazard - Instructions issued.

Ref: Memo.No.CE(O)-16/F.Misc/D.No.239/95 dated 19.8.95.

The Chief Engineers Zones are aware that in a recent accident in Khammam District 14 people travelling in a bus died due to electrocution, as the cycles loaded on the bus came in contact with a HT wire running across the road.

An abstract of the relevant IE rules 1956, for maintaining the minimum clearances above ground and from buildings in respect of Electrical lines of various voltages was communicated to all field officers vide Memo under reference. The Chief Engineer/Zones are requested to instruct the field officers to inspect the areas and ensure that minimum clearances above ground level are maintained in respect of all electrical lines as per the stipulations.

In the case of all road crossings in the busy commercial areas, action may be taken to replace the bare wires if existing either with AB cable or crossings may be avoided by providing transformers on both sides of the road.

for Member Secretary
Memo No. CEE/O/EC/SL in M/34/96 dt. 6.4.96.

Sub: Saving in lighting load discouraging of external illumination - Reg.

It has come to the notice of the board that decorative lighting is still on. It should be impressed on all the distribution staff, that such violation of instructions will invite disciplinary action. The Divisional Engineers/Operation should be made responsible to oversee this activity. It is desired by the Chairman that wherever such excessive lighting is noticed an entry should be made in the Annual Appraisal Report of the concerned Divisional Engineer/Operation.

Periodical checking should be made whether street lighting is being switched off in time and also whether action has been taken to reduce excessive lighting. All the Superintending Engineers are requested to take necessary action within their jurisdiction to ensure late switching on and early switching off the street lights. Action taken may please be intimated immediately.

Chief Engineer Elecy (Operation)
ANDHRA PRADESH STATE ELECTRICITY BOARD
VIDYUT SODHA: HYDERABAD

CONSULTANT (POWER SUPPLY)

Circular Memo.No.EOP/I/D.No.79 / 96 dt. 11.3.96

Sub: Repair of Power transformers

It is seen that the time lag between the transformer’s failure and entrusting it to Private Agencies for repairs is ranging from 3 to 6 months. This is abnormally high. The power transformers are a very costly equipment and they should not be kept idle for longer period. On receipt of the failure report by Divisional Engineer (Operation), the Divisional Engineer (TR) or Asst. Divisional Engineer (Tr.) should examine the equipment at the Sub station and assess whether the repair is minor or major. If the damages are assessed as minor, the transformer should be shifted immediately to the TRE shed and repairs undertaken within a weeks time. If the repairs are considered major or repair facilities are not available, the repairing agency should be fixed by contacting Chief Engineer (Zone) on telephone and the transformer transported to the Private Agency’s workshop within a week. Chief Engineer should constantly be in touch with repairers and should indicate the name of repairer to TRE staff on telephone when contacted. The Divisional Engineer (TR) should again present at Private Agencies shed when the transformer is opened and list out the damages and authorize the contractor to go ahead with the repairs.

The Chief Engineer(s) are requested to take action on the above lines.

CONSULTANT (POWER SUPPLY)
Sub: Energy Conservation – Wide publicity to be given - Regarding

It is considered that there is enormous scope to reduce consumption of Electricity without appreciably affecting the activities of the consumers. It is also considered that substantial efforts are to be put in by the superintending Engineers and their full staff up to lineman/helper to educate the people on the need to consume electricity most judiciously and save as much energy as possible. In this connection pamphlets have been got printed to be distributed among wide cross section of consumers. Suggestions and scope for conservation of energy have been elaborated in the pamphlet for the guidance of

1. House Wives
2. Shop Keepers, Hotels and Business establishments
3. Industrialists and
4. Agriculturists

The Superintending Engineers/Operation are requested to arrange for distribution of these pamphlets to different categories of consumers covering all villages and towns. It is suggested that pamphlets may be displayed in such a way that all the items in the pamphlets are visible by displaying two pamphlets showing the two sides. The pamphlets may be displayed at all the Government Offices, Board's Offices, public places like Cinema Halls, Bus stations, Railway Stations and in Panchayat Offices of all villages.

The village level, constituency and district level committees may also be appraised of the need to canvas for following the guidelines given in the pamphlets. Special efforts may be made to impress upon the rural youth and prominent persons of the villages to eradicate the menace of unauthorised use of heaters. It is requested to implement strictly the Board's orders banning external illumination and neon sign boards and to switch on only alternate street lights in all urban areas.

Four thousand pamphlets per district are now arranged. If needed the Superintending Engineers may get some more pamphlets printed for distribution in their respective districts. The Superintending Engineers operation are requested to issue suitable instructions to all the Board's offices under their control to switch off lights and fans and use natural light to the extent possible. Board's offices should take the lead role to reduce consumption of electricity. Minimum use of Air Conditioners and coolers should be made as a matter of policy. All arrangements may be made to give wide publicity for conservation of energy.

A.K.KUTTY
Member Secretary
Memo.No.CE(O)-16/F-Misc/D.No.531/ 96, dt. 22.2.96.

Sub: Elecy-Building under neat or in close proximity of power lines - Indian Electricity Act Rules. - Reg.

Ref: 1) Memo No. CE(0)-16/F-Misc/D No 239/95 dt. 19.8.95.
     2) Memo. No. CE(0)-16/F.Misc/D.No 386/95 dt. 27.12.95.

In the Memo No 239 dated 19.8.95 under reference first cited, the zonal Chief Engineers were requested to instruct the field officers to inspect the areas and take necessary action wherever the clearances are not maintained above ground and from buildings in respect of electrical lines of various voltages as per the Indian Electricity Rules to avoid public Hazard.

The zonal Chief Engineer are once again requested to take necessary action in this regard if not already taken.

In the Memo.DNo.386 dt. 27.12.95 under reference second cited, enclosing the relevant extracts of sections of the Indian Electricity Act and Rules, certain instructions on the subject issue were issued for strict compliance.

It may be once again noted that the violation of any of the instructions mentioned there in the above said Memo.D.No.386 dt 27.12.95 will be viewed seriously and treated as dereliction of duty and the officers will be held responsible for any accidents or loss caused to the Board.

For Member Secretary
Sub: Overload distribution transformers - Allotment of distribution transformers for reducing overloading - Reg.


In the above reference, instructions have been issued in regard to identification of overloaded distribution transformers existing as on 31.1.1996.

The requirement of additional distribution transformers may be arrived based on the total authorised loads and the capacity of existing distribution transformers taking village as a unit and re-distribution of loads on the existing and proposed distribution transformers. It is not correct to propose one additional transformer to relieve overloading on each existing unit.

After identification of overloaded distribution transformers, lists may be prepared based on the percentage of overloading say 200% overloading, 175% overloading 150% overloading and 125% overloading etc.

While allotting distribution transformers for reducing overloading, priorities may be followed based on the percentage of overloading. If distribution transformers of same percentage of overloading are existing in the various Assembly Constituencies, proportionate allotment of distribution transformers may be made to all the constituencies.
Regularisation of unauthorised Agricultural connections and unauthorised excess connected LT Agricultural loads


PROCEEDINGS:

The practice of regularisation of unauthorised Agricultural connections was stopped with effect from 24.5.95 as per Memo. No.CEE/RE/El/A5/1/D. No. 109/95 dated 24.5.95. A number of representations are received by Board to continue regularisation of unauthorized Agricultural connections and unauthorized excess connected LT Agricultural loads.

After careful considerations the following instructions are issued.

1. Unauthorized LT Agricultural connections may be regularised by Collecting Rs 10,000 upto 5 HP and Rs.2,000/- for every additional HP or part thereof over and above 5 HP towards service line charges and Rs.400/- per HP towards penal charges till 31.3.1996.

2. Unauthorised Services may be regularised after 1-4-96 by collecting Rs 3,000/-per HP towards Service Line Charges and Rs.500/- per HP towards penal charges.

3. Unauthorised excess connected loads of existing LT Agricultural service may be regularized by collecting Rs.2,000/- per additional HP towards service Line Charges and Rs.400/- per HP towards penal charges till 31.3.96.

4. After 1-4-1996, unauthorised excess loads in existing LT Agricultural service may be regularised by collecting Rs.3,000/- per additional HP or part thereof as Service Line Charges and Rs.500/- per HP towards penal charges.

Unauthorised Agricultural Services identified, regularised and amounts collected shall be reported every month along with MIS returns.

(BY ORDER AND IN THE NAME OF THE ANDHRA PRADESH STATE ELECTRICITY BOARD)

A.K.KUTTY
Member Secretary
Memo No.: CEO-16/P-Misc/D.No.378 / 95 dt. 19.12.95

Sub: Elecy:- Failure of village transformers - Sanction of transformers for the over loaded village transformers - Certain instructions issued - Reg.


A xerox copy of letter D No. 122-C3, dt. 1.12.95 or Superintending Engineer/Operation Circle/ Nizamabad under reference cited with Member/Distribution remarks thereon is enclosed herewith.

Member/Distribution has remarked as below:

"No Improvement transformer if there are arrears. Please issue instructions."

The Superintending Engineer/Operation Circle/Nizamabad is requested to take necessary action in the matter.

CHIEF ENGINEER ELECTRICITY
(OPERATION)
Sub: Distribution Transformer Structures - Minimum Clearances to be provided - Reg.

It is observed that necessary clearance above ground level are not obtained when Distribution Transformers are erected on single pole. It is desirable to go in for DP. Structure wherever there is provision of space. The minimum clearance of live parts to ground should be 12 feet. The bottom most portion of any insulator or bushing in service should be 8 feet above ground level. These minimum clearances should be maintained.

The Chief Engineers/Zones arc requested to erect D.P. Structures for Distribution Transformers particularly in Rural Areas, wherever there is provision of space. Where there is no provision of space at least guarding should be provided around the transformer structure.

The Distribution boxes in most of the existing cases are not having doors. Action should be taken to provide door to the Distribution Boxes with automatic locking arrangement.

From: The Member Secretary
A.P.S.E.Board
Hydeabad.

To: All Chief Engineers,
Zone
A.P.S.E.B.

ENSURE BILLING AND COLLECTION OF CAPACITOR SURCHARGE ON AGRICULTURE SERVICES WITHOUT CAPACITORS FORTHWITH, DULY ISSUING PROPER NOTICES AND ALSO REPORT COMPLIANCE.

Sd/
MEMBER SECRETARY

ANDHRA PRADESH STATE ELECTRICITY BOARD
VIDYUT SODHA: HYDERABAD

Office of the
Chief Engineer Elecy,
Operation.

Endt. No. CE(O) 16/F.Misc/D.No.241 /95 dt. 19/8/1995
Post copy in confirmation.

for MEMBER SECRETARY
Sub: Elecy-Awarding of works contracts - Reg.

Ref: - 1. MEMO NO. CEO-16/F-O & M/D.NO.87/95. dt. 4-2-95.
      2. MEMO NO. CEO-16/F-O & M/D.NO.92/95. dt. 20-2-95.

In the reference first cited above orders were issued to stop awarding of O&M works in distribution by way of Chit and K2 agreements till further orders.

Several field officers have represented that awarding of O&M contracts is inevitable as the staff are in adequate particularly during the emergencies

Board after careful consideration approved the awarding the chit and K2 agreements for O&M of distribution subject to the following.

1) Only D.Es should enter into Chit and K2 agreements.
2) Bills towards these agreements should be submitted to the concerned S.E.(O)
3) The S.E. (O) should maintain a record of the No. of agreements entered into and examine the need for such agreements before clearing for payment.
4) Further Division-wise O&M estimates should be prepared and approval of C.E./Zone taken. The C.E./Zone should consolidate the requirement of cash grants division-wise and submit to the C.E.(Operation) for arranging necessary cash grants.

N.S. HARJHARAN
Member Secretary
ANDHRA PRADESH STATE ELECTRICITY BOARD

From:
Chief Engineer Elecy.
( Operation)
Vidyut Soudha,
Hydeabad.

To:
Chief Engineer,
/Zone

Lr.NO.CEO-16/F. O & Estmiates/D.No.213 / 95 dt. 14.08.95

Sir,


It is brought to the notice of Board that O&M estimates of distribution system are not prepared and got sanctioned by field officers with the result cash grants required for O&M works arc neither requested for nor allotted.

All the field officers may be informed that they have to prepare a comprehensive O&M estimate for each division and get it sanctioned by the Chief Engineer/ Zones. The list of material required for O&M and cash grams required for each Division have also to be indicated with O&M estimates. The Chief Engineer/Zone shall consolidate the requirements of cash grants division wise and submit it to Chief Engineer/Operation for arranging the same.

Immediate action may be taken and report before 15.9.95.

Yours faithfully,
for Chief Engineer Electricity
( Operation)
Sub: Furnishing of location of Section Offices - Reg.

All the Superintending Engineers (Operation) are requested to furnish the following information by return of post.

1. Name of the Section Offices available in the 33/11 KV Sub-station premises.
2. Name of the Section Offices located other than in 33/11 KV Sub-station (with locations)
3. Whether the Section Office is in Board buildings or hired buildings with the amount of rent being paid.

The information may be treated as very urgent.

CHIEF ENGINEER ELECTRICITY
(OPERATION)
Memo.No.CEO-16/F-Misc/D/No.186/95.dt. 12.7.95.


It is observed that in the process of development, (here have resulted a huge No. of L.T. line crossings on main roads in cities/towns (including twin cities). Though, subsequently No. of LT lines and distribution transformers have come up on both the sides of the road, there seems to be no effort to review and remove the LT line crossings that could be done without suffering technical parameters and regulations. With some study and very little effort it should be possible to reengineer the LT lines on both sides without much additional material so as to remove a No. of LT line crossings which look clumsy and are prone to cause avoidable accidents due to snapping of conductors, especially during hilling of poles by vehicles. Others that cannot be removed may be converted to AB Cable crossings. In the case of 11 K V line crossings, guardings may be provided.

These instructions may be communicated to all section officers to start with a crash programme to reduce such of those LT line crossings which could be removed and converting the balance to AB Cables as explained above and a compliance report be sent as a part of M.I.S. Report for the months of July, August & September’95 by which time they should achieve maximum results.

Chief Engineer Electricity
(OPERATION)
B.COMMERCIAL
Sub: Theft of Energy - Lodging prosecution complaint with Police - Proforma

It is brought to the notice of Board, that there are number of unauthorised connections in Domestic and Commercial Sectors apart from the Industrial & Agricultural Sectors. It is also noted that the prosecution of the cases has not been initiated in many cases and the prosecutions actually launched under the law were not given due publicity. Thus the objective to take deterrent penal action in the enactment against theft of energy could not be achieved. It is therefore necessary to focus the attention for launching prosecution as early as possible under Section-39 of I.E. Act, 1910 to have a deterrent effect on the section of the Society which is resorting to theft of energy.

2. The A P.S.E.Board officials undertook intensive drive against theft of energy in the recent past. The Board recently authorised the Assistant Engineers/Addl. Assistant Engineers also to book pilferage of energy in LT categories other than Industrial Category. The Assistant Engineers/Addl Assistant Engineers were already authorised under Section-50 of I.E. Act, 1910 earlier, to lodge complaint with police vide B.P. (V&S) Ms.No. 8, dt. 27.11.1993.

3. With a view to streamline the procedure for lodging the complaints and arranging prosecutions quickly the APSE.Board prescribed the formal of complaint on theft of energy as indicated in the Annexure enclosed herewith. The Zonal Chief Engineers, Superintending Engineers/Operation are requested to communicate this format to all Engineers up to Section Officers level and ensure that the complaints are lodged with the police promptly by all the Officers who detect the pilferages of energy.

Encl. Annexure

A.K.KUTTY
Member Secretary
From: The S.H.O.

To: ________________ Police Station.

________ Circle

_______ Dt.

LR. No __________________________________________________

Sir,

Sub:- Theft of energy by _______________________________ of

________________ Village ____________________ Mandal

________ District. Lodging of prosecution complaint – Reg.

I along with ____________ have inspected the premises bearing
number _______ of __________ village _________
ANDHRA PRADESH STATE ELECTRICITY BOARD

ABSTRACT

B.P. (Opn. – Comml.) Ms. No. 52 Date: 3-10-1997.

Read the following :-

1. B.P. Ms.32 (Opn-Comml), Dt.29-7-96.

ORDER:
In exercise of powers conferred under Section 49 of the Electricity (Supply) Act. 1948 and Contractual. Statutory and other powers hereunto enabling, the Andhra Pradesh State Electricity Board here by issues following amendments to the tariff notified in the B.P. I st read above as amended from time to time.

AMENDMENT
Under HT Category-III applicable to all HT power Intensive Industries, in Part-A of HT Tariff of the said B.P, add Zine as item No. 12 in the list of products mentioned The existing para No. 12 shall hence be read as para 13.

2. The above amendment shall come into force with immediate effect.
3. The Zonal Chief Engineers/Electricity, Superintending Engineers are requested to take further action accordingly.

(BY ORDER AND IN THE NAME OF THE A.P.S.E.BOARD)

A.K.KUTTY,
MEMBER SECRETARY
ABSTRACT

Sale of Energy to persons other than Licensees occurrence of pilferage of energy on Domestic/ Commercial Sectors - Introduction of Voluntary Regularisation Scheme on pilferage of energy-Orders- Issued.

ORDER:

1. The A.P.S.E.Board has been entrusted with the duty of Generation, Transmission and Distribution of electrical energy to the consumers in the most economical and efficient manner in Andhra Pradesh under the Provisions of Section-18 of Electricity (Supply) Act, 1948. The A.P.S.E.Board notified the Terms and Conditions of Supply to the consumers other than Licensees, under the powers vested in the Board under Section-49 of Electricity (Supply) Act, 1948, vide B.P.Ms.No 690. dt 17.09.1975 and the same are in force as amended from time to time. These conditions among other things, contain the Provisions for detection of pilferage, assessment of the loss and the recovery of loss sustained by the Board apart from the liability for prosecution for the offence under Section-39 of I.E. Act, 1910. The A.P.S.E.Board made extensive arrangements for detection of pilferage of energy by setting up Detection of Pilferage of Energy (D.P.E.) Units in each District and also set up Anti Power Theft Squads (A.P.T.S.) for prosecution of cases. The intensive raids conducted by the officials of the Board have revealed widespread pilferage of energy in the L.T. Sector particularly in the Domestic & Commercial categories.

2. The A.P.S.E.Board after careful consideration has decided to introduce a scheme of Voluntary Regularisation of pilferage of energy by consumers of Domestic/ Commercial category so as to enable those indulging in pilferage of energy to get their connections regularised by paying a nominal penalty and without being subjected to prosecution and other proceedings contemplated under the Terms & Conditions of Supply notified by the Board. The details of the Scheme are as follows.-

   i. The persons who opt for the scheme and comply with conditions specified herein. will not be prosecuted under Section-39 of I.E. Act, 1910.

   ii. The scheme will be limited to L.T categories of domestic and non domestic/commercial services.
iii) The compensation charge for pilferage of energy are prescribed at the following rates:

<table>
<thead>
<tr>
<th>Connected Load</th>
<th>Domestic Category</th>
<th>Non-domestic and Commercial Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upto 250 W</td>
<td>Rs. 1000/-</td>
<td>Rs. 2500/-</td>
</tr>
<tr>
<td>Above 250 W</td>
<td>Rs.2000/-</td>
<td>Rs.5000/-</td>
</tr>
<tr>
<td>Upto 500 W</td>
<td>Rs.4000/-</td>
<td>Rs.10000/-</td>
</tr>
<tr>
<td>Above 500 W</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Above 1000 W</td>
<td>Rs.4000/-+Rs.4000/-</td>
<td>Rs. 10000 + 10000/-</td>
</tr>
<tr>
<td>1000 W</td>
<td>per every additional KW</td>
<td>per every additional KW or part thereof.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

iv) The existing consumers who are having Service connections and committing pilferage of energy and opting to avail the facility of this Scheme, have to pay the above compensation charges only, without liability for any further proceedings under the existing Terms & Conditions of Supply.

v) The persons who do not have regular service connections and committing pilferage of energy and who opt to come under this Scheme, will be required to pay the above compensation charges plus the normal charges to be paid for new connections as per Board Rules.

vi) The consumer shall give an undertaking that he will not commit theft of energy in future and in case he commits such offence, he is liable for the punishments as per law. apart from compensating the Board for the loss.

vii) The Scheme will be in operation for a period of one month i.e. from 1st October, 1997 to 31st October, 1997

3. The persons who want to opt for this Scheme may approach the concerned Assistant Engineer/A.A.E. (Operation) or Assistant Divisional Engineer (Operation) or Divisional Engineer (Operation) for giving the option for the scheme.

4. The concerned A.E./A.E. shall inspect the premises and will give a notice to the person indicating the compensation charges payable under this Scheme on the spot and collect as per Board Rules.

5. On payment of the compensation charges and the amounts payable for the release of new service as per Board rules wherever new service connection is to be released, the consumer will be provided with regular service connection.

(BY ORDER AND IN THE NAME OF THE A.P.S.E.BOARD)

A.K.KUTTY
Member Secretary.

Sub: Energisation of PWS schemes - Reconciliation and follow up of action by the Superintending Engineers/Operation - Regarding.


The attention of the superintending Engineers/Operation is drawn to the reference cited where in they were requested to reconcile the status of electrification of PWS schemes with their counterpart parts of P.R. Department and to take up urgent necessary action in energisation of the same for which all necessary charges are paid by P.R. Department. They were also requested to intimate the status of energisation of PWS schemes to this office for apprising the Government and higher authorities of the Board. But no information is received so far. Time and again it is to inform that this is an important issue for which the Chairman and Member (Distribution) are very particular in expediting the electrification and seeking the information. Superintending Engineers/Operation are once again requested to inform the status of energisation of PWS schemes and include the same in the MIS reports being sent to the Board.

For Chief Engineer, Elecy.
Rural Electrification.
Sub: Terms & Conditions of Supply - Amendment to Clause-39.4 authorisation for detection of theft/pilferage of energy in LT service other than LT. Industrial Category to Assistant Engineers/Additional Assistant Engineers - Reg.

Ref: B.P. Ms No.45, dt. 6-9-1997.

***

The A.P.S.E.Board authorised the Assistant Engineers/Additional Assistant Engineers to detect the pilferage of energy in respect of all categories of LT supply except LT. Industrial Category vide B.P.Ms. No.45, dt. 6-9-1997, a copy of which is herewith enclosed.

All Zonal Chief Engineers and Superintending Engineers (Operation) are requested to communicate these orders to all the Assistant Engineers/Additional Assistant Engineers in their jurisdiction and ensure that these officers exercise the powers vested with them to detect pilferage of energy under LT Catgeories. This may be treated as most urgent.

(Sd)
K.S.N. MURTHY
for Member Secretary
B.P.(Opn-Comml) Ms.No.45

Dt. 6-9-97

Read the following:-

1. B.P.Ms.No.690, dt. 17-9-75

ORDER

In exercise of the powers conferred by Section 49 of Electricity (Supply) Act, 1948, (Central Act. No. 54 of 1948) and of all contractual, statutory, and other powers hereunto enabling, the Andhra Pradesh State Electricity Board doth hereby notify the following amendments to the Terms and Conditions of Supply issued with B.P.Ms.No.690, dated the 17th September 1975 read above as amended from time to time.

