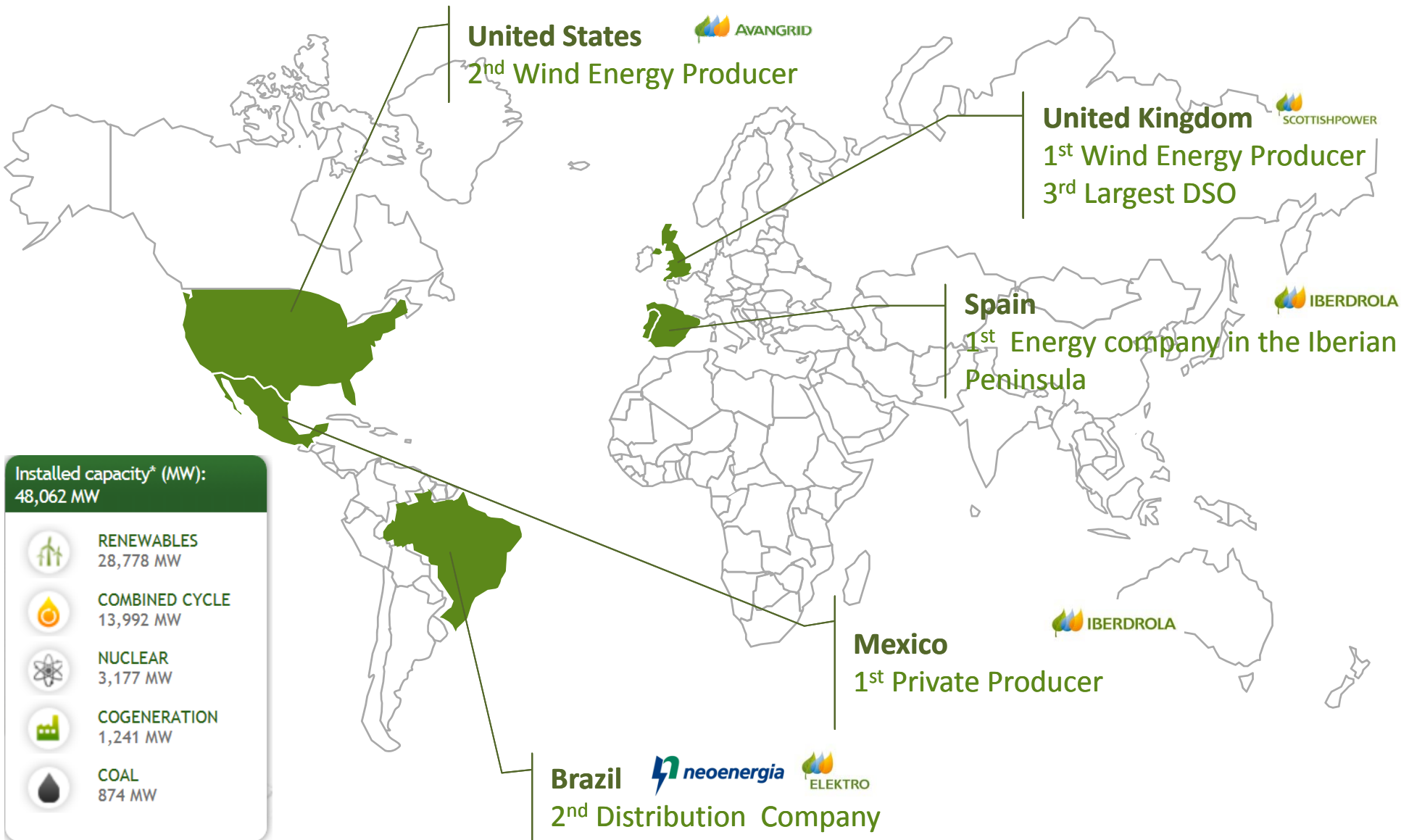




International Beirut Energy Forum
25th September

AMI Benefits

IBERDROLA - THE UTILITY OF THE FUTURE



Digitalization in Spain – Iberdrola STAR Project



...2018 end of deployment

11 M

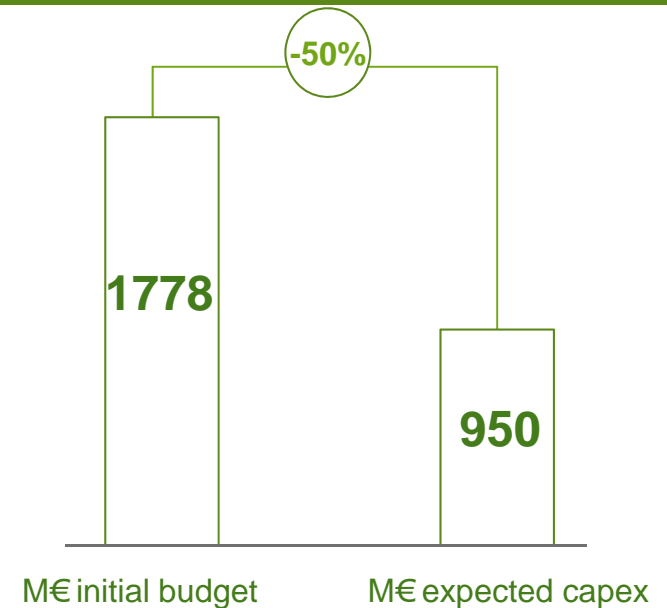
Domestic smart meters integrated in system

80k

Secondary substations adapted

20k

New automation points



New functionalities

- OBLIGATION**
- Reading of energy and power
 - Reading of power quality characteristics
 - Programming remote tariffs
 - Remote connection and disconnection

- OPPORTUNITY**
- Monitoring of MV and LV
 - Alarm facilities
 - Detecting network faults
 - Automation and real-time control MV network

Digitalization in Spain: Economic benefits



OPEX Savings

22 M€ Savings in Meter Reading

