

Case Study Session 1: Digital transformation, utility performance and the energy transition

India, Chile, South Africa, Senegal

Case Study

TATA Power India



Speaker:

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Head-Engineering, Energy
Audit, GIS & AMI Applications

TATA Power

Digitalization : Lifecycles & Use Cases



Lifecycles	Use Cases			
Asset Collaboration - single version of the truth for optimal asset management	1	Customer Revenue Collection Accounting	10	Preventive & Breakdown Maintenance - Consumer Substations
	2	Revenue Recovery & Assurance , Vigilance	11	Breakdown Maintenance Consumer Substations
Field Service Management - Resolution of customer issues quickly with end-to-end field service management	3	Meter Installation/Replacement	12	Customer Segmentation
	4	Distribution Loss Monitoring	13	Customer Relationship Building
	5	Revenue Meter Seal Management	14	Complaint Redressal and Access Management
	6	Forward & Reverse Logistics of Revenue Meters	15	Feasibility Study & Technical Clearance for Power Supply to New Connection
Hire to Retire	7	Demand Side Management		
Procurement to pay	8	Material Planning and Capex Planning for Power Supply to New Connection	16	Net Metering Process
Innovation Management	9	Distribution SCADA modelling & maintenance	17	Execution of equipment relocation, Load enhancement & load reduction

Distribution Digital Platform

An Ecosystem of Platform Approach

Onboarding



Customer 360
And Fields



Revenue
Management



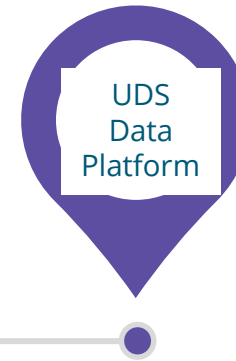
Telephony
Service



Electric Office
And Outage



Smart Meter
Technology



Data Platform



Lead to
Onboarding
for
Prospective
and Current
Customers

Lifetime
Support and
Self Service

Integrate with
Respective
Cluster Billing
Solutions with
New revenue
Models / DER

Integrate with
Respective
Cluster
Contact
Center ,
Automation,
BOT

Transform
Outage and
Asset
Management
to Plan,
Engineer and
maintain
complex "Grid
of Future"

Next Gen
Smart Meter
Technologies
utilizing 5G,
Smart Panels

Retrospection of Key Initiatives - FY'24

Onboarding

Online Application
Notification Tracker
Virtual Customer
Connect

External Stakeholders

NIC, NAPS
BEE, Govt.

Digital Touch Points

Mobile App/Portal
Chat Bot
WhatsApp
Missed Call
Track Notification status

Reading & Billing

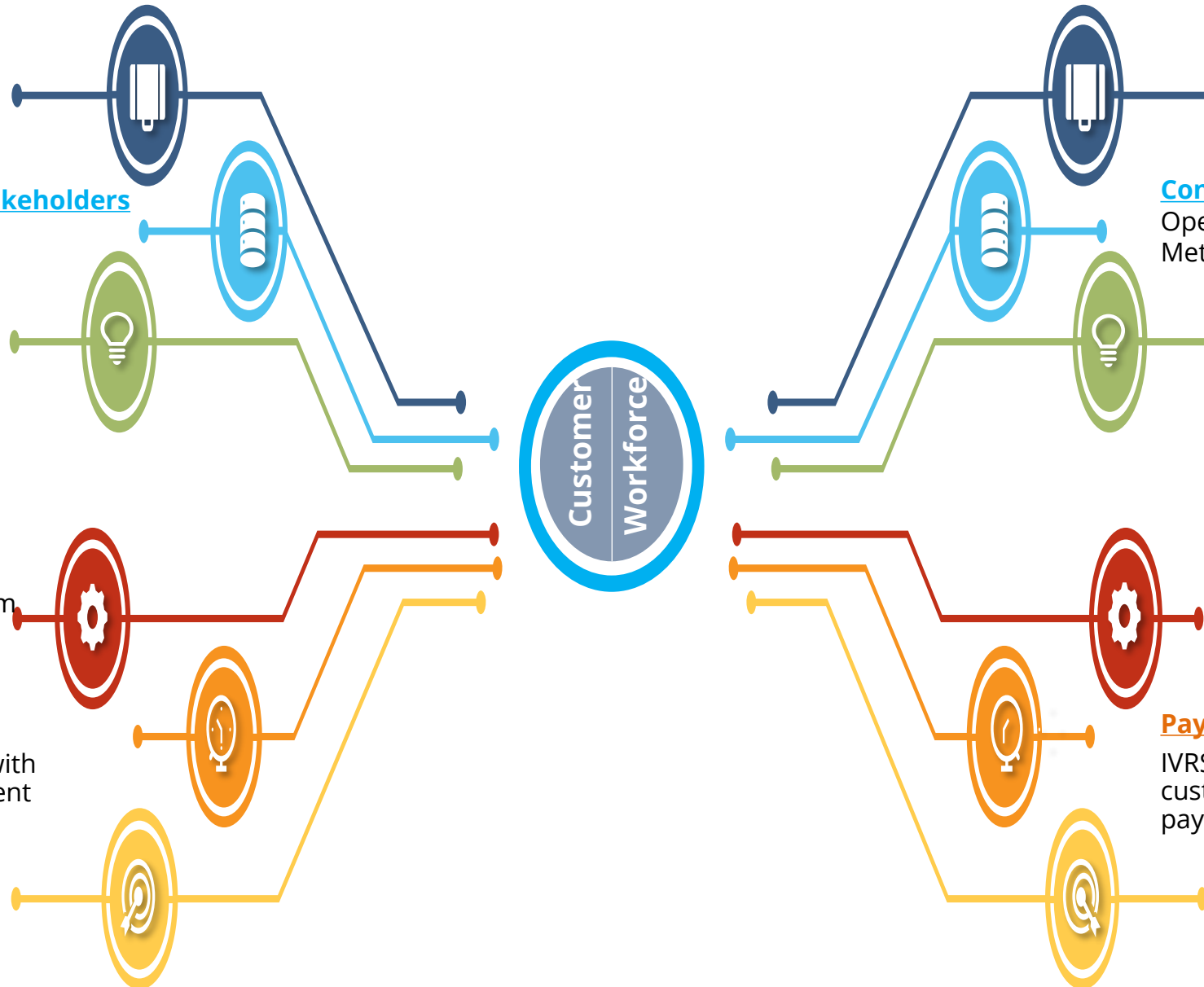
Stop Paper Bill
E-Bill on WhatsApp and Paytm
Interactive Bill
Energy Disaggregation