AMENDMENT

1. The existing Clause 39.4 shall be substituted by the following namely:

Continue....
39.4: Officers authorised to inspect and deal with, cases of malpractice and pilferage of energy are as indicated below:

<table>
<thead>
<tr>
<th>SI: No</th>
<th>Particulars</th>
<th>Officer or officers authorised</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>To inspect the premises and make provisional assessment</td>
<td>To disconnect and issue provisional assessment notice to the consumer</td>
</tr>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
</tbody>
</table>

1. **L.T. Services**
   i) All LT Categories excluding industrial/cottage industries
      Detection of malpractices including pilferage of energy
      - AE/AAE
      - ADE, DE
      - ADE in-charge
      - Of distn.
      - DE
      - SE
      - Asse ssments
      - Asses sments
   ii) Industrial including Cottage Industries
      a) Detection of Malpractices & Pilferage of energy
         - AE/DPE
         - ADE, DE
         - & SE
         - -do-
         - SE
         - Asse ssments
         - GE/O/ Zone
      b) Detection of only Malpractice
         - AE/AAE
         - -do-
         - SE
         - CE/O/ Zone
         - Asse ssments
         - Assessmen ts

2. **HT Services including temporary Supply**
   - ADE, DE
   - & SE
   - -do-
   - SE
   - CE/O/ Zone
   - Assessmen ts

Note: The Board may in its discretion allot to various Officers or transfer cases/or appeals pending on the file of one officer to another officer of equal or higher rank without notice to the consumer/appellant.

2. The above amendment shall come into force with immediate effect.

3. All the Field Officers are requested to take necessary action for detection, assessment and finalization of cases accordingly.

(BY ORDER AND IN THE NAME OF THE A.P.S.E.BOARD)

A.K.KUTTY
Member Secretary.
Memo.No.CE(O)-16/O&M/D.No.670/97, Dt.12.6.97

Sub: Multiple services in same premises - Reg.
Ref: Board Memo No.CE/Coml/AE/T&C/Gcnl/D.No.325/97, dt. 16.5.97

Instructions have been issued in the minutes communicated after CEs/SEs conference held at Hyderabad, Vijayawada & Muddanur regarding clubbing of multiple services at the same premises under the same category. Detailed working instructions in this regard have been communicated in the Board Memo cited.

To start with all Industrial and Commercial services should be covered within one month. The meter readers shall report the cases of multiple services existing in the same premises in respect of Industrial and Commercial categories before 15.7.97. The information may be retained with D.Es and abstract of number or services may be sent to SE(O), CE/Zone and CE(O) Hyd.

If cases not reported till 15.7.97 are found existing after that date, disciplinary action shall be taken on the concerned meter reader.

Encl. proforma

for member Secretary

To

All S.Es (Operation)

PROFORMA

<table>
<thead>
<tr>
<th>SL No.</th>
<th>Category No.</th>
<th>No.of premises with multiple services in the same premises</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2 Services 3 Services 4 Services &gt; 4 Services</td>
</tr>
<tr>
<td>1.</td>
<td>Indl.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Comml.</td>
<td></td>
</tr>
</tbody>
</table>
ABSTRACT
Electricity - HVDS for Village Distribution System and Segregation of agricultural loads - orders – Issued.

B.RMs.No.17

Date: 27-5-97.

Read the following: -
Ref: Board's Resolution No. 14 dated 12-4-97.

The A.P.S.E.Board has decided to change over in a phased manner existing low voltage distribution system in the village proper catering domestic, commercial and other non-agricultural services to High Voltage distribution system by erection of single phase transformers to prevent direct tapping of LT network and also segregate agricultural loads from the other loads.

All the Zonal Chief Engineers are requested to implement these instructions accordingly. The estimates for the HVDS works may be got sanctioned from competent authority under Board's T&D funds.

(BY ORDER AND IN THE NAME OF THE APSE.BOARD)

A.K.KUTTY
Member Secretary
Sir.

Sub: Inspection of H.T. services to check the availability of L.T. services in the same premises - Reg.

Ref: Lr.No. CE(O)-16/D.No.556/97, dt.24.5.97 Minutes of Meeting on 14.5.97 with Rayalaseema region CEs/SEs.

ATTENTION IS INVITED TO item 10 of reference cited regarding separate L.T. services in premises having H.T. services.

All Divisional Engineers and Assistant Divisional Engineers in charge of H.T. services shall inspect and report on availability of L.T. services along with HT in the same premises. Superintending Engineers (Operation) are responsible to collect the details and furnish the same to Chief Engineer (Operation) and I.G.P. & Advisor (V&S) by 5.6.97 POSITIVELY.

If both L.T & H.T. services are found existing in the same premises at a later date and not reported; severe disciplinary action will be initiated against the concerned officers.

Yours faithfully

Chief Engineer Electricity (Operation)
From
Chief Engineer Elecy. (Operation)
Vidyut Soudha
Hyderabad - 49.

To
Chief Engineer/Zone

Lr.No.CE(O)/F.Misc/O&M/D.No. 546/97. dt. 24-5-97

Sir.

Sub: Inspection of H.T. services to check the availability of L.T. services in the same premises - Reg.

Ref: 1. Lr.No. CEO-16/F.Meetings/O&M/D.No.376/97, dt.21.4.97 Minutes of Meeting on 19.4.97 with Telengana region CEs/SEs.
2. Lr.No. CEO-16/D.No.151/97, dt.25.4.97 Minutes of Meeting on 22.4.97 with Andhra region CEs/SEs.

ATTENTION IS INVITED TO item 10 of reference (1) cited and item (10) of reference (2) cited regarding separate LT services in premises having HT services.

All Divisional Engineers and Assistant Divisional Engineers in charge of HT services shall inspect and report on availability of LT services along with HT in the same premises. Superintending Engineers (Operation) are responsible to collect the details and furnish the same to Chief Engineer (Operation) and I.G.P. & Advisor (V&S) by 31.5.97 POSITIVELY.

If both LT & HT services are found existing in the same premises at a later date and not reported: severe disciplinary action will be initiated against the concerned officer.

Yours faithfully

Chief Engineer Electricity (Operation)
Memo.No.CE(COMML)AE/T&C/GENL/325/97, Dt.16.5.97

Sub: Release of Service Connections - Release of more than one service connection in the same premises - Loss of Revenue to Board - Restrictions on release of more than one service in a premises - Instructions - Issued - Reg.

It is brought to the notice of the Board that number of services are being released in the same premise especially in the LT Domestic, Commercial and Industrial Categories. This is resulting in loss of revenue to the Board in view of the graded tariff structure applicable for different levels of domestic consumption. Indiscriminate release of multiple services in the same premises is resulting in substantial loss of revenue to the Board and should be discouraged. The following instructions are issued in this regard for strict adherence:

a) Only one service connection should be released in a premises having a Single Door No. of Local or Survey Field No./Sub-divided Field No.

b) If any consumer applies for second service connection in the premises under; same Door No/Sub- door No/Survey Field No./Sub-divided Survey Field No., the written approval of the authorities mentioned below is to be obtained before releasing the second service:

1) Single Phase Domestic Service - Asst. Divisional Engineer/Operation
2) Three Phase Domestic Service and other LT Categories excluding Industrial - Divisional Engineer/Opn
3) LT. Industrial - Superintending Engineer Operation
4) H.T. Category - Chief Engineer/Zone

c) The authorities mentioned above have to verify and satisfy themselves that the two premises are permanently, physically separated and record the same in writing while giving the approval for second service.

d) Where multiple services of the same category are found existing in the same premises, it is necessary to club such services into a single service to safeguard the revenues of the Board. The Field Officers are requested to locate such services in their jurisdiction and club them into a single service. The staff and officers who are responsible for meter readings shall also be responsible for reporting the existence of multiple services of the same category in the same premises for reporting to the competent authorities for regularisation.

All the Zonal Chief Engineers and all the Field Officers are requested to follow the instructions scrupulously and report compliance.

A.K.KUTTY
Member Secretary
ABSTRACT
OWN YOUR TRANSFORMER SCHEME - REVISION -ORDERS ISSUED

B.RMs.No.(Opn) 14  Date: 16-5-97.

Read the following: -
Ref: 1) Memo No. CEE/C&SS/F.QYT/D.No. 544/95 dt. 15.7.95
   2) Memo No. CEE/C&SS/F.QYT/D.No. 635/95 dt. 18.8.95

A P.S.E.Board has formulated a voluntary scheme known as "Own Your Transformer" vide references cited in order to reduce the failure rate of Distribution Transformers and to provide better Quality of service to the consumers with their participation in checking the unauthorised connections. Under this scheme the Board has formulated two schemes viz.,

a) Where the consumers subscribe 50% cost of the transformer, the Board will bear all the necessary costs in connection with commissioning of the transformer and the amount paid by the consumers will be treated as voluntary contribution and

b) Where consumers subscribe 100% cost of a transformer, the Board will bear the expenditure of cost of extension and accessories and the amount paid by the consumers will be adjusted against the future current consumption charges

In partial modification of the 'OYT' scheme presently in vogue, the OYT scheme has been revised to the extent as hereunder

a) 50% OYT Scheme

The 'OYT' now envisages consumers contribution of 50% cost of transformer along with 50% cost of all the materials required for installation & commissioning of transformer. The cost of labour, transport and supervision charges will be excluded. The consumer will be requested to provide Shramadanam to the extent possible to cover labour and transport portion.

The amount paid the by the consumer under 50% OYT scheme will be treated as outright contribution

b) 100% OYT Scheme

Under this scheme the consumer has to pay 100% cost of transformer and all the materials required for installation and commissioning of transformer or he shall get the work executed on turnkey basis. 50% cost of transformer and materials will be adjusted against future energy bills and balance 50% will be treated as outright non refundable contribution. (i.e., under 100% OYT scheme, for a 100 KVA DTR, Rs.85,000/- will be adjusted against future energy bills and for a 63 KVA DTR, Rs.75,000/- will be adjusted against future energy bills.)
In the OYT scheme modified now, the amount to be collected is indicated below.

<table>
<thead>
<tr>
<th></th>
<th>Revised amount to be 50% scheme</th>
<th>Collected 100% scheme</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 KVA DTR</td>
<td>Rs. 85,000/-</td>
<td>Rs 1,70,000/-</td>
</tr>
<tr>
<td>63 KVA DTR</td>
<td>Rs 75,000/-</td>
<td>Rs 1,50,000/-</td>
</tr>
</tbody>
</table>

These orders will come into effect from the date of this B.P.

These orders arc issued with the concurrence of Member (Accounts) vide U.O.No 1665/MA/97. dt.15.5 97.

(BY ORDER AND IN THE NAME OF A.P.S.E.BOARD)

A.K.KUTTY
Member Secretary
ORDER

1. The Committee on Public Undertakings of Tenth Legislative Assembly 1995-96, examined the procedure for granting of instalments by A.P.S.E.Board in the context of the non-recovery of arrears of C.C. charges amounting to Rs. 1.69 crores from M/s Sri Lakshmi Saraswathi Paper Mills, Neela, Nizamabad and made the following recommendations.
   I) The Government may specify maximum number of instalments that can be given in any case and the authority empowered to do so. The Government may also specify the minimum percentage of dues to be paid before re-connection is ordered in case the supply was disconnected.
   II) The Board shall take all necessary steps to avoid recurrence of such cases leading to non-realisation of huge arrears.

2. The A.P.S.E.Board in consultation with Government of Andhra Pradesh decided to stipulate the following procedure for granting instalments keeping in view the recommendations of the Committee on Public Undertakings, in supercession of orders issued in the reference cited.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Particulars</th>
<th>Maximum Number of Instalments</th>
<th>Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>L.T. SERVICES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(a) Dues of C.C. charges upto Rs.5000/-</td>
<td>3</td>
<td>Asst. Accounts Officer (ERO)</td>
</tr>
<tr>
<td></td>
<td>(b) Dues of C.C. charges above Rs.5000/-and upto Rs.25000/-</td>
<td>3</td>
<td>Superintending Engineer (Opn)</td>
</tr>
<tr>
<td>2</td>
<td>Consumers whose C.C. charges dues are above Rs.25000/-</td>
<td>3</td>
<td>Chief Engineer/ Zone</td>
</tr>
<tr>
<td></td>
<td><strong>H.T. CONSUMERS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td>Non-BIFR cases</td>
<td>3</td>
<td>Member (Accounts)</td>
</tr>
<tr>
<td>b)</td>
<td>BIFR cases (Current dues)</td>
<td>3</td>
<td>Member Secretary</td>
</tr>
<tr>
<td>c)</td>
<td>Cases seeking more than three Instalments in (a) or (b)</td>
<td>6</td>
<td>Chairman</td>
</tr>
</tbody>
</table>
3. The following guidelines shall be followed while granting instalments as above:

i) No further instalments shall be permitted unless the instalments schedule granted earlier is fully complied with.

ii) The dues at any point of time shall not be more than the consumption deposit available with the Board.

iii) In cases where supply is under disconnection, the reconnection should not be permitted unless a minimum of 30% of the dues are paid as the first instalment.

iv) Written consent should be taken from the consumer for payment of additional charges as per Clause-32.2.1 and interest charges as per Clause-34(a) of the Terms & Conditions of Supply. The additional charges/interest charges payable for instalment of previous month shall be collected along with the instalment of current month. In the case of last instalment the same shall be collected along with the next C.C.bill.

v) Extension of time payment of C.C. charges beyond the due date specified in the bill, without disconnection, shall be considered as single instalment and attracts interest charge as per Clause-34(a) of Terms & Conditions of Supply, apart from additional charges.

4. The above orders should be implemented scrupulously.

(By ORDER AND IN THE NAME OF A.P.S.E.BOARD)

A.K.KUTTY
Member Secretary
ANDHRA PRADESH STATE ELECTRICITY BOARD
VIDYUT SOUDHA, HYDERABAD - 500 049

ABSTRACT

R&C Orders, 1997 - Imposition of Restriction on use of electricity by consumers - Amendment to B.P. Ms. No. 161 dt. 10-2-97 – Orders – Issued.

B.P.(Opn.-Comml.) Ms.No.10 Date: 7.5.97

Read the following:

1. B.P.(Opn.-Comml) Ms.No. 16 ldt: 10-2-97
2. B.P.(Opn -Comml) Ms.No. 163 dt: 19-2-97

ORDER

In exercise of the powers under Clause-41 of the Terms and Conditions of Supply notified by it under section-49 of Electricity (Supply) Act, 1948, and all other contractual, statutory and other powers here unto enabling the A.P.State Electricity Board here by issues the following amendments to the B.P.Ms.No. 161, dt. 10-2-1997 as amended from time to time.

AMENDMENT -1

The existing Clause No.9 shall be substituted by the following, namely:

9. Based upon the categories mentioned in clause 5 above, and the definition of Base Demand and Base Energy as mentioned in Clause 7 and 8 above, the following restrictions will be imposed:

   Category A : No Restriction
   Category B : No Restriction
   Category C : No Restriction

Category D:

<table>
<thead>
<tr>
<th>Demand Cut</th>
<th>Energy Cut</th>
</tr>
</thead>
<tbody>
<tr>
<td>20%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Demand Quota

\[
2000 + (\text{Base Demand} - 2000) \times \frac{80}{100}
\]

Energy Quota

\[
(2000/\text{CMD}) \times \text{Base Energy} \times \frac{80}{100}
\]

AMENDMENT -2

The existing Clause No. 16 shall be substituted by following, namely:

1. During the period power restrictions are in force, the consumers shall be billed at tariff rates applicable, provided they do not exceed the quotas fixed. The Board shall bill the Energy and Maximum Demand in excess of the quota fixed, at one hundred and twenty percent (120%) of the normal tariff rates. The power supply shall be disconnected if the consumers do not pay at 1.2 times the normal tariff rates for the excess consumption over the quotas.

2. The above amendments come in force with effect from 10-5-97.

3. For this purpose the meter readings shall be taken on 10-5-97 and MD indicators shall be reset to zero for all HT services whose CMD is above 500 KVA.

4. The Superintending Engineers/Operation are requested to work out the revised monthly quotas for May’97 consumption month in respect of consumers whose CMD is above 2000 KVA, with revised levels of power cut on prorata basis, for the balance period of May’97 consumption month, along with the monthly quotas from June 97 onwards and communicate the same to the HT consumers.
whose CMD is above 2000 KVA before taking the meter readings on 10-5-97 and obtain acknowledgement from the consumers.

5. The billing for HT consumers with CMD from 501 KVA to 2000 KVA shall be as per actuals for the consumption month of May 97.

6. The Zonal Chief Engineers, Superintending Engineers (Operation) are requested to take further action accordingly.

(By ORDER AND IN THE NAME OF A.P.S.E.BOARD)

A.K.KUTTY
Member Secretary
D.O.Lr.No.CE(O)/F.Cores/D.No.106/97 Dt.5.5.97

Dear Sri,

Sub: Detection of Unauthorised Agricultural services – Regarding

Ref: 1) Lr.No. IGP&A/DPE/HYD/F.UAS/D.No. /97 dt. 21.2.97
     2) D.O.Lr.No.CE(O)/F.cores/D.No. 76/97 dt.26.3.97
     3) D.O.Lr.No.CE(0)/F.Cores/D.No.79/97 dt.26.3.97

I invite your attention to the references cited above wherein you are asked to submit the raids conducted with regard to checking of agricultural and other services. A proforma was communicated in this office reference (2) cited.

On 15.3.97 Member (Secretary) has issued clear instructions to list out all the unauthorised agricultural connections detected during inspections for follow up action by way of disconnection soon after harvest. As per the action plan already communicated the drive has to be conducted every month from 2nd to 10th. Hence, the Mandal wise raids conducted for the month of April 1997 from 2.4.97 to 10.4.97 may be sent by return fax to this office forthwith. If no raid is conducted a Nil report may be submitted. This information is very urgently required for review by the Hon’ble Chief Minister. Any laxity in this regard will have to be reported to the Government. The information may be sent in the proforma communicated.

With best wishes,

Yours sincerely,

(B.S.PETER)
# PROFORMA

## PROGRAMME OF SPECIAL CHECKING OF AGRICULTURAL SERVICES

### NAME OF THE CIRCLE

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>No. of teams formed</th>
<th>Date of Inspection from 11.2.97</th>
<th>Name of village Inspected</th>
<th>No. of Agricultural services Inspected</th>
<th>No. of Unauthorised Agricultural service Detected</th>
<th>Provisional assessment made</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. of cases booked by APTS</th>
<th>No. of cases booked by local Police</th>
<th>Worst areas found during Inspection</th>
<th>Whether assistance from local Police was sought. If Yes, their response</th>
<th>Illegal domestic services disconnected.</th>
<th>Heaters &amp; stoves Destroyed</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
</tr>
</tbody>
</table>
Service Line Charges and Development Charges - Release of New Low Tension and High Tension Services and Additional loads in existing services - Revised rates of Service Line Charges - Orders – Issued

B.P. (Opn-Comml) Ms.No.8 Dt: 28.4.97

Read the following:

1. B.P. (Opn-Comml) Ms.No.263, dt.28-2-96
2. B.P(Opn-Comml)Ms.No.16, dt25-5-96
3. B.P(Opn-Comml) Ms.No. 106, dt.21 -9-96
4. B.P.(Opn-Comml) Ms.No. 149, dt.4-11-96

PROCEEDINGS:

1. In the B.Ps, read above, the Andhra Pradesh State Electricity Board notified the revised “Unit Rates” of Service Line Charges and Development Charges payable by prospective consumers for new and additional loads. The Andra Pradesh State Electricity Board reviewed the “Unit Rates” of Service Line charges consequent to revision of cost data and decided to enhance the “Unit Rates” of Service Line Charges. The Board also reviewed the rates of Development Charges and decided to retain and continue the existing rates of Development charges. Accordingly the A.P.S.E. Board in exercise of powers conferred by section 49 and section 79(j) of Electricity (supply) Act, 1948 (Central Act. No.54 of 1948) read with Clause - VI of the Schedule to the Indian Electricity Act, 1910 (Central Act No 9 of 1910), hereby notify the revised “Unit Rates” of Service Line Charges for the purpose of Clauses 7 of the Terms and Conditions of Supply in supercession of the rates notified in the B.Ps. read above and also notify the rates of Development charges to be continued for the purpose of Clause 8 of the Terms and Conditions of Supply.

2. The Development Charges and Service Line Charges payable by different categories of consumers for new/additional loads are indicated in the " Annexure-I" enclosed to this order.

3. These rates of Development Charges and Service Line Charges shall be applicable for those who pay the Development Charges and Service Line Charges on or after the date of this order.

4. The service connection cable required for release of service shall be provided by consumer.

5. The Development Charges notified are applicable in the case of temporary services also, where the period of temporary service is for more than ten days.

6. The policy of release of new Agricultural services is yet to be notified by Government along with the Service Line Charges and development charges to be collected in respect to LT Agricultural connections. The same will be notified separately.

7. The zonal Chief Engineers and Superintending Engineers (Operation) are requested to take further necessary action accordingly.

(By Order and in the name of the APSE. Board)

A.K.KUTTY
Member Secretary
## ANNEXURE - 1
Service Line Charges & Development Charges for New services and/ or Additional load on the existing services

<table>
<thead>
<tr>
<th>Tariff Category</th>
<th>Category of Service</th>
<th>Development Charges</th>
<th>Service Line Charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>H.T.</td>
<td>H.T. Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rs. 1,500 per KVA or</td>
<td>11 KV Line</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Part thereof, of the</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td></td>
<td>33 KV Line</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td></td>
<td>132 KV Line</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Estimated cost</td>
<td></td>
</tr>
<tr>
<td>L.T – I</td>
<td>Domestic services</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>i) Upto 250 Watts</td>
<td>A) For SC/ST – Rs. 100/-</td>
<td>a) UG Cable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B) For other-Rs. 300/-</td>
<td>extensions</td>
</tr>
<tr>
<td></td>
<td>ii) Upto 251 Watts to 1000 watts</td>
<td>Rs. 1,000 per service</td>
<td>b) LT OH Line</td>
</tr>
<tr>
<td></td>
<td>iii) Above 1000 Watts</td>
<td>Rs.1,000 + Rs. 1000 per KW or part thereof of Contracted Load</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LT-II</td>
<td>Non-Domestic/ Commercial Services</td>
<td>Rs. 2,000 per KW or part thereof of Contracted Load</td>
<td>a) UG Cable</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>extensions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Estimated cost</td>
</tr>
<tr>
<td>LT-III</td>
<td>Industrial Services</td>
<td>Rs. 1,500 per HP or part thereof of Contracted load</td>
<td>a) UG Cable</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>extensions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Estimated cost</td>
</tr>
<tr>
<td>LT-IV</td>
<td>Cottage Industries</td>
<td>Rs. 1,500 per HP or part thereof of contracted load extensions</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LT-VI</td>
<td>Local Bodies</td>
<td>Rs. 1,000 per KW or part thereof of the Connected load</td>
<td>a) UG Cable</td>
</tr>
<tr>
<td></td>
<td>A) Public Lighting</td>
<td></td>
<td>extensions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>b) LT OH Line</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>As per Data-I below</td>
</tr>
</tbody>
</table>

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Note: The charges mentioned are estimated costs and may vary based on specific data and conditions.
<table>
<thead>
<tr>
<th>Tariff Category</th>
<th>Category of Service</th>
<th>Development Charges</th>
<th>Service Line Charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>B) protected Water Supply Schemes</td>
<td>(i) Major and Minor Panchayats</td>
<td>Rs. 1,000 per HP or part thereof of the connected Part thereof, of the load</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(ii) municipalities and Corporations</td>
<td>Rs. 1,500 per HP or part thereof of the connected Load.</td>
<td></td>
</tr>
<tr>
<td>LT-VII general Purposes</td>
<td></td>
<td>Rs. 2,000 per KW or part thereof of Connected Load.</td>
<td></td>
</tr>
<tr>
<td>MULTI STORED DOMESTIC &amp; COMMERCIAL COMPLEXES NEW HOUING COLONIES OF URBAN DEVELOPMENT AUTHORITIES Etc.,</td>
<td></td>
<td>Rs. 1000/- per KW of contracted load for Domestic Complex.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rs. 2000/- per KW of contracted load for Commercial Complex</td>
<td></td>
</tr>
</tbody>
</table>

**Data I**

<table>
<thead>
<tr>
<th>Tariff Category</th>
<th>Rate/KM</th>
</tr>
</thead>
<tbody>
<tr>
<td>LT Single Phase Two wire Lines</td>
<td>Rs. 63,650/KM</td>
</tr>
<tr>
<td>LT Single Phase</td>
<td>Rs. 80,900/KM</td>
</tr>
<tr>
<td>LT Three Phase</td>
<td>Rs. 99,330/KM</td>
</tr>
<tr>
<td>LT Three Phase Five wire lines</td>
<td>Rs. 1,16,400/KM</td>
</tr>
</tbody>
</table>

**NOTE:**

1. The cost of First 100 of line shall be deducted from the cost of service line extension for collection of the Service Line Charges
2. In respect of Board’s Equipment installed in consumer premises like D.P. Structures, Swithgear, Distribution Panels, Breakers, MCCB, Ring Main units and any other special equipment the entire estimated cost of this equipment shall be collected from the consumer.
3. For alteration of existing lines, and/or involving special structures Like 4-pole Structures, River Crossing, Railway Crossing, Telephone Crossing etc. The entire cost shall be collected from LT Service, the service Line Charges applicable for 11 KV line shall also be collected from the consumer.
Sub: Development Charges and Service Line Charges to be collected for multistoried complexes - Clarifications - Issued


The Superintending Engineer/Operation/Visakhapatnam has sought for a clarification whether to collect the cost of Distribution Transformer against the item electrical equipment under Service Line Charges apart from the collection of Development charges for extension of supply to Multistoreyed domestic/ commercial complexes.

