Enel Green Power

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Green Power

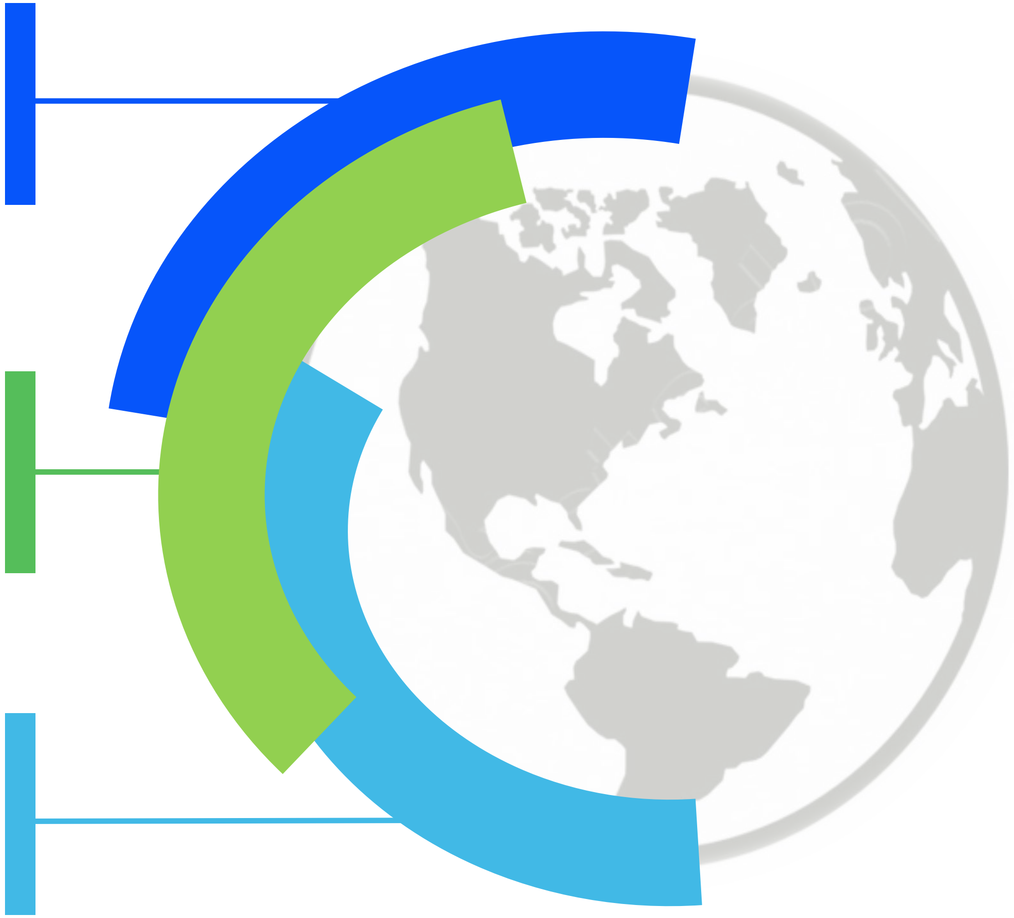
Enel Group Introduction

Leader in the new energy world

1st **network** operator[1]

World's largest private player[2] in **renewables**

Largest retail **customer** base worldwide[1]



73 mn end users

43 GW capacity[2]

46.5 GW capacity[3]

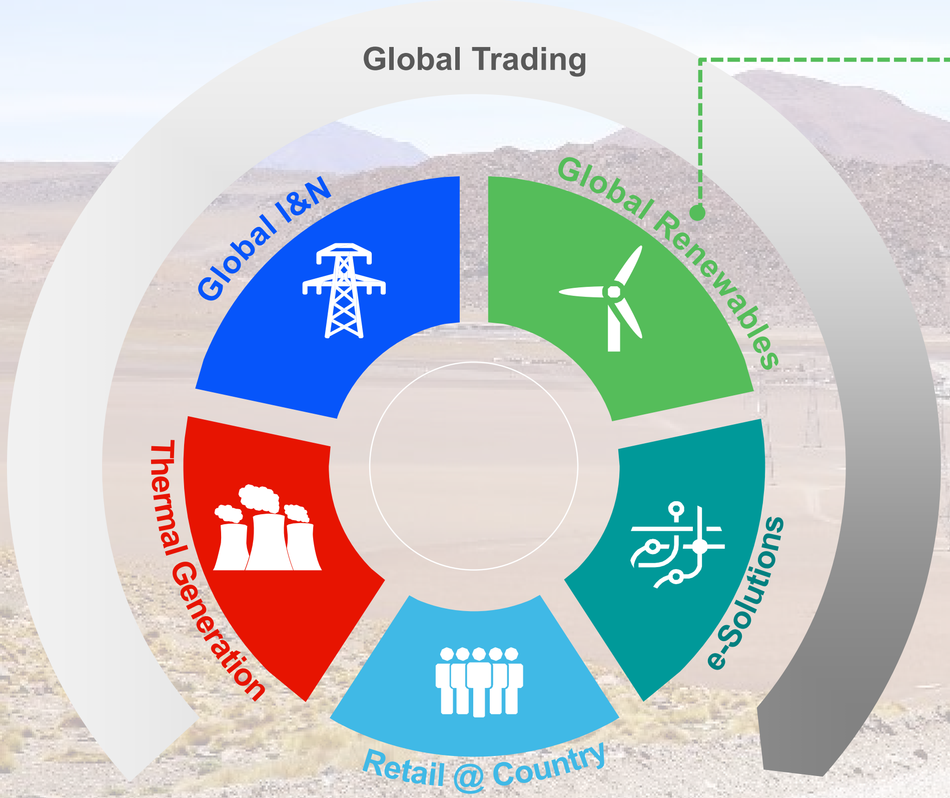
5.7 GW demand response

~ 64 mn customers[4]

