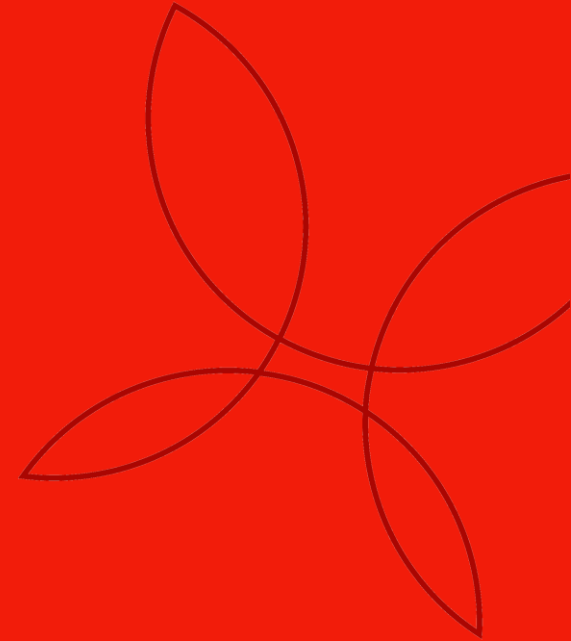


**e.on**

Climate &  
Renewables



**We make clean energy better**

An overview of our business activities

Q3/2011

# E.ON Climate & Renewables

## At a glance

### Our scope and achievements

- Responsible for E.ON's global activities in industrial-scale renewable power generation
- Technologies: Onshore & offshore wind, biomass, photovoltaic (PV), concentrated solar power (CSP)
- Invested >€7bn since its formation in 2007
- Operating a portfolio with 3,791 MW capacity across Europe and North America
- Produced 7.7 TWh electricity in 2010  
– enough to power 2 million homes
- Global #3 in offshore wind
- Global #8 in onshore wind
- "Green Energy Generator of the Year" in the 2011 Platts Global Energy Awards
- 818 employees of 35 nationalities in 11 countries
- Generated €452m EBITDA in 2010

### Our plans for the future

- Invest another €7bn over next five years
- Drive industrialization, cost reduction and higher energy yield to make renewables more competitive
  - **Onshore wind:** Add >500 MW net capacity p.a., reduce CAPEX by 25% by 2015
  - **Offshore wind:** New project in operation every 18 months, reduce installation costs by 40% by 2015
  - **Biomass:** Convert 2–4 fossil E.ON plants to realize scale and portfolio effects
  - **Photovoltaic:** Add >70 MW net capacity p.a., reduce CAPEX by 35% by 2015
  - **Solarthermal (Concentrated Solar Power, CSP):** Grow flexibly with mid-sized plants
- Add value through "build, sell & operate" approach
- Realize double-digit returns on investments

**Our ambition: To make clean energy better**

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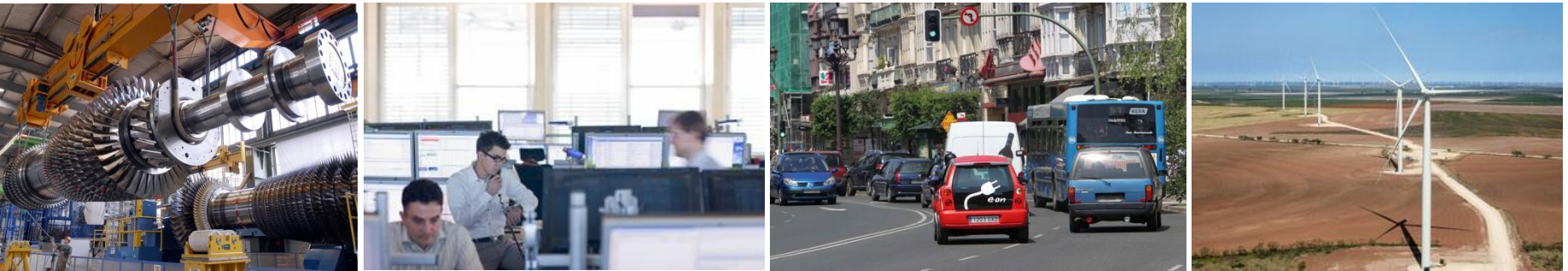
- Technology summaries

- Policy frameworks

- Country summaries

- Organization

## About E.ON



### What we do

At facilities across Europe, Russia, and North America, our more than 85,000 employees generated just under **€93 billion in sales in 2010**.

Our objective is to **make energy cleaner & better** wherever we operate.

We are implementing a new strategy to transform our company into a **global provider of specialized energy solutions**.