2 It is clarified that the Development Charges and Service Line Charges shall be collected as per B.P (Opn-Comml) Ms.No.263 dated 28-2-96 and B.P.Ms.No. 16, dated 27-5-96.

3 The electrical equipment and distribution panels mentioned against item (c) under service line charges for Multistoried domestic and Commercial Complexes, do not include the distribution transformer and its switchgear such as A.B. Switch and HG fuse, transformer structure To be precise. Service Line Charges, need not be collected for distribution transformer, its structure including AB, Switch and H.G.Fuse.

4 The Development charges arc to be collected as per the rates prescribed in the said B.P.s even for Multistoried Complexes. In cases, where the prospective consumers are permitted to procure the. Distribution Transformer, the Development charges arc to be collected as clarified in Board's Memo.No.C.E.(Comml)/POs/SLC/375/96, dated 14-5-96.

for Member Secretary
ABSTRACT

Installation of capacitors by LT consumers - Approval of LT capacitors of range 1-25 KVAR marketed by M/s. Concap Capacitors under brand name "Concap" - Orders – Issued.

B.P.(Opn-Comml) Ms.No.22

Dt: 22-6-96

Read

B.P.(Opn-comml) Ms.No.9 Dt: 26.4.96

PROCEEDINGS:

LT Capacitors of 59 numbers makes were so far approved by Andhra Pradesh State Electricity Board for use by the consumes of Board in various proceedings issued from time to time.

2. In addition to the makes of capacitors already approved, the Andhra Pradesh State Electricity Board, approves LT capacitors manufactured by M/s. Concap Capacitors, Balanagar, Hyderabad under brand name "Concap" with license of Bureau of Indian Standards No.: CM/L-6085165, for use by the consumers of A.P. State Electricity Board.

3. The list of 60 Nos. approved makes of LT Capacitors are indicated in the annexure.

4. All Zonal Chief Engineers/Electricity and Superintending Engineer(Operation) are requested to advise their respective consumers to instal the capacitors of the makes approved by the Board and those tested and approved by Bureau of Indian Standards (formerly ISI) for reliability and satisfactory functioning of the capacitors.

End: Annexure

(BY ORDERAND IN THE NAME OF THE APSE. BOARD)

A.K.KUTTY
Member Secretary
Annexure to B.P. (Opn-Comm)Ms.No. 22, dt. 22-6-1996 Capacitors approved by Andhra Pradesh State Electricity Board.

8. 'Usha' brand Capacitors of M/s. Indian Capacitors (P) Ltd., 99, Motilal Gupta Road, Behala, Calcutta -700006.
9. M/s. Hind Condensors Ltd., Plot No.209, Bombay-Poona Road, Pimpri, Poona - 411 918.
10. M/s. Mehar Capacitors, No.6, Dyavasandra Industrial Area, White Field Road, Bangalore – 560 048.
11. M/s. Khatau Junker Ltd., Dattapada Road, Borivli (East), Bombay - 400 066.
27. "Chetana" Brand Capacitors of M/s. Chetana Capacitor, Plot No.28/10, D-II, Block MIDC, Chinchwada, Pune - 411 019.
31. K&K Brand Capacitors of M/s K&K Capacitors, Plot No.6, 2B/A, G.I.D.C. Estate, Ankaleswar Valk Road, Ankaleswar - 393 002.
35. "Sunny" Brand power capacitors of M/s. Yash Engineers, G-33, M.I.D.C., Satpur, Nasik - 422 007.
41. "SEEEO, SCLAR, SPARK, SURYA AND SILVER" Brand Capacitors manufactured by M/s. Seeko Electro Controls (India), 42,26th Cross Yediyur, Jayanagar, 6th Block, Bangalore-560 082
43. "MOMAYA" Brand Capacitors manufactured by M/s. Momaya Capacitors, MIDC, Ph-II, Manpada Road, Dombivili-421204, Thane Dist., Maharashtra.
45. "SEC" Brand LT Capacitors manufactured by M/s. Shashi Electrocrafts (P) Ltd., C 335, 7th Main Road, Industrial Estate, Peenya II Stage, Bangalore-560 058.
50. "NIRMAL" Brand Capacitors manufactured by M/s. Bhandari Electricals, 82-C Industrial Area, A.B.Road, Dewas-455001,M.P
51. POWERTRAP AND SANVEE" Brand Capacitors manufactured by M/s. Jagnics Componenets, 519- B, K.R.Garden, Koramangla (V), Bangalore-34.
54. "SYSCA" Power factor correction capacitors manufactured by M/s SYSCO" IP F
tcrprises. 172, Nagavarapalyam, Old Madras Road, Bangalore - 560 016.
55. "Deepti" make metalised polypropyline power capacitor exclusively marketed by M/s. Deepti Engineers, 107, Satguru Complex, Basheerbagh, Hyderabad.


57. M/s. Chaitanya Power Capacitors (P) Ltd., South Bangalore

58. M/s. Sundara Industries, Bangalore, under brand name "KONARK"

59. M/s. Dada Capacitors manufacturing Co. (P) Ltd., Secunderabad under brand names of "GAPOCT" "DOM" "TARANG", "POWER", "HOUSE", "DADA"

60. M/s. Concap Capacitors., Balanagar, Hyderabad under brand name "CONCAP"
Sub: Elecy - Releasing of power supply to the X-Rays and Neon Signs Installations without Approval under Rule 63 of Indian Electricity Rules and regularisation of existing plants - Reg.

Ref: The Chief Electrical Inspector to Govt. of Andhra Pradesh, Hyderabad, Lr.No. CEIG/HT/TS/1261, dt.22.4.96 addressed to Member Secretary, A.P.S.E.Board

The Chief Electrical Inspector to Government of Andhra Pradesh, Hyderabad in his letter dt. 22.4.96 under reference cited has reported that the A.P.S.E.Board officials are releasing power supply to the X-Ray and Neon-Sign Installations without verifying whether the installation is approved under Rule 63 of Indian Electricity Rules. Power supply is being released to these units inspite of specific instructions issued by Chief Electrical Inspector of Government field officers. It is also contended by Chief Electrical Inspector of Government that releasing of power supply without proper verification of the statutory clearances results in heavy loss of revenue to Government. The statutory clearances should be insisted to ensure proper checking of all the safety aspects.

In this connection, all the superintending Engineers/Operation are hereby instructed not to release power supply to the XRay and Neon-Sign Installations without approval under Rule 63 and 50-A of Indian Electricity Rules. The Superintending Engineers are requested to regularise the existing installations within a period of 3 months by insisting payment of necessary fees to the concerned Deputy Electrical Inspector who will arrange to verify the safety aspects before according approval. Receipt of this memo shall the acknowledged and action taken reported.

for Member Secretary

Sub: Development charges/Service Line charges - Clarification in respect of Domestic/ Complexes and Housing Colonies - Reg.

Ref: B.P.Ms.No:263,dt. 28-2-96.

It is observed that many field officers are seeking clarification in respect of collection of Development charges vis-a-vis adjustment against cost of Distribution Transformers supplied by the prospective consumers/ Residential Complexes including Housing Colonies.

2. It is clarified that, where the amount of Development charges to be collected in the estimate are more than the estimated cost of distribution transformer to be provided by the consumers, the difference, shall be collected. Care should be taken to deduct only the estimated cost of distribution transformer from the amount of Development charges. In case the amount of development charges to be collected are less than the estimated cost of distribution transformer to be supplied by the consumers, there shall be no refund or adjustment against the excess cost of distribution transformer to the consumer's account.

3. The Zonal Chief Engineer/Superintending Engineers are requested to inform all the field officers accordingly.
Terms and Conditions of Supply - Consumption Deposit Collection of - review Amendment to Clause 28.1.1, 28.2.1, 28.2.2 - Orders – Issued.

B.P.(Opn-Comm) Ms.No.14

I. B.P.Ms.No. 690, Dt: 17-9-1975
2. B.P.Ms.No. 755, Dt: 26-6-89
3. B.P.Ms.No. 1329, Dt: 23-12-89

PROCEEDINGS:
In exercise of powers conferred by section -49 of Electricity (Supply) Act. 1948 (Central Act. No.54 of 1948) and of all contractual, statutory and other powers hereunto enabling, the Andhra Pradesh State Electricity Board doth hereby notify the following amendments to the terms and conditions of supply issued with B.P.Ms.No.690, dated the 17th September, 1975 first read above as amended from time to time.

AMENDMENTS:

I. In the said Terms and Conditions of Supply the existing Clause 28.1.1 shall be read as follows:

INITIAL CONSUMPTION DEPOSIT:

28.1.1. "The consumer shall deposit with the Board a sum in cash equivalent to estimated three months consumption charges. The consumers coming under the following LT categories shall however pay at the following rates per Kilowatt or part thereof of connected load:

a) Rs. 100/- per Kw or part thereof of connected load. For domestic, public lighting and general purpose categories.

b) Rs.200/- per Kw or part thereof of connected load For non-domestic and commercial categories.

and

C) Rs.200/- per Kw or part thereof of connected load. For cottage industry and LT Industrial categories.

Provided that the Board may, in the case of Industrial consumes, accept by way of consumption deposit a sum equivalent to two months consumption charges during a period of three years from the date of first release of supply of electricity.
In clause -28 of the said terms and conditions of supply, For the existing Clause-28.2.1 (a) Read:

28.2.1 (a) "All consumers, other than the domestic consumers whose monthly consumption is below 50 kilowatt Hours per month shall keep with the Board an amount equivalent to three months consumption charges (i.e. demand and energy charges) as consumption deposit".

III. In Clause-28 of the said terms and conditions of supply, and the following under sub-clause 28.2.2 (iv)

"The minimum level of consumption deposit to be retained for low tension consumers shall be as follows:

i) For domestic, public lighting and general purpose categories. Rs. 100/- per kilowatt or part thereof of connected load

ii) For non-domestic and commercial category Rs. 200/- per kilowatt or part thereof of connected load

and iii) Cottage Industry and LT Industrial category Rs. 200/- per kilowatt or part thereof of connected load

IV In clause-28 and sub-clause 28.2.1 (c) of the Terms and Conditions of Supply.

For the words 'Other than LT. domestic consumers", the words.

"Other than LT. domestic consumers whose monthly consumption is below 50 kilowatt hours' shall be substituted"

2. The above amendments shall come into force with immediate effect.

3. All the field officers are requested to take necessary action

(BY ORDER AND IN THE NAME OF THE A.P.S.E.BOARD)

A.K. KUTTY
Member Secretary
Memo.No. CE(Comm)/Consumption Deposit/LT/451/96. dt. 14.5.96.

Sub: Collection Initial consumption Deposit for certain LT Category services and Review of Consumption Deposit for collection of additional Consumption Deposit - Instructions - Issued.

Ref: B.P.Ms.No: 14 (Opn-Comm), dated 7-5-1996.

In the Board's proceedings cited orders are issued for collection of initial consumption deposit from LT Category services other than domestic services whose monthly consumption is below 50 units per month. The levels of initial consumption deposit to be collected for effecting power supply to domestic, non-domestic and commercial, public lighting, general purpose, college industries and LT industrial services were specified on the basis of the connected load in these services. It shall be ensured that the consumption deposit on these LT services shall be collected at these rates before releasing power supply.

Annual review for the adequacy of the existing consumer deposit shall be taken up for these LT category services (except those domestic services whose monthly consumption is below 50 units per month) for the year 1995-96 with immediate effect since the financial year 1995-96 is already completed.

The minimum amounts to be retained from LT Category consumers towards consumption deposit from domestic, non-domestic and commercial public lighting, general purpose, cottage industry and LT industrial services have been specified in the B.P. cited. Wherever the existing consumption deposit for these services falls short of the minimum prescribed in the B.P. action to be taken to raise demands by issuing a 3-days notice for collecting the minimum stipulated amounts towards the consumption deposit. Where the consumption level is low, care is to be taken to ensure the minimum level of consumption deposits are retained from LT category services mentioned in the above B.P. and the excess over these levels only to be considered for refund by adjustment against future current consumption bills.

The review of consumption for these LT Category services shall be taken for the year 1995-96 immediately and efforts to be taken to mobilize immediately additional consumption deposit from these services. For this purpose the review shall be taken up first for high value services then non-domestic and commercial services later three phase domestic services and for high value services then non-domestic and commercial services later three phase domestic services and lastly the single phase domestic services and general purpose and public lighting services.

All the zonal Chief Engineers and Superintending Engineers/Operation are requested to bestow their personal attention on these important work and arrange for the issue of necessary demands for the additional consumption deposit from all the above LT services. It should also be ensured that the work of review of consumption deposit and issue of 30 days demand notices for collection of additional consumption deposit wherever required shall be completed on or before 31-07-1996 positively. All Zonal Chief Engineers and Superintending Engineers/Operation shall cause necessary instructions to the E.R.O.s and other officers concerned for implementing these instructions scrupulously and complete the assigned work before the end of July 1996.

for Member Secretary.
ABSTRACT

Tariffs-Sale of Electricity to persons other than Licences – Amendment to the General Conditions of LT Tariff under part B-LT TARIFFS of B.P. Ms. 167 – Orders Issued.


Read

B.P. (Opn-Comml) Ms. No. 167, dt. 1-8-95

PROCEEDINGS:

Under the provisions of Clause 40.2 of terms and Conditions of Supply notified in B.P. Ms. No. 690 dated 17-9-75, and exercise of powers conferred by 49 and 79 of the Electricity (Supply) Act, 1948, (Central Act No. 54 of 1948) and all contractual, statically and other powers hereunto enabling, the Andhra Pradesh State Electricity Board both hereby notify the following amendment to the Central Conditions of LT Tariffs under Part –B LT-TARIFFS of B.P. read above.

AMENDMENT

Per the existing condition No. 2 in the General Condition of LT Tariffs under Part B-LT Tariffs, substitute the following namely.

2. The connected load of the consumer shall not exceed his contracted load if the connected load of the consumer is found in excess of the contracted load, the provisions of Clause 10.3 of Terms and conditions of Supply notified in B.P. Ms. No. 281, dated 16-3-96 shall be applied.

2. The above amendment shall come into force with immediate effect.

3. All the field officers are requested to take necessary action for dealing with and regularization of additional connected loads detected in LT Services as per above procedure.

(BY ORDER AND IN THE NAME OF THE A.P.S.E.BOARD)

K Y VEMUGOPALA RAO
Member Secretary I/C
ANDHRA PRADESH STATE ELECTRICITY BOARD
VIDYUT SOUDHA, HYDERABAD - 500 049.

ABSTRACT

Terms and Conditions of Supply - Exceeding of contracted load by LT consumers - Amendment to Clauses 39.1.2 (a), (b), Clause 39.5 and Clause 39.7.2(1) - Orders – Issued

B.P. (Opn-Comml) Ms.No.281 dt: 16-3-96

Read the following

1. B.P.Ms.No.690, dt. 17-9-75.
2. B.PMs.No.755, dt. 26-6-89.
3. BPMs.No. 1329, dt. 23-12-89
4. B.P.Ms.No.291, dt. 27-11-90
5. B.PMs:No.l05, dt. 23-9-92.

PROCEEDINGS:

In exercise of powers conferred by Section 40 of Electricity (Supply) Act 1948 (Central Act.No.54 of 1948) and of all contractual, statutory and other powers hereunto enabling, the A. P. State Electricity Board doth hereby notify the following amendments to the Terms and Conditions of Supply issued with B.P.Ms.No.690, dated the 17th September 1975 first read above as amended from time to time

In the said Terms and Conditions of Supply
1) The Clauses 39.1.2 (a) and (b) shall be deleted
2) In clause 39.5, the following shall be deleted namely:
   "or exceeding the contracted load without specific permission in LT services"
3) The clause 39.7.2(1) shall be deleted.
4) Add the following para as Clause 40.3 of Terms and Conditions of Supply; after Clause 40.2"40.3 Additional Connected loads detected in LT services shall be dealt with as follows:

(i) Cases where the total connected load is 75 HP/56 KWs or below at the time of detection
   a) One month notice shall be given to regularise the additional connected load, payment of required service line charges, development charges and consumption deposit.
   b) Services which do not get the additional loads regularised shall be disconnected immediately on expiry of notice period and these services shall remain under disconnection, until they are regularised.

ii) Cases where the total connected load is above 75/HP/56KW at the time of the detection.
   a) These services shall be billed at the respective HT Tariff rates from the date of detection of additional load. For this purpose, 80% of connected load shall be taken as billing demand.
   b) One month notice will be given for payment of service line charges, development charges and consumption deposit required for conversion of their service-into HT service.
   c) Services of such consumers who do not pay HT tariff rates or who do not pay the required service line charges, development charges and consumption deposit shall be disconnected immediately on expiry of notice period and these services shall remain under disconnection unless the required service line charges, development charges and consumption deposit are paid for regularising such services by conversion from L.T. to HT. category.

2. The above amendments shall come into force with immediate effect.
3. All the field officers are requested to take necessary action for dealing with and for regularisation of additional connected loads detected in LT services as per the above procedure.

(BY ORDER AND IN THE NAME OF THE A.P.S.E.BOARD)

K Y VEMUGOPALA RAO  
Member Secretary I/C
ABSTRACT

Terms and Conditions of Supply to persons other than Licensees Amendment to Sub-Clause 28.4 - Orders – Issued.

B.P.(Opn-Comml) Ms.No.279 Dt: 8-3-96

Read the following:-

B.P.Ms.No.689,dt. 17-9-95.

ORDER:

In exercise of the powers conferred by Section 49 of the Electricity (Supply) Act, 1948, and all contractual, statutory and other powers hereunto enabling, the A.P. State Electricity Board doth hereby issue following amendment to the Terms and Conditions of Supply notified with the B.P. read above and as amended from time to time

AMENDMENT

In Clause 28, of the said Terms and Conditions of Supply, for the existing Clause 28.4: Read:

"Disconnection for non-payment of consumption Deposit: If the consumer docs not make payment of amount of Consumption Depositor additional consumption deposit in cash when so demanded by Board within the notice period of 30 days, supply of the consumer shall be liable for disconnection"

2. The above amendment shall come into force with immediate effect

(BY ORDER AND IN THE NAME OF THE APSE BOARD)

A.K.KUTTY
Member Secretary
Memo.No. CE(Comm/)PO2/25% Rebate/1770/75-901/95, dt. 27.9.95.

Sub: 25% rebate for new eligible industries - Clarification on the cut-off date 31-3-1997-Issued.

Ref: 1. BP, Ms.No.51 (Opn-Comml)dt. 24-5-93.
2. B.P, Ms.No.58(Opn-Comml) dt 19-6-93.

The Condition No.(iv) in the para 3 of the B.P. under reference 1 stipulates that the 25% rebate will be available upto 31-3-97. Some superintending Engineers (Operation) have sought clarification whether the rebate should be stopped with effect from 31-3-97 even if the 3 year period from date of commencement of rebate is not completed.

The Commissioner of Industries, on a reference from Board, clarified in his letter No. 30/1/5/1076, dt.28-8-95 that the cut-off date 31-3-97 is the date of commencement of production and release of power supply. Thus the new industries which goes into production upto 31-3-97 with APSE.Board power are eligible for incentives under the provisions of G.O.Ms.No.117, Dt. 17-3-93 as adopted in B P.Ms.No .51, Dt 24-5-93 read with B.P.Ms.No.58, dt. 19-6-93.

The Zonal Chief Engineers/Electricity, and Superintending Engineers (Operation) are therefore informed that the provisions under B.P.Ms.No.51 Dt.24-5-93 and B.P.Ms.No.58 dt 19-6-93 shall apply for the Units which go into production upto 31-3-97 and the eligible industries may be allowed rebate for a period of 3 years from the date of commencement of production or date of release of supply whichever is earlier. duly following the guidelines issued in Board Memo.No.CE(Comm/)PO2/25% rebate/806/94, dt.29-7-94 and other clarifications issued from time to time.

for Member Secretary
Memo.No.CEO-16/F-LT/D.No. 266/95,dt. 14.9.95.

Sub: Sanctioning of estimates for extension of supply to LT loads - Reg.

It is observed that while sanctioning of estimates for extension of supply to LT loads particularly Agricultural & Industrial loads calculation of LT voltage regulations are not made. This is causing overloading of LT lines and distress power supply conditions. The voltage regulation in respect of LT lines should be within the limits of ±6%.

The Chief Engineers are requested to instruct the field officers to invariably calculate voltage regulations while sanctioning estimate for Agricultural/LT Industrial loads.

The regulation constants to be adopted for calculating the voltage regulation of LT lines are indicated in the Annexure enclosed.

Encl (1)

Chief Engineer Electricity (Operation)
VOLTAGE REGULATION OF CONDUCTORS 3-PHASE, 50 C/S OVER HEAD LINES AT PF OF 0.8

<table>
<thead>
<tr>
<th>DETAILS OF THE CONDUCTOR</th>
<th>PERCENTAGE REGULATION PER 100 KVA PER KM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>415V</td>
</tr>
<tr>
<td>7/1.96</td>
<td>80.50</td>
</tr>
<tr>
<td>7/2.11</td>
<td>83.75</td>
</tr>
<tr>
<td>7/2.59</td>
<td>59.40</td>
</tr>
<tr>
<td>7/3.00</td>
<td>47.21</td>
</tr>
<tr>
<td>7/3.35</td>
<td>40.09</td>
</tr>
</tbody>
</table>
Memo. No. CE. (Comm)P01/Arrears/48S/9S. Dt: 26-8-95

Sub: Arrears Date from Disconnected services - Enforcement of provisions of Clause 26.10 of Terms and Conditions of Supply and provision of, A.P.S.E.Board (Recovery of dues Act) 1984 - Instructions - Issued.