1. By number of customers. Publicly owned operators not included
2. By installed capacity. Includes managed capacity for 4.2 GW
3. It includes nuclear
4. Includes customers of free and regulated power and gas markets

Enel Group Introduction

Enel Green Power role within the Group



- **Enel Green Power**:
  i) Enters new markets
  ii) Ensures industrial growth
  iii) Reduces emissions
- **Key Features**:
  1. Geographically and technologically diversified
  2. First mover in new markets
  3. Flexible time to market
  4. Innovation and sustainability as strategic pillars

Enel Green Power

Global Footprint

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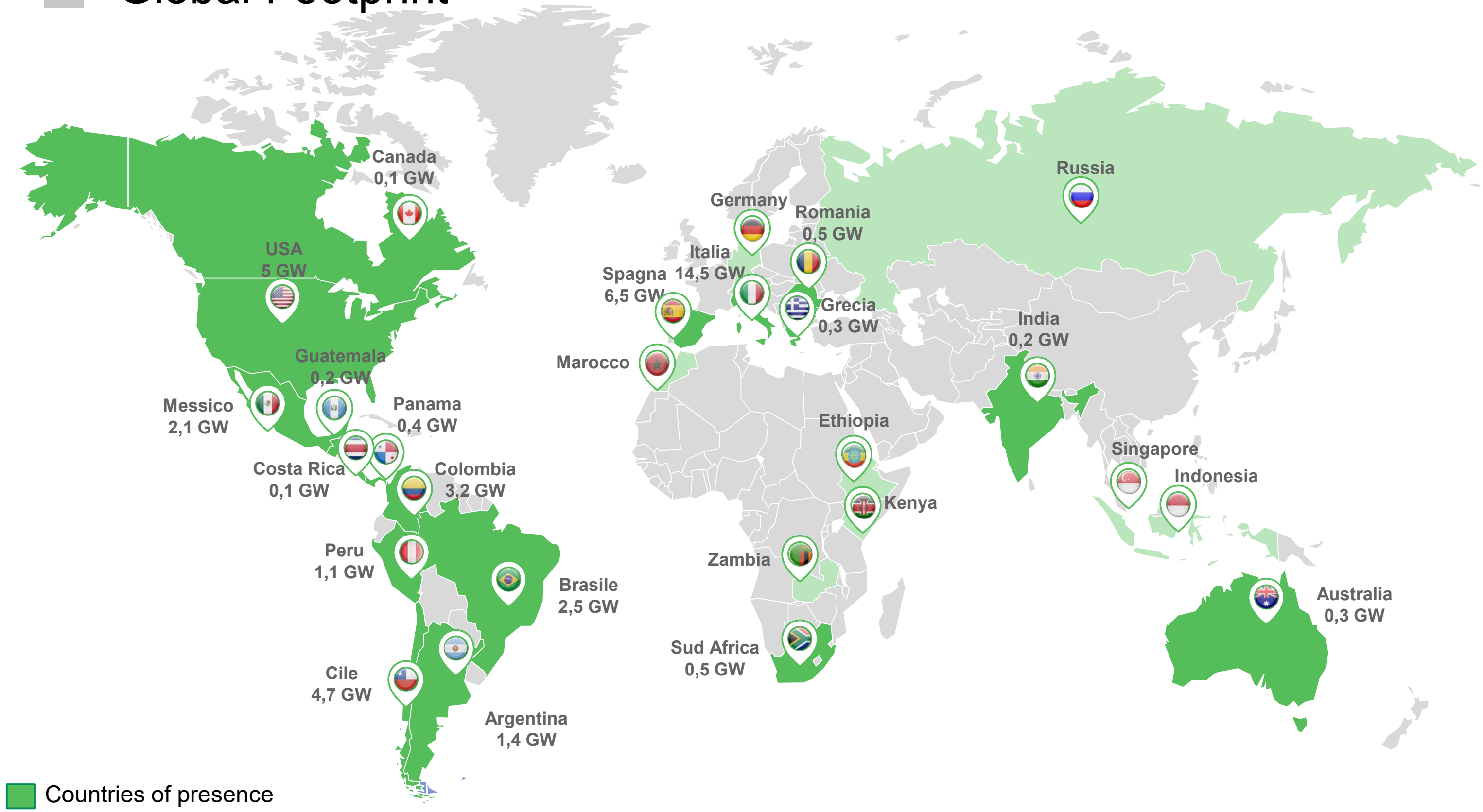


