

Nuestra visión

Una iniciativa de desarrollo tecnológico de producto coordinada entre una Utility (Iberdrola) y un fabricante de Aparamenta (MESA-Schneider) para el mercado de Distribución Eléctrica local, ha servido después para que las empresas españolas hayan podido exportar esta misma tecnología a otros países y aplicaciones, creando así riqueza local con soluciones en vanguardia a nivel mundial

31 May 2019

Raquel San Martín

Oil & Gas, Railways and EPC's Sales Director



Haramain HSR

Customers:

Railways Cobra

Inabensa Saudí (Inabensa)

EyM Arabia (OHL)

Indra (Indra)

End User: SRO (Saudi Railways Organization)

Country: Kingdom of Saudi Arabia

HSR Dimension: 444 km

Timescale: 2014-2017

Project Scope

Cubicles CBGS-2 SB 55KV (GIS)

238 units

Substation Automation

6 Feeder Station

32 Autotransformer Paralleling post

5 Autotransformer Sectioning post

Telecontrol System

306 Catenary Switches

221 Voltage Detectors

63 Technical Building



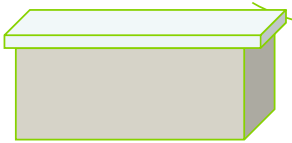
Schneider
Electric



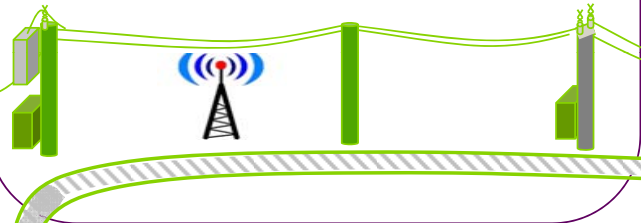
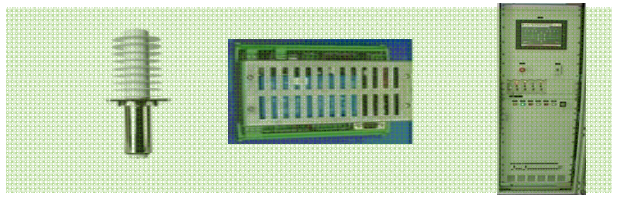
Telecomms

The Challenge !