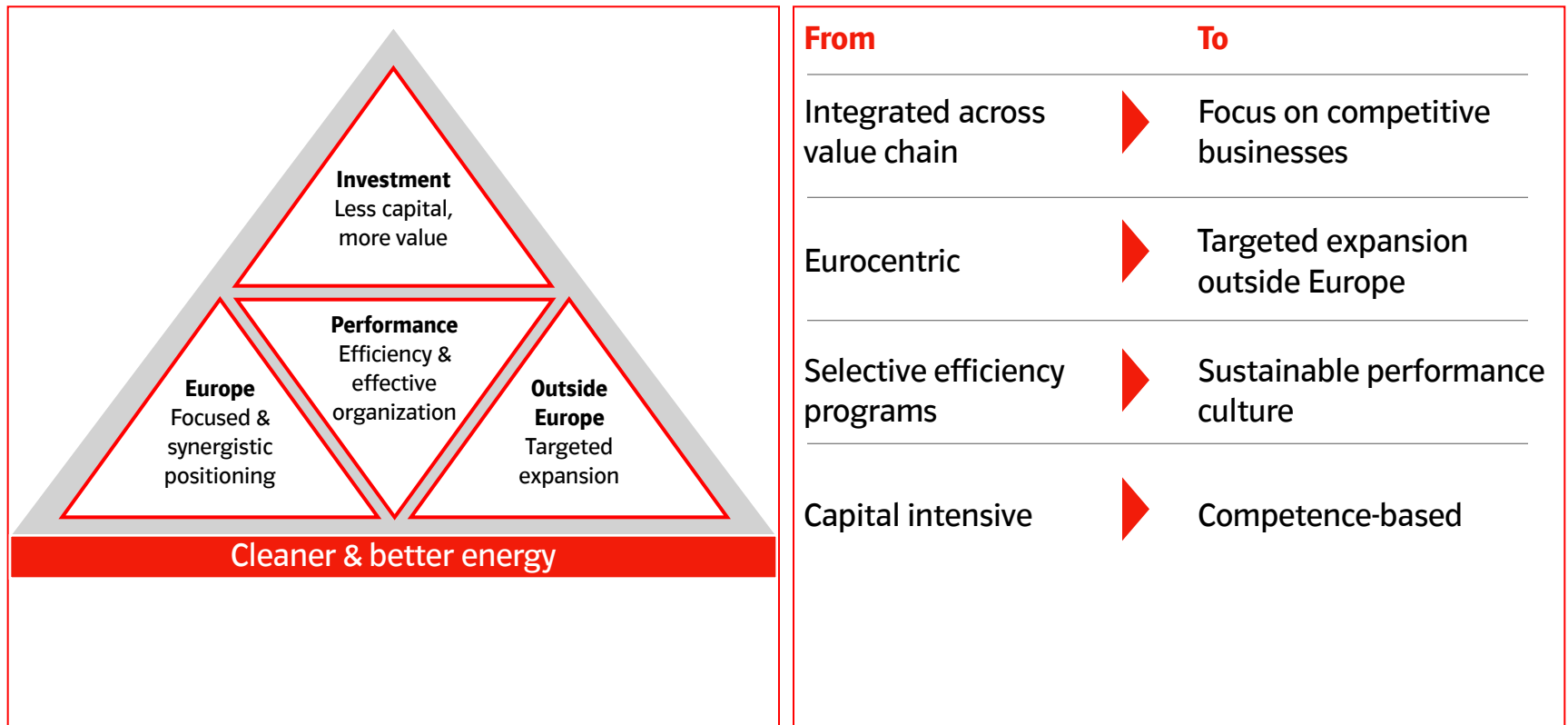
### Our focus

We focus on what we do best and where we can add the most value: **Making and marketing energy in competitive, converging international markets**.

E.ON's **core businesses** are:

- renewables generation
- conventional generation
- energy trading
- global gas
- innovative energy solutions for customers

# E.ON's Group strategy: To transform a European utility into a global, specialized energy solutions provider



**Cleaner & better energy for our customers - Less capital, more value for our investors**

## E.ON's current strategic priorities

**Challenging markets**

**Political interventions**

### **Performance**

- Intensify cost & quality management
- Simplify structures
- Execute portfolio measures
- Create balance sheet flexibility

**Europe:  
System transformation**

**Outside Europe:  
Growth & new technologies**

### **Growth**

- Capture growth in renewables & decentralized energies
- Exploit opportunities in new markets

# E.ON key financial targets

## Results

- **2011E<sup>1</sup> Adjusted EBITDA (€bn):** 9.1 – 9.8  
**Adjusted EPS (€/share):** 1.1 – 1.4
- **2013E Adjusted EBITDA (€bn):** 11.6 – 12.3<sup>2</sup>  
**Adjusted EPS (€/share):** 1.7 – 2.0<sup>2</sup>
- **2015E Adjusted EBITDA (€bn):** 12.5 - 13.0<sup>3</sup>  
**Adjusted EPS (€/share):** 2.0 – 2.3<sup>3</sup>

## Dividends

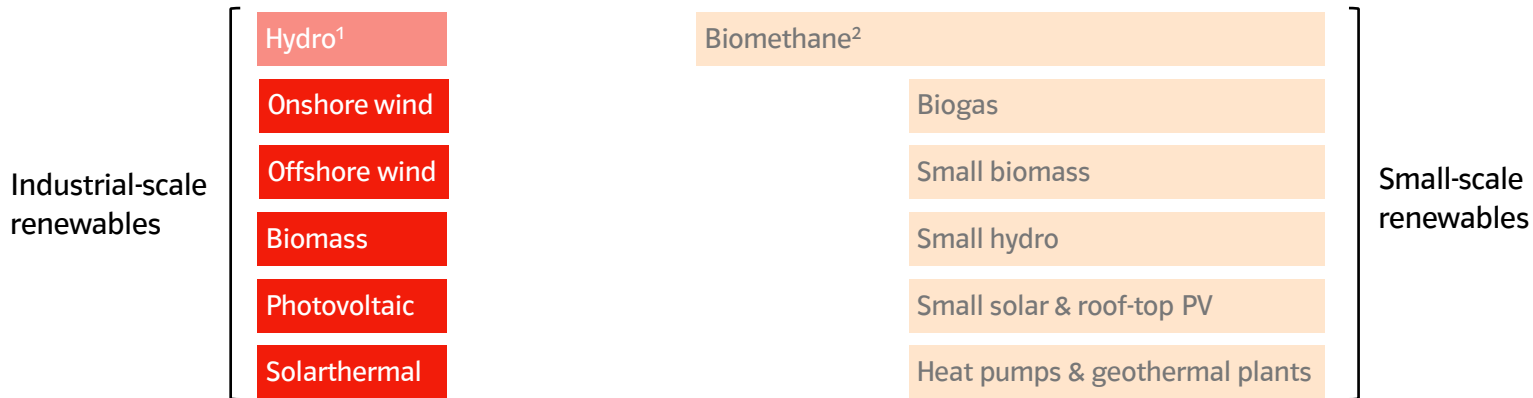
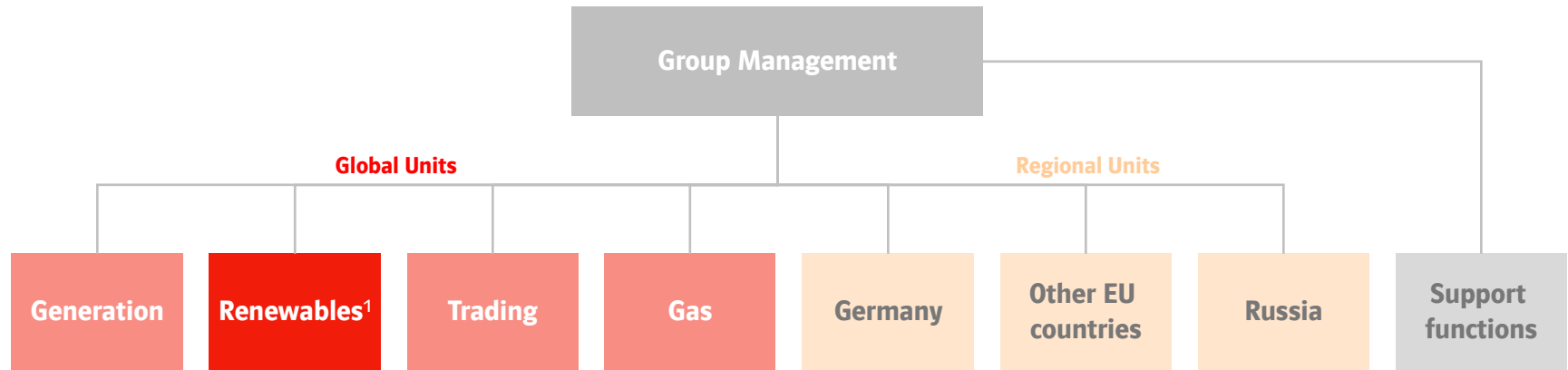
- **Dividend payout policy (% adj. net income):** 50 – 60
- **2011 (€/share):** 1.0
- **2012 (€/share):** 1.1
- **2013 (€/share):** ≥1.1