Countries of presence

Countries with advanced stage of development

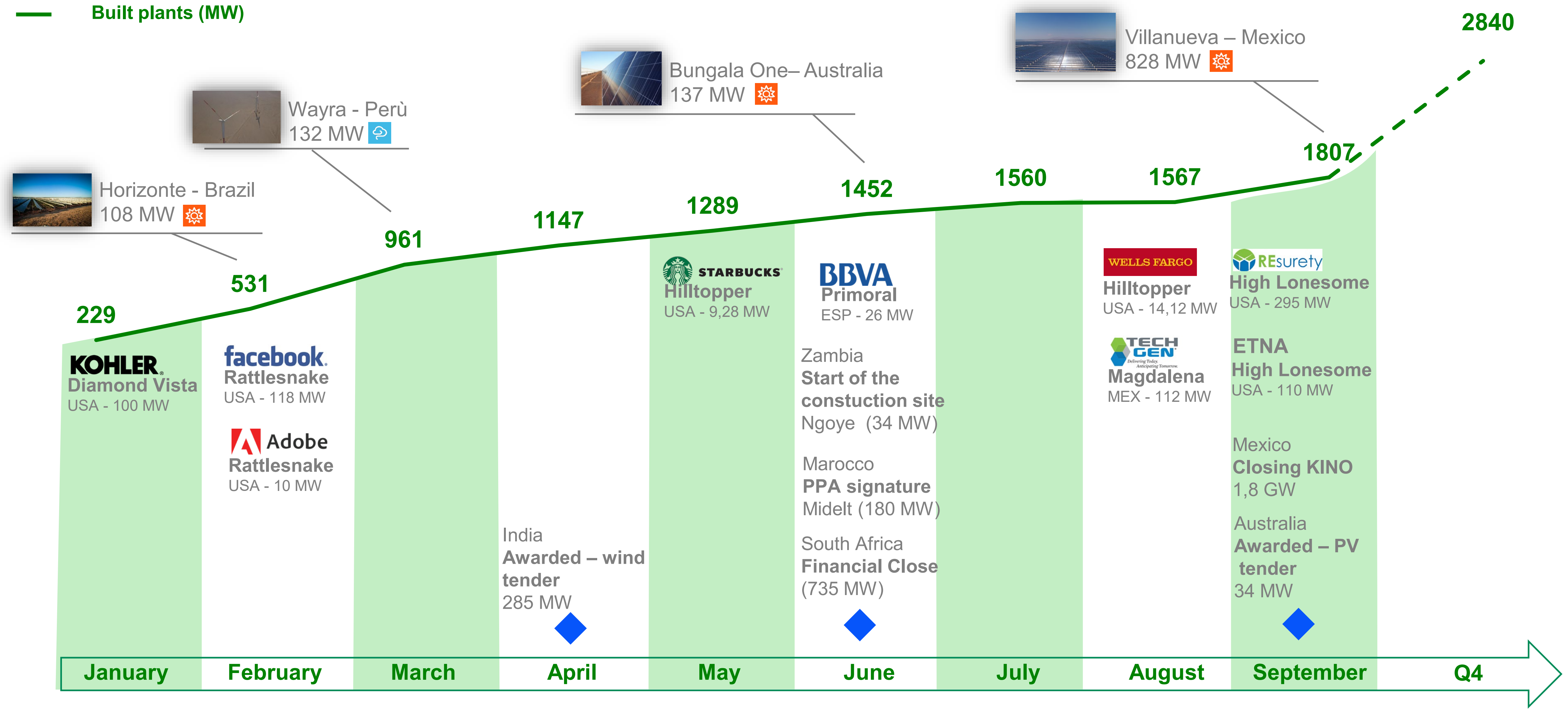
Consolidated capacity (GW)	7.4	2.3	27.8	0.8
Managed capacity (GW)	1.8	0.4	0.3	0.1

Key figures	2017	Managed
Capacity (GW)	38.3	40.9
Production (TWh)	81.7	89.0

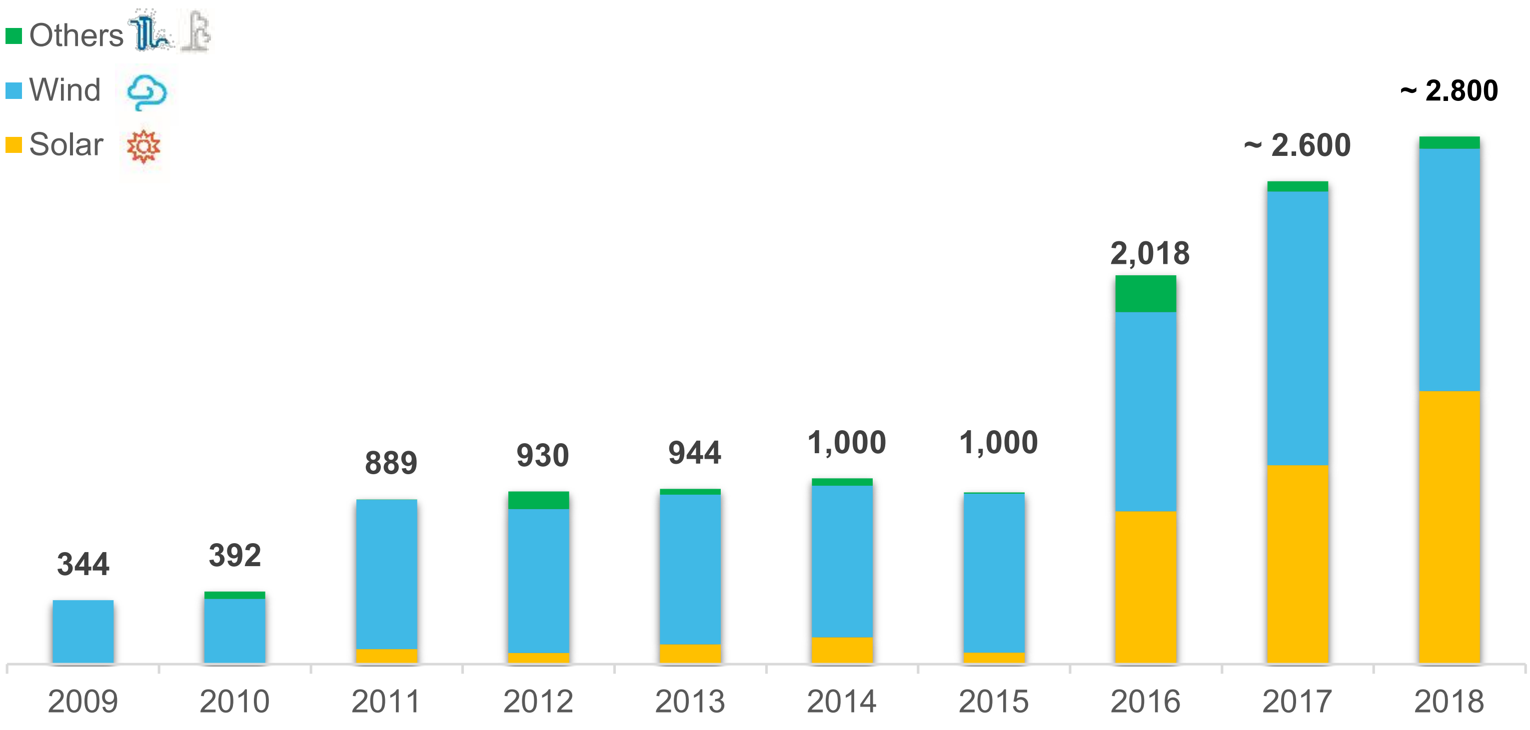
Key financials (€bn)	2017
EBITDA	4.1
Opex	1.4
Maintenance capex	0.3
Growth capex	3.6

