



Envisioning Smart Utility through Field Force Automation

Nishant Singh

Team Lead - ADMS & FFA Operational Support Tata Power Delhi Distribution Limited









02 - 04 March 2022



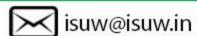
Introduction







Parameter	Unit	July '02	March'21	% Change
OPERATIONAL PERFORMANCE				
AT&C Losses	%	53.1	7.3	88%
System Reliability – ASAI -Availability Index	%	70	99.61	41%
Transformer Failure Rate	%	11	0.84	90%
Peak Load	MW	930	2069	123%
Length of Network	Ckt. Km	6750	16513	145%
Street Light Functionality	%	40	99.41	150%
CONSUMER RELATED PERFORMANCE				
New Connection Energization Time	Days	52	3	94%
Meter Replacement Time	Days	25	2	92%
Provisional Billing	%	15	0.86	94%
Defective Bills	%	6	0.13	98%
Bill Complaint Resolution	Days	45	4	91%
Mean Time to Repair Faults	Hours	11	1.50	87%
Call Center Performance - Service Level	%	-	95	
Payment Collection Avenues	Nos.	20	6725	33525%
Consumer Satisfaction Index	%	-	90	
<u>OTHERS</u>				
Capex (Cumulative)	Mn USD	187	984	428%
Consumers	Count Mn	0.7	1.79	156%
Employees	Count	5600	3217	43%









Technology Evolution







- Distribution Management System
 - Outage Management System
- **SCADA System**

2007-09

- Integration of GIS -DMS
- **Sub Station Automation**

2005-07

- Fiber communication infrastructure
- **Geographical Information System**
- All Grid Substation Panels and Relays Old and Non communicable.
- All Grid Substation manned No data at Load Dispatch Center.



2002-04







Page: 3 of 10



Context



Empowerment of Field crew

Enhancing Safety

Adoption of advanced & integrated technologies





Significance of FFA for Utility



Real time dissemination of information

Auto estimation of Fault's Estimated Time of Restoration (ETR)

Auto schedule & dispatch of complaint

Faster restoration of outage









Integration with IT-OT Applications









Log Out

सुरक्षा शपथ

मैं हर समय, हर जगह, हर काम में, कार्य स्थल पर, सड़क पर या घर में अपनी, अपने परिवार, समाज तथा देश की भलाई के लिये सदा सुरक्षा बनाये रखने की शपथ लेता हूँ















Features

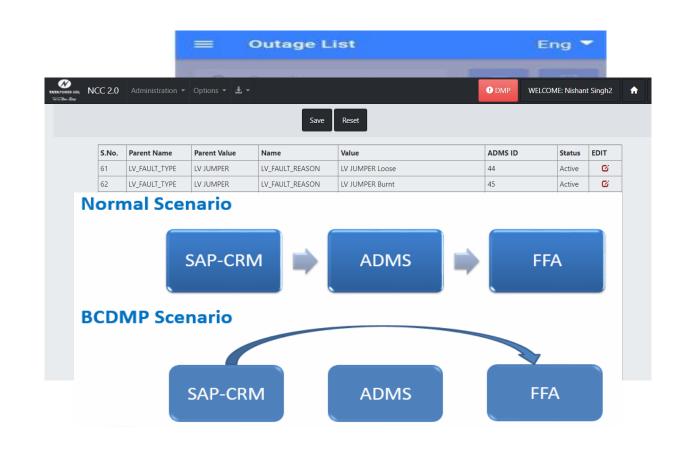


Page: 7 of 10

Dashboard View

Interlocking & Standardization of Report

System Load Optimization during BCDMP









Benefits to Stakeholders



Consumer

- Faster restoration of service
- Transparency in service

Employee

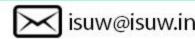
- Faster decision making
- Route optimization

Organization

- Benchmark in Reliability Parameter
- BD opportunity for other Utility

Safety

- Rights to Authorized employee only
- Capturing of Unsafe incident at site







Key Takeaways



Decentralisation of Control Room Information

Consumer Delight

Effective Resource Management

Reliability Enhancement











Thank You

For discussions/suggestions/queries email: nishant.singh2@tatapower-ddl.com