## Other

- **Medium-term debt factor** <3x
- **Investments 2011-13 (€bn):** ~19
- **Total disposals until 2013 (€bn):** ~15
- **Rating target** Solid single A

**Transparent financial targets for coming years**  
**Assumed 2015 debt factor allows ~€6bn of additional growth CAPEX**

# Renewables within E.ON's structure



**E.ON Climate & Renewables focuses on industrial-scale renewables (wind, biomass, solar)**

1 All technologies managed by E.ON Climate and Renewables, except large hydro (managed by Fleet Management Centre Hydro)  
 2 Biomethane upstream business managed by Global Unit Gas, downstream business managed by Regional Units

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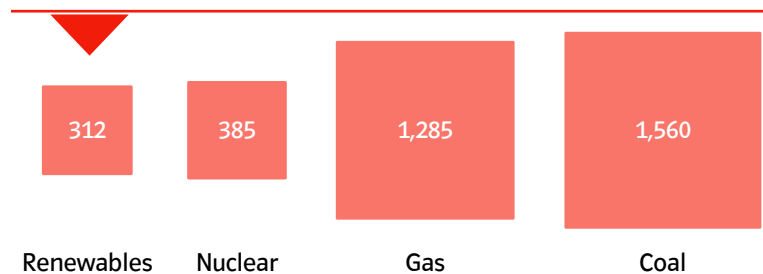
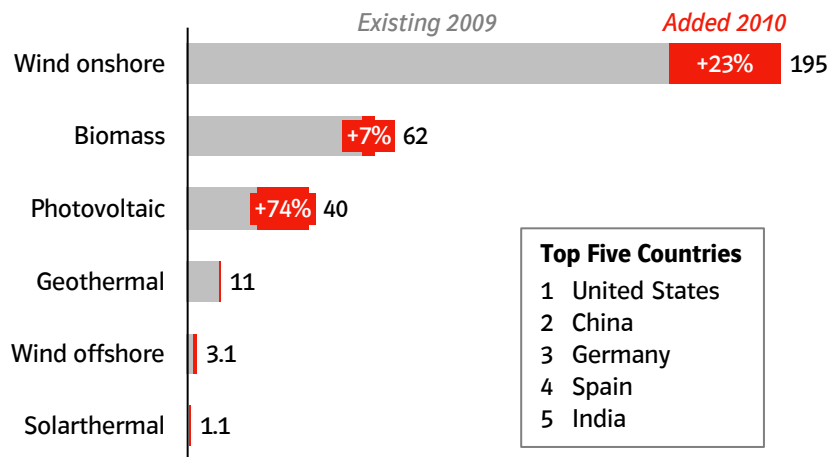
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# Renewables have significantly grown and further closed the gap to conventional technologies in capacity and cost

## Global installed capacity 2010 (GW)



## Key facts

### Investments

- 30% YoY increase in global RES investments
- €145bn invested in RES capacity – almost en par with fossil capacity investments (€170bn)

### Drivers

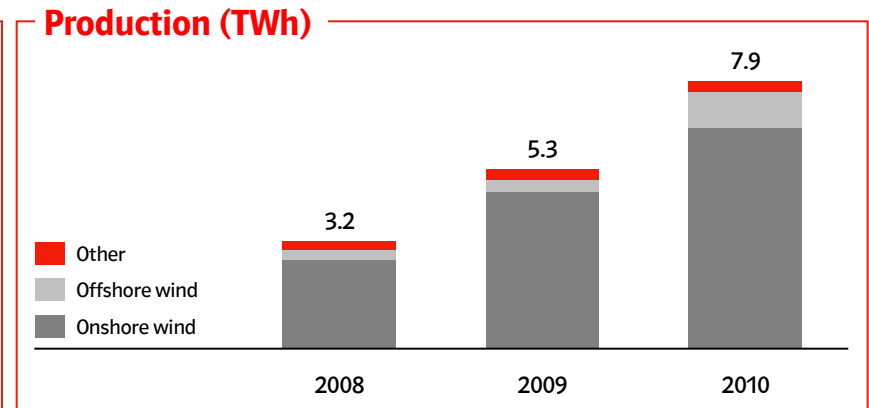
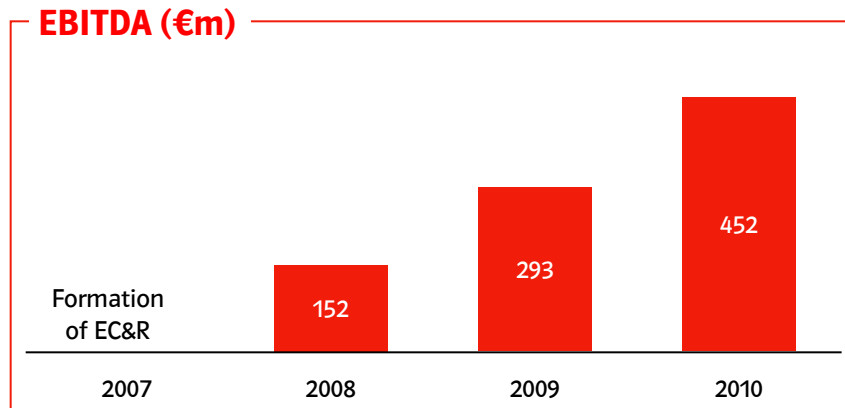
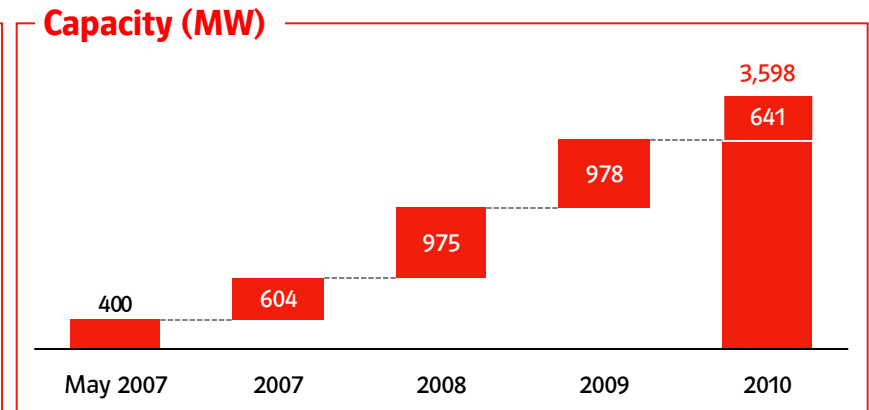
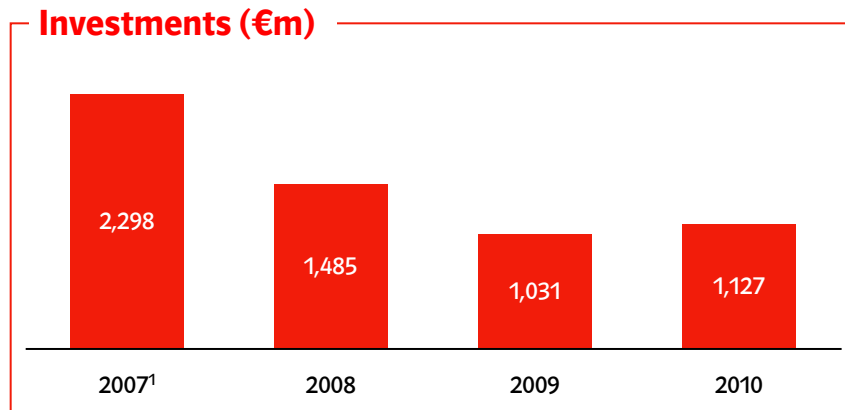
- Climate change: Low-carbon generation
- Security of supply: Fuel independence
- Competitiveness: Renewables cost decreasing

