Session - 4

Integration Of Electricity & City Gas Distribution (CGD) Utilities

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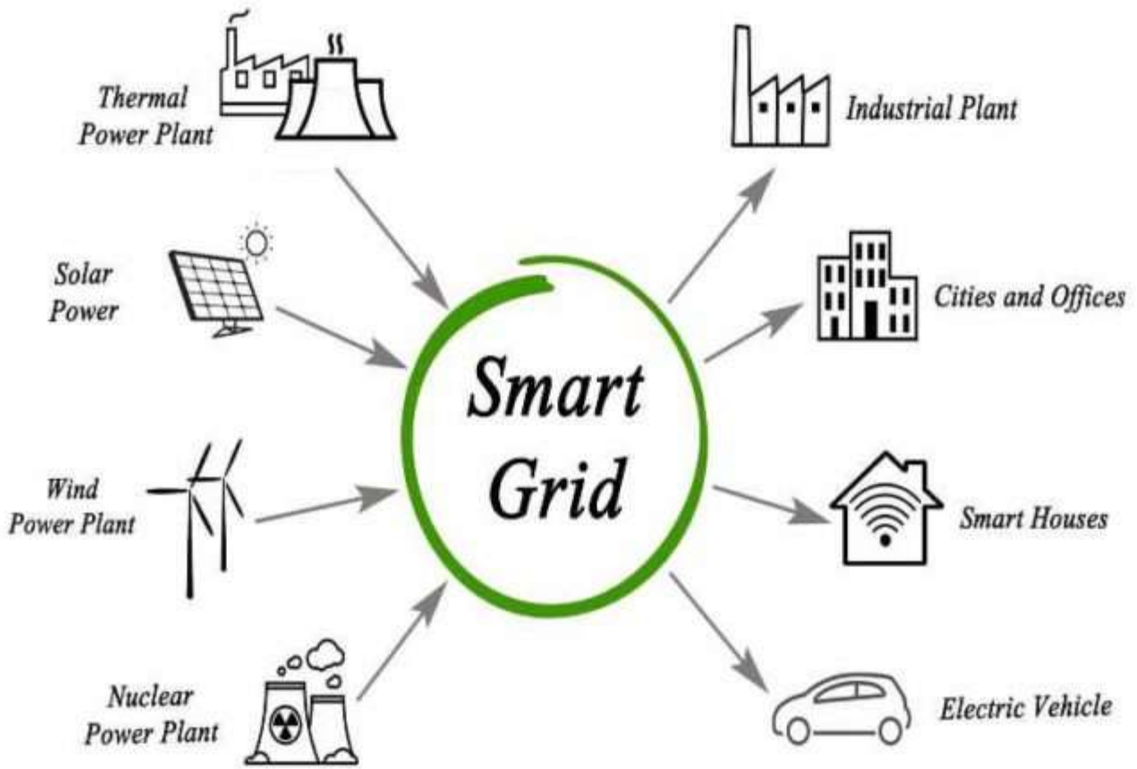
Electricity vis-à-vis City Gas Distribution in India

City Gas Distribution	Electricity Distribution
PNGRB Act enacted in 2006	Electricity Act enacted in 2003. Before that, the sector was guided by The Indian Electricity Act, 1910 and The Electricity (Supply) Act, 1948 and the Electricity Regulatory Commission Act, 1998.
230 Geographical Areas comprising 402 Districts spread over 27 States / UTs covering 70% population. Further under 11th Round CGD Bidding, 65 more GAs (209 Districts) offered by PNGRB for bidding.	100% coverage relative to 2011 census figures for total number of villages in the country (Source: Energy Statistics India 2021, MOSPI)
81 Lakhs Households, 3370 CNG Stations	~24.12 Crore Households

Smart Grid


Thermal Power Plant
Solar Power
Wind Power Plant
Nuclear Power Plant
Smart Grid
Industrial Plant
Cities and Offices
Smart Houses
Electric Vehicle