Geo Hydro Wind Solar

2018 – Main achievements



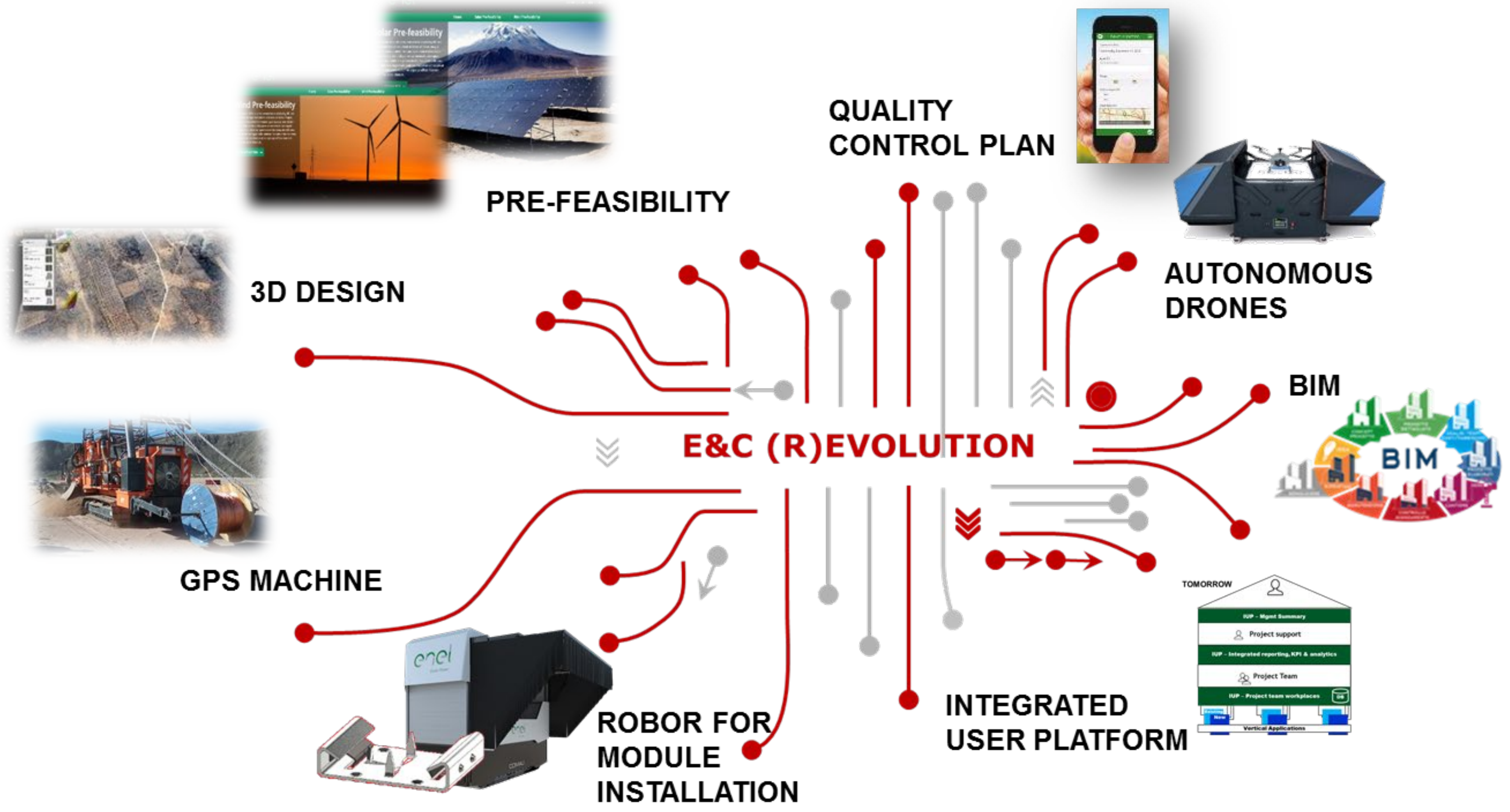
Growth of the annual installed capacity (MW)



The main challenges

- Support growth by ensuring construction and delivery of the plants
- Increase of the average size of the Power Plants
- Construction of power plants in remote areas
- Construction activities to be managed across 5 continents
- Continuous research and implementation of technologically advanced and innovative solutions in all sites

E&C (R)evolution – new constructions techniques and digitalization



Operation & Mainteance – Global Presence

1.280 plants +100 TWh produced(2018)

Note: 31.12.2018 data including plants managed in BSO. Argentina not including 35 MW of generators.