Payment

Integration with
digital payment
platform

Sustainability

Demand Response
programmes
Demand Side Management
Urja Arpan



Onboarding

Process/Manpower
Optimization through
FFA, RPA

Contact Center

Opex Reduction, Ping Smart
Meter, E-mail Bot

Operational Efficiency

RPA/OCR
FFA/Crew Tracking
Smart Meter Remote
operations
Image Analytics

Reading & Billing

Reading Quality check
Bill quality check
RPA
Opex Reduction

Payment

IVRS for out calling
customers for timely
payment

Sustainability

MU Saving
Paper Saving
Carbon Foot- Print
Reduction

IT Roadmap 2018 to 2026

Roadmap

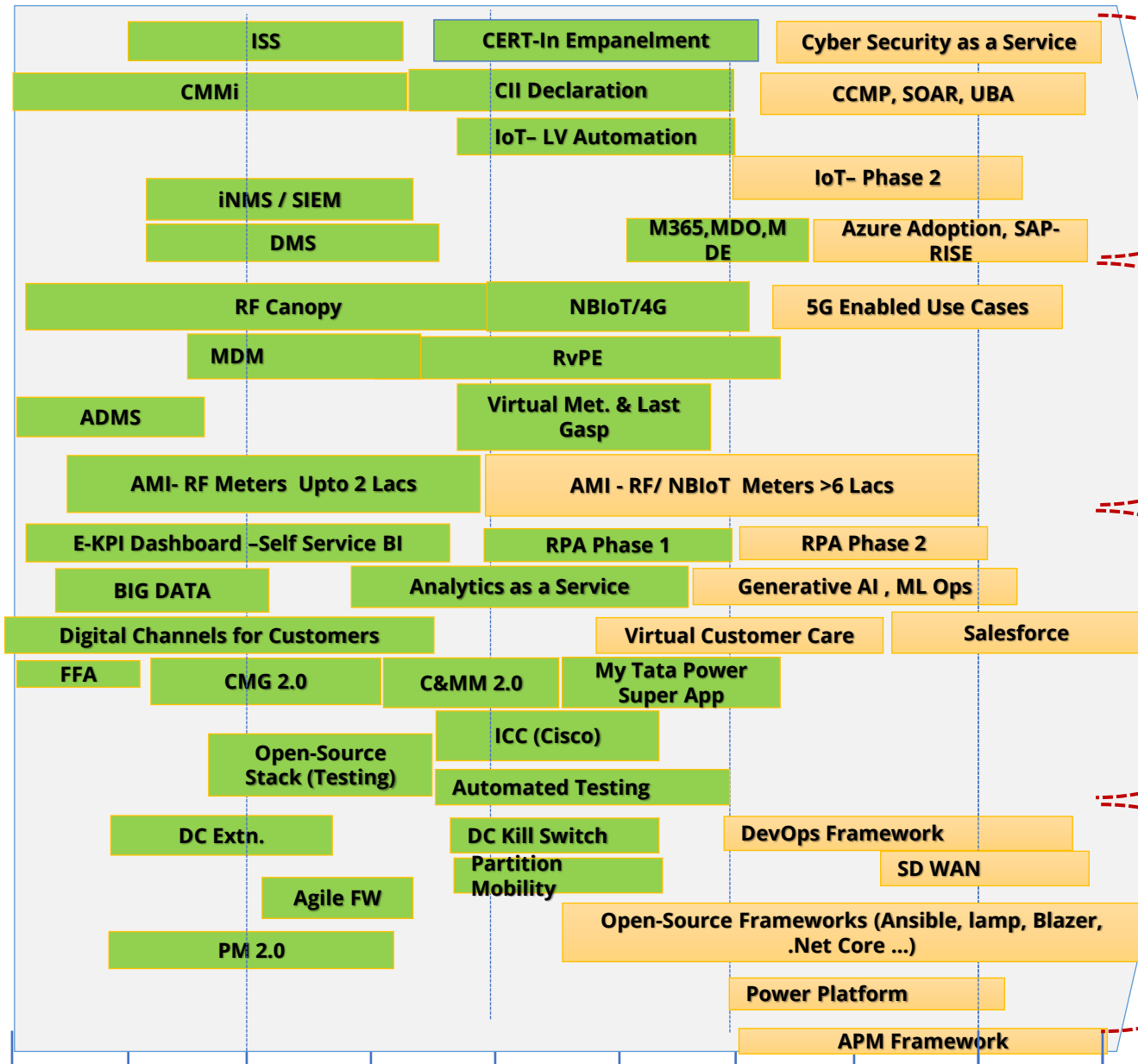
To achieve the functional objectives, the long-term future technology adoption roadmap is as follows:

2003-2013 : KEMA

2013-2019 : QUANTA



2019-2026 : PWC



IoT, Cloud Journey and Cyber Security

Advanced Metering Infrastructure

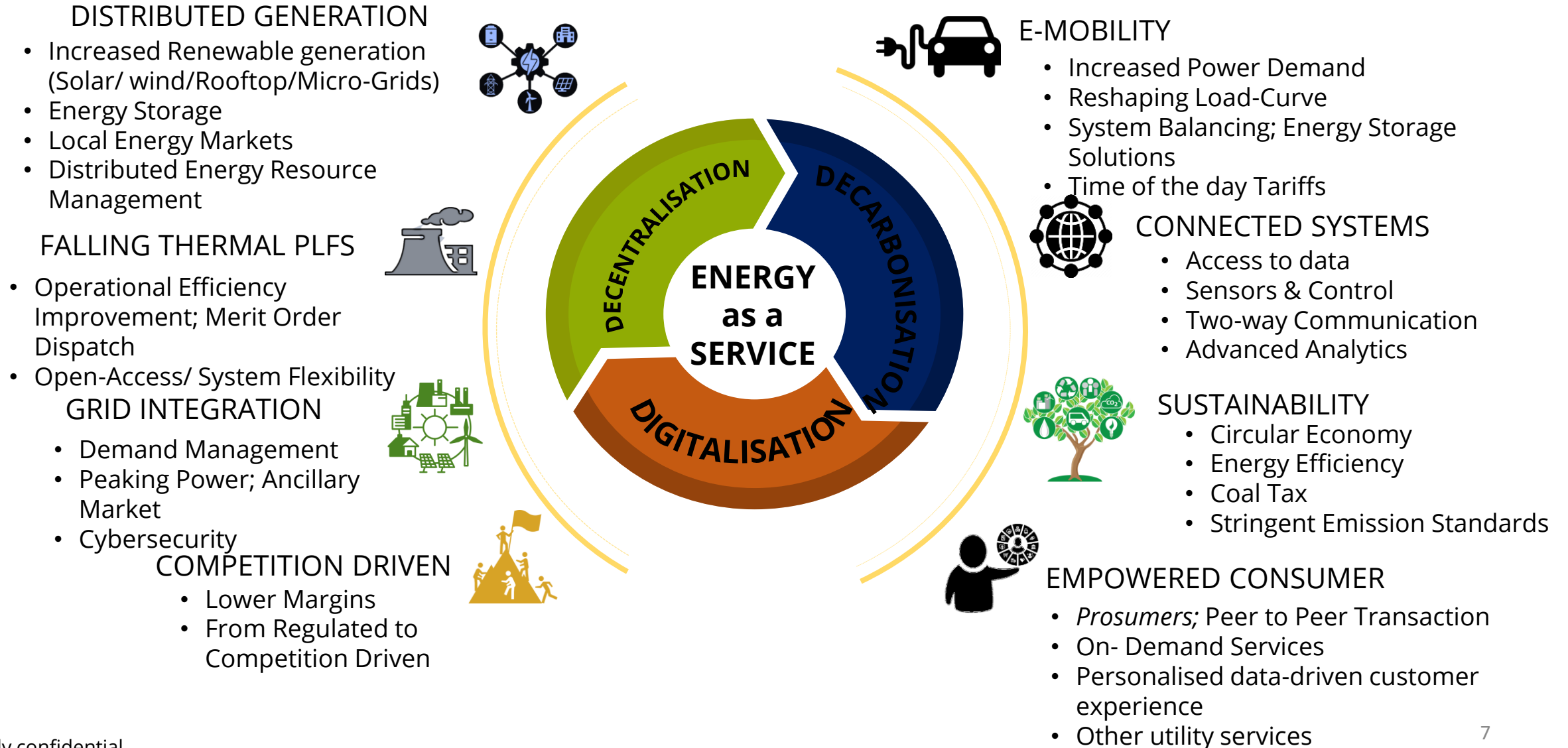
Digitalization and Advanced Analytics

IT Operational Excellence

Timeline

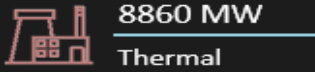
2018 2019 2020 2021 2022 2023 2024 2025 2026

Evolving Landscape: Power Sector in transition...

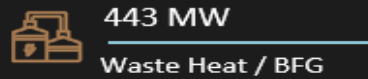
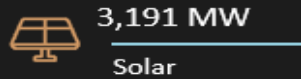
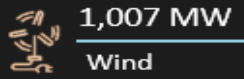
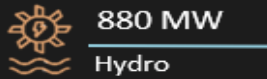


Tata Power 2.0: Empowering lives through sustainable, affordable and innovative energy solutions

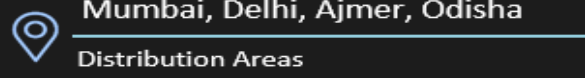
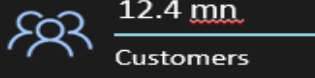
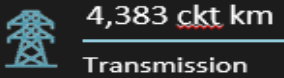
THERMAL GENERATION



