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# POWER CENTRAL ASIA UTILITY SUPPORT APPROACH

ELECTRICITY NETWORKS OF FERDOWSI DISTRICT  
TRANSFORMATION PLAN  
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APRIL 2022

# DISCLAIMER

This document was prepared by the Power Central Asia Energy Program based on the input provided by Dushanbe City Electricity Networks and Ferdowsi Electricity Networks management team. The views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

# ABBREVIATIONS

ABC	Aerial Bundle Cable	km	Kilometer
AMR	Automatic Meter Reading	KPI	Key Performance Indicator
ATC&C	Aggregated Technical, Commercial and Collection (losses)	kV	Kilovolt
BE	Billing Efficiency	LT	Low Tension
CC	Customer Care	LU	Labor Union
CE	Collection Efficiency	LV	Low Voltage
CRM	Customer Relationship Management	MEWR	Ministry of Energy and Water Resources
CT	Current Transformer	MV	Medium Voltage
DCEN	Dushanbe City Electricity Networks	MW	Megawatt
DISCO	Distribution Company	ND	Network Development
DT	Distribution Transformer	PC	Personal Computer
ERP	Enterprise Resource Planning	PR	Public Relations
ESD	Energy Supervisory Department	RM	Regional Manager
GIS	Geographic Information System	RP	Revenue Protection
GWh	Gigawatt-hours	SCADA	Supervisory control and data acquisition
HHU	Hand-Held Unit	SMS	Short Message Service
HR	Human Resources	SOP	Standard Operating Procedure
HSE	Health Safety and Environment	STB	Shabakahoi Taqsimoti Barq
HQ	Shabakahoi Taqsimoti Barq Headquarters	S/S	Substation
HV	High Voltage	TJS	Tajikistani Somoni
IT	Information Technology	TSO	Transmission System Operator
ITC	Information Technology and Communications	IC	Finance Software
KCG	Key Customer Group		

# TABLE OF CONTENTS

1. Context and Background
2. Turnaround Plan
  - A. Approach
  - B. Key Projects
  - C. Action Plan

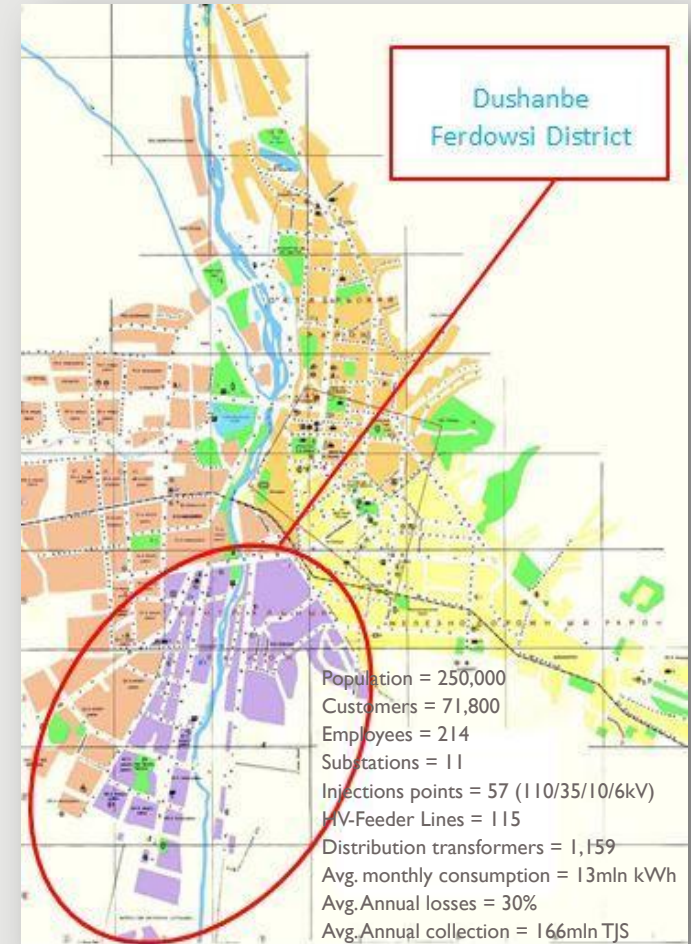
# CONTEXT AND BACKGROUND

Since January 2022, the Power Central Asia (PCA) has mobilized three advisors in Dushanbe, on implementation of utility strengthening objective, with main focus in loss reduction activities in the Ferdowsi Electricity Networks District.

The aim of this support is to provide commercialization and loss reduction assistance to Ferdowsi Electricity Networks District, which will focus on management support to address losses and assistance with the required performance turnaround.

This document consolidates initiatives, which aim to improve performance with more effective and efficient operational improvements at Ferdowsi District initially, and which can then be applied throughout DISCO, while not requiring significant investment and using existing in-house resources.

The initiatives have been developed and assessed based on the specifics and characteristics of the Ferdowsi district, based on a detailed diagnostic report and actual field engagement by the Power Central Asia utility specialists.



# TABLE OF CONTENTS

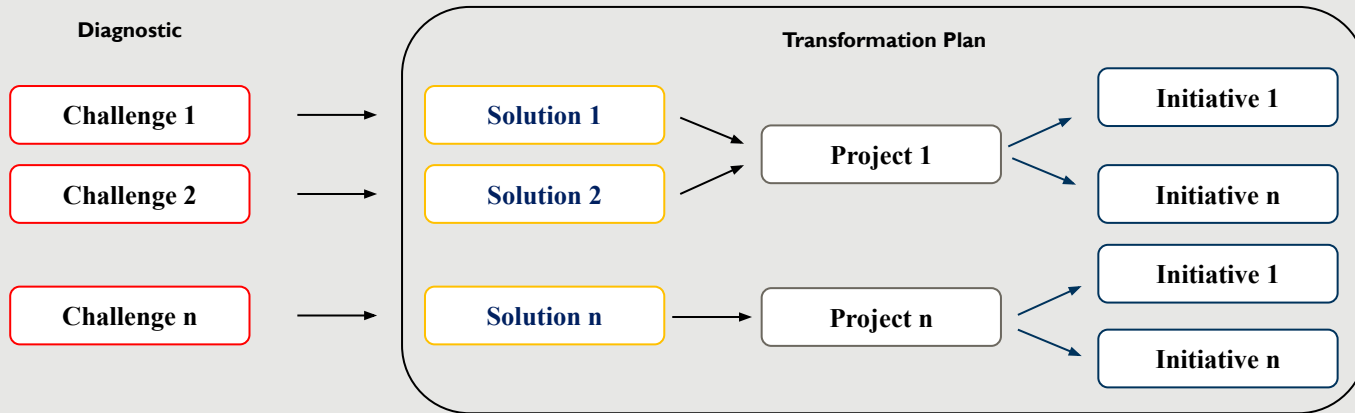
1. Context and Background
2. Turnaround Plan
  - A. Approach
  - B. Key Projects
  - C. Action Plan

# APPROACH

A number of shortfalls were identified during the diagnostic exercise conducted during January - March 2022. A set of solutions to the problems have been identified. Solutions have been grouped into several initiatives and under each initiative, several projects have been identified.

The initiatives are categorized into three main pillars – Effective Management and Governance Improvements, Operational Improvements, and Internal Control.

For each project, a plan has been prepared with objectives, timelines, deliverables, dependencies, as well as potential risks, that need to be mitigated.



# TABLE OF CONTENTS

1. Context and Background
2. Turnaround Plan
  - A. Approach
  - B. Key Projects
  - C. Action Plan



# KEY PROJECTS



## Effective Management and Governance Improvements

### Strengthening Management Effectiveness

- Establishing Operationalized Structure
  - Regional Structure
  - District Structure
- Reviewing and Redesigning Processes
- Recruitment, Employment and Gender Equality
- Effective Job Description
- Key Performance Indicators
- Periodical Performance Evaluation and Skill Assessment

### Talent Management

- Enhance Talent Management in line with DCEN Strategy and Goals
- Enhance Strategic Employee Planning
- Effective Incentive Scheme
- Training and Capacity Building



## Operational Improvements

### Commercial Operations Improvements

- Revenue Protection and Loss recovery
- Meter Reading Process and Efficiency
- Billing Process and Efficiency
- Disconnection and Collection Process
- Operational Targets (KPI) on a Regional and District levels
- Technical and Financial Bill Adjustments
- Customer Alignment
- New Connections and Efficiency
- Enhance Analyses and Data Access
- Customer Care and Public Relations

### Index to indicate losses

Aggregated Technical, Commercial and Collection Losses (ATC&C)

### Technical Operations Improvements

- Energy Balance
- Network Alignment, Energy Accounting and Accountability
- Distribution Network Condition
- Meter Installation and Replacement
- Improve Energy Demand
- Technical Loss Study



## Internal Control

### Controlling the environment

- Managerial Skills, Directions and Integrity of Employees

### Risk Assessment

- Internal Risk
- External Risk

### Control Activities:

- Planning, Reporting and Official Documents

### Information and communication

- Regional and District Staff Meetings

### Monitoring Implementation

- Daily, Weekly, Monthly Monitoring of Activities and Operations

### Takeaways / Conclusions

- PCA Target

# EFFECTIVE MANAGEMENT AND GOVERNANCE IMPROVEMENTS

## STRENGTHENING MANAGEMENT EFFECTIVENESS

Project	Description	Output
1. Operationalized Structure	<ul style="list-style-type: none"><li>Align organizational structure to the transformation objectives</li><li>Align reporting based on accountability line</li><li>Redefine commercial and technical responsibilities</li></ul>	<ul style="list-style-type: none"><li>Improves efficiency and effectiveness to achieve high performance</li><li>Increases responsibilities and accountability for the functions</li></ul>
2. Reviewing and Redesigning Processes	<ul style="list-style-type: none"><li>Improving / redesigning operational processes based on organogram changes and company strategy</li><li>Improving department interactions for effectiveness and increase of internal controls</li><li>Define responsibilities and accountability</li></ul>	<ul style="list-style-type: none"><li>Will improve efficiency of operations,</li><li>Improve internal control</li><li>Increase accountability to work in line with company targets</li><li>Shares responsibilities</li></ul>
3. Recruitment, Employment and Gender Equality	<ul style="list-style-type: none"><li>Create more efficient employment agreement</li><li>Introduce recruitment guidelines through new employee manual</li><li>Support progression and leadership opportunities for women</li></ul>	<ul style="list-style-type: none"><li>Will increase productivity and results in the work</li><li>Establish fair and equal work conditions for work</li><li>Fair selection process during hiring</li></ul>
4. Effective Job Description	<ul style="list-style-type: none"><li>Reviewing / drafting job descriptions by introducing KPI's</li><li>Updating / defining specific responsibilities and roles</li></ul>	<ul style="list-style-type: none"><li>Improve responsibility and accountability</li><li>Align employees to right positions and processes</li></ul>
5. Key Performance Indicators and Targets	<ul style="list-style-type: none"><li>Defining effective and reasonable KPI</li><li>Operational KPI</li><li>Financial KPI</li></ul>	<ul style="list-style-type: none"><li>Improve working efficiency</li><li>Improve productiveness and efficiency of work</li></ul>
6. Performance Evaluation and Skill Assessment	<ul style="list-style-type: none"><li>Conduct skill assessment for district and RP employees</li><li>Establish periodical monthly, quarterly and annual performance review and evaluation, based on the approved operational and financial KPI</li></ul>	<ul style="list-style-type: none"><li>Improve competition on work</li><li>Increase working efficiency and accountability</li><li>Help management to follow up with the accomplished goals and timing</li></ul>

# EFFECTIVE MANAGEMENT AND GOVERNANCE IMPROVEMENTS

## TALENT MANAGEMENT

Project	Description	Output
7. Management in line with DCEN strategy and goals	<ul style="list-style-type: none"><li>Defining required number of employees to achieve goals defined with organizational strategic plans</li><li>Ensuring that employee / customer ratio is defined based on the field employees to cover operations, not with the total of employees in the company</li></ul>	<ul style="list-style-type: none"><li>Will enable company to have better coverage during commercial and technical operations</li><li>Employee / Customer ratio will improve planning and expectations in operations</li></ul>
8. Strategic Employee Planning	<ul style="list-style-type: none"><li>Identifying key roles and respective personnel to ensure reaching the goals defined with organizational strategic plan, will help company to achieve set targets</li></ul>	<ul style="list-style-type: none"><li>Improve planning, monitoring and implementation of operations</li><li>Ensuring achievement of the goals and implementing organizational strategic plan</li></ul>
9. Effective Incentive Scheme	<ul style="list-style-type: none"><li>Aligning the company strategic goals with incentives means recognizing employees, rewarding contributions to success, and acknowledging their value to the organization</li></ul>	<ul style="list-style-type: none"><li>Will increase effectiveness of work during working hours and working days</li><li>Proper checks and balances will increase work efficiency</li></ul>
10. Training and Capacity Building	<ul style="list-style-type: none"><li>In house and field trainings for revenue protection, commercial operations, enumerations, analysts, etc.</li><li>Field trainings for commercial operation employees in the district</li><li>Basic and advanced training for analysts on billing and energy data</li></ul>	<ul style="list-style-type: none"><li>Will improve quality and effectiveness in operations</li><li>Increase qualification for the personnel</li><li>Improve accuracy of data in billing database</li></ul>

# EFFECTIVE MANAGEMENT AND GOVERNANCE IMPROVEMENTS

## COMMERCIAL OPERATIONS IMPROVEMENTS

Project	Description	Output
11. Revenue Protection and Loss Recovery	<ul style="list-style-type: none"><li>• Organizing revenue protection unit, changing reporting lines and enforcing preventive, detective and loss recovery measures followed with basic and advanced trainings</li><li>• Establishing process and interactions with other departments, with strong analytical task</li><li>• Drafting Standard Operating Procedure</li><li>• Establishing daily, weekly, monthly reporting</li><li>• Establishing operational and loss recovery targets</li><li>• Establishing loss calculation methodology</li><li>• Enforcing performance evaluation, etc.</li></ul>	<ul style="list-style-type: none"><li>• Increase number of inspections and findings</li><li>• Improve loss preventive measures, increase detection and recovery of losses measures</li><li>• Increase responsibility and accountability of the revenue protection teams</li><li>• Positive effect in loss reduction</li></ul>
12. Meter Reading and Reading Efficiency	<ul style="list-style-type: none"><li>• Re-design meter reading process to ensure proper meter reading coverage, define proper KPI and accuracy targets</li><li>• Improve monitoring, quality and controls of meter reading</li><li>• Establish Standard Operating Procedures and action plan with details on the cases without access, faulty meters, not existing meters, abolished and abandoned premises,</li><li>• Intensify usage of Hand-held Units</li></ul>	<ul style="list-style-type: none"><li>• Improve coverage of customers to be read</li><li>• Decrease inaccurate and fictive billing data</li><li>• Improve reporting of inaccurate meter installations, faults, by-passes, etc.</li><li>• Decrease number of adjustments</li></ul>
13. Billing Process and Billing Efficiency	<ul style="list-style-type: none"><li>• Drafting Standard Operating Procedure to help on: decrease of zero bills, eliminate negative billing, over billing, etc.</li><li>• Improve process in correction and adjustments</li><li>• Establish key customer group</li><li>• Improving billing software</li></ul>	<ul style="list-style-type: none"><li>• Accurate billing efficiency and accurate data on energy losses from not billed energy</li><li>• Identify problematic areas to focus</li><li>• Accurate billing of large customers</li><li>• Increase of revenue</li></ul>

# EFFECTIVE MANAGEMENT AND GOVERNANCE IMPROVEMENTS

## COMMERCIAL OPERATIONS IMPROVEMENTS

Project	Description	Output
14. Disconnection and Collection Process	<ul style="list-style-type: none"><li>• Established daily, weekly and monthly response reporting based on the district teams</li><li>• Operating Procedures for disconnection and collection</li><li>• Establish daily, weekly and monthly plan for disconnection</li><li>• Abolish hand cash collection</li></ul>	<ul style="list-style-type: none"><li>• Identify non payers and non existing customers</li><li>• Improve collection and affect in education of customers to respond in time</li><li>• Improve efficiency and effectiveness of work</li></ul>
15. Operational Targets for Region and District	<ul style="list-style-type: none"><li>• Introduce performance management and performance evaluation process</li><li>• Develop smart KPIs for field employees</li><li>• Individual performance evaluation towards set targets</li></ul>	<ul style="list-style-type: none"><li>• Increase employees discipline and corporate culture</li><li>• Improving work culture</li><li>• Fair target setting and evaluation</li><li>• Improved operations and commercial performance</li></ul>
16. Adjustments / Technical and Financial	<ul style="list-style-type: none"><li>• Revise / Establish procedure to define hierarchy levels of approvals for adjustments in billing database</li><li>• Establish accountability for every adjustment / reasons and responsible persons</li></ul>	<ul style="list-style-type: none"><li>• Decrease adjustments amount and improve accuracy of data entering in the billing systems.</li><li>• Identify responsible employees who are providing data with errors and make them responsible for it</li></ul>
17. Customer Alignment with Network	<ul style="list-style-type: none"><li>• Establish process in all commercial operations to help in the customer alignment with network</li><li>• Increasing responsibility and accountability of teams in district to provide accurate data from the field</li><li>• Establishing control and monitoring of efficiency and accurate reporting by engaging revenue protection unit</li></ul>	<ul style="list-style-type: none"><li>• Will help company to know the customers with whom DCEN is doing business</li><li>• Improve planning in operations</li><li>• Improve billing efficiency and collection efficiency</li><li>• Maintain billing database</li><li>• Enable proper energy balance in DTS-s</li><li>• Identify energy loss leakages</li></ul>

# EFFECTIVE MANAGEMENT AND GOVERNANCE IMPROVEMENTS

## COMMERCIAL OPERATIONS IMPROVEMENTS

Project	Description	Output
18. New Connection and Connection Efficiency	<ul style="list-style-type: none"><li>• Establishing process to speed up the time for registering the new customers who are remaining in pending status</li><li>• Ensuring these customers are not connected in network and not consuming energy during the pending time</li><li>• Establishing KPI for responsible departments and positions to ensure that registration will be in set deadlines</li></ul>	<ul style="list-style-type: none"><li>• Increase number of active customers</li><li>• Increase demand</li><li>• Improve cooperation and trust with customers</li><li>• Decrease / eliminate cases of energy consumption during pending status</li></ul>
19. Analyses and Data Access	<ul style="list-style-type: none"><li>• Establishing and enforcing data analysts in the regions and District</li><li>• Ensuring that all analysts will have access in the billing and collection data, to make them possible to help operations in daily bases</li></ul>	<ul style="list-style-type: none"><li>• Identify areas for orientation</li><li>• Improving operations efficiency</li><li>• Decrease losses</li><li>• Improve collection</li><li>• Improve database maintenance</li></ul>
20. Customer Care and Public Relations	<ul style="list-style-type: none"><li>• Establishing proper KPI and deadlines for reply in different type of complaints, with special attentions to the cases of:<ul style="list-style-type: none"><li>- energy losses, faulty meters</li><li>- inaccurate readings and billing</li></ul></li><li>• Establish weekly and monthly analyses and reporting with risk areas of complaints increases.</li></ul>	<ul style="list-style-type: none"><li>• Increase trust and cooperation with customers</li><li>• Identify areas for improvements and intensifying commercial operations</li><li>• Assists in loss reduction</li><li>• Decrease of adjustments and errors</li><li>• Increase efficiency of solving complaints</li></ul>

# EFFECTIVE MANAGEMENT AND GOVERNANCE IMPROVEMENTS

## TECHNICAL OPERATIONS IMPROVEMENTS

Project	Description	Output
21. Aggregated Technical, Commercial & Collection Losses	<ul style="list-style-type: none"><li>• Introducing new measurement approach in the company to as metric method to measure the DCEN efficiency</li><li>• Establishing KPI for each component</li><li>• Establishing monthly regional performance report and Districts based on ATC&amp;C</li></ul>	<ul style="list-style-type: none"><li>• Improve efficiency in all three main components, technical, commercial and collection</li><li>• Decrease fraud and improve quality in operations</li></ul>
22. Energy Balance	<ul style="list-style-type: none"><li>• Energy Balance between Transmission Substation outgoing feeders and Distribution Substations in pilot areas.</li><li>• Energy Balance in Distribution Substations / incomer energy vs. outgoing feeders energy</li></ul>	<ul style="list-style-type: none"><li>• Accurate data of energy received</li><li>• Define technical losses in MV network</li><li>• Define energy for each substation</li></ul>
23. Network Alignment, Energy Accounting and Accountability	<ul style="list-style-type: none"><li>• Ensuring all grid meters are installed and working properly</li><li>• Ensuring all incomers and outgoing feeders in distribution substations are metered and read properly</li><li>• Aligning of feeders and distribution transformers to define accurately energy delivered and make them accountable for energy management, billing efficiency and collection.</li></ul>	<ul style="list-style-type: none"><li>• Accurate energy accounting</li><li>• Accurate sharing energy based on districts</li><li>• Improve accuracy of billing efficiency</li><li>• Identify feeders with high losses and improve operations</li><li>• Increase responsibility of employees</li></ul>
24. Network Condition	<ul style="list-style-type: none"><li>• Improve poor condition of conductors, imbalance between phases, overloading and lengthy lines, that can be the reason to have technical losses in the LV grid at above average</li><li>• Fence distribution transformers</li></ul>	<ul style="list-style-type: none"><li>• Improve network condition to manage properly the energy and decrease losses</li><li>• Increase safety and security of company assets that are open to public access</li></ul>
25. Improve Energy Demand	<ul style="list-style-type: none"><li>• Improve efficiency of new customer registration</li><li>• Improve power management in the areas with high consumption</li></ul>	<ul style="list-style-type: none"><li>• Increase of customer number increases the energy demand</li><li>• Permanent energy supply to areas with demand potential</li></ul>

