

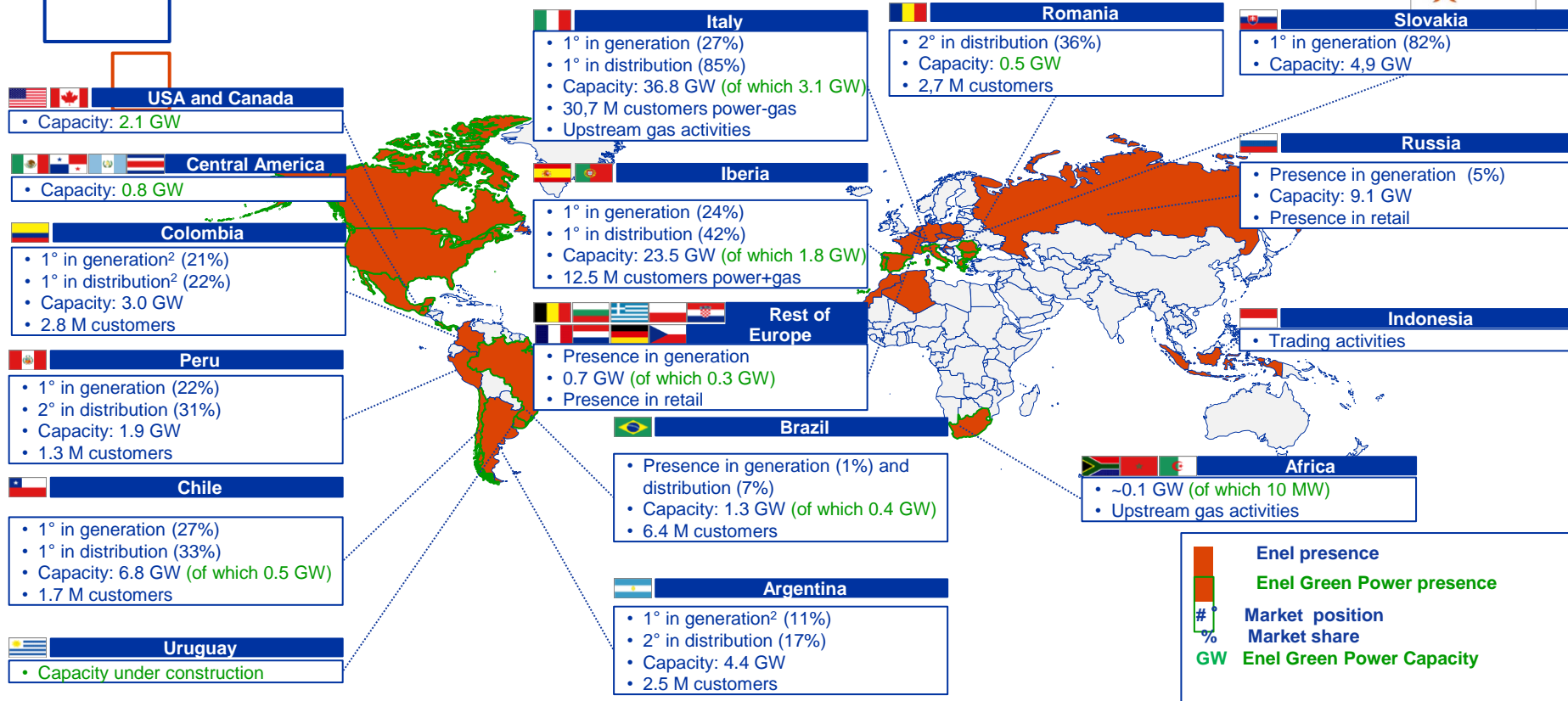
Smart Grids: Distributor's key role

Gianluigi Fioriti
Enel Distribuzione, CEO

Stresa, 26/08/2015



Enel's global presence¹



1. As of 31st December 2014
 2. Smart Grids: Distributor's key role
 Stresa, 26.08.2015

Global diversified player in more than 30 countries

Enel's presence in more than 30 countries is a result of its global strategy, which is based on the use of the recipient only for the purposes for which it was received. It may not be copied or disclosed in any way without the explicit permission of Enel SpA.