The Zonal Chief Engineers and Superintending Engineers (Operation) are requested to review the cases of services which are under disconnection for more than 3 months and take the following action:

a) One month notice of termination of Agreement is to be issued as per Clause 26.10 of Terms and Conditions of Supply as amended in B.P.Ms.No.15^ dated 25-8-93, where ever not issued so far. Where ever the notices were already issued, one month period expired, the Agreements of such consumers shall be terminated and the available consumption deposit adjusted against outstanding arrears and the net arrears arrived at.

b) The lines and metering equipment in respect of all such terminated services should be dismantled and all material and meter devoluted to store by 30-9-95.

c) No fresh service shall be released in the premises of such terminated services without collecting the net arrears due from the previous defaulting consumer. Any deviation if noticed, will be viewed seriously and severe disciplinary action instituted against erring officials.

d) The other live services if any standing in the name of such defaulting consumers shall be disconnected for realising the dues as per the provisions under Clause 42.3 of the Terms and Conditions of Supply.

c) If no other live services are available, necessary action should be initiated to recover the dues from the defaulting consumers as per the provisions of Andhra Pradesh State Electricity Board (Recovery of dues) Act, 1984.

The Zonal Chief Engineers and Superintending Engineers (Operation) are requested to take immediate necessary action on war footing and report the progress to the Chief Engineer (Commercial) and F. A. & Chief Controller of Accounts (R&E) by 30-9-95 for review by Board.

The receipt of this may be acknowledged by return of post

for Member Secretary
Sub: LT Single Phase and Three Phase Meters - Authorisation to willing consumers to procure - Instructions - Reg.

The Superintending Engineers (Operation) have represented that the LT meters are not available in adequate quantity to release services to all prospective consumers who are ready with installation. To expedite the release of services, the Board has decided to permit all the prospective consumers to procure the meters if they so desire to get the services on priority. The salient features of the voluntary scheme are indicated below:

1) The consumer shall procure meters of the following make only and obtain the bill of the meter so purchased:
   - L&G
   - BHEL
   - APEEC
   - GEC
   - SIMCO
   - INDIA METERS
   - BARODA METRES
   - EH (ELYMER HAVELLS)
   - T.T.PL (TOWERS AND TRANSFORMERS)

2) The cost of the meter has to be borne by the consumer and is not reimbursable.

3) The consumer will handover the meter to the concerned section officer along with a copy of the bill of purchase and obtain in acknowledgement indicating the meter number/capacity/make/correct premises address where the meter to be installed.

4) In no case the section officers should interchange the meters during testing or transit and should install the same meters as bought by the consumers to avoid any unpleasant consequences at a later date.

5) The section officers should handover meters to the MRT Division and get the meter tested and sealed as is done in case of Board's meters within a week of handing over the meter by the consumer. He should install the meters and release the service promptly.

6) The consumers need not pay the testing charges.

7) This is a voluntary scheme. The consumer who are willing to wait for their turn will be provided with meters from Board stock.

These instructions will come into force with immediate effect.

Member Secretary.
Memo. No. CE(O)/F/D.No./148/97 Dt.28.6.97

Sub: Assigning S.C No.s & Meters the same day - Issue & receipt of meters Maintaining Meters Issue Register.-Reg

Experiences of Officers inspecting distributions indicate existence of several services without S.C.Nos.-assigned The date on which the; S.C. was released is not available and certain consumers have revealed that supply was extended to them two/three years back and bills are not being served on them.

In a recent inspection one Nursing Home is detected to be having a service connection without number and not billed for 2 years.

The declaration by the consumer about the date of release of supply is being taken and back billing done where meters are stuck up. In the case of running meters; the consumer are called upon to pay huge amounts as arrears.

To obviate the above the following instructions are issued:

1. The release of service and issue of meters should: be entered in a register on the same day. The SC.No. for which the meter is issued should be painted on the meter at Section office before issue.

2. Meters from Rolling stock of replacement of defective meters or new meters for release of services etc., should be issued only after an entry in the "Meter Issue Register" as per format enclosed which should be updated continuously.

3. In the case of issue of a meter to replace an existing meter; the meter particulars of removed meter along with final reading should be noted in red ink in the same column and attested by Section Officer of having received the removed meter.

4. The maintenance of 'Meter issue Register' is already in vogue in Vizag and Vijayawada Zone and this is to followed by every operation section from 1st July '97 onwards WITHOUT FAIL. The painting SC.No. on meters at section office shall also be done and every meter shall be installed only at the specific service for which it is allotted.

Encl: 1 Format

MEMBER SECRETARY
### METERS ISSUE REGISTER

(To be maintained at Section Office)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>A. C. No.</th>
<th>Dist.</th>
<th>Meter Removed</th>
<th>Purpose for Issue of Meter</th>
<th>Dr., Initials of Person who received the Meter</th>
<th>Meter Removed</th>
<th>Signature of AE who received the removed meter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>45</td>
<td>Bazar</td>
<td>Replacement</td>
<td>Sdh/- 26-6-97 LM</td>
<td></td>
<td>BHEL 4365 S ph 2.5-10 3619 Sdh/- 27-6-97</td>
<td>A.E.</td>
</tr>
<tr>
<td>2</td>
<td>689</td>
<td>Luitaghar</td>
<td>New Service</td>
<td>Sdh/- 26-6-97 L.M.</td>
<td></td>
<td>NEW SERVICE</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A format developed for inspection of EROs is enclosed herewith. All Sr. Accounts Officers in the offices of Superintending Engineers/Operation are requested to send copies of the format to all Asst. Accounts Officers/ERO and to get all records, registers and activities up to date and be ready for inspections.

All Sr. Accounts Officers of circle offices should complete inspection of all EROs by 31-7-97 and send copies of inspections reports in the format on completion of each ERO.

The Chief Engineers/Zone, Superintending Engineers/Operation, Divisional Engineers/Operation and other inspecting officers should use the same format for their periodical inspections and see that, all points are covered and overall improvement is achieved.

End: 1 Format
ANDHRA PRADESH STATE ELECTRICITY BOARD

Inspection Format for EROs

Name of Inspecting Officer: ........................................... Desg: ..........................

Date of Inspection: ..................................................

Name of ERO: .......................................................... Name of AAO: .................................

Date of Joining of AAO in the ERO

1. No. of Service covered by the ERO:

<table>
<thead>
<tr>
<th>Section</th>
<th>Total SCs</th>
<th>Total Agls.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section-5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section-6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. No. of Exceptionals as per latest Report (for all cycles A, B, & M together):

<table>
<thead>
<tr>
<th>No. of metered Services</th>
<th>EXCEPTIONALS as on 97</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-2 month</td>
<td></td>
</tr>
<tr>
<td>N-1 month</td>
<td></td>
</tr>
<tr>
<td>Monthly</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>N-2 month</th>
<th>N-1 month</th>
<th>Nth month</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. No. of services appearing in D'lists: (D'list shall contain all S.Cs having arrears including Agl UDC etc.

<table>
<thead>
<tr>
<th>Total Services</th>
<th>No. of Services appearing D'list</th>
<th>% of D listed Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-2 month</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N-1 month</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nth month</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. No of Cases of Theft of Energy/Malpracticing/Back Billing pending:

<table>
<thead>
<tr>
<th>No. of cases referred to ERO</th>
<th>No. of cases where action is taken</th>
<th>No. of cases where amounts are pending</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>T.E.</td>
<td>Number</td>
<td>Amount</td>
<td></td>
</tr>
<tr>
<td>M.P.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.B.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Demand & Collections:

<table>
<thead>
<tr>
<th>Details</th>
<th>N-2 month</th>
<th>N-1 month</th>
<th>Nth month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly demand</td>
<td>Rs lakhs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monthly collection</td>
<td>Rs. lakhs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arrears (closing balance)</td>
<td>Rs. lakhs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arrears as No. of days demand</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6. Closing Balances - Section wise:

<table>
<thead>
<tr>
<th>Section wise Closing Balance for sections</th>
<th>PERTAINING TO MONTH</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N-2 month</td>
<td>N-1 r Month</td>
<td>Nth r Month</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Demand Closing Bal.</td>
<td>Demand Closing Bal.</td>
<td>Demand Closing Bal.</td>
<td></td>
</tr>
<tr>
<td>Section-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section-2</td>
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<td>Section-3</td>
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<td>Section-4</td>
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</tr>
<tr>
<td>Section-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section-6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6A. (-) Credit- Number & Amount
7. Are following instructions of the Board being implemented?

<table>
<thead>
<tr>
<th>SI</th>
<th>Instructions</th>
<th>Y/N</th>
<th>SI</th>
<th>Instructions</th>
<th>Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Are monthly coordination meetings conducted.</td>
<td>SI</td>
<td>23</td>
<td>Tri-monthly billing brought over to Bi-monthly.</td>
<td>N</td>
</tr>
<tr>
<td>2</td>
<td>Are D’lists being issued by 23rd.</td>
<td>SI</td>
<td>24</td>
<td>For High &amp; low consumptions circular dt. 1 1/4/97being followed.</td>
<td>Y</td>
</tr>
<tr>
<td>3</td>
<td>Revisions of programs of RC’s consultation with field</td>
<td>SI</td>
<td>25</td>
<td>Is it ensured that all services in a section are covered by one ERO one PAA only.</td>
<td>Y</td>
</tr>
<tr>
<td>4</td>
<td>RC fees being collected after issue of D’lists.</td>
<td>SI</td>
<td>26</td>
<td>Running averages indicated in consumers ledgers.</td>
<td>N</td>
</tr>
<tr>
<td>5</td>
<td>PAA giving % of D’lists.</td>
<td>SI</td>
<td>27</td>
<td>Collections of Agl to be synchronised with Bi-monthly collections?</td>
<td>Y</td>
</tr>
<tr>
<td>6</td>
<td>Single D’ lists for all arrears insisted including Agl.&amp;UDC</td>
<td>SI</td>
<td>28</td>
<td>Every S.O. being provided with BBA</td>
<td>N</td>
</tr>
<tr>
<td>7</td>
<td>D’ lists contain monthwise arrears months.</td>
<td>SI</td>
<td>29</td>
<td>Is RC allowed to collect old &amp; new arrears.</td>
<td>Y</td>
</tr>
<tr>
<td>8</td>
<td>Are D’lists returned from sections</td>
<td>SI</td>
<td>30</td>
<td>PAA giving specific consumptions catagory wise</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>a) Domestic</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>b) Commercial</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>c) Industrial</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Returned D’ lists being reviewed by</td>
<td>SI</td>
<td>31</td>
<td>PAA giving section wise exceptional</td>
<td>N</td>
</tr>
<tr>
<td>10</td>
<td>B.P.Ms 18 being operated for Stuck Burnt.</td>
<td>SI</td>
<td>32</td>
<td>High value readings contain AE’s attestation.</td>
<td>Y</td>
</tr>
<tr>
<td>11</td>
<td>For D/L &amp; RNF cases - Averages billed</td>
<td>SI</td>
<td>33</td>
<td>MRBs to be used in place of Meter blanks.</td>
<td>N</td>
</tr>
<tr>
<td>12</td>
<td>B.P.Ms. 18 for defective Stree Light services</td>
<td>SI</td>
<td>34</td>
<td>Are Meter change slips being received</td>
<td>N</td>
</tr>
<tr>
<td>13</td>
<td>Notices served for dismantling of UDC cases</td>
<td>SI</td>
<td>35</td>
<td>Readings being given area wise instead of S.C.No. wise</td>
<td>N</td>
</tr>
<tr>
<td>14</td>
<td>Power factor surcharge for Agl. capacitor</td>
<td>SI</td>
<td>36</td>
<td>Is instalment register maintained</td>
<td>N</td>
</tr>
<tr>
<td>15</td>
<td>Annual reconciliation of services Field and ERO</td>
<td>SI</td>
<td>37</td>
<td>Reconciliation of Cheques/DDs with Bank</td>
<td>Y</td>
</tr>
<tr>
<td>16</td>
<td>Is Consumer Master given to yearly once.</td>
<td>SI</td>
<td>38</td>
<td>Are the minus balances reviewed.</td>
<td>Y</td>
</tr>
<tr>
<td>17</td>
<td>Credit reconciliation done</td>
<td>SI</td>
<td>39</td>
<td>Any extra service readings being received</td>
<td>Y</td>
</tr>
<tr>
<td>18</td>
<td>Do Consumer Ledger &amp; Financial tally.</td>
<td>SI</td>
<td>40</td>
<td>PAA has switched over to new formats as per circular dt.4-4-97.</td>
<td>Y</td>
</tr>
<tr>
<td>19</td>
<td>Specific Revenue (Rs. per month per Domestic Non-domestic Industrial</td>
<td>SI</td>
<td>41</td>
<td>Billed units being furnished to Energy Audit by 10th</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Is RC performance watched</td>
<td>SI</td>
<td>42</td>
<td>Category changes form I to II being done promptly on field report.</td>
<td>Y</td>
</tr>
<tr>
<td>21</td>
<td>No. of services with minus balances arrears. Total Amount</td>
<td>SI</td>
<td>43</td>
<td>Is demand raised simultaneously for reconnections given for Bill stopped cases.</td>
<td>Y</td>
</tr>
<tr>
<td>22</td>
<td>Are the bills generated before 25th month?</td>
<td>SI</td>
<td>44</td>
<td>Time taken for issue of first bill from date of release of supply</td>
<td>Y</td>
</tr>
</tbody>
</table>

Signature of Inspecting Officer
Sub: Estt-Formation of Task Force for intensive Inspection of services under Chief Engineer/Operation/Hyderabad - Orders - Issued.

On a review of Meter readings Books it is observed that the meter readings are not taken correctly Remarks such as Stuck up, Burnt, door tick etc. are being recorded and where progressive readings are noted the consumptions are ridiculously low. It is therefore felt necessary to impose thorough check upon this activity.

After careful consideration a Task Force is formed with the following officers working in Vidyut Soudha Hyderabad who will be provided with transport. The team will go to a designated village/town and take check readings in an entire village/area together with prescribed checks and report direct to Chief Engineer/Operation, Member/Distribution and Chairman with copy to Concerned Chief Engineer/Zone.

The place of visit will be fixed on the day of departure and they have to attend to such inspections for two to three days in a week till things how marked improvement.

**TEAM**

<table>
<thead>
<tr>
<th>S.N</th>
<th>Name of the Officer</th>
<th>Designation</th>
<th>Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>G. Venkat Rao</td>
<td>EME</td>
<td>O/o CE/Operation</td>
</tr>
<tr>
<td>2</td>
<td>A. Jagdesh</td>
<td>ADE</td>
<td>O/o CE/Generation</td>
</tr>
<tr>
<td>3</td>
<td>G. Nageswara Rao</td>
<td>ADE</td>
<td>O/o CE/Transmission</td>
</tr>
<tr>
<td>4</td>
<td>P. Ilaiah</td>
<td>ADE</td>
<td>O/o CE/Operation</td>
</tr>
<tr>
<td>5</td>
<td>B.K. Prasad</td>
<td>ADE</td>
<td>O/o CE/RE</td>
</tr>
<tr>
<td>6</td>
<td>P. Ramalinga Saran</td>
<td>AE</td>
<td>O/o CE/Generation</td>
</tr>
<tr>
<td>7</td>
<td>B. Mohana Rao</td>
<td>AAE</td>
<td>O/o CE/Generation</td>
</tr>
<tr>
<td>8</td>
<td>Y. Venkata Reddy</td>
<td>AE</td>
<td>O/o CE/C&amp;SS</td>
</tr>
<tr>
<td>9</td>
<td>T. Bhaskar</td>
<td>AE</td>
<td>O/o CE/C&amp;SS</td>
</tr>
<tr>
<td>10</td>
<td>M. Joshua</td>
<td>AE</td>
<td>O/o CE/Transmission</td>
</tr>
<tr>
<td>11</td>
<td>K Devadanam</td>
<td>AE</td>
<td>O/o CE/Transmission</td>
</tr>
<tr>
<td>12</td>
<td>P.V Madhusudhan</td>
<td>AE</td>
<td>O/o CE/Operation</td>
</tr>
<tr>
<td>13</td>
<td>Vijaya Ram Kumar</td>
<td>AE</td>
<td>O/o CE/Projects</td>
</tr>
<tr>
<td>14</td>
<td>T.R. Bhairavanandam</td>
<td>AAE</td>
<td>O/o CE/RE</td>
</tr>
<tr>
<td>15</td>
<td>Nagender-</td>
<td>AAE</td>
<td>O/o CE/RE</td>
</tr>
</tbody>
</table>

4. The local DPE Organisation may be asked to involve actively in this and assist in detecting cases of Theft and Malpractice.

5. The above team will report to Chief Engineer/Operation today i.e. on 20.6.97 at 4 P.M. in his Chambers and act as per his instructions.

J. PARTHASARATHY  
CHAIRMAN
ANDHRA PRADESH STATE ELECTRICITY BOARD

Chairman, APSEB

Sub: Meter changes at services - Reg.

During review of M.RBs in a number of distributions it is seen that Meters are being changed suddenly even where progressive readings are coming and no reasons are being recorded for changing the meter. Further, there are several instances where meters are being changed at short intervals at the same service.

It is therefore instructed that:

a) Every meter change should be approved by ADE/DE as follows,

   i) In respect of HT services By S.E.
   ii) In respect of Industrial By D.E.
       High Value services with CTs and meters of 50A and above capacity
   iii) In respect of all other LT By A.D.E.
        3. ph services.
   iv) In respect of LT single phase services. By A.E.

b) The Meter change should be approved by the competent authority after reviewing consumption pattern, reasons for which the meter change is sought for etc.

c) The meter change slip should invariably be sent to Revenue wing with signatures of Consumer, Officer who has changed the meter and should be countersigned by the Officer who has authorized the change of the meter. This slip should also be handed over along with removed meter to MRT.

d) Any change of meter without following the above procedure will be treated as MISCONDUCT and disciplinary action as deemed fit will be taken.

J. PARTHASARATHY
CHAIRMAN
ANDHRA PRADESH STATE ELECTRICITY BOARD
VIDYUTSOUHDA HYDERABAD-500049.

Sale of Electricity - Consumers - Payment of C.C. charges - Granting of Instalments - Revised Orders - Issued.


Read the following:-

1. Bd's Memo No .SE(Comm)/PO/24/87, dt. 19.5.1989
2. Bd's Memo No. SE(Comm)/PO/87, dt. 27.5.1989
4. Bd's Memo No FA&CCA(R)/AO/LT/AIV/2495/92, dt.2.11.1992

ORDER

1. The Committee on Public Undertakings of Tenth Legislative Assembly 1995-96, examined the procedure for granting of instalments by A.P.SE.Board in the context of the non-recovery of arrears of C.C. charges amounting to Rs. 1.69 crores from M/s. Sri Lakshmi Saraswathi Paper Mills, Neela, Nizamabad and made the following recommendations:-
   i) The Government may specify maximum number of instalments that can be given, in any case and the authority empowered to do so. The Government may also specify the minimum percentage of dues to be paid before re-connection is ordered in case the supply was disconnected.
   ii) The Board shall take all necessary steps to avoid recurrence, of such cases leading to non-realisation of huge arrears/

3. The A.P.S.E.Board in consultation with Government of Andhra Pradesh, decided to stipulate the following procedure for granting instalments keeping in view the recommendations of the Committee on Public Undertakings, in supercession of orders issued in the reference cited:-

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<tr>
<td>1.</td>
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<td>(b) Dues of C.C. charges above Rs.5000/- and upto Rs.25000/-</td>
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<td>Engineer (Qpn.)</td>
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<td>2.</td>
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<tr>
<td>b)</td>
<td>BIFR cases (Current dues)</td>
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<tr>
<td>c)</td>
<td>Cases seek one more than three instalments in (a) or (b)</td>
<td>6</td>
<td>Chairman</td>
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3. The following guidelines shall be followed while granting instalments as above:

   i) No further instalments shall be permitted unless the instalments schedule granted earlier is fully complied with.

   ii) The dues at any point of time shall not be more than the consumption deposit available with the Board.

   iii) In cases where supply is under disconnection, the reconnection should not be permitted unless a minimum of 30% of the dues are paid as the first instalment.

   iv) Written consent should be taken from the consumer for payment of additional charges as per Clause-32.2.1 and interest charges as per Clause - 34(a) of the Terms & Conditions of Supply. The additional charges/interest charges payable for instalment of previous month shall be collected along with the instalment of current month. In the case of last instalment the same shall be collected along with the next C.C bill.

   v) Extension of time payment of C C charges beyond the due date specified in the bill, without disconnection, shall be considered as single instalment and attracts interest charges as per Clause-34(a) of Terms Conditions of Supply, apart from additional charges.

4. The above orders should be implemented scrupulously.

   (BY ORDER AND IN THE NAME OF THE A.P.S.E.BOARD)

   A.K.KUTTY,
   MEMBER SECRETARY
ANDHRA PRADESH STATE ELECTRICITY BOARD
VIDYUTSOUĐHAHYDERABAD-500049.


Sub: Securing of Metering and Services at Boards Quarters in all Colonies - Instructions - Issued.

It has come to the notice of the Board that the meters at a large number of Residential Quarters of APSEB at Sub-stations are not in working order. Also the precautions taken at other services like Cutouts to be after Meter' and 'sealing of Meter Terminal covers with numbered seal bits' etc., are not being ensured at these services.

2. The Board hereby directs that these services should be treated on par with any other service in the Distributions for secured metering, proper billing and prompt collections. Erning employees who are occupying the quarters will be severely dealt with if malpractice/pilferage are noticed at Board's Quarters. In fact services at Board's Quarters shall be a Model for other services.

3. The Divisional Engineers in charge of colonies of APSEB shall ensure that all the precautions at all these services including sealing is completed before 15th May' 97 and confirm to respective Superintending Engineers (Operation) and Chief Engineer/Zone.

S. CHANDRA SEKHARAN
Member Secretary (I/C)
Sub: Estt. APSEB - Temporary - Pilferage of energy cases - Responsibility of operation staff - Meter observation Register and follow up - Instructions - Issued

Time and again, it has been emphasised that primarily the Operation staff are responsible to detect and curb pilferage of energy and loss of revenue due to wrong metering and billing. It is not correct to assume that the sole responsibility to conduct intensive inspections, detect cases and book them lies with DPE staff only.

If DPE staff detect a glaring case of pilferage either by direct tapping or by manipulating the metering, it indicates that there is laxity on the part of distribution staff of the area. It may be on account of collusion or non-alertness.

I feel it is more easy for distribution staff to identify consumers resorting to pilferage or malpractice. 2. In order to obviate the above situation, the following instructions are issued.

di) A Meter Observation Register is to be maintained and the meter reader shall record his observation in case he suspects or finds any incriminating evidence at the time of his visits. These should be got verified and findings recorded by Assistant Engineer/Additional Assistant Engineer with date of inspection. The format for Register is an indicated below.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Date of Observation</th>
<th>Name of the Meter Reader</th>
<th>SCNo and category</th>
<th>Incriminating points noticed or suspected</th>
<th>Initials</th>
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<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
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<table>
<thead>
<tr>
<th>date of action taken</th>
<th>Action taken by AE/AAE</th>
<th>Initials of AE/AAE with date</th>
<th>Review by inspecting Officer with date</th>
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</thead>
<tbody>
<tr>
<td>(7)</td>
<td>(8)</td>
<td>(9)</td>
<td>(10)</td>
</tr>
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</table>
Whenever DPE staff detects a case of theft/malpractice/Back billing of serious nature, the Superintending Engineer (Operation) will ensure that the explanations of the concerned staff are called as to why the same could not be detected by them and corrective steps taken. The Superintending Engineer shall review the explanations received and take action on all concerned with the Meter reading, Check reading, Inspection etc., for any lapses on their part. A monthly report of such actions taken shall be sent to IGP&A(V&S) before tenth of each month.