New businesses

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e-Industries	e-City	e-Home	e-Mobility
Consulting and auditing service	Smart lighting	Installation, maintenance and repair services	Charging infrastructure (public & private)
Distributed generation on/off site	Fiber optic wholesale network	Automated home management	Maintenance and other services
Energy efficiency	Distributed generation & energy services	Financial services	OEM back-end integration
Demand response and demand side management	Demand response and demand side management	Home 2 Grid	Vehicle Grid Integration

Flexibility

EnerNOC, Demand Energy Network, and eMotorwerk are now enel x

ENERNOC

DEMAND energy

eMotorWerks SMART [GRID] EV CHARGING

Demand Response (DR)

- JV with Marubeni "EnerNOC Japan"
- Manage >7GW of dispatchable DR capacity today
- ~15,000 C&I facilities participating in DR
- Operate DR in nearly all liberalised global markets
- Focus on load curtailment and backup generation

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Virtual Power Plants (VPPs)

+ Distributed renewable generation
+ Battery optimization
+ Smart charging and vehicle-to-grid
+ Microgrid controls

ITALIAN CHAMBER OF COMMERCE IN JAPAN 在日イタリア商工会議所 Create Connect Promote

EBC

Working with 33 TSOs and Utilities in 12 countries, We operates more than 50 DR/VPP programs globally

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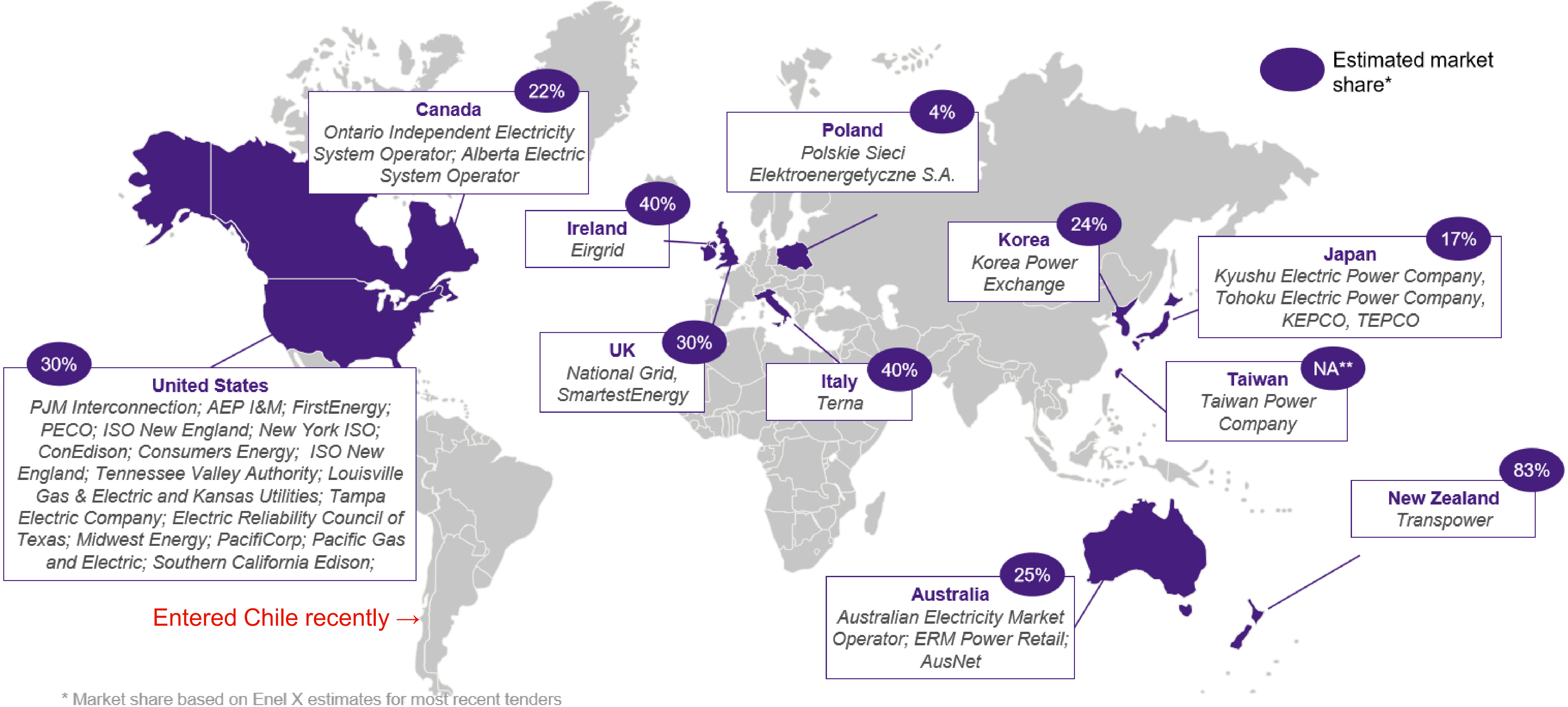


* Market share based on Enel X estimates for most recent tenders

** We have a small team in Taiwan developing the market but are not currently commercially active

Summary of Japan DR Program – 1’ Reserve

Standalone **Emergency DR Program** procured through annual auction by 5 regional system operators. We are present in 4 TDSO territories.

