

Technology Leadership

An Evolving World needs Revolutionary Solutions

We have led the way in adopting state-of-the-art global best practices in a ‘legacy-driven’ power transmission sector. We are actively pursuing innovation opportunities with universities, start-ups, and third parties.



Aerial Technology for Accelerated Project Execution

- > Planning and automated inspection services by Unmanned Aerial Vehicles (UAVs)
- > First use of helicopter stringing in India
- > Heli-crane based tower erections in tough terrains
- > Investor in global tech start-up: Sharper Shape

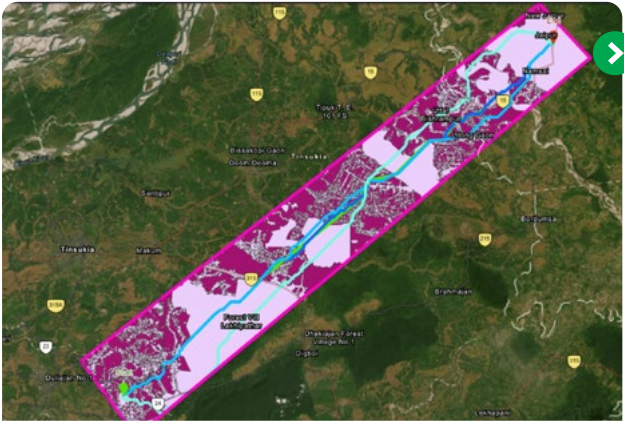
Big Data Algorithms/Predictive Simulations

- > Route planning, elevation models and resource optimisation using an in-house smart algorithm platform TransAnalyst
- > Improving predictability of soil characteristics through data analytics for foundation design (Subsurface Terrain Model or STeM)
- > Pan-India power system studies
- > Tower test simulations for design validation



Robotics for Safe Stringing and Technology Intensive Products

- > Skyrob™ – safe and efficient optical ground wire stringing through robotics
- > Largest manufacturer of high-performance conductors in India
- > Low-loss high-ampacity cable, fibre integrated power cable
- > Largest OPGW player in India
- > SmartValve™ – modular power flow control solutions



Digitalisation Operational Efficiency

- > Digital prototypes for higher design quality
- > Quality Health Safety Environment (QHSE) effectiveness through e-audits and remote inspections
- > Magellan is an in-house developed platform leveraging the ArcGIS Platform to automate the entire Power Transmission process from bidding stage through to project execution stage. Magellan has 3 parts - Route Optimisation, Tower Library Centralisation and BoQ generation

Smart Projects for Modern Grid

- > India's first vertical GIS Substation with smaller footprint leading to reduced CO₂ emissions
- > Re-conductoring of 66 kV transmission line in 'Live-Line Condition' to achieve a 2x increase in power transfer capacity in Electronic City, Bengaluru



Technology for Greener Ecosystem

- > Translocating bigger and mature living trees
- > Green co-location from Convergence business
- > Utilised state-of-the-art technologies, including drone-based LiDAR and oblique camera systems, integrated with advanced Artificial intelligence (AI) for tree species identification.

