



EESL3 PROJECT

5 MILLION METERS PAN INDIA

Sylvain JOUHANNEAU – Smart Grids Project Manager

DISTRIBUTION UTILITY MEET

07-08 November 2019, Eros Hotel, New Delhi



EDF INTERNATIONAL NETWORKS

EDF International Networks, 100% subsidiary of EDF Group, offers **engineering and operation capabilities** to power distribution companies, development banks & investment funds, with **3 types** of contract structure:

- **Consulting** – Assessment of all areas of a power distribution company
- **Project management** on specific technical developments (for ex. Strategy, management & implementation of smart meter systems)
- **Direct or delegated management** of power distribution concessions or companies



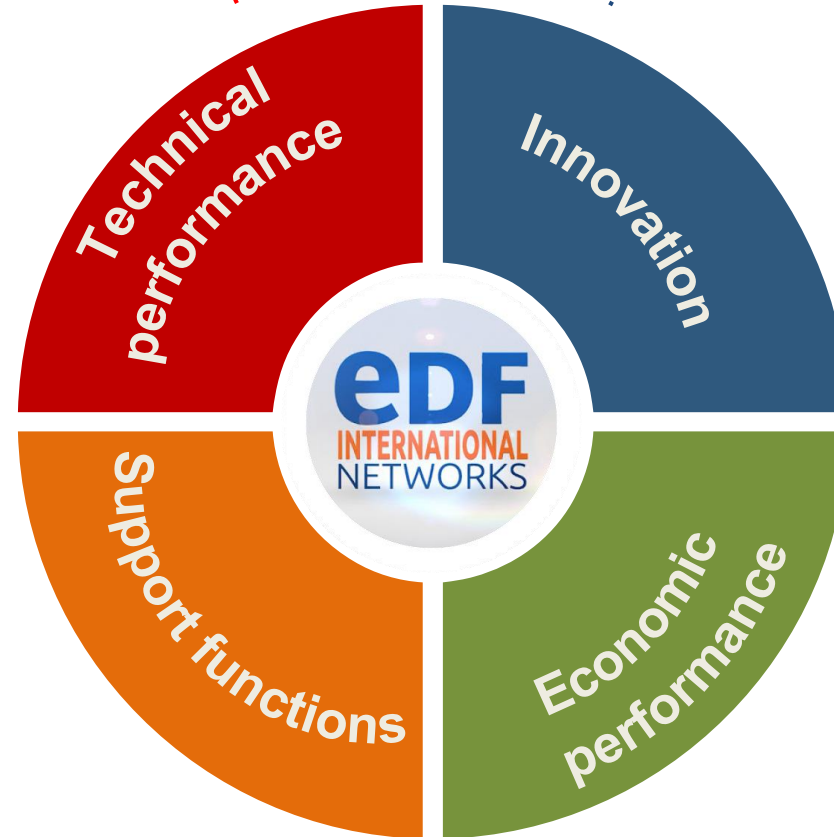
EDF INTERNATIONAL NETWORK SERVICES

Technical performance

- General technical assistance
- Technical audit
- Network Planning:
Master plan & Smart Planning
- Emergency planning
- Network monitoring
- Operation & Maintenance
- Engineering
- High/Medium/Low
Voltage Live Works
- Protection plan

Support functions

- Training
- Framework and standards
- Prevention, safety and health
- Supply chain
- Emergency management
- Human Resources
- Information Technologies



Innovation

- Smart metering
- Smart grid
- Renewable integration
planning
- Microgrids
- Automation
- Data management
- Digitalization
- Predictive maintenance
- Smart electrification

Economic performance

- Technical losses
- Non technical losses
- Customer management
- Metering, billing and
recovering chain
- Pricing regulation
- Performance management
- Delegated management