S. CHANDRA SEKHARAN
Member Secretary (I/C)

Sub: Revenue & Billing - Certain Instructions to Superintending Engineers and EROs on Revenue Billing - Disconnections etc:

After careful examination and reviewing of the various reports and returns of all the Circles and Divisions/EROs and observing the mistakes committed by the PAAs in the Billing and issue of D List, it is felt desirable to issue certain instructions and guidelines as indicated in the Annexure enclosed.

All the Chief Engineers, Superintending Engineers and Senior Accounts Officers of Operation Circles are hereby requested to implement the instructions strictly. A monthly compliance report and difficulties in implementing these instructions if any, should be sent to Superintending Engineer/Energy Audit directly with copies to FA&CCA/R&E Hyderabad.

The receipt of these instructions may be acknowledged.

FA&CCA(R&E)
ANNEXURE

CIRCULAR INSTRUCTIONS ON (REVENUE & BILLING)

1. L.T. Services (Billing Programme for both Monthly & Bi-Monthly):

   - Billdate: 1st of the succeeding month
   - Due date for payment: 14th - do-
   - Seven days time expires by: 21st - do-
   - 'D' lists to be issued: 23rd - do-

   (Duly taking the credits upto 21st)

   The 'D' list should be returned after operation before month end. In no case the 'D' lists should be kept pending with the Section Officer after the due dates and the Section Officers & Staff violating the above instructions shall attract disciplinary action.

   All Services appearing in 'D' lists should be got disconnected if payments are not received in case of Government & Quasi Government services and other essential services, one week notice is to be served, and the arrears are to be realized under threat of disconnection after the due date. These instructions supersede all the earlier instructions issued in this regard.

   The operated 'D' lists should be reviewed by AAO/ERO and sent to PAA/In-House Computer for entry of fact of disconnection in the consumer master. The RC orders issued by ERO also should be sent to PAA/In-House Computer for updating of 'D' lists in consumer master. The PAA/In-House Computer has to furnish a list of UDC services wherever progressive readings are noticed. This list has to be communicated to section Officer for taking further necessary action as per rules. For all services which are under Disconnection for continuously for 3 months the PAA/In-House Computer should issue one month notice to the defaulting consumer for clearing of C.C. charges arrears as per B.P.Ms.No. 151 dt. 25-8-93.

   In case the consumer fails to settle the arrears and take RC within the notice period, the termination of agreement and dismantlement order to be issued by the PAA/In-House Computer to the Section Officer through ERO. The Section Officer should get the service dismantled and fact informed to ERO. If notices not issued as per B.P.Ms.No.151 dt:25-8-93, action will be taken against AAO/ERO. If the service is not dismantled within 3 months after receipt of dismantlement order, action will have to be taken against Section Officer & Staff responsible. On confirmation of dismantlement of service from section office only the service has to be transferred to the outstanding ledger (OL). No service should be transferred to Outstanding Ledger without following the above procedure and any deviations are found, disciplinary action will be taken on the concerned.

   All services which were already under D.C. should also be included in the current 'D-' list with a remark IDC or as a separate list at the end of the current 'D' list. Comprehensive 'D' list should be sent to Section Officer under intimation to the concerned ADE/Operation.

   The 'D' list should include the previous arrears, current demand and the total amount due, as per the proforma communicated

3. In case of stuck up and burnt meter services computed Consumption as per B.P. Ms.No. 18 dt: 10-6-96 or previous 3 months average consumption whichever is higher to be adopted for billing.
In cases where energy meters are changed meter change slips should be sent to ERO apart from monthly return of changed meters with details of new meters. ERO should ensure that the changes are affected in the consumer master and billing done taking into consideration the final reading of the old meter plus consumption recorded by the new meter, new M.F. if any etc.

3. Surcharge for belated payments should be included in the next month CC charges bill and the practice of calculation and collection at cash counters should be stopped with immediate effect.

4. Bill amounts should be rounded off to the nearest rupee as per tariff conditions. All efforts should be made to see that bills are delivered to consumers in time.

5. PAA/In-House Computer should identify the services for which meter readings are received but consumer master is not available and furnish a list to the ERO. In respect of readings received without consumer Nos. PAA/In-House Computer has to give MRB No. Page No., Name and address, Category, Meter No. to ERO to identify the consumer and in turn ERO should ensure billing in such cases at the earliest.

6. In case of wrong meter readings furnished by the meter reader, the Bills may be revised based on check reading furnished by Section Officer duly counter signed by ADE. Wherever large amounts are withdrawn such cases may be brought to the notice of the DE/Operation concerned.

7. Whenever CT meters are changed, it is to be ensured that the particulars of change of M.F etc is effected in consumer master immediately and any under billing will attract serious disciplinary action.

8. In cases where the consumption of the consumer increases four times to previous average or decreases to 30% of previous average it should be given as an exception for review of the Section Officer. This exception need not however be generated to the services with average consumption of less than 100 Units per month. The idea is that the exceptions shall be real cases and limited to about 100 services per Section.

9. Wherever connected load details are not available in consumer master the same have to be obtained and consumer master updated. This is necessary to effectively implement B.P.Ms.No 18 dt. 10-6-96 for computed consumption in case of stuck up or burnt meters etc.

10. AAO/ERO concerned should organize the programme of the RCs in such a way that all distributions are covered on specified dates with prior intimation to the local staff and consumers so as to improve collections.

11. A close watch is to be made on bounced cheques and efforts to be made to realize amounts. And names of all such consumers should be entered in a separate register to ensure that cheque payments are not accepted in future. In respect of these consumers a note to the effect “Pay by Cash/DD” shall be noted in the Bill & BBA. If the cheques come by post, they shall be returned back to consumer with same remarks.

12. On the day of release supply itself the S.C.No. is to be painted on the meter Board.

13. D’ lists and exceptions to be issued area code-wise/route wise of the Meter Reading Book to facilitate easy operation.

14. In case of street lights latest connected load fixture details etc are to be incorporated in MRB and the concerned consumer master also is to be updated wherever meters are functioning meter readings to be sent and bills raised and in cases of struck up and burnt meters consumption is to be computed as per B.P. Ms.No. 18 dt. 10-6-96 and bills raised.
15. Regular monthly co-ordination meetings to be conducted at Division level and they should be purposeful and effective and should aim at improvement of performance and increase in revenue, collections of the Division.

16. For services having consumption of 500 and above Units per month pertaining to Category - I, Addl. Consumption Deposit is to be collected as per terms and conditions as being done earlier.

17. When some Agricultural or other Services are coming up for reconnection which were under prolonged Disconnection and for which bills were stopped, the EROs are collecting the arrears amounts and monthly minimums due to the date of R C. But corresponding demand is not being raised to the consumer and there by a negative balance is coming to consumer. The demand shall be raised then and there at the time of giving RC Order.

18. Fuel Cost Adjustment (FCA) instructions to be renewed (All details)

19. Penalty at 100 times for each mistake of each bill on the agreed cost will have to be recovered from the PAA to deter the agencies from committing mistakes.

20. The list of services reportedly under disconnection but utilizing energy with progressive reading, and coming under exception reports from PAA, are to be sent to Section Officers through ERO concerned for taking necessary action as per rules.

21. Amalapuram ERO has sub-division-wise Sl.No. of Service Connections for entire Sub-Division viz. starting from Sl.No. 1 to the last No. of service. This is in contravention of procedure in vogue and consumers and staff may get confused with this system. The SC Nos. may be got re-allocated to all the needed Services Distribution-wise under intimation to the consumers through Bills.

22. The due date as noted on the Bills applies only to the amount for the Bill period. The sentence "The Due Date indicated in this Bill is applicable for the current bill period amounts only" shall be got printed on the reverse of the Bills.

23. 3 months average consumption should be taken for Billing purpose in Door-Lock and 'Reading Not Furnished' cases but not as per B.P.Ms.No. 18 dt. 10-6-96.

24. In cases of Street Light Billing for Minor Panchayats where 250 units are free, the actual units recorded should be exhibited in the Bill, and these units shall also be accounted for as 'Units Billed' invariably.

25. Separate S.C.Nos. should be allotted for all "Multi Meter" Services in Metro Zone area or elsewhere wherever existing. There shall not be any Departmental Meter without being assigned with a separate SCNo.
Sub: Electricity - HT services - Sealing of AB Switches and maintenance of record Instructions - Reg.

During recent drive for inspection of HT. services by Detection of Pilferage of energy (DPE) wing, it came to light that AB. Switches seals were not available in some of the steel re-rolling mills. Further, there was no record either with the concerned ADE or with the consumers regarding past status of A.B. switch seals.

The H.T. Services are monthly visited either by ADE or Divisional Engineer and hence nonavailability of A.B. Switch seals raises a serious doubt regarding pilfer proof status of these services which are very limited in number but contribute major revenue for the Board.

All Chief Engineers and Superintending Engineers are hereby requested to undertake a special drive for sealing AB. Switches pertaining to HT services. AB. Switch sealing Register should be maintained with the consumers and standing instructions and procedure for removal of seal for attending any complaint should be strictly followed. This work must be completed by 15-9-96 without fail and thereafter, if any HT. service without A.B. Switch seal k found, the concerned Asst Divisional Engineer/Divisional Engineer would be held personally responsible.

AJLKUTTY
Member Secretary
Sub: APSEB-Need to improve resources-targets Communicated - Reg.

During review of Board's financial position, Hon'ble Chief Minister of AP has observed that there is scope to raise Rs.450 crores of additional revenue per annum by improving internal efficiency in respect of

I. Collection of arrears of Revenue
2: Billing correctly where meters are not read due to stuck up, burnt, door lock, etc., replacing the defective meters promptly.
3. Prompt collection of current demands.
4. Collection of ACD.
5. Collection of amounts due by issue of final assessment orders in case of pending pilferage/ malpractice cases already detected.
6. Taking up special drive for detection and booking cases of errant consumers resorting to malpractice/pilferage.
7. Prompt levy of surcharge as per tariff towards non installation of capacitors, voltage surcharge etc.
8. Expediting legal cases where large amounts got locked up in litigation.
9. Sale of scrap, un serviceable and obsolete items in stores following rules and procedure at highest rates possible
10. Collection of development charges for regularization of additional connected load.
II. All other methods by which leakages can be arrested and amounts legitimately due to Board are realized.

The district-wise targets for revenue realisation, arrears collection, ACD, etc., are fixed tentatively as per enclosure and CES & SEs (O) are requested to take action for mobilisation of additional resources.

Where targets are proposed need revision, even upward revision, the SEs(O) may write to Board in the name cover of Member (Distribution) before 20.7.96.

Also a monthly report should be enclosed (as per format) to monthly news letter and posted positively by 5 th of every succeeding month. This will be closely scrutinized at highest level even in Government and any good or bad performance will not go un noticed. The performance in this respect shall have a bearing on the rating of the performance of SEs(O) and CEs/Zones.

Encl: 2 formats

Member (Distribution)
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<tr>
<th>DISTRICT</th>
<th>LT Demand per month</th>
<th>HT Demand per month</th>
<th>Total Demand per month</th>
<th>Total Per annum</th>
<th>Extra amount to be collected per annum</th>
<th>Targets per annum</th>
<th>LT Arrears</th>
<th>Rs.inCrores</th>
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| TOTAL        | 92.56               | 115.56              | 208.12                 | 2497.44         | 450.00                                 | 2947.44           | 265.48     |
## MONTHLY REPORT TARGETS AND ACHIEVEMENTS

### REVENUE RECEIPTS

<table>
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<th>S. No</th>
<th>ITEM</th>
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<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>ACD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Collection of FA Amount</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Collection of 50% of IA amount</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Sale of scrap, un serviceable obsolete items</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Development charges for regularisation of additional connected load</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Any other items to be specified</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### REVENUE RECEIPTS

- **a)** Total annual target
- **b)** Monthly achievement
- **c)** \% of b to a
- **d)** Cumulative achievement
- **e)** \% of d to a
Chairman APSEB has reviewed the Meter Reading Registers at Siddipet, Medak, Khammam, Nizamabad, Kalwakurthy etc. and the following deficiencies are noted. Instructions as given below should be followed scrupulously hence forward.

1. The top entries like consumers name, tariff, connected load, meter number, Multiplying factor, nature of premises like cloth shop, Rice Mill, Ice factory, Nursing home etc., should invariably be noted. No top entries should remain unfilled.

2. The meter readings are shown as stuck up or meter burnt out for successive months, door lock, not using, RNF etc., certain average consumption as per whims and fancies of the Section Officers are being noted for billing. The Consumption may be computed as per the procedure given in Annexure-1.

3. No service should be left without meter reading beyond two successive readings and it is the responsibility of the Section Officer to restore correct meter reading within this period. Not only meter readings but also the difference as well as net consumption by duly employing Multiplying factor should also be recorded. However, meter reading should be initiated by the person who took the meter reading.

4. Whenever there is a change of meter, make and capacity, the final reading of the old meter and the initial reading of the new meter should invariably be recorded and initiated by the authority who changed the meter with date.

5. Whenever the service is disconnected for whatever reason, the reading at the time of disconnection should invariably be noted in the meter reading register and also under intimation to ERO. If progressive reading is observed on subsequent date the consumer is to be penalised for malpractice as per terms and conditions. If however the service is reported for disconnection without actual disconnection the concerned distribution staff has to be dealt with for disciplinary action. Similarly whenever a service is reconnected, date of reconnection, and meter reading at the time of reconnection with date and time should be recorded in the meter reading register and with due intimation to ERO. Entries like meter stuckup, meter burnt out, door lock or UDC can be written when no progressive reading is observed but no remarks such as not using etc should be written. All new services released should invariably be entered in the meter reading register by opening new folios with all top entries wherein the test report has been sent to ERO should be recorded. Correspondingly the ERO should make entries in the consumers ledger and followup successive meter readings in the initial month.
8. The meter reading registers should be reviewed and check readings taken as prescribed in Annexure(B) or memo no.CE(O) 16/F.Misc/D.No.96/96, dt. 27.4.96.

9. The exception such as high or low consumption, readings not furnished, door locks, negative readings, stuckup, burnt meter, change and under disconnection should be attended for first occurrence and subsequent occurrences as prescribed in annexure(A) of Memo No. CEO-16/F.Misc/D.No.96/96 dt. 27.4.96.

10. The meter reading forms the basic record for billing and realisation of revenue due to Board and therefore meter reading entries should be sacred. The Divisional Engineers, Superintending Engineers and Chief Engineers are requested to review the meter readings and billing activity of Field Officers and EROs consistently and ensure that instructions of the Board are implicitly followed. The reviews conducted by them must be recorded in the review sheet of all registers. Also a copy of the review notes given should be furnished to CE/DPE/Head Quarters with a copy to FA&CCA (Revenue).

11. A weekly report as per Annexure-2 at the reviews of registers made by the Officers as per Annexure (A) & (B) of memo referred in paras 8 and 9 above should be sent to CE/DPE. The review of high value services shall be completed by 30.5.96.

Encl: Annexure-2.

A.K. KUTTY
Member Secretary.
ANNEXURE-1

Formula for assessment of Consumption when Meters are stuckup/Burnt/Not working/Door lock/etc.

Connected load in KW x Diversity factor x Load factor x number of working hours per day x No. of days in a month. The factors to be adopted are

<table>
<thead>
<tr>
<th>SI No</th>
<th>Category-</th>
<th>Diversity factor</th>
<th>Load factor</th>
<th>No. of working hours per day</th>
<th>No. of days per month</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Domestic</td>
<td>50%</td>
<td>40%</td>
<td>24</td>
<td>30</td>
</tr>
<tr>
<td>2.</td>
<td>Non-Domestic and commercial</td>
<td>90%</td>
<td>90%</td>
<td>10</td>
<td>25 or 30 as the case may be</td>
</tr>
<tr>
<td>3.</td>
<td>Indl. including cottage Industry</td>
<td>Unity</td>
<td>80%</td>
<td>8, 16, 24 depending on No. of shifts</td>
<td>25 or 30 as the case may be</td>
</tr>
<tr>
<td>4.</td>
<td>Agrl.</td>
<td>Unity</td>
<td>80%</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>5.</td>
<td>Public lighting</td>
<td>Unity</td>
<td>100%</td>
<td>8</td>
<td>30</td>
</tr>
</tbody>
</table>

ANNEXURE 2 PROFORMA FOR WEEKLY REPORT

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Date</th>
<th>Action as per Annexure (A)</th>
<th>Action as per Annexure (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Check reading taken</td>
<td>Exceptional checked</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No. of service</td>
<td>Weekly progress</td>
</tr>
</tbody>
</table>

Signature and date of Officer with date
Memo No. CE(O)/SETO/DE/MT/AE2/D.No. 1561/96. Dt. 3-5-96

Sub: Replacement of burnt/stuck-up meters - Reg.

The position of burnt and stuck-up meters was reviewed. It is found that there is a large pendency in replacement of stuck-up in burnt meters and the number being replaced per month is very low compared to the pendency. As on 31.3.96, 2,31,383 stuck up meters and 20552 burnt meters have to be replaced. As the pendency of stuck up and burnt meters has a direct bearing on the revenues of the Board, the Chief Engineer (Zones) are requested to take action as indicated below.

A Programme may be drawn to replace all the stuck-up and burnt meters in the next 3 months. The work should be completed by 31.7.96.

The Superintending Engineers should organise groups consisting of the Sub-Engineer, the Lineman and contract persons for attending to this work.

The Divisional Engineer (Operation) may be made responsible for completion of this work within the time frame. Daily targets may be fixed for each group.

Top priority should be given to replace burnt/stuck-up meters of all the industrial and high value commercial services.

Random check of the services where the meters are frequently stuck-up/burnt may be arranged.

In case the consumer is not coming forward to pay the cost of the meter for replacement the burnt meter shall be replaced & the cost of the meter and replacement charges may be included in the current consumption bill.

The field officers may be instructed to replace the defective, stuck-up and burnt meters in the same month of detection, specially in the case of L.T. Industrial and other high value services.

The Chief Engineer (Zones) are requested to furnish information regarding make-wise/capacity-wise meters failed during 1995-96. The performance of meters of various makes and the defects noticed may also be reported.

for Member (Distribution)
Chairman APSEB

Sub:   Review of MRBs and Exceptionals, etc. - Strict implementation of instructions Reg.

Ref:   Board's Memo.No.CEO-16/96/96 Dt.27-4-96.

Instructions were issued fixing schedules and norms for meter readings, check readings, inspections, review of exceptionals and MRBs vide Board's Memo, cited.

It is however observed during inspections of distributions that the MRBs are not being reviewed by ADEs and DEs and the deficiencies are left unchecked.

A review of progressive readings at a service with reference to MRB provide a clear pointer to the malpractice or theft at a service and also the incorrectness of readings requiring attention. Chairman himself has reviewed numerous MRBs at a number of distributions in Medak, Warangal, Nalgonda, Nizamabad, Karimnagar, Adilabad, Vizag, Vizianagaram and Hyderabad City and could pick up a number of services requiring special checks. Subsequent checks got conducted have revealed wrong readings being noted, defects in metering progressive readings at disconnected services, malpractices and even thefts.

It is therefore imperative that the schedules drawn up, which have a definite purpose are mandatory.

All DEs are the designated officers to ensure that the MRBs are reviewed by ADEs and AEs and also by themselves. Review notes should be communicated and followed up till metering/billing is set right at services.

Any laxity found during future inspections in respect of review of MRBs/Exceptionals as per schedules drawn up vide reference cited will be viewed very seriously and disciplinary action taken straight away as the lapse is clear and no explanations are necessary.

(J. Parthasarathy)

25-6-97
Sub: Meter Reading Register / Responsibility for meter reading and review - Reg.

Ref: 1. Memo No.CEO-16/F-Misc/D.No. 151/95 dt.9.6.95
2. Memo No.CEO-16/F-Meters/D.No.248/95 dt.25.8.95
3. Memo No.CEO-16/F-Misc/D.No.249 dt.25.8.95
4. Memo No.CEO-16/F-Misc/D.No.363/95 dt.7.12.95

I. Chairman, A.P.S.E.Board during his field inspection has observed that the Meter Reading Registers are not being reviewed by Senior Officers. Instructions were issued time and again and copies of the above references are enclosed herewith.

Prompt and correct Meter Readings is the starting point for revenue billing and revenue realisation and Board can ill afford any laxity at this stage.

In order to ensure prompt meter readings, their review and ensuring proper sealings and security; responsibilities are fixed as per Annexure 'B'.

These instructions come into force with immediate effect and the M.R.Ps should be produced during inspection.

It may be noted that any let up in following these instructions will result in severe punishment to the concerned.

II. It is further noticed that the private Accounting Agencies are generating reports on exceptionals as shown in Annexure-'A'. A review of the exceptionals reported and action thereon will rectify the same. The officer designated below is held responsible for ensuring that the exceptionals are attended to as per the annexure enclosed. Wherever exceptional reports are not being received, the PAA's may be addressed to send them as per details mentioned in the Annexure.

End: Two Annexures. Member Secretary
# ANNEXURE – A

<table>
<thead>
<tr>
<th>First Occurrence</th>
<th>Subsequent Occurrence</th>
<th>Repition more than 3 times</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## I. READINGS

- a) Consumption too high (over 120% of normal)
- b) Consumption too low (below 80% of normal)
- c) Reading not furnished
- d) Door lock
- e) Disconnected service showing progressive reading
- f) Negative reading
- g) Comparison of consumption for similar units per HP

## II. Meter defects

- h) Stuck up
- i) Burnt
- j) Not existing
- k) Meter change

## III. Service Status

- l) Under disconnection for more than 3 months
- m) to be dismantled

## IV. Inspection of HT Services

- n) Low power factor
- o) Stuckup
- p) Unmetered due to CT/PT or meter defective
- q) Max demand low or high

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162
<table>
<thead>
<tr>
<th><strong>ANNEXURE – B</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Meter Reader (O &amp; M)</strong></td>
</tr>
<tr>
<td><strong>LT Services (which Are not high value) Cat I &amp; II</strong></td>
</tr>
<tr>
<td><strong>LT High value Cat.I &amp; II services and all</strong></td>
</tr>
<tr>
<td><strong>HT Readings 1000 KVA and</strong></td>
</tr>
<tr>
<td><strong>HT Readings Above 1000 KVA</strong></td>
</tr>
<tr>
<td><strong>Sealing of Terminal Cover etc. and Upkeep of Security Of metering</strong></td>
</tr>
</tbody>
</table>
Memo.No.CEO -16/F.Misc/D.No.363/95 dt. 7.12.95.

Sub: Collection of LT arrears - Disconnection of Services - Reg.

The revenue arrears of APSE Board are 88 days of average billing demand, whereas, revenue arrears of Tamilnadu Elecy.Board are about 45 days of average billing demand, while submitting proposals for increase in tariffs, APSEBoard has given assurance to government that the revenue arrears will be reduced to 45 days billing demand. The effective disconnection of services of defaulting consumers is the only way to ensure that the arrears are realized expeditiously. Hence all field officers are requested to bestow special attention for disconnection of services and ensure that revenue realization target is achieved. In this context, the following instructions are issued for strict compliance.