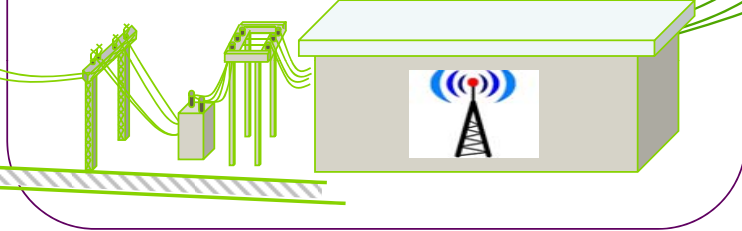
Stations & Tunnels



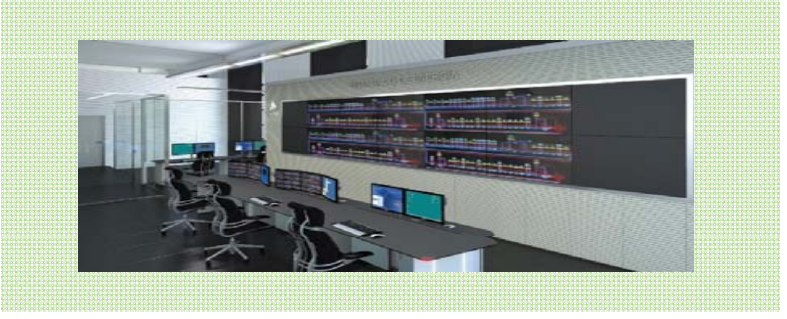
Overhead Equipment



Substation Automation



Control centre

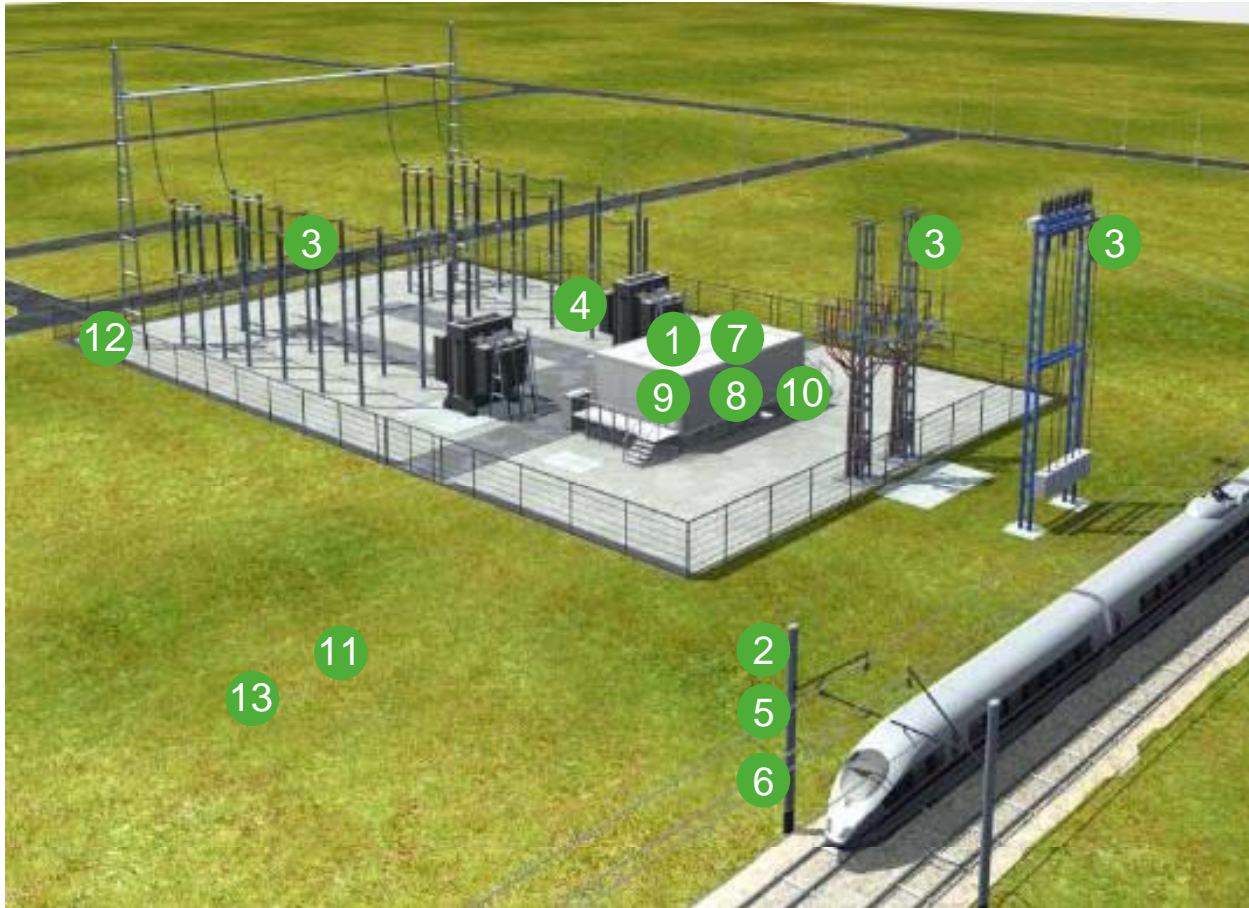


Specialized Support



Energy equipment for 25kV AC main lines

Overview



- ① 27.5kV Indoor traction Switchgear
- ② 27.5kV Outdoor traction Switchgear
- ③ Disconnectors
- ④ Traction Transformers
- ⑤ Autotransformers
- ⑥ Special Railways Transformers
- ⑦ Power Quality Solutions
- ⑧ Trackside Substation (E-House)
- ⑨ Substation Protection & Automation
- ⑩ Secured Power
- ⑪ Energy Management & Telecom
- ⑫ Perimeter Video Security
- ⑬ Integrated Asset & Operation Management

2x25kV AC HIGH SPEED RAIL - MV

Mekkah - Medinah



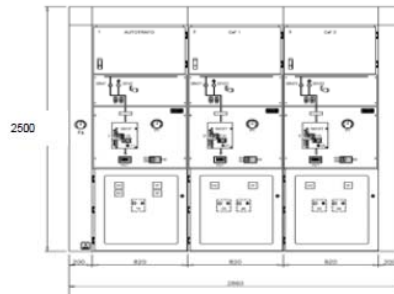
Customer: UTE
Cobra-Inabensa-OHL
End User: SRO
Country: KSA
timescale: 2014-17

Project Size
444km
6 Feeder Station
32 Autotransformer
Paralleling Post
5 Autotransformer
Sectioning Post

Schneider Energy Medium Voltage delivery:
2x27,5kV GIS Swithgears CBGS-2
Scope of: Materials & Services

Feeder Substations Cells:
6u (2 type1 and 4 type 2)
ATS Sectioning posts Cells:
5u
ATS Paralleling posts Cells:
32u
Biphasic
Insulation:SF6
Busbar current: 2000 A
Frequency: 60Hz

Engineering
Integration with Substation
Automation
Factory Acceptance Tests,
Commissioning
Training
Expertise and Level 2
support
Maintenance SL2
•Delivery Centre
Centre of RW competence
Spain / factory Munguia



Haramain High Speed Line, KSA

Traction Substation equipments for the first High Speed Line in KSA

Customer Challenge

- Integrated and distributed control system (SICD) for Protection, Control, Supervision and Energy Measurement for the High Speed Lines Electrification in 2x25kV system.
- Implementing specific railways functionalities:
 - IEC61850
 - Interlocking,
 - Automatic fault clearance,
 - Fiscal Measure,
 - Oscilloscope perturbation
 - Transport Network connection
 - Tele control SCADA system interface

The Solution

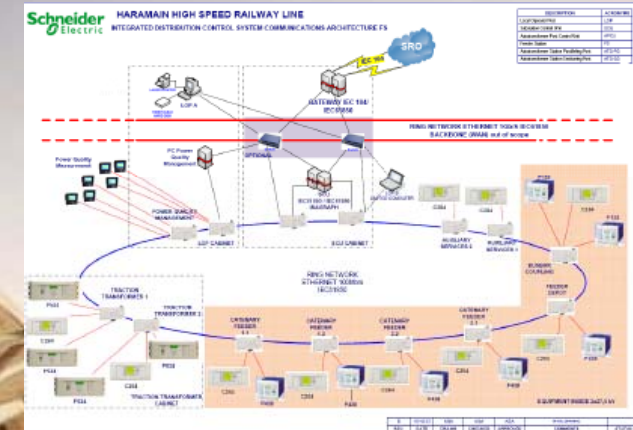
The whole Schneider Electric Solution for Traction Power in 2x25kV in AC

Customer Benefits

Total guarantee for the behavior of the solution due to the wide experience accumulated

25 years of High Speed Line systems

Expert in 2x25kV Traction Power solutions



- WAN Switches: 90u
- LAN Switches H356: 450u
- Bay Controllers C264: 600u
- Gateways: 132u
- Protection Relays: 180u
- Power Quality Monitoring: 36u
- Optical Fiber 1100km