# EFFECTIVE MANAGEMENT AND GOVERNANCE IMPROVEMENTS

## TECHNICAL OPERATIONS IMPROVEMENTS

Project	Description	Output
26. Meter Installation and Replacement	<p>Network Meter Installations:</p> <ul style="list-style-type: none"><li>- Meter installation in all street lights</li><li>- Revalidation of commercial customer meters</li><li>- Locking and sealing of all customer meters</li><li>- Meter relocation at customer premises</li><li>- Replacement of old mechanical meters</li><li>- Periodical Check of all network Meters</li></ul>	<ul style="list-style-type: none"><li>• Knowing energy improves billing efficiency and increase accountability</li><li>• Customer meters helps on energy accounting and also in collection</li><li>• Meter relocation, proper commissioning and sealing help company to decrease energy losses</li></ul>
27. Improve Energy Demand	<ul style="list-style-type: none"><li>• Review and design new connection process and procedure</li><li>• Increase energy demand by increasing number of new connections. The planning and designing of new expansion of network in the DCEN is very important. This will help company to bring in the customer billing database more new connections, and increase demand</li></ul>	<ul style="list-style-type: none"><li>• Efficient new customer registration</li><li>• Loss recovery</li><li>• Financial incentives</li></ul>
28. Technical Losses	<ul style="list-style-type: none"><li>• Based on the energy balance to identify technical losses in HV and MV</li><li>• Improving periodical check of distribution transformers load and load balance</li></ul>	<ul style="list-style-type: none"><li>• Identify areas for network improvement</li><li>• Decrease number of faulty distribution transformers and decrease technical losses</li></ul>



# EFFECTIVE MANAGEMENT AND GOVERNANCE IMPROVEMENTS

## INTERNAL CONTROL

Project	Description	Output
29. Controlling the Environment	<ul style="list-style-type: none"><li>• Interviewing the operational managers / staff to ensure that their professional and interpersonal background fits with the assigned positions and responsibilities, focusing on 1. Managerial Skills, 2. Integrity and 3. Moral Values.</li></ul>	<ul style="list-style-type: none"><li>• The control environment enforce internal control to help DCEN to achieve its strategic objectives, operate its business efficiently and effectively, provide reliable reporting to internal and external stakeholders</li></ul>
30. Risk Assessment	<ul style="list-style-type: none"><li>• Proper analyses of Internal Risk</li><li>• Proper analyses of External Risk</li></ul>	<ul style="list-style-type: none"><li>• Identifying internal and external risk in time, help company to take preventive measures for risk elimination or mitigation</li></ul>
31. Control Activities	<ul style="list-style-type: none"><li>• Establish proper planning and KPI</li><li>• Daily, Weekly and Monthly Reporting for all functions</li><li>• Introduce proper field and reporting templates</li></ul>	<ul style="list-style-type: none"><li>• Monitor day to day activities</li><li>• Control of work efficiency</li><li>• Increase responsibility</li></ul>
32. Information and Communications	<ul style="list-style-type: none"><li>• Introduce regular weekly, monthly, quarterly and annual meetings</li><li>• Regional Meetings</li><li>• District meetings</li></ul>	<ul style="list-style-type: none"><li>• Increase team work efforts</li><li>• Improve field operations</li><li>• Increase cooperation between HQ and Regional functions, same between Regions and FBBU.</li></ul>
33. Monitoring	<ul style="list-style-type: none"><li>• Establish monitoring methodologies during operations</li><li>• Engagement of HQ Inspection Department to ensure proper implementation</li><li>• Engagement of Revenue Protection to ensure quality of operations</li></ul>	<ul style="list-style-type: none"><li>• Improve quality of work</li><li>• Increase accuracy and efficiency to achieve goals and targets set by company</li><li>• Improve accuracy in reporting</li></ul>

# TABLE OF CONTENTS

1. Context and Background
2. Turnaround Plan
  - A. Approach
  - B. Key Projects
  - C. Action Plan



## Effective Management and Governance Improvements

### Strengthening Management Effectiveness

#### Operationalized Structure

Initiative 1: Regional Structure

Initiative 2: District Structure

# STRENGTHENING MANAGEMENT EFFECTIVENESS

## OPERATIONALIZED STRUCTURE

Project	Description of the project
1	<p>The organizational structure will not go through many changes, it will just be supported with improvements in administrative and commercial performance functions:</p> <ul style="list-style-type: none"><li>- Newly established Revenue Protection unit should be organized, to be more effective in loss preventive, detection and loss recovery</li><li>- Clarify and define roles and responsibilities of Revenue Protection and HQ Inspection Division, to prevent conflict and duplication of roles</li><li>- Propose reporting line from Commercial Manager to Divisions who are responsible for commercial performance at District level</li><li>- Create support functions division under Regional Manager</li></ul>
2	<ul style="list-style-type: none"><li>- Redefine commercial / technical responsibilities and reporting lines at Region/District level</li><li>- Optimized Revenue Collection/Revenue Protection organizational structure on a District level</li><li>- Clear definition of job for technical and commercial staff</li></ul>

# STRENGTHENING MANAGEMENT EFFECTIVENESS

## INITIATIVES: OPERATIONALIZED STRUCTURE

Project Details	Benefits	Stakeholders	Timeline
<div style="border: 1px solid red; border-radius: 50%; width: 43px; height: 73px; display: flex; align-items: center; justify-content: center; margin-bottom: 10px;">I</div> <p><b><u>DCEN Regional Organizational Structure</u></b></p> <p>Organize Revenue Protection unit on a Regional level.</p> <p>With independence in work and operations from District's management; with reporting line to Regional Manager; operational reporting to Regional Commercial Manager; energy theft cooperation's and reporting to HQ Inspection Division, misconduct and processes violation reporting to Regional Manager/Commercial Manager.</p> <p>To establish direct or reporting line between Regional Commercial Manager and DCEN Districts in order to have control over employees who have purely commercial duties and responsibilities, to make more clear accountabilities and transparent key performance indicators.</p> <p>To avoid overlapping accountabilities between Regional Commercial Manager and Regional Chief Engineer, it is advisable to segregate technical and commercial duties including reporting line and accountabilities, to make more clear responsibilities and transparent key performance indicators. It is also practical to have reporting line between Regional Chief Engineer/Regional Commercial Manager and district technical and commercial teams (Matrix organizational structure).</p>	<ul style="list-style-type: none"> <li>- Improves Internal Control in Commercial and Technical Operations</li> <li>- Improve company to achieve loss reductions objectives</li> <li>- Quality, efficiency and effective work of revenue protection</li> </ul>	<ul style="list-style-type: none"> <li>- PCA</li> <li>- Human Resources</li> <li>- Revenue Protection</li> <li>- New Connections</li> <li>- Network Development</li> </ul>	<p>Q2, 3 - 2022</p>

# STRENGTHENING MANAGEMENT EFFECTIVENESS

## INITIATIVES: OPERATIONALIZED STRUCTURE

Project Details	Benefits	Stakeholders	Timeline
<div style="text-align: center; border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">2</div> <p><b><u>DCEN Regional Organizational Structure</u></b>            Establishing new Customer Care Department which will include 24/7 hot line and through all available platforms including web page, applications, corporate email, cell and land-line communications to ensure efficient communication and appropriate response to customer complaints. To develop a process of fast communication between dispatch center and customer care division to share and fast track information about outages or any maintenance works in city. Customer Care division should have all necessary information related to all kind of customer service issues, as well as customer care should have possibility to track complaints response time respectively. New division must switch from paper based operations into digitalized. Without having CRM system in place, it is impossible to promptly track, monitor and follow up customer complaints.</p> <p>Human Resources, Legal, Chancellery and IT and Communications departments have peculiar and specific job duties. It is recommended to separated from Finance and Chief Engineers subordination and place them directly under Regional Directors management, to avoid miscommunication between different stakeholders and to ensure fast track of important docs and statements. Also, integrated Human Resource and Payroll can be more beneficial or the DCEN.</p> <p>Identify within the organization or recruit analysts, who will deal with daily, monthly and quarterly detailed analyses of billing and collection database and identify areas with high losses, both for commercial and revenue protection functions.</p>	<ul style="list-style-type: none"> <li>- Improve customer satisfaction levels and boost loyalty</li> <li>- Improve customer service efficiency</li> <li>- Increase the efficiency of DCEN customer care team</li> <li>- Improve company to efficiency and fast track for all the support services to achieve quality, efficiency and effective work</li> <li>- Improve planning and implementation of operations</li> </ul>	<ul style="list-style-type: none"> <li>- PCA</li> <li>- Human Resources</li> <li>- Customer Care</li> <li>- General Department</li> <li>- Legal</li> <li>- Chancellery</li> <li>- IT and Communications</li> <li>- Finance</li> </ul>	<p style="text-align: center;">Q2,3,4 – 2022</p>

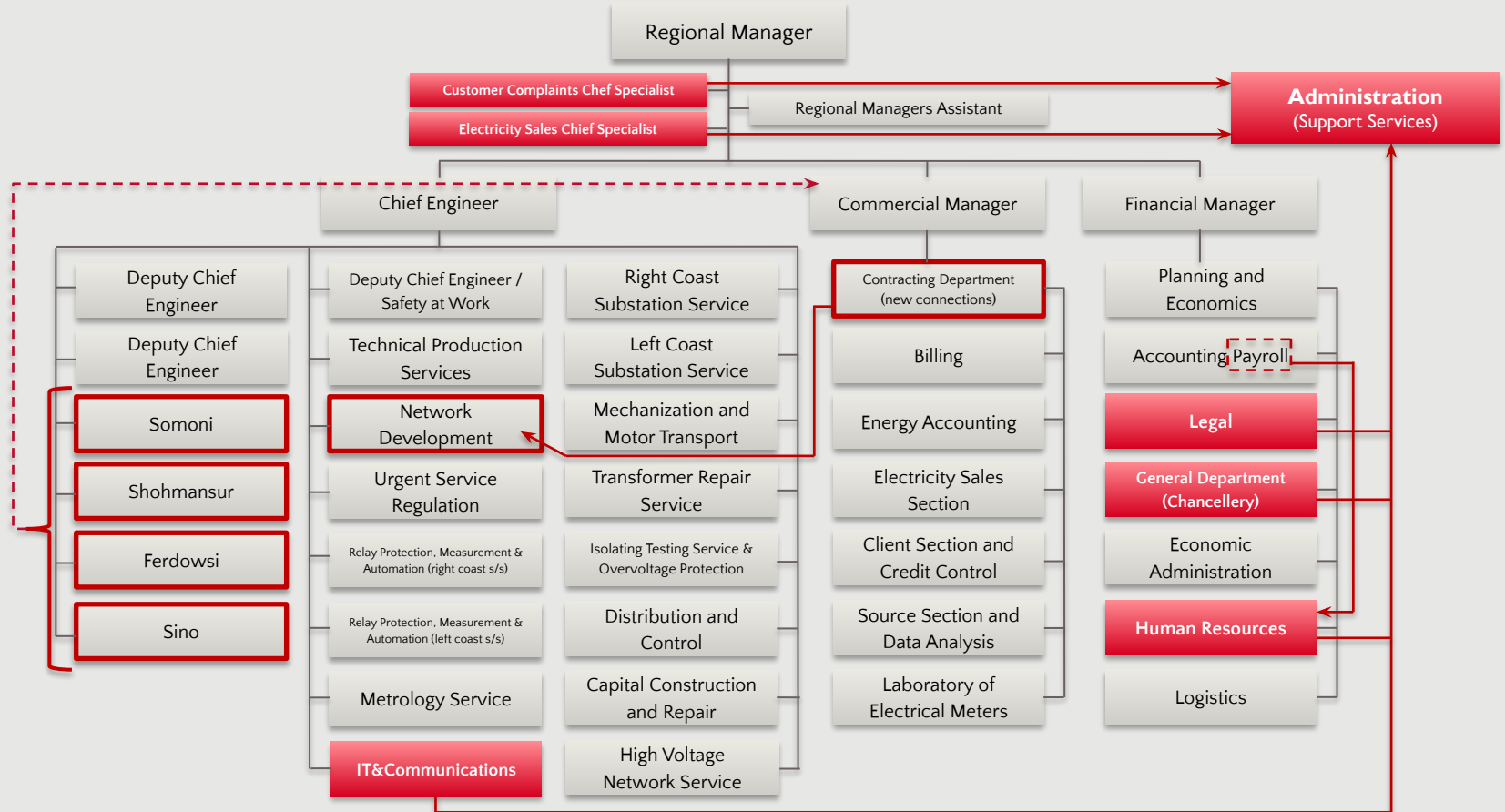
# STRENGTHENING MANAGEMENT EFFECTIVENESS

## INITIATIVES: OPERATIONALIZED STRUCTURE

Project Details	Benefits	Stakeholders	Timeline
<div style="display: flex; align-items: center; margin-bottom: 10px;"> <div style="border: 1px solid red; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin-right: 10px;">3</div> <div> <p><b><u>DCEN Regional Organizational Structure</u></b></p> <p>New Connections is currently under Regional Commercial Managers subordination, which makes it vulnerable to avoid interference from different stakeholders. Considering the fact that new connection processes is directly related to Network Development matters, it would be more efficient to merge above mentioned divisions and allocate under Chief Engineer's subordination.</p> <p>To have better approach in the company objectives to decrease losses, establishing Regional Managers reporting line to the following responsibilities will bring value and fulfillment of company goals:</p> <ul style="list-style-type: none"> <li>• Responsible for implementation of company strategy to improve company efficiency with main goals to decrease energy losses and increase collection,</li> <li>• Responsible for company commercial operations performance and efficiency.</li> <li>• Responsible to organize and lead performance evaluation of regional managers, district managers and their key staff and take decisions based on performance achievements and internal regulations.</li> </ul> </div> </div>	<ul style="list-style-type: none"> <li>- Improves effectiveness and efficiency of DCEN operations</li> <li>- Increase the efficiency of company to decrease losses.</li> <li>- Improve performance by increasing responsibility and accountability</li> <li>- Improves working discipline in regional level</li> </ul>	<ul style="list-style-type: none"> <li>- PCA</li> <li>- Regional Manager</li> <li>- Human Resources</li> </ul>	<p>Q2,3 - 2022</p>

# STRENGTHENING MANAGEMENT EFFECTIVENESS

## INITIATIVES: OPERATIONALIZED STRUCTURE





# STRENGTHENING MANAGEMENT EFFECTIVENESS

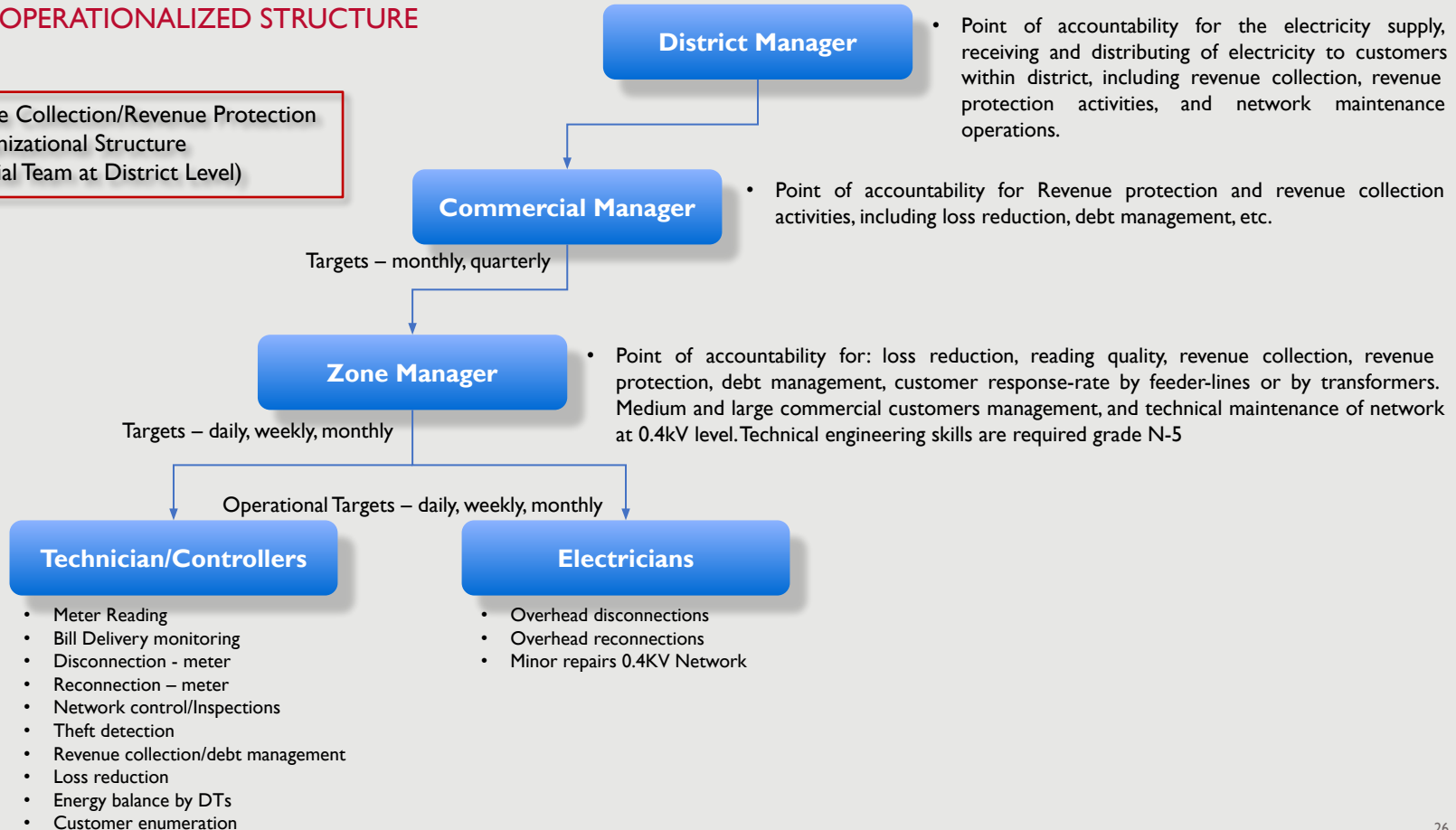
## INITIATIVES: OPERATIONALIZED STRUCTURE

Project Details	Benefits	Stakeholders	Timeline
<div style="border: 1px solid red; border-radius: 50%; width: 43px; height: 74px; display: flex; align-items: center; justify-content: center; margin-bottom: 10px;"> <span style="font-size: 24px; font-weight: bold;">I</span> </div> <p><b>Ferdowsi District Organizational Structure</b></p> <p><b>Establish District – commercial teams.</b></p> <p>Operational structure of district operations lacks structure of teamwork. Newly establish teams will be responsible for the commercial operations. These teams should be assigned for long term in the District's in feeder bases. The responsibilities and tasks will be defined for these teams.</p> <p>The teams will consist with individuals with both technical and commercial skills by substations to make team more efficient against energy losses and to ensure increase of revenue collection efficiency. For example: Zone Manager, Master, technicians/controllers and electricians with basic technical skills to disconnect overdue customers from overhead lines in case of necessity, as well as to verify integrity of meters and clear minor faults on 0.4kV.</p> <p>Technical and commercial duties on a district level should be segregated to have clear accountability respectively towards Regional Chief Engineer and Regional Commercial Manager.</p> <p>Definition of job for technical and commercial staff, including the competence to be developed, tools and equipment to be used and theoretical and practical trainings.</p>	<ul style="list-style-type: none"> <li>- Increase the efficiency of company to decrease losses.</li> <li>- Improves effectiveness and efficiency of commercial and technical operations</li> <li>- Improve Collection and decrease losses by increasing responsibility and accountability</li> <li>- Improves working discipline in district level</li> <li>- Improves responsibilities and discovering anomalies in the field.</li> </ul>	<ul style="list-style-type: none"> <li>- PCA</li> <li>- Human Resources</li> <li>- District Management</li> <li>- District Field Staff</li> </ul>	<p>Q2,3 - 2022</p>

# STRENGTHENING MANAGEMENT EFFECTIVENESS

## INITIATIVES: OPERATIONALIZED STRUCTURE

Optimized Revenue Collection/Revenue Protection  
Organizational Structure  
(Commercial Team at District Level)





# Effective Management and Governance Improvements

## Strengthening Management Effectiveness

### Reviewing and Redesigning Processes

(Process review and redesign, draft new processes, draft Standard Operating Procedures)

Initiative 1: Revenue Protection - Process Review and Redesign

Initiative 2: Meter Reading and Billing - Process Review and Redesign

Initiative 3: Disconnection - Process Review and Redesign

Initiative 4: Standard Operating Procedures (SOP)

# STRENGTHENING MANAGEMENT EFFECTIVENESS

## REVIEWING AND REDESIGNING PROCESSES

	<b>Project</b>	<b>Description of the project</b>
<b>1</b>	Process Review and Redesign	Review and redesign existing processes in the commercial and technical operations, ensuring that they are in line with organogram and company strategy to decrease losses.
<b>2</b>	Draft New Processes	For the operations that doesn't have process in commercial operations the process will be drafted, to ensure proper functionality of operations to achieve company goals in the loss reduction.
<b>3</b>	Standard Operating Procedures	With purpose to ensure proper understanding during implementation of processes, in some of key commercial operations, the Standard Operating Procedures and Executive Orders to support implementation will be drafted.

