


# Fazal-e-Rehman

*Lead AMI Projects, Process,  
Governance & Support  
K-Electric*

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# Title

**Current Landscape, Roll-out Strategy & Current KPI of K-Electric AMI**

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**Affiliation**

**Lead AMI Projects, Process, Governance & Support at K-Electric**

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# KE Overview

The only vertically integrated power utility company in Pakistan, KE has a **robust network to ensure sustainable and reliable power supply to Karachi and its adjoining areas**



**Customers**  
**3.2 Million**



**Area**  
**6,500km<sup>2</sup>**



**LS Exempt**  
**78%**

*Presence Across the Entire Power Value Chain*



## Generation

Installed generation capacity of own plants to increase to **2,817 MW<sup>1</sup>** with addition of 900 MW power plant. Further, has arrangements of **1,800+ MW** via external sources

## Transmission

Over **6,536 MVAs** Capacity, **71** Grids, **172** Power Trafos, and **1,350 km** of lines

## Distribution

**8,153 MVAs** capacity, **1,937** feeders, **29,702** PMTs and **10,283km** HT lines

# KE Overview

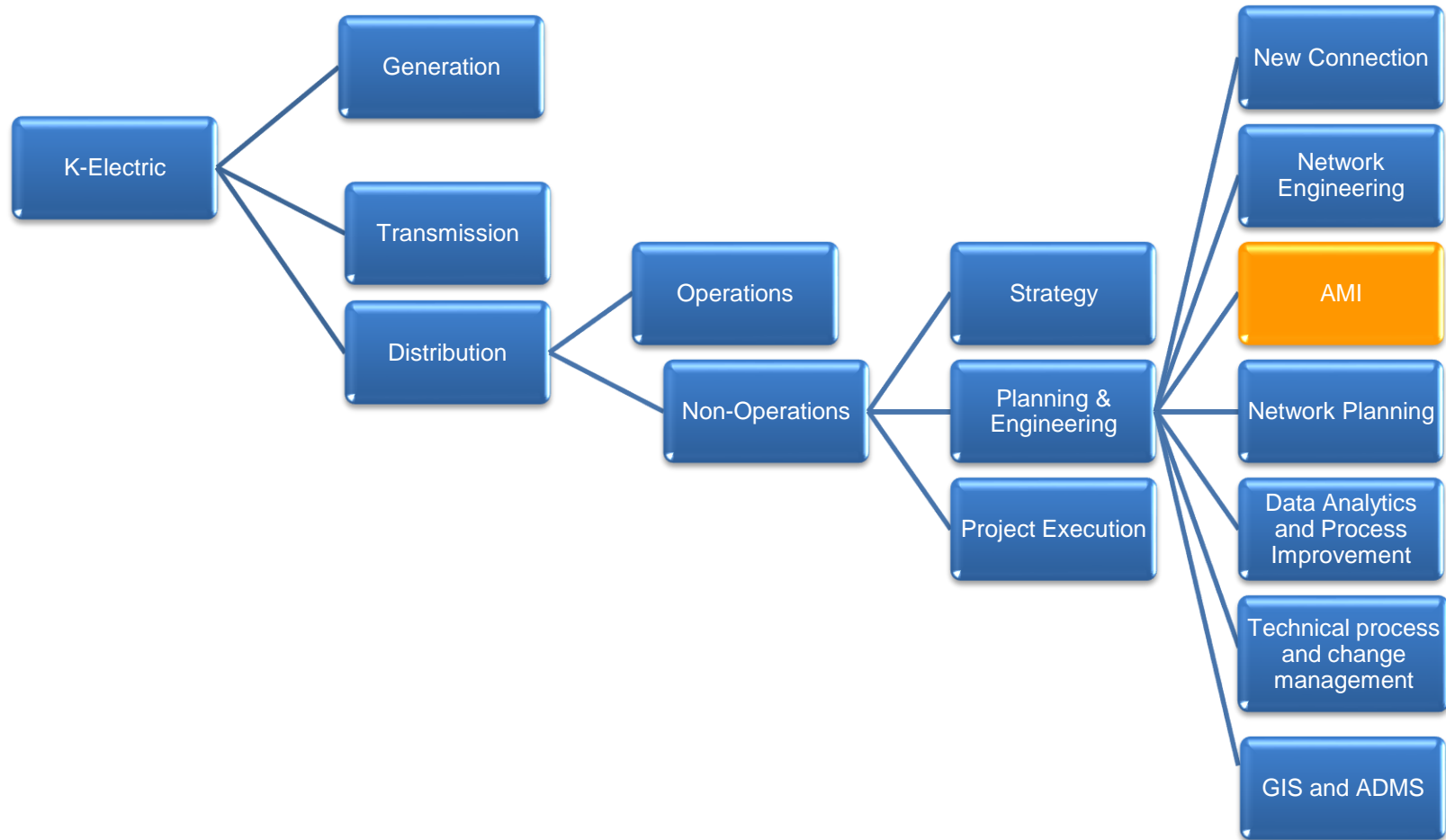
## Our Vision

- To restore and maintain pride in KE, Karachi and Pakistan.

