

Host Utilities



Co - Host Utilities



ORGANIZER



India SMART UTILITY Week 2024

Supporting Ministries



MINISTRY OF POWER
GOVERNMENT OF INDIA



MINISTRY OF NEW AND
RENEWABLE ENERGY
GOVERNMENT OF INDIA



नीति आयोग
National Institution for Transforming India



MINISTRY OF ELECTRONICS &
INFORMATION TECHNOLOGY
GOVERNMENT OF INDIA



MINISTRY OF HEAVY INDUSTRIES
GOVERNMENT OF INDIA



MINISTRY OF JAL SHAKTI
DEPARTMENT OF WATER RESOURCES,
RIVER DEVELOPMENT & GANGA REJUVENATION,
GOVERNMENT OF INDIA



MINISTRY OF POWER
GOVERNMENT OF INDIA
CENTRAL ELECTRICITY AUTHORITY

Session : Revolutionizing Last-Mile Delivery: The Power of Automation for Enhanced Reliability and Customer Satisfaction

Presented By

Raghuvir Singh, Executive, Tata Power ddl.

TATA POWER-DDL

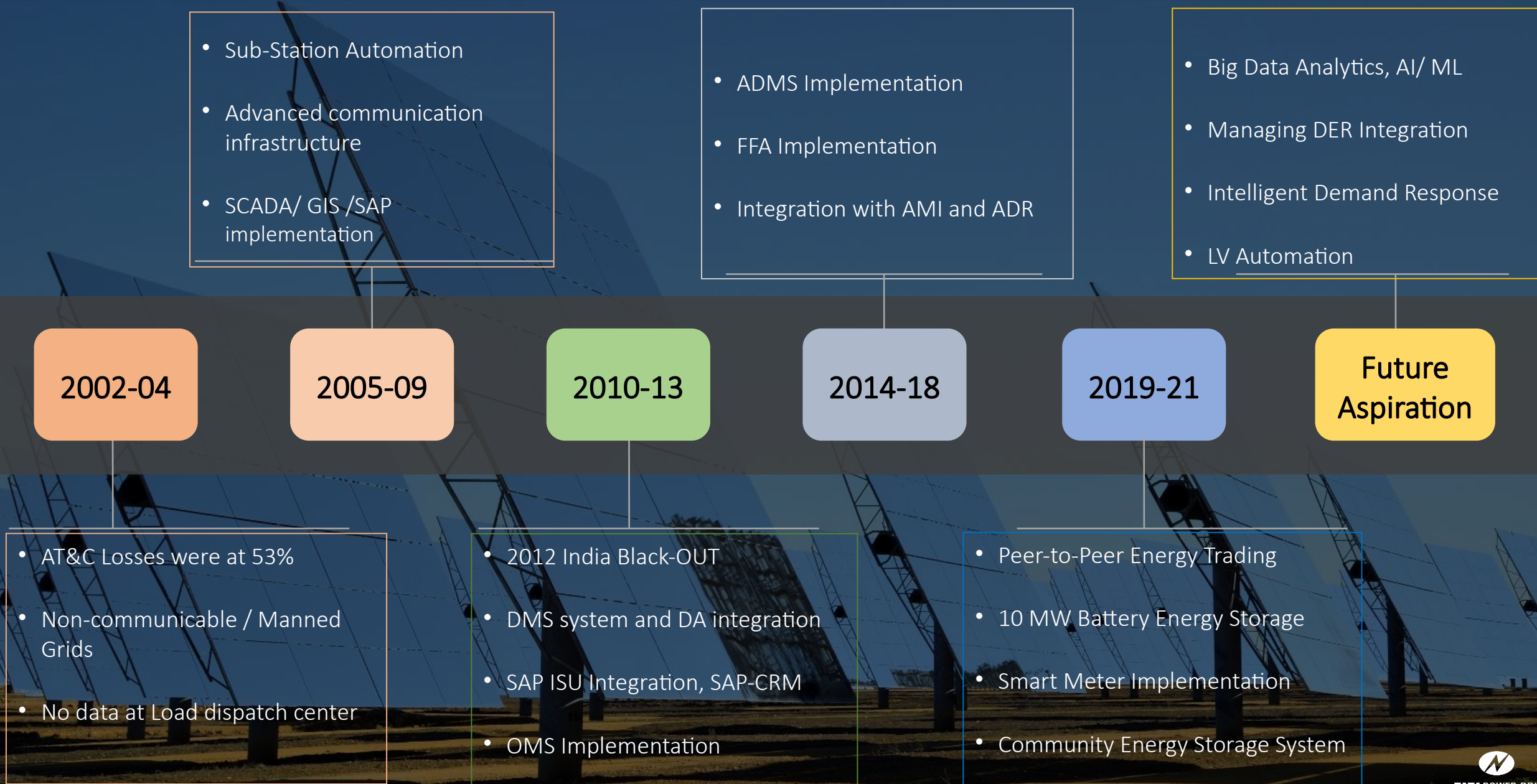


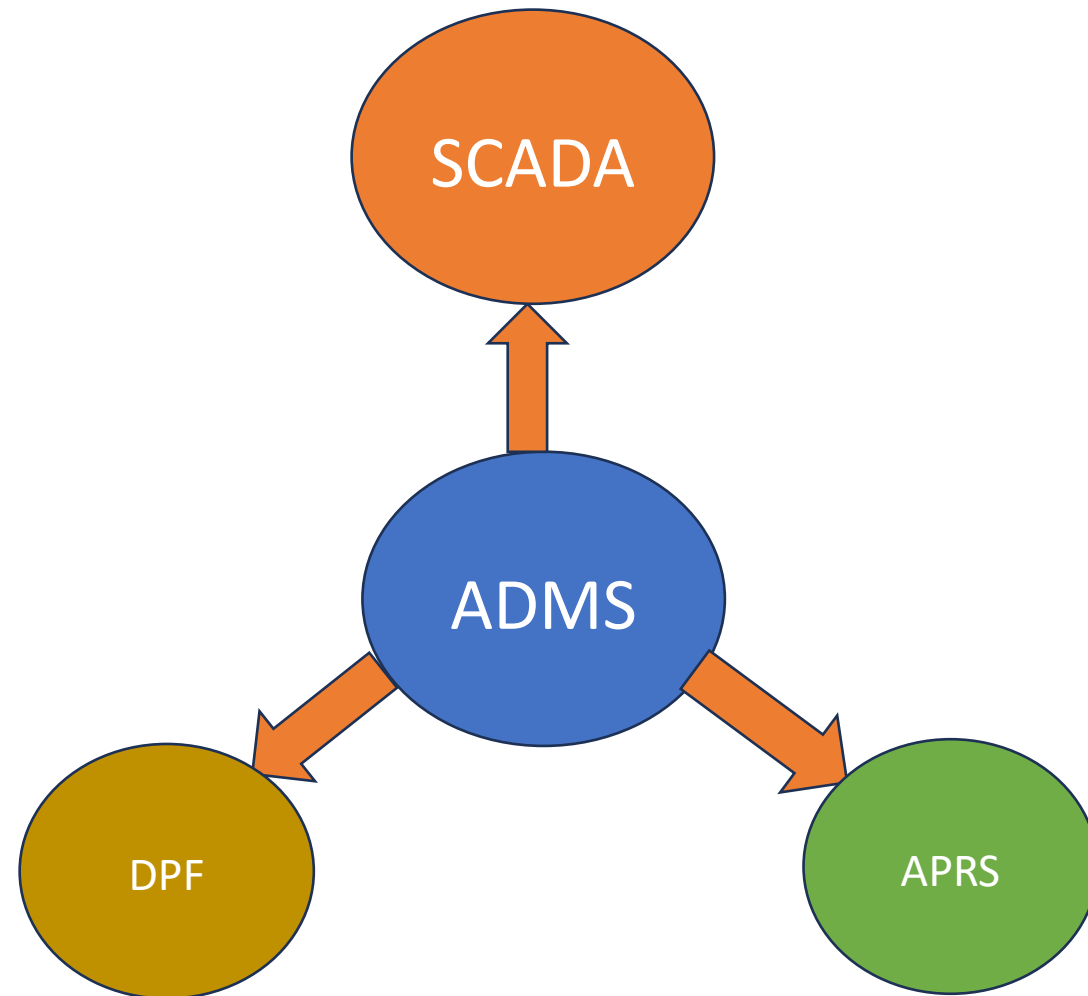
51:49 Joint Venture
of The Tata Power Company Limited
(Tata Power)
and
the Government of Delhi
Formed on 1st July 2002
in



Key Assets Control and Monitored through ADMS	UoM	2023
No of Grid Sub Station's (66/11 & 33/11)	No's	85
No of Power Transformer 's (66/11 & 33/11)	No's	216
Total Installed Capacity (66/11 & 33/11)	MVA	5007
Total Network length in Ckt (66/33/11/0.44 kV)	Ckt-Km	13790.6
No of Distribution Transformer	No's	31,484
Total Installed Capacity (Distribution)	MVA	6,724
Peak Demand	MW	2228
Customer	No's (Lakh)	20.40

