

B S R & Co.

# Bihar State Electricity Board, Bihar

## BSEB

Diagnostic Study Report on Updation of  
Accounts

8 February 2011



# Contents

1.	<b>Purpose and Basis</b>	
2.	<b>Coverage</b>	
3.	<b>Background</b>	
4.	<b>Approach</b>	
5.	<b>Broad Structure of the Board</b>	
6.	<b>Financial reporting and audit process</b>	
7.	<b>Status of computerisation</b>	
8.	<b>Status of accounts and Board's plan for completion</b>	
9.	<b>Key issues / road blocks noticed</b>	
10.	<b>Summary of financial position</b>	
11.	<b>Certain critical issues</b>	
12.	<b>Annexure 1 – Possibilities for I.T. Solutions</b>	
13.	<b>Annexure 2 – Certain illustrative procedures regarding:</b> -- Fixed assets register -- Receivables listing, ageing and recoverability -- Distribution of other losses -- Reconciliation of Inter Circle Transaction	

# 1. Purpose and Basis

Prepared for the “HIGH LEVEL PANEL ON FINANCIAL POSITION OF DISTRIBUTION UTILITIES” for the purpose of information on status update and summarising the key issues/road blocks noticed in relation to finalisation of financial statements upto March 31, 2010 of the Board. This is based solely on the discussions with the Board’s management and does not constitute an audit/review in accordance with the generally accepted auditing standards.

Restrictions on distribution:

Includes information which has been provided based on preliminary discussions with the Board’s management only. It is produced on the basis that it is for your information only and that it will not be quoted or referred to, in whole or in part, without our prior written consent.

## 2. Coverage

This report covers Bihar State Electricity Board, Bihar (herewith referred to as the ‘Board’)

## 3. Background

Planning Commission (Power & Energy Division) vide its office memorandum ref. F. No. I-22/2/32/2010-P&E dated 28.07.2010 has intimated that Prime Minister has approved a High Level Panel (HLP) on 'Financial Position of Distribution Utilities' to look into the financial problems of the SEBs/Distribution utilities and to identify potential corrective steps particularly in relation to their accounting practices as mentioned in the TOR given therein.

In accordance with the above, we have been appointed to carry out a diagnostic study, covering status of updation of accounts of the Board till 31 March 2010 vide letter no. 4-7/I/HLP/2010 of HLP dated 18 October 2010. The diagnostic study covers the following:

- Status of accounts
- Identification of key issues / road blocks in completion of accounts
- Work plan / road map for updation of accounts upto the year 2009-10, in consultation with the Board

### Detailed Scope of Work

Carrying out Diagnostic study for updating of accounts till 31st March 2010 covering the following:

- Preparation of an initial questionnaire to facilitate carrying out diagnostic study
- Visit the Board
- Carrying out Diagnostic study covering
  - ✓ Status of accounts
  - ✓ Identification of key issues / road blocks in completion of accounts
  - ✓ Work plan / road map for updation of accounts upto the year 2009-10 in consultation with the Board
- Visit the Utility periodically to oversee the progress of the work and ensure that the working is going as per the work plan.

- To make efforts in association with Institutional Service Providers towards the plan to complete the accounts by 31st December 2010.
- Ascertain overall status of computerization of financial accounting systems in the Board and the steps being taken by the Board for implementation of IFRS applicable from FY 2011-12.

# 4. Our Approach

This section provides the approach adopted by us to carry out the diagnostic study.

## 4.1 Key objective of the study

The prime objective of the study is to draw a road map to clear the backlog in the preparation of accounts of the Board upto financial year 2009-10. Accordingly, the backlog in annual audited accounts for the years upto 2009-10 should be cleared and simultaneously the accounts for the year 2010-11 should be audited on time.

## 4.2 Our Approach

The approach adopted by us to carry out the diagnostic study involves the following key steps:

- Preparation of an initial questionnaire
- Field visit to the Board
- Analysis of the status and indentifying key issues / road blocks in completion of accounts in discussions with the Board's management
- Based on the above and feedback from the Board's management, drawing a tentative work plan /road map for updation of accounts upto the year 2009-2010
- Closing meeting / presentation to the Managing Director and officials of the Board to discuss our findings and obtaining additional observations and recommendations, if any.