## Our Mission

- Brightening lives by building the capacity to deliver uninterrupted,
- safe and affordable power to Karachiites.

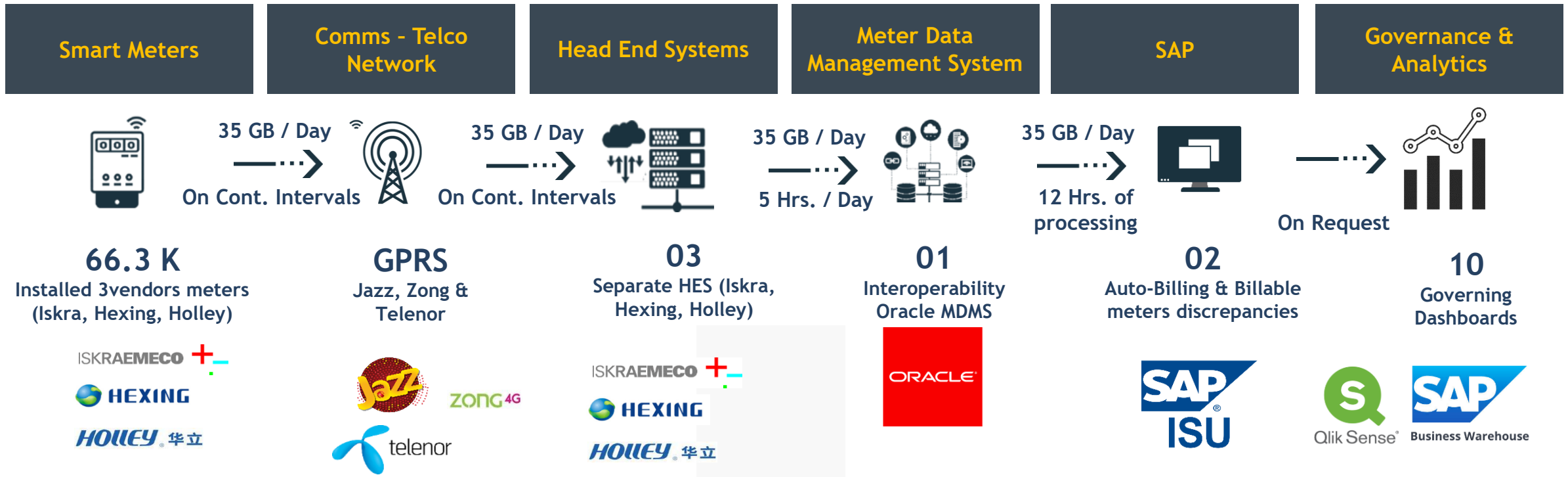
# General Overview



# Advanced Metering Infrastructure

AMI is an integrated system of smart meters, communication networks and data managements system that enables two-way communication between utilities and customers.

Our vision is to revolutionize K-Electric's Metering Infrastructure of Today's and Tomorrow by Enabling Smart Metering Solution



# Smart Metering Roll-outs



## Karachi

### INCEPTION OF AMS

2008  
 Comprised only 8 members -  
 Commissioning of ISKRA HES -  
 Meter Installation at GN & TX -

### GN & TX COVERAGE

2009  
 100% Coverage at GN & TX -  
 Visibility of Running Generation -  
 TX Loss monitoring by SM data -

2010

### FEEDER METERS

Installation at Feeder Level -  
 2k Meters Rollout -  
 Dist. Loss Monitoring by SM data

2014

### INDUSTRIAL PILOT

- 1.5k Meters Rollout for Industrial Meters' Pilot Project  
 - First ISKRA HES Up-gradation

2014

### RESIDENTIAL PILOT

-- Introduction of 2 new HES Vendors  
 - Installation of Hexing & Holly Meter  
 - 6k Meters Rollout

2022

### DINRAIL ROLL-OUT

-270 3-Phase, 1-phase and check meters  
 Install at 3 different locations.  
 - 55% space constraint issue resolved.  
 - DCU improves meter data availability from basement meters

2020

### NET Metering

-MDMS Go Live  
 - Auto Billing Go Live  
 - Analytics Go Live  
 - Net metering roll-out