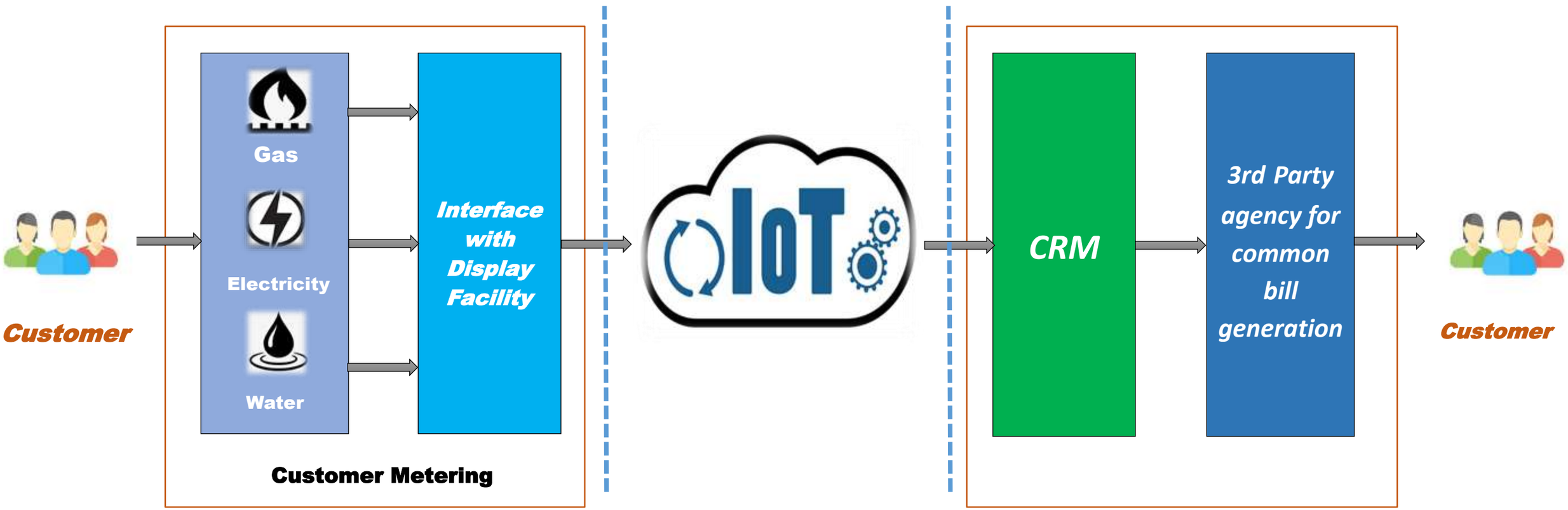
Synergy between DISCOMs and CGD Companies

1. New revenue streams, including market opportunities for the new demand generation (Tailor made energy offerings)
2. Planning and development of utility corridors
3. Sharing of infrastructure (Office set up, After Sales Service / Support Team, Billing, Customer Care Centre etc.)
4. Gas based power plants
5. FUEL Cell Based power Generation on Natural Gas

Sharing of Customer Data and GIS Maps

- Identification of common customers & prospective customers
- Identification of defaulters & high value customers
- Detecting and reducing unbilled units of utility being provided
- GIS maps enabling CGD entities to have idea about household density & thereby helping in better planning.
- Easy Traceability in case of mishaps, leakages, etc.
- Useful in planning laying of Utilities in common Corridors & planning/ augmentation of Road Network (Ex.: water supply and sewerage lines, telecom cables, gas pipe lines etc.)

Common Bills for Electricity, Gas & Water



Smart meters for all Utilities

Interface with Meter and Cloud/ Server

CRM to communicate with Cloud / Server

Consumption details to billing agency

Collaboration for Smart Metering for Electricity and Gas

- **Operational Benefits:** Improves the accuracy of meter reading, energy theft detection and response to outages, while eliminating the need for on-site meter reading.
- **Financial Benefits:** Brings financial gains to utility companies by reducing meter and maintenance costs.
- **Customer Benefits:** Detecting meter failures, faster service restoration, improved accuracy and flexibility of billing.
- **Security Benefits:** Automated Metering Infrastructure (AMI) technology enables enhanced monitoring of system resources, which mitigates potential threats posed by hackers / cyber-terrorist networks.

Other Areas for Collaboration for Enhancing Customer Experience and Reducing Cost of Business Operations

Meter Management	• Meter Data Management Solutions • Meter reading services & Energy Theft Detection
Customer Management Solutions	• Customer Relationship Management (CRM) • Advertisement on Bills
Payment Solutions	• Billing, Bill Delivery & Collection • Payment options (Online / Offline) • Revenue Recovery services
Permission and O&M Activities	Common permission from authorities for • Laying of Power Cable / Gas pipeline • Maintenance and laying of pipes & cables • Routine patrolling of under & above ground assets
EV Charging Stations/ Battery Swapping Stations	For setting up commercial scale charging and/or battery swapping facilities for EVs

Thank You