A10:Annexure-C: Capitalization Process & Repair and Maintenance Policy

Capitalization Process
&
Repair and Maintenance Policy

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Contents

INTRODUCTION

Distribution business is capital intensive in nature, very often requiring significant capital investment to meet the electricity demand of existing and new consumers. The capital expenditure made by the Distribution Licensee and the capitalization of assets by the Distribution Licensee has significant bearing on the ARR of the Distribution Licensee in the form of depreciation, interest on loan, and Return on Investment expected for the assets added. For reducing the losses to a certain level, the Distribution Licensee is required to incur capital expenditure, which is usually approved at actuals by SERCs. Some SERCs also give in-principle approval to the capital expenditure schemes, based on Cost Benefit analysis. Therefore, it is important to analyse the treatment of the capital expenditure incurred by Distribution Licensees.

Fixed assets are recorded on the company's Balance Sheet as an asset. Using specific, standardized formulas for each type of asset, the asset's cost, its ongoing maintenance expenses, and its anticipated useful life is taken into account. With those variables, the expenses pertaining to a certain portion of the asset's costs each year *called depreciation*are shown as a line item on the income statement. The value of the asset is decreased on the Balance Sheet in line with its depreciation expense to balance the financial statements. In this way, matching of the cost of the asset with the value it provides over time is made.

OBJECTIVE

Capital expenditure plan is prepared to upgrade its ageing and weak distribution network to desirable standards so as to provide better network reliability and sustainable performance.

Objective for Preparation of Capitalization Policy are as follows:

Objective 1: To ascertain the Capitalizationprocess of UPCL

Objective 2: To Increase Credit worthiness and Borrowing capacity of the organization

Objective 3: To judge the positive effectsof capitalization on a Company's Balance Sheet

Objective 4: To reflect the true and fair view of the state of Company's Assets.

Objective 5: To secure optimum Return on Equity (RoE).

Capitalization Process

The procedure for capitalisation is depicted in the figure below. The format for collecting information is attached as annexure – I;

Cost estimation at Divisional level for HT Line/LT Line/Transformation, etc.

Provide necessary details like location, package, agreement, work completed etc.

Scheme wise booking under appropriate accounting head at division level

Verification of Details mentioned by JE's in their monthly stock account

Maintain Work Register showing complete detail of each work

Obtain Technical certificate from Electrical Inspector

Capitalization of the Asset

Cost Estimation at Divisional level for HT Line/LT Line/Transformation: Cost Estimates shall be prepared at divisional level. Prepared estimates shall clearly specify the total cost of estimates and the amount of capital cost involved therein showing separately as HT Line/ LT Line/ Transformation cost, etc.

Proper records of new assets (Mainly History of Transformer) will be maintained by respective divisions. Original records of land will be kept by respective Divisions and certified Xerox copy of the same will also be maintained by Civil Circle/ Secondary works Division.

Provide necessary details like location, package, agreement, work completed etc.: Estimate No., Package No. and Agreement No. shall be clearlymentioned by JE's in their monthly Stock Account.Journal voucher of Capital expenditure will contain the Agreement No. and reference of scheme under which the expenditure or Project was sanctioned.

Scheme wise booking under appropriate accounting head at division level: Before sanctioning the estimate, it may invariably be sent to Accountant who will check and allocate the appropriate Accounting Head in which expenditure will be booked.Estimate of Composite main will be booked in the ratio 80:20 in HT and LT Line.

Verification of Details mentioned by JE's in their monthly stock account: Verification of details provided by JE of Estimate No., Package No. and Agreement No. shall be clearly mentioned by JE's in their monthly Stock Account.