### Market developments

- Stable policy commitment for 2020 targets, but high volatility in national support schemes
- Financial investors more critical regarding long-term sustainability of growth pipelines and national support schemes / economic impact

**Renewables will continue their remarkable growth and become ever more competitive**

EC&R has participated in this growth since early 2007, with >€7bn total investments and a 10-fold capacity increase



**We drive performance by realizing renewable projects where they make sense and create value**

<sup>1</sup> Includes initial acquisitions of e.g. EIE, Airtricity  
Note Figures as of year end or for full year, if not noted otherwise

# We focus on deploying mature and maturing technologies in the most attractive renewables markets

## Technology Focus

We focus on industrial-scale renewables



### Wind Onshore

We expand on our main portfolio driver



### Wind Offshore

We build on a leading industry position



### Biomass

We focus on converting fossil plants



### Photovoltaic (PV)

We optimize large-scale ground farms



### Solarthermal (CSP)

We invest flexibly to gain expertise

## Market Focus

We focus on the most attractive Western markets<sup>1</sup>

Rank	Attractiveness <sup>1</sup>		Country	Size 2010 GW	Growth 2010 GW	%	E.ON focus
	Index						
1	71		China	39.1	13.3	52	✗
2	67		USA	59.1	6.1	11	✓
3	64		Germany	50.7	9.2	22	✓
4	62		India	15.8	2.6	20	✓ <sup>2</sup>
5	58		UK	7.2	1.2	20	✓
6	58		Italy	12.1	3.4	39	✓
7	56		France	8.1	2.0	32	✓
8	53		Canada	5.2	0.9	20	(✓) <sup>3</sup>
9	52		Spain	25.7	2.9	13	✓
10	50		Sweden	5.3	0.7	14	✓
11	49		Brazil	8.2	3.2	65	✓ <sup>2</sup>
12	47		Poland	1.4	0.4	40	✓

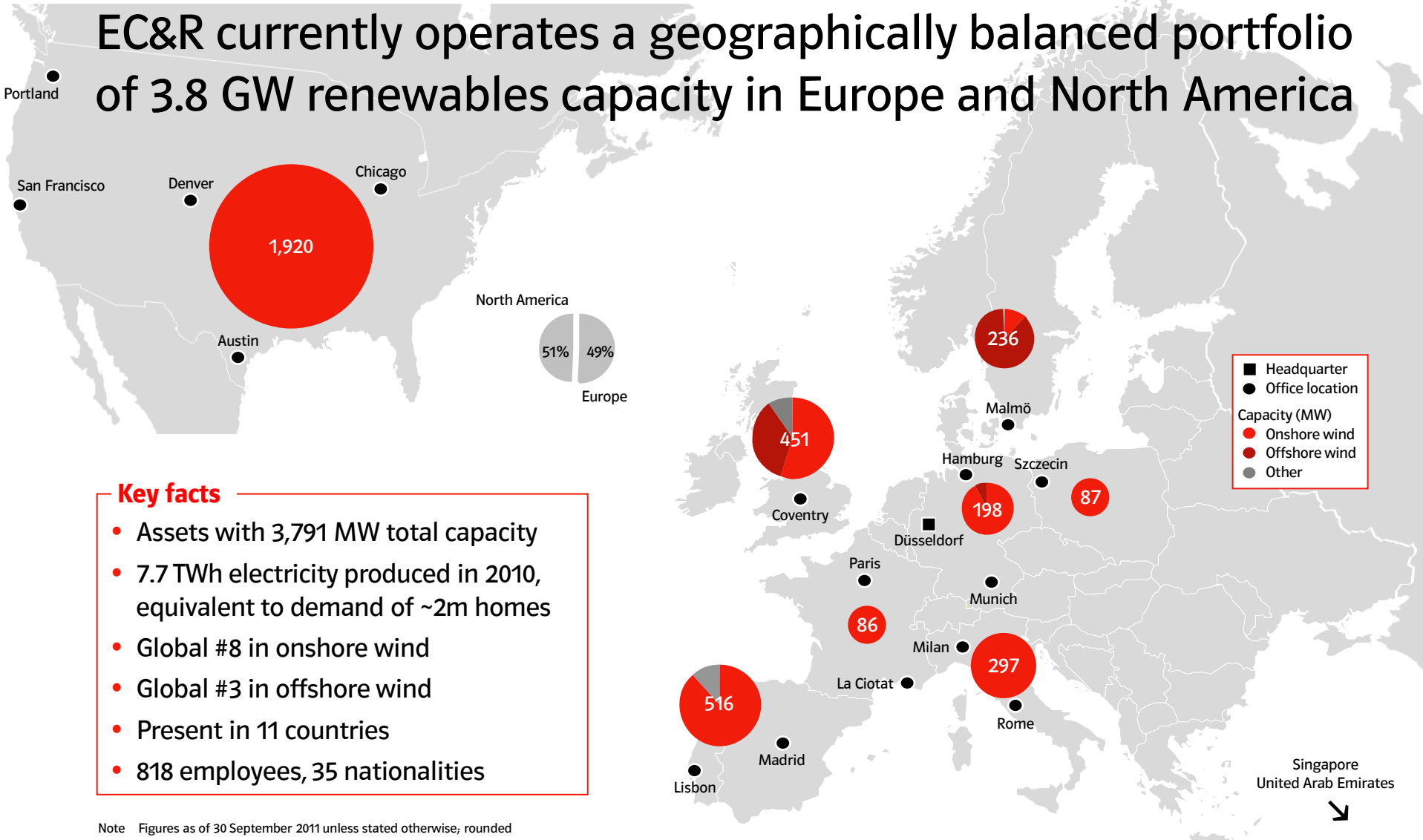
**We drive performance by building renewables where they create the most value**