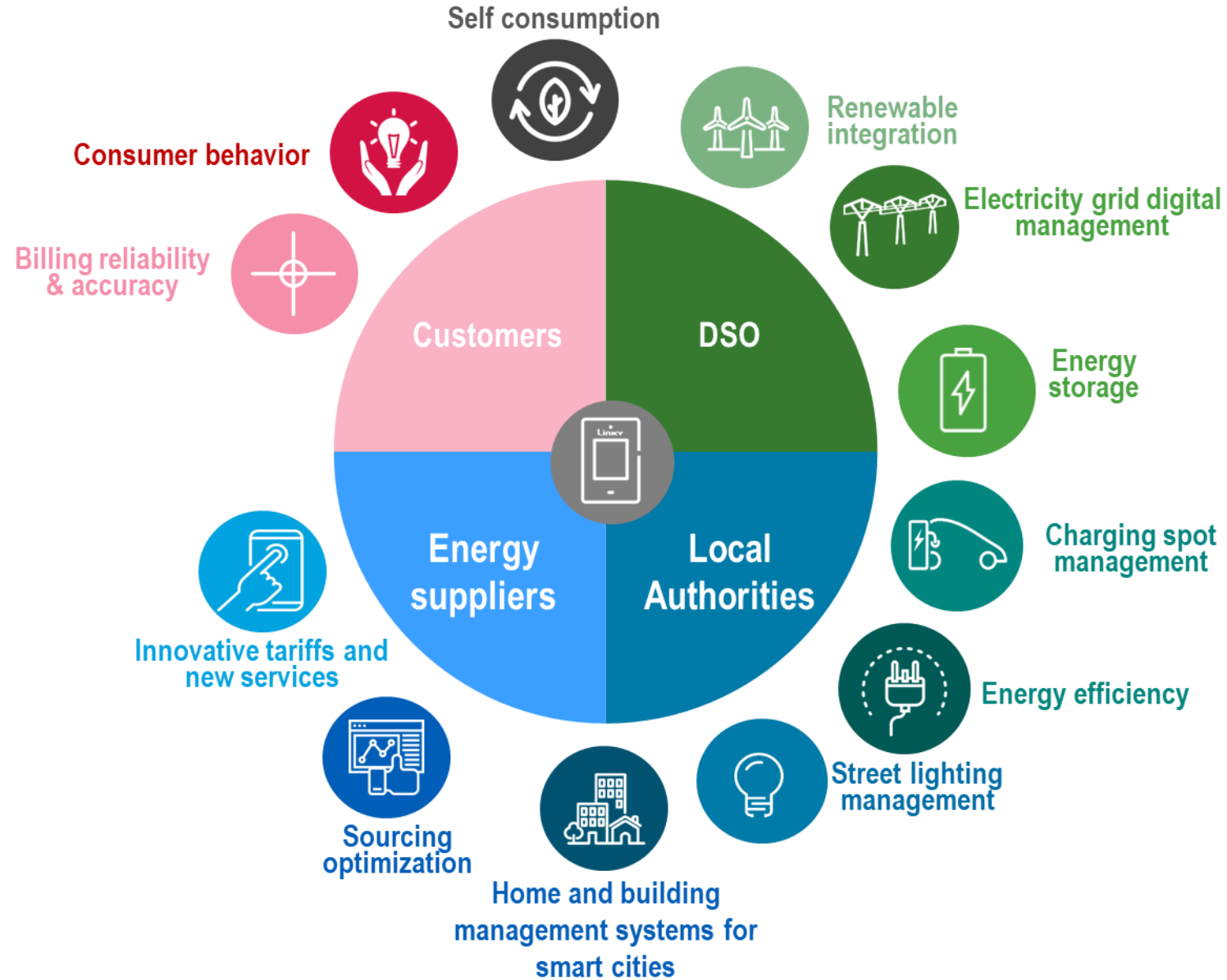
1

FRENCH ENEDIS LINKY PROGRAM

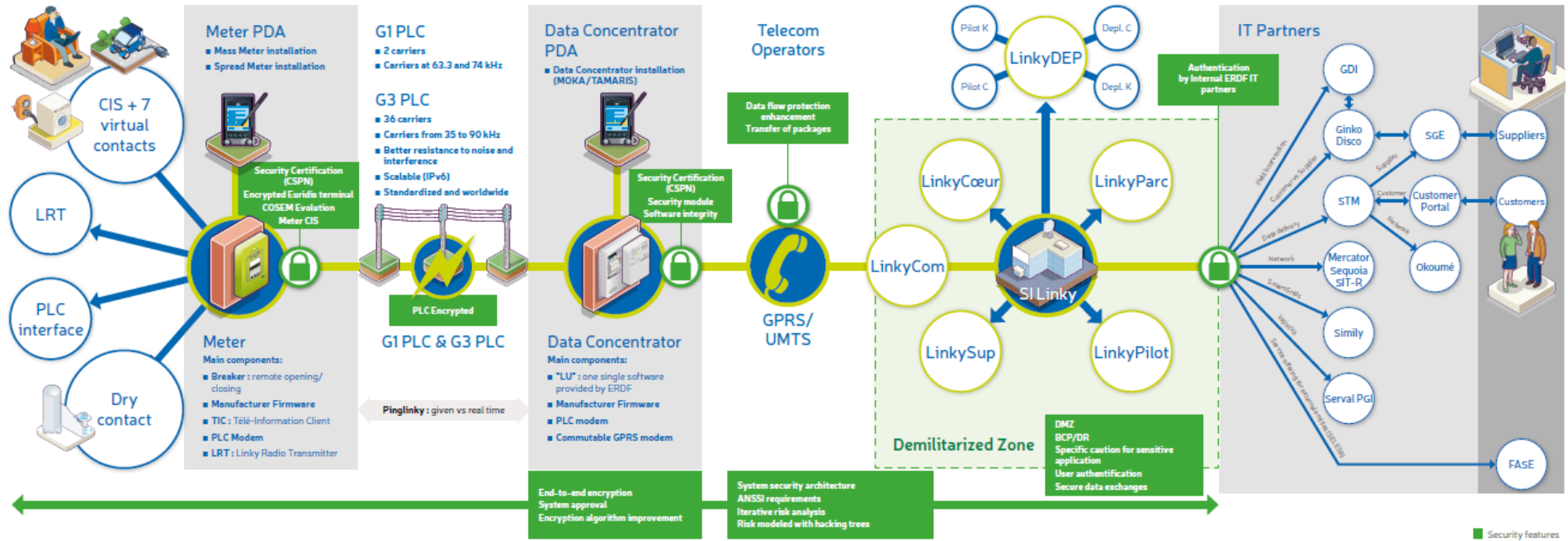