During the field visits, we coordinated with the Institutional Service Providers (ISP's) officials, took their inputs/support into the account while developing the road map.

We prepared an initial questionnaire to gather the primary information regarding the status of accounts preparation as on date (refer to Point no. 8). The questionnaire primarily covered the following aspects:

- Status of present accounting system
- Status of Computerisation of accounts
- System of internal audit
- Status of accounts preparation and audit

- Status on compilation/consolidation of annual accounts:
  - ✓ at Head Office
  - ✓ at Circle Offices
  - ✓ at field offices/accounting units
- Key issues/constraints faced in timely preparation of annual accounts/expediting clearance of backlog in preparation of annual accounts

The above information was compiled by the Board with the assistance of ISP. A study of the information provided by the Board an above was done by us, prior to making field visit to have a focused discussion with Board's personals.

During our field visits, we commenced the diagnostic study with a kick off meeting with the Head of Accounts and other key officials at the Head office of the Board. The objective of the meeting was to obtain an overall understanding of the following aspects:

- An overview of the organisation and accounting set-up
- Preliminary discussions of the information provided as per the questionnaire, status of accounts and key issues
- Preparation of work plan for the field visits

Based on the above, we met the concerned key officials at select offices as under:

- Head office – Compilation and Accounts Department/Section
- Circle/Division/Sub-Division
- In addition, we also had discussions with the representatives from the State Auditor General

The main objectives of the above meetings were:

- To gain understanding of the process of preparation and compilation of accounts, broadly covering the following:
  - ✓ Preparation of books of account by the accounting units
  - ✓ Compilation of Accounts by Circle Offices
  - ✓ Status of accounting information at Divisional Offices
  - ✓ Approval of accounts by Board of Directors
  - ✓ CAG Audit

✓ Adoption of Accounts in the AGM

- Understand in detail the current status on the compilation of accounts and audit
- Understand and discuss the key issues involved/constraints faced in timely preparation of accounts and audit thereof
- Understanding the likely completion dates as provided by the Board in the initial checklist and the assumptions behind it.
- Arrive at practicable and implementable road map, including time frame, responsibility and actions required

The above discussions also included ascertaining the status of computerisation of accounts and implementation plan for IFRS.

**List of Officials met**

A broad list of officials / consultants interacted with during the diagnostic study is as follows:

- Mr. P.K. Rai (Chairman)
- Mr. Vinayak Chandra Gupta (Member Finance)
- Mr. Rana Awadhesh Singh (Member Administration)
- Mr. S.S.P. Singh (Finance Controller I – Revenue and Finance)
- Mr. Vijay Kumar (Finance Controller II – Finance)
- Mr. Indu Bhushan Prasad (Finance Controller – Revenue)
- Mr. Arvind Kumar (Director – Revenue)
- Mr. N.K. Jha (Director – Finance)
- Mr. Rajiv Ranjan Prasad (Deputy Director – Accounts)
- Mr. P.N. Lal ( External consultant)



# 5. Broad Structure of the Board

The Board's structure may be divided into the following functional / operational units:

## Head Office ('HO'):

HO is primarily responsible for compiling financial information (except revenue) received from COs. Revenue is compiled based on statements received from DOs.

## 36 Circle Offices ('CO'):

COs are primarily responsible for accounting and compiling the financial information related to expenditure received from DOs.

## 65 Divisional Offices ('DO'):

Primarily responsible for all activities relating to operations/works and revenue generation, collection, capital projects, etc.

## 189 Sub Divisional Offices

Not considered as accounting units, maintain only petty cash

## Size of BSEB

The size of the Board in terms of revenue, customers and accounting units may be summarised as under:

Revenue – Approx 2,800 crores (as per provisional Financial statements for the year ended 31 March 2010)

Customers – 30 lakhs +

Accounting Units – 37 (approximately) (36 Circle Offices and Head Office)

# 6. Financial Reporting and Audit Process

As explained to us, following is the financial reporting and audit process of the Board. As informed to us, the process of the financial reporting is very prolonged and takes substantial period of time to complete due to various processes involved to compile financial information and multiple audits. The following is the summary:

- The accounting policy manual The Electricity (Supply) (Annual Accounts) Rules, 1985, prescribes the accounting treatment of each of the specific accounting items.
- Standard account codification process prescribed by the manual needs to be followed by the Board.
- The Board initially follows cash basis of accounting during the year and provides for expenses as at the year end to ensure that the financial statements are based on the accrual concept.
- DOs provide accounting information (i.e. cash book extract) to the COs for preparation of Division wise journals.
- COs prepare the trial balances for each Division for consolidation at HO.
- HO consolidates trial balances on a line by line basis on an excel spreadsheet for preparation of financial statements.
- Financial statements are adopted at the Board meeting and submitted to the State Auditors General.
- State AG audits financials and discusses its draft report with the Board's management.
- On receipt of management responses, State AG clears financial statements and issues final report.
- It takes approx 4-6 months to complete the audit of accounts

# 7. Status of Computerisation

There is largely no computerization of the financial reporting process i.e. initiation, authorization, recording and financial reporting. The Board uses computers for compilation of financial information for consolidation purposes at ZOs and HO. Trail balances received by ZOs from COs and DOs are entered into the computer software (fox-pro). Software systems have limited functionality and essentially apply information compiling procedures. In selected areas, meter reading and bill processing, mainly for domestic customers, is outsourced to external vendors/franchisees.

## **Following key issues were identified under status of computerisation**

- No computerisation for monitoring and tracking of capital projects and revenue expenditure.
- No computerization for monitoring of human resource and related data.
- Billing, collections, customer care and dispute management systems have not been implemented.
- Energy data generated is a mix of manual and system efforts. This lacks a robust reconciliation process.
- Legal cases are updated manually by the various consultants on the basis of advice received from the Divisional Offices and are not system controlled.
- The systems / software used either by the Board or the vendor are outdated. These, lack modern functionality of processing and reporting.
- The system used by the Board is mainly for data consolidation instead of data processing and generation.

## 8. Status of Accounts and Board's Plan for Completion

Following is the status of accounts for the years 2008-09 and 2009-10 and Board's plan for completion based on the discussions with the Board's officials:

Particulars	FY 2008-09	FY 2009-10
	Plan	Plan
Compilation of financial statements of the Board	Already done	Already done
Submission to State AG office for Audit	Already done	Completed on 19 Nov 10
Completion of Audit	Already done	Yet to commence
Draft report issued by AG office	Already done	Not planned
Reply by Board to Draft report of AG	To be done by Jan 2011	Not planned
Approval from State AG / CAG offices	Planned to be done by Mar 2011	Not planned

# 9. Key Issues/Road Blocks Noticed

Key issues/road blocks identified in completion of accounts for the years upto 2009-10 based on the following:

Study/review and analysis of the overall accounting structure and accounting process followed at the Board

Current status on preparation of accounts and discussions held with the Board's officials

Discussions with the auditors of the Board to the extent feasible.

**The key issues/road blocks noticed for updation of accounts are summarised below:**

## **SPECIFIC ISSUES**

- Liquidity crunch: Huge outstanding receivables
- Pending inter-unit reconciliation ('IUT')
- Preparation of Fixed Assets Register ('FAR')
- Preparation/reconciliation of stock register
- Preparation of provision for expenses
- Substantial distribution losses
- Recoverability of subsidy
- Completion of audit by AG

## **GENERAL ISSUES**

- Lack of appropriate manpower
- Lack of computerization (covered per separate details)
- Lack of coordination between Commercial and Accounting/Finance teams
- Opening balances at the time of unbundling of State Electricity Board ('SEB'), which are still pending reconciliation and finalization
- Non resolution of audit issues

# 10.SUMMARY OF FINANCIAL POSITION

Summary of balance sheet as at 31 March 2010

	<u>Rs. crores</u>
<b>Fixed assets</b>	<b>1,060</b>
<b>Capital work in progress</b>	<b>880</b>
<b>Investments</b>	<b>830</b>
<b>Subsidy receivable (since last 4 years)</b>	<b>4,310</b>
<b>Current Assets:</b>	
<i>Sundry debtors</i>	<b>3,290</b>
<i>Receivable from JSEB</i>	<b>880</b>
<i>Cash and Bank</i>	<b>570</b>
<i>Stock</i>	<b>250</b>
<i>Miscellaneous assets</i>	<b>340</b>
	<b>12,410</b>