Procurement Body

Generation (deregulated)
TDSO* (regulated)
Retail (deregulated)

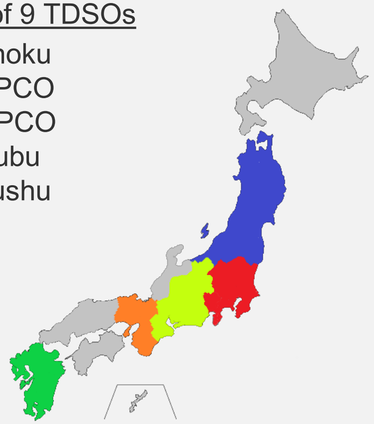
Network departments or **TDSO** of Big 10 EPCOs, are responsible for procuring **1’ Reserve** through annual auction to maintain system reliability.

*TDSO = Transmission and Distribution System Operator

Procurement Area

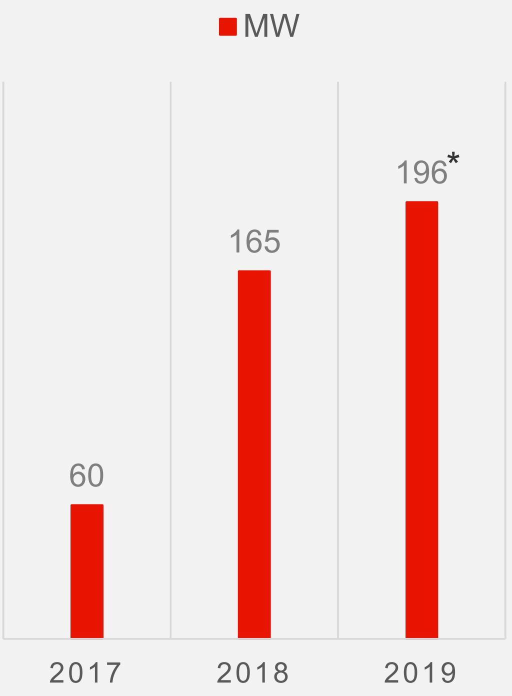
5 out of 9 TDSOs

1. Tohoku
2. TEPCO
3. KEPCO
4. Chubu
5. Kyushu



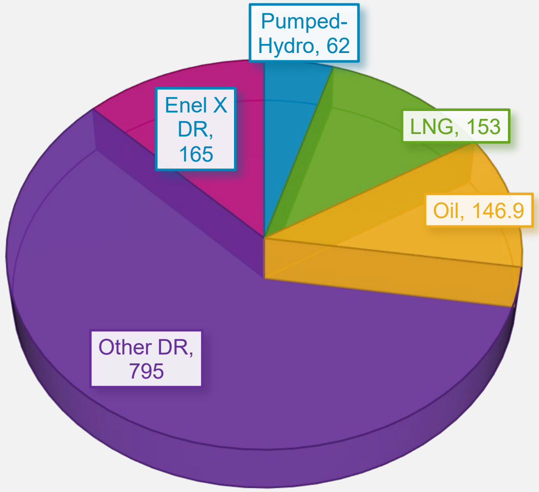
For Extreme Weather

Our DR Capacity



*Currently contracting with TDSOs

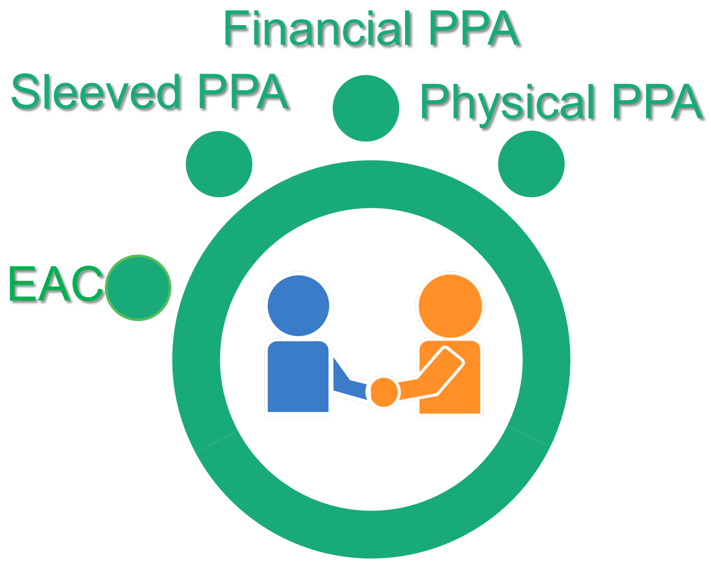
Resource Types (MW)