<sup>1</sup> Based on Ernst&Young Country Attractiveness Index Renewables (August 2011), IHS Emerging Energy Research

<sup>2</sup> Focus region of E.ON International Energy (EIE)

<sup>3</sup> No EC&R focus market yet but in scope

# EC&R currently operates a geographically balanced portfolio of 3.8 GW renewables capacity in Europe and North America



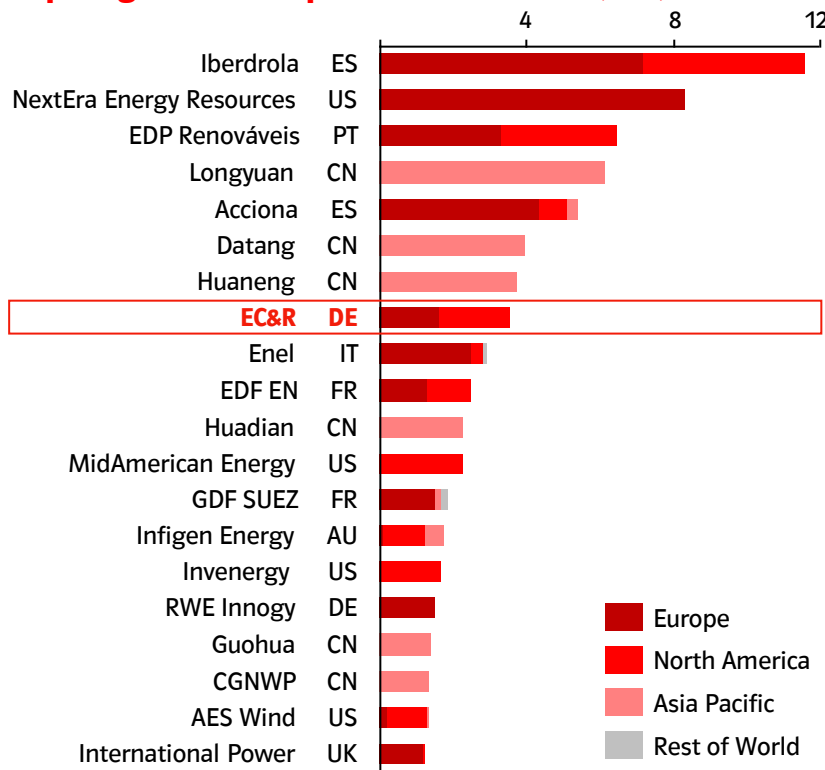
## Key facts

- Assets with 3,791 MW total capacity
- 7.7 TWh electricity produced in 2010, equivalent to demand of ~2m homes
- Global #8 in onshore wind
- Global #3 in offshore wind
- Present in 11 countries
- 818 employees, 35 nationalities

Note: Figures as of 30 September 2011 unless stated otherwise; rounded  
 Includes 3.9 MW PV capacity in operation in France and Italy (60 MW in construction)  
 Includes 25 MW CSP capacity in operation in Spain (25 MW in construction)

# Within only four years, EC&R has built a leading position in the global onshore and offshore wind segment

**Top 20 global wind plant owners 2010 (GW)**



## Unique expertise

### Wind onshore

- 3,216 MW installed capacity (global #8)
- Focus regions: US, UK, Poland, Nordic, Spain, Italy
- Operating the world's largest onshore wind farm, Roscoe (US, 782 MW)
- Competence Center Wind: Aligned network of key resources and globally harmonized analytics

### Wind offshore

- 467 MW installed capacity (global #3)
- Focus regions: North Sea, Baltic Sea
- Building the world's largest offshore wind farm, London Array (UK, up to 1,000 MW)\*
- Only player with experience in all available types of foundations and in a wide variety of local conditions

**While others have built more capacity, we are ahead in terms of offshore experience**

\* JV of EC&R (30%), DONG (50%) and Masdar (20%)  
 Note EC&R MW figures as of 30 September 2011, rounded  
 Sources IHS Emerging Energy Research, EC&R

# We have a track record in achieving and continuously improving our performance in construction and operation

## Development & construction capabilities

### Example highlights

#### Volume construction in the US

Since 2007, close to 2 GW of onshore wind capacity installed and brought into operation

