

Record notes of discussions of the meeting held in the TNERC on 1st November, 2010 to discuss various issues relating to distribution of electricity.

1. List of participants is at Annexure.
2. Members, TNERC welcomed the participants.
3. The issues to be discussed in this meeting were sent to the Chairman, TNEB on 27-10-2010. The TNEB has since been unbundled into TANGEDCO and TANTRANSCO with effect from 1-11-2010. The points identified for discussion in this meeting and conveyed to TNEB on 27-10-2010 are as follows:

1. Augmentation of distribution network to match delivery of required power to end users.
2. Reliability target fixed by the Commission and achieved by the TNEB
3. Line loss improvement Planning
4. Metering Plan
5. Conversion of OH to UG cable
6. Status of R-APDRP work
7. Demand side management
8. Review of Standard of Performance achieved by the TNEB
9. Review of CGRF functioning

These points were discussed in detail.

(a) Augmentation of distribution network to match delivery of required power to end users:

Representatives of TANGEDCO were asked to indicate the planning criteria being adopted by them for expansion of network/strengthening of network for delivery of power which will be available due to commissioning of new power

stations over the next two years. It was emphasized by TNERC that the last mile connectivity should not become a problem in delivering power since the power generated has to be transmitted efficiently, distributed efficiently, billed efficiently and collected efficiently so that the entire value chain is properly addressed. TANGEDCO agreed to submit the details separately.

(b) Reliability target:

The reliability target details furnished for Chennai, Coimbatore, Madurai, Trichy, Salem and Tirunelveli corporations for the months of April, May and June 2010 are below the targets prescribed for these months. Besides it is quite possible that some of the feeders may have perennial problems. These needs to be examined in detail and necessary corrective action should be taken. It was also observed that this is not even the monsoon season in many of the zones and lower reliability index is a cause for concern and public dissatisfaction.

In this regard the TANGEDCO should also analyse the complaints received by the call centres/complaint centres to identify the recurring faults so that a permanent corrective action is taken. The critical feeders will have to be monitored separately as their interruption would be more serious either from the point of view of uninterrupted power supply arrangements or on account of revenue realization.

(c) Line loss improvement:

Currently line losses are estimated. It should be further segregated into technical loss and commercial loss. In the absence of installation of meters for certain category of consumers, it is necessary to do energy audit of various feeders and distribution transformers. To achieve this all the feeders will have to be metered and the distribution transformers will also have to be metered. Remote reading of these meters through use of proper technology is also necessary. A scientific

methodology will have to be developed to arrive at the losses, till such time metering of all consumers is achieved.

(d) Metering Plan:

TANGEDCO shall furnish the metering plan for installation of meters to various consumers, as directed by the Commission earlier. The meters shall be in accordance with the regulations issued by the CEA in March, 2006 which stipulates for use of static meters. Any deviation in the specification of meters vis-à-vis the regulations prescribed by CEA is to be got approved by the TNERC. Further, the meters which are planned to be installed should take into account proposed/future developments in distribution, remote reading and down loading of meters etc. and should be compatible with the data logging system, the SCADA system etc. The consumer should be educated with regard to installation of electronic meters as the electronic meters are more accurate vis-à-vis the existing electro mechanical meters which might have slowed down over a period of time.

(e) Conversion of OH to UG cable:

TANGEDCO representatives expressed difficulties in getting road cutting clearances from the Corporation/Municipal authorities which needs to be co-ordinated with the respective civic agencies. The Commission suggested that a permanent cable duct, similar to the storm water drain which is being executed all over the city, to seek a permanent solution for this problem. This needs to be taken up with various Municipal Agencies/Government. In all newly developing areas, reservation of space for construction of cable duct would be a better idea. The matter needs to be taken up for inclusion in the master plan for various cities /towns in the State.

It was mentioned during the meeting that allotment of land for new substations is becoming more and more difficult and in some cases even after purchase of land, litigation in various courts have delayed the execution of projects. Development of any area without essential services like electricity does not help even the property owners in as much as the properties cannot be utilized without electricity connection. Any new area development will have to take into account the land requirement for erection of electricity facilities including substations so that coordinated development of the area takes place. This could be brought to the notice of the State government/local bodies for appropriate action.

