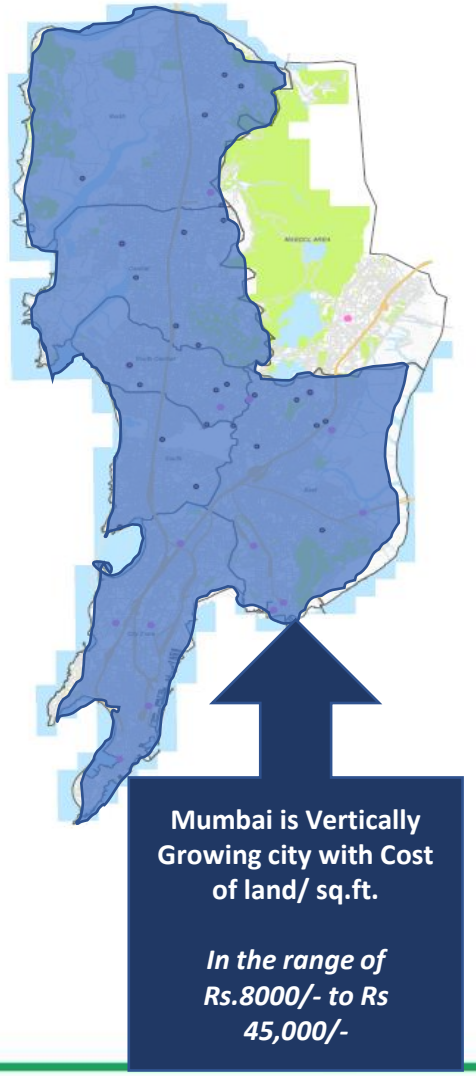
Disruptive Innovations for Utilities
"Tower Mounted Substation"

Speakers : *Swapnil Rao, Lead Engineer, Tata power*
Vikas Koul, Lead Engineer, Tata power

Existing Scenario

- Requirement of substation (CSS) in Metro cities.
- Space requirement of CSS: 40sqm
- Space scenario in metro cities: Reluctance of Developers
- Parallel Licensee.
- Alternative???

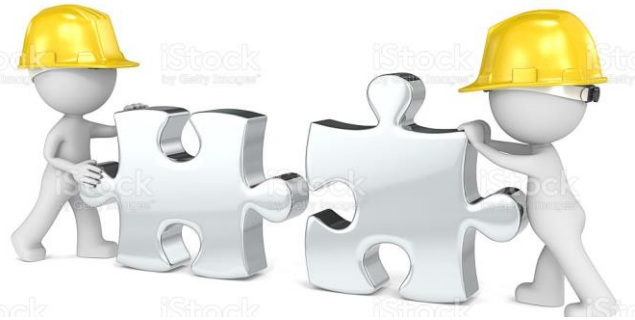


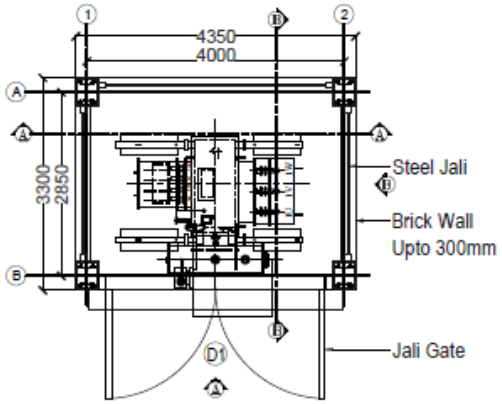
Mumbai is Vertically Growing city with Cost of land/ sq.ft.

In the range of Rs.8000/- to Rs 45,000/-

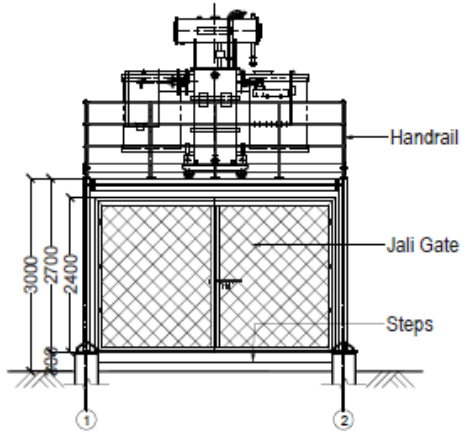
Innovation: Engineering Design

- Reduction of foot print for substation : 16sqm
- G+1 Structure arrangement
- Safely working environment
- Civil Strengthening design for transformer

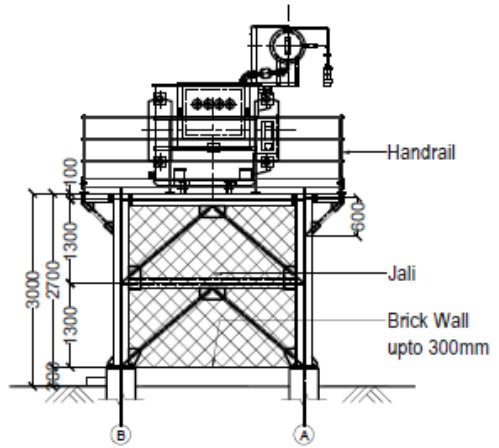




Plan



Elevation - A



Elevation - B

Potential Impact

- Reduction of footprint of substation
- Customer delight
- Safe Design
- Inhouse design
- Flexibility of design
- Ease for CSS maintenance
- No dependency on OEM

Scalability and Replication

- Not restricted to specific rating
- Easy for fitment & operation
- Augmentation of design is possible
- Highly scalable in Metro cities
- Solution: Space Crunch sites

Economic Rationale

- Foot Print reduction by 60%
- Customer Delight
- New customer acquisition
- No special equipment procurement
- No dependency on OEM
- Flexibility for different rating as per condition

Actual Execution

THANK YOU