

adaniTM
Electricity



Grid Modernization : Regulatory Environment

Currently Individual Discoms submits their own plan for Smart Grid, which includes:

- Replacement of existing meters by Smart Meters
- Automation of switching operations
- Establishment of communication network for Smart Grid
- Operating System & IT infrastructure

There is a need for coordinated efforts by Discoms to enable Regulators to specify guidelines for Smart Grid capex & its approval.

Benefits of coordination amongst DISCOMs

Inter-Discom collaboration can help optimizing overall cost in following way-

- Adoption of common technology specifications
 - Geographically connected Discoms have common communication network
- Cost reduction on economics of scale
- Bridge gap between developing and pioneering utilities
- Sharing of training Cost with additional resources
- Help capacity building at ERC

Collaborative voice will bring Cost effective & efficient services to Customers

Success Stories

➤ Success Story : EESL LED replacement

75% lower cost through bulk procurement

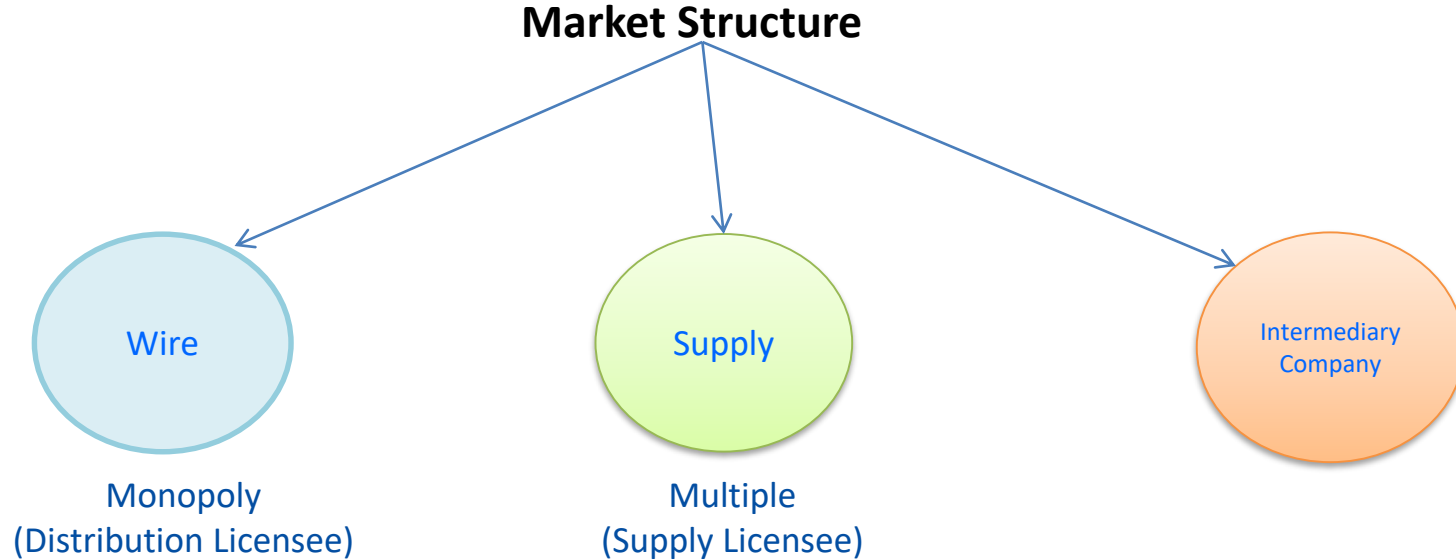
- ❖ LED Bulbs : ~ 31 Cr distribution and ongoing
- ❖ Avoided Peak Demand : ~8100 MW
- ❖ Cost Savings : ~ Rs. 16, 000 Crs

Segregation of Wires & Supply : Electricity Act Amendment

Objectives:

- ✓ Distribution (Wire) & Supply (Retail) : Business Separation
- ✓ To make Central Govt. Policies mandatory for ERCs to follow
- ✓ Create Intermediary Company to take over existing PPAs & subsequent power procurement to Promote
 - Ancillary Services,
 - RE Energy - Hydro Power, RGO for new plants
 - Smart Grid,
 - Distributed Generation & net metering
- ✓ Grid Security by introducing spinning reserve & by imposing higher penalties for not adhering to direction of system operators.

Proposed Market Structure



1 MW & above consumer may make their own power arrangement of power at own rate/T&C

Other Key Highlights

1. Promote Competition
 - ✓ Ceiling tariff
 - ✓ Choice to Customers
2. Subsidy payments through direct Benefit transfer
3. Bulk Customers (1 MW & above) “Direct sourcing of power from Market”
4. Allowing to serve notices through any electronic mode
5. Smart meters to be installed from Generators to Consumers for accounting
6. Severe Penalties for Non Compliance to Grid Security
7. Development of forward market and futures contract

Ancillary Services

1. Purpose
 - ✓ Helps to improve Grid stability and Security

2. Worldwide Practices
 - ✓ Frequency Support
 - ✓ Voltage or reactive power support
 - ✓ Black Start Support

3. Challenges
 - ✓ Development of compensation mechanism
 - ✓ Contract types (Short term / Long Term)
 - ✓ Business assurance not guaranteed – restrict participation

We're listening.