## Summary of balance sheet as at 31 March 2010

	Rs. crores
<b>Borrowings</b>	<b>8,400</b>
<b>Interest accrued and due</b>	<b>4,210</b>
<b>Staff related liabilities</b>	<b>2,190</b>
<b>Purchase of power</b>	<b>660</b>
<b>Subsidy etc. towards capital assets</b>	<b>650</b>
<b>Security deposits from customers</b>	<b>350</b>
<b>Deficit</b>	<b>(4,520)</b>
<b>Miscellaneous liabilities</b>	<b>470</b>
	<b>12,410</b>

### REVENUE / DEBTORS – KEY ISSUE

<b>Units sourced / generated</b>	<b>9,800 Mkw</b>
<b>Units billed</b>	<b>6,100 Mkw</b>
<b>Loss</b>	<b>38%</b>
<b>Receivables (Gross)</b>	<b>5,600 crores</b>
<b>Revenue</b>	<b>1,860 crores</b>
<b>Collection period</b>	<b>&gt; 3 years</b>

# 11. Certain critical issues

Based on various discussions with the Board's management, certain critical issues are as under:

## ENTITY TO CONSIDER

- Physical verification of fixed assets and preparation of fixed assets register
- Maintenance of stock register and physical verification
- Identify specific un-reconciling items (i.e. Inter Circle Transactions, Vendor advances and payments etc) and conclude, considering the size of un-reconciled items and possibility of misappropriation
- Analysis and ageing of receivables and action for recovery
- Preparation of Input / output analysis and action against losses
- Consider separate project for implementation of IT system.

## SEPARATE PROJECT FOR IUT RECONCILIATION

- Entity to consider IUT Reconciliation as a separate project
- To identify specific items and conclude, considering the size of un-reconciled items and possibility of misappropriation
- Need coordination between Engineering and Finance teams ( possibly more authority to Finance teams to reach conclusion)
- Robust process to be in place for periodic reconciliation, going forward
- Consider implementing a real time IT system to track IUT transaction status ( to be a part of overall level of computerisation)

## HLP TO INTERVENE

- To connect with the Entity for expediting compilation of pending information
- To connect with AG to expedite the audit process

## MATTERS FOR FURTHER DISCUSSIONS

- Lack of appropriate manpower



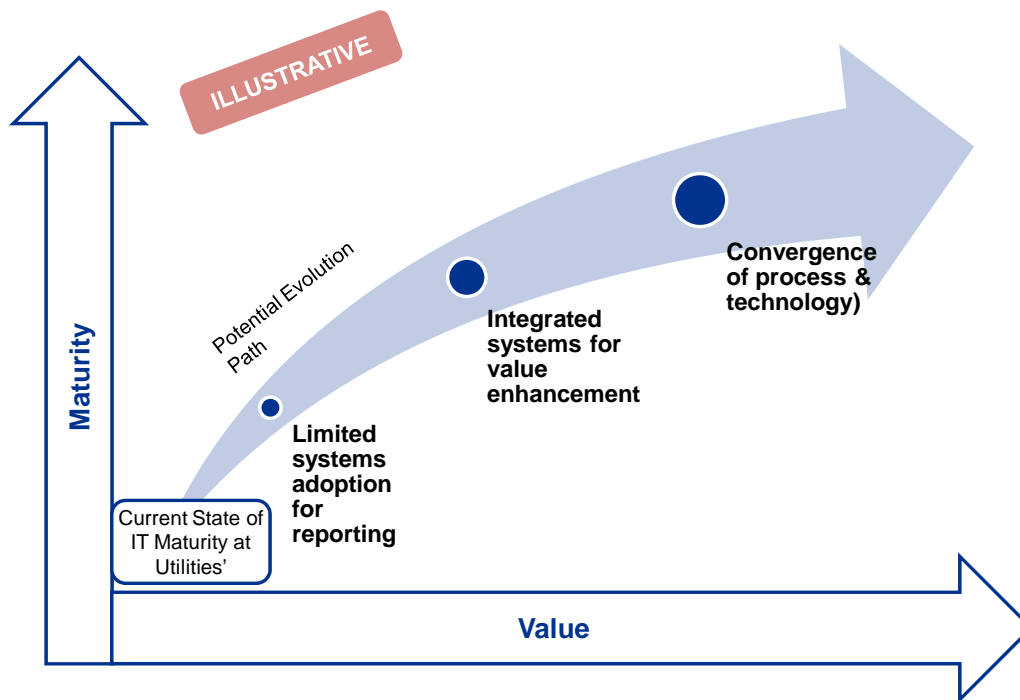
- Separate project on IT system implementation
- Lack of interdepartmental coordination ( largely between Engineering and Accounting / Finance teams)
- Opening balances on unbundling
- Entity to prepare a structured plan for implementation of IFRS

