



**DISTRIBUTION
UTILITY MEET 2019**
3rd Annual Conference of
Power Distribution Utilities
for Collaborative Growth

ISGF
India Smart Grid Forum

DISTRIBUTION UTILITY MEET 2019

ORGANISED BY INDIA SMART GRID FORUM

07-08 NOVEMBER 2019, New Delhi, INDIA

Business Case for Collaboration between DISCOMs and CGD Companies

Reji Kumar Pillai, President, ISGF

Host Utilities

BSES
BSES Rajdhani Power Limited

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TATA POWER-DDL


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Business Case for Collaboration between DISCOMs and CGD Companies enabled by Digitalization of the Power Sector



PHYSICAL ASSETS DEPRECIATE.....

- Power Plants
- Transmission and Distribution Networks
- Offices, Buildings, etc
- Computer and Communication Hardware

.....DIGITAL ASSETS APPRECIATE

- Customer Data
- Billing and Collection System
- AMI Data and Energy Consumption Profile
- GIS Map indexing Electrical Network and Customers – cover all buildings and roads
- Automation Systems - SCADA/DMS, DA and SA, DR, DERMS...
- Outage Management System and Mobile Workforce Management System
- Call Centers and Call Data Archives

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A. Customer Data

- Digital data can be shared easily : removes spatial and inter-domain barriers
- Cross-pollination over several sectors

The market opportunities

- ✓ Share with Service Providers in other Domains: Water and Gas Distribution, Municipal Agencies, Renewable Energy Development Agencies
- ✓ Large aggregation allows for better and more integration of renewables into the grid on the supply side and more effective DR tools on the demand side
- ✓ **Big data analytics** can use power system data for various cross sectoral themes - environment, lifestyles, wealth, health, etc
- ✓ Analytics **both real-time and non real-time from remote - equipment, systems, O&M**
- ✓ The use of AI and m2m to determine optimal energy use, lifestyle comfort, energy efficiency

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B. Billing and Collection System

- State of the art Billing and Collection Systems deployed in utilities cover all customers (residents in the service area) and are capable of extending to other smart city domains

The market opportunities

- ✓ Extension of the billing and collection system to water and gas distribution, house tax collection, other municipal/city taxes
- ✓ Can even be extended to private utilities such as cable TV, internet, telephone, etc
- ✓ Considerable savings in **cost of doing business** to other domains
- ✓ Additional **revenue stream** for electric utilities



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C. AMI Data and Energy Consumption Profile

- AMI data is an invaluable resource on energy consumption profile
- Could help better estimation of demand leading to savings in power purchase cost

The market opportunities

- ✓ Extension of the billing and collection system to water and gas distribution, house tax collection, other municipal/city taxes
- ✓ Considerable savings in cost of doing business to other domains
- ✓ Additional revenue stream for electric utilities

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D. GIS Maps

- All electrical assets (medium voltage and low voltage lines, substations) and consumers are mapped on a digital map and the Utilities update this system on regular basis to capture changes/addition to the electrical network as well as new consumers/buildings
- This digital map can be effectively used by other infrastructure services providers for planning as well as operation and maintenance of their systems
- Very useful for planning the laying of water supply and sewerage lines, telecom cables, gas pipe lines etc; also useful for planning of road network

The market opportunities

- ✓ Share the maps with other stakeholders in a city for a modest fee



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E. Automation Systems - SCADA/DMS, DA and SA, DR, DERMS

- Field infrastructure and dedicated communication bandwidth of automation systems can be shared with other infrastructure domains
- Latest trend is utilities building their own communication networks

The market opportunities

- ✓ **Common SCADA** with water and gas distribution utilities
- ✓ Sharing the **communication infrastructure** for security cameras, traffic cameras and other smart city applications
- ✓ Communication network can be leased to telecom operators

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F. Outage Management System (OMS) and Mobile Workforce Management System (MWFM)

- OMS and MWFM platforms can be can be shared with other infrastructure and services providers

The market opportunities

- ✓ Revenue from sharing the OMS and MWFM with water and gas distribution agencies, white goods services agencies, other city service providers

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G. Call Centers and Call Data Archives

- Customer Care Centers, Call Centers, Chatbots and Voice Bots of electric utilities are very valuable assets in a city/country
- The incoming calls (on single number) can be diverted to the respective teams responsible for each domain and their crew
- The IT and communication infrastructure and cost can be optimized to a great extent

The market opportunities

- Revenue from sharing the Customer Care Centers, Call Centers, Chatbots and Voice Bots with other stakeholders
- **Analytics of data** from the customer calls and interactions with Chatbots and Voice Bots can be useful tools for different stakeholders to optimize their business operations
- Call Centers of electric utilities can be made **City Command and Control Centers** at marginal cost