Technology Landscape & Journey





DPF

- Distribution Power Flow (DPF). The DPF in ADMS can consider the real-time measurements as well the load profile data available at the load point and can distribute the load current accordingly. It is explicitly designed for the three-phase unbalanced distribution systems

APRS

- The FDIR application in ADMS is named as “Automated Power Restoration System” (APRS) and this along
- with the switching advisor application provide network reconfiguration strategies that ensure customers and
- network isolated and restored to supply in a timely and safe manner

Feature of Automatic Power Restoration System



India
SMART UTILITY
Week 2024

ISGF
India Smart Grid Forum

The Automated Power Restoration System (APRS) uses telemetry data from the network to locate a fault

It can then recommend or automatically execute a sequence of switching actions to isolate the fault and restore power to the rest of the network

APRS isolates and attempts to restore sections of network even if no customers are associated with those sections.

Feature of Distribution Power Flow



India
SMART UTILITY
Week 2024

ISGF
India Smart Grid Forum

Distribution networks typically do not have sufficient telemetry measurements to allow state estimation studies to be carried out, so instead load flow studies are used as the basis for fault level studies

The DPF in ADMS can consider the real-time measurements as well the load profile data available at the load point and can distribute the load current accordingly

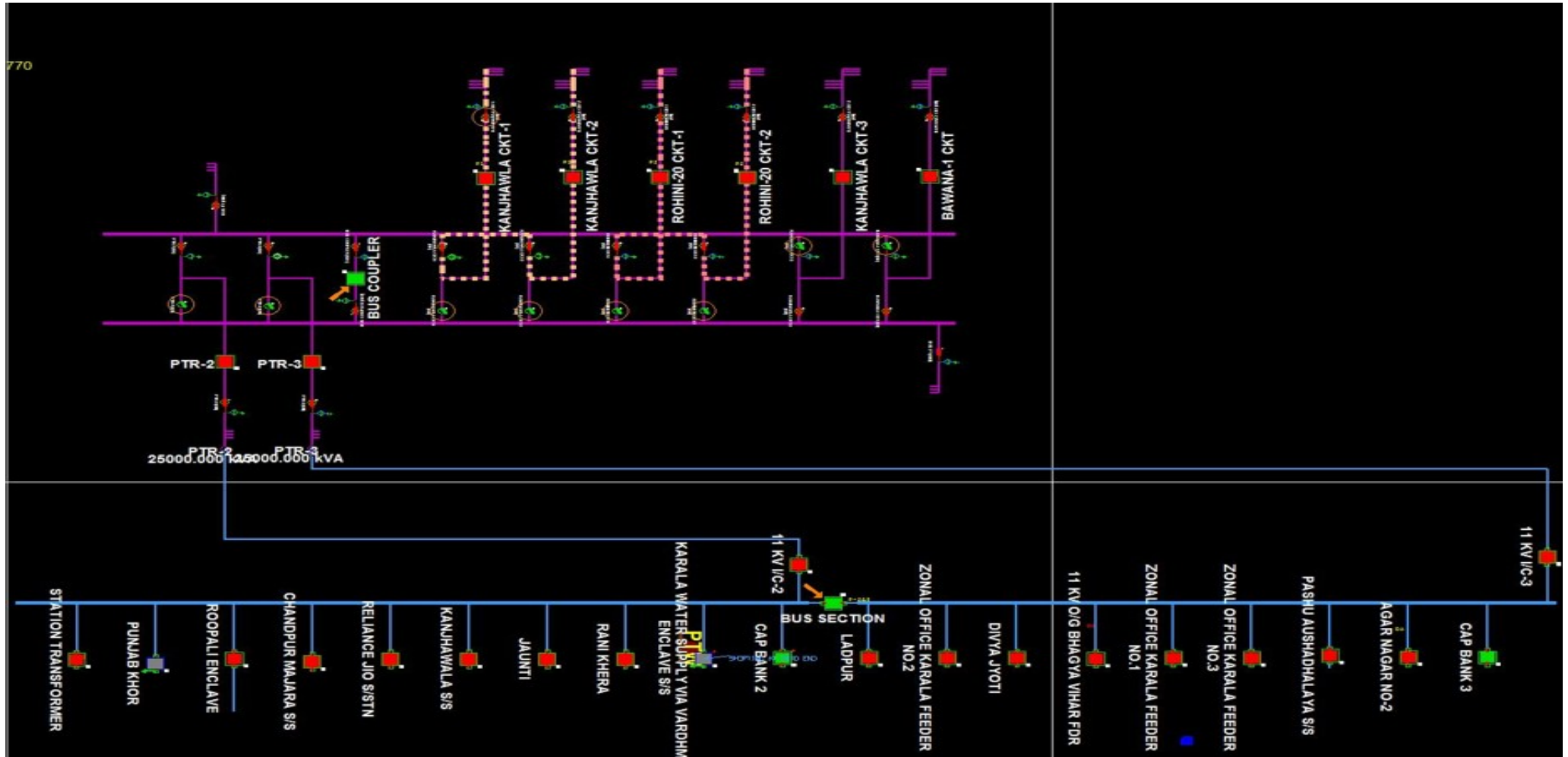
The DPF available is also used as a base for other applications in the system like APRS, IVVC etc.