DR represents 70% of 1’ Reserve resources in 2018

Source: EGC

Corporate PPA business

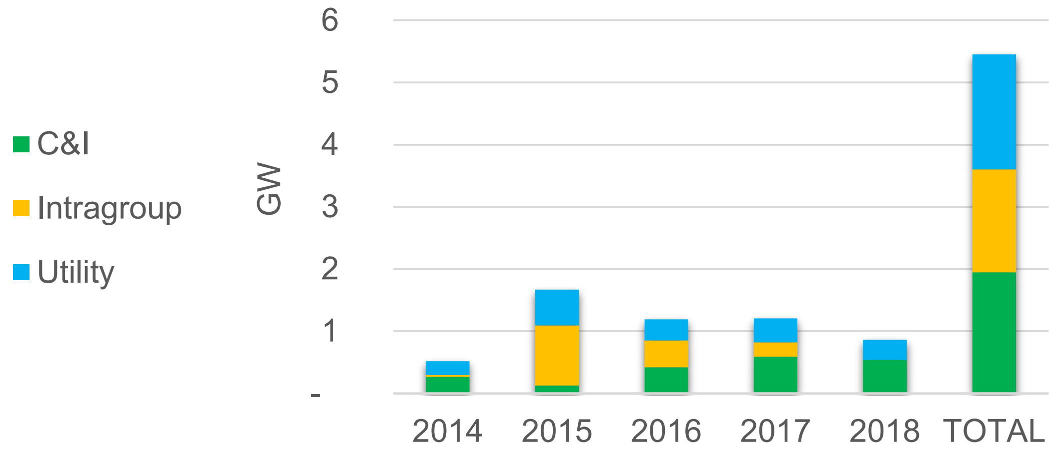


+ **Regulated Tenders**

Some PPA Partners

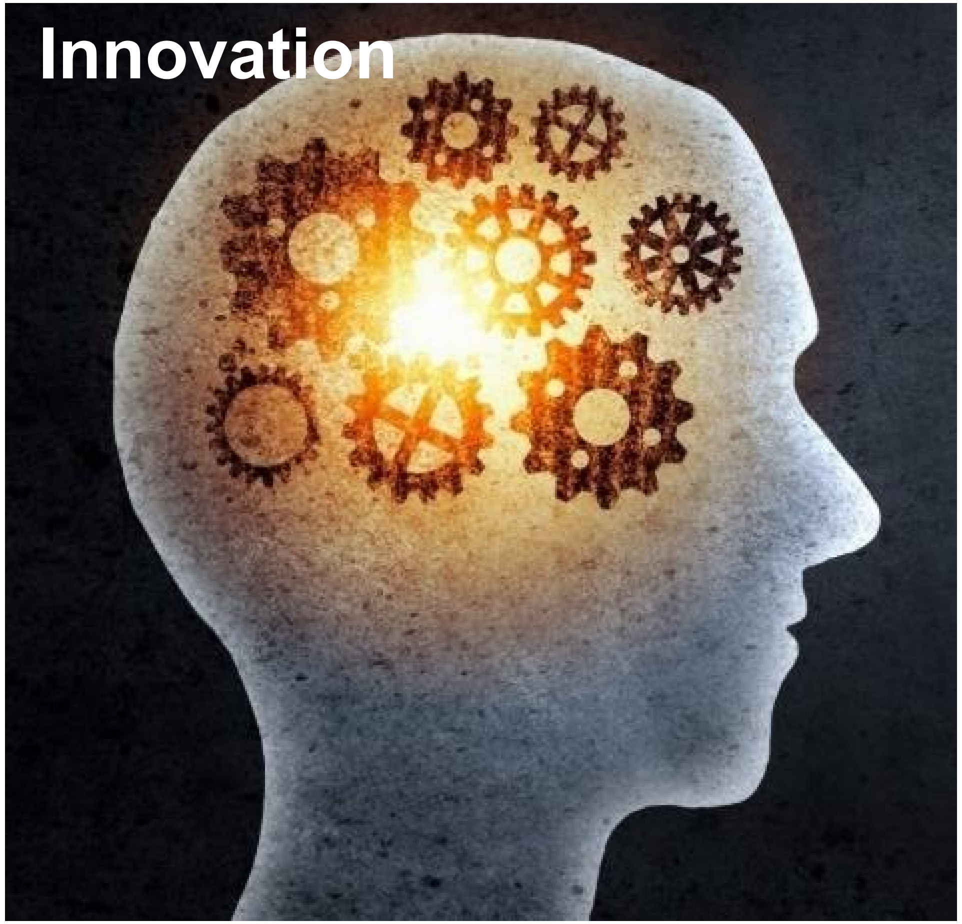
- Starbucks
- T-Mobile
- Heineken
- AB InBev
- Nestlé
- BBVA
- HSBC
- facebook
- KOHLER
- Google

PPAs Signed: 5,5 GW



Strategy pillars

Shared value creation within company, environment & communities



Sustainability

Sustainability
pillars full implementation

Nexus water, food, energy

CSV projects
in emerging countries

Partnership with
multilateral organizations

The Enel Green Power **sustainable** ecosystem

Local Communities

NGO and Social Enterprises

To extend CSV across the Company boundaries,
widening our ecosystem

Clients

Suppliers

+ ***Sustainable Finance***

Enel Green Power 2019-2021 Plan

Renewables are the driving force of growth

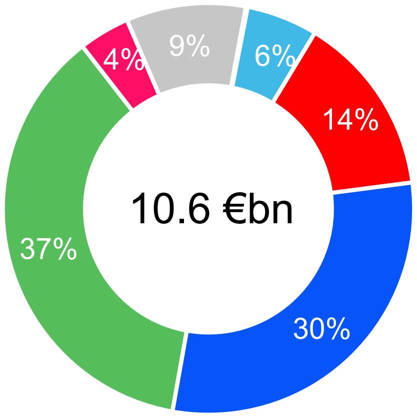
Higher investments to build 11.6 GW additional capacity

