PowerGrid Transmission Pricing
Principles

• PowerGrid UOS charges set based on the following principles
  – Charges must be cost reflective
  – Charges must encourage efficient use of the transmission network
  – Charges must be simple to understand and implement
Cost Classification

- **Customer Specific Costs**
  - Costs of reserving customer specific capacity
  - Costs which can not be shared with other customers
    - Cost Driver: Customer capacity requirement
    - Cost Recovery: Customer contracted capacity charge

- **System Costs**
  - Costs which can be shared amongst customers based on usage (kWh)
  - System built primarily to cater for peak usage
    - Cost Driver: Mainly peak usage
    - Cost Recovery: Mainly peak period charge
Main Tariff Structure Elements

• Contracted Capacity Charge
  ➢ Contracted Capacity Charge recovers the cost of dedicating capacity to meet customers declared capacity requirements.
  ➢ Once this capacity is made available, assets are sunk and therefore must be recovered through customer charge. Monthly charge applied to customers contracted capacity at each intake supply point
  – New Supply, customers contracted capacity is fixed for 5 years. Upward revisions allowed, downward not allowed.
  – Existing supply, after the five year binding period, contracted capacity is set for periods of one year, subject to specified minimum.
Main Tariff Structure Elements (cont)

- **Peak Period Charge**
  - The peak period charge recovers most of the network cost which can be shared amongst customers.
  - Applies to energy supplied during the peak period, 7.00AM to 11.00PM

- **Off Peak Period Charge**
  - Applies to energy supplied during the off peak period, 11.00PM to 7.00AM
  - The off peak period charge recovers the balance of the network cost which can be shared amongst customers, which is not recovered through the peak charge
Secondary Tariff Structure Elements

- **Uncontracted Capacity Charge**
  - Pricing signal to encourage customers to declare accurate assessments of capacity requirements
  - Network is sized to meet customer requirement
  - Network can cater for adhoc (but not guaranteed) small capacity overruns
  - This charge is set at 150% of Contracted Capacity charge
  - Applied to customer demand above contracted capacity

- **Reactive Power Charge**
  - Pricing signal to customers to maintain a high power factor
  - Low power factor results in higher investment to meet the same demand
Proposed Tariff Structure

<table>
<thead>
<tr>
<th></th>
<th>UHT Comparison</th>
<th>EHT Comparison</th>
<th>HT Comparison</th>
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</tbody>
</table>

Legend:
- CC
- Peak
- Off Peak
- Other
Proposed Tariff Structure

• Key Changes
  – Cost recovery primarily through Contracted Capacity and Peak Period charges
  – Significant reduction in cost recovery through Off Peak Period charges

• Benefits
  – Strong signal to encourage off peak consumption
  – Stronger signals for customers to declare accurate capacity requirements
  – Lower cost in the longer term, through better capacity planning and improved network utilisation
Key Messages

• Accurate assessment of Contracted Capacity must be made
  – Capacity drives investment
  – Initial 5 year period, customer pays on contracted capacity

• Must encourage Off Peak consumption
  – Strong pricing signal to encourage off peak consumption
UOS Rates

- Rates have been approved by EMA
- In summary,
  - Rates incorporate the revised tariff structure
  - On average UOS charges have reduced by approximately 2.5%
  - Different HT & EHT customers are impacted differently, depending on their load profile
Customers with Embedded Generation

- The existing backup scheme has been abolished
- Customers with embedded generation have two choices
  - Customers that require full backup
    - Contract capacity charges based on total load
    - PowerGrid will reserve this full capacity
    - Treated exactly the same as other customers
    - These customers pay the same contracted capacity, peak, off peak period and uncontracted capacity charges.
Customer with Embedded Generation (cont)

- Customers that require limited backup
  - Choose to reserve capacity that is less than total load requirement
  - PowerGrid will only build network to cater for reserved capacity
  - The customer pays the same charges as other customers for capacity utilisation up to 120% of declared capacity
  - Adverse system impact if capacity overrun greater than 20% of declared or reserved capacity
  - Customer to install & maintain load limiter to prevent capacity from exceeding 120% of reserved capacity
  - To ensure that this scheme works, a higher rate will apply to capacity greater than 120% of declared capacity
  - This rate is 5 times the contracted capacity rate and is the Uncontracted Standby Capacity Charge.
Conclusion

• PowerGrid UoS charges and structure would achieve the following
  – Pricing is cost reflective
  – Revenue recovery reflects the fixed cost structure of PowerGrid and encourages off peak utilisation
  – Abolishment of backup charges. Consistent treatment of all customers
  – Majority of customers get a price discount
  – Price structure encourages good utilisation