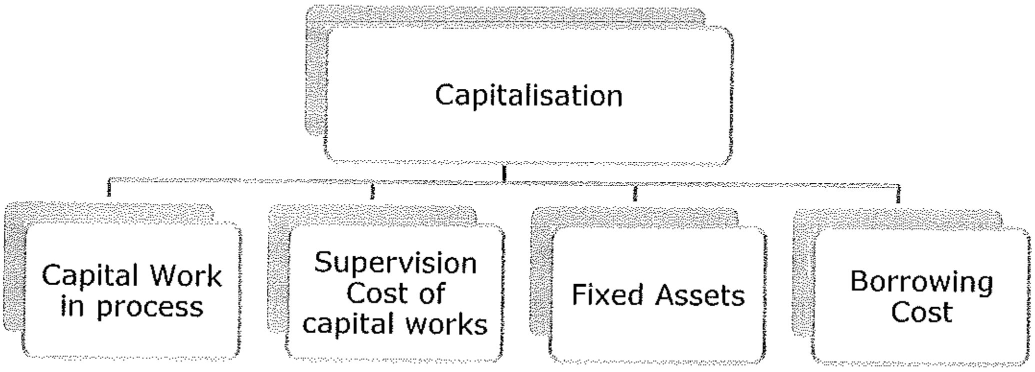
Maintain Work Register showing complete detail of each work: Work Registershall be maintained showing complete detail of each work like location, agreement no. & date, name of the contractor, day to day transactions like payments to suppliers, Value of material issued, percentage of completion of work, reference of the scheme, date of completion, etc.

Obtain Technical Certificate from Electrical Inspector: Capitalisation of assets (Both LT & HT) shall therefore be done after preparation of Completion Report. However, in the case of HT assets, the requisite Inspection fees shall be deposited and only after obtaining Electrical Inspector's certificate, the assets shallbe capitalized. Date of energization/ put to use shall be clearly mentioned in each case.

Capitalization Policy

Capitalization of the Asset: Capitalisation of new assets will be done on either quarterly or half yearly basis.

Capitalization refers to the process of determining the quantum of funds that needs to runthe business.To attain the objectives mentioned herein before, capitalization of different component of assets are detailed below:



1.1 Capital Works-in-Progress

Capital work-in-progress includes the costs incurred on Fixed Assets that are not yet ready for the intended use and is capitalized up to the date these assets are put to use.

a) Employeecost, Administrative and general overhead expenses attributable to construction of fixed assets incurred till they are ready for their intended use are identified and allocated on a systematic basis to the cost related assets.

b) All expenditure of construction division is allocated to the projects on pro-rata basis to the additions made to respective project.

c) Contracts at division are capitalized only on receipt of final completion/technical/commissioning report.

d) The diminution in the values of dismantled assets (re-usable and released assets) is ascertained on review and provided for.

e) CWIP istransferred to Fixed Assets or other capital expenditure on completion of the assets in the **months of June, September, December and March A/Cs** only.

f) Further, for the purpose of monitoring the Capitalization Status, all Divisions including Construction/Secondary works / Project and Distribution units shall submit quarterly progress report of under construction projects/works in the format enclosed herewith with the office of The Director (Project)/(Operation) and also provide copy of the same to The Director (Finance) office.

g) Transfer of fixed assets from one unit to another is recorded in the books of the transferor and transferee in the same month of transfer.

h) **Issue of Stock Material to CWIP**:

As per current procedure adopted in UPCL, Stock/stores at the Centralized stores are accounted for at Stock issue rates. Such Stock issue rates are computed by Materials Management Departmentas under:

"The Stock Issue Rates for the Financial Year are decided according to FOR destination rate (including all taxes) and Price Variation (P.V.)for the immediately preceding year plus 10% annual variation (increasing) in next year and 3% storage and handling cost of stores wings."

Such Issue price is fixed by UPCL at the beginning of each year, which is applicable for the whole year.

However, Para 16 of the AS 10 "Property, Plant and Equipment" (PPE) reads as follows:

"An item of property, plant and equipment that qualifies for recognition as an asset should be measured at its cost"

In addition, Para 16 of the AS 10 reads as follows:

The cost of an item of property, plant and equipment is the cash price equivalent at the recognition date."

Thus, UPCL follows the wrong practice of measuring the Assets at Issue Price which is in contravention with the cost as envisaged as per AS 10. Due to such wrong practice arising due to Price difference between the cost of Stock/Stores and value at stock issue rate, the Assets are recorded at an overstated amount and profits are also unnecessarily created on account of Material Cost Variance.