IT SOLUTION DESIGN & BUILDING



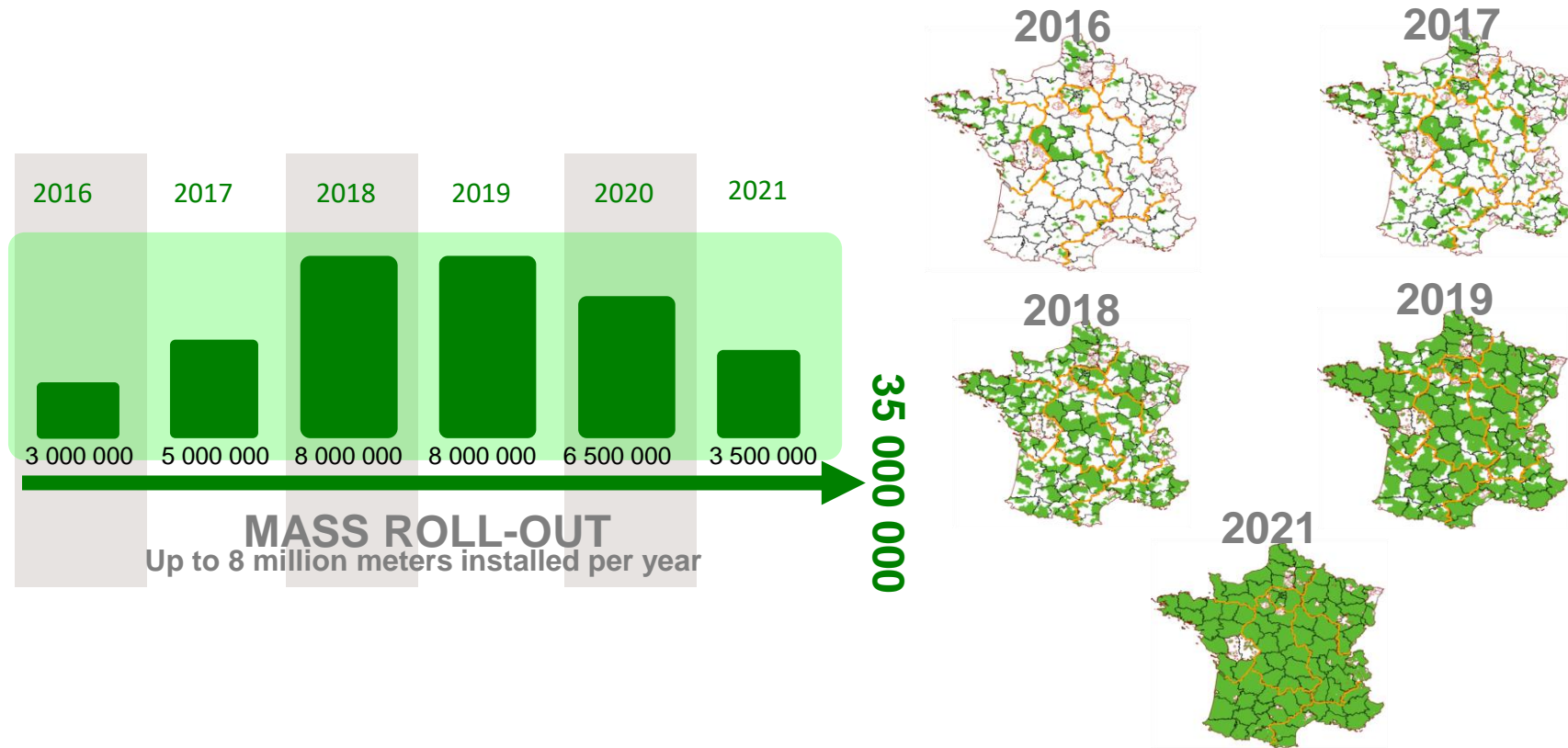
SMART METERING AT THE HEART OF ENERGY TRANSITION