# STRENGTHENING MANAGEMENT EFFECTIVENESS

## INITIATIVES: REVIEWING AND REDESIGNING PROCESSES

	Project Details	Benefits	Stakeholders	Timeline
1	<p><b><u>Revenue Protection - Process Review and Redesign</u></b></p> <ul style="list-style-type: none"> <li>- New process for revenue protection will be drafted.</li> <li>- This will define Interactions of Revenue Protection with other commercial and technical operation. Will describe documents flow, reviews and approvals from different levels, proceeding the electricity theft cases and responsibility for loss recovery calculation.</li> <li>- Will establish Internal control points to ensure that risk will be mitigated and managed in proper way and in proper time.</li> </ul>	<ul style="list-style-type: none"> <li>- Increase productivity and effectiveness in the work</li> <li>- Improve internal control and decrease risk</li> </ul>	<ul style="list-style-type: none"> <li>- PCA Team</li> <li>- Regional Management</li> <li>- Revenue Protection</li> </ul>	2022 - Q2,3,4
2	<p><b><u>Meter Reading and Billing - Process Review and Redesign</u></b></p> <ul style="list-style-type: none"> <li>- New process will contains details for effective planning of meter readings, better coverage, reading accuracy and reporting of metering conditions.</li> <li>- Will define to do actions in cases when meter can't be read, no access, not existing, demolished, abandoned, etc. Establish internal control to ensure accurate readings.</li> <li>- Exception list with criteria on overbilled or underbilled customers, customers billed with estimation and zero for periods longer than three months, etc. Rebilling and adjustments. Bill delivery ratio.</li> </ul>	<ul style="list-style-type: none"> <li>- Improve accuracy of meter readings</li> <li>- Ensure efficient coverage</li> <li>- Improve accuracy of meter readings</li> <li>- Control of estimate bills and zero consumption</li> </ul>	<ul style="list-style-type: none"> <li>- PCA Team</li> <li>- Regional Management</li> <li>- District Management</li> <li>- District Staff</li> </ul>	2022 - Q1,2,3,4

# STRENGTHENING MANAGEMENT EFFECTIVENESS

## INITIATIVES: REVIEWING AND REDESIGNING PROCESSES

	Project Details	Benefits	Stakeholders	Timeline
3	<p><b><u>Disconnection - Process Review and Redesign</u></b></p> <p>Disconnection process will be revised and updated with details. Proper analytical and planning measures will be added to ensure increase of response ratio and improvements in collection amounts. The details on disconnection and re-connection responsibilities and special treatment for problematic customers will be introduced.</p>	<ul style="list-style-type: none"> <li>- Improves effectiveness and efficiency of commercial and technical operations</li> </ul>	<ul style="list-style-type: none"> <li>- PCA Team</li> <li>- Regional Management</li> <li>- District Management</li> <li>- District Staff</li> </ul>	<p>2022 - Q1,2,3,4</p>
4	<p><b><u>Standard Operating Procedures (SOP)</u></b></p> <p>For main operations, the SOP will be drafted to ensure uniform implementation of operations by increasing efficiency and effectiveness during operations. SOP's will be harmonized with the local legislation and tailored for the DCEN.</p>	<ul style="list-style-type: none"> <li>- Improve working methodology, effectivity and efficiency of operations.</li> <li>- Increase internal control and monitoring mechanism</li> </ul>	<ul style="list-style-type: none"> <li>- PCA Team</li> <li>- Regional Management</li> <li>- District Management</li> <li>- District Staff</li> <li>- Human Resource</li> <li>- Labor Union</li> </ul>	<p>2022 - Q1,2,3,4</p>

# STRENGTHENING MANAGEMENT EFFECTIVENESS

## INITIATIVES: REVIEWING AND REDESIGNING PROCESSES

Project Details	Benefits	Stakeholders	Timeline
<p>4</p> <p><b><u>Standard Operating Procedures (SOP)</u></b></p> <p>Trainings on SOP's will be provided for Ferdowsi District staff. Also, SOP's will be communicated and workshops organized with regulatory office representatives to ensure efficient SOPs, which would be the best for customers, as well as for utility company's revenue.</p> <p>Strict execution of standard operating procedures.</p> <ul style="list-style-type: none"><li>- SOP for Revenue Protection</li><li>- SOP for Meter Reading and Billing</li><li>- SOP for Disconnection</li><li>- SOP for Revenue Collection</li><li>- SOP for Customer Alignment with Network</li><li>- SOP for Debt Recovery Management</li><li>- SOP for Human Resources (Employment Manual)</li></ul>	<ul style="list-style-type: none"><li>- Improve working methodology, effectivity and efficiency of operations.</li><li>- Increase internal control and monitoring mechanism</li></ul>	<ul style="list-style-type: none"><li>- PCA Team</li><li>- Regional Management</li><li>- District Management</li><li>- District Staff</li><li>- Human Resource</li><li>- Labor Union</li></ul>	<p>2022 - Q1,2,3,4</p>



## Effective Management and Governance Improvements

### Strengthening Management Effectiveness

#### Recruitment, Employment and Gender Equality

Initiative 1: Re-design the Employment Agreement template

Initiative 2: Recruitment Process

Initiative 3: Gender Equality



# STRENGTHENING MANAGEMENT EFFECTIVENESS

## RECRUITMENT, EMPLOYMENT AND GENDER EQUALITY

Project	Description of the project	
1	Re-design the Employment Agreement	Re-design the existing Employment Agreement template and content for district field employees, Chief Inspector and Controller, with additional required details for responsibilities, accountabilities, qualifications, working experiences and with special attentions to Key Performance Indicators.
2	Recruitment Process	Companies' executive management should ensure that the recruitment and selection of all employees are fair, open, and transparent and conforms to all statutory regulations and agreed best practices. We believe that people from diverse background – be it education, experience, gender, social background, geography, exposure, etc. – build a culture fit for innovation, engagement, and progress.
3	Gender Equality	Company should ensure that women and men have an equal chance of choosing an occupation, developing the requisite skills and knowledge, being fairly paid, enjoying equal treatment and advancing in a career.

# STRENGTHENING MANAGEMENT EFFECTIVENESS

## INITIATIVES: RECRUITMENT, EMPLOYMENT AND GENDER EQUALITY

	Project Details	Benefits	Stakeholders	Timeline
1	<p>Introduce new Employment Agreement template for Chief Inspector and Controller and add additional information about KPI's</p> <p>The existing Employment Agreement will be extended with additional information related to the objectives and responsibilities.</p> <p>Strategically important position of Chief Inspector and Controller should be full time employees of the company with fixed salary.</p> <p>Incentives should be calculated according to the performance appraisal, based on the KPI's.</p> <p>Company employees should have freedom to choose to become or not a member of the Labor Union.</p>	<ul style="list-style-type: none"> <li>- Increase productivity and effectiveness in the work</li> <li>- Improves effectiveness and efficiency of commercial operations to achieve goals set with company targets</li> <li>- Increase accountability and responsibility</li> </ul>	<ul style="list-style-type: none"> <li>- PCA Team</li> <li>- Human Resources</li> <li>- Respective Functions where position is operating</li> </ul>	2022 - Q1,3
2	<p>Employee Manual will be drafted to determine clear process on fair and transparent recruitment. DCEN should be equal opportunity employer and believe in diversity and inclusion. Only candidates who possess the necessary qualifications and experience for identified vacancies and pass the selection process should be recruited.</p> <p>HR processes should be digitized to automate repetitive and time-consuming tasks, including employee recruitment, onboarding administration, timekeeping, benefits administration, notifications and reminders.</p>	<ul style="list-style-type: none"> <li>- Increase productivity and effectiveness in the work</li> <li>- Improves effectiveness and efficiency of HR operations</li> <li>- Fair opportunity for employment</li> </ul>	<ul style="list-style-type: none"> <li>- PCA Team</li> <li>- Human Resources</li> </ul>	2022 - Q1,3

# STRENGTHENING MANAGEMENT EFFECTIVENESS

## INITIATIVES: RECRUITMENT, EMPLOYMENT AND GENDER EQUALITY

Project Details	Benefits	Stakeholders	Timeline
<p>3</p> <p>Engaging more women in management functions, administration, and operations would be taking one step closer to becoming a successful company. Specifically, DCEN needs to encourage and recruit women as Controllers in the field.</p> <p>Promote gender-aware human resources management to effectively support both female and male health workers in equitable work environments.</p> <p>Conduct “gender audits” of workplace to identify gender discrimination in hiring, training, promotion, and pay.</p> <p>Develop and enforce equal opportunity employment policy to eliminate discrimination on the basis of marriage, pregnancy and family responsibilities and promote equal remuneration and equal opportunity for career advancement.</p> <p>Recruit men and women into nontraditional jobs and promote equitable task-sharing among staff.</p>	<ul style="list-style-type: none"><li>- Substantially higher average household incomes</li><li>- Greater financial independence for women</li><li>- Preservation of high living standards</li><li>- Improve work environment</li></ul>	<ul style="list-style-type: none"><li>- PCA Team</li><li>- Human Resources</li><li>- PR</li></ul>	<p>2022 - Q3,4</p>



# Effective Management and Governance Improvements

## Strengthening Management Effectiveness

### Effective Job Description

Initiative 1: Re-design the Job Description template

Initiative 2: Review and Redesign Existing Job Description

Initiative 3: Draft New Job Descriptions

# STRENGTHENING MANAGEMENT EFFECTIVENESS

## JOB DESCRIPTION

	Project	Description of the project
1	Re-design the Job Description template	Re-design the existing Job Description template and content, with additional required details for responsibilities, qualifications, working experiences and with special attentions to Key Performance Indicators.
2	Redesign Existing Job Description	Reviewing and re-designing the existing Job Descriptions for all Commercial Functions to ensure that they are in line with `talent management strategy and with the company strategy to improve performance and decrease losses.
3	Draft New Job Descriptions	Draft Job Descriptions for the positions and functions in the commercial operations who doesn't have yet job description.

# STRENGTHENING MANAGEMENT EFFECTIVENESS

## INITIATIVES: JOB DESCRIPTION

	Project Details	Benefits	Stakeholders	Timeline
1	<p><b>Re-design the Job Description template</b></p> <ul style="list-style-type: none"> <li>- Introduce new Job Description template</li> <li>- Add additional information about KPI</li> <li>- Process to ensure that all employees have received JD</li> </ul>	<ul style="list-style-type: none"> <li>- Increase productivity and effectiveness in the work</li> </ul>	<ul style="list-style-type: none"> <li>- PCA Team</li> <li>- Human Resources</li> </ul>	2022 - Q1,3
2	<p><b>Review and Redesign Existing Job Description</b></p> <p>The existing Job Descriptions will be extended with additional information relate to the objective and responsibilities</p> <p>Will define reporting and KPI based on the changes in organogram and process flows to ensure alignment with company strategy to achieve commercial goals.</p>	<ul style="list-style-type: none"> <li>- Improves effectiveness and efficiency of commercial and technical operations to achieve goals set with company strategy</li> </ul>	<ul style="list-style-type: none"> <li>- PCA Team</li> <li>- Human Resources</li> <li>- Respective Functions where position is operating</li> </ul>	2022 - Q1,3
3	<p><b>Draft New Job Descriptions</b></p> <p>Assistance will be given to draft new job description for all missing positions and functions.</p> <p>Special attention to Revenue Protection and other important commercial positions.</p>	<ul style="list-style-type: none"> <li>- Improve effective and efficiency of work</li> <li>- Increase accountability and responsibility</li> </ul>	<ul style="list-style-type: none"> <li>- PCA Team</li> <li>- Human Resources</li> <li>- Respective Functions where position is operating</li> </ul>	2022 - Q1,3



## Effective Management and Governance Improvements

### Strengthening Management Effectiveness

#### Key Performance Indicators and Targets

Initiative 1: Review and re-define KPI

Initiative 2: Operational KPI

Initiative 3: Financial KPI

# STRENGTHENING MANAGEMENT EFFECTIVENESS

## KEY PERFORMANCE INDICATORS (KPI) AND TARGETS

	Project	Description of the project
1	Review and re-define KPI	Review and re-define new KPI based on the company goals to achieve in operations. Ensure that KPI set are achievable and will bring values to the company performance. Ensure that KPI will be subject of evaluation in periodical times.
2	Operational KPI	Re-define operational Key Performance Indicators in all commercial and technical operations. Define Daily KPI Weekly KPI Monthly KPI
3	Financial KPI	Re-define operational Key Performance Indicators in all commercial and technical operations. Define Daily KPI Weekly KPI Monthly KPI



# STRENGTHENING MANAGEMENT EFFECTIVENESS

## INITIATIVES: KEY PERFORMANCE INDICATORS (KPI) AND TARGETS

	Project Details	Benefits	Stakeholders	Timeline
1	<p><b>Review and Re-define KPI</b></p> <p>Introduce KPI which are achievable and based on proper analyses. The KPI will be attached to the company strategy to ensure that goals are achieved based on timeline.</p>	<ul style="list-style-type: none"> <li>- Increase productivity and effectiveness in the work.</li> </ul>	<ul style="list-style-type: none"> <li>- Commercial and Technical Operations</li> <li>- Labor Union</li> </ul>	<p>2022 – Q4 2023 - Q1,2,3,4</p>
2	<p><b>Operational Key Performance Indicators and Targets</b></p> <p>Daily, weekly, monthly, quarterly and annual KPI and Targets</p> <ul style="list-style-type: none"> <li>o Daily – to ensure effective and efficient daily work</li> <li>o Weekly – to ensure that team work is bringing results</li> <li>o Monthly Target– to differentiate best performing</li> <li>o Quarterly and Annual KPI and Targets to ensure that operations are bringing value to the company performance in implementation of company strategy to achieve assigned goals.</li> </ul>	<ul style="list-style-type: none"> <li>- Improves effectiveness and efficiency of daily, weekly and monthly activities.</li> <li>- Enables management in time to realize obstacles to achieve company goals in time.</li> </ul>	<ul style="list-style-type: none"> <li>- Regional Managers</li> <li>- Function Managers</li> <li>- Human Resources</li> <li>- Labor Union</li> </ul>	<p>2023 - Q1,2,3,4</p>
3	<p><b>Financial Key Performance Indicators</b></p> <p>Introducing financial target that will be linked to the operational targets. This will show the results of the implemented KPI in commercial and technical operations.</p>	<ul style="list-style-type: none"> <li>- Improve financial incomes as result of operational work.</li> </ul>	<ul style="list-style-type: none"> <li>- Commercial and Technical Operations</li> <li>- Labor Union</li> </ul>	<p>2023 - Q1,2,3,4</p>



## Effective Management and Governance Improvements

### Strengthening Management Effectiveness

#### Periodical Performance Evaluation and Skill Assessment

Initiative 1: Daily monitoring and performance

Initiative 2: Monthly performance review

Initiative 3: Quarterly performance review

Initiative 4: Skill Assessment

# STRENGTHENING MANAGEMENT EFFECTIVENESS

## PERIODICAL PERFORMANCE EVALUATION AND SKILL ASSESSMENT

	Project	Description of the project
1	Daily Monitoring of Performance	Monitoring the daily performance through reporting and side visits, about quality and effectiveness of implementation of Key Performance Indicators set by company in each operations.
2	Monthly Performance Review	Based on the KPI and Targets set by company to ensure achieving the company objectives, the monthly performance review will be commenced to ensure that company is going in right or wrong direction to achieve company objectives. During monthly performance review, the recommendations for improvements will be given and noted to respective functions, teams, etc.
3	Quarterly Performance Evaluation	Based on the monthly review and quarterly KPI and Targets achievement, the detailed and fear performance evaluation will be an asset to remind underperforming teams / function that they have to do better, or, to be proceeded based on the disciplinary code on underperformance.
4	Skill Assessment	Comprehensive and regular skill assessment exercise are required to regularly control qualification of utility employees and to tailor most efficient trainings sessions based on the identified gaps in skills.

# STRENGTHENING MANAGEMENT EFFECTIVENESS

## INITIATIVES: PERIODICAL PERFORMANCE EVALUATION AND SKILL ASSESSMENT

	Project Details	Benefits	Stakeholders	Timeline
1	<p><b>Daily Monitoring of Performance</b></p> <ul style="list-style-type: none"> <li>- Mandatory Reporting Templates will be introduced</li> <li>- Field side visits / monitoring will be introduced</li> <li>- Cooperation with Revenue Protection to audit work efficiency based on the daily KPI and Targets</li> </ul>	<ul style="list-style-type: none"> <li>- Increase quality and effectiveness of work</li> <li>- Improve working discipline and also increase responsibility and accountability</li> </ul>	<ul style="list-style-type: none"> <li>- Revenue Protection</li> <li>- Commercial and Technical Management</li> </ul>	2022 – Q2,3,4 2023 - Q1,2,3,4
2	<p><b>Monthly Performance Review</b></p> <ul style="list-style-type: none"> <li>- Defining baseline as minimum achievement. Performance review by teams and team leads. Identify obstacles and teams that need improvements. Take official notes on evaluation and recommendations for improvements.</li> <li>- Act based on disciplinary code in cases of underperformance under the baseline.</li> </ul>	<ul style="list-style-type: none"> <li>- Improves effectiveness and efficiency of daily, weekly and monthly activities.</li> </ul>	<ul style="list-style-type: none"> <li>- Regional Managers</li> <li>- Function Managers</li> <li>- Human Resources</li> <li>- Labor Union</li> </ul>	2022 – Q2,3,4 2023 - Q1,2,3,4
3	<p><b>Quarterly and Annual Performance Evaluation</b></p> <p>Detailed performance evaluation for District Manager, District Commercial Manager, District Chief Engineer and Field staff.</p>	<ul style="list-style-type: none"> <li>- Improves effectiveness and efficiency of commercial activities.</li> </ul>	<ul style="list-style-type: none"> <li>- Regional Management</li> <li>- District Management</li> <li>- Human Resources</li> <li>- Labor Union</li> <li>- Human Resources</li> </ul>	2022 – Q2,3,4 2023 - Q1,2,3,4
4	<p><b>Skill Assessment</b></p> <p>Skill Assessment for Revenue Protection and all Commercial and field staff in the District. Skill assessment is done as written tests and one on one interviews in basics of utility technical and commercial operations).</p>	<ul style="list-style-type: none"> <li>- Improves effectiveness and efficiency of operational staff in their activities.</li> </ul>	<ul style="list-style-type: none"> <li>- Regional Management</li> <li>- District Management</li> <li>- Human Resources</li> <li>- Labor Union</li> <li>- Human Resources</li> </ul>	2022 – Q2,3,4 2023 - Q1,2,3,4



## Effective Management and Governance Improvements

### Talent Management

### Enhance Talent Management in Line with DCEN Strategy and Goals

Initiative 1: Number of Employees in Operations

Initiative 2: Employee / Customer Ratio

# TALENT MANAGEMENT

## ENHANCE TALENT MANAGEMENT IN LINE WITH DCEN STRATEGY AND GOALS

	Project	Description of the project
1	Number of Employees in Operations	To ensure achievement of company objectives, the planning of required number of employees and allocation of employees in right operations is one of the primary tasks for talent management in the successful company.
2	Employee / Customer Ratio	<p>Key Performance Indicators are the measures that help company to understand whether company is achieving objectives or not. Achievable KPI are linked with quality and effectiveness of work. In this regards, based on the achievable KPI and number of customers, the employee / customer ration should be defined.</p> <p>Customer ratio to cover operations, should be counted based on the field employee who perform operations, to ensure effective coverage of customers. In customer ratio for effective operations, the staff in offices should not be considered in all cases.</p>

# TALENT MANAGEMENT

## INITIATIVES: ENHANCE TALENT MANAGEMENT IN LINE WITH DCEN STRATEGY AND GOALS

	Project Details	Benefits	Stakeholders	Timeline
1	<p><b>Number of Employees in Operations</b></p> <ul style="list-style-type: none"> <li>-Analyze employee alignment in organogram</li> <li>- Interview of key roles personnel to ensure they have the knowledge capacity and professionalism to work in the key roles.</li> <li>-Identify overstaff and understaffed units</li> <li>- Evaluate and propose staff movements to empower operations</li> <li>- Instill process of regular rotation of all commercial employees by geo-location within district and between districts once in a year</li> <li>- To avoid operations failure caused by lack of manpower, launch of internship processes as one of the best practices is most important to maintain uninterrupted business operations.</li> </ul>	<ul style="list-style-type: none"> <li>- Improve effectiveness and efficiency of Operations</li> </ul>	<ul style="list-style-type: none"> <li>- Human Resources</li> <li>- Regional Management</li> </ul>	<p>2022 - Q2,3,4</p>
2	<p><b>Employee / Customer Ratio</b></p> <ul style="list-style-type: none"> <li>-Analyze employee ratio in each operations</li> <li>-Identify overstaffed and understaffed operations</li> <li>-Identify overstaffed and understaffed office staff</li> <li>- Plan employee ration based on operations KPI and targets to achieve company objectives.</li> </ul>	<ul style="list-style-type: none"> <li>- Improve effectiveness and efficiency of Operations</li> <li>- Helps company to achieve its objectives</li> </ul>	<ul style="list-style-type: none"> <li>- Human Resources</li> <li>- Regional Management</li> </ul>	<p>2022 - Q2,3,4</p>

# TALENT MANAGEMENT

## INITIATIVES: ENHANCE TALENT MANAGEMENT IN LINE WITH DCEN STRATEGY AND GOALS

Project Details	Benefits	Stakeholders	Timeline
<p>2</p> <p><b>Employee / Customer Ratio</b></p> <p>Manpower Calculation Criteria: To arrive at quantity of manpower needed in a function/department – across various levels/hierarchy – the following factors must be considered to analyze and finalize the numbers:</p> <ul style="list-style-type: none"><li>- Demand of processes: Various activities / jobs undertaken by the department;</li><li>- Work volume: Determined by (1) number of stakeholders covered by the departmental processes, and (2) frequency of occurrence of events/process-steps;</li><li>- Spread of team over geo-locations: If the department is decentralized, it would need manpower spread over defined geo-locations, vaster areas and length of power network, will determine requirement of more workforce;</li><li>- Technology and automation: Higher level of technology and automation (including IT-enablement) should help in reducing manpower requirements to manage the same number of processes and work volume with less operational expenses;</li><li>- Competency level of workforce: The competency level of employees in a team may undergo change due to continuous learning and development efforts.</li></ul>	<ul style="list-style-type: none"><li>- Improve effectiveness and efficiency of Operations</li><li>- Helps company to achieve its objectives</li></ul>	<ul style="list-style-type: none"><li>- Human Resources</li><li>- Regional Management</li></ul>	<p>2022 - Q2,3,4</p>





# Effective Management and Governance Improvements

## Talent Management

### Enhance Strategic Employee Planning

Initiative 1: Identify key roles

Initiative 2: Alignment of personnel with key roles

Initiative 3: Alignment of key roles with company strategy

# TALENT MANAGEMENT

## ENHANCE STRATEGIC EMPLOYEE PLANNING

### Project

### Description of the project

1	Identifying Key Roles	Identifying the key roles that are important in the company to work in the loss reduction strategy, to ensure that operation strategy is in line with loss reduction strategy objectives in DCEN.
2	Alignment of Personnel for Key Roles	Identifying the personnel who have qualification and experience to fulfill the requirements in the key roles.
3	Alignment of Key Roles with Company Strategy	Establishing the working processes for the key roles to work in line with DCEN strategy on loss reduction.