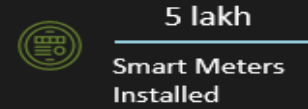
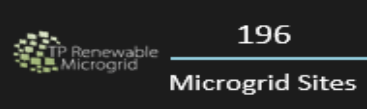
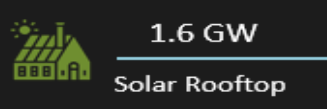
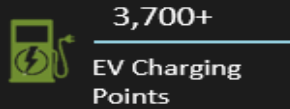
CLEAN & GREEN GENERATION



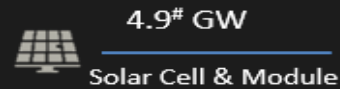
TRANSMISSION & DISTRIBUTION



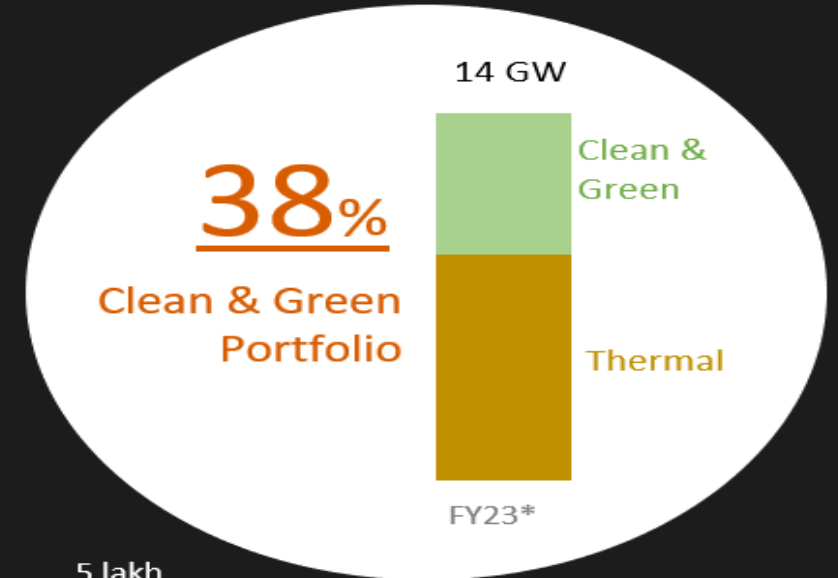
NEW-AGE ENERGY SOLUTIONS



MANUFACTURING



Greenfield Expansion by 4.3 GW Solar Cell and Modules to secure SOLAR SUPPLY CHAIN



Thank You

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(Annex slide) Analytics & Robotic Process Automation




Data lake & visualization for T&D MIS and reporting



KPI Dashboards



Scale up of RPA use case implementation



Suspected Theft Prediction



Behavioural Demand Response



Migration of use cases deployed in OTON Platform