1. Separate disconnection lists shall be got prepared for High value services and group-wise for other services.

2. The disconnection of High value services should be given first priority. Others (Bi-monthly services) shall be classified into four groups as indicated below. The officers who shall watch the disconnection of these services is also indicated against each group:

<table>
<thead>
<tr>
<th>Services with arrears</th>
<th>Rs.20,000</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>more than</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Services with arrears</td>
<td>Rs.20,000 to 5,000</td>
<td>DE</td>
</tr>
<tr>
<td>Services with arrears</td>
<td>Rs.5,000 to 1,000</td>
<td>ADE</td>
</tr>
<tr>
<td>Services with arrears</td>
<td>Rs.1,000</td>
<td>AE</td>
</tr>
<tr>
<td>less than</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Divisional Engineers are authorised to enter into Chit and K2 agreements for O&M services with approval of Superintending Engineers in Board's Memo CEO-16/F.Misc/D.No.214/95, dt. 14.8.95. Some of the field officers have represented, particularly from Telangana Districts, that number of services under 'D' list are 50% to 80% of total services and it is not possible to arrange disconnection of all these services by (O&M) staff. It is hereby clarified that all the services should be disconnected by giving the work on contract, if required. Non-disconnection of services will be considered as dereliction of duty and disciplinary action will be taken. All the disconnections should be made at pole only. Such dereliction of duty shall be mentioned in the Annual Appraisal Report by the Reporting Officer. The Divisional Engineer should organize the disconnections distribution wise, Section-wise, fixing the dates, ear-marking the staff contracted to attend the same. All services should be disconnected by 31-12-95 positively.

4. It is seen that large number of services are shown as 'Door locked' for year together. If a service is under door lock for two consecutive meter readings, a notice shall be served for disconnection of service, and staff should be sent for meter reading every month thereafter. If the service is Door locked' for third meter reading also, it shall be got disconnected at pole. In respect of two consecutive door locks, the next higher official to the one normally recording readings, shall go for recording the meter reading.

5. The arrears of categories other than agricultural, particularly Cat.I & II, is large. Hence special attention shall be paid for disconnection of Cat.I & II services, particularly in Urban areas. All efforts shall made to bring down the arrears under Cat.I & II.

6. Huge arrears are due from Municipalities and Government departments. The services other than street lights, essential services, Hospitals, Water works, Traffic Signals, Police
Stations, etc. shall be got disconnected. Divisional Engineers and Superintending Engineers shall write DO. letters to District Officials to pay the amounts giving adequate time and also contact them and disconnect the services. Thereafter services may be reconnected on part payment only. If Municipality is in arrears for street lights, their services for Municipal Offices may be disconnected. The amount in dispute, for example water works tariff for major panchayats, should not be considered as arrears for the purpose of disconnection.

7. All the services under disconnection for more than three months shall be dismantled. Non-dismantling of services will be considered as dereliction of duty. All services in urban area due for dismantlement shall be got dismantled, if necessary by giving the work contract. All services due for dismantling shall be dismantled positively by 31.12.95.

8. It is reported that in a number of villages wherever domestic services are disconnected, supply is availed by direct tapping of LT lines. It is also reported that the transformer fails frequently due to extensive usage of heaters by domestic service consumers. In all such cases, the village distribution is to be converted to single phase high voltage distribution system by erecting single phase transformers and LT AB cable and consumers should be informed that they will be responsible for failure of their transformers and repair costs have to be borne by them.

The receipt of this memo shall be acknowledged.

for Member Secretary
Memo No.CEO 16/F.Meters/D.No. 248/95 dt. 25/8/95

The position in respect of stuck up and burnt meters is alarming. There are over 2 lakh single phase connections and over 6500 numbers 3 phase connections with stuck up meters. The necessity to replace stuck up & burnt meters without delay came up in a number of meetings with the superintending Engineers/ Operation but no tangible progress is seen in this regard.

The Chairman has observed that, when he went round the Meter testing labs at Nizamabad recently, there were piles of meters awaiting testing. All of them were lying pell mell and without terminal covers. There appeared to be no regular system of inspection and review by higher officers.

There are 86 nos single phase test benches and about 89 members 3 phase ones in the various circles for testing energy meters. To expedite testing of meters the Board has decided to purchase more test benches.

The Board has decided that the Superintending Engineers/Operation should take up a crash programme to replace all stuck up and burnt meters before end of October, 1995.

Services without terminal covers is another area which is much neglected. Despite instructions from Board there is little progress in providing the services with terminal covers and in sealing them.

A programme should be launched to see that terminal covers are fixed to all L.T. services and that they are all properly sealed. For High value services providing of seal to terminal covers shall be completed by 31.10.1995 and for other services by 31st December, 1995.

It is the responsibility of the Line Inspector to see that the terminal covers of all the services are sealed. The section officers should ensure this and test check 10% of the services. The A.D.E in turn should test check 5% of the services in his subdivision. A certificate to the effect that all the terminal covers have been provided to all the L.T. services and that they have been properly sealed shall be obtained by the S.E.s/Operation concerned from the Line Inspectors. Similar certificate should be obtained regarding inspection from the section officers and A.D.E.s

A register shall be maintained in each section office and it shall indicate service wise the date on which the terminal cover of each service was sealed. This is to be reviewed by higher officers from time to time.

The Chief Engineer, Operation will monitor the progress in this regard and appraise the Board periodically.

for MEMBER SECRETARY
Memo No.CE/16/F.Misc./D.No. 249/95 dt. 25/8/95

Sub: APSEB Wrong categorisation of services in Urban areas Reg.

It is brought to the notice of the Chairman that several houses who obtained services under domestic category are later let out to commercial establishments like shops, clinics, schools, banks etc and are still being billed on domestic tariff, such services are many in Metro/Urban areas causing loss of revenue to Board.

Chairman desires that Asst. Engineers and Asst. Divisional Engineers in charge of the distributions to personally take up this issue and see that reclassification and application of appropriate tariff is ensured in all such cases before 31.10.95.

Chairman has also observed that if after 31.10.95 cases are detected with wrong categorisation; the concerned Asst. Engineer/Addl. Assistant Engineers in charge of the distribution shall be held responsible and disciplinary action taken against him.

The receipt of this memo shall be acknowledged by return of post marking a copy of instructions issued to field.

for Member Secretary.
Memo No. CE(OM6/F. Misc/D.No. 239/95 dt 19-8-95


The zonal Chief Engineers may be aware that in a recent Judgement delivered by the Hon'ble High Court of Andhra Pradesh, Andhra Pradesh State Elecy. Board has been ordered to pay an amount of Rs.3 lakhs by way of compensation to a 9 year old boy electrocuted, having come in contact with a HT wire running close to the proximity of the building.

As per the Indian Electricity Rules 1956, certain minimum clearances have to maintained above ground and from buildings in respect of Electrical lines of various voltages. An abstract of the relevant IE rules is enclosed herewith.

The Zona Chief Engineers are requested to instruct the field officers to inspect the areas and take necessary action wherever the clearances are not maintained as per the stipulations.

Receipt of this Memo may be acknowledged.

Encl: As above

N.S. HARIHARAN
Member Secretary
INDIAN ELECTRICITY RULES, 1956

Rule 77. Clearance above ground of the lowest conductor:

1) No conductor of overhead line, including service lines, erected across a street shall at any part thereof be at a height less than -
   a) for low and medium voltage line ... 5.791 metres (19ft.)
   b) for high voltage line ... 6.096 metres (20 ft.)

2) No conductor of all overhead line, including service lines, erected along any part thereof be at a height less than-
   a) for low and medium voltage lines 5.486 metres (18 ft.)
   b) for high voltage lines 5.791 metres (19ft.)

3) No conductor of an overhead line including service lines, erected elsewhere than along or across any street shall be at a height less than
   a) for low, medium and high voltage lines 4.5742 metres (15ft.)
   b) for low, medium and high voltage lines 3.963 metres (13ft.)
   c) for high voltage lines above 11,000 volts 5.182 metres (17 ft.)

4) For extra-high voltage lines the clearance above ground shall not be less than 17ft. plus (1 foot) for every 33,000 volts or part thereof by which the voltage of the lines exceeds 33,000 volts. Provided that the minimum clearance along or across any street shall not be less than, 6.096 metres (20 feet)

Rule 79. Clearance from buildings of low and medium voltage lines and service lines

1) Where a low or medium voltage overhead line passes above or adjacent to or terminates on any building, the following minimum clearances from any accessible point, on the basis of maximum sag. shall be observed:
   a) for any flat roof, open balcony, verandah roof and leanto roof
      i) When the line passes above the building a vertical clearance of 8 feet from the highest portn, and
      ii) When the line passes adjacent to the building a horizontal clearance of 4 feet from the nearest point, and
   b) for pitched roof
      i) When the line passes above the building a vertical clearance of 8 feet immediately under the lines, and
      ii) When the line passes adjacent to the building a horizontal clearance of 4 feet.

2) Any conductor so situated as to have a clearance less than that specified in sub-rule (1) shall be adequately insulated and shall be attached at suitable intervals to a bare earthed bearer wire having a breaking strength of not less than 700 lbs.

3) The horizontal clearance shall be measured when the line is at a maximum deflection from the vertical due to wind pressure.
Rule 80: Clearance from buildings of high and extra-high voltage lines:

(1) Where a high or extra-high voltage overhead line passes above or adjacent to any building it shall have on the basis of maximum sag a vertical clearance above the highest part of the building immediately under such line, of not less than:

a) for high voltage lines upto 12 ft. and including 33,000 volts.

b) for extra-high voltage line 12 ft. plus 1 ft. for every additional 33,000 volts or part thereof.

2) The horizontal clearance between the nearest conductor and any part of such building shall, on the basis of maximum deflection due to wind pressure be not less than:

a) for high voltage lines upto and including 11,000 volts. 4 ft.

b) for high voltage lines above 11,000 volts and upto and including 33,000 volts 6 ft.

c) for extra-high voltage lines 6 ft. plus 1 foot for every additional 33,000 volts or part thereof.
D. ESTABLISHMENT, GENERAL AND MISCELLANEOUS
ANDHRA PRADESH STATE ELECTRICITY BOARD

ABSTRACT


PROCEEDINGS:

The Chief Engineer, Electricity, Transmission has stated that there was a fire accident occurred in valve Hall of H. V.D.C. Station, Lower Sileru on 7-10-96 while attempting export of power to M.P over LS-BS HVDC link. Sri B. V Ramana, Assistant Engineer with the assistance of other three Assistant Engineers has controlled the fire accident. Sri B.V.Ramana, Assistant Engineer has carried out the following rectification works independently at site.

1. He has taken the Transient Fault Recorder (TFR) to Delhi for rectification and the same was installed and commissioned by him after getting the TFR.duly rectified.
2. Thorough cleaning of all double valve structures and other equipment viz., surge arrestors, wall bushings, Earth Switches etc. in the valve hall, Plugging in of dust leakages in Air Blower Circuits.
3. Replacing of all damaged F.O. Cables with healthy ones and necessary connections to thyristers modules.
4. Conducting L. V Firing test on all 576 thyristor levels and replacing defective components wherever necessary.
5. Conducting H. V. Firing test on all 576 thyristor levels and replacing defective thyristers and thyristor electronics cards.
6. Cleaning, testing and commissioning of majority of smoke detectors of the fire alarm panel and putting the fire alarm system in regular service by bypassing the power module. No manuals are available at site and manufacturer is not responding our enquiries.
7. Testing of all electronic cards component wise and replacement/rectification and calibration of defective cards in control panels.
8. Testing of all electronic cards component wise and replacement/rectification and calibration of defective cards in protection panels.
9. Checking of all out door yard equipment for local/remote operation.
2. The Andhra Pradesh State Electricity Board, after careful consideration according
sanction of payment at one month salary (Pay + D.A.) for the month of August, 1997 to
Sri B.VRamana, Assistant Engineer and fifteen days salary (Pay + D.A.) to Sarvasri N.
Sunil Varma, Assistant Engineer, R. Sri Charan, Assistant Engineer and V. LakshmanRao,
Assistant Engineer in appreciation of the good work rendered by them.

3. This order issues with the concurrence of Member (Accounts) vide his U.O. No

(By ORDER AND WITH THE NAME OF THE ANDHRA PRADESH
STATE ELECTRICITY BOARD)

A.K. KUTTY
MEMBER SECRETARY
Memo.No. DP/DIR/DM(IR)/POII/17657/97Pt.22.8.97

Sub: Strikes - Strike by a section of employees on 18th and 19th August, 1997 - Non-payment of salary on the days of absence from duty - Orders - Issued.

The Govt. of A.P. in exercise of powers conferred by Sub-Sections (1) & (3) of Section 3 of A.P. Essential Services Maintenance Act, 1971 (Act No. 20 of 1971) have prohibited strikes in all services under the APSE Board vide G.O.Ms. No. 37, Energy Services A2 department Dt. 24.4.97.

A section of employees of the APSE Board have gone on two days strike on 18th and 19th August, 97 in violation of the above orders of the Govt and the Provisions of the Essential Services Maintenance Act, 1971.

The APSE Board hereby orders that salary for the period of absence shall not be paid to the employees who have absented themselves during the above days.

This order issues with the concurrence of Member (Accounts) vide U.O.No. 2286.MA/97 Dt:22.8.97. All Chief Engineers/FA & CCAs/Superintending Engineers are requested to take action accordingly.

A.K.KUTTY
MEMBER SECRETARY
ANDHRA PRADESH STATE ELECTRICITY BOARD
VIDYUTH Soudha : Hyderabad.

ABSTRACT

B.P. (P&B-Genl) Ms.No.112

General Services
Dated 8-8-1997

Read the following :

(1) B RMs.No.688 Dt. 1-7-88
(2) G O.Me.No.1302 Dt. 18-5-66
(3) B P.Me.No.263 Dt. 30-12-95
(4) G O.Me.No.35 Dt. 27-2-97

Proceedings:

1.0 In the reference 3rd cited, Board has issued orders for adoption of the procedure laid down in the Andhra Pradesh Government G.O.Me.No. 1302 Dt. 18-5-66 for accommodating the offices in different parts of the State and powers were delegated to the Chief Engineers and Superintending Engineers for sanction of rents with certain conditions.

2.0 In the reference 4th cited the Government of Andhra Pradesh has issued modification and rationalisation orders on present system of selection and fixation of rent for the private Buildings taken on lease by Government Departments duly fixing maximum ceiling of rents to have 6 tier classification of places.

3.0 The Chief Engineer/Civil (O&M) has submitted proposals to adopt the Government Order cited (4) for approving the rents to the private buildings accommodating the Board offices.

4.0 After careful consideration, the Board has approved the proposal of Chief Engineer/Civil (O&M) to adopt the procedure laid down in G.O.Me.No. 35 Dt. 27-2-97 for fixation of rents for the accommodation occupied by the Board offices from the date of issue of this B.P. for the buildings taken on rent.

5.0 The modified and rationalised system of selection and rent fixation for the private buildings taken on lease/rent by the Board is as indicated hereunder

5.1 The 6 tier classification of places with maximum ceiling of rents are indicated against each category

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Classification</th>
<th>Maximum ceiling of rent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a) Corporation of Hyderabad & Secunderabad. UptoRs.5.00perSft.

b) Corporation of Vijayawada and Visakhapatnam. Upto Rs.3.50-do-
(c) All other Corporations and special Grade and Selection Grade Municipalities. Upto Rs.2.75 per Sft.

(d) All Grade I Municipalities. Upto Rs.2.25 -do-

(c) All other Municipalities Upto Rs. 1.50 -do-

(f) All other places Upto Rs. 1.25 -do-

5.2 The above amount would be payable only for net usable area which cannot be more than net carpet area plus 10%, but within austerity standards.

5.3 The requirement of the building by any office is to be advertised in the District edition of local newspaper like Enadu etc. indicating the requirement of space as per austerity standards.

5.4 In response to the above advertisement Building owner having vacant space has to quote a specific lease rent per month they want as rent.

5.5 Committee comprising of the following members shall be constituted at the level of circle for selection of accommodation and scrutiny of rent proposals for approval.

1) Superintending Engineer of the circle
2) Senior Accounts Officer of the circle
3) Asst. Executive Engineer/Civil of the circle

5.6 The rent committee will check the suitability of the building starting with the lowest offer. In case the lowest offer is not suitable the second lowest offer will be inspected and evaluated for selection.

5.7 Board also delegates powers to the Chief Engineers and Superintending Engineers for sanction of rents as indicated below :-

C.E. .. Chief Engineer’s Office, Superintending Engineer’s Office
S.E.... Section Office, Subdivision Office, Division office, E.R.O. office

5.8 The norms for accommodation of each type of office based in cadre strength of each office considering austerity standards, along with provision for Toilets, Record room, Stationary room, visitors room, meeting hall and consumers waiting room etc. as relevant to the office are indicated below. These figures indicate the maximum limit for the area for each type of office but are to be worked out based on actual staff strength duly considering austerity standard.

<table>
<thead>
<tr>
<th>Office</th>
<th>Plinth area in Sq. Metre</th>
<th>Sq. Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>E.R.C</td>
<td>231.34</td>
<td>2500.00</td>
</tr>
<tr>
<td>Section</td>
<td>32.53</td>
<td>350.00</td>
</tr>
<tr>
<td>Sub-Division</td>
<td>32.53</td>
<td>350.00</td>
</tr>
<tr>
<td>Division</td>
<td>162.64</td>
<td>1750.00</td>
</tr>
<tr>
<td>Circle</td>
<td>464.68</td>
<td>5000.00</td>
</tr>
<tr>
<td>Zonal</td>
<td>302.53</td>
<td>3250.00</td>
</tr>
</tbody>
</table>

The norms for accommodation are to be revised as and when the offices are reorganised based on the following standards;

1) Officers of the rank of Chief Engineer, Financial Adviser of Chief controller of Accounts .. 240 Sq.ft. each

2) Officers of the rank of superintending Engineers .. 160 Sq.ft. each
3) All other officers upto the level Of Assistant
Divisional Engineers
Assistant Accounts Officer  120’ Sqft. each
4)  Technical Staff 60 Sq.ft. each
5)  Non-Technical Staff. 40 Sq.ft. ...

5.9 If the rent fixed in accordance with the above procedure works out to an amount higher than the one which is accepted by the lesser, rental certificate should be issued for lower amount only.

5.10 Before leasing the private building, it is to be ascertained whether any Board/Government building is available or not and the certificate to that effect to be recorded.

5.11 Plan showing the entire building along with details of the other occupancy and the site area to be recorded.

5.12 Rent reasonability certificate to be recorded by the committee formed for the purpose.

5.13 Once the building is selected within the maximum ceiling rent indicated in para 5.1 above, it can have an escalation factor at 5% for a block period of every 2 years thereafter.

6.0 The above order is issued in supercession of all the orders in existence on selection of private buildings and fixation of rent there on taken on lease for the purpose of accommodation of the A.P.S.E. Board offices.

7.0 This order is issued with the concurrence of M (A)/vide U.O.No.2102/MA/97 Dt. 28-6-97.

(BY ORDER AND IN THE NAME OF ANDHRA PRADESH STATE ELECTRICITY BOARD)

A.K.KUTTY
Member Secretary


In the B.P cited, certain guide lines on transfer policy, were issued for implementation, consequent on lifting the ban on transfers. The issue has been re-examined and the following orders are issued.

a) Items iv & v of para 3 of the B.P. cited shall be substituted as follows:

iv) The request transfers shall be considered after completion to two years in a post in the same cadre/location for (O&M) cadres.

v) Mutual transfers can be considered not as a matter of routine but depending on suitability at either end and on acceptance only, after completion of two years in a post in the same cadre/ location for (O&M) cadres.

b) The following shall be added as item xi in para 3 of the B.P. cited

xi) No employee shall normally be transferred unless he has completed 3 years in the post except in the cases of unsatisfactory performance of the candidate or compliants of corruption and other allegations against him. subject to administrative convenience If the performance is unsatisfactory, a charge sheet or a memo shall be issued to the candidate indicating the areas of poor performance A report shall be sent to the next higher officer on such transfers made and the grounds on which the transfer has been ordered.

A.K.KUTTY
Member Secretary
MEMO. NO:DP/DS/(PER)/PM(P)/1466-HI/95-6 Dt:23-6-97


Ref:- From Dr. M S. Rajajee, Chief Secy to Govt. of A.P., D.O. Lr.No.220/CSP/N/97. Dt. 19.5.97.

A Copy of the DO. letter cited is communicated herewith for necessary action.

A.K.KUTTY
MEMBER SECRETARY
Dear Sir,

Government had given instructions vide G.O.Ms.No.63, Fin & Pig, Dt.5-5-97 lifting the ban on transfers. Government wish to make it very clear that it is not the intention of the Government that large scale transfers should be effected under the pretext of this order of the Government. Government are keen that the transfers should be kept to the minimum and the transfers are based on certain norms and guidelines. The following guidelines are therefore prescribed:

a) Various departments would have prescribed their internal targets for their subordinates. Based on the performance appraisal, a person who has performed well and has achieved the target or nearly achieved the target may be given the place of his choice. This will however be subject to the restrictions on being posted to native place. This transfer will be as a measure of incentive so that others will also know that they will get a posting of their choice in the coming year of they achieve the target.

b) Those who have not achieved the target and done extremely badly are to be shifted to far away places as a measure of punishment. This is intended to give a signal to persons that if they do not perform well, they cannot continue to be in a place of their choice.

c) A small number of transfers and postings based on humanitarian considerations, compassionate grounds and based on requests to be backed by very genuine and compelling reasons.

CM. desires that where transfers are issued, a detailed statement should be prepared by each Department and the concerned Secretary should circulate to the Chief Minister's office, every week, the list of transfers which have been issued, indicating in a tabular statement, the grounds on which the transfers have been issued. This may be strictly complied with by all the Secretaries to the government.

Yours sincerely,

Sd/-
(M.S. RAJAJEE)
Dear Colleague,

Recently there has been a spate of news items and analyses on the subject of power sector reform in Andhra Pradesh. Naturally, every one of us in APSEB are concerned about these developments and many are having serious apprehensions. I am writing this letter to put before you the factual position and clear any misgivings in this regard.

As you are aware, Andhra Pradesh has been facing severe power shortages over the past many years. This is despite the fact that we have been taking all steps to generate the maximum out of our present installed capacity. Evidently there is need to augment the generation capacity, which is at present inadequate to meet the demand. But due to severe resource crunch we are not able to bring in the much needed increase in capacity to meet the relentlessly increasing demand.

To meet the growing demand, we were adding every year on an average 15 Nos. 220 & 132 K.V. Substations, 100 Nos. 33/11 KV Sub-stations, 10,000 distribution transformers and distribution lines. All the construction activities have come to a grinding halt. No new agricultural services could be released in 1996-97 except regularising 1.70 lakh unauthorised agricultural services. After KTPS V, no new power project could be launched. Even for KTS V funds for unit 9 only could be secured with the intervention of the State Government. Funds for unit 10 are yet to be secured.

Consequent on the liberalised policy of the Government of India for attracting private investments in the power sector, the State Government has taken a number of steps to promote power generation in the private sector. A number of developers are willing to set up power plants to meet the demand but the present financial health of APSEB is causing misgivings in respect of its ability to pay for the purchases of power. The Board is currently facing problems of huge outstanding liabilities, revenue deficit and grave difficulties in mobilisation of resources needed to augment of generation, transmission and distribution systems. There have been serious incidents of unrest and violence against the Board's property and its employees in recent times, stemming from instances of poor voltages and inadequate supply of power.

The Andhra Pradesh Government has earlier appointed a High Level Committee headed by Sri Hiten Bhaya to look into the status of APSEB and provide guidelines on the future structure of the power sector in Andhra Pradesh. The Committee, as you are aware, has suggested restructuring of the APSEB.

