

Client and Activity

GIS BASED ELECTRICAL DISTRIBUTION NETWORK MANAGEMENT SYSTEM for Maharashtra State Electricity Board (MSEB), INDIA

Objective

- Assessment of actual Power Losses and reduction
- Improvement in Voltage Regulation
- Improvement in Power Factor
- Asset Management
- Quicker Maintenance

Some Facts

Aurangabad Zone of MSEB Network Spread over 12 Towns and 2800 Villages with 235,000 Network Elements and more than 11 Million consumers

Location

Aurangabad Zone of MSEB
Total Network Length: 18,360 KM

Deliverables

A dedicated GIS AM/FM Solution for Fast, accurate and reliable management of Data.

Creation of Landbase Map using Industry standards and easy to use mapping Tools/ software / applications.

Creation of Electrical Network Modelling using a dedicated AM/FM solutions.

Improving & Stabilizing Power Distribution network with minimum losses in the long run.

Integrated planning for Power Distribution.

Solution Suggested

- Switching (Redistribution Of Loads)
- Optimal Placement Of Existing Capacitors
- Placement Of New Capacitors
- Express Feeders
- Reconductoring

Benefits

Below chart is self explanatory about the benefits MSEB got from using Adroitec's Expertise.

	Existing Network	Proposed Network
Connected KVA	27,045 KVA	27,045 KVA
Load Allocated	18,256 KVA	14,499KVA
Losses	2,940 KW (20.1%)	1053 KW (8.2%)
Revenue Loss	Rs. 6,800,000/Yr	
Savings (KW) (Rupees)		1887KW Rs.4,363,951/Yr
Investment (onetime)		Rs.3,615,000

Benefit In 5th year

	Existing Network	Proposed Network
Connected KVA	34,350 KVA	34,350 KVA
Load Allocated	26,977 KVA	19,819KVA
Losses	6,740 KW (32%)	1053 KW (8.2%)
Revenue Loss	Rs.15,580,000/Yr	
Savings (KW) (Rupees)		4482KW Rs.11,198,00/Yr