#### Cutting edge technology in Nordic

Installed one of the highest industrial turbines in Sweden at 170m

#### Project management expertise in offshore wind

Completed Rødsand II (207 MW) in 2010  
3 months ahead of time and under budget

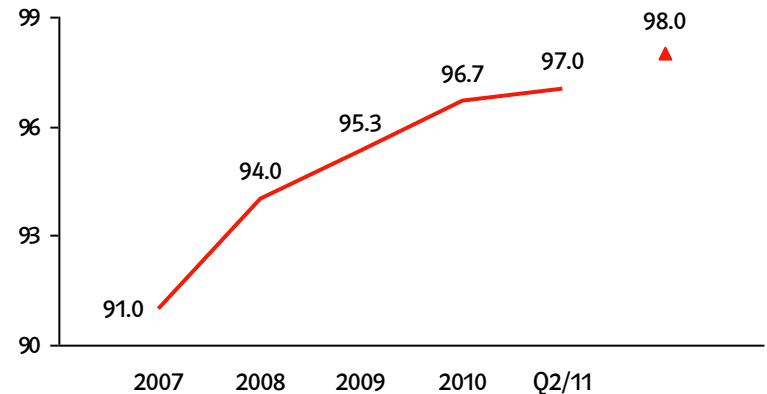
#### Strong stakeholder relationships in the UK

Received exclusive contract to potentially develop more than 800 MW onshore wind in the Forestry Commission Green Park area

## Operational performance

### Availability

- Improved to 97% since 2007, now targeting 98%



### Load factor

- On track to significantly improve from 28% in 2010
- Targeting up to 40% mid-term

**We target to become a top quartile player in construction and operation**

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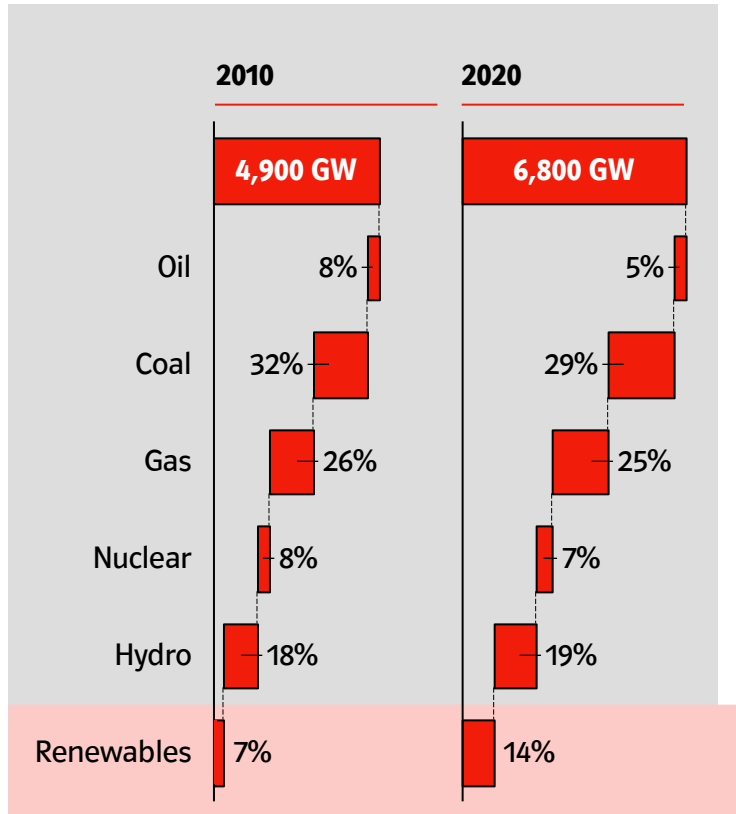
- Policy frameworks

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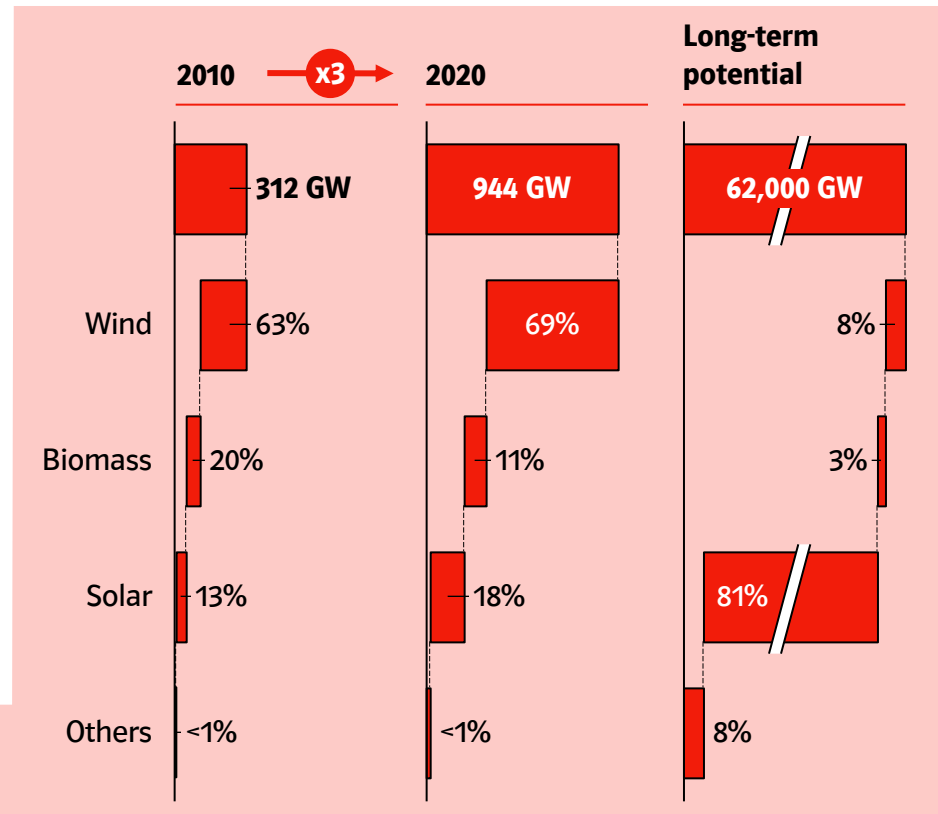
- Organization