# Annexure - 1

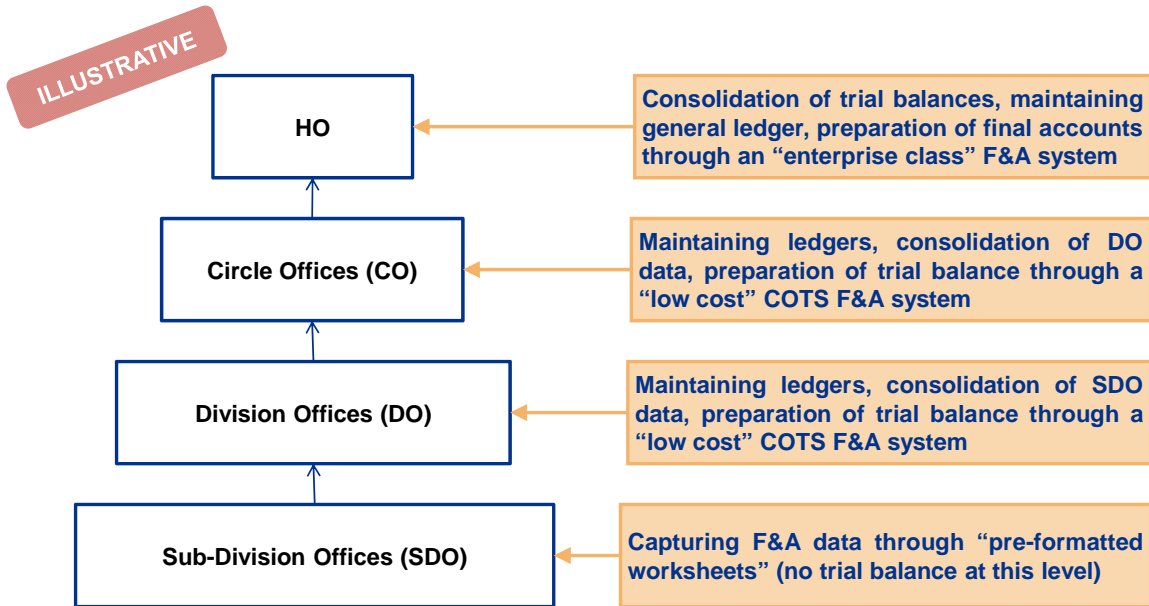
## POSSIBILITIES FOR I.T. SOLUTIONS

Following maps/charts depicts a suggested approach towards implementation of I.T. solution commensurate with the size and nature of business of the Board:

### Value-Maturity Curve



## Solution for Limited Adoption

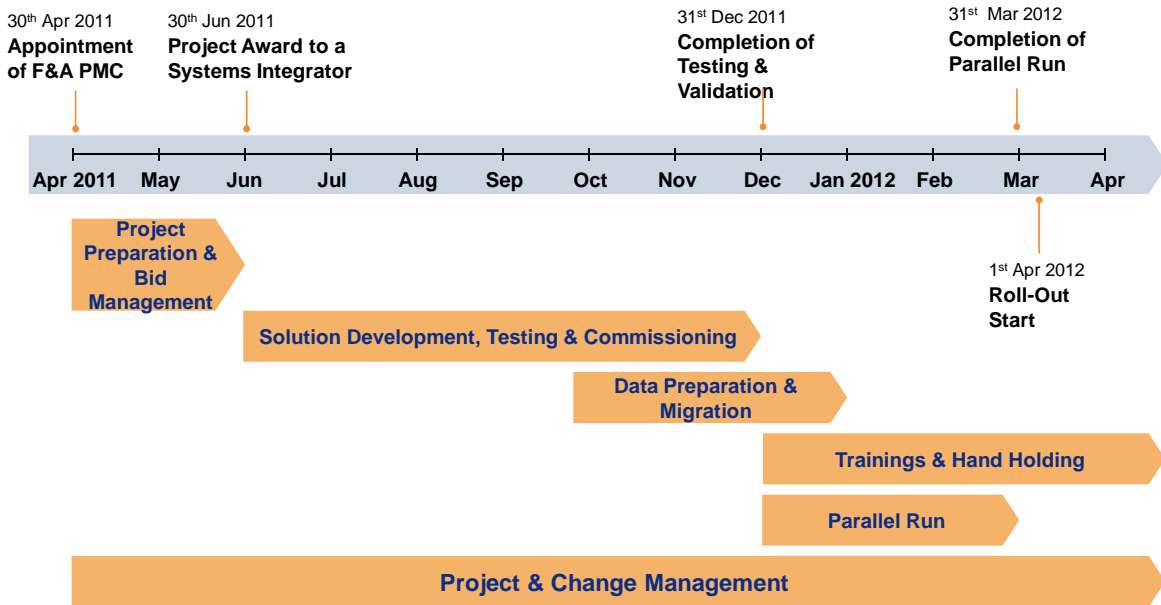


COTS = Commercial Of the Shelf

## Implementation Options

Option 1 (Integrated Solution Implementation)	Option 2 (Hybrid Solution Implementation)
<p><b><u>Constituents</u></b></p> <ul style="list-style-type: none"> <li>• Finance &amp; Accounting (F&amp;A) Consultant</li> <li>• Tier-1 Integrated Solution</li> <li>• Tier-1 Systems Integrator</li> </ul>	<p><b><u>Constituents</u></b></p> <ul style="list-style-type: none"> <li>• Finance &amp; Accounting (F&amp;A) Consultant</li> <li>• Tier-2 Hybrid Solution ("low cost" COTS system components)</li> <li>• Tier-2 Systems Integrator ("low cost" COTS local systems integrator)</li> </ul>
<p><b><u>Investment &amp; Adoption</u></b></p> <ul style="list-style-type: none"> <li>• Higher cost :               <ul style="list-style-type: none"> <li>✓ Hardware and software components</li> <li>✓ Systems Integrator</li> <li>✓ Change management and trainings</li> </ul> </li> <li>• Complex implementation/ adoption cycle</li> <li>• Expected solution life (post implementation) – 5 years</li> </ul>	<p><b><u>Investment &amp; Adoption</u></b></p> <ul style="list-style-type: none"> <li>• Lower cost:               <ul style="list-style-type: none"> <li>✓ Hardware and software components</li> <li>✓ Systems Integrator</li> <li>✓ Change management and trainings</li> </ul> </li> <li>• Less complex implementation/adoption</li> <li>• Expected solution life (after implementation) – 3 to 5 years</li> </ul>

# Indicative Timeline



F&A PMC = Finance & Accounting Project Management Consultant

# Annexure - 2

**CERTAIN ILLUSTRATIVE PROCEDURES REGARDING:**

FIXED ASSETS REGISTER

RECEIVABLES LISTING, AGEING AND RECOVERABILITY

DISTRIBUTION AND OTHER LOSSES

RECONCILIATION OF INTER CIRCLE TRANSACTIONS

## FIXED ASSETS REGISTER

### OBSERVATION

- No fixed assets register maintained by the utilities
- No tracking of capital work in progress

### RECOMMENDATION

- Preparation of Fixed Assets Register ('FAR')
- Reconciliation of Inter Unit Transactions ('IUT')