Therefore, as per right approach, Stock/ Stores Materials should be recorded at Cost inclusive of all incidental costs like freight, insurance, etc. directly attributable to purchase of stock/stores. The same should be issued to CWIP on the basis of**Weighted Average Cost Method.**

Weighted Average Method recalculates the average cost of inventory held each time a new delivery is received. Issues are then recorded at this weighted average price. It takes the weighted average of all units available for issue during the accounting period. The formula to calculate the weighted average rate is:

Total Cost ÷ Total Units = Weighted Average rate per unit

Weighted Average Cost method is ideally the best method to determine the value of cost of issues as well as ending inventory.

1.2 Supervision Cost of capital works or loading of Establishment cost towards Capital Cost

Charging of Employee cost and Administrative & General Expenses to CWIP:

1. All expenses in respect of construction/ secondary works units shall be fully capitalized and reallocated proportionately to all capital assets created. However in case of specific funded projects, the entire expenses of the relevant department/unit, monitoring the project shall be charged to such Fixed Assets/CWIP.
2. In case of O&M cum capital units, a portion of the Employee costs of the unit attributable to capital works shall be capitalized and further reallocated proportionately to Fixed Assets created. Similarly, a portion of the A&G Expenses attributable to capital works shall be capitalised and further reallocated proportionately to Fixed Assets created.

Due to multiplicity of functional units as well as multiplicity of functions in a particular unit, Employee cost and General administration expenses incurred in supervision of capital works shall be charged to CWIP to the extent of actual expenses incurred or 11% of the total capital expenditure whichever is lower.

1.3 Fixed Assets

Fixed Assets are stated at cost, net of tax/duty credit availed, if any, after reducing accumulateddepreciation/amortization till the date of the Balance Sheet. Direct costs are capitalized untilthe assets areput to use and include financial cost relating to any borrowing attributable toacquisition.

1. The gross value of Fixed Assets shall be the cost of acquisition or construction including any cost attributable to bringing the assets to their working condition for their intended use.
2. Those Fixed assets, whose actual costs cannot be accurately ascertained are initially capitalized on the basis of approved estimated costs/ awarded costs and final adjustments for costs, if any shall be made retrospectively on ascertainment of actual costs.

Cost of assets under construction/ installation shall not be directly recorded in these accounts. They shall however, be routed through CWIP.

In cases where new divisions are created by splitting off the old division, the assets pertaining to the new division shall be transferred by the old division to the new division within 3 months from the date of creation of new division. The concerned Superintending Engineer and Executive Engineers shall ensure necessary compliance.

Fixed Assets components are given below:

1.3.1 *Land and Land Rights*

All expenditure for acquisition/ purchase of land and its development including cost of land will be debited to Fixed Asset irrespective of its purpose. Development cost includes resettlement of displaced persons and cost of protection to and removal, renovation and reconstruction of existing roads, streets, railway and other property, legal charges, stamp duty, land revenue and other taxes etc. but not cost of new construction of road, etc. the sale proceed or any other income from the retiring property lying on the land will be charged to revenue. Land cost shall comprise of the following:

- Purchase price of land.
- Compensation for acquisition of land.
- Compensation for trees and crops on the acquired land.
- Legal charges, stamp duty etc. Incurred in order to secure effective title.
- Land revenue and other taxes paid during the stage of land development.
- Site preparation costs such as cost of leveling hills or filling low spots cost of clearing trees, etc.
- Cost of demolishing an unwanted structure if the land is acquired with structure.
- Cost of land improvement having a limited life such as cost of landscaping, gardens, sidewalls, fences and digging for sewage system shall also be added to cost of land as "Cost of Land Development".

Leases

- Operating: Lease of assets under which significant risks and rewards of ownership are effectively retained by the lessor are classified as operating leases. Lease payments under an operating lease are to be recognized as expense in the statement of profit and loss, on a straight-line or other systematic basis over the lease term.
- Finance: Leased assets acquired on which significant risks and rewards of ownership effectively transferred to the Company are to be capitalized at lower of fair value and the present value of minimum lease payments. Such assets are depreciated/ amortized over the period of lease or estimated life of such assets, whichever is less."