USE: Public
 Issuing: I&N Italy

Operational data¹



Key indicators



Infrastructure & Networks

61 mn end users
37 mn smart meters



Retail

56 mn power customers
5 mn gas customers



Renewables

9.6 GW of installed capacity

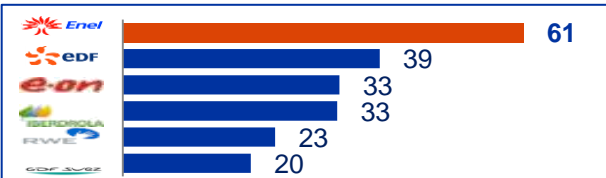


Conventional generation

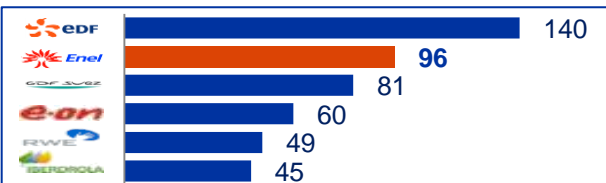
86 GW of installed capacity

Enel and European peers

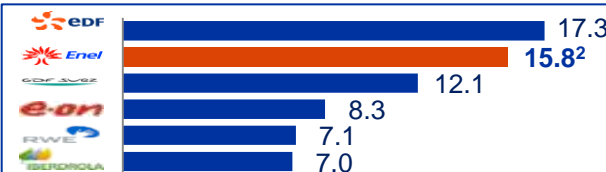
Customers [mn]



Installed capacity [GW]



EBITDA [€bn]



Leadership along the various segments of the value chain

¹ Data as of 31st of December 2014

² Including non recurring items

Innovation at Enel



Conventional generation

Improvement of **operational and environmental performance**, **reducing emissions**



Renewable energies

Improvement of performance of **all the available technologies**, integration of **storage** and research in **new technologies**



Infrastructures and networks

Continuous development of **smart grids** to manage distributed generation, **electric mobility** and increase the **electric system reliability**



New products and services and e-mobility

Development of new business models, to **increase people's quality of life and to propose innovative solutions for companies**, through the launch of **new products and services mainly electricity based**

Innovation as a basis for growth and consolidation of our leadership



Infrastructure and Networks Italy 2014



The Company

- Headcount 16.890
- Blue Collars 6.972

Business Size

- Customers 31,6 Million
- DG Connected 592.000
- Market share - Customers 85%

The Network

- 1.130.000 km lines: MV 350.000 km; LV 780.000 km
- 2.100 HV/MV substation, 100% all remote controlled
- 430.000 MV/LV substation, 30% remote controlled



Second largest DSO in the world

Scenario Italy

Growth of **Distributed Generation from Renewables**
Energy Efficiency Target even more constraining

Focusing on **electricity carrier**
Infrastructure convergence
New Services for retailers and final customers

Need to invest on network to ensure security of supply in
a even more complex scenario

Bidirectional communication with customers
becoming even more “**prosumers**”

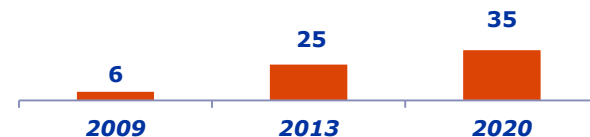
New technologies for energy storage and electro
mobility

Increase of **broadband connectivity**

**Primary
Consumption
(MTEP)**



**Distributed
Generation
(GW)**



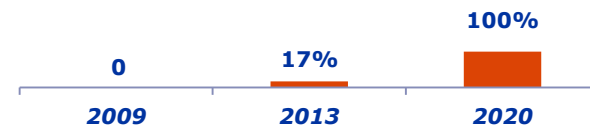
**Prosumers
(thousands)**



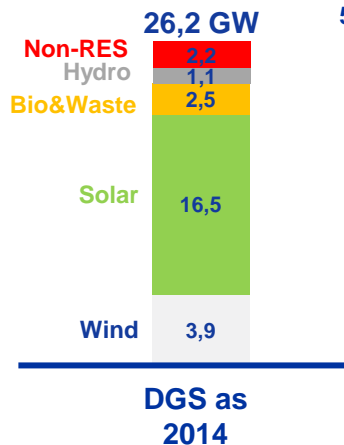
**Electric Vehicles
(PHEV+BEV Italy)
(thousands)**