# TALENT MANAGEMENT

## INITIATIVES: ENHANCE STRATEGIC EMPLOYEE PLANNING

Project Details	Benefits	Stakeholders	Timeline
<p><b>1</b></p> <p><b>Identifying Key Roles</b></p> <p>Analyzing responsibilities and functions that have interactions with commercial and technical operations that affect directly or indirectly energy losses.</p>	<p>Improve implementation of company strategy to achieve loss reduction objectives.</p>	<ul style="list-style-type: none"> <li>- PCA team</li> <li>- DCEN</li> <li>- District</li> <li>- Human Resources</li> </ul>	<p>2022 – Q3,Q4 2023 - Q1</p>
<p><b>2</b></p> <p><b>Alignment of Personnel for Key Roles</b></p> <p>Identify the personnel who have qualifications, experience, capability and who are ready to learn with the new approaches and methodology to work in loss identification, prevention and loss recovery task.</p>	<p>Improve implementation of company strategy to achieve loss reduction objectives.</p>	<ul style="list-style-type: none"> <li>- PCA team</li> <li>- DCEN</li> <li>- District</li> <li>- Human Resources</li> </ul>	<p>2022 – Q3</p>
<p><b>3</b></p> <p><b>Alignment of Key Roles with Company Strategy</b></p> <p>Each role should be aligned with the action plan in implementation of company strategy to achieve loss reduction objectives.</p>	<p>Improve implementation of company strategy to achieve loss reduction objectives.</p>	<ul style="list-style-type: none"> <li>- PCA team</li> <li>- DCEN</li> <li>- District</li> <li>- Human Resources</li> </ul>	<p>2022 – Q3</p>



# Effective Management and Governance Improvements

## Talent Management

### Effective Incentive Scheme

Initiative 1: Rewarding and Acknowledgment of Successful Work

Initiative 2: Measurement of KPI and Target Implementation

# TALENT MANAGEMENT

## EFFECTIVE INCENTIVE SCHEME

	Project	Description of the project
1	Rewarding and Acknowledgment of Successful Work	<p>Based on the established KPI and Targets, proper alignment of employees with operations and improvements in the employee vs. customers ratio, the effectiveness and efficiency of the work will be increased and will affect in two following improvements:</p> <ol style="list-style-type: none"><li>1. will affect on decreasing the number of overtime work in one side, and</li><li>2. replacing overtime incomes with rewarding contribution to success and acknowledging the employee value to the organization by recognition of the achievement and implementation of KPI and Targets,</li></ol>
2	Measurement of KPI and Target Implementation	<p>If the KPI and Targets will not be achieved as it is planed, the company strategy to achieve the objectives may face serious obstacles. To stop this in time, the for the underperforming employees who are not capable to do their job in timelines and based on the company KPI and Targets, the proper disciplinary measures should be introduced.</p>

# TALENT MANAGEMENT

## INITIATIVES: EFFECTIVE INCENTIVE SCHEME

	Project Details	Benefits	Stakeholders	Timeline
1	<p><b>Rewarding and Acknowledgment of Successful Work</b></p> <ul style="list-style-type: none"><li>- Acknowledging the employee value to the DCEN</li><li>- Establishing the incentive scheme with percentage rewards based on the results shown during KPI and Target implementation</li><li>- Replacing overtime with rewarding contribution</li></ul>	<p>Increase working discipline and efficiency</p> <p>Identify underperforming employees</p>	<ul style="list-style-type: none"><li>- Human Resources</li><li>- Commercial and Technical Services</li></ul>	2022 - Q3,4
2	<p><b>Measurement of KPI and Target Implementation</b></p> <ul style="list-style-type: none"><li>- Establish daily, weekly and monthly measuring matrix</li><li>- Establish plan for underperforming employees</li><li>- Establish measures to be taken for these employee category</li></ul>	<p>Improve implementation of company strategy to achieve loss reduction objectives.</p>	<ul style="list-style-type: none"><li>- Human Resources</li><li>- Commercial and Technical Services</li></ul>	2022 - Q3,4



# Effective Management and Governance Improvements

## Talent Management

### Training and Capacity Building

Initiative 1: Training for revenue protection and revenue management

Initiative 2: Training for commercial Operations

Initiative 3: Training for database Clean Up

Initiative 4: Training for analysts

# TALENT MANAGEMENT

## TRAINING AND CAPACITY BUILDING

	Project	Description of the project
1	In house training	<p>Regular training conducted for the main commercial and technical operations will enable employees to be informed and prepared with approved processes, internal regulations, standard operating procedures, reporting lines, KPI and targets, before starting operations in the field.</p> <p>For every changes in processes and operations, the trainings are required to prepare field work force to be in line with it.</p>
2	Field training	<p>Side visits and training by working together with employees, training them how to implement the company processes and strategies in practice is very important for the quality and effective work. PCA team will conduct professional field training to ensure that employees in operations will have all knowledge to do their job properly and successfully.</p>



# TALENT MANAGEMENT

## INITIATIVES: TRAINING AND CAPACITY BUILDING

	Project Details	Benefits	Stakeholders	Timeline
1	<p><b>Revenue Protection Training</b></p> <ul style="list-style-type: none"> <li>- In house training will be conducted by PCA team for the revenue protection managers, team leads, field employees and also other departments and positions that have interactions with revenue protection.</li> <li>- Field training will be conducted by PCA team to ensure that all staff is well trained in detection and loss recovery operations.</li> </ul>	RPU teams will have knowledge on new processes working methodology and also implementation in the field	<ul style="list-style-type: none"> <li>- PCA</li> <li>- Revenue Protection</li> <li>- Human Resources</li> </ul>	2022-Q4 2023 - Q1,2,3,4
2	<p><b>Commercial Operation Training</b></p> <ul style="list-style-type: none"> <li>- In house and also field training for commercial managers in the districts.</li> <li>- Mandatory and frequent trainings are required for Health, Safety and Environment (HSE).</li> </ul>	Improve revenue management, planning, implementation and improvement in operations	<ul style="list-style-type: none"> <li>- PCA</li> <li>- Revenue Protection</li> <li>- Human Resources</li> </ul>	2023 - Q1,2,3,4
3	<p><b>Customer Enumeration Training / Data Clean Up</b></p> <ul style="list-style-type: none"> <li>- In house training to ensure that all staff is properly trained to planning and implementation of customer enumeration, database clean up and maintain billing database and feeder database with accurate data.</li> </ul>	Improve accuracy of data in billing database, eliminate inexistent customers and align properly customers.	<ul style="list-style-type: none"> <li>- PCA</li> <li>- Revenue Protection</li> <li>- Human Resources</li> </ul>	2023 - Q1,2,3,4
4	<p><b>Analytical Training</b></p> <ul style="list-style-type: none"> <li>- After establishing analytical department and their representatives in region and district, PCA team will organize basic and advanced training for analysts on billing and energy data.</li> </ul>	Improve daily operations by identifying gaps in billing, reading, collection and energy losses	<ul style="list-style-type: none"> <li>- PCA</li> <li>- Revenue Protection</li> <li>- Human Resources</li> </ul>	2023 - Q1,2,3,4



## Operational Improvements

### Commercial Operations Improvements

#### Revenue Protection and Loss Recovery

(Loss prevention, detection and recovery infrastructure)

Initiative 1: Draft new revenue protection working process

Initiative 2: Draft standard operating procedure

Initiative 3: Performance review and evaluation

Initiative 4: Establish analytical team inside revenue protection

Initiative 5: Establish professional field teams for inspection

Initiative 6: Design new working templates (field documents and reporting templates)

Initiative 7: Establish KPI and Targets

Initiative 8: Organize in-house and field training

Initiative 9: Loss recovery infrastructure

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## REVENUE PROTECTION AND LOSS RECOVERY

	Project	Description of the project
1	Loss Preventive Infrastructure	<ul style="list-style-type: none"><li>• Drafting new process and SOP to guarantee more independence in operations</li><li>• Improve internal control and cooperation with law enforcement</li><li>• Increasing working discipline and customer awareness, etc.</li><li>• Ensuring positive effect in decrease of energy losses, etc.</li></ul>
2	Loss Detection Infrastructure	<ul style="list-style-type: none"><li>• Establish effective analytical function</li><li>• Implement energy balance in feeder / substation level</li><li>• Quality inspections for all customer category and installations</li><li>• Establish process for proper addressing the findings, etc.</li></ul>
3	Loss Recovery Infrastructure	<ul style="list-style-type: none"><li>• Assessing back billing for energy losses</li><li>• Ensuring reclaim losses through billing system and trough customer account</li><li>• Collection of energy losses</li></ul>

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## INITIATIVES: REVENUE PROTECTION AND LOSS RECOVERY

	Project Details	Benefits	Stakeholders	Timeline
1	<p><b>Loss Preventive Infrastructure – Working Process</b></p> <ul style="list-style-type: none"> <li>- New process for revenue protection should be drafted, to describe working methodology.</li> <li>- The process will describe actions to be taken in different cases, starting from the planning, inspections, reporting, proceeding the findings, loss calculation and collection.</li> <li>- Process will describe interactions with other departments and stakeholders in the loss reduction.</li> </ul>	<ul style="list-style-type: none"> <li>• Improving working efficiency and effectivity.</li> <li>• Increase working discipline and responsibility.</li> </ul>	<ul style="list-style-type: none"> <li>- Revenue Protection</li> <li>- Regional Management</li> </ul>	2022 – Q2,Q3
2	<p><b>Loss Preventive Infrastructure – SOP</b></p> <ul style="list-style-type: none"> <li>- Standard Operating Procedure will be drafted, to describe functionality of revenue protection department in details.</li> <li>- SOP will contain reporting deadlines and reporting templates to be used officially by revenue protection teams.</li> <li>- Defining daily KPI for each team and function.</li> </ul>	<ul style="list-style-type: none"> <li>• Improving working efficiency and effectivity.</li> <li>• Increase working discipline and responsibility.</li> </ul>	<ul style="list-style-type: none"> <li>- Revenue Protection</li> <li>- Regional Management</li> </ul>	2022 – Q2,Q3
3	<p><b>Loss Preventive Infrastructure – Performance Review</b></p> <ul style="list-style-type: none"> <li>- Considering the importance to have effective and productive revenue protection, the monthly performance evaluation will be established for each team and team leads.</li> <li>- Introducing quarterly performance evaluation, to ensure that three month performance is in line with approved KPI and Targets.</li> </ul>	<ul style="list-style-type: none"> <li>• Improving working discipline</li> <li>• Motivation of professionals and identifying negligent or non professional employees</li> </ul>	<ul style="list-style-type: none"> <li>- Revenue Protection</li> <li>- Human Recourses</li> <li>- Line managers</li> </ul>	2022 / Q2,3,4

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## INITIATIVES: REVENUE PROTECTION AND LOSS RECOVERY

	Project Details	Benefits	Stakeholders	Timeline
4	<p><b>Loss Detection Infrastructure – Analysts</b></p> <ul style="list-style-type: none"> <li>- Analyses team inside the revenue protection should be established and trained to do proper billing and energy analyses.</li> <li>- Establish regular process for customer database analyses and identify potential customers to be inspected.</li> <li>- Analyses based on the feeder level and where is possible also in the distribution transformer level, to Identify areas with high losses.</li> <li>- Energy Balance in all distribution levels independently from technical and customer services, to identify energy outflows in the system.</li> </ul>	<ul style="list-style-type: none"> <li>- Improving working efficiency and effectivity</li> </ul>	<ul style="list-style-type: none"> <li>- Revenue Protection</li> <li>- Regional Management</li> </ul>	2022 / Q3,4
5	<p><b>Loss Detection Infrastructure – RPU Field Teams</b></p> <ul style="list-style-type: none"> <li>- Establishing Revenue Protection teams for domestic, Small Commercial Customer and also professional team for large power users.</li> <li>- The team will contain minimum two people for residential and commercial customers, while teams for large power users will be designed based on customer measurement types, with minimum two employees per team.</li> </ul>	<ul style="list-style-type: none"> <li>- Efficient field inspections and detection of losses</li> </ul>	<ul style="list-style-type: none"> <li>- Revenue Protection</li> <li>- Regional Management</li> </ul>	2022 / Q3,4

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## INITIATIVES: REVENUE PROTECTION AND LOSS RECOVERY

Project Details	Benefits	Stakeholders	Timeline
<p><b>6</b></p> <p><b>Loss Detection Infrastructure – New Templates</b></p> <ul style="list-style-type: none"> <li>- To improve internal control and monitoring of teams, the new format of field inspection report with serial number and carbonated copies will be established, to be used as report on each findings.</li> <li>- Daily report to record every visited and inspected customers, with detailed description.</li> <li>- Weekly and monthly reports for HQ and Regions.</li> <li>- Team should have high level coordination and cooperation with Regional Legal office to fast track all the findings and prosecute violations detected and registered ion the field.</li> </ul>	<ul style="list-style-type: none"> <li>• Improve Internal Control</li> <li>• Improve monitoring of daily performance</li> <li>• Maintain database with customer data updates</li> </ul>	<ul style="list-style-type: none"> <li>- Revenue Protection</li> </ul>	<p>2022 / Q2,3,4</p>
<p><b>7</b></p> <p><b>Loss Detection Infrastructure – KPI and Targets</b></p> <ul style="list-style-type: none"> <li>- To ensure effectiveness, the combined operational and loss recovery targets will be established for revenue protection teams.</li> <li>- This will include daily, weekly and monthly targets for each revenue protection team and team leads.</li> </ul>	<ul style="list-style-type: none"> <li>• Improve working discipline</li> <li>• Quality and effectivity of work</li> <li>• Internal control</li> <li>• Quality of work</li> </ul>	<ul style="list-style-type: none"> <li>- Loss Reduction Department</li> <li>- Human Recourses</li> <li>- Line managers</li> </ul>	<p>2022 / Q2,3,4</p>

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

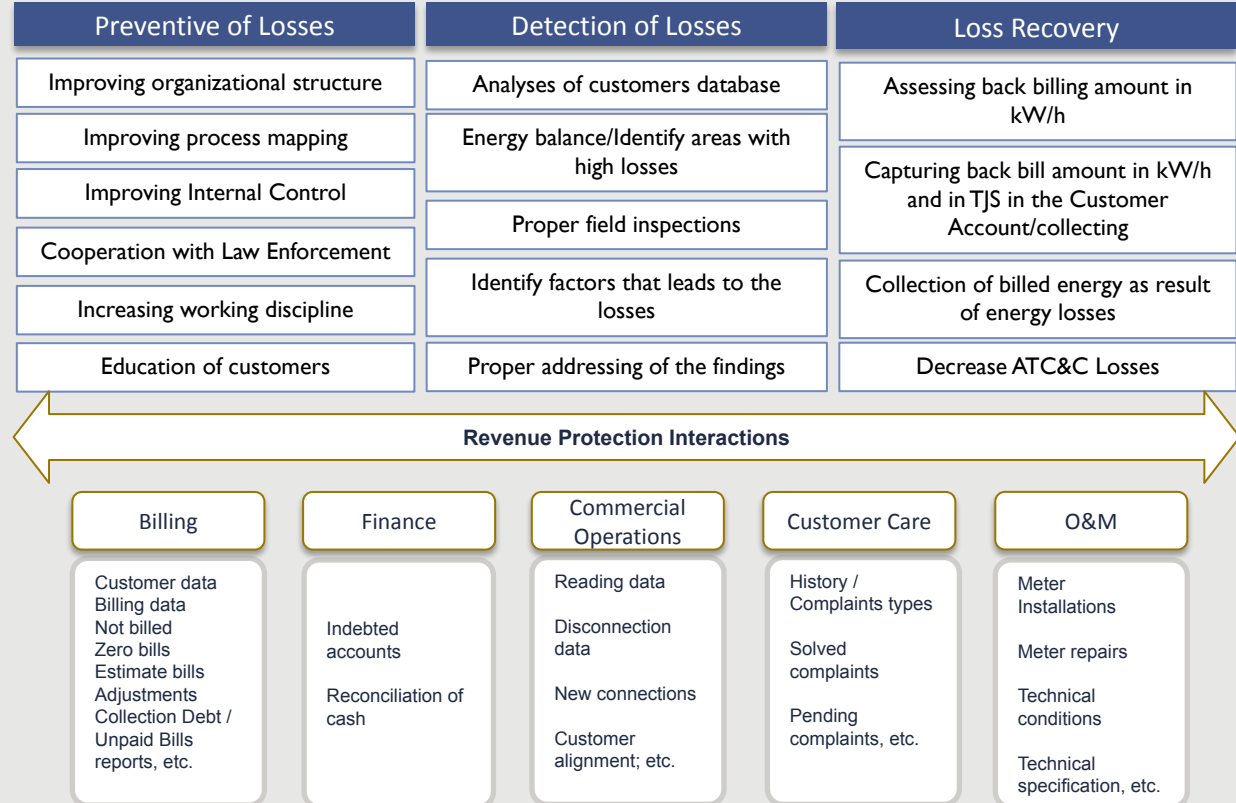
## INITIATIVES: REVENUE PROTECTION AND LOS RECOVERY

	Project Details	Benefits	Stakeholders	Timeline
8	<p><b>Loss Detection Infrastructure – Training</b></p> <ul style="list-style-type: none"> <li>- In house and field multi functions training for revenue protection employees and also other departments with functions and responsibilities to protect and manage revenues.</li> <li>- Training in Tajikistan laws and regulations for energy theft.</li> <li>- Training for processes, operating procedures, reporting and templates to be used.</li> <li>- Training on professional inspection and loss detection in different customer type.</li> <li>- Training on loss recovery calculation methodology.</li> </ul>	<ul style="list-style-type: none"> <li>• Build capacities</li> <li>• Proper understanding of laws, regulations, process and SOP.</li> <li>• Professional and effective inspections.</li> </ul>	<ul style="list-style-type: none"> <li>- Revenue Protection</li> <li>- Human Resources</li> <li>- Commercial and Technical Staff</li> </ul>	2022 / Q3,Q4
9	<p><b>Loss Recovery Infrastructure – Loss recovery</b></p> <ul style="list-style-type: none"> <li>- Introducing new methodology based on the actual laws and regulations in Tajikistan, for loss recovery calculations.</li> <li>- Establishing deadlines and responsible people who will have authorizations for loss recovery calculation.</li> <li>- Establishing process for billing and collection of reclaim losses.</li> <li>- Equip RPU teams with specialized toolkit to detect the theft of electricity.</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure proper and accurate calculation of losses</li> <li>• Internal control improvements</li> <li>• Increase integrity and decrease risk</li> </ul>	<ul style="list-style-type: none"> <li>- Revenue Protection</li> <li>- Human Resources</li> <li>- Commercial and Technical Staff</li> </ul>	2022 / Q1,2,3,4

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## INITIATIVES: REVENUE PROTECTION AND LOSS RECOVERY

Establishing Functional Infrastructure
Organogram
Job Description
Training
Standard Operating Procedure
Operational Targets
Loss Recovery Target
Official Field Inspection Reports
Daily, Weekly, Monthly Reporting
Loss Calculation Methodology
Working Tools and Safety Equipment's
Monthly Performance Evaluation
Quarterly Performance Evaluation







## Operational Improvements

### Commercial Operations Improvements

#### Meter Reading Process and Efficiency

Initiative 1: Draft process to minimize reading anomalies (zero bills, etc.)