THE LINKY SYSTEM



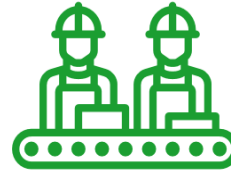
A LEOPARD PATTERN SPOT STRATEGY



TARGET 2021 : 35 MILLION SMART METERS



22 000 000 METERS
INSTALLED
> 30 000 METERS INSTALLED
PER DAY



700 000 METERS
PRODUCED **PER**
MONTH



> 3 000
OPERATORS IN THE FIELD
PER DAY



99,5%

SUCCESS RATE OF
REMOTE OPERATION
(RIGHT FIRST TIME)



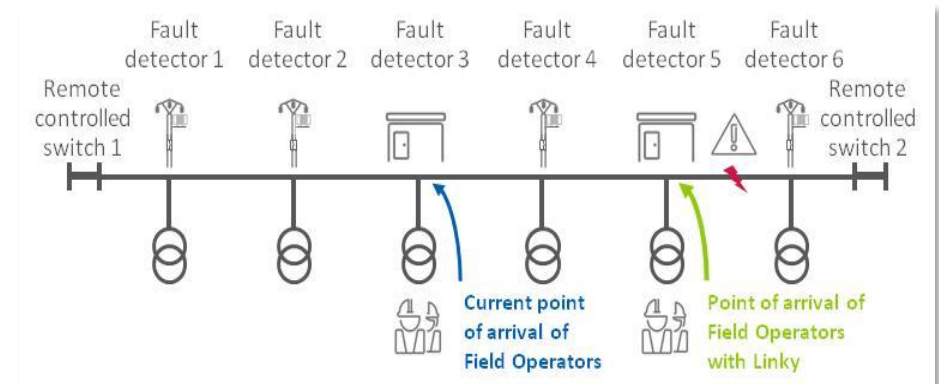
98 % DAILY
COLLECTION RATE
(23h59)



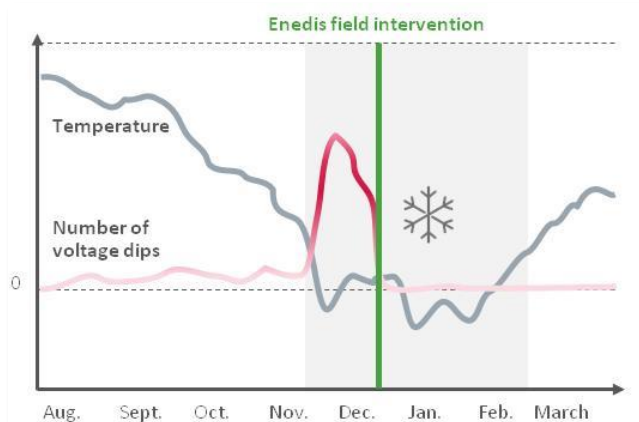
> 1 billion
DATASETS
COLLECTED / TRANSFERRED /
STORED PER DAY