23 M€ Savings in Field Works

Other Efficiencies

~1000 FTE efficiencies enabled

Additional Revenues

79 M€ Increase in meter renting (2,88€/meter-year)

17 M€ New rented meters

29 M€ Increase in Power Limitation Term

38 M€ QoS (regulatory incentive)

15 M€ Loss Reduction (regulatory incentive)

19 M€ Loss Recovery (fraud)

(*) Accumulated benefits 2011-2017

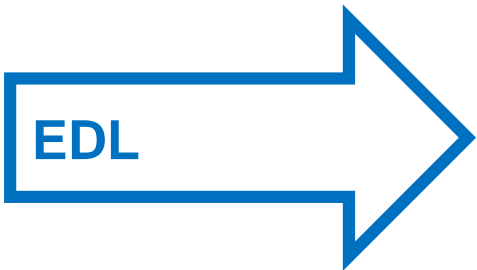
... which leads close to 250 M€ accumulated benefits in 2017 (vs 2010)...

Benefits of AMI for Lebanon

Ministry plan of action

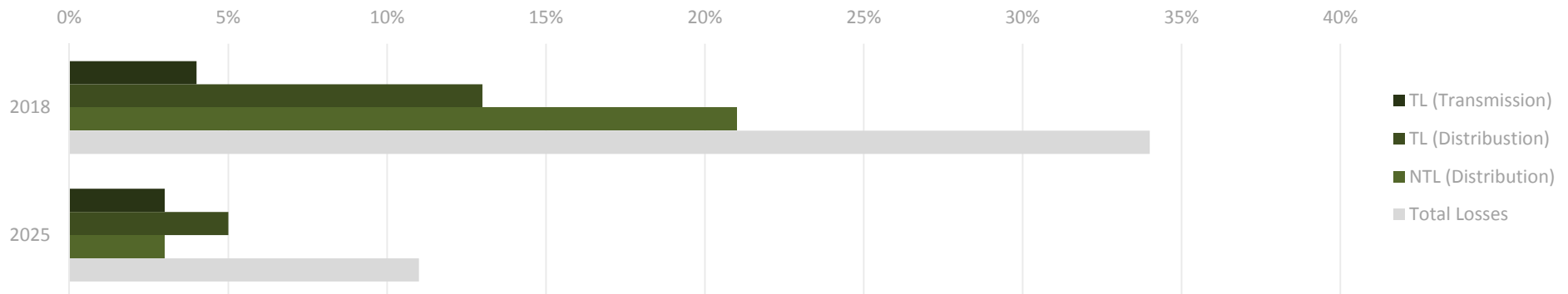


- Assists the Lebanese consumer to reduce household consumption of electric power
- Facilitating the integration of renewable energy resources & adoption of new tariff structures
- Gradual reduction the rationing of Electric Power