2018

### INDUSTRIAL & PMT ROLL-OUT

-Coverage of High-end Industries  
 - Energy Accounting to a lower hierarchal Level (PMTs)  
 - ISKRA HES 2<sup>nd</sup> Up-gradation  
 - Revamped rollout process on SAP-PM  
 30k meters industrial meters and 15K PMT meters

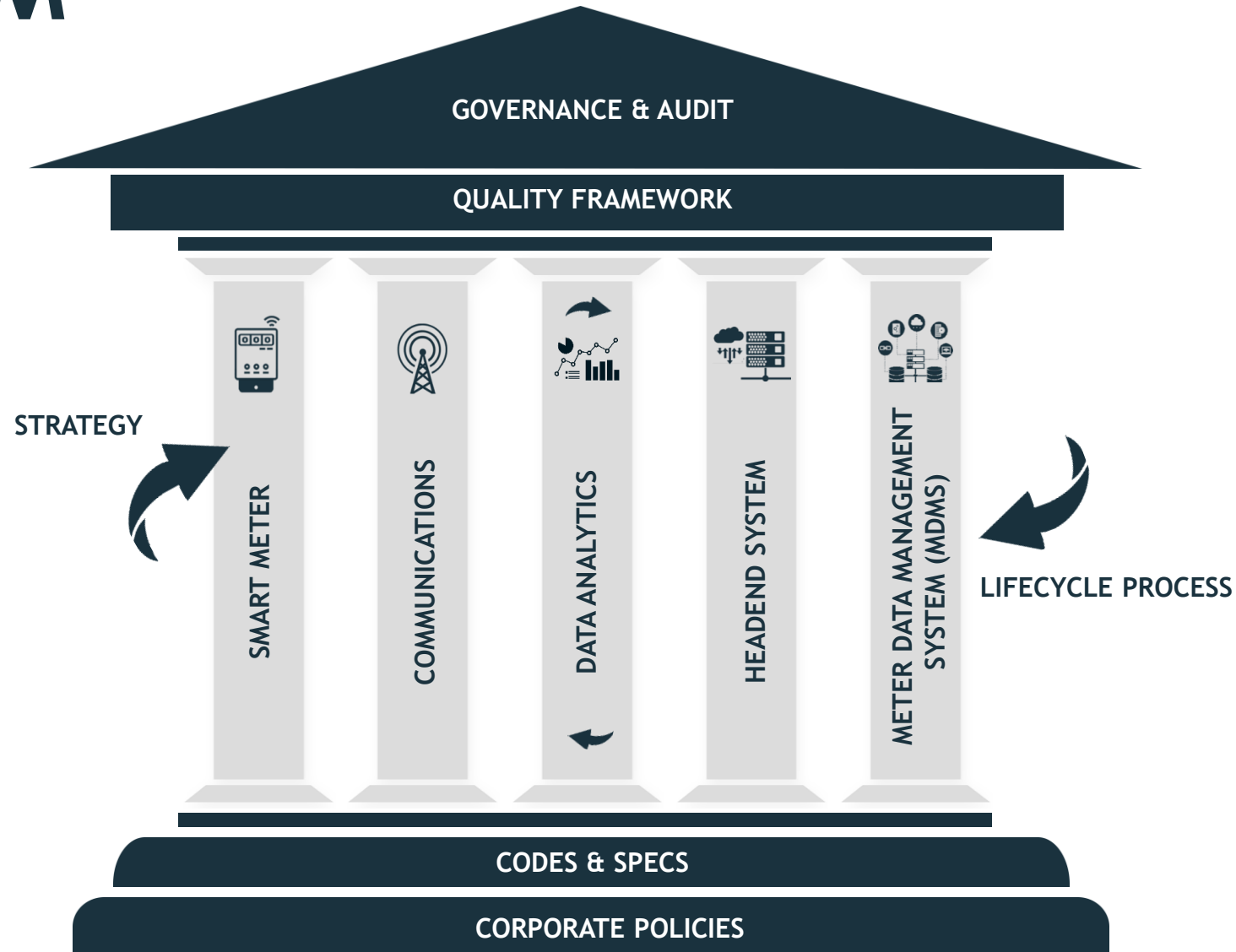


# AMI WORK SYSTEM

A Comprehensive framework that integrates hardware, software, and communication technologies to manage utility services effectively. The system is designed to improve the efficiency, reliability, and sustainability of utility services. The benefits you mentioned are outcomes of implementing an AMI work system. These include cultural integration, effective change management, streamlined operations, and reduced turnaround times through digital transformation.

