



**Eastern Power**  
Distribution Company of A.P. Ltd  
ఆంధ్ర ప్రదేశ్ తూర్పు పాఠిక విద్యుత్ పంపిణీ సంస్థ

**Memo.No.CMD/APEPDCL/Dir(O)/CGM(O&CS)/VSP/F.Dkt/D.No. 1787 /09 Dt. 11-08.2009**

Sub:- APEPDCL – Preparation of estimates at Section level, preparation of work bills, maintenance of meters account and maintenance of material account – Certain instructions – Issued - Reg.

Ref:- 1. The APSEB Manual Volume-I issued on 24.12.1997 and adopted by APEPDCL  
2. Manual for Operation Divisions Dt.01.11.2007 prepared during ISO certification

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1. All the field Engineers are aware that the procedure for preparation of estimate, processing of estimates is clearly given vide the references cited. The hard copies of the same were circulated to all Divisions and the soft copies were kept in APEPDCL website for ready reference. Even then, estimates are being prepared and submitted to higher offices with incomplete shape and information. This is causing much difficulty in processing the estimates and un-necessary delays in getting the information before sanctioning of the estimates. Further, bills are being prepared and submitted in gross violation of the procedures, often claiming excess expenditure over and above the work executed. Records of valuable materials and meters taken possession of the AEs/AAs are not maintained in violation of the basic work guidelines of any government functionary.

2. With a view to re-iterate the procedure contained in the Manuals and for easy reference, the following instructions are issued. The AEs/AAs (Operation) are directed to follow the instructions vide Annexure-I carefully and see that the estimates are prepared according to the procedure to get the sanctions early without any delays.

3. Further, the procedure regarding preparation of work bills, maintenance of metering account and material accounts is also communicated vide the Annexures-II & III for easy understanding.

4. The respective Divisional Engineers should hold training classes to explain and clarify on the contents of the Annexure, so as to promote better understanding of the processes for these. Such training classes should be held repeatedly, if need be, for the weaker AEs/AAs.

5. The above instructions are to be followed scrupulously to have better knowledge of the procedures and minimize the delays in processing of estimates etc.

Encl: Annexure-I, II & III

**NATARAJAN GULZAR**  
Chairman & Managing Director  
APEPDCL :: Visakhapatnam

To:

All Superintending Engineers/Operation/APEPDCL

All Divisional Engineers/Operation/APEPDCL

All Divisional Engineers/M&P/APEPDCL

All Divisional Engineers/Transformers/APEPDCL

All Asst. Divisional Engineers/Operation/APEPDCL

Copy to all Directors/APEPDCL

Copy to all Chief General Managers/Corporate Office/APEPDCL

Copy to all General Managers & SEs/Corporate Office/APEPDCL

// F.B.O. //

Chief General Manager/O&CS/APEPDCL

## ANNEXURE - I

### PREPARATION OF ESTIMATES

1. **Description:** The estimates are mainly categorized into the following types.

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- a. **Capital estimates**
- b. **Operation & Maintenance estimates**
- c. **Renovation & Modernisation (R&M) estimates**
- d. **Miscellaneous estimates**

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2. **Capital estimates includes:**

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a. **Release of new HT/LT Service & Addl. Load:** Erection of lines i.e. 33 KV, 11 KV, 6.3 KV, LT (3-Ph 5 wire, 3-Ph 4 wire, 1-Ph 3 wire, 1-Ph 2 wire) & erection of equipment (PTR, DTR, VCB etc.) of various capacities as per requirement to enable to release any.

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i. HT service/additional load at 11 KV / 33 KV voltage level.

ii. LT service/additional load for all categories.

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b. **T&D improvements** : Erection of sub-stations, transformers, lines and equipment for infrastructure development to decrease the over load on the existing lines & equipment and to improve voltage profile.

c. **Extending more than stipulated hours of 3-Ph supply to existing services** - Erection of dedicated lines & equipment to enable to extend 24 Hrs supply to Commercial, Industrial & PWS services and to extend 16 Hrs supply to Lift Irrigation services on the request of the consumers.