The State Government after examining the recommendations is of the view that APSEB needs to be restructured to achieve a number of objectives like imparting autonomy to various functional units of the power sector and enabling them to operate along commercial lines. The Government feels that is necessary to separate policy, regulatory and management functions. To this end it has envisaged to put under way a reform process which will be managed by a three tier set up consisting (1) a Steering Committee under the Chairmanship of the Chief Secretary to State Government (2) a Task Force to be chaired by the Secretary to Government, Energy Department and (3) a number of working groups of APSEB to deal with various specific business areas. The various components of the reform strategies are indicated in the enclosed statement of the Government of Andhra Pradesh in respect of the policy on power sector reform.

I may add that, I am of the sincere view that the restructuring as proposed by the State Government will not affect the interests of the employees. The State Government and the APSEB have made this amply clear to the employee representatives and associations and unions and...
solemnly promised to that effect. In fact, I believe, the reforms would better the career prospects of the employees. With a view to having a detailed discussion with all of you, I am planning a series of Zonal and Circle-level meetings commencing from next week. I am confident that during the course of these meetings, I will be able to clear your apprehensions about these proposals. In fact, I would like to use this occasion to ascertain your suggestions and concerns so that the ultimate policy that emerges is in the best interests of not only the State and the consumer at large but also protects and even enhances the prospects of the employees of the Board.

I would therefore request you not to get agitated or get carried away by the opinions expressed by ill-informed persons, however well meaning they may be. On the other hand, I would like all of you to go through the statement in an objective and dispassionate way keeping in view our present difficult situation, the challenges that are ahead of the power sector, the broader perspective of the State's development and the consumers' needs.

In this context, it would not be out of place to mention that the power sector throughout the world is under transformation - in both developed and developing countries. Even in countries like the U.S., where much of the supply of power is being carried out by vertically integrated bodies primarily in the private sector, restructuring is taking place in order to create competition in generation and distribution and to create an environment in which fresh investments can take place without long-term guarantees but based on market conditions of supply and demand. I would like to have your suggestions and considered views in this regard.

Yours sincerely.

(J. PARTHA SARATHY)
ANDHRA PRADESH STATE ELECTRICITY BOARD
VIDYUT SOUDHA, HYDERABAD

ABSTRACT

Estt-APSEB Appointment of Contract Labour engaged against 33 abolished categories in the Generating Stations- Guidelines-Issued.

Read the following:-

G.O.Ms.No.41, Labour Department. Dt.23-9-96

In G O.Ms.No.41, Labour Department, dated 23-9-96, Government of Andhra Pradesh has prohibited employment of contract labour in 33 categories in the APSE Board. Those contract labour working against these categories in various power stations of the Board have represented for regular appointment as they have been working since a long time

2. The APSE Board after careful consideration issues the following orders-

i) The contract labour working against 33 abolished categories in various generating stations shall be considered for appointment by selection against new posts in each of the generating station being sanctioned separately.

ii) Such of those contract labour not getting covered for appointment against new posts being created in the respective generating stations, shall be considered for appointment by selection against existing vacancies available at various other places in the Board.

iii) Age: Age shall be reckoned as per Board’s service Regulations in force at the time of their first engagement. There shall be no relaxation of age

iv) Educational Qualifications: Educational qualification shall be as per Board’s Service Regulations in force at the time of their first engagement. There shall be no relaxation in educational qualification or relevant other technical qualifications where are prescribed in the Service Regulations for such appointment.

v) Seniority:- The seniority shall be reckoned based on the total period of service rendered by the respective candidates in the unit as per muster rolls/wage registers or as per the records maintained under the contract labour (Regulation and Abolition Act 1970) Separate seniority list shall be prepared for each category as per their eligibility.

vi) Rule of Reservation: The rule of reservation as per roster in terms of Regulation-22 of APSEB Service Regulations Part-II shall be followed.

vii) Selection Committee:

The following Selection Committee is constituted:-

a) Director Personnel
b) Concerned Chief Engineer from Generating Station/Zone
c) Dy. Secretary (Personnel)
d) Director Industrial Relations (Member Convenor)

e) The Selection Committee constituted above shall select the candidates suitable for appointment to each category and communicate the lists to the concerned appointing authorities. They shall appoint depending upon vacancies available duly adopting the rule of reservation in terms of Regulation-22 of APSEB Service Regulations Part-II.
ix) Reduction of equal number of contract labour to the extent that are regularly employed in each unit shall be ensured and no further engagement of contract labour would be permissible in those abolished categories.

(BY ORDER AND IN THE NAME OF THE ANDHRA PRADESH STATE ELECTRICITY BOARD)

A.K. KUTTY
MEMBER SECRETARY.
ANDHRA PRADESH STATE ELECTRICITY BOARD
VIDYUT SOUDHA, HYDERABAD

ABSTRACT

Estt. APSE BOARD - Filing up of 50% existing vacancies in initial recruitment cadres by Ex-casual labour who obtained court orders and village Electricity Workers - Orders - Issued.


Read the following:

1. Minutes of Joint Meeting dated 5.3.96 with the three recognised unions.
2. B.P.(P&GPer)Ms.No.228,dt.27.1.97.
3. B.P. (P&G Per)Ms.No. 17, dt. 22.4.97.

PROCEEDINGS:

In the Joint Meeting held on 5.3.96 with the three recognised unions, it was agreed, interalia, to fill-up 50% of the vacancies of the following initial recruitment cadres on receipt of permission from Government, by considering the cases of Ex-casual labour covered by court cases who have to be given second chance contract labour and Village Electricity workers.

JLM/JPA/JA/LDC/RC/Typist/Sub-Engineers

2. In the reference second cited, certain guidelines have been issued to consider these cases for appointment against 50% vacancies in the above mentioned categories.

3. The APSE Board has re-examined the issue in the light of the orders issued by Government in the reference last cited and also the developments that took place with reference to the abolition of 33 categories of contract labour in Generating Stations in G.O. Ms. No.41 Labour Department dt.23.9.96 and decided to consider the cases of Ex-casual labour covered by court orders who have to be given second chance, Village Electricity Workers and contract Labour not covered by 33 abolished categories in Generating Stations, against 50% of existing vacancies in the above initial recruitment cadres.

4. The APSE Board accordingly issues the following orders in supersession of the orders issued in the references 2 & 3rd cited.

i) Ex-casual Labour:

The Ex-casual Labour who were already interviewed but failed in the test and given second chance and also obtained interim orders from the High Court for consideration are only eligible for selection for appointment against 50% of the existing vacancies in accordance with the guidelines contained in Memo No.DP/DM-I/A3/I 138/85-1, dt.26.9.85 and read with Memo No.DP/ DM-I/G2/2549/93, dated 14.9.93.

ii) Village Electricity Workers:

In terms of the agreement, dated 5.3.96, the cases of Village Electricity Workers shall be considered for selection and appointment against 50% of the existing vacancies subject to the condition that they are not eligible to derive any benefit for their earlier service and on selection they will be appointed as fresh candidates in A.P.S.E.B.

iii) Contract Labour:

The Contract Labour other than those engaged in 33 abolished categories in Generating Stations shall be considered for selection and appointment against 50% existing vacancies.

The guidelines for selection of the candidates from the above categories shall be as follows:
a) Age: Age shall be reckoned as per Board service regulations in force at the time of their first engagement. There shall be no relaxation of age.

b) Educational Qualifications: Educational Qualification shall be as per Board's service regulations in force at the time of their first engagement. There shall be no relaxation of educational qualifications or other relevant technical qualifications which are prescribed in the service regulations for such appointment.

c) Seniority: The seniority shall be reckoned based on the total period of service rendered by the respective candidates in the Unit as per muster rolls/wages registers or as per the records maintained under the Contract Labour (Regulation and Abolition) Act, 1970. Separate seniority list shall be prepared for each category as per their eligibility. The continuous period of working shall be taken for purpose of reckoning seniority in respect of Village Electricity Workers.

d) Rule of Reservation: The rule of reservation as per roster in terms of Reg.22 of A.P.S.E.B. service Regulation Part-II shall be strictly followed.

e) Selection Committee:
   i) Director Personnel
   ii) Concerned Chief Engineer from Generating Station/Zone.
   iii) Deputy Secretary (Personnel)
   iv) Director (Industrial Relations) - Member Convenor.

The selection committee constituted above shall select the candidate suitable for appointment for each category and communicate the lists to the concerned appointing authorities. They shall appoint the selected candidates depending upon vacancies available duly adopting the rule of reservations in terms of Reg.22 of APSE.Board Service Regulations Part-II.

(BY ORDER AND IN THE NAME OF A.P.S.E.BOARD)

A.K. KUTTY
MEMBER SECRETARY
ANDHRA PRADESH STATE ELECTRICITY BOARD
VIDYUT SOUDHA, HYDERABAD

ABSTRACT

Telephones - A.P.S.E.Board - Providing of STD facility to the office phones of the rank of Divisional Engineers & equivalent and above and increasing ceiling limits on telephone calls - orders - Issued.

B.P. (P&G-Genl)Ms.No.35 Date: 15.5.97

Read the following:

1. B.P. (P&G-GENL) Ms.No.332. Dt.29.10.1990
3. B.P. (P&G-Per)Rt.No.344. Dt. 3.2.1995

PROCEEDINGS:

1. In partial modification of the orders issued in references cited, approval is hereby accorded to provide STD. facility to the direct telephones provided in the office of Divisional Engineers and offices of equivalent cadre and above.

2. Also, in view of the installation of FAX machines in the offices of Chief Engineers/Superintending Engineers/Divisional Engineers or equivalent in order to provide scope for quick exchange of information and to facilitate transmission of important and urgent messages, the ceiling limits on the telephone calls of the officers, in the offices and residences are revised as below

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Category of Officers</th>
<th>Office</th>
<th>Ceiling Fixed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Zonal C.E.sand</td>
<td>6000 Calls per month inclusive of free calls and also including charges on STD calls</td>
<td>1000 calls per month inclusive of free calls</td>
</tr>
<tr>
<td></td>
<td>functional Heads</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>in Head Quarters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>SEs or equivalent</td>
<td>4000 calls per month inclusive of free calls and also including charges on STD calls.</td>
<td>1000 calls per month inclusive of free calls</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>DEs or equivalent</td>
<td>2000 calls per month inclusive of free calls &amp; also including charges on STD calls.</td>
<td>1000 calls for 2 months inclusive of free calls (NO STD)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>ADEs or equivalent</td>
<td>1000 calls per month inclusive of free calls (NO STD)</td>
<td>1000 calls for 2 months inclusive of free calls (NO STD)</td>
</tr>
</tbody>
</table>

2. These orders will come into force with immediate effect.
(BY ORDER AND IN THE NAME OF CHAIRMAN, APSEB)

A.K. KUTTY
MEMBER SECRETARY
ANDHRA PRADESH STATE ELECTRICITY BOARD
VIDYUT SOUDHA, HYDERABAD

ABSTRACT

DELEGATIONS: Delegation of Powers to certain Officers of the Board at Head quarters in respect of matters pertaining to publication of tender specification, Treating of certain V. IPs as Board Guests and sanction of P&T phones - Order Issued.


Read the following:


PROCEEDINGS:

The existing orders in respect of matters relating to sanction of Telephones to eligible Officers, treating of certain VIPs as Board Guests and Publication of Tender Specifications/Advertisements have been reviewed by the Board.

2. With a view to reduce the delays and to keep a check on the expenditure, it has been decide that in respect of the matters mentioned in para 1 above approval/concurrence of Member concerned shall be obtained by the Functional Heads/Officers to incur the expenditure.

3. After careful consideration of the matter, the Andhra Pradesh State Electricity Board hereby delegates powers in respect of matters indicated in the Annexure to this B.P. to the Functional Heads/Officers concerned, to issue orders, subject to budget provision.

4. All the orders issued by the Officers concerned where concurrence of the Member/Members of the Board is obtained should invariably contain a para stating that "This order issues with the concurrence of Memeb () vide U.O.No dated ."

5. Except to the extent indicated in the Annexure to this B.P. all the other powers which are delegated in the B.Ps/Memoranda cited and as modified from time to time will continue to be in force until further orders.

(By Order and in the Name of the ANDHRA PRADESH STATE ELECTRICITY BOARD)

A.K. KUTTY
Member Secretary
<table>
<thead>
<tr>
<th>SL.No.</th>
<th>Subject</th>
<th>Authority empowered to issue orders</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Treating certain VIPs as Board Guests and to sanction expenditure.</td>
<td>Functional Head/Deputy Secretary concerned after obtaining concurrence of Member concerned. The payment shall however be made after scrutiny of the bills by Dy. Chief Controller of Accounts/Audit.</td>
</tr>
<tr>
<td>2.</td>
<td>Sanction of Telephones to eligible officers including STD/ISD facility.</td>
<td>Functional head/Deputy Secretary concerned after obtaining concurrence of Member concerned. The sanction of Telephones under OYT category shall be with the approval of the Board only. T.S. to Chairman/Dy Secretary concerned after obtaining concurrence of Member concerned. The expenditure should be sanctioned as per DIPR/DAVP rates after scrutiny of bills by Dy. Chief Controller of Accounts/Audit.</td>
</tr>
</tbody>
</table>
| 3.     | Publication of Tender Specifications/Advertisements. | A.K.KUTTY  
 MEMBER SECRETARY.  
 PERSONNEL OFFICER. |
DELEGATIONS - Delagation of enhanced powers to Chief Engineers/Functional Heads at Headquarters - - Order Issued.

B.P.(P&G.Per) Ms.No. 12

1. B.P.Ms.No. 58, dated 3-2-1964
2. B.P.Ms.No. 362, dated 31-3-1984

PROCEEDINGS:

In the B.P.s cited powers have been delegated to various officers of the Board of enable them to execute the works efficiently and in time as per the physical target dates fixed and as per budget.

2. It has been observed that a number of files which require scrutiny by financial wing are being circulated to Member (Accounts) direct and in turn they are being referred to Financial Advisor & Chief Controller of Accounts by Member (Accounts). It has also been observed that proposals (i) involving no extra financial commitments (ii) involving amounts payable as per statutory levies, (iii) involving labour escalation as per terms and conditions (iv) involving enhancement of face value, irrespective of amounts (v) involving routine amendments without any financial implications etc. are also being circulated to Member (Accounts). With a view to reduce avoidable delays and to relieve the Member (Accounts) of routine work and to facilitate him to concentrate on qualitative work and major policy issues, the Andhra Pradesh State Electricity Board has reviewed the procedure now in vogue and decided to delegate the enhanced powers to Chief Engineers/Functional Heads concerned at Headquarters to issue orders after scrutiny by Internal Audit Wing/Accounts Wing, as the case may be, of the Board and after obtaining concurrence of the Member/Members of the Board concerned.

3. After careful consideration of the matter, the Andhra Pradesh State Electricity Board hereby delegates enhanced powers in respect of matters as indicated in the Annexure to this B.P, to the Chief Engineers/ Functional Heads concerned, to issue orders subject to budget provision, with immediate effect

4. All the orders issued by the Officers concerned where concurrence of the Member/Members of the Board is obtained should invariably contain a para stating that-

   "This order issues with the concurrence of Member:

   (___________) vide U.O.No. ________ dated ____________

5. Except to the extent indicated in the Annexure to this B.P. all the other powers which are delegated in the B.P.s cited and as modified from time to time will continue to be in force until further orders.

(BY ORDER AND IN THE NAME OF THE ANDHRA PRADESH STATE ELECTRICITY BOARD)

A.K. KUTTY

Member Secretary
DELEGATIONS: Delegation of enhanced powers to the Chief Engineer’s in charge of Generating Stations to sanction expenditure for availment of specialists, services of Engineers/Technicians of various firms - Revised delegation order-Issued.

B.P.(Proj.Gen) Ms No.5 Dated 11.4.97

1) B.P.Ms.No. 475 (MS) dated 4.5.84
2) B.P.Ms.No. 408 (MSC) dated 10.5.85

PROCEEDINGS:

In modification of the orders issued in the B.P. cited above, the APSE Board hereby delegates full powers to the Chief Engineers, Electricity at VIPS, KTPS, RTPP and (R&M)RTS and the Chief Engineer (Generation) for Utilising the services of specialist Engineers/Technicians of various firms for preventive/ breakdown maintenance and overhaul works of power plant equipment subject to

i. Obtaining prior concurrence of Member (Generation and Finance branch (Sr. Accounts Officer),

ii. Provision in the sanctioned operation & maintenance estimate and

iii. Availability of Budget provision

(BY ORDER AND IN THE NAME OF THE ANDHRA PRADESH STATE ELECTRICITY BOARD)

A.K. KUTTY
Member Secretarv
11. Other files involving financial implications upto Rs. 25,000/-

Legal fees, contingencies etc.

Dy. C.C.A. (Audit) may refer these files to F.A & C.C.A. (Audit) and Member (Accounts) in case of necessity.

Chief Engineer/Functional Heads concerned after scrutiny Dy C.C.A. (Audit).

12. All other files involving financial implications not covered above or by any other specific B.P.s/Memos, Policy matters/exemptions Etc.

Chief Engineer/Officers concerned after scrutiny by F.A & C.C.A. (Audit) and after obtaining concurrence of Member concerned and Member (Accounts)

NOTE:-
1. All the existing powers delegated through specific orders hold good, apart from above mentioned items.
2. Wherever scrutiny by F.A & C.C.A. concerned is required in above cases, the files should be routed through F.A. & C.C.A. concerned be fore sending to Member (Accounts) or other members as the case may be.
3. A statement showing the details of cases approved by Technical Member may be put up to Member (Accounts) in duplicate on 1st of every month by the F.A & C.C.A. (Audit).
4. The files received from Departmental Officers in Internal Audit will be again sent back to the concerned officers by retaining the Note of Internal Audit after obtaining the approval of the Member concerned.

A.K.KUTTY
MEMBER SECRETARY
<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>SUBJECT</th>
<th>DETAILS</th>
<th>AUTHORITY EMPOWERED TO ISSUE ORDERS</th>
</tr>
</thead>
</table>
| (1)   | (a) Enhancement of face value of Agreement upto 25% subject to maximum of Rs. 15.00 lakhs  
     | (b) Enhancement of face value of Agreement over and above 25% or exceeding Rs. 15 lakhs. | (a) Supplemental quantities/ New items  
     | (b) Supplemental quantities/ New items | (a) Chief Engineer concerned after scrutiny by F.A. & C.C.A. (Audit) and after obtaining concurrence of Member concerned.  
     | | (b) Chief Engineer concerned after scrutiny by F.A. & C.C.A. (Audit) and after obtaining concurrence of Member Concerned and Member (Accounts). |
| (2)   | Reduction in face value of All cases | Chief Engineer concerned after scrutiny by F.A. & C.C.A. (Audit) and after obtaining concurrence of Member concerned. |
| (3)   | Labour escalation As per terms and conditions of Agreement/contract. | Chief Engineer concerned after scrutiny by F.A. & C.C.A. (Audit). |
| (4)   | Extension of time for Agreements/contracts (Less than 3 years) only from the last date of scheduled completion of work | (a) Where the quantity and/or value is within the face value of agreement.  
     | | (b) Without any additional financial commitment (i.e. waiver of penalty/liquidated damages as per terms and conditions of P.O) and without any loss to the Board.  
     | | (c) With price variation benefit or upgradation of prices etc. (where the supplies are effected beyond Scheduled delivery period). | (a) Chief Engineer concerned after scrutiny by F.A. & C.C.A. (Audit) and after obtaining concurrence of Member concerned.  
<pre><code> | | (b) Chief Engineer concerned after scrutiny by F.A. &amp; C.C.A. (Audit) and after obtaining concurrence of Member concerned. |
 | | (c) Chief Engineer concerned after scrutiny by F.A. &amp; C.C.A. (Audit) and after obtaining concurrence of Member concerned and Member (Accounts). |
</code></pre>
<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Subject</th>
<th>Authority empowered to issue orders</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Treating certain VIPs as Board Guests and to sanction Expenditure.</td>
<td>Functional Head/Deputy secretary concerned after obtaining concurrence of Member concerned. The payment shall however be made after scrutiny of the bills by Dy. Chief Controller of Accounts/Audit.</td>
</tr>
<tr>
<td>2.</td>
<td>Sanction of telephones to eligible officers including STD/ISD facility.</td>
<td>Functional head/Deputy Secretary concerned after obtaining Concurrence of Member concerned.</td>
</tr>
<tr>
<td>3.</td>
<td>Publication of Tender Specifications/Advertisements.</td>
<td>T.S. Sanction of telephones under OYT category shall be Concurrence of Member concerned. The expenditure should be sanctioned as per DIPR/DAVP rates after scrutiny of bills by Dy. Chief Controller of Accounts/Audit.</td>
</tr>
</tbody>
</table>

A.K. KUTTY  
MEMBER SECRETARY  
PERSONNEL OFFICER
ANDHRA PRADESH STATE ELECTRICITY BOARD
VIDYUT Soudha, Hyderabad

Stores - Purchase of Stores Materials by Zonal Chief Engineers and Superintending Engineers
– Procedure - Amendment - Issued.

B.P. (Opn.P&MM)M.S.No. 129

Dated 28.6.95

Read the following: -

PROCEEDINGS:

The following amendment is issued to the para 3 of B.P.(Opn-P&MM) M.S.No.62 Dated 18.4.1985. The existing para 3 may be read as follows:

“The Zonal Chief Engineer shall be the convenor and shall notify all the other committee members of the date of the purchase committee meeting.

The meeting of the committee for the purpose of purchase of materials in respect of various zones shall be held during the months indicated against the respective zone.

Vizag & Vijayawada January, April, July, October
Nellore & Cuddapah February, May, August, November
Warangal, Metro & Hyderabad March, June, September, December

No payments shall be made for purchases unless they are approved by purchase committee”

This procedure comes into effect from 1st July 1995.

(By order and in the name of Andhra Pradesh State Electricity Board).

N. S. HARIHARAN
Member Secretary
Sub: MIS - ENERGY AUDIT - Furnishing of Monthly reports on Items of Energy Audit -
Instructions issued - Reg.

Ref: 1) D.O. Lr. No. TA(4)/5 56/93 dt3.9.93 of Chairman, A.R.S.E.Board.
3) Memo.No.CEE(0)EC/F.Sys.Loss/D.No. 184/94, dt. 15.10.94
4) D.OLr.No TS(cir)D.No.2138/95, dt. 9.9.95 of Chairman, A.P.S.E Board.
5) Lr.No.CE(0)/SI/E4/FLL/D.N0.529, dt.28.6.93.
6) Memo.No. CE(0)/D.No. 132/96. dt. 22.5.96.
7) Memo.No.CE(O)EC/F.EA. Village Meter/D.No.43/96. dt.30.4.96.
8) Memo.No CAP/2/96, dt 1-5.4.96.
9) Memo.No.D(D)/184/96, dt.22.5.96.

Energy Audit is one of the top priority subjects now being pursued vigorously by Board and Government at highest level.

Instructions have been issued from time to time on the subject to conduct sample/regular studies on the system to measure the parameters and have a realistic assessment of the system losses at various levels.

In ref (9) cited above, Member (Distribution), while consolidating various instructions issued from Board earlier, covering the items pertaining to Energy Audit, instructed to submit weekly progress reports so as appraise Government on the matter.