- First step towards establishing a Smart Grid
- Determination and Reduction of EDLs' Power System Losses
- Increased financial return for EDL
- Preparing the suitable ground for introducing future advanced applications in the Lebanese electric power sector

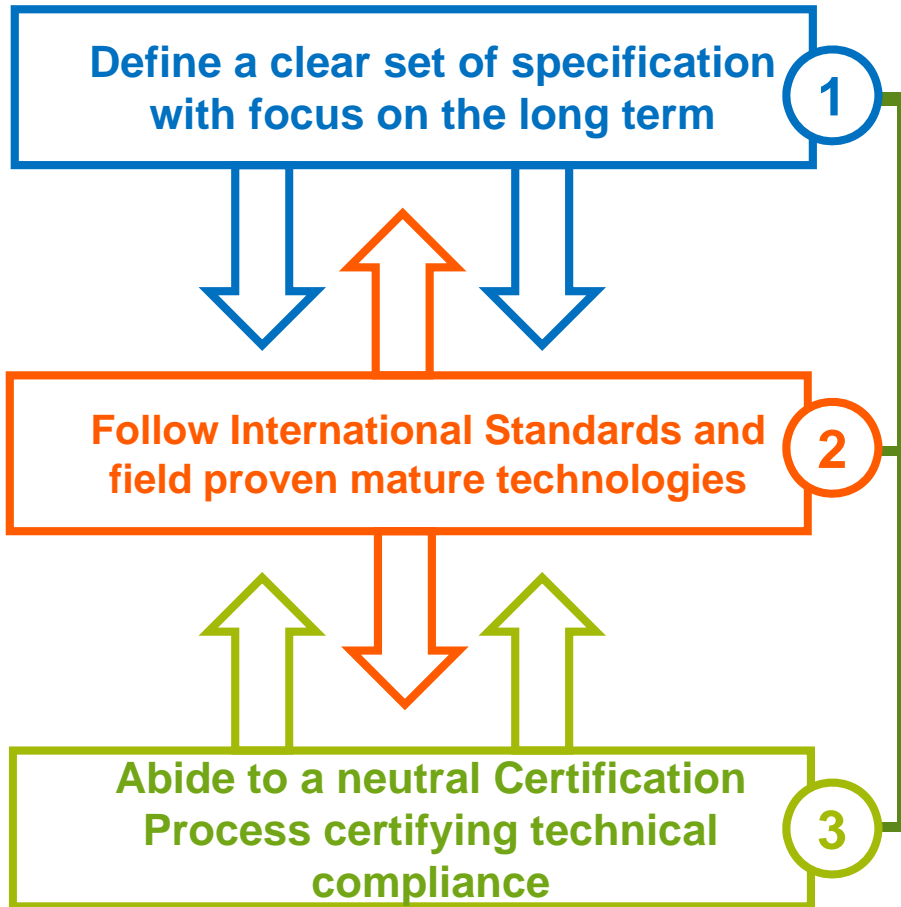
Scheduled Rates of Reduction of Technical & Non-Technical Losses



Source: EDL / Ministry of Electricity and Water of Lebanon – Power Sector Plan policy paper (Update March 2019)

What has been done so far? / The need for open standards

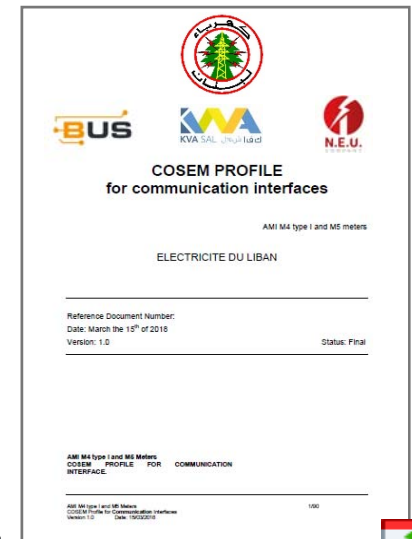
AMI Technical Goals



Completed Outcomes

- AMI Technical Specifications
- First Lebanese Companion Standard
- Clear Certification Process
- 3 AMI Solutions already Certified

DEPLOYMENT STARTED IN 2 DPSs





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Javier Hernandez
Iberdrola Innovation Middle East

Thank You