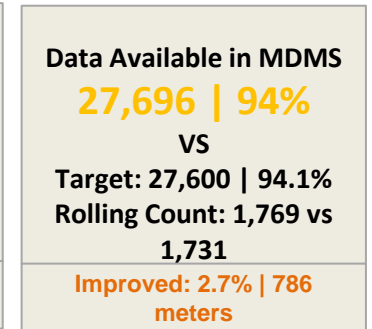
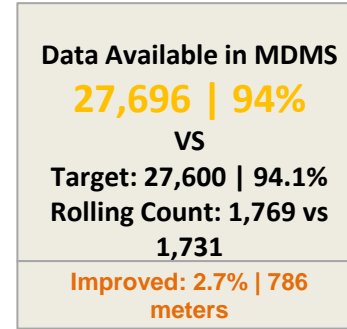
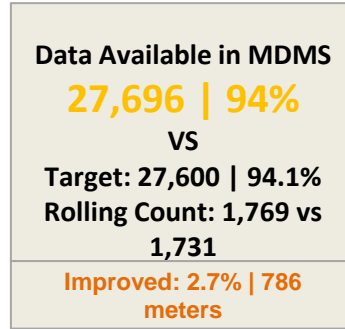
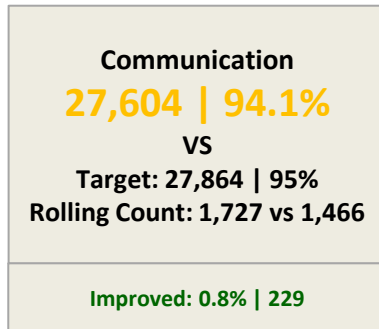
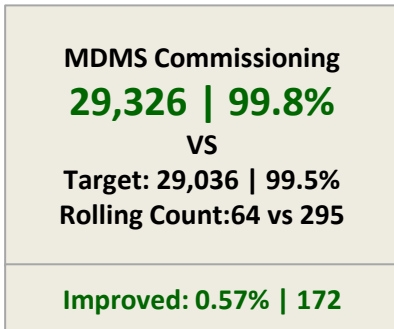
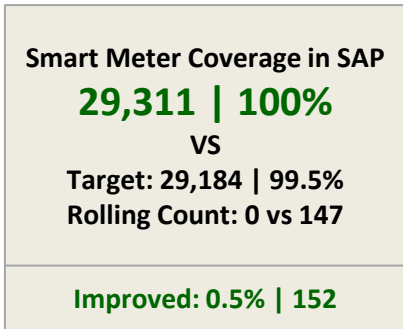
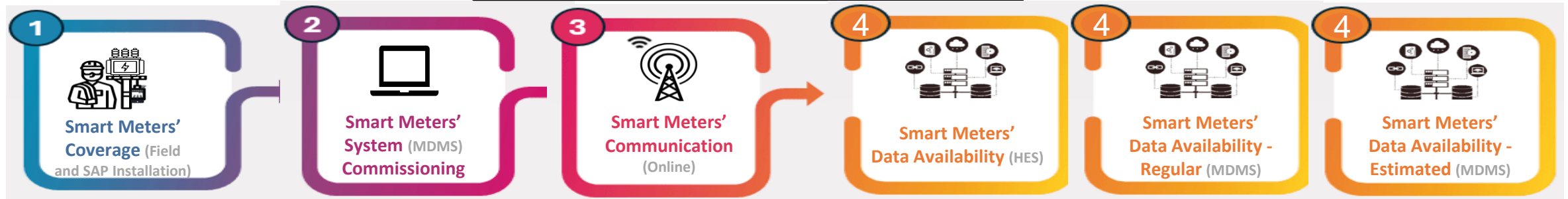
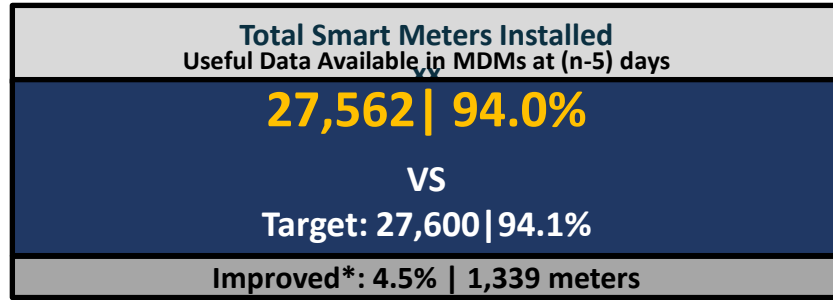


- 28 Policies
- 30 SOPs
- 15 Codes & Specs
- 2 Mobility Apps
- 8 Dashboards





# AMI Governance KPIs



Smart meters installed in Field and in SAP

Smart meters installed in SAP and commissioned in MDMS

Online Smart meters installed in SAP

Useful Data Availability in MDMS

Useful Data Availability in MDMS

Useful Data Availability in MDMS

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***Thank you***