DSO NETWORK SERVICES

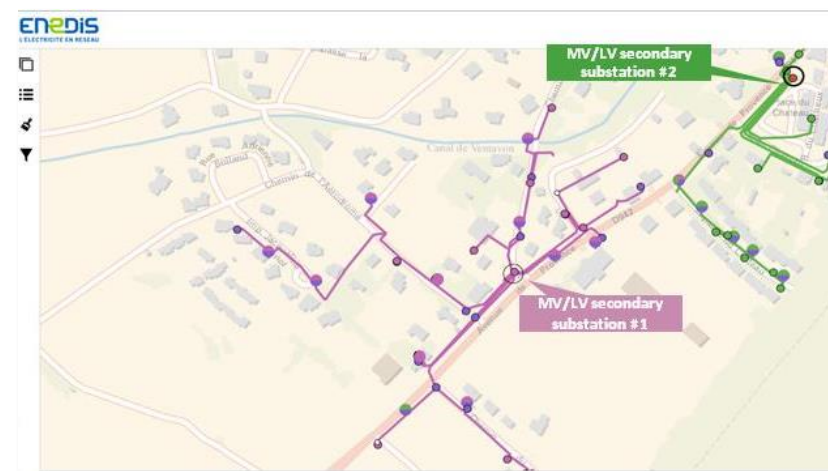
Network management	Technical possibilities offered by the Linky system
Improvement of MV network fault management	Remotely transmit information from sensors / fault detectors Being notified of the power loss of a Data Concentrator
LV network monitoring	Detect and locate an overvoltage situation Notification of a fuse failure or a phase loss
« Ping »	Remotely consult a meter or group of meters to distinguish between individual and multiple faults



New opportunities for improving quality of supply monitoring



New opportunities for updating maps and databases



2

First Smart Prepaid Solution in India

GPRS Based technology

IT SOLUTION DESIGN & BUILDING

KEY MILESTONE IN THE JOURNEY SO FAR



October 2018

Launch of the project



April 2019

Deployment of Agriculture meters



July 2019

Release of Pre-Paid functionalities



September 2019

Prepaid solution
validated with 1500
meters in Arwan and
Kanti

PREPAID SMART METERS BENEFITS



CUSTOMER BENEFITS

Budget optimization

Customer alert before money shortage

Delay to top-up the account



Recharge on
Mobile App



Wait for





CUSTOMER BENEFITS

Support different types of tarification schemes

ToU, tarification for poor fuel customers etc.

Net metering

Renewable energy integrated



Fast interventions



Detailed information on energy consumption

& responsibility

« Start metering, start saving »





DISCOM BENEFITS

1. Act Remotely

- Connect and disconnect on demand (customer or Discom)
- Switch from prepayment to postpayment

2. Reduce Fraud

- Tampering alert and information

3. Technology Input

- Reduction of permissible load
- Power curtailing
- Evolving solution (firmware upgrade)
- Data analytics

4. Pre-payment

- Reduce outstanding debts
- Increase revenue

3



METER INSTALLATION PREPARATION

METER TESTING BEFORE INSTALLATION (PATNA)



FIELD WORKER TRAINING



4



CI& METER DEPLOYMENT

ONGOING DEPLOYMENT IN BIHAR



Meter installation From November 4th

EDF QUALITY CONTROL TEAM



THANK YOU

Sylvain JOUHANNEAU
Smart Grids Projet Manager
sylvain.jouhanneau@edf.fr



Marc DELANDRE
Smart Metering India - Project Director
marc.delandre@edf.fr

ENEDIS, THE MAIN FRENCH DSO

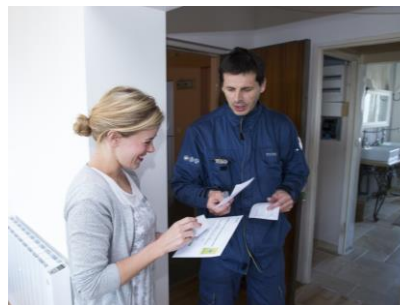
100% owned by
EDF Group
(subsidiary
since

€14 billion
turnover
€ 4.0 billion
EBITDA

Electricity distribution,
a regulated activity,
overseen by the French
Energy Regulatory
Commission (CRE)

Enedis manages the public electricity
distribution network for 95% of mainland
France

Our public service mission: continuity
and quality of service with non-
discriminatory access to the network,
regardless of the electricity supplier.



1.35 million km
Power Lines



36 million Connected
Customers



38,500 Employees



11 million Customer
Interventions / Year



400 000 generation
facilities connected
to the distribution
grid in France