



FOUNDING PARTNERS



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Sustainable Transformation of Utilities



Advanced Technologies Role for Business transformation in Utilities

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The State of Indian Power Sector





Indian Discoms can be categorized broadly into 2 categories –

- o Matured Utilities
- o Fragile Utilities

Multiple Factors At Play

Factors	Matured	Fragile
AT&C Loss Levels	<10% AT&C Loss	>10% AT&C Loss
Power Reliability	SAIDI <60 Mins Ring + n-1 Network	SAIDI >60 Mins Radial + Overloaded & Dilapidated Network
Technology Absorption	Network - Automation at DT & Smart Metering Process - Workforce Mobility Solutions	Network - Poor Automation Levels Process - Manual, paper driven processes
Annual Revenue Requirement Gap	Dividend Paying Near Zero Regulatory Disallowances Near Zero Regulatory Asset Creation Near Zero Over-dues of Power Gencos	High Regulatory Disallowances Huge Regulatory Asset Creation High Over-dues of Power Gencos
Customer Engagement	EoDB Compliant Transparent Digital Uber Customer Engagement Platform	No or Poor Customer Engagement Platform Non-Transparent

TPDDL | TPC Mumbai | AEML | Torrent Power | CESC

Bhiwandi | BSES | Gujarat SEB

TP Odisha | CESC Rajasthan

Other SEBs | J&K

Matured

Fragile

Key Pillars of Transformation

- The essence of moving from Very Fragile to Most Matured utility evolves around following **pillars of excellence** -
 - **People** - Motivated | Change Oriented | Technology Trained | Team Spirit | Performance Driven | Analytical & Statistical Mindset (**Need for Analytics Platform**)
 - **Process** - Documented | Evolving based on Customer Needs | Digitized | Automated (**Need for Workforce Mobility Platform**).
 - **Network** - Robust (n-1 compliant till LT Level) | Healthy (fault proof) | Safe (Zero Accidents) | 5S Compliant | Loss Proof (**Need for DT Energy Accounting & Revenue Assurance Platform**)
 - **Technology** - Automation - GIS (With Last Mile Connectivity), SCADA (100% Automation), DMS (>50% Automation), Smart Metering (Data to Application), Digital Customer Engagement Platforms (**New for Customer Engagement Platform**)


Technology is Ever Changing

- Utility sector undergoing rapid transformation --
 - Organic - *Fragile to Matured (as explained earlier)*
 - Change in Mindset - *Cost Center Approach to Profit Center Approach*
- *Opportunity to Cross Sell / Up Sell*
 - Smart Metering - *Future is Applications built on this data*
 - Competition - *Multi Licensee Regime*
 - Expectations of Customer & Employees - *Hyper Digital*
 - New Opportunities - *Extreme Penetration of Rooftop Solar & EV Charging*
- DIRE Need for Performance on ground - More of a Compulsion than a Choice
- Role of Technology - More Important than Ever !!!!



These Changes/challenges Are Giving Birth to New Opportunities


Utilities Are Turning to Business Transformation Initiatives to -
Improve Operational Efficiency | Reduce Costs | Increase Customer Satisfaction