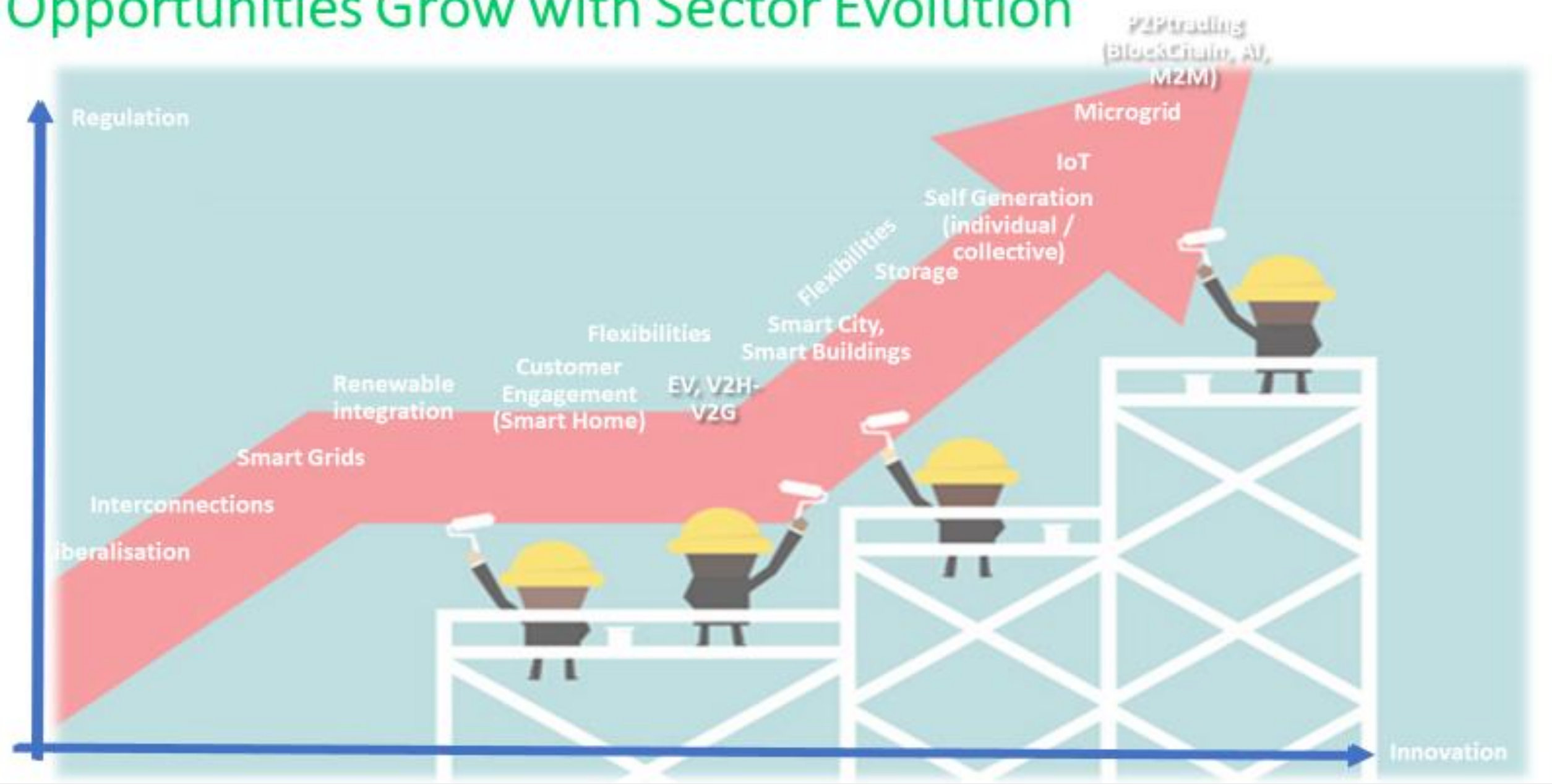
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Opportunities Grow with Sector Evolution

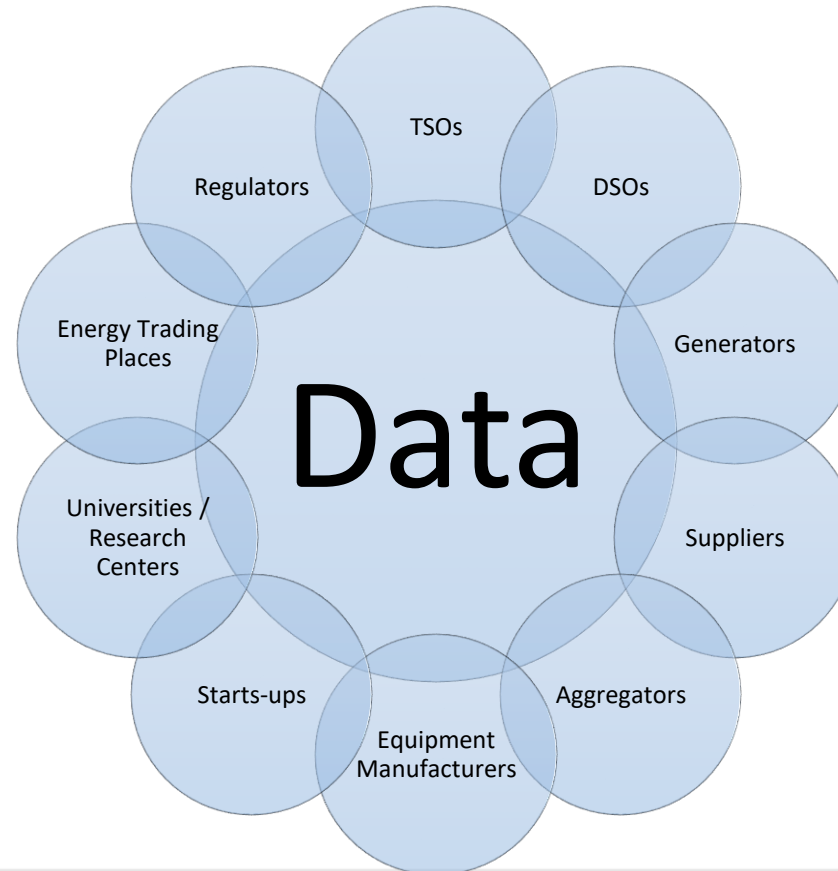




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The Data Exchange Eco-System: Number of Players is Growing Fast

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Thank you

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