1.3.2 *Buildings*

In case of purchase/ acquisition of a building, the cost of building shall include the following items:-

- Purchase price
- Compensation for acquisition of building
- Payments to tenants to cancel their tenancy rights
- Expenses such as legal charges, stamps duty etc., incurred for securing an effective title
- Repairs, alterations and improvements to put the building in usable condition
- Architect's fees for re-modeling, alteration, improvements before the building is first put to use

Cost of constructed building shall include the following items:-

- Cost of construction comprising of approach road, development works, materials, labour, contractor charges etc.
- Surveying, Architectural charges.
- Cost of obtaining permits, sanctioned plans, occupation certificates from Municipal or other bodies.
- Insurance on uncompleted structure.
- Cost of excavation (excavation is not a cost of land development).

Contractors for large contracts of construction/supply/erection of plant may undertake to construct the building also with a condition that the building will be their property and therefore used by their workers, supervisors, engineers, etc. until their contract is over. On completion of the contract the building will be sold to the organisation at a predetermined price. Even if **such building is on organisation's land, the buildings shall not be incorporated in organization's accounts as an asset until the ownership is transferred to the organisation.**

1.3.3 *Ancillary Buildings*

- Office Buildings
- Residential colony for staff
- Other Buildings

The cost of buildings not covered above viz. schools, hospitals, post offices, police stations, banks, barracks for security forces, fire service stations, show rooms, stores, godowns, workshops, Test Labs, etc. shall be charged to Fixed Asset.

1.3.4 *Transformers*

- NEW 12.5 MVA TRANSFORMERS.
- NEW 10 MVA TRANSFORMERS.
- NEW 8 MVA TRANSFORMERS.
- NEW 5 MVA TRANSFORMERS.
- NEW 3 MVA TRANSFORMERS.
- NEW 1.5 MVA TRANSFORMERS.

1.3.5 *Distribution Transformers*

- NEW 400 kVA & ABOVE BUT LESS THAN 1 MVA.
- NEW 250 kVA & ABOVE BUT LESS THAN 400 kVA.
- NEW 100 KVA & ABOVE BUT LESS THAN 250 kVA.
- NEW 63 kVA.
- NEW 25 kVA.
- NEW 16 kVA.

1.3.6 *Switchgear Including Cable Connections*

- Switchgear Including Cable Connections
- 33 KV INCLUDING PANELS.
- 11 KV.
- 0.4 KV ACB.
- MCCB/MCB.

1.3.7 *Fabrication Shop/ Workshop Plant & Equipment*

1.3.8 *Lightning Arresters*

- 66 kV
- 33 kV.
- 11 kV 10 KA.
- 11 kV 5 KA.

1.3.9 *Lines, Cable Net Work, etc.*

- 66 kVA LINES NEW / AUGMENTATION.
- 33 kV LINES NEW / AUGMENTATION.
- 11 kV LINES NEW / AUGMENTATION.
- LT LINES NEW 3 PHASE 5W / AUGMENTATION.
- LT LINES NEW 3 PHASE 4W / AUGMENTATION.
- LT LINES NEW 2 PHASE 3W / AUGMENTATION.
- LT LINES NEW 1 PHASE 2W / AUGMENTATION.
- Underground cables.
    - 66 kV
    - 33 kV
    - 11 kV
- AB Cabling
- Underground cables- Duct system
- Service Connections
- Temporary Connection for supply of power
- Metering Equipment's
- Distribution Maintenance Equipment's
- Lighting Arresters

1.3.10 *Vehicles*

- Trucks, Tempos, Trekkers, etc.
- Buses Including Mini buses
- Jeeps and Motor Cars
- Other Vehicles

1.3.11 *Furniture and Fixtures, Office Equipments*

- This includes the cost of office furniture and fixtures but not permanently attached of building.
- Office equipment's-items costing above Rs. 5000/- shall be included in this account headHowever old unserviceable items shall be disposed-off on periodic basic.

1.3.12 *Intangible Assets*

- Intangible Assets are to be recorded at the consideration paid for acquisition of such assets and to be carried at cost less accumulated amortization and impairment for a period as may be decided by the Company based on materiality, accounting prudence and significant benefits expected to flow from such assets.