**Ultra-Broadband
Connection
(Italy)
(% population)**



Integration of Renewables 2014 – Connections and Power



NORTH-WEST
137.865 connections
5.551 MW

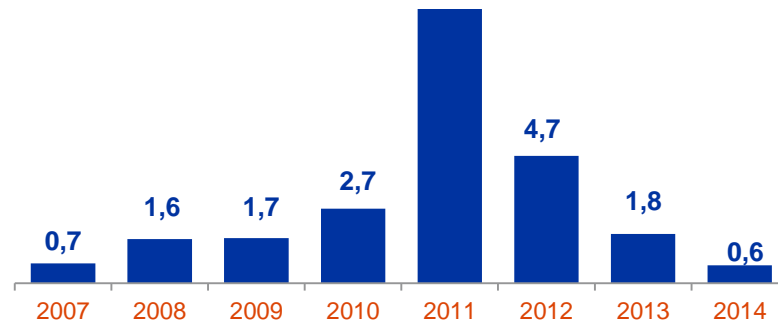
NORTH-EAST
194.341 connections
6.483 MW

CENTRAL
149.850 connections
6.178 MW

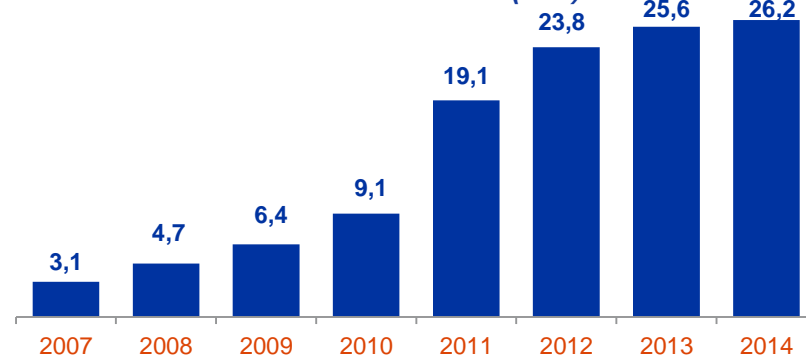
SOUTH
109.911 connections
8.028 MW

ITALY
591.967 connections
26.240 MW

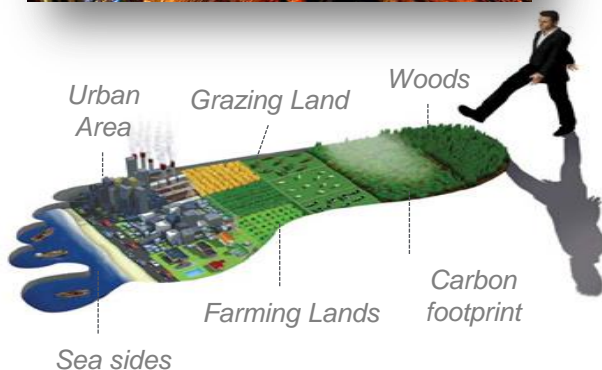
Connections per year (GW)



Cumulative connections (GW)



Anthropization

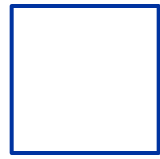


- Cities averagely consume from 60% to 80% of the energy in the world
- They are responsible for the largest amount of Green-House Gas emissions
- At 2050, it is estimated that 65% of the people will live in cities

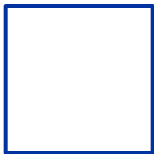
Cities represent a high potential for energy efficiency actions

Cities as opportunities

Smart Grid and Smart City Vision



New strategic role of the Infrastructure



MILANO 2015



Enel Distribuzione - Smart Energy Partner

- 100 secondary substations, 75 MW power demand
- Innovative automatic control system and fault detector
- 270 kW Storage integrated with RES
- EV infrastructure with 100 Pole Charging Station
- Energy Management System
- Operative Center for the control of all electrical parameters

Smart Grid at the forefront

High Quality of Service for Expo

Enel's Pavillon