(f) Status of R-APDRP work

Representatives of TANGEDCO indicated that Phase I of R-APDRP has already been sanctioned and funds are also released partly. Schemes under Phase-II have also been submitted for approval. While some schemes could be executed under R-APDRP it is quite possible that all the requirements of distribution may not be met out of R-APDRP. Besides matching contribution for R-APDRP schemes, it will be necessary to undertake certain other schemes by mobilizing additional resources either through State government assistance or even from market borrowing. This needs to be addressed. GIS, consumer mapping as well as disaster management requirement will have to be addressed.

As regards approval of various schemes by the Commission, it was suggested that standardized design documents could be submitted to the Commission for approval. The estimates can be made on an annual basis to take care of any revisions in the cost.

All substations will have to be provided with reactive compensation.

Distribution transformers shall have adequate capacitors provided along with the transformer installation itself. Typically, the tail end voltages could be measured

periodically to ascertain whether voltage profile is proper or not. If the voltage profile is improved, consumers may not have to use voltage stabilizers and this will also help the distribution utility in reducing the load as well as line losses. The capacitor disincentive which is being levied and collected by TNEB shall be earmarked for installation of capacitors and should not be mixed up with other funds.

The Commission advised that increased use of HVDS system should result in improvement of HT/LT ratio and should not lead to increase in losses as against the objective of reducing the losses. For this purpose the quality of transformers to be selected should have low no load losses.

TANGEDCO may also examine the use of ESCOs for energy audit.

(g) Review of CGRF functions:

The Commission pointed out that in many cases filling up of vacancies have not been done in time. It is necessary that action should be taken well in advance before arising of any vacancy so that the CGRFs function with full strength. For this, necessary coordination with the concerned District Collectors is very essential.

(h) Demand Side Management:

The TANGEDCO representatives indicated that one of the DSM method which they are adopting is to go in for promotion of CFLs in a large way under the Bachat Lamp Yojana. This has already been introduced in Cuddalore Circle and it will be extended to many other circles shortly. Since the potential for reduction in demand in Cuddalore Circle alone is indicated as 30MW, there is necessity to extend this to other areas, essentially when the State is facing acute power crisis.

While advocating the usage of CFL lamps, TANGEDCO should also devise appropriate method for disposal of fused CFLs.

(i) Additional points:

The Commission suggested that the wire business and supply business shall be segregated so that non-discriminatory open access is made fully functional in distribution system. This will also enable to arrive at voltage wise losses and to calculate the cost to serve various categories of consumers at different voltage levels.

TANGEDCO shall take appropriate action to reduce the line loss which may include balancing of load, proper upkeep of the feeder pillar boxes, sub-stations etc. with proper connectors thereby avoiding hot spots, breakdowns etc. This should be analysed in detail and maintenance actions taken accordingly.

The Commission pointed out that by and large the distribution schemes are short gestation projects and are expected to be commissioned within the same financial year. Accordingly, the interest on borrowed capital may not always be treated as IDC and sometimes interest may be charged to Revenue account also. This needs to be examined further.

TANGEDCO agreed to revert back on all these issues within a month's time and will also make a full fledged presentation to the Commission. The date and time will be fixed separately.

During the meeting representatives of TANGEDCO furnished a list of schemes proposed for Chennai City for information of the Commission.

Secretary
Tamil Nadu Electricity Regulatory Commission

Annexure - List of participants

1. Thiru K.Venugopal - Member, TNERC
2. Thiru S.Nagalsamy - Member, TNERC
3. Thiru R.V.Rajah - Secretary, TNERC
4. Thiru P.Muthusamy - Director/Engineering, TNERC
5. Thiru S.Balathandayuthapani - Director/Tariff, TNERC
6. Thiru R.Murugan - Managing Director,
TANTRANSCO
7. Tmt S.Kalyani - Chief Engineer/Planning & RC,
TANGEDCO
8. Tmt S.Srinivasa Seetha - Chief Engineer/R-APDRP,
TANGEDCO
9. Thiru A.Balakrishnan - Superintending Engineer/
Planning, TANGEDCO