# Renewables have significant worldwide potential: Installed capacity is expected to again grow 3-fold by 2020

Global generation capacity

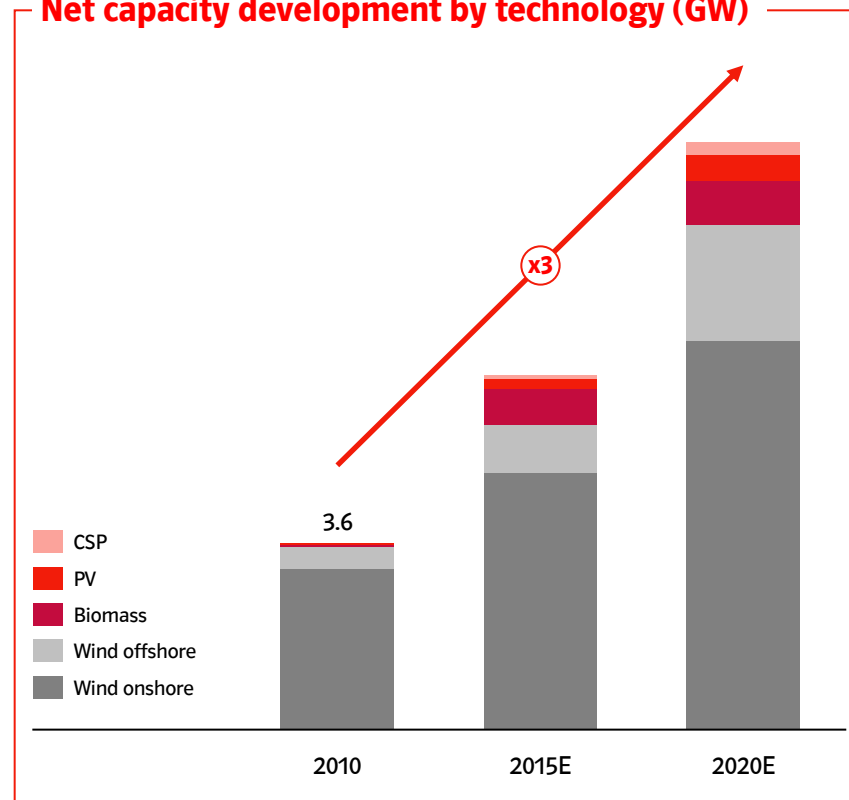


Global renewables capacity



# E.ON will continue to significantly invest in its core markets, potentially tripling its owned renewables capacity by 2020

## Net capacity development by technology (GW)



## Growth ambitions

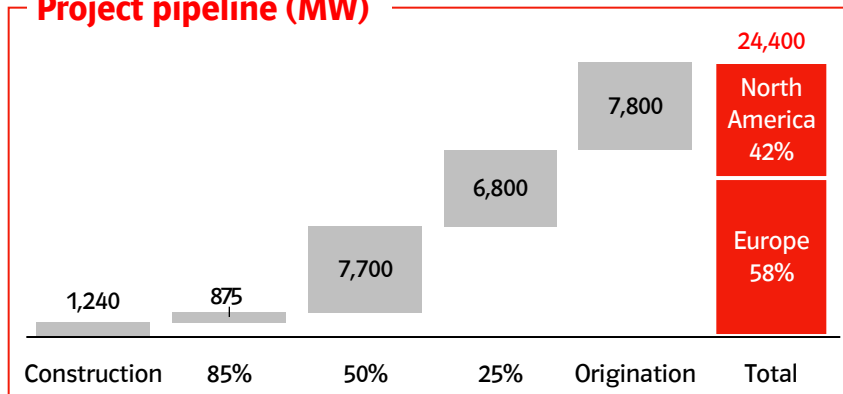
- Wind onshore** >500 MW net additions p.a.  
60% in North America  
40% in UK, Poland, Nordic, Spain, Italy, depending on market attractiveness\*
- Wind offshore** A new COD every 18 months  
North Sea, Baltic Sea
- Biomass** 2-4 fossil plant conversions
- PV** >70 MW net additions p.a.  
US, Italy, France\*
- CSP** Focus on mid-sized plants  
Spain, Italy, US\*
- Less capital, more value** Additional US onshore, EU offshore, and PV projects will be realized with a "build, sell & operate" approach

**In the next five years alone, we plan to invest a further €7bn**

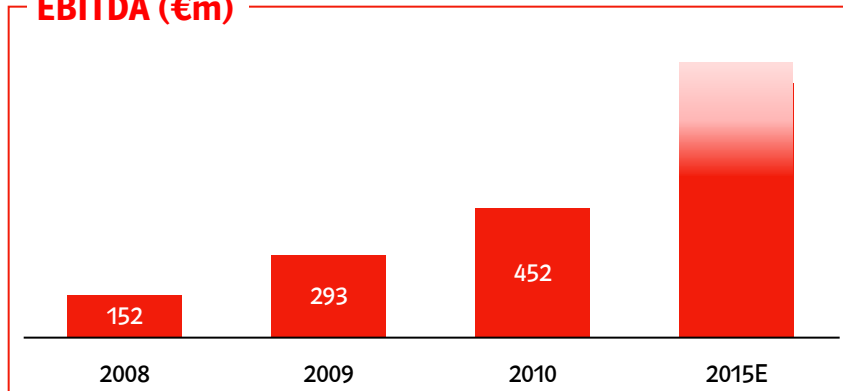
\* Potential further options in E.ON International Energy (EIE) focus markets Brazil, India, Turkey

By focusing on the best projects and our core competencies, we target double-digit returns on our investments

**Project pipeline (MW)**



**EBITDA (€m)**



**Invest responsibly and leverage our competencies**

**Portfolio-driven investment policy**

- Diverse and balanced portfolio across markets, technologies and public support frameworks
- Demanding hurdle rates

**Creating value as renewables solutions provider**

- Experts in development and construction
- Wind fleet approach and O&M strategy
- Unique offshore experience
- Leverage wider E.ON expertise (e.g. biomass, CSP)

**“Build, sell & operate” approach**

- Sell ownership of selected assets when operational
- Offer continued, world-class O&M services
- Create additional value with less capital exposure

**Build, Sell & Operate approach creates additional value while limiting our capital exposure**

# Our approach in renewables is derived from E.ON's Group strategy "Cleaner & better energy"

## Europe

Focused & synergistic positioning



- Build on pioneering advantage in offshore wind
- Further grow onshore wind in attractive markets
- Realize biomass conversions of fossil plants in close cooperation with other E.ON units
- Develop solar, e.g. in collocation with E.ON plants
- Support Regional Units with renewables expertise

## Outside Europe

Targeted expansion



- Further develop existing onshore position in US
- US also focus market for PV and CSP
- Support E.ON International Energy with renewables expertise: Further opportunities in Brazil, India and Turkey

## Investment

Less capital, more value



- Responsible, portfolio-driven investment policy
- "Build, sell & operate" approach
  - Sell selected assets when operational
  - EC&R best positioned to pioneer new approach
- Partnerships with other leading players

## Performance

Efficiency & effective organization



- Ambition to make renewables competitive
- Aim for top quartile assets and performance
- Defined performance targets for all technologies
- Maintain a lean and efficient organization & internationally-minded performance culture