The following expenditure should be capitalized:

- **Repairs before Commissioning of Assets**

Any expenditure on Repairs or Rehabilitation of an Asset purchased by UPCL (whether second hand or new) incurred before commissioning of the Asset 'for putting the Asset in usable condition' shall be treated as a cost of that Capital Asset.

- **Additions**

Additions may bring into existence a new Asset or increase the physical size of an Asset through expansion, extension etc. All expenditure on additions shall be capitalized.

- **Improvements**

An expenditure having the effect of extending the useful life of an Asset or increasing output or capacity or efficiency of an Asset or decreasing operating costs of an Asset is 'Improvement'. Expenditure on improvement which does not involve replacement of old Asset shall be capitalized.

- **Alterations/ Renovations**

In case of alterations or renovations of building or plant where replacement of old Asset is not involved, the expenditure incurred shall be capitalized.

- **Rearrangements**

All expenditure on rearrangement of the Fixed Asset shall be charged to revenue as R&M Expenses in the year in which the expenditure is incurred.

1.4 Borrowing Costs

Funds borrowed specifically for the purpose of obtaining a qualifying asset, amount of related borrowing cost is capitalized as part of the cost of the specific qualifying asset. Whereas, funds which are borrowed generally and difficult to be related or rather cannot be related to any specific asset, borrowing cost of such funds shall be capitalized on weighted average basis. Other borrowing costs are recognized as expense in the period in which they are incurred.

1.5 Cost of Retirement, Scrapping, Sale of Assets

All costs incurred on retirement, scrapping and sale ofassets shall be charged to Revenue Account in the year in which the costs are incurred. Examples of such costs are as follows:

1) Building/Civil Works demolition costs
2) Plant decommissioning costs
3) Site restoration costs
4) Expenses like Legal charges and stamp duly for transfer of title to the purchaser
5) Freight, etc. on transfer of assets to any asset/ scrap disposal authority in the corporation
6) Expenditure on freight, etc. on delivery of the sold assets/ scrap to the purchaser.

1.6 Withdrawal of Cost and Depreciation

On retirement, scrapping, obsolescence of an asset, the cost of the asset and the accumulated depreciation on it shall be withdrawn from the fixed asset base and transferred to a separate account provided for this purpose.

1.6.1 *Losson scrapping of Assets*

In case of Scrapped asset for which no scrap/salvage value is realised, the written down value of such assets shall be charged off as "Written down value of assets scrapped" in the Revenue account of the year in which the scrapped assets are found unrealizable.

1.6.2 *Gain or Loss on Sale of Assets*

Gain or loss arising on sale of capital assets shall be treated as a revenue item. The gains on assets arecredited to Revenue Account for the year in which the asset is sold and the loss on sale of capital asset shall he debited to the Revenue Account for the year in which the asset is sold.

The gain on sale of assets shall be treated as a Revenue item only to the extent of total depreciation charged on the sold asset. Gain, if any, in excess of the accumulated depreciation charged by the Corporation on the sold asset shall be treated as a capital gain and credited to Capital Reserve.

For the purpose of computing gain or loss on sale of an asset also, the contributions, grants and subsidies towards cost of any capital asset sold shall not be reduced from the cost of the asset sold.

1.6.3 *Asset Shall be Assumed the Oldest if the Date of Acquisition not Known*

In case of assets scrapped/destroyed/sold for which the date of acquisition is not known, it shall be assumed, for the purpose of withdrawal of cost and depreciation, that the asset concerned was the oldest asset of that type in use at that accounting unit.

1.6.4 *Loss of Assets*

In the event of loss/destruction of an asset, the cost and the accumulated depreciation on that asset shall be withdrawn from the fixed assets block and provision for depreciation respectively.

1.6.5 *Write-Off of Loss*

Excess of the written down value of the lost/destroyed asset over the amount of insurance claim granted shall be charged to revenue in the year in which the insurance claim is settled.