Fully SCADA enabled grid Substation



India
SMART UTILITY
Week 2024

ISGF
India Smart Grid Forum



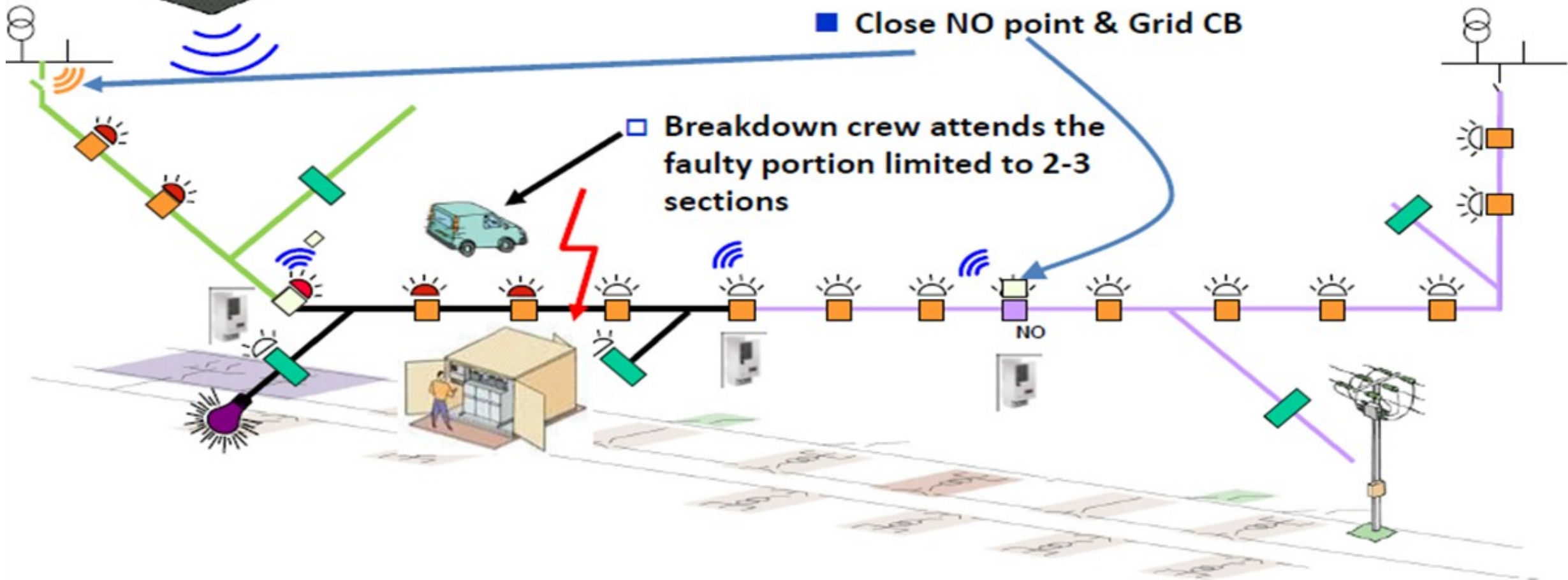
How APRS help to Restore Faults



India
SMART UTILITY
Week 2024

ISGF
India Smart Grid Forum

- 70-80% load restored remotely by back-feeding with 5-10 minutes of interruption.



THANK YOU

*For discussions/suggestions/queries email: **isuw@isuw.in***

[visit: www.isuw.in](http://www.isuw.in)

Links/References (If any)