**Our ambition: To make clean energy better**

# To ensure sustainable growth, renewables have to become more competitive and less reliant on support systems

## The sector needs new investors

### Renewables require significant investment volumes

	Investments 2010	Required 2010–20
EU	€35bn	€500bn
Global	€90bn	€1,500bn

### Compared to other sectors, this volume is feasible

EU gas imports from Russia (2010)	€31bn
OECD oil imports (2010)	€630bn
US national defense budget (2010)	€480bn

### Utilities alone cannot finance the investments

Total 2010 investments by Top-10 utilities <sup>1</sup>	€60bn
Average debt ratio of Top-10 utilities <sup>1</sup>	4.0

## Dependence on political support is a key risk

- Renewables economics still require public support
- Support frameworks are diverse and highly volatile
- Support volumes are comparatively small, but often more visible to the public:

EU total customers' electricity cost (2020)	€550bn
of this: Renewables extra cost	€28bn

EU agriculture subsidies (2010)	€50bn
EU rail subsidies (2010)	€75bn
EU road subsidies (2010)	€125bn

- Concerns about government debt lead to political action, directly or indirectly affecting renewables:
  - Retroactive renewables tariff cuts in Spain
  - "Robin Hood" tax on all generation in Italy
- This leads to concerns from financial investors

**Renewables must become more competitive to limit policy risk and attract investors**

<sup>1</sup> Top-10 US/EU RES owners: Iberdrola, NextEra, EDP, Acciona, Enel, E.ON, GDF Suez, RWE, EDF, Vattenfall  
2010 investments are total plant investments made by utilities, not only in renewables

# For a clean energy future, we need competitive renewables – efficiently embedded in our electricity systems

**Reduce generation costs & increase yield**

Industrialize the whole value chain

**Reduce technology prices**

Facilitate competition and innovation

**Make clean energy better**

**Optimize support mechanisms**

Drive competitive and efficient deployment

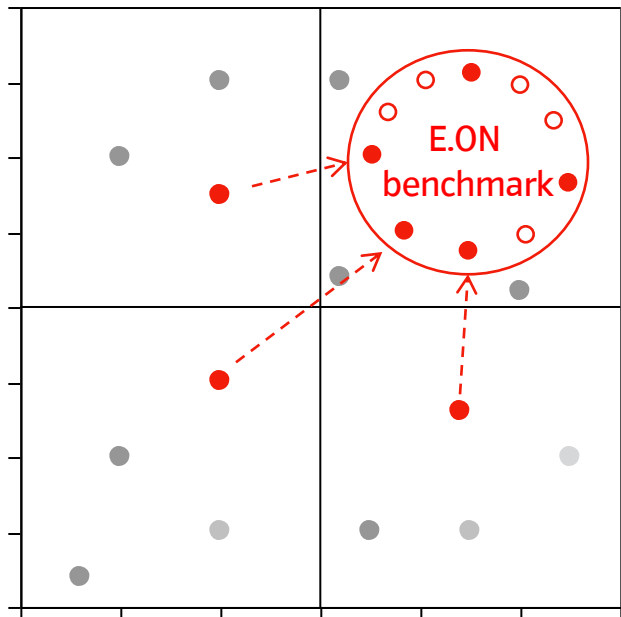
**Reduce system costs**

Drive efficient system integration

# By further increasing our performance we contribute to the sustainability of renewables and add shareholder value

## Optimizing our existing and future portfolio

Energy yield



- Existing E.ON projects
- Future E.ON projects
- Other projects

Economies of scale

EC&R strategy

Exploiting sites with best renewables resources

Increasing energy yield

- Best turbine for specific location (micro-siting)
- Higher availability
- Improved average performance

Realizing projects with economies of scale:

Reducing CAPEX

- Central procurement
- Standardization of technical components
- Close cooperation with suppliers

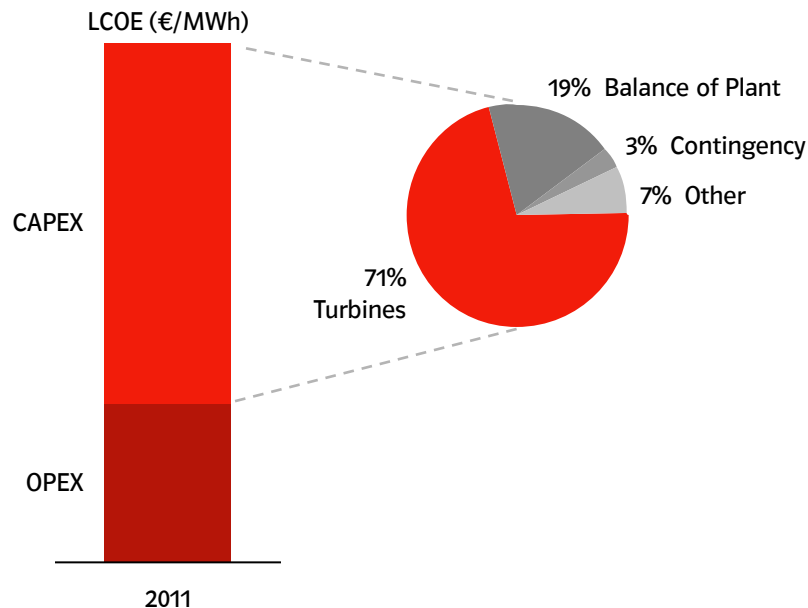
Reducing OPEX

- Technical excellence, building on experience with more than 3,200 wind turbines
- O&M strategy covering continuous supervision, spare parts logistics and predictive maintenance

**We aim for top quartile assets and performance**

# We commit to significant and specific cost reduction targets across our renewables technologies

## Cost structure: Example onshore wind



→ Reducing turbine costs is key to improve the competitiveness of onshore wind

## E.ON ambitions & levers

### Reduce onshore wind CAPEX by 25% by 2015

- Use tier 2 suppliers, bring Asian OEMs to the US
- Fit-for-purpose design, new tower materials
- Non-EPC approach with volume bundling

### Reduce offshore installation costs by 40% by 2015

- Major potential in hardware costs
- Standardized, integrated design approach

### Reduce PV CAPEX by 35% by 2015









- Competitive modules remain major driver
- Expected BOS cost reduction similar to modules

### Identify further potential in operational costs

- Investigate OPEX levers for all technologies

**We pursue ambitious CAPEX reduction targets and will identify further OPEX savings potential**