1.6.6 *Replacements*

Replacements are defined as 'Substitution of one Fixed Asset by another, particularly of an old Asset by a new Asset or of an old part by a new part'. Expenditure incurred on replacement shall be treated as follows: -

Treatment for Replacement of Damaged/Failure Transformer/ Assets

The approach for treatment of replacement of transformer/asset is detailed below:

Process Introduction:

Replacement of transformer/ asset includes the replacement of failed transformer/asset, Its valuation, asset creation and retirement.

Replacement includes following steps:

- An estimate is created for Capital expense.
- On transformer/asset failure a return and issue indent would be made.
- Now two process would flow simultaneously, i.e
  - Return or withdrawn of Transformer/ asset from site

▪ Issue of Transformer/ asset to site

Description

Return or withdrawal of Transformer/Asset after Failure or Damage

- In case of failure of transformer/asset, it is sent to Store/ workshop for assessment to check whether it is repairable or not. It must be ensured that the decision with respect to reparability or non-reparability should be taken promptly i.e. within one month.
- On receipt of transformer/asset, accounting is not done. It is received at zero cost and proper tracking is available for the material like location, asset number.
- If it is repairable, then failed asset would not be retired from asset list.

Accounting: No account entry.

If it is not repairable, following events and accounting entries shall be passed:

Accounting Treatment of Un-repairable assets

S. No	Transaction Event	Responsibility	Accounting Entries	
1	Transaction is retired from the asset book, at depreciated value and scrap inventory is built	Store/ Divisions	Accumulated Depreciation	Dr.
			Depreciated Value (Stock A/c)	Dr.
			Total Asset Cost	Cr.
2	Dispatch of Scrap to stores	Store/ Divisions	Inter unit account	Dr.
			Depreciated Value (Stock A/c)	Cr.
3	Receipt of scrap by stores	Store/ Divisions	Depreciated Value (Stock A/c)	Dr.
			Inter unit account	Cr.
4	Invoice of the scrap sold	Store/ Divisions	Account receivable A/c	Dr.
			Depreciated Value (Stock A/c)	Cr.
			Profit on sale of scrap	Cr.
			Loss on sale of scrap	Dr.

Note:In case of sale of scrap there will be either profit or loss and accounting shall be made accordingly.

Issue of Transformer/Asset

- In case of issue of a repaired transformer/asset, no accounting shall be done and shall be issued at zero values from store, thus, no retirement of existing asset and no capitalization of repaired transformer/ asset should be performed.

- In case a new transformer/ asset is being issued then it would be issued at weighted average cost and capitalized respectively, and new asset would be created. Following are the events and accounting entries shall be passed.

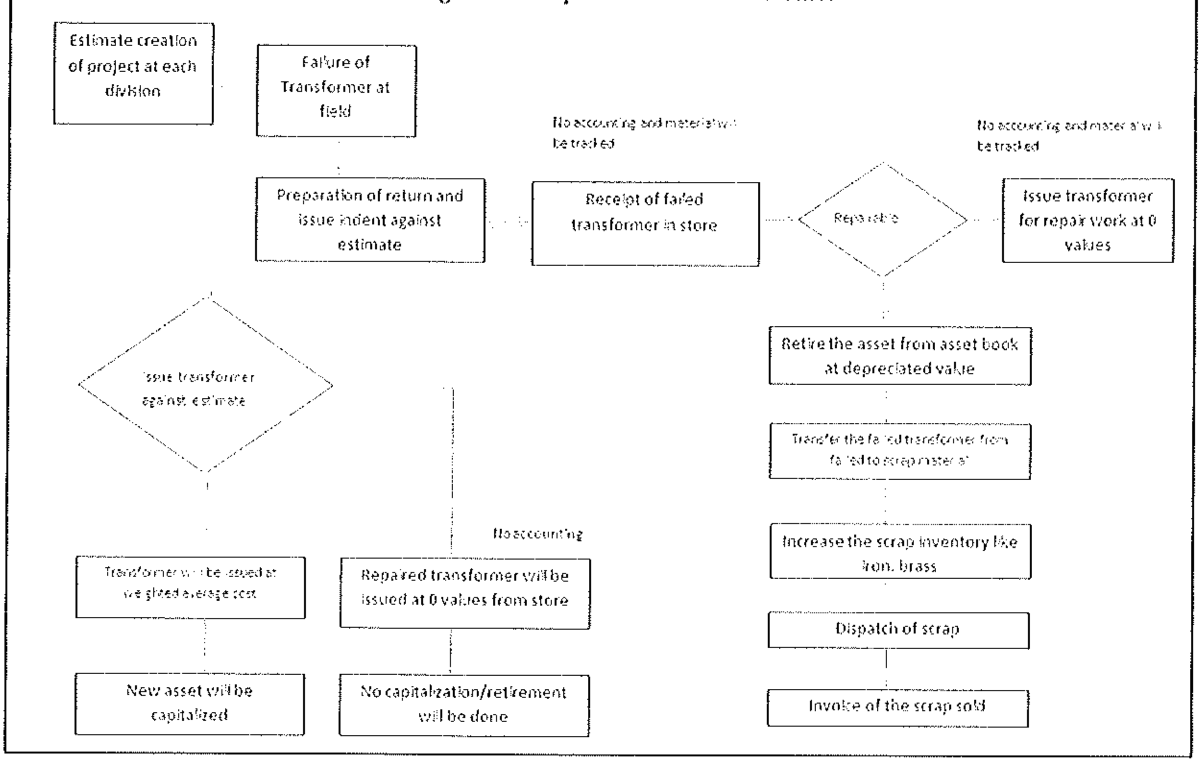
Accounting Treatment in case of issue of New Transformer/Assets