### WAY FORWARD

- Classify assets:
  - ✓ Assets that can be identified based on the available records
  - ✓ Rest of the assets for which its not feasible to trace records
- Formation of a team
  - ✓ HO to form a separate team at various levels to monitor physical verification exercise and compilation of data
- External support
  - ✓ HO to engage external support to supervise the exercise
- Fixation of accountability with each team:
  - ✓ Head Office Level
  - ✓ Circle Level
  - ✓ Division and Sub-Division Level
- Physical verification exercise:
  - ✓ Identification of standard categories of assets
  - ✓ Format for physical verification and data capturing (Refer subsequent slide )
  - ✓ Physical survey and recording of existing assets in a serially controlled format

- ✓ Confirmation by respective Divisional Heads / Technical Heads
- ✓ Supervision by Finance Team
- ✓ Supervision by external agencies
- Compilation of data
  - ✓ Based on serially controlled physical verification sheets
- Allocation of values to assets in existence, based on appropriate method (e.g. replacement value method)
- Tracking of capital work in progress and to identify:
  - ✓ Assets already being used and to be capitalised
  - ✓ Assets ready to use
  - ✓ Reconciliation of ICT to identify additional items for capitalisation (Refer following slides)
- ILLUSTRATIVE FORMAT FOR DATA CAPTURING:
  - Description and category of asset
  - Identification number
  - Make
  - Quantity
  - Location / area of installation
  - Suppliers' name (to the extent feasible)
  - Estimated age of asset
  - Estimated life of asset (to the extent feasible)
  - Responsibility / accountability
    - ✓ Physical verification done by / date
    - ✓ Approved by Divisional / Technical Head
  - Any other details considered relevant

# RECEIVABLES

## OBSERVATION

- No tracking of receivables per party and Division
- Ageing and other details of outstanding receivables not made available

## WAY FORWARD

- Board is required to prepare detailed schedule of receivables, including the following:
  - ✓ Customer name
  - ✓ Connection and area reference
  - ✓ Category
  - ✓ Amount
  - ✓ Overdue amount
  - ✓ Sur charge on late payment not recognised
  - ✓ Outstanding amount with date of bills and ageing, duly matched with the financial records and sub ledgers
  - ✓ Responsible Board official
  - ✓ Reasons for non recovery
  - ✓ Legal cases, if any
  - ✓ Action plan and scheduled timing for recovery
- Prioritize receivables based on:
  - ✓ Category (Industrial, Government, Agriculture, etc.)
  - ✓ Ageing
  - ✓ Amount involved
  - ✓ Legal cases
  - ✓ Area and population



- Assign responsibility for actual recovery
- Close monitoring on a weekly basis
- Penal action and discontinuation of power supply for defaulters

# DISTRIBUTION AND OTHER LOSSES

## OBSERVATION

- No regular monitoring of transmission losses
- No periodic targets set for reduction in transmission losses

## WAY FORWARD

- BOARD TO INITIATE STEPS INCLUDING THE FOLLOWING:
  - ✓ To prepare Input/output analysis and setting up of periodic targets
  - ✓ Methods to monitor at the smallest possible distribution units e.g.
    - Grid stations
    - Sub-stations
    - Transformer level
    - Meter line (pole)
    - Any other feasible location for monitoring
  - ✓ Frequent comparison of T&D losses against targets
  - ✓ Identification of areas/locations with maximum losses
  - ✓ Penal action and discontinuation of power supply

# RECONCILIATION OF INTER UNIT/CIRCLE TRANSACTIONS

## OBSERVATION

- No regular tracking of stock movements between Circles at Division and Sub-Division level
- No physical verification
- No reconciliation of old unadjusted items lying in ICT

## RECOMMENDATION

- Identification of old un-reconciled items lying in ICT
- Regular monitoring of stock movements between Circles
- Physical verification at regular intervals

## WAY FORWARD

- Head Office to have a separate project for:
  - ✓ Identification of specific unreconciling items (i.e. Inter Circle Transactions, Vendor advances and payments)
  - ✓ Identification of responsible project in-charge
  - ✓ Conclusion as to whether the project is in process or completed
  - ✓ Identification of reasons for pending "Project Completion Reports"
  - ✓ Appropriate accounting treatment based on above to nullify ICT
  - ✓ This may result in:
    - Expenses/provision for expenses
    - Stores/Capital assets
    - Possible dual payments or payments for nonexistent transactions
    - Any other corrections
    - Possible misappropriation

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