ASIA CLEAN ENERGY FORUM 2020
VISION 20/20: CROSS-SECTORAL INNOVATIONS FOR A SUSTAINABLE FUTURE
SIDE EVENT- JUNE 16, 2020

Redesigning the Power markets: An enabler to RE Integration and multilateral trade

Side Event: Cross Border Power Trade and Future Energy Market
Redesigning of the electricity markets is a key enabler in transitioning towards clean energy

Cross-sector convergence with electricity
Transport sector is transforming over the concern around climate changes complemented by less carbon intensive power grids

Transition towards clean energy
Renewable push to improve energy security and battle climate change

Digitalization in the power sector
Leveraging smart devices, IoT, data analytics/monetisation and dematerialisation to transform world

Increasing consumer choices
Advances in education, technology and DIY capabilities have empowered consumers to demand better services

Impact on Power Sector
- Increase in electricity demand
- Grid Modernization & Flexibility for V2G
- Increased distributed RE generation
- Increasing RE Mix and its Integration
- Flexing of coal thermal stations
- Energy Storage & DERs
- Increasing IT & OT in Utilities
- Connected and Smart Devices
- Data analytics
- Improved efficiency in Distribution
- Service Enabled Models
- Prosumers (increased DER penetration)
Almost 89% of the generation capacities are tied to distribution facilities via long term PPAs.
Support to CERC was based on three fundamental pillars for successful design and implementation of electricity markets:

- **Detailed review of international experiences**
  - U.S; UK, Europe, Australia

- **Benefits demonstration of market interventions**

- **Benefits in USD Million**

- **Consultation, Regulations, SOR**

- **Manage the change**
Key success achieved – Launch of Real Time Market from 1st June, 2020

- GTG-RISE team carried out a detailed modelling exercise based on the data collected from six states, representing the western and southern regions of the country, to validate various scenarios and options to refine RTM design.

- GTG-RISE supported CERC in compiling and responding to comments from stakeholders by preparing and drafting the Statement of Reasons.
Preparation is the key to success!!

RTM Results (1st June 2020 to 13th June 2020)

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Anish Mandal – Director, Deloitte India
Lead – Electricity Markets Pilot, USAID GTG-RISE
USAID
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Cross-sector convergence with electricity
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<thead>
<tr>
<th>Year</th>
<th>Global</th>
<th>India</th>
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<tbody>
<tr>
<td>2018</td>
<td>5</td>
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<tr>
<td>2025</td>
<td>99</td>
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Transition towards clean energy
Renewable push to improve energy security and battle climate change

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<th>Year</th>
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<tr>
<td>2010</td>
<td>1226</td>
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Digitalization in the power sector
Leveraging smart devices, IoT, data analytics/monetisation and dematerialisation to transform world

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<tr>
<td>2000</td>
<td>7%</td>
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Increasing consumer choices
Advances in education, technology and DIY capabilities have empowered consumers to demand better services

Emergence of partnership and aggregation based business models which can circumvent regulations to provide innovative services for consumers

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1. Detailed review of international experiences (e.g., U.S, UK, Europe, Australia)
2. Benefit demonstration of market interventions
3. Manage the change

Benefits in USD Million:

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- **Cross-sector convergence with electricity**: Transport sector is transforming over the concern around climate changes complemented by less carbon intensive power grids.

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- **Digitalization in the power sector**: Leveraging smart devices, IoT, data analytics/monetisation and dematerialisation to transform world.

- **Increasing consumer choices**: Advances in education, technology and DIY capabilities have empowered consumers to demand better services.

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**Cross-sector convergence with electricity**
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<th>Year</th>
<th>EV vehicles (2018-2030) (in Mn)</th>
<th>Global</th>
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