Initiative 2: Revising and redesigning meter reading itineraries

Initiative 3: Improve reading accuracy and efficiency

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## METER READING PROCESS AND EFFICIENCY

Project	Description of the project
1	<p>Draft process to minimize reading anomalies (zero bills, etc.)</p> <ul style="list-style-type: none"><li>• Analyze and identify customers (by tariff group) with zero consumption; determine why they are billed with zero consumption.</li><li>• Check and verify all customers with zero bills, starting with commercial customers as the highest consumption individual customers.</li><li>• If there are customers with zero bills due to overbilling in prior periods, address the issue through bill corrections, not zero billings. Analyze and identify customers with high adjustments that impacts that billing cycle and collection activities as well.</li></ul>
2	<p>Revising and redesigning meter reading itineraries</p> <ul style="list-style-type: none"><li>• Review reading itineraries / routes DT-s, by analyzing meter reading frequency sequences and reassign readers to read feeders within one day minimize and eliminate late books.</li><li>• Draft reading graphics in the district, taking into account, specific routes (Itineraries DT-s/Feeder) and available work force for each month.</li><li>• Revise reading sheets to extract the prior month's reading statistics, and introduce daily reading targets.</li><li>• Conduct training of readers, in particular those who may be reassigned from other functions during the reading period</li></ul>

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## METER READING PROCESS AND EFFICIENCY

### Project

### Description of the project

3

Improve reading accuracy and efficiency

- Reading cycle needs to be optimized and time-bound, and still maintain a high accuracy level, less adjustments that impacts the billing figures.
- Strengthen meter reading control and post-reading control; avoid sending the same readers to control themselves.
- Engage zone managers in reading verification, and assign to them the reading of high profile and scattered customers.
- Make sure that all the meters in the itineraries are read on time including self / common consumption of DCEN.
- Proper monthly readings at energy income and outgoing points at substation.

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## INITIATIVES: METER READING PROCESS AND EFFICIENCY

	Project Details	Benefits	Stakeholders	Timeline
1	<p><b>Meter Reading anomalies minimization</b></p> <ul style="list-style-type: none"> <li>- Analyze and identify customers with zero bills.</li> <li>- Group customers based on type and anomalies.</li> <li>- Address and verify each customer group.</li> <li>- All cases when meter readings are done manually photo should be taken of those meters as Photo-control purposes.</li> </ul>	<p>Identify false zero bills to increase billing and collection efficiency and reduce losses.</p>	<ul style="list-style-type: none"> <li>• Billing Department</li> <li>• District Commercial Staff</li> <li>• PCA Team</li> </ul>	<p>2022 / Q3,4</p>
2	<p><b>Meter Reading Structure</b></p> <ul style="list-style-type: none"> <li>- Identify all reading itineraries / routes, readers and targets.</li> <li>- Determine the number of readers necessary for each feeder to be read within a day, with no delays.</li> <li>- Assign readers in certain areas based on their potential.</li> <li>- Develop the reading graphic for the District.</li> <li>- Cluster readings by routs, DTs or by feeder-lines to ensure less interference and manipulation on billing efficiency by rescheduling reading dates and bound by time.</li> <li>- Reading targets must be assigned to controllers/reader by routs or DTs which should be strictly followed.</li> </ul>	<p>Reduce late reading itineraries and cycle, improve energy balance calculations. Customer will receive bills on time and can pay on time. Overall billing and revenue management improvement.</p>	<ul style="list-style-type: none"> <li>• Billing Department</li> <li>• District Commercial Staff</li> <li>• PCA Team</li> </ul>	<p>2022 / Q2,3</p>

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## INITIATIVES: METER READING PROCESS AND EFFICIENCY

Project Details	Benefits	Stakeholders	Timeline
<p>3</p> <p><b>Meter Reading accuracy</b></p> <ul style="list-style-type: none"><li>- Identify and train employees for accurate reading, reporting statuses for control and post reading controls verifications.</li><li>- Develop field inspection templates and coordinate supervision.</li><li>- Monthly readings at energy income and outgoing points at substation should be done by substation duty person at 12:00 noon who also will be sharing readings with different stakeholders including billing department and chief inspectors. The chief inspector can be also attended the reading process as observer but not as an owner of collected data.</li></ul>	<p>Improve reading and billing accuracy, and have fewer customer complaints.</p>	<ul style="list-style-type: none"><li>• Billing Department</li><li>• District Commercial Staff</li><li>• PCA Team</li></ul>	<p>2022 / Q2,3,4</p>



## Operational Improvements

### Commercial Operations Improvements

#### Billing Process and Efficiency

Initiative 1: Draft executive order to improve bill delivery

Initiative 2: Improving billing cycle

Initiative 3: Establish Key Customer Group

Initiative 4: Billing Software

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## BILLING PROCESS AND EFFICIENCY

Project	Description of the project
1	<p>Draft executive order to improve bill delivery</p> <ul style="list-style-type: none"><li>• Purpose of this initiative is improve bill delivery especially to the 39% of the Ferdowsi District customers that don't posses a correct phone numbers in the billing data base. Company need to give option to the customer to choose an option of how to receive bill, by text message or hard copy (printed bills). Also, need to improve customers data through billing period by collecting accurate customers information's.</li></ul>
2	<p>Improving billing cycle</p> <ul style="list-style-type: none"><li>• Every customer that is connected in the network must be billed and bill must be generated (text message) at the same time of the in-site visit, with exception of cases with errors or other possible technical causes. Minimization of the billing errors, adjustment, estimations and identify and address bill anomalies by taking necessary actions.</li></ul>
3	<p>Establish Key Customer Group</p> <ul style="list-style-type: none"><li>• Establish key customer group under Ferdowsi District to monitor and manage KCG operations more efficiently.</li></ul>
3	<p>Billing Software</p> <ul style="list-style-type: none"><li>• Billing software needs some adjustments to become more efficient for everyday commercial operation. Also, access for the district employees is crucial.</li></ul>

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## INITIATIVES: BILLING PROCESS AND EFFICIENCY

	Project Details	Benefits	Stakeholders	Timeline
1/2	<p><b>Improve bill delivery / Improve billing cycle</b></p> <ul style="list-style-type: none"> <li>- Facilitating process of bill delivery by fostering team in the field to read and bill every customer in the itinerary and capture accurate data.</li> <li>- Monitor billing activities to those customers that are not receiving bills if any.</li> <li>- Work with local billing system developers to establish online tracking tool based on HHUs.</li> </ul>	<p>All customer will receive bills on time.</p> <p>Billing cycle will be closed on time.</p> <p>Eliminate adjustment as a result of not proper billing (estimations)</p> <p>Enabling energy balance and losses by feeders</p>	<ul style="list-style-type: none"> <li>- Billing Department</li> <li>- Other parties involved</li> <li>- PCA Team</li> </ul>	<p>2022 / Q2,Q3</p>
3	<p><b>Establish Key Customer Group</b></p> <ul style="list-style-type: none"> <li>- Install new smart AMR meters at all large industrial customers, supply source spots.</li> <li>- Train team and to develop smart AMR meter management software for KCG division, which will be responsible for full management of key customers group under DCEN network, and also responsible for revenue collection and revenue protection operations.</li> </ul>	<p>All customer will receive bills on time.</p> <p>Accurate billing of large customers.</p> <p>Proper allocation of smart AMR meters.</p> <p>Increase of revenue</p>	<ul style="list-style-type: none"> <li>- Billing Department</li> <li>- Other parties involved</li> <li>- PCA Team</li> </ul>	<p>2022 / Q2,Q3</p>



# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## INITIATIVES: BILLING PROCESS AND EFFICIENCY

Project Details	Benefits	Stakeholders	Timeline
<p>4</p> <p><b>Billing Software</b></p> <p>Billing software needs to add following functionalities:</p> <ul style="list-style-type: none"><li>- Segregation of customers, such as disconnected, connected, suspended, etc. in the system</li><li>- Track disconnections and execution of cases for non-payment</li><li>- Flag any drastic change (increase/decrease) of consumption by the customers, versus the historical consumption</li><li>- Set actual status for customers, so that not all accounts are considered active.</li></ul> <p>Give access to the billing system to Ferdowsi district operational staff to generate efficient reports and properly plan everyday work.</p> <p>Open view only access to the billing system for Chief Inspectors and Controllers through Android devices.</p>	<p>Increase billing system efficiency and productivity</p> <p>Increase district operations efficiency</p>	<ul style="list-style-type: none"><li>- Billing Department</li><li>- Other parties involved</li><li>- PCA Team</li></ul>	<p>2022 / Q2,Q3</p>



## Operational Improvements

### Commercial Operations Improvements

#### Disconnection and Collection Process

Initiative 1: Establish system based disconnection cycle

Initiative 2: Re-organizing disconnection teams

Initiative 3: Abolishing cash collection on hand

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## DISCONNECTION AND COLLECTION PROCESS

Project	Description of the project
1	<p>Establish system based disconnection cycle</p> <p>Planning, execution and reporting of the disconnection cycle must be system based. All disconnection orders must be generated from the disconnection cycle, which must be generated through the system on the monthly bases, and all job orders must contain customers detail data and arrears. Disconnection job orders must be generated on a daily bases. Disconnection orders must be planed based on the Feeders and DT-s,</p>
2	<p>Re-organizing disconnection teams</p> <p>Increase disconnection efficiency, by improving operational plans and strict disconnection of non-paying customers. Targeted number of disconnections to be performed on a daily basis by each team. Disconnection teams will be issued daily disconnection lists, whereby each disconnection team will be allocated at least the minimum number of disconnections, and separated based on feeders and transformers in the areas of their coverage. Daily/monthly, data analyses for disconnections performed by teams in districts.</p>
3	<p>Abolishing cash collection on hand</p> <p>Cash collection on hand as a bill payment should be abolished. But before removing this practice, utility company should ensure massive and aggressive public awareness campaign to promote new payment methods and educate customers.</p>

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## INITIATIVES: DISCONNECTION AND COLLECTION PROCESS

Project Details		Benefits	Stakeholders	Timeline
<b>1</b>	<p><b>Disconnection cycle</b></p> <ul style="list-style-type: none"> <li>- System Disconnection planning, and execution.</li> <li>- Disconnection Reconnection control.</li> <li>- Increasing disconnection efficiency for non paying customers.</li> </ul>	<p>Increase payment discipline and customer response. Improve collection efficiency and decrease outstanding debt.</p>	<ul style="list-style-type: none"> <li>- Regional Commercial and Technical Staff</li> <li>- PCA Team</li> </ul>	<p>2022 / Q2,3,4</p>
<b>2</b>	<p><b>Reorganizing disconnection</b></p> <ul style="list-style-type: none"> <li>- Strict disconnections of non-paying customers.</li> <li>- Assigning disconnection team based on the feeder.</li> <li>- Apply process to address the highest debtors, to increase efficiency and effectiveness.</li> </ul>	<p>Regularizing bad debtors, through improving operational plans and strict disconnection of non-paying customers.</p>	<ul style="list-style-type: none"> <li>- Regional Commercial and Technical Staff</li> <li>- PCA Team</li> </ul>	<p>2022 / Q2,3</p>

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## INITIATIVES: DISCONNECTION AND COLLECTION PROCESS

Project Details	Benefits	Stakeholders	Timeline
<div style="text-align: center; border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center; margin-bottom: 10px;">3</div> <p><b>Reorganizing collection</b></p> <ul style="list-style-type: none"> <li>- Before abolishing cash collection on hand, public awareness campaign should be promoted through all available media platforms in the country, including newspapers, TV and radio stations, SMS-es, DCEN distribution of flyers as notification, also using DCEN Customer Care and PR departments to outreach all customers and guide them on alternative methods of payment.</li> <li>- Such a public awareness campaign might require at least 2 to 3 month, ensuring that most of the customers are ready to switch to the different payment methods.</li> <li>- Downside of this initiative relates to possible decrease of collection efficiency for several months, but after the implementation of strict revenue collection activities, including disconnections of overdue customers, revenue collection trend will be increased.</li> <li>- Mobile cash offices can be introduced to the very rural areas.</li> <li>- Implementation of this project should start gradually under the pilot areas, substation by substation to ensure smooth transformation process. It is also recommended to launch this transformation during summertime to avoid temporary decrease in collection.</li> <li>- This approach will contribute in reducing fraud cases within the company, while having positive impact on company's reputation.</li> </ul>	<p>Increase collection efficiency</p> <p>Decrease fraud and misconduct cases by company employees</p> <p>Increase customer response rate</p>	<ul style="list-style-type: none"> <li>- Regional Commercial Staff</li> <li>- PCA Team</li> <li>- PR</li> <li>- Customer Care</li> </ul>	<p>2022 / Q2,3,4</p>



## Operational Improvements

### Commercial Operations Improvements

#### Operational Targets (KPI) on a Regional and District levels

Initiative 1: Performance Targets and Smart KPI-s

Initiative 2: Regional Manager KPI-s

Initiative 3: Regional Commercial Manager KPI-s

Initiative 4: Revenue Protection KPI-s

Initiative 5: Customer Care KPI-s

Initiative 6: District Manager KPI-s

Initiative 7: District Commercial Manager KPI-s

Initiative 8: Zone Manager KPI-s

Initiative 9: Technician / Controller (readers, collectors) KPI-s

4/1/2022 Initiative 10: Electricians KPI-s

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## OPERATIONAL TARGETS (KPI)

Project	Description of the project
1	<p>Introducing performance management and performance evaluation process</p> <ul style="list-style-type: none"><li>• Target setting and appraisals practices based on delivered energy, losses and collection.</li><li>• Incentives and measures of discipline as per set KPIs for good/poor performing employees</li><li>• Performance evaluation policy with 'SMART' objectives and KPIs</li><li>• Targets for District employees based on ATC&amp;C losses by DTs/feeders</li><li>• Monthly collection targets for District employees circulated to all employees responsible for collection.</li></ul>
2	<p>Performance Targets and Smart KPIs</p> <ul style="list-style-type: none"><li>- Develop efficient performance management process and smart KPIs for field employees.</li><li>- The targets should be set for each commercial team at district level including Commercial Manager, Chief Inspectors and Controllers.</li><li>- KPIs should be prioritized and allocated load for each indicator as follows:<ul style="list-style-type: none"><li>• (BE)-Billing Efficiency 25%</li><li>• (CE)-Collection Efficiency 20%</li><li>• (RE)-Reading Errors 10%</li><li>• (DRR)-Debt Recovery Rate 10%</li><li>• (CRR)-Customer Response Rate 10%</li><li>• (DE)-Disconnection Efficiency 15%</li><li>• (LCR-R)-Loss Control and Recovery Rate 10% (Prosecuted cases of energy theft)</li></ul></li><li>- During the setting of targets and KPIs peculiarity of service area (Geo-location and condition of LV - power network should be considered).</li><li>- Performance of each employee will be critically evaluated by reference to his/her individual actions or inactions, the work duties assigned to him/her, the targets should be set by the Regional Commercial Manager.</li></ul> <p><b>Note:</b> percentages are selected only in purpose to make clear of content, those figures might be changed based on analysis.</p>

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## INITIATIVES: OPERATIONAL TARGETS (KPI)

Project Details	Benefits	Stakeholders	Timeline
<p>I</p> <p><b>Performance evaluation process</b></p> <ul style="list-style-type: none"><li>- An individual performance evaluation form for District operational staff which takes into consideration energy delivered to District / Feeder and DTs.</li><li>- Introduce a process which will institutionalize target setting.</li><li>- Introduce loss targets by distribution transformers (losses between distribution transformers and linked customers).</li><li>- It is important to have a balance between penalizing for nonperformance and rewarding for good performance. Such a scheme should also affect all employees and not be limited to the certain level, in order to avoid discouragement of committed and over performing employees.</li></ul>	<p>Increase employees discipline and corporate culture.</p>	<ul style="list-style-type: none"><li>- Regional Commercial and Technical Staff</li><li>- PCA Team</li></ul>	<p>2022 / Q2,3,4</p>



# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## INITIATIVES: OPERATIONAL TARGETS (KPI)

Controllers performance evaluation example

Introduce a daily/weekly/monthly performance monitoring and evolution for the teams in the field in charge for energy losses and money collections. (Specific, Measurable, Achievable, Realistic and Time Bound objective setting) weighted total performance.

Performance of each employee will be critically evaluated by reference to his/her individual actions or inactions, the work duties assigned to him/her, the targets set by the Regional Manager, and any other factors relating to the performance of his/her work.

Controllers Performance Evaluation Appraisal			25%	20%	10%	10%	10%	15%	10%	100%
Ferdowsi - Controllers	# of Accounts	Collec. Target	Billin Efficiency %	Collection Efficiency %	Reading Errors %	Debt Recover %	Response Rate %	Disconnection Efficiency %	Loss Control & Recovery %	Weighted Total
<b>Назоратчи ЗИ " Бофанда - 110 "</b>										
<b>Фирдавси</b>	<b>12,041</b>	<b>74,514,805</b>	<b>102%</b>	<b>64%</b>	<b>93%</b>	<b>80%</b>	<b>6%</b>	<b>14%</b>	<b>6%</b>	<b>100%</b>
Бодуров Фаридун Курбоншоевич	533	2,908,119	112%	64%	98%	80%	6%	15%	0	101%
Собитов Зокирхон Зухурович	491	3,276,849	122%	67%	105%	80%	7%	5%	0	92%
Каримов Кузратулло Хакимович	757	5,265,227	96%	53%	88%	10%	6%	0%	0	16%
Имомов Шохимардон Икболович	718	5,532,885	95%	61%	67%	7%	5%	0%	0	13%
Абдуллоев Комилчон Олимчонович	781	3,25,990	103%	61%	93%	80%	6%	14%	0	100%
Тагоев Сачан Шамсидинович	698	4,175,115	99%	72%	95%	10%	7%	0%	0	17%
Кодиров Шарифали Саидахрорович	494	3,025,663	107%	63%	98%	80%	6%	15%	0	101%
Саидов Диловаршоҳ Шарифхочаевич	703	3,329,030	121%	58%	104%	80%	6%	5%	0	91%
Шарипов Ахлиддин Низомидинович	674	4,338,250	103%	58%	93%	80%	6%	14%	0	100%
<b>Summary</b>	<b>12,041</b>	<b>74,514,805</b>	<b>102%</b>	<b>64%</b>	<b>93%</b>	<b>80%</b>	<b>10%</b>	<b>5%</b>	<b>10%</b>	<b>94%</b>

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## INITIATIVES: OPERATIONAL TARGETS (KPI)

Feeder / District performance evaluation example

Introduce a process which will institutionalize target setting. The process will involve District field teams, particularly the commercial operations.

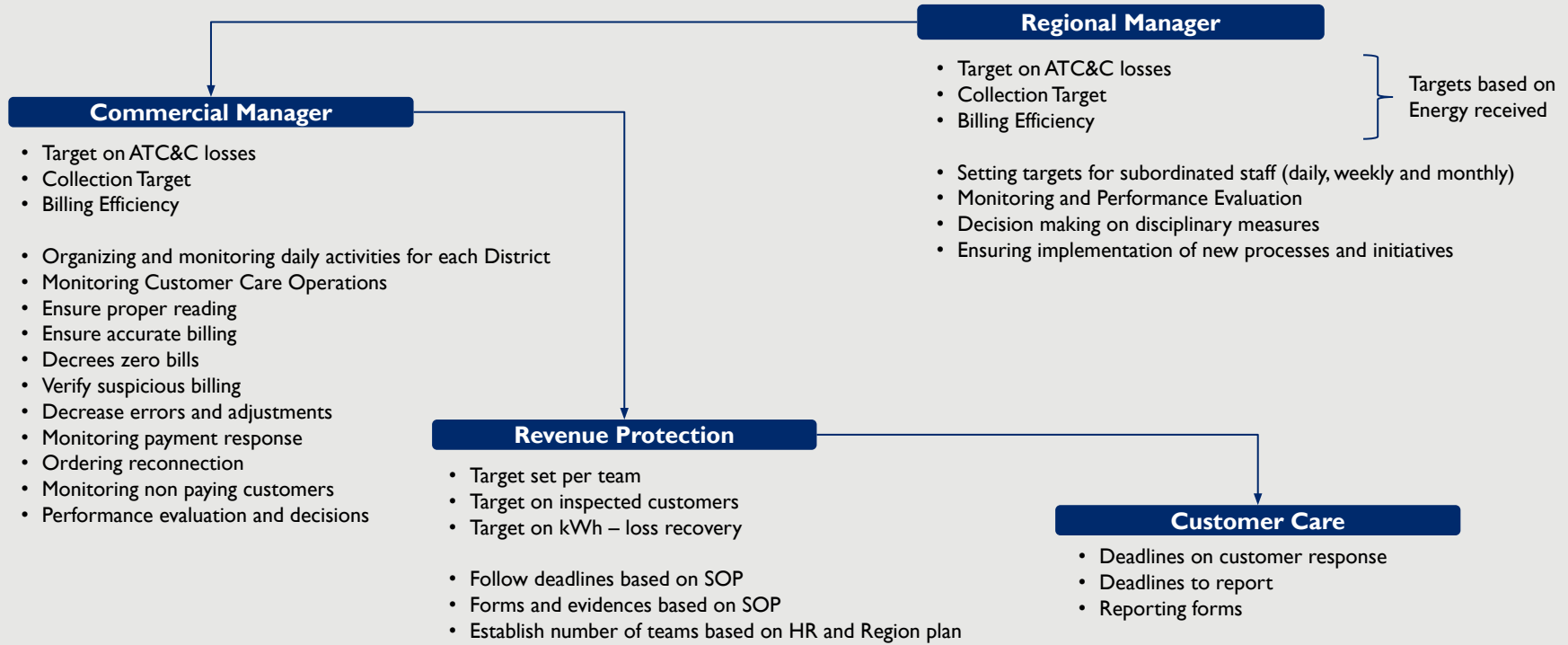
Development of performance targets for the Pilot District will be approved by the DCEN and take into account monthly numerical performance targets, for energy, billings, and revenue collection related to the District, feeder and commercial operations field staff.