S. No	Transaction Event	Responsibility	Accounting Entries	
1	On receipt of new inventory from stores and issued to works	Stores/Divisions	CWIP (Capital work in progress A/c)	Dr.
			Stock Account	Cr.
2	Capitalization of new assets	Stores/Divisions	Fixed Asset A/c	Dr.
			CWIP (Capital work in progress A/c)	Cr.

From the above, it is clear that in case of failure of transformer/asset, it is sent to store for assessment to check whether it is repairable or not and on receipt of transformer/asset, accounting shall not be done. It will be received at zero cost. Further, in case it is repairable, then failure asset would not be retired from asset list.

The Flow Diagram of replacement of transformer is given in below:

Flow Diagram for Replacement of Transformer



1.7 Consumer Contribution, Grants and Subsidies

Consumer contribution, Grant & Subsidy shown under capital reserve is being treated as deferred revenue. The linking of receipt of capital grant, consumer contribution and subsidy to the creation of fixed assets and charging depreciation / writing back proportionate amount is practically not possible. The consumer contribution and capital grant/ subsidy is treated as deferred credit and 10% of the year-end balance of the consumer contribution and capital grant/ subsidy are transferred to profit and Loss account as deferred income written back which is reasonably commensurate with depreciation charged on various total fixed assets during the useful life of the assets.

Revenue grants/Tariff subsidies from the government and other agencies are recognized as income only when there is reasonable assurance that the conditions attached to them shall be complied with, and the grants will be received and accounted on accrual basis.

1.8 Impairment of Fixed Assets

An impairment loss is recognized wherever the carrying amount of an asset exceeds its recoverable amount. If any indication of impairment exists, recoverable amount of the assets is estimated. If such recoverable amount of the asset or the recoverable amount of the cash generating unit of which the asset belongs is less than its carrying amount, the carrying amount is reduced to its recoverable amount. The reduction is treated as an impairment loss and is recognized in the profit and loss account. If at the Balance Sheet date, there is an indication that if a previously assessed impairment loss no longer exists, the recoverable amount is reassessed and the asset is reflected at the recoverable amount so reassessed.

1.9 GIS/ GPS based Information System

UPCL shall employ GIS/GPS based Geographical Facilities Information System for planning operation and maintenance of the distribution system. The Geographical Information System shall be utilized for mapping all important elements of the distribution system which include lines, transformers, sub-stations, generating stations, unit locations and shall eventually cover all consumers. The GIS shall be linked to active Relational Database Management System (RDBMS) and Global Positioning System shall be utilized for time synchronization. Through GIS/GPS based information system, it will be easy to maintain data base of Fixed Asset Register.