



IBERDROLA
DISTRIBUCIÓN ELÉCTRICA

Networks Business

June, 5th 2018

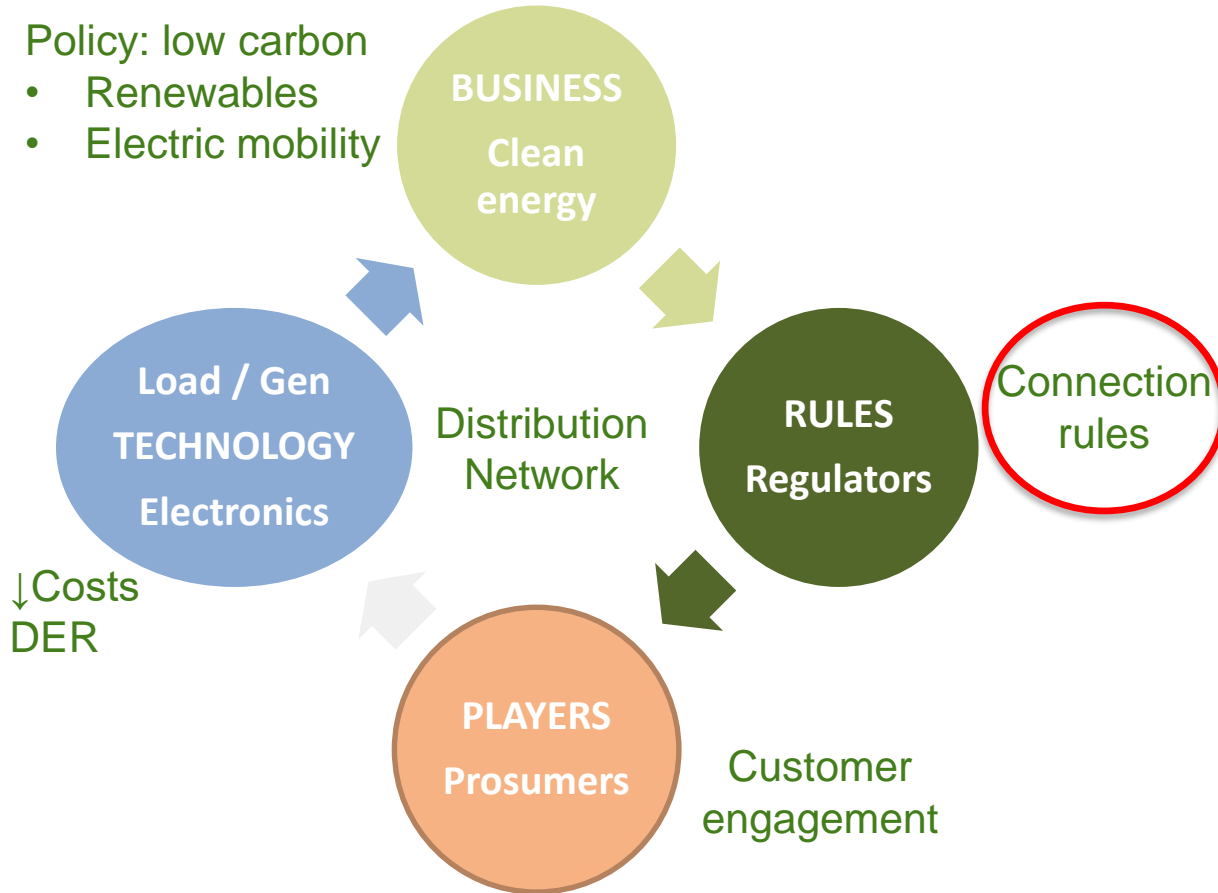
BIDELEK 4.0 project

Digital grid

Luis Layo

Changing scenario

- Policy: low carbon
- Renewables
 - Electric mobility



High penetration of renewables and electric mobility in distribution Network energy services: smart access (“connect and manage”)

Need to improve grid digitalization



HV Network



Primary Substations
($\times 10^3$)

MV Network



Secondary Substations
($\times 10^5$)

LV network



Smart Meters
($\times 10^7$)



Secondary substation

- Sensoring+Telecoms
- Monitoring and control



Primary substation:

- Standardization
- Smart control
- Cybersecurity



Services oriented to provide active information and value to the consumer



Services and value

- Customer experience: on web / app channels



Bigdata

- Integrate process in business: data analytics
- Digital model of physical assets: failure modes ...



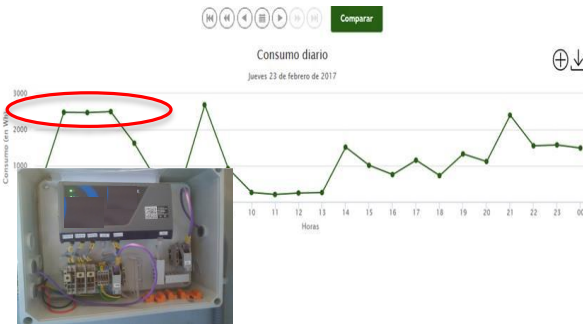
Cloud platforms

- Empower the new users: flexibility
- Platform for coordination: network services

Prepare the future: IoT?

Innovation according to “NO REGRET ACTIONS”

Simplification, stability, scalability to prepare future technologies



In our roadmap → Digitalization and bigdata

- New digital assets and network data
- Analytics to provide Information
- Back-office intelligence

In pilot projects → Operation/intelligence

- Centralized + distributed control
- Platforms: information + ¿?



Services

- Flexibility: Σ DER capacity
- Players: who is there? users / things