Next-Gen
Consumer Engagement

Loss Reduction & Revenue
Assurance Solutions

Energy Disaggregation,
Marketplace, Demand Response





EV
Penetration and Adoption

DER Management, V2G
Technologies





Mobile Workforce
Solutions

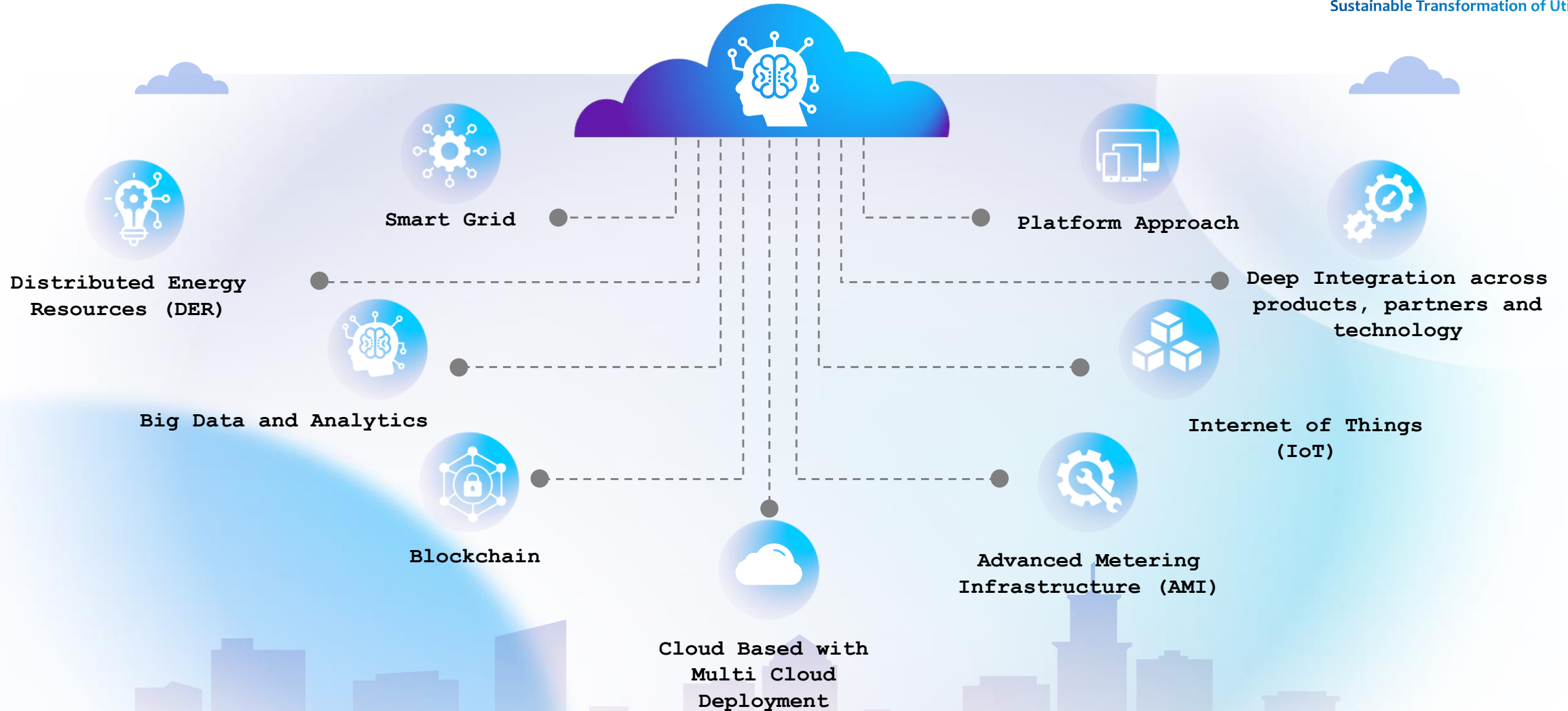
Predictive Maintenance
Portal & Solutions

Smart Metering & Data
Application Solutions





Technology Evolution in the Energy and Utility Industry



Why the Revenue Gap and Challenges

- **Key Components of ARR -Annual Revenue requirements**
 - Power Purchase Cost - 80% Contribution
 - O&M Expenses - 14% Contribution
 - Employee Expenses - 9% Contribution
 - Repairs & Maintenance Expenses - 3% Contribution
 - Administrative & General Expenses - 2% Contribution
 - Soft Costs - Working Capital, Debt Servicing, etc - 3% Contribution
 - ROE - 2% Contribution
 - Other statutory expenses - 1% Contribution
- **Matured discoms have a near zero revenue gap.** This means that **utilities tariff** realization (approved by regulator) helps cover the ARR requirement fully.
- While there's a lot to catch up by regulators to ensure cost reflective tariffs, a huge lot also depends upon the utilities to efficiently run & improve on the cost elements.
 - Power Purchase Cost (PPC) -
 - Need to renegotiate costly PPAs with gencos.
 - Need for Day Ahead Power Scheduling Application with <2% MAPE.
 - Lower AT&C Loss, leading to either higher billing or lower PPC.
 - High Reliability, especially to low loss customers - Leading to additional billing with lower losses (High ABR Customers, leading to better contribution).
 - R&M Expenses -
 - High Reliability, with lower faults & network failures, leading to lower repairs & maintenance costs.
 - Predictive Maintenance Portal & Processes - Optimizing on the R&M costs.
 - Soft Costs -



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THANK YOU

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