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d. **Rural electrification** : Intensive electrification of villages, hamlets, habitations as per government policy.

e. **Major projects like APDRP, HVDS, JBIC etc.** which involves network expansion, improvements, infrastructure development etc.

f. **Civil works:** Construction of new buildings, sub-station structures, compound walls, laying of internal roads etc.

g. **Deposit Contribution** - Shifting of lines, equipment & services on the request of the consumers.

h. **T&P Estimates chargeable to capital relating to furniture, Stores & office equipment, Electrical or mechanical equipment etc.**

i. **Fabrication estimates** - Fabrication of cross arms, stay sets, clamps, HG fuse sets etc.

3. **O&M Estimates includes:**

a. Maintenance of sub-stations, lines and transformers

b. Consumables, spares, labour & transport estimates relating to regular O&M

c. Maintenance of vehicles, hiring of vehicles etc.

d. Maintaining of Rolling Stock of Transformers & Meters

e. **Manning estimates** - Manning of 33/11 KV Sub-stations, supply of skilled, semi-skilled and un-skilled personnel for office, MRT and field works, supply of security personnel for watch and ward.

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f. **Tools & Plant chargeable to annual repairs including testing & calibration.**

g. **Annual Maintenance Contract Estimates**

h. **Estimates relating to damages during cyclones**

i. **Repairs to equipment** - Preventive maintenance, carrying out repairs / Overhauling of transformers, VCBs etc.

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4. **Renovation & Modernisation Estimates includes:**

- a. **Refurbishment of lines** - Reinforcement of existing lines, augmentation of conductors, replacement of old and damaged conductor, providing intermediate poles, replacement of damaged stays, cross arms, insulators etc.
- b. **Renovation & Maintenance of Buildings** - ~~Renovation & Maintenance~~ of Buildings / Sheds for carrying out various activities.

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5. **Miscellaneous Estimates includes:**

- a. **Survey Report of Equipment** - Write off the value of the material & equipment which is outdated or damaged and uneconomical for repairs.
- b. **Miscellaneous** - ~~Others such as:~~ Meeting expenses, refreshment expenses, printing charges, press notification charges, Compensation for loss of Crop / fruit yielding trees etc.
- c. **Estimates relating to theft of materials**
- d. **Estimate for temporary supply**

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The estimate should contain data, abstract estimate and report to accompany the estimate in general. In addition, the capital estimate should contain detailed single line diagram of existing and proposed network, system loading details, voltage regulation calculations, cost benefit calculations etc.

The requirements for various types of estimates are tabulated below for easy reference.

Sl. No	Item	Capital estimate s	O&M estimate s	R&M estimate s	Misc. estimates
1	Detailed survey of proposed work and preparation of detailed sketch of existing assets and proposed work.	√		√	
2	Arriving of material costs and labour costs as per (i) cost data or (ii) latest tender rates or (iii) SSR of APEPDCL / State Government or (iv) local market rates supported with quotation.	√	√	√	√
3	Preparation of Data of estimated cost for material and labour for each type of work	√	√	√	√
4	Add: 3% contingencies on material cost	√	√	√	√
5	Add: 3% S&H charges on material cost excluding lumpsum items	√	√	√	√
6	Add: 10% Establishment & General charges on material cost + S&H charges + labour & transport	√	√	√	√
7	Prepare abstract estimate sheet containing total estimated cost of the proposed work	√	√	√	√
8	Preparation of data for less credits if any and show the value of less credits in the abstract estimate	√		√	√

	sheet and arrive at net estimated cost				
9	Add: 25 % overhead charges on material + labour & transport in case of DC estimates only.	√			
10	Add: Statutory charges like EPF, Insurance, Service tax etc. shall be included in the manning estimates.		√		
11	Preparation of voltage regulation charts in case of new loads, addl. Loads, net work expansion and reconfiguration of network.	√		√	
<b>Sl. No</b>	<b>Item</b>	<b>Capital estimates</b>	<b>O&amp;M estimates</b>	<b>R&amp;M estimates</b>	<b>Misc. estimates</b>
12	Preparation of load details like existing load, sanctioned load, proposed load, MD reached so far and capability of existing system to cater the proposed load.	√			
13	Cost benefit analysis and Pay Back period calculations for major schemes like Sub-stations, HVDS etc.	√		√	
14	Preparation of report to accompany the estimate containing history, scope, specification & drawings, cost, load data, other technical particulars, revenue, account to which it is chargeable etc. which are required for proposed work (Please refer para 404 of APSEB manual Vol.-I).	√	√	√	√
15	Enclose application registered by prospective consumer in case of new load or addl. Load and consent letter from the party in case of DC estimates.	√			
16	Preparation of check-slip of items contained in the estimate	√	√	√	√
17	Preparation of covering letter mentioning the proposed work details and head under which the estimate was prepared.	√	√	√	√