In order to have all the data pertaining to Energy Audit at one place in full shape so as to enable to furnish a consolidated report to Board/Government, the Superintending Engineers (Operation) are here by instructed to submit all the reports in a booklet form as M.I.S. - "Energy Audit"; to the Chief Engineer/ Operation with a copy to Divisional Engineer, Energy Conservation, R.No. 433, Vidyut Soudha. Hyderabad - 49, Covering the following items:

1) Circle-wise system losses (MPR) (Refs. 1&2)
2) 33 KV feeder-wise line losses (MPR) (Ref:5)
3) 11 KV feeder-wise line losses - independent/Group controlled. 11 KV feeders (QPR) (Ref:5)
4) Energy Audit on-one 11KV urban feeder and one 11 KV rural feeder in each district (Ref 4)
5) Distribution Transformer-wise coding for Energy Audit (Ref:6)
6) Gauging of Agricultural services consumption (Ref: 3)
7) Village - wise energy audit of selected three villages in each of the districts of Karminagar, N/Amabad, Nalgonda, Mahabubnagar and Warangal (Five Districts only) (Ref:7)

Copies of instructions issued earlier on the above items and the prescribed proforma for furnishing the above reports are enclosed herewith for ready reference.

The Divisional Engineers/Technical in the circle and Zonal Offices shall be the nodal officers and
shall be responsible for reporting information every week and sending the returns promptly every month.

The M.I.S.-Energy Audit booklet shall reach this office by 10th of every month positively. The progress in implementing the above instructions shall be reported every weekend by Divisional Engineers (T) to Divisional Engineer/(EC) Hyderabad.

In view of the nature of importance of the subject the Superintending Engineers/Operation are requested to take personal attention in the matter.

The matter will be viewed seriously in case of any lapses in implementing the instructions and reporting the progress and disciplinary action will be taken by fixing responsibility, since the matter is getting utmost attention and reviewed regularly by Hon'ble Chief Minister personally.

Encl: As above

Chief Engineer Elecy.
Operation.
ITEM: 1 SYSTEM LOSSES STATEMENTS (PROFORMA I TO V)

PROFORMA-I

NAME OF CIRCLE:  
MONTH:  

DETAILS OF ENERGY RECEIVED IN THE CIRCLE

<table>
<thead>
<tr>
<th>S.NO.</th>
<th>NAME OF FEEDER</th>
<th>METERING POINT</th>
<th>TOTAL UNITS</th>
<th>DIFFERENCE</th>
<th>IMPORT/EXPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(5)-(4)</td>
<td>(6)*&quot;(7)</td>
</tr>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
</tr>
</tbody>
</table>

TOTAL ENERGY RECEIVED

<table>
<thead>
<tr>
<th>TOTAL</th>
<th>ENERGY</th>
<th>RECEIVED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# STATEMENT OF SYSTEM LOSSES

## ITEM:1

### NAME OF CIRCLE:

<table>
<thead>
<tr>
<th>L.T. CATEGORY</th>
<th>NO OF SERVICES EXISTING</th>
<th>UNITS CONSUMED (MU)</th>
<th>UNITS PER SERVICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. DOMESTIC</td>
<td>AS PER PROFORMA – III</td>
<td></td>
<td></td>
</tr>
<tr>
<td>II. COMMERCIAL</td>
<td>AS PER PROFORMA – III</td>
<td></td>
<td></td>
</tr>
<tr>
<td>III. INDUSTRIAL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V. AGRICULTURAL</td>
<td>AS PER PROFORMA- IV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTHERS</td>
<td>AS PER PROFORMA – III</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

L.T. TOTAL

H.T.

TOTAL (H.T + L.T)

<table>
<thead>
<tr>
<th>3. SYSTEM LOSSES IN THE CIRCLE (1) – (2)</th>
<th>MU</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. PER CENTAGE LOSSES (3)/(4) * 100</td>
<td>%</td>
</tr>
</tbody>
</table>

## ITEM:1 SYSTEM LOSSES STATEMENT

### PROFORMA – III

<table>
<thead>
<tr>
<th>NAME OF CIRCLE</th>
<th>MONTH</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>L.T. CATEGORY WISE CONSUMPTION COMPUTED BASED ON ACTUAL CONSUMPTION RECORDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>CATEGORY (I/II/IV/V/VI/VII)</td>
</tr>
<tr>
<td>NO OF SERVICES EXISTING</td>
</tr>
</tbody>
</table>

NO OF SERVICES BILLED DURING THE MONTH

I) MONTHLY | B-

II) B1-MONTHLY | C-

III) TRI-MONTHLY

TOTAL NO OF SERVICES BILLED E=B+C+d

TOTAL CONSUMPTION RECORDED F

DURING THE MONTH

CONSUMPTION PER SERVICE G=F/(B+2*C+3*D)

TOTAL CONSUMPTION UNDER THIS A*G
CATEGORY (DURING THE MONTH)
### AGRICULTURE CONSUMPTION

<table>
<thead>
<tr>
<th>S.NO.</th>
<th>NAME OF MANDAL</th>
<th>AGRIL SERVICES EXISTING</th>
<th>AGRICULTURAL CONSUMPTION RECORDED</th>
<th>AGRIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NO. TOTAL CL.</td>
<td>NO. IF CL.</td>
<td>IN HP SERVICES</td>
<td>IN HP PREVIOUS</td>
</tr>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
</tbody>
</table>

### TOTAL AGRIL CONSUMPTION IN THE CIRCLE

<table>
<thead>
<tr>
<th>Name of crop</th>
<th>Area Irrigated</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>(12)</td>
<td>(13)</td>
<td>(14)</td>
</tr>
</tbody>
</table>
During the review meeting on 18-5-96, the Hon'ble Chief Minister has stressed the need for analysis to be done in terms of energy supplied to each area and revenue realised in order to pin-point the areas of high pilferage.

In the above context, the Chief Engineer (Zones) are informed that instructions have already been issued in the Memo, under reference to take action to maintain a register on loading of distribution transformers in each section indicating the names of services incident on each transformer and also to record the cross entry in the consumer master maintained for billing. It was also instructed that the private accounting agency may be asked to furnish every month the energy sales distribution transformer wise by opening an additional field transformer location code and transformer name in the Master.

The distribution transformer locations shall be coded as indicated below:

The code No. for rural area transformer consists of 9 digits. The significance of the code is indicated below:

<table>
<thead>
<tr>
<th>Digit Number</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>One and two</td>
<td>District Code</td>
</tr>
<tr>
<td>Three and four</td>
<td>Mandal Code</td>
</tr>
<tr>
<td>Five, Six and seven</td>
<td>Village senses code</td>
</tr>
<tr>
<td>Eight &amp; Nine</td>
<td>SI. Number of Transformer in the village</td>
</tr>
</tbody>
</table>

In the case of urban areas the code will have 12 digits.

<table>
<thead>
<tr>
<th>Digit No.</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>One and two</td>
<td>District Code</td>
</tr>
<tr>
<td>Three and four</td>
<td>Mandal Code</td>
</tr>
<tr>
<td>Five, Six and Seven</td>
<td>Town Senses Code</td>
</tr>
<tr>
<td>Eight &amp; Nine</td>
<td>Ward</td>
</tr>
<tr>
<td>Ten, Eleven &amp; Twelve</td>
<td>SI.No. of the transformer in the Ward</td>
</tr>
</tbody>
</table>

The above linkage between the transformers and service connections will enable computation or energy sales On each distribution transformer. This in-turn will enable to identify the areas of theft as the reasonableness of energy billed can be checked with the transformer capacity and the pattern of consumption.

The outputs given by the private accounting agencies on the above lines should be reviewed by the Distribution and DPE officers and steps should be taken to curb theft of energy. This type of analysis is already being done in Kavali Division of Nellore Circle.

The CE/Zones are requested to implement the above instructions scrupulously, as Hon'ble Chief Minister is very particular that Board should submit Energy Audit Report every month for his review.

Member (Distribution)
Memo No. CEO -EC/F-Svs. Loss/D.No: 151/95. dt9.10.95

Sub: Energy Audit - Circle wise System Losses Statements - Furnishing of Reg.

Ref: This Office Memo No: CEO(EC)F.SL/D.No: 138/95, dt. 13.9.95.

Further to this memo cited above, revised proforma for furnishing circle wise monthly system losses statement is enclosed herewith.

All Superintending Engineers/Operation are instructed to furnish the monthly system losses statements as per this proforma directly to this office by 10th of succeeding month so as to enable us to furnish the consolidated system losses report to Government of Andhra Pradesh.

Asst. Divl. Engineer/Commercial of each circle is nominated as the coordinating officer for Energy Audit and submission of reports to Board.

Encl: One

for CHIEF ENGINEER ELECTRICITY
(OPERATION)
### PROFORMA-I

**NAME OF CIRCLE:**

**MONTH:**

**DETAILS OF ENERGY RECEIVED IN THE CIRCLE**

<table>
<thead>
<tr>
<th>S.NO.</th>
<th>NAME OF FEEDER</th>
<th>METERING POINT</th>
<th>READING WITH DATE</th>
<th>DIFFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>(5)-(4)</td>
<td>IMPORT/EXPORT</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PREVIOUS</td>
<td>(6)*(7)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PRESENT</td>
<td></td>
</tr>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(6)</td>
<td>(7)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(8)</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL ENERGY RECEIVED**
# PROFORMA-II

**NAME OF CIRCLE**

**MONTH:**

**STATEMENT OF SYSTEM LOSSES**

1. **NET ENERGY RECEIVED IN THE CIRCLE:**
   (AS PER PROFORMA -1)  
   MU

2. **TOTAL CONSUMPTION BILLED DURING THE MONTH**  
   MU

<table>
<thead>
<tr>
<th>L.T.CATEGORY</th>
<th>NO OF SERVICES EXISTING</th>
<th>UNITS CONSUMED (MU)</th>
<th>UNITS PER SERVICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. DOMESTIC</td>
<td></td>
<td>AS PER PROFORMA - III</td>
<td></td>
</tr>
<tr>
<td>II. COMMERCIAL</td>
<td></td>
<td>AS PER PROFORMA - III</td>
<td></td>
</tr>
<tr>
<td>III. INDUSTRIAL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V. AGRICULTURE</td>
<td></td>
<td>AS PER PROFORMA-IV</td>
<td></td>
</tr>
<tr>
<td>V. OTHERS</td>
<td></td>
<td>AS PER PROFORMA-III</td>
<td></td>
</tr>
</tbody>
</table>

**L.T. TOTAL**

**H.T**

**TOTAL (H.T + L.T)**

3. **SYSTEM LOSSES IN THE CIRCLE**  
   (1)-(2)  
   MU

4. **PERCENTAGE LOSSES**  
   (3)/(1)*100%  
   %
# PROFORMA-II

**NAME OF CIRCLE**

**MONTH:**

**L.T CATEGORY WISE CONSUMPTION**

**COMPUTED BASED OF ACTUAL CONSUMPTION RECORDED**

<table>
<thead>
<tr>
<th>CATEGORY (I/II/IV/V/VI/VII) NO OF</th>
<th>SAY CAT – I</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO OF SERVICES EXISTING</td>
<td>A</td>
</tr>
<tr>
<td>NO OF SERVICES BILLED DURING THE MONTH</td>
<td></td>
</tr>
<tr>
<td>I) MONTHLY</td>
<td>B-</td>
</tr>
<tr>
<td>II) BI-MONTHLY</td>
<td>C-</td>
</tr>
<tr>
<td>III) TRI-MONTHLY</td>
<td>D-</td>
</tr>
</tbody>
</table>

**TOTAL NO OF SERVICES BILLED**

**TOTAL CONSUMPTION RECORDED DURING THE MONTH**

**CONSUMPTION PER SERVICE**

\[ G = \frac{F}{(B + 2C + 3D)} \]

**TOTAL CONSUMPTION UNDER THIS CATEGORY (DURING THE MONTH)**

\[ A \times G \]
### PROFORMA – IV

**NAME OF CIRCLE:**

**MONTH:**

#### AGRICULTURE CONSUMPTION

<table>
<thead>
<tr>
<th>S.NO.</th>
<th>NAME OF MANDAL</th>
<th>AGRL SERVICES EXISTING NO.</th>
<th>TOTAL CL IN HP</th>
<th>AGRL SERVICES COVERED (5)</th>
<th>TOTAL CL IN HP PREVIOUS (6)</th>
<th>AGRICULTURAL CONSUMPTION RECORDED (7)</th>
<th>CONSUMPTION PER HP (8)</th>
<th>CONSUMPTION (9)</th>
<th>AGRL CONSUMPTION IN THE MANDAL (10)</th>
<th>(11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
<td>(7)</td>
<td>(8)</td>
<td>(9)</td>
<td>(10)</td>
<td>(11)</td>
</tr>
</tbody>
</table>

**TOTAL AGRL CONSUMPTION IN THE CIRCLE:**
Dear Sri,

I have been going through the statement of system losses being furnished by the Superintending Engineers/Operation. I note that there is a general effort to tailor the assessed agricultural consumption in such a way as to ensure that the computed system losses in the circle are at a respectable level. No purpose will be served by such statements.

I have been telling the Chief Engineers/Zone and Superintending Engineers/Operation Circles whenever they meet me, of the need to assess the agricultural losses on a realistic basis by making sample studies on some representative feeders. Initially the agricultural consumption may be computed with reference to the number of agricultural service connections, the connected load, whether the wells are open wells or bore wells, the general nature of crops raised in the area the weather in that particular period under consideration and its relation to the number of hours of working of the pump sets etc.

Arrangements may also be made to install energy meters on the pump sets progressively feeder by feeder in order to get the actual consumption of agricultural services on the feeders. In every district an Urban and a Rural 11 KV feeder may be selected. Good quality energy meters shall be calibrated and fixed on the LT side of all the distribution transformers on the feeders and the energy registered by them shall be recorded and correlated to the total consumption of the various categories of consumers so that the system losses can be derived from this.

It should be ensured that the readings are taken almost simultaneously so as not to introduce errors due to non-concurrent recording of meters. Suitable personnel shall be earmarked specifically for this purpose and the exercise done in right earnest and systematically.

The study on each feeder can be done monthly for a period of 4 months and then extended to other feeders regularly on a continuous basis so that all the 11 KV feeders in the circle are covered by rotation one by one.

I would like to have the first report of this study on one Rural & one Urban 11 KV feeder by the 1st week of October and a monthly report thereafter. Proforma statements in which the report may be sent are enclosed.

With best wishes,

Yours sincerely,

(J.PARTHASARATHY)
ITEM:2 STUDY OF CONSUMPTION PATTERN ON ONE URBAN AND ONE RURAL FEEDER IN EACH DISTRICT.

PROFORMA STAEMENT - (B)
(One statement per feeder)

<table>
<thead>
<tr>
<th>NAME OF DISTRICT:</th>
<th>MONTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Feeder Name</td>
<td></td>
</tr>
<tr>
<td>2. Number of distribution transformers on the feeder</td>
<td></td>
</tr>
<tr>
<td>3. Total KVA rating of all the transformers on the feeder</td>
<td></td>
</tr>
<tr>
<td>4. Energy sent out on the 11 KV feeder</td>
<td></td>
</tr>
<tr>
<td>5. Sum total of energy readings recorded on LV side energy meters of all the distribution transformers under the 11 KV feeder</td>
<td></td>
</tr>
<tr>
<td>6. Energy consumption of HT services if any</td>
<td></td>
</tr>
<tr>
<td>7. Losses on HV side</td>
<td>(4 - (5) - (6))</td>
</tr>
<tr>
<td>8. Sum total of recorded consumption of various categories of consumers under all transformers on the 11 KV feeder</td>
<td>As per item 4 of statement (a)</td>
</tr>
<tr>
<td>9. Loss in LV side</td>
<td>(5 - (8))</td>
</tr>
<tr>
<td>10. Total losses on the 11 KV feeder</td>
<td>(6 + (9))</td>
</tr>
</tbody>
</table>
ITEM: 2 CONSUMPTION PATTERN ON ONE URBAN AND ONE RURAL FEEDER IN EACH DISTRICT

PROFORMA STATEMENT (a)

NOTE: One statement shall be provided for each distribution transformer.

1. 11 KV Feeder Name:
2. Distribution transformer serial Number:
3. Distribution transformer Rating:

Recorded Consumption under the transformer = (A) Units.

(Details as per Statement below)

<table>
<thead>
<tr>
<th>Category of service</th>
<th>Number of services</th>
<th>Consumption (Units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural *</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td></td>
<td>(A)</td>
</tr>
</tbody>
</table>

Energy recorded on the LV side energy meter of the transformer = (B)
Losses under the transformer = (B) - (A)

* NOTE: The Agricultural services shall as far as possible be provided with meters. In case the agricultural services under this transformers are not metered, the basis of assessment to be furnished as below.

1. Average pump set rating.
2. General number of hours of pump set use.
3. Type of wells in use, open wells or bore wells
4. Type of crop grown in the area: Rice, Sugar Cane other crops
5. Weather conditions during the month and its effect on the power consumption by pump sets.
7. Total agricultural consumption under the transformer.

Even if the agricultural services are metered, this data shall be furnished for information.
SUB: Energy audit - Estimation of energy losses in the various elements of power system - Reg.

With a view to conducting energy audit i.e., estimate energy losses in the various elements of the power system, the following returns of line losses shall be included in MIS in the proforma enclosed.

1. Monthly return for 33KV feeder losses from April, 93.
2. Quarterly return for 11KV feeder losses from 1st Quarter 1993.
3. The following guidelines may be noted in submitting return.

To furnish the return in respect of 33KV feeder, the following procedure may be adopted.

1. Metering with trivector meters shall be provided for all 33 KV feeders emanating from EHT SS (i.e.) 220KVSS or 32KVSS.
2. A feeder may be feeding one or more 33/11KV SS enroute. No metering need be provided on the incoming and outgoing 33KV feeders of enroute substations in the first instance, if the same is not available.
3. Provide a Trivector meter on LV side of each power transformer immediately to assess the demand and energy handled by substation.
4. Provide metering for individual 11KV feeders emanating from all substations.
5. The line losses for the complete 33KV feeder may be evaluated as shown below.

Let the 33KV feeder from EHT SS feed three substations A1, A2, A3 with the following details.

<table>
<thead>
<tr>
<th>SI.</th>
<th>Name of the substation</th>
<th>Transformer capacity</th>
<th>Units sent out from 33/11KV SS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>A1</td>
<td>2x1.5</td>
<td>E1</td>
</tr>
<tr>
<td>2.</td>
<td>A2</td>
<td>2x3.15</td>
<td>E2</td>
</tr>
<tr>
<td>3.</td>
<td>A3</td>
<td>2x5.0</td>
<td>B</td>
</tr>
</tbody>
</table>

If there are any 33KV HT Consumers on the feeder let the consumption of the HT consumers be E4

Let the units sent out on 33KV feeder at EHT SS be X. The line losses on 33KV feeder and the 33/11 KV transformers are

\[ X = (E1+E2+E3+E4). \]
The transformer losses can be estimated from the data given below.

<table>
<thead>
<tr>
<th>Power Trs. capacity</th>
<th>No load losses kilo watts/hour</th>
<th>Full load losses kilo watts/hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5 MVA 1.6 MVA</td>
<td>2.2</td>
<td>6.4</td>
</tr>
<tr>
<td></td>
<td>3.0</td>
<td>16.0</td>
</tr>
<tr>
<td>3.15 MVA</td>
<td>4.5</td>
<td>23.0</td>
</tr>
<tr>
<td>5.0 MVA</td>
<td>6.5</td>
<td>34.0</td>
</tr>
<tr>
<td>8.0 MVA</td>
<td>8.5</td>
<td>50.0</td>
</tr>
</tbody>
</table>

Transformer losses of each transformer the tr. is
= No load loss x No. of hours the transformer is in service during the month plus
Full load copper losses x No. of hours the transformer in service during the month x loss factor

Loss factor = 0.8 (LF)^2 + 0.2 LF
Where LF is the load factor
Load Factor may be calculated as follows

LOAD FACTOR =
Total units sent out of the SS in the month
---------------------------------------------------------------
(No. of Hrs. the Sub-station was in service) x (maximum demand of SS)

2). In respect of 11KV feeders the following guidelines may be noted, in submitting the returns.

1. Provide metering for all KV feeders out going from the substation.
2. If a breaker controls more than one feeder losses for both the feeders combinedly may be evaluated till separate metering is arranged.
3. The units sold may be assessed taking, the Actual Energy sales for services which are metered and estimate energy sales for others. Slab rate consumers may be assessed taking the energy indicated in the slab cards. The sales for agricultural services may be assessed on the basis of sample survey. For the purpose of sample survey five agricultural consumers in each village shall be provided with meters. These meters shall be maintained properly and read quarterly. The energy consumption for other consumers shall be assessed on the basis of prorata consumption for HP.

For example let the total consumption of five consumers be X units and the total HP=Y HP. Then consumption per HP is X/Y units. If the total HP of Agricultural wells, in the villages is Z HP and then total energy sales are XZ/Y units.

The above returns shall be included in the MIS under system improvement management as Item 8.5 - Monthly return on 33 KV feeder losses (commencing from Apr, 93 onwards) Item 8 6 - Quartely return on 11 KV feeder losses (commencing from quarter April, 93)

This supercedes all other circulars issued earlier.

End: 2 Nos.

Chief Engineer (Operation)
ITEM:3 MONTHLY RETURN ON 33KV FEEDER LOSSES FOR THE MONTH OF

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of the EHT Sub-Station</th>
<th>Name of feeder 33 KV</th>
<th>Length of feeder KM</th>
<th>Size of conductor</th>
<th>Maximum/Minimum demands on the feeder</th>
<th>Units send by the 33 KV feeder</th>
<th>Units lost from EHTSS</th>
<th>Percentage losses</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DETAILS FOR COLUMN (8)

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of the feeder 33/11 KV Substation feeding the feeder</th>
<th>Name of the feeder 33/11 KV SS</th>
<th>Maximum and minimum demand of each SS</th>
<th>No Full load losses</th>
<th>Full load losses</th>
<th>Units sent out by each SS</th>
<th>Units handled by each SS</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(6)+(7)+(8)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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ITEM:4 QUARTERLY RETURN ON 11 KV FEEDER LOSSES FOR THE QUARTER ENDING

ZONE ……………………

<table>
<thead>
<tr>
<th>S no</th>
<th>Name of the Sub Station</th>
<th>Name of the Feeder on the feeder</th>
<th>Length of the feeder (InMVA)</th>
<th>Size of Conductor</th>
<th>Maximum demand on the feeder (InMVA)</th>
<th>Minimum demand on the feeder (InMVA)</th>
<th>Units sent out on the feeder</th>
<th>Units sold on the feeder</th>
<th>Units lost of losses</th>
<th>Percentage of losses</th>
<th>Remarks</th>
</tr>
</thead>
</table>

DETAILS FOR COLOUM (9)

<table>
<thead>
<tr>
<th>S.No. Name of the feeder</th>
<th>Sales of Metered Consumers</th>
<th>Sales of slab rate</th>
<th>Sales of Agricultural Consumers</th>
<th>Total Sales</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Col (3+4+5) (Assessments)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Ref: Board's Resolution No. 14 dated 12-4-97

The APSE.Board has decided to change over in a phased manner existing low voltage distribution system in the village proper catering domestic, commercial and other non-agricultural services to High Voltage distribution system by erection of single phase transformers to prevent direct tapping of LT network and also segregate agricultural loads from the other loads.

All the Zonal Chief Engineers are requested to implement these instructions accordingly. The estimates for the HVDS works may be got sanctioned from competent authority, under Board’s T&D funds.

(BY ORDER AND IN THE NAME OF A.P.S.E.BOARD)

A.K. KUTTY
Member Secretary