Focus on markets with integrated presence & on developed countries

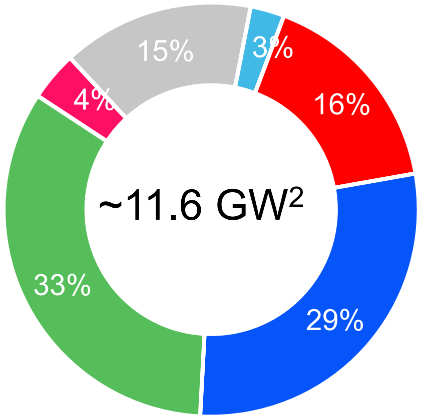
Value creation through decarbonization & integration with retail portfolio

Maximization of portfolio returns

Asset development capex[1] 2019-21



Additional capacity by geography



Italy | South America | North & C. America | Iberia | Europe & NA | Africa, Asia & Oceania

By technology

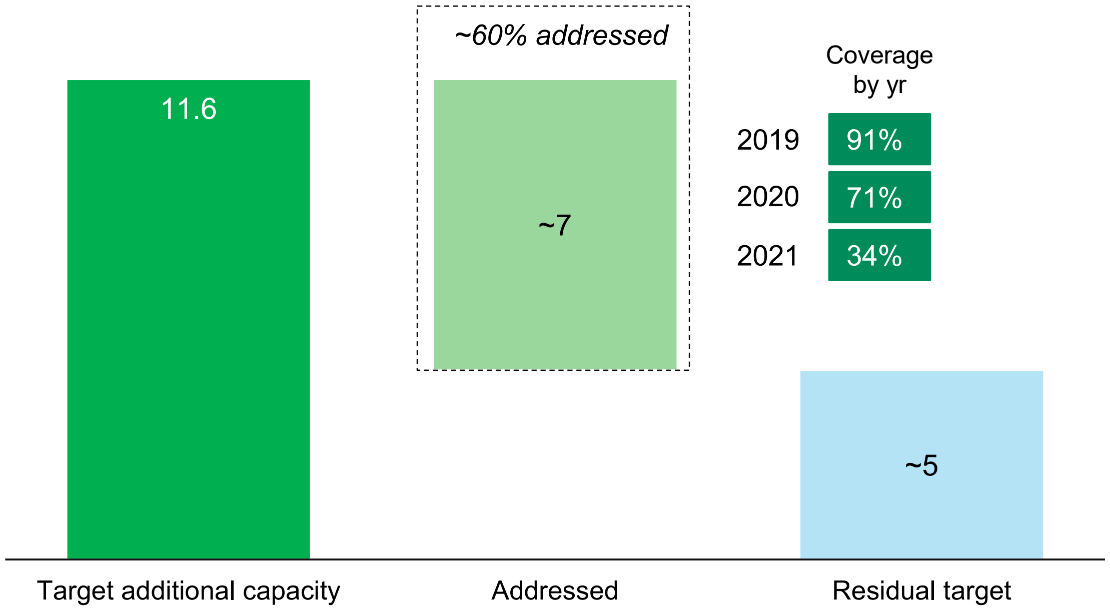
70% | 28%

1. Includes 1.6 €bn BSO capex
2. Of which 1.8 GW related to BSO and 0.8GW related to JVs.

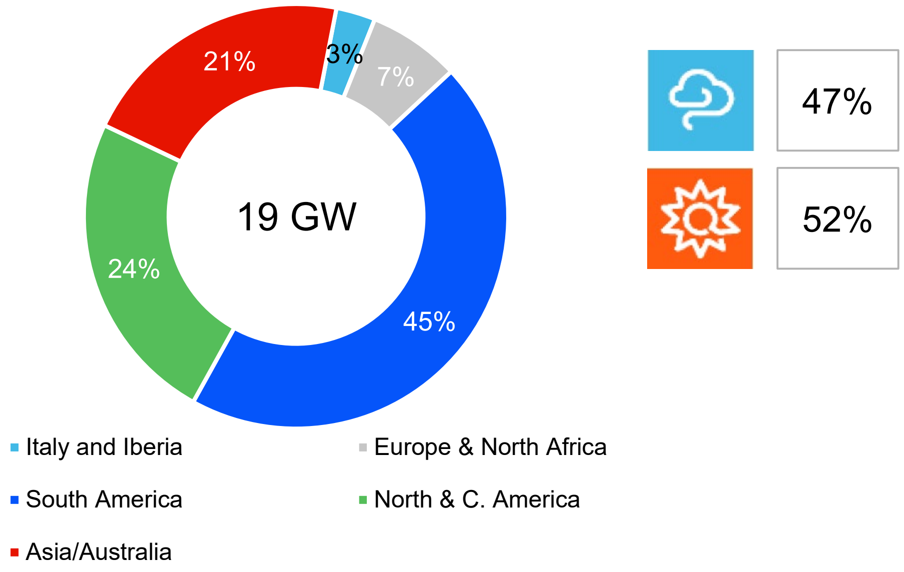
Enel Green Power 2019-2021 Plan

Operating risk: renewables growth already significantly addressed

2019-21 Additional capacity addressed[1] (GW)



Pipeline by geography and technology[2] (GW)



Total pipeline / residual target ~ 4x

Short term pipeline[3] / residual target ~ 3x

1. It includes managed capacity
2. As of September 2018
3. Includes 2019-2021 CODs only

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