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**ANNEXURE - II**  
**PREPARATION OF WORK BILLS**

1. After taking up the work by the contractor, the execution of the works should be inspected periodically by the AE/AAE (Operation) for quality, standards and correctness as per sanctioned estimate.
2. Immediately after completion of work, the measurements are to be recorded in the M-Book in line with the schedule in the agreement.
3. The measurement book must be looked upon as a most important record as it is the basis of all accounts of quantities whether of work done by piece-work, by contract or of supply of stores. Deviations in a lump-sum contract for civil works are also recorded in it. The descriptions of the work must be lucid so as to admit of easy identification and check. Since prompt settlement of claims is obviously in the interest of economy, measurements should be promptly taken and delay in recording measurements should be avoided.
4. The measurements should be accurate for all completed works. The unfinished works or to be taken works should not be entered in M-Book under any circumstances and if any such entries are made by the AEs / AAE's, it will be treated as gross violation of procedures and severe disciplinary action will be taken against the concerned who entered the measurements.
4. Further, it shall be the responsibility of the AEs/AAEs to personally enter the measurements in the M-Book and it should not be entrusted to any staff member or contractor.
5. In the following case where actual measurement or count is not involved, no entry need be made in the Measurement Book :-
  - i) compensation for land. ii) compensation for trees. iii) property tax on buildings.
  - iv) rents on buildings hired for office accommodation or for keeping departmental stores.
  - v) current consumption charges. vi) water charges
6. Whenever measurement books change hands, even if it is only from one office to another in the same building, the receipt of books should be acknowledged in writing by some responsible person

of a grade not inferior to that of a clerk. When an officer is transferred, he should make over his measurement books to his successor, noting the fact after the last entry in each book. The relieving officer should similarly enter his name and the date on which he took over the book or books.

7. After noting down the measurements, based on the work volume and progress of works

a) part work bills can be claimed in regular intervals (or) b) final bills can be prepared at once.

The work bill should be in the standard format and should contain Name of the work, agreement number, bill number (First & part, second & part etc. or first & final), M.Book No., name of the contractor, start date & completion date, bill particulars as per schedule in the agreement, details deductions made as per agreement, check measurement details etc. The work order wise allocation of billed amounts should be mentioned in the work bill and standard certificates shall be incorporated and signed by the bill preparing officer.

8. Work completion certificate shall be enclosed to the final work bill and this shall form the basis for closing of work order.

### **ANNEXURE – III**

#### **A. MAINTENANCE OF METER ACCOUNT**

1. Meters received at sections under the following accounts:

- a. Release of new services under Indiramma
- b. Replacement of stuck up meters and defective meters under Rolling Stock
- c. Replacement of burnt meters against payment or estimate sanction
- d. Removed meters under B.P.Ms.151
- e. Release of temporary supply services
- f. Replacement of old electro-mechanical meters with high accuracy/electronic meters

2. Instructions were already existing regarding procedure for maintenance of metering accounts and there is provision in EP-IMRS for entering the details of metering account. The AEs/AAs should ensure that the data is entered in EP-IMRS regularly and kept up to date. Further they must maintain the abstract statement of meters available with them under various accounts for checking by inspecting officers.

#### **B. MAINTENANCE OF MATERIAL ACCOUNT**

The materials drawn by AEs/AAs for various construction works and for O&M works shall be stocked in the section office premises in a segregated manner and a register shall be maintained with the following format for all the materials available with them. Each material shall be entered in a separate folio.

Description of the material:

Opening	Qty.	Date &	Total	Date	&	To whom	Purpose	Signature	Ground	Initials
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Balance	received	source of receipt	Qty.	Qty. issued / devoluted	issued / devolution No. &	for which issued / devoluted	of receiving person	Balance Qty.	of AE/AAE

The above register shall be updated immediately whenever a transaction takes place and the ground balance qty. should tally with the actual materials during verification by higher authorities. Any deviation in the material account shall be viewed seriously and the concerned AE/AAE is responsible for differences in material accounts.

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