Feeder Data		[kWh]		[TJS]		[%]				
Feeder Name	Feeder Code	Energy Delivered [A]	Energy billed [B]	Energy Billed [C]	Collected Amount [D]	Billing Efficiency [B/A]	Collection Efficiency [D/C]	Overall Performance [BE*CE]	Loss Level [1-BE]	ATC&C Losses [1-OP]
CENTRAL GLASS	208000269	106,940	50,000	1,000,000	856,000	47%	86%	40%	53%	60%
SPORTS COMPLEX	208000065	2,201,000	1,103,240	22,064,800	20,000,000	50%	91%	45%	50%	55%
TRM EX RUARAKA	208002364	570,320	255,261	5,105,225	4,500,000	45%	88%	39%	55%	61%
THIGIRI FEEDER	208001472	698,600	503,271	10,065,426	10,000,000	72%	99%	72%	28%	28%

**TABLE NEEDS TO BE UPDATED**

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## OPERATIONAL TARGETS (KPI) ON A REGIONAL LEVEL



# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## OPERATIONAL TARGETS (KPI) ON A DISTRICT LEVEL

Operational Targets  
Daily, Weekly, Monthly

### Zone Manager

- Monitoring daily targets for each team
- Prelisting Customers – working orders
- Ensure proper reading
- Accurate Billing and verification of exception list
- Bill delivery to all customers
- Monitoring response
- Ordering disconnections and reconnection
- Monitoring non paying customers
- Monitoring and Performance Evaluation
- Decision making on disciplinary measures

### Technician/Controller

- Meter reading and billing
- Bill Delivery
- Disconnection
- Reconnection
- Documenting and evidencing
- Customer enumeration and database cleanup
- Detecting and reporting energy theft, illegal consumers, etc.

### Electricians

- Managing repairs on 0.4kV
- Intervention on black outs in time
- Disconnection of overhead lines
- Reconnection on overhead lines
- Target plan for decreasing technical losses

### Commercial Manager

- Setting targets for subordinated staff
- Monitoring daily targets for each Zone
- Monitoring and Performance Evaluation
- Debt Management
- Decision making on disciplinary measures
- Ensuring implementation of new processes, executive orders, standard operating procedures etc.

### District Manager

- Achieving ATC&C losses target
- Load Management
- Network Maintenance
- Collection Target
- Billing Efficiency
- Accurate billing
  
- Setting targets for subordinated staff (daily, weekly and monthly)
- Monitoring and Performance Evaluation
- Decision making on disciplinary measures
- Ensuring implementation of new processes, executive orders, standard operating procedures etc.



## Operational Improvements

### Commercial Operations Improvements

#### Technical and Financial Bill Adjustments

Initiative 1: Technical and financial adjustments of the bill

Initiative 2: Authorizations and approvals for adjustments

Initiative 3: Inexcusable Adjustments

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## TECHNICAL AND FINANCIAL BILL ADJUSTMENTS

	Project	Description of the project
1	Technical and Financial Bill Adjustments	<ul style="list-style-type: none"><li>- Ensure Financial and Technical adjustments are done parallel and in accordance with finance department.</li><li>- Establish process to define reasons for adjustments and impacts in billing and collection efficiency.</li></ul>
2	Authorizations and Approvals	<ul style="list-style-type: none"><li>- Revise / Establish procedure to define hierarchy levels of approvals and authorized persons who will be responsible for adjustments in billing database.</li><li>- Establish levels of adjustments in kW and amount.</li></ul>
3	Inexcusable Adjustments	<ul style="list-style-type: none"><li>- Establish accountability for every adjustment / reasons and responsible persons.</li><li>- Identify source of error to be followed with adjustments.</li><li>- Define level, above which every adjustment should be followed with detailed investigation.</li></ul>

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## INITIATIVES: TECHNICAL AND FINANCIAL BILL ADJUSTMENTS

	Project Details	Benefits	Stakeholders	Timeline
1	<p><b>Technical and Financial Bill Adjustments</b></p> <ul style="list-style-type: none"> <li>- Review / draft adjustments procedure, to ensure minimizing the errors and adjustments.</li> <li>- Defining errors that need adjustments,</li> <li>- Defining adjustments based on evidences,</li> <li>- Ensuring adjustments are done in kW and amount</li> </ul>	<ul style="list-style-type: none"> <li>• Decrease number of errors in system</li> <li>• Improve billing accuracy</li> </ul>	<ul style="list-style-type: none"> <li>- Billing</li> <li>- Finance</li> </ul>	<p>2022 / Q,3,4 2023 / Q1</p>
2	<p><b>Authorizations and Approvals</b></p> <ul style="list-style-type: none"> <li>- Establish limits in amount for adjustments approvals in different hierarchy positions,</li> <li>- Define role of finance for authorizing adjustments in billing database.</li> <li>- Define authorized persons who have to do approvals and adjustments.</li> </ul>	<ul style="list-style-type: none"> <li>• Improve Internal control and monitoring</li> <li>• Mitigate risk</li> </ul>	<ul style="list-style-type: none"> <li>- Billing</li> <li>- Finance</li> </ul>	<p>2022 / Q,3,4 2023 / Q1</p>
3	<p><b>Inexcusable Adjustments</b></p> <ul style="list-style-type: none"> <li>- Establish limits in amount for adjustments to be reported in HQ Inspection for further investigations</li> <li>- Identify suspicious errors and adjustments</li> <li>- Incorporate in the DCEN code of conduct as violation, by describing details</li> </ul>	<ul style="list-style-type: none"> <li>• Improve responsibility and accountability</li> <li>• Educate employees to follow processes properly</li> </ul>	<ul style="list-style-type: none"> <li>- HQ Inspection</li> <li>- Billing</li> <li>- Human Recourses</li> </ul>	<p>2022 / Q,3,4 2023 / Q1</p>



## Operational Improvements

# Commercial Operations Improvements

## Customer Alignment

Initiative 1: Customer alignment process flow and Commercial operations interactions with customer alignment

Initiative 2: Planning for field operations to conduct customer alignment

Initiative 3: Planning for customers alignment



# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## CUSTOMER ALIGNMENT

	Project	Description of the project
1	Customer Alignment Process	<p>Establishing process to align properly the customers with network. The alignment should be followed by billing department to ensure capturing the changes without delay in the system.</p>
2	Commercial Operations Interactions with Customer Alignment	<p>The customer alignment should be monitored and followed up in daily bases by all other commercial operations working directly with customers.</p> <p>This will help company to maintain and update billing database with customer details and proper alignment in the system.</p>

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## INITIATIVES: CUSTOMER ALIGNMENT

	Project Details	Benefits	Stakeholders	Timeline
1	<p><b>Process / procedure for customer alignment</b></p> <ul style="list-style-type: none"> <li>- Draft process and procedure for proper alignment</li> <li>- Development SOP related to data exchange to ensure fast track and efficient upload process of verified customers by distribution transformers as well as efficient uploading of DTs by feeder-line to keep billing database updated to ensure accurate energy balance accounting process.</li> <li>- Establish field templates and reporting methods</li> <li>- Ensure proper verification and approvals before change was effected in the billing system.</li> <li>- Commercial Operations Interactions with Customer Alignment</li> </ul>	<ul style="list-style-type: none"> <li>- Ensure uniform methods for customer alignment</li> <li>- Improve internal control and monitoring</li> </ul>	<ul style="list-style-type: none"> <li>- PCA team</li> <li>- Billing</li> <li>- District Commercial Staff</li> </ul>	<p>2022 / Q3,4 2023 / Q1,2</p>
2	<p><b>Planning for field operations to conduct customer alignment</b></p> <ul style="list-style-type: none"> <li>- Door to door verification and enumeration/mapping of customers by distribution transformers</li> <li>- Identify recourses who will do field implementation</li> <li>- Identify recourses for monitoring and quality check</li> <li>- Identify positions who will be responsible for accuracy approvals before the data are changed in the billing systems</li> <li>- Adopt itineraries / distribution transformers in the billing database to have possibility to capture all customers in their groups.</li> </ul>	<ul style="list-style-type: none"> <li>- Improve quality of data collected</li> <li>- Increase responsibility and accountability</li> <li>- Identify source of supply for customers</li> </ul>	<ul style="list-style-type: none"> <li>- PCA team</li> <li>- Billing</li> <li>- District Commercial Staff</li> </ul>	<p>2022 / Q3,4 2023 / Q1,2</p>



## Operational Improvements

### Commercial Operations Improvements

#### New Connections and Efficiency

Initiative 1: Customer application and technical solution

Initiative 2: Technical approval and task updated

Initiative 3: Customer contract and registration in billing database

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## NEW CONNECTIONS AND EFFICIENCY

Project	Description of the project
<p>I</p> <p>New Connections</p>	<p>Rapid registration of customers, is in the interest for the company and also for the customers. Every delay to register the customer in time possibly will cost to the company with loss of revenues.</p> <p>To have effective registration process in place, the existing process will be reviewed and amended to ensure effective registration of all new applications in shortest possible time.</p> <p>Proper alignment of customers with network in the initial registration time, helps company to maintain the databases and align properly customers.</p>

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## INITIATIVES: NEW CONNECTIONS AND EFFICIENCY

	Project Details	Benefits	Stakeholders	Timeline
1	<p><b>Consumer Application and Technical Solution</b></p> <ul style="list-style-type: none"> <li>- After customer application, the deadlines for registration should be in place.</li> <li>- If customer needs technical solution, the deadline for completion should be set. The deadline for establishing network requirements should be given to the customer, and monitored in timelines.</li> <li>- Practice of customer paying for the installation and equipment should be forbidden and regulations strictly followed.</li> <li>- New regulation should clearly define individuals authorized to seal newly installed household meters, in order to avoid manipulation or tampering the meter, as well as encouraging fraud cases.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase number of customers and demand</li> <li>• Increase sales and collections</li> </ul>	<ul style="list-style-type: none"> <li>- Network Development</li> <li>- New Connections</li> <li>- Billing</li> <li>- Technical Department</li> <li>- District Field Operations</li> </ul>	2022 / Q3,4
2	<p><b>Technical Approval</b></p> <ul style="list-style-type: none"> <li>- The deadline for technical approval of new connection should be defined and measured as KPI, after the customer fulfill all required works. KPI will be completed only after the job task is closed.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase number of customers and demand</li> <li>• Increase sales and collections</li> </ul>	<ul style="list-style-type: none"> <li>- Network Development</li> <li>- New Connections</li> <li>- Billing</li> <li>- Technical Department</li> <li>- District Field Operations</li> </ul>	2022 / Q3,4
3	<p><b>Customer Contracts</b></p> <ul style="list-style-type: none"> <li>- Every customer contract should contain other network information to ensure proper alignment of customers with the network.</li> <li>- The template to be attached in contracts will be re-designed with required details.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify source of supply for customers</li> </ul>	<ul style="list-style-type: none"> <li>- Network Development</li> <li>- New Connections</li> <li>- Billing</li> <li>- Technical Department</li> <li>- District Field Operations</li> </ul>	2022 / Q3,4



## Operational Improvements

### Commercial Operations Improvements

#### Enhance Analyses and Data Access

Initiative 1: Process for billing and collection analyses

Initiative 2: Process for Revenue protection analyses

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## ENHANCE ANALYSES AND DATA ACCESS

Project	Description of the project	
1	Analysts for Commercial	Ferdowsi District need to have in place analysts, who will deal with daily, monthly and quarterly detailed analyses of billing and collection database. This will help company to improve planning and implementation of operations, by focusing recourses in the problematic areas and ensuring improvements. Proper analyses will help company to manage and maintain billing database.
2	Analysts for Revenue Protection	The analysts n revenue protection is necessary for the DCEN to do proper energy, billing and collection analyses and to identify areas with high losses.  This will help DCEN to focus the revenue protection teams in the communities, transformers where the losses are higher. Targeting losses will help company to reduce losses.

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## INITIATIVES: ENHANCE ANALYSES AND DATA ACCESS

Project Details	Benefits	Stakeholders	Timeline
<p><b>1</b></p> <p><b>Billing and Collection Analyses</b></p> <ul style="list-style-type: none"> <li>- The new process to conduct proper billing analyses will be drafted and established, to ensure that monthly billing analyses will contain all required information to help planning and implementation of operations and to improve billing efficiency.</li> <li>- The access in all necessary databases and application should be given to the people assigned in the analyses.</li> <li>- The new commercial operations template will be drafted and introduced to keep tracking of all activities and details, to help analyses team.</li> <li>- Training for employees who will be selected to work as analysts will be developed and done by PCA team.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify weaknesses and gaps in the commercial operations</li> <li>• Help planning and orientation of recourses in the areas where improvement is required</li> <li>• Establish one of the most important function that is missing in DCEN</li> </ul>	<ul style="list-style-type: none"> <li>- PCA Team</li> <li>- Billing</li> <li>- Human Recourses</li> <li>- IT</li> <li>- DCEN Commercial</li> </ul>	<p>2022 / Q3,4</p>
<p><b>2</b></p> <p><b>Analysts for Revenue Protection (Losses)</b></p> <ul style="list-style-type: none"> <li>- Feeder energy and performance analyses will be established, to identify the directions where the energy losses leakage from the District system.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify areas where losses are higher and focus planning and implementation of revenue protection activities.</li> </ul>	<ul style="list-style-type: none"> <li>- PCA Team</li> <li>- Billing</li> <li>- Human Recourses</li> <li>- IT</li> <li>- DCEN Commercial</li> <li>- Revenue Protection</li> </ul>	<p>2022 / Q3,4</p>





## Operational Improvements

### Commercial Operations Improvements

#### Customer Care and Public Relations

Initiative 1: Customer Complains and Feedback Efficiency

Initiative 2: Cooperation with Public Relations to improve customer awareness

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## CUSTOMER CARE AND PUBLIC RELATIONS

Project	Description of the project
1	Customer Complains and Feedback Efficiency <p>The KPI on customer care department, will help company to finish in time the customer complains what reflects immediately in the improvement of customer relations with DCEN. The tracking of complains type is very important, but this information need to be shared with the departments who are responsible when the increase of complaints in specific fields is increased. The increase of complaints should be proceeded to HQ Inspection for verification of the sources.</p>
2	Cooperation with Public Relations to improve customer awareness <p>When the customer complaints increases as results of the non proper information about company services and their obligations or because of errors in the customer side, the customer care in cooperation with public relations should increase awareness campaigns. This is important also to publish the cases of energy theft and arrests done by revenue protection and HQ Inspection department, to serve as awareness and preventive measure for losses.</p>

# OPERATIONAL IMPROVEMENTS – COMMERCIAL OPERATIONS

## INITIATIVES: CUSTOMER CARE AND PUBLIC RELATIONS

	Project Details	Benefits	Stakeholders	Timeline
1	<p><b>Customer Complains and Feedback Efficiency</b></p> <ul style="list-style-type: none"> <li>- Flagging the increase of important complains</li> <li>- Setting the KPI for customer care department</li> <li>- Establish mandatory weekly, monthly report for management in customer care department.</li> </ul>	<ul style="list-style-type: none"> <li>- Increase efficiency of solving complains</li> <li>- Address increases to respective services to take actions, improve services and decrease customer complains</li> </ul>	<ul style="list-style-type: none"> <li>- Customer Care</li> <li>- IT and Communication</li> </ul>	2022 / Q3,4
2	<p><b>Customer Care role in Public Awareness</b></p> <ul style="list-style-type: none"> <li>- For every new changes, new regulations and requirements, the awareness campaign to inform customers should be in place. In this case the cooperation and coordination of Customer care and public relations is very important.</li> <li>- For loss reduction purposes, the public awareness for customers is very key for the further steps.</li> <li>- For every arrest and cases of energy theft, the publication in time will have positive effects in preventive measures.</li> <li>- Prompt feedback to customers' complaints is very important to establish cooperation and trust, especially for complaints related to billing, meter readings, and faulty meters.</li> </ul>	<ul style="list-style-type: none"> <li>- Improves relations with communities</li> <li>- Help in loss preventive measures</li> </ul>	<ul style="list-style-type: none"> <li>- Customer Care</li> <li>- IT and Communication</li> </ul>	2022 / Q3,4



## Operational Improvements

### Index to Indicate Losses

## Aggregated Technical, Commercial and Collection Losses

Initiative 1: Technical Losses Improvements

Initiative 2: Process for overloaded feeders and transformers

Initiative 3: Load balance management

Initiative 2: Commercial Losses Improvements

Initiative 3: Collection Losses Improvements

# OPERATIONAL IMPROVEMENTS – INDEX TO INDICATE LOSSES

## TECHNICAL, COMMERCIAL AND COLLECTION LOSSES

Project	Description of the project
1	<p><b>Technical Losses</b></p> <p>Implementing proper energy balance in HV, MV and LV, will give possibilities to identify energy who is losing in the network, before going to the end customer. This depend in the quality and integrity of the grid meters in all network levels. Technical losses are attributed to the aged network and poor network configuration and maintenance. Periodical process for inspection of substations and feeders will help company to identify potential overloaded feeders and transformers that need interventions to manage their load. This will help company to decrease technical losses caused by the overloaded or under loaded transformers and also will help to reduce number of damaged / burned transformers.</p>
2	<p><b>Commercial Losses</b></p> <p>Commercial losses refers to the difference between the energy send to the customers and energy billed to the customers. Commercial losses are mainly attributed to the energy theft, unauthorized use of electricity, improper reading, billing and other errors in commercial operations.</p>
3	<p><b>Collection Losses</b></p> <p>Collection Losses results with difference between energy amount billed to the customers versus collection amount. The amount remaining not collected in one period, is counted as collection losses. Collection losses are results of non payment of customers for their consumed energy.</p>

# OPERATIONAL IMPROVEMENTS – INDEX TO INDICATE LOSSES

INITIATIVES: TECHNICAL, COMMERCIAL AND COLLECTION LOSSES

Project Details	Benefits	Stakeholders	Timeline
<p><b>I</b></p> <p><b>Technical Losses Identification / Improvement</b></p> <ul style="list-style-type: none"> <li>- Defining energy for district</li> <li>- Defining energy for each substation</li> <li>- Defining energy for each feeder</li> <li>- Energy Balance in MV and LV</li> <li>- Improvement of metering</li> </ul>	<ul style="list-style-type: none"> <li>- Define Energy for district, substation and feeder</li> <li>- Identify technical losses in different network levels</li> </ul>	<ul style="list-style-type: none"> <li>- Network</li> <li>- Technical</li> <li>- District Management</li> <li>- Revenue Protection</li> </ul>	<p>2022 / Q2,3,4</p>
<p><b>2</b></p> <p><b>Overloaded Transformers and Feeders</b></p> <ul style="list-style-type: none"> <li>- The process for load check of feeders and transformers</li> <li>- The automated reading data through systems should be analyzed and identify overloaded or under loaded feeders</li> <li>- The deadlines for solution on overloaded or under loaded feeders and transformers should be in place.</li> <li>- Process to assign responsibility and accountability on the network employees in charger for any faulty / burned transformer will be established.</li> </ul>	<ul style="list-style-type: none"> <li>- Increase accountability and responsibility</li> <li>- Identify areas for improvements</li> <li>- Improve operations</li> </ul>	<ul style="list-style-type: none"> <li>- Network</li> <li>- Technical</li> <li>- District Management</li> <li>- Revenue Protection</li> </ul>	<p>2022 / Q3,4</p>

# OPERATIONAL IMPROVEMENTS – INDEX TO INDICATE LOSSES

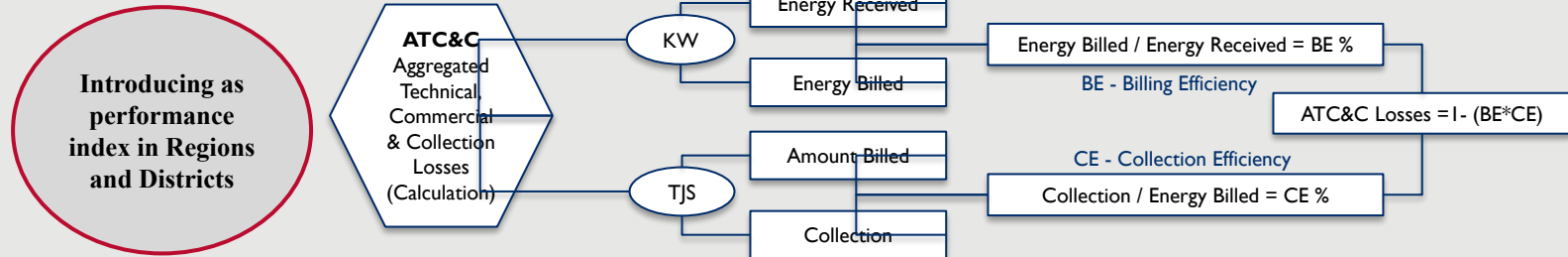
INITIATIVES: TECHNICAL, COMMERCIAL AND COLLECTION LOSSES

Project Details	Benefits	Stakeholders	Timeline
<p><b>3</b></p> <p><b>Regularize Load Balance</b></p> <ul style="list-style-type: none"> <li>- Process for periodical check of load balance in phases</li> <li>- Ensure proper technical solution for every new connection, to assure that they are connected in the right phases and network, to avoid overloading.</li> </ul>	<ul style="list-style-type: none"> <li>- Define Energy for each region, substation and feeder</li> <li>- Identify technical losses in different network levels</li> </ul>	<ul style="list-style-type: none"> <li>- Network</li> <li>- Technical</li> <li>- Revenue Protection</li> </ul>	<p>2022 / Q2,3,4</p>
<p><b>4</b></p> <p><b>Commercial Losses Identification / Improvement</b></p> <ul style="list-style-type: none"> <li>- Energy Accounting in LV</li> <li>- Energy Accountability in LV</li> <li>- Enhance commercial analyses and operations</li> <li>- Establish professional Revenue Protection                             <ul style="list-style-type: none"> <li>- Large Power Users RPU</li> <li>- Residential RPU</li> </ul> </li> <li>- Improve planning, reporting, monitoring</li> <li>- Improve internal control</li> <li>- Improve billing and adjustments in billing</li> <li>- Improve customer alignment with network</li> </ul>	<ul style="list-style-type: none"> <li>- Increase accountability and responsibility</li> <li>- Identify areas for improvements</li> <li>- Improve operations</li> </ul>	<ul style="list-style-type: none"> <li>- Network</li> <li>- Technical</li> <li>- District Management</li> <li>- Revenue Protection</li> </ul>	<p>2022 / Q2,3,4</p>

# OPERATIONAL IMPROVEMENTS – INDEX TO INDICATE LOSSES

INITIATIVES: TECHNICAL, COMMERCIAL AND COLLECTION LOSSES

	Project Details	Benefits	Stakeholders	Timeline
5	<p><b>Collection Losses / Improvement</b></p> <ul style="list-style-type: none"> <li>- Establish response ratio analyses and reporting</li> <li>- Accurate billing of customers</li> <li>- Decrease zero bills</li> <li>- Decrease estimate billing</li> <li>- Improve planning, monitoring and execution of disconnections and reconnections</li> </ul>	<ul style="list-style-type: none"> <li>- Improve Collection</li> <li>- Improve Billing</li> </ul>	<ul style="list-style-type: none"> <li>- Network</li> <li>- Technical</li> <li>- Revenue Protection</li> </ul>	<p>2022 / Q2,3,4</p>



Introducing as performance index in Regions and Districts





## Operational Improvements

### Technical Operations Improvements

#### Energy Balance

Initiative 1: MV Energy Balance

Initiative 2: LV Energy Balance

# OPERATIONAL IMPROVEMENTS – TECHNICAL OPERATIONS

## ENERGY BALANCE

	Project	Description of the project
1	Medium Voltage Energy Balance	<p>Energy balance between substations incomer energy and outgoing feeders from substation will enable DCEN to determine technical losses in the substation level.</p> <p>To do this, proper alignment of network with substations should be in place, metering in incomers and outgoing from each substation and interconnection between substations should be identified.</p>
2	Low Voltage Energy Balance	<p>Energy balance between feeder and distribution transformers is one of the most important energy balance in the LV for Ferdowsi District. This will enable Ferdowsi District to determine areas where the energy commercial and technical losses are high, based on the distribution transformers.</p>

# OPERATIONAL IMPROVEMENTS – TECHNICAL OPERATIONS

## INITIATIVES: ENERGY BALANCE

	Project Details	Benefits	Stakeholders	Timeline
1	<p><b>MV Energy Balance</b></p> <ul style="list-style-type: none"> <li>- Install modems on all income meter-points to make available access in AMR (automatic meter reading) system for DISCO team, to collect data efficiently and accurately online;</li> <li>- Install “Revers” meters at each boundary points between substations and outgoing feeder-lines.</li> <li>- Re-align feeders with each substation;</li> <li>- Identify all interconnections between distribution substations with possible supply from other feeders;</li> <li>- Ensure that all transmission outgoing feeders have meters and meters are functional;</li> <li>- Updated energy balance database with proper alignment of network to ensure automated energy balance.</li> </ul>	<ul style="list-style-type: none"> <li>- Define Energy for each substation;</li> <li>- Identify technical losses in different network levels;</li> </ul>	<ul style="list-style-type: none"> <li>- Network</li> <li>- Technical</li> </ul>	2022 / Q3,4
2	<p><b>LV Energy Balance</b></p> <ul style="list-style-type: none"> <li>- Identify feeders with highest energy losses, to have pilot on distribution transformer level for purpose of energy balance in LV.</li> <li>- Ensure that all customers are enumerated and properly align with secondary substations</li> </ul>	<ul style="list-style-type: none"> <li>- Increase accountability and responsibility</li> <li>- Identify areas for improvements</li> <li>- Improve operations</li> </ul>	<ul style="list-style-type: none"> <li>- Network</li> <li>- Technical</li> <li>- Revenue Protection</li> </ul>	2022 / Q3,4



## Operational Improvements

### Technical Operations Improvements

#### **Network Alignment, Energy Accounting and Accountability**

Initiative 1: Network Alignment

Initiative 2: Regional and District Energy Accounting

Initiative 3: Improve Accountability for Energy

# OPERATIONAL IMPROVEMENTS – TECHNICAL OPERATIONS

## NETWORK ALIGNMENT, ENERGY ACCOUNTING AND ACCOUNTABILITY

	Project	Description of the project
1	Network Alignment	Proper network alignment is very important for energy accounting, energy balance and identify losses. On a district level, distribution transformers, as well as feeder-line meters are not registered in the billing system, having negative impact on accurate process of calculation of energy balance, as well accurate evaluation of controllers/reader and chief inspector performance.
2	District Energy Accounting	Proper alignment of network with districts will enable Ferdowsi District to account for the energy delivered. Knowing energy received enables districts to have better planning and implementation of commercial operations.
3	Improve Accountability for Energy	Defining energy for districts should go parallel with identification of key roles who will be accountable for any leakage in energy or collection based on the energy received. Missing this information, DCEN will not have chance to identify the regional performance and monitor performance efficiency of districts.

# OPERATIONAL IMPROVEMENTS – TECHNICAL OPERATIONS

## INITIATIVES: NETWORK ALIGNMENT, ENERGY ACCOUNTING AND ACCOUNTABILITY

Project Details	Benefits	Stakeholders	Timeline
<p>I</p> <p><b>Network Alignment</b></p> <ul style="list-style-type: none"><li>- All technical assets including feeder-lines and distribution transformers must be verified in the field by substations and immediately must be uploaded to the billing system including meter numbers, ratio of current transformers, readings etc.</li><li>- Same approach must be implemented related to individual customers, especially under area which were recently added to Ferdowsi District such as, Rudaki, Dariokanor, Obkhorez, Orion, etc.</li><li>- Due diligence and verification of network by feeder-lines to identify actual quantity of distribution transformers by feeder-line.</li><li>- Also would be appropriate to use GIS system analogue to map all technical assets properly.</li><li>- Development of SOPs related to data exchange to ensure fast track and efficient upload process of uploading DTs by feeder-line to keep billing database updated to ensure accurate energy balance accounting process.</li></ul>	<p>Improve and proper energy balance Proper network mapping</p>	<ul style="list-style-type: none"><li>- Network</li><li>- Technical</li></ul>	<p>2022 / Q3,4</p>

# OPERATIONAL IMPROVEMENTS – TECHNICAL OPERATIONS

## INITIATIVES: NETWORK ALIGNMENT, ENERGY ACCOUNTING AND ACCOUNTABILITY

Project Details	Benefits	Stakeholders	Timeline
<p><b>2</b></p> <p><b>District energy accounting.</b></p> <ul style="list-style-type: none"> <li>- Ensure proper metering in all network levels to account energy entering and going out of districts, including boundary meters.</li> <li>- Establish process for shared feeders or network, by installing boundary meters or other accurate methodology to share energy.</li> <li>- Define accurate energy for district.</li> </ul>	<p>Define Energy for District</p>	<ul style="list-style-type: none"> <li>- Regional Technical</li> <li>- District Technical</li> </ul>	<p>2022 / Q3,4</p>
<p><b>3</b></p> <p><b>Improve Accountability for Energy</b></p> <ul style="list-style-type: none"> <li>- District Manager will be accountable for the energy received.</li> <li>- Billing and collection efficiency targets will be set to each manager to ensure proper billing and collection based on the energy received.</li> </ul>	<p>Improve accountability and responsibility to manage properly the energy and collection</p>	<ul style="list-style-type: none"> <li>- Regional Management</li> </ul>	<p>2022 / Q2,3,4</p>



## Operational Improvements

### Technical Operations Improvements


#### Distribution Network Condition

Initiative I: Improve Distribution Network



# OPERATIONAL IMPROVEMENTS – TECHNICAL OPERATIONS

## DISTRIBUTION NETWORK CONDITION

Project	Description of the project
 <p>Improve Distribution Network</p>	<p>Substations are in need of proper maintenance. The low-voltage network of 0.4KV is in general in poor condition, causing high technical and commercial losses, as well as threat to health and safety. Implementing recommendations will help company to address issues, such as poor condition of conductors, imbalance between phases, overloading and lengthy lines, that can be the reason to have technical losses in the LV grid at above average. Also, distribution transformers that are not fenced and are open to access of the public and children which causes security and safety risks to the population. Existing poor network is also vulnerable to electricity theft cases from the customers. Ferdowsi LV network is in a poor condition and needs serious maintenance.</p>

# OPERATIONAL IMPROVEMENTS – TECHNICAL OPERATIONS

## INITIATIVES: DISTRIBUTION NETWORK CONDITION

Project Details	Benefits	Stakeholders	Timeline
<p>I</p> <p><b>Improve Network Condition</b></p> <p>The proper oil and temperature check sensors should be maintained and monitored. Furthermore, the standard maintenance practices should be developed explicitly for the old power transformers.</p> <p>110/35/10/6kV Injection Substations should have proper size of control building that contains maintenance workshop with necessary equipment, system operation and dispatch.</p> <p>Allowance of space for bigger control building, outdoor equipment spacing to IEC standards (International Electrotechnical Commission), and addresses the inadequacies of the networks.</p> <p>Standby generators for emergency power supply to the Injection Substation are recommended to enable the operator carry out necessary switching in case of general power failure.</p> <p>Improvements in the construction of buildings (water, dust proof) and improvement of ventilations, fire safety and cooling systems at substations.</p> <p>In medium/long term, capacitor (or reactor) banks should be planned to be installed in injection substations and should be switched to improve power factor of the network, as well as the technical losses.</p>	<p>Improve network condition to manage properly the energy, decrease losses and increase safety</p>	<ul style="list-style-type: none"><li>- Regional Technical</li><li>- District Technical</li></ul>	<p>2022 / Q3,4</p>

# OPERATIONAL IMPROVEMENTS – TECHNICAL OPERATIONS

## INITIATIVES: DISTRIBUTION NETWORK CONDITION

Project Details	Benefits	Stakeholders	Timeline
<p>I</p> <p><b>Improve Network Condition</b></p> <p>Currently utility company does not have sufficient funds to replace overhead open lines with insulated ABC cables. At this point it is recommended to implement aggressive and massive revenue protection activities, including night inspections to prevent energy theft and meter bypass cases.</p> <p>As a long-term critical priority, all overhead open lines should be replacement with insulated ABC cables to reduce losses. It is expensive investment, but one of the best efficient option for loss reduction.</p> <p>Since it's not possible to rehabilitate entire network in short term due to budget constraints, most problematic network areas should be selected to implement restructuring and rehabilitation activities, to start with the following projects:</p> <ul style="list-style-type: none"><li>• Replacement of defective insulators</li><li>• Replacement of poles</li><li>• Replacement of defective cross-arms</li><li>• Replacement of cable and conductor joints</li><li>• Rehabilitation of weak and dangerous joints</li><li>• Renewal of necessary aerial conductors</li><li>• Fencing distribution transformers</li><li>• In very critical areas to change open overhead lines with insulated ABC lines</li><li>• Replace thin wire with appropriate fuses on DT feeder-pillars</li></ul>	<p>Improve network condition to manage properly the energy, decrease losses and increase safety</p>	<ul style="list-style-type: none"><li>- Regional Technical</li><li>- District Technical</li><li>- Revenue Protection</li></ul>	<p>2022 / Q3,4</p>

# OPERATIONAL IMPROVEMENTS – TECHNICAL OPERATIONS

## INITIATIVES: DISTRIBUTION NETWORK CONDITION

Project Details	Benefits	Stakeholders	Timeline
<p>I</p> <p><b>Improve Network Condition</b></p> <p>DCEN Technical Department possesses software “Rapid-Standard”, which can be used to identify most critical and weak points of power network and plan development and reconstruction of existing power network in the most efficient way. To implement this recommendation, technical information will be required from districts with highest losses, namely: length of LV lines, distance between transformer and customers, load rate of transformers, capacity of service lines, etc.</p> <p>This low-cot budget action will contribute to the company to reduce technical losses under rural areas where most LV-grid is in very poor condition.</p>	<p>Improve network condition to manage properly the energy, decrease losses and increase safety</p>	<ul style="list-style-type: none"><li>- Regional Technical</li><li>- District Technical</li></ul>	<p>2022 / Q3,4</p>



## Operational Improvements

### Technical Operations Improvements

#### Meter Installation and Replacement

Initiative I: Improve Metering Infrastructure

# OPERATIONAL IMPROVEMENTS – TECHNICAL OPERATIONS

## METER INSTALLATION AND REPLACEMENT

Project	Description of the project
I	Improve Metering Infrastructure  Meters located within customer premises are exposed to tampering at any time, thus relocation of meters outside customer premises is preferred along with installation of meter enclosures and proper sealing of meters. Also, replacement of old mechanical meters, metering of street lights and locking/sealing meter boxes.

# OPERATIONAL IMPROVEMENTS – TECHNICAL OPERATIONS

## INITIATIVES: METER INSTALLATION AND REPLACEMENT

Project Details	Benefits	Stakeholders	Timeline
<p>I</p> <p>Install meters to all street-light points to reduce losses and to prevent cases of dumping kWh by DISCO employees to unmetered consumers, in order to maintain good billing efficiency artificially.</p> <p>Revalidate all meters especially installed on commercial customers, as well as all meter boxes should be locked and sealed.</p> <p>Also, meters should be equipped with panel covers, wherever missing.</p> <p>After customers mapping (Pasportization) process is concluded, it is important to revalidate all meters and start locking and sealing of individual meters.</p> <p>Also, to develop a plan for meter relocation process from inside of the premises to make meters 24/7 available for access for utility authorities.</p> <p>As a low budget temporary solution, old used electronic meters can be reused instead of existing mechanical old meters. To do so, need to verify in warehouse secondhand used modern electronic meters, submit to meter-testing laboratory at DCEN regional office for revalidation and further replacement of old mechanical meters in the network, especially under those areas where losses are significantly high.</p>	<p>Accurate energy accounting</p> <p>Increased and accurate billing</p> <p>Increased revenue</p> <p>Decrease of losses</p>	<ul style="list-style-type: none"><li>- Network</li><li>- District Technical</li><li>- District Commercial</li></ul>	<p>2022 / Q3,4</p>



## Operational Improvements

### Technical Operations Improvements

#### Improve Energy Demand

Initiative 1: Improve efficiency of new connections / registration

Initiative 2: Network expansion



# OPERATIONAL IMPROVEMENTS – TECHNICAL OPERATIONS

## IMPROVE ENERGY DEMAND

	Project	Description of the project
1	Improve Efficiency of new Connection	Existing new connection process need improvement to enable company to capture in the billing system in the shortest period all the new connections. By increasing number of new connections, the energy demand will be increased also.
2	Improve Efficiency of Network Expansion	The planning and designing of new expansion of network and bring lights to communities who doesn't have access in the DCEN network is very important. This will help company to bring in the customer billing database more new connections, and increase demand. The update of billing database with expanded network is very important to align properly customers.

# OPERATIONAL IMPROVEMENTS – TECHNICAL OPERATIONS

## INITIATIVES: IMPROVE ENERGY DEMAND

Project Details	Benefits	Stakeholders	Timeline
<p>1</p> <p><b>New Connection Process</b></p> <ul style="list-style-type: none"><li>- Review and design new connection process and procedure for:<ul style="list-style-type: none"><li>- Large power users (KCG)</li><li>- Customers who apply for new connections in residential category</li><li>- Illegal consumers found in the network connected during commercial and technical operations.</li></ul></li></ul>	<p>Efficient new customer registration Loss recovery Financial incentives</p>	<ul style="list-style-type: none"><li>- Network</li><li>- Technical</li><li>- Revenue Protection</li></ul>	<p>2022 / Q3,4</p>
<p>2</p> <p><b>Network Expansion</b></p> <ul style="list-style-type: none"><li>- Establish process for network expansion for the customers who are newly applying for new connection in the new settlements.</li></ul>	<p>Improve accountability and responsibility to manage properly the energy and collection</p>	<ul style="list-style-type: none"><li>- Network</li><li>- Technical</li><li>- Revenue Protection</li></ul>	<p>2022 / Q1,2,3,4</p>



## Operational Improvements

### Technical Operations Improvements

### Technical Loss Study

Initiative I: Technical Loss Study

# OPERATIONAL IMPROVEMENTS – TECHNICAL OPERATIONS

## TECHNICAL LOSS STUDY

Project	Description of the project
<p>I</p> <p>Technical Loss Study</p>	<p>Technical losses is the portion of the power loss that occurs due to resistance in the distribution network. Technical losses varies substantially depending on the type and age of equipment in a network, but also based on strategic choices about the day to day operation of the network. Energy losses result in loss of revenue for the utilities. Decreasing system losses can lead to substantial savings for the utilities by reducing the amount of energy that goes unbilled.</p> <p>By identifying the causes of loss on a network and determining the best method for reducing losses, detailed map of system losses will be determined and a cost effective method for reducing losses will be developed.</p>

# OPERATIONAL IMPROVEMENTS – TECHNICAL OPERATIONS

## INITIATIVES: TECHNICAL LOSS STUDY

Project Details	Benefits	Stakeholders	Timeline
<p>I</p> <p>The reduction of technical losses contributes to stable, reliable and cost-effective energy supply, strengthening energy efficiency measures and consumer protection. It also better the financial and environmental situation of a state. In this respect, PCA attempts to identify the common and specific difficulties across DCEN, in order to guide them to work towards reducing power losses via prioritized interventions in response to their power system characteristics.</p> <p>Measures will be introduced to reduce the technical losses and overcome the existing deficiencies in the system to achieve the overall objectives. Technical losses can be reduced and brought down to acceptable levels but cannot be made zero. The causes of high technical losses are varied and require different remedial measures to be implemented to bring them down to acceptable levels.</p>	<p>Decrease technical losses Improved quality of network and stability Decreased outages and failures Financial incentives</p>	<ul style="list-style-type: none"><li>- Network</li><li>- Technical</li></ul>	<p>2022 / Q3,4</p>

# OPERATIONAL IMPROVEMENTS – TECHNICAL OPERATIONS

## INITIATIVES: TECHNICAL LOSS STUDY

Project Details	Benefits	Stakeholders	Timeline
<p>I</p> <p>Following short-term project studies are required for immediate improvement and reduction of losses in the system:</p> <ul style="list-style-type: none"><li>- Network Reconfiguration</li><li>- Network Reconductoring</li><li>- Preventing Leakages at Insulators</li><li>- Employing AVB (Automatic Voltage Booster)</li><li>- Better Management of Distribution Transformers</li><li>- Load Balancing and Load Management</li><li>- Capacitor Installation (Shunt or Series)</li><li>- Improving Joints and Connections</li><li>- Laying Additional Link Lines</li><li>- Increase in HT:LT Ratio</li><li>- Regular Maintenance of Distribution Network</li><li>- Creation of Primary Substation</li></ul>	<p>Decrease technical losses Improved quality of network and stability Decreased outages and failures Financial incentives</p>	<ul style="list-style-type: none"><li>- Network</li><li>- Technical</li><li>- Revenue Protection</li></ul>	<p>2022 / Q3,4</p>

# OPERATIONAL IMPROVEMENTS – TECHNICAL OPERATIONS

## INITIATIVES: TECHNICAL LOSS STUDY

Project Details	Benefits	Stakeholders	Timeline
<p>I</p> <p>The activities for preparation of a long-term plan are listed below:</p> <ul style="list-style-type: none"><li>- Data collection regarding existing loads, operating conditions, forecast of expected loads etc. from Grid substation up to consumer level</li><li>- Mapping of existing system</li><li>- Analysis of existing system. (Voltage regulation, T&amp;D losses in existing system, Adequacy of backup system)</li><li>- Load forecast</li><li>- Plan for upgrading the network</li><li>- Technology options including integration of features for modernization of system</li><li>- Evaluation of various alternatives for least cost optimal solution</li><li>- Firming up of scope of works</li><li>- Preparation of cost estimates</li><li>- Phasing of works and their cost</li><li>- Financial analysis</li></ul>	<p>Decrease technical losses Improved quality of network and stability Decreased outages and failures Financial incentives</p>	<ul style="list-style-type: none"><li>- Network</li><li>- Technical</li><li>- Revenue Protection</li></ul>	<p>2022 / Q3,4</p>



## Internal Control

### Controlling the Environment

#### Managerial Skills, Directions and Integrity of Employees

Initiative 1: Personal managerial skills and courage to take decisions

Initiative 2: Background check in the employment history



# INTERNAL CONTROL – CONTROLLING THE ENVIRONMENT

## MANAGERIAL SKILLS, DIRECTIONS AND INTEGRITY

Project	Description of the project
<p>I Controlling the Environment</p>	<p>Interviewing the operational managers / staff to ensure that their professional and interpersonal background fits with the assigned positions and responsibilities. The interview will focus on Managerial Skills and Integrity.</p> <p>The control environment enforce internal control to help DCEN to achieve its strategic objectives, operate its business efficiently and effectively, provide reliable reporting to internal and external stakeholders.</p>

# INTERNAL CONTROL – CONTROLLING THE ENVIRONMENT

## INITIATIVES: MANAGERIAL SKILLS, DIRECTIONS AND INTEGRITY

	Project Details	Benefits	Stakeholders	Timeline
1	<p><b>Personal managerial skills and courage to take decisions</b></p> <p>Ensuring that managers in operations have the skills to handle the scope of their work,</p> <ul style="list-style-type: none"> <li>- Managers are capable to plan, implement and monitor their daily, weekly and monthly activities.</li> <li>- Have enough knowledge to do their assigned job.</li> <li>- Have courage to take decisions based on the performance evaluation and internal DCEN procedures for the underperforming staff.</li> </ul>	<ul style="list-style-type: none"> <li>- Gives value to the company</li> <li>- Bring in managerial positions right people who can perform</li> </ul>	<ul style="list-style-type: none"> <li>- PCA Team</li> <li>- Human Recourses</li> </ul>	2022 / Q3,4
2	<p><b>Background Checks</b></p> <ul style="list-style-type: none"> <li>- Ensuring that they never were involved in the corruptive affairs or misconducts; Ensuring their strong personal and interpersonal ethic.</li> </ul>	<ul style="list-style-type: none"> <li>- Independent in decision, without being blackmailed from employees who know their integrity</li> </ul>	<ul style="list-style-type: none"> <li>- PCA Team</li> <li>- Human Recourses</li> </ul>	2022 / Q3,4



## Internal Control

### **Risk Assessment**

#### **Internal Risk and External Risk**

Initiative 1: Improvements and mitigation of Internal Risk

Initiative 2: Improvements and mitigation of External Risk

# INTERNAL CONTROL – RISK ASSESSMENT

## INTERNAL AND EXTERNAL RISK

	Project	Description of the project
1	Internal Risk	<p>The internal risk in DCEN is reflection of many factors, starting from the:</p> <ul style="list-style-type: none"><li>- Weak processes that needs to go through detailed process of re-engineering,</li><li>- Organogram that needs to have in place more effective re-organization and improve in internal control,</li><li>- Inefficient use of internal technology,</li><li>- Not integrated databases,</li><li>- Poor performance evaluation,</li><li>- Poor field management and field work execution,</li><li>- Database clean up and improper alignment of customers with network,</li><li>- Missing proper alignment of network with region and district to define energy properly,</li><li>- Weak accountability and responsibility.</li></ul>
2	External Risk	<p>The external risk is not very alarming for DCEN, comparing that there is no competition in the same business. The trust and relations with customers is key and may be considered external threat when it comes to the high number of complains for incorrect meter readings and billing, what may lead customers to increase theft cases and decrease payments.</p>

# INTERNAL CONTROL – RISK ASSESSMENT

## INITIATIVES: INTERNAL AND EXTERNAL RISK

	Project Details	Benefits	Stakeholders	Timeline
1	<p><b>Improvements and mitigation of Internal Risk</b></p> <ul style="list-style-type: none"> <li>- Draft / redesign commercial process flows and operating procedures,</li> <li>- Improve organogram</li> <li>- Improve internal control, monitoring and reporting lines</li> <li>- Effective use of systems and improve accuracy of data in the databases,</li> <li>- Intensify audits and conduct regular performance evaluation,</li> <li>- Improve databases with proper alignment of customers, alignment of network within districts.</li> </ul>	<ul style="list-style-type: none"> <li>- Gives value to the company</li> <li>- Improve Internal Control</li> <li>- Increase efficiency and effectiveness of operations</li> </ul>	<ul style="list-style-type: none"> <li>- PCA Team</li> <li>- HR</li> <li>- Billing</li> <li>- District Staff</li> </ul>	2022 / Q3, 4
2	<p><b>Improvements and mitigation of External Risk</b></p> <ul style="list-style-type: none"> <li>- Improve trust and cooperation with customers, by improving services, decreasing estimation and overbilling / errors during meter readings.</li> <li>- Increase number of awareness campaign for the consequences of energy theft and other vandalization of measuring equipment.</li> </ul>	<ul style="list-style-type: none"> <li>- Independent in decision, without being blackmailed from employees who know their integrity.</li> </ul>	<ul style="list-style-type: none"> <li>- PCA Team</li> <li>- HR</li> <li>- Customer Care</li> <li>- PR</li> <li>- Billing</li> <li>- District Staff</li> </ul>	2022 / Q3,4



## Internal Control

### Control Activities

#### Planning, Reporting and Official Documents

Initiative 1: Planning and KPI

Initiative 2: Daily, Weekly, Monthly Reporting

Initiative 3: Official field templates

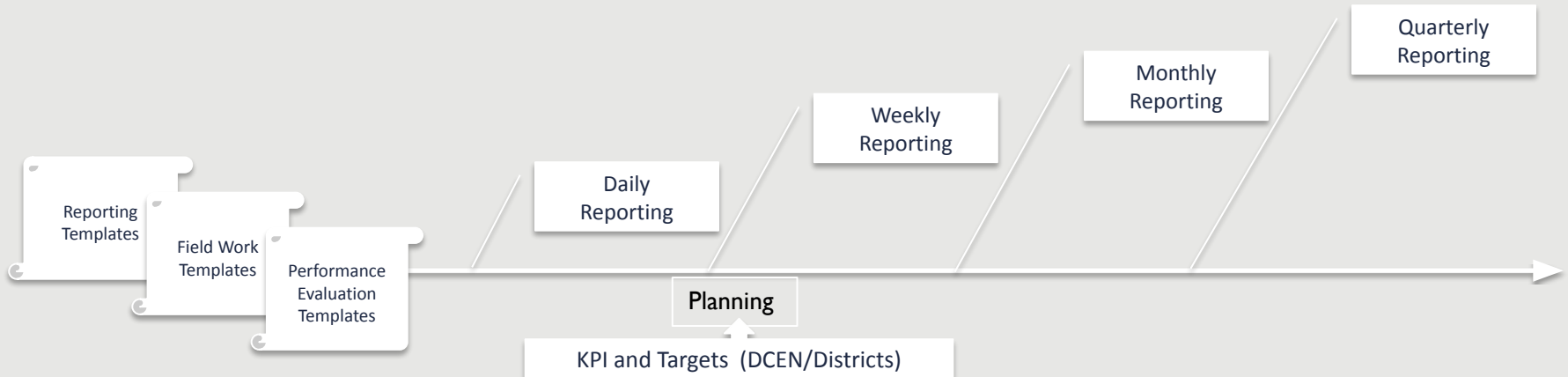
# INTERNAL CONTROL – CONTROL ACTIVITIES

## PLANNING, REPORTING AND OFFICIAL DOCUMENTS

### Project

### Description of the project

I	Planning, Reporting and official templates	To ensure effective monitoring and control in the activities as part of Internal Control, one of the most important tools is appropriate planning and ensuring that plan is implemented effectively. Implementation progress should be monitored with systematic daily, weekly, monthly and quarterly reporting. To ensure the proficient implementation of planning and also appropriate information's in the reporting, the approved official templates should be drafted / re-designed by the DCEN.
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# INTERNAL CONTROL – CONTROL ACTIVITIES

## INITIATIVES: PLANNING, REPORTING AND OFFICIAL DOCUMENTS

	Project Details	Benefits	Stakeholders	Timeline
1	<b>Planning</b> <ul style="list-style-type: none"> <li>- Ensure proper planning for commercial operations</li> <li>- Planning to be in line with approved KPI and Targets</li> <li>- Daily, Weekly and Monthly Planning</li> <li>- Monitoring and implementation of planed activities</li> </ul>	<ul style="list-style-type: none"> <li>- Gives value to the company</li> <li>- Increase efficiency and effectiveness of operations</li> </ul>	<ul style="list-style-type: none"> <li>- PCA Team</li> <li>- Human Resources</li> <li>- DCEN Management</li> </ul>	2022 / Q2,3,4
2	<b>Reporting</b> <ul style="list-style-type: none"> <li>- Introduce daily, weekly, monthly and quarterly reporting</li> <li>- Establish reporting lines and internal control</li> <li>- Ensure accurate reporting by verifying samples</li> </ul>	<ul style="list-style-type: none"> <li>- Gives value to the company</li> <li>- Increase efficiency and effectiveness of operations</li> </ul>	<ul style="list-style-type: none"> <li>- PCA Team</li> <li>- Human Resources</li> <li>- DCEN Management</li> </ul>	2022 / Q2,3,4
3	<b>Official documents – templates / applications</b> <ul style="list-style-type: none"> <li>- Update – re design applications used in systems;</li> <li>- Draft field templates</li> <li>- Draft Reporting templates</li> <li>- Draft performance evaluation templates</li> </ul>	<ul style="list-style-type: none"> <li>- Gives value to the company</li> <li>- Increase efficiency and effectiveness of operations</li> </ul>	<ul style="list-style-type: none"> <li>- PCA Team</li> <li>- Human Resources</li> <li>- DCEN Management</li> </ul>	2022 / Q2,3,4





## Internal Control

### Information and Communication

#### Regional and District Staff Meetings

Initiative 1: Weekly meetings

Initiative 2: Monthly meetings

Initiative 3: Quarterly meetings

# INTERNAL CONTROL – INFORMATION AND COMMUNICATION

## REGULAR MEETINGS

### Project

### Description of the project

I	Meetings	It is essential for any company to keep regular meetings to review progress in the operations, priorities and problems faced during implementation. Regular weekly, monthly and quarterly meetings are important to monitor the proper trends and direction of operations and to have possibility to act in time if something is going wrong. Regular meetings improves also team work and commitments to achieve goals.
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- Support
- Assist
- Teamwork
- Success
- Inspiration
- Trust
- Share of information
- Exchange

# INTERNAL CONTROL – CONTROL ACTIVITIES

## INITIATIVES: REGULAR MEETINGS

	Project Details	Benefits	Stakeholders	Timeline
1	<p>An annual meeting to set the overall strategy</p> <ul style="list-style-type: none"> <li>- Review annual achievements</li> <li>- Identify gaps and areas for improvements</li> <li>- Improve annual working plan</li> <li>- Redesign company strategy</li> </ul>	<ul style="list-style-type: none"> <li>- Improves strategy and orientation of company</li> <li>- Increase efficiency and effectiveness of operations</li> </ul>	<ul style="list-style-type: none"> <li>- PCA Team</li> <li>- Human Resources</li> <li>- DCEN</li> <li>- District</li> </ul>	2022 / Q2,3,4
2	<p>A quarterly meeting to adjust strategic plans as needed</p> <ul style="list-style-type: none"> <li>- Review quarterly achievements</li> <li>- Identify gaps and introduce changes for improvements to close identified gaps</li> <li>- Adjust strategic plans if needed in time</li> </ul>	<ul style="list-style-type: none"> <li>- Improves strategy and orientation of company</li> <li>- Increase efficiency and effectiveness of operations</li> </ul>	<ul style="list-style-type: none"> <li>- PCA Team</li> <li>- Human Resources</li> <li>- DCEN</li> <li>- District</li> </ul>	2022 / Q2,3,4
3	<p>AA monthly and weekly meeting to review performance and solve problems</p> <ul style="list-style-type: none"> <li>- Review monthly and weekly implementation of KPI and Targets</li> <li>- Review daily, weekly, monthly plans and implementation of plans</li> <li>- Identify challenges and other obstacles to achieve company strategy in time</li> <li>- Identify underperforming areas for improvement</li> </ul>	<ul style="list-style-type: none"> <li>- Improves control</li> <li>- Improves strategy and orientation of company</li> <li>- Increase efficiency and effectiveness of operations</li> </ul>	<ul style="list-style-type: none"> <li>- PCA Team</li> <li>- Human Resources</li> <li>- DCEN</li> <li>- District</li> </ul>	2022 / Q2,3,4



## Internal Control

### Monitoring Implementation

### Daily, Weekly, Monthly Monitoring of Activities and Operations

Initiative 1: HQ Inspection

Initiative 2: Management

Initiative 3: First line managers

# INTERNAL CONTROL – MONITORING

## DAILY, WEEKLY, MONTHLY MONITORING ACTIVITIES

	<b>Project</b>	<b>Description of the project</b>
I	Daily, Weekly, Monthly Monitoring Activities	<p>To ensure quality and assurance in the operations, the monitoring process during implementation plays one of the most important role. Monitoring assures company that daily plans are completed effectively and quality control is in place. Some operations need to have daily monitoring activities while some others may have weekly and monthly monitoring.</p> <p>DCEN need to incorporate many of the monitoring activities in the process flows for different operations. Monitoring is a process of assessing risks linked to achieving operational objectives.</p>

# INTERNAL CONTROL – CONTROL ACTIVITIES

## INITIATIVES: DAILY, WEEKLY, MONTHLY MONITORING ACTIVITIES

	Project Details	Benefits	Stakeholders	Timeline
1	<p><b><u>HQ Inspection</u></b></p> <ul style="list-style-type: none"> <li>- Monitoring implementation of company strategy</li> <li>- Monitoring implementation of processes in operations</li> <li>- Monitoring quality and assurance in the reporting data</li> </ul>	<p>Improves internal control in DCEN</p> <p>Recommend improvements</p>	<ul style="list-style-type: none"> <li>- PCA Team</li> <li>- HQ Inspection team</li> <li>- Regional Management</li> </ul>	2022 / Q3,4
2	<p><b><u>Management</u></b></p> <ul style="list-style-type: none"> <li>- Monitoring of weekly and monthly plans</li> <li>- Monitoring achievements in weekly / monthly KPI</li> <li>- Monitoring implementation of processes in operations</li> <li>- Monitoring quality and assurance in the reporting data</li> </ul>	<p>Improves internal control in DCEN</p> <p>Improve planning and implementation</p> <p>Assure completion of tasks in timelines</p>	<ul style="list-style-type: none"> <li>- PCA Team</li> <li>- Regional Management</li> </ul>	2022 / Q3,4
3	<p><b><u>First line managers</u></b></p> <ul style="list-style-type: none"> <li>- Daily monitoring to ensure implementation of plans</li> <li>- Daily monitoring of quality and assurance</li> <li>- Daily monitoring KPI achievements</li> <li>- Daily monitoring high risk operations</li> </ul>	<p>Improve internal control in daily operations</p> <p>Assure quality of operations and accuracy in reporting</p> <p>Prevents fraud and misconduct</p>	<ul style="list-style-type: none"> <li>- PCA Team</li> <li>- Regional Management</li> <li>- District</li> </ul>	2022 / Q3,4



## Takeaways

**Conclusions**

**PCA Target**

# TAKEAWAYS

## CONCLUSIONS

### PCA Target

- Although Ferdowsi District reports a high collection rate for billed electricity, the high losses result from only 70% of the electricity being delivered to the region actually being billed to customers.
- DCEN's performance in the Ferdowsi District is most adversely affected by the following key factors, which combine to contribute to the high level of losses seen in the region (+30%):
  - Inefficient commercial operations, namely poorly implemented disconnection policy which impacts revenue collection;
  - Insufficient business processes that are not entirely in alignment with the needs of the organization;
  - Lack of loss localization initiatives to target loss reduction and revenue protection activities;
  - Lack of a performance management system for staff and a supporting pay/reward scheme;
  - Absence of some critical training needs for the staff, especially those in more technical areas of operation; and,
  - Lack of proper checks and balances aimed at protecting revenues and supervising field operations.
- For the implementation phase, the PCA team will focus on:
  - Revamping commercial processes, reducing the reading period to allow more time for revenue management activities and to improve the accuracy of the electricity balance;
  - Exploiting the metering technology already in place on feeders and distribution transformers to localize losses and correctly account for energy;
  - Establishing new target setting and appraisal practices, introducing new incentives and measures to improve staff performance and discipline;
  - Institutionalizing control and revenue protection activities in the region, introducing stronger internal controls; and,
  - Providing training to staff including daily on the job supervision.
- It should be noted that DCEN's network conditions are sufficient to allow for commercial performance improvement. Metering is not as large a problem given that all customers within the region are equipped with some type of metering device, albeit it may be old or obsolete but there is at least a metering infrastructure in place.



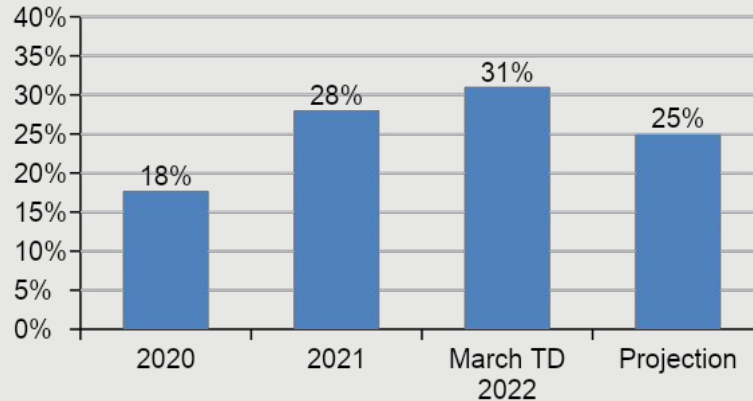
# TAKEAWAYS

## CONCLUSIONS

### PCA Target

- PCA is confident that the main benefits to DCEN as a result of our contribution will be in terms of loss reduction and revenue improvements, which will result from our commercial driven business approach, one which following successful demonstration in the district will be replicated elsewhere in the company.
- As can be seen from the graphs below, in the last two years the Ferdowsi District faced decrease in their commercial performance. This effort will focus on putting the district on a new improved performance trajectory.

Ferdowsi ATC&C Losses

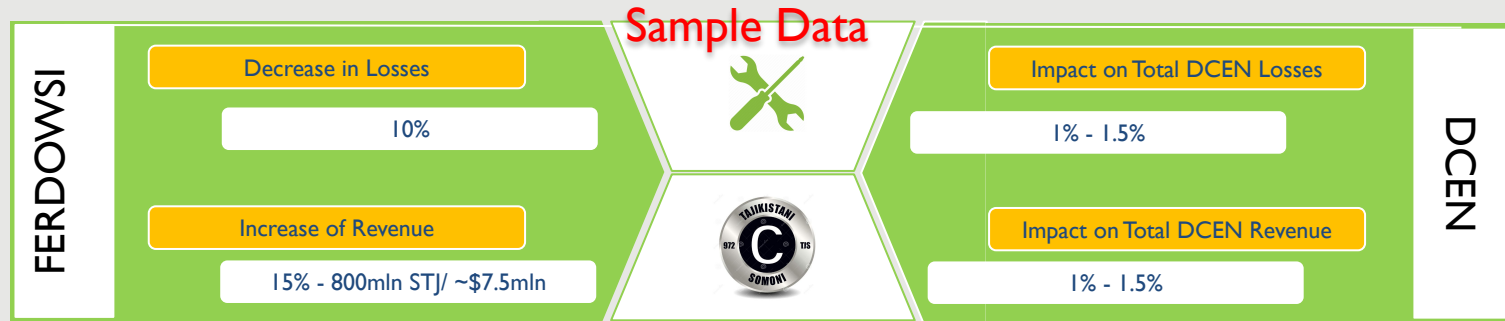


# TAKEAWAYS

## CONCLUSIONS

### PCA Target

- Importantly, USAID has been successful in demonstrating performance improvements in utilities in far worse conditions than what is found in the Ferdowsi District, and the abovementioned improvement oriented initiatives do not require large scale additional investments from DCEN.
- In the first 12 months, PCA anticipates achieving the following loss reduction and revenue improvement figures within the Ferdowsi District. Of course, replication to other regions of DCEN represents the major objective for this effort, given the impact it can have on the overall company performance.



# Questions?

PCA/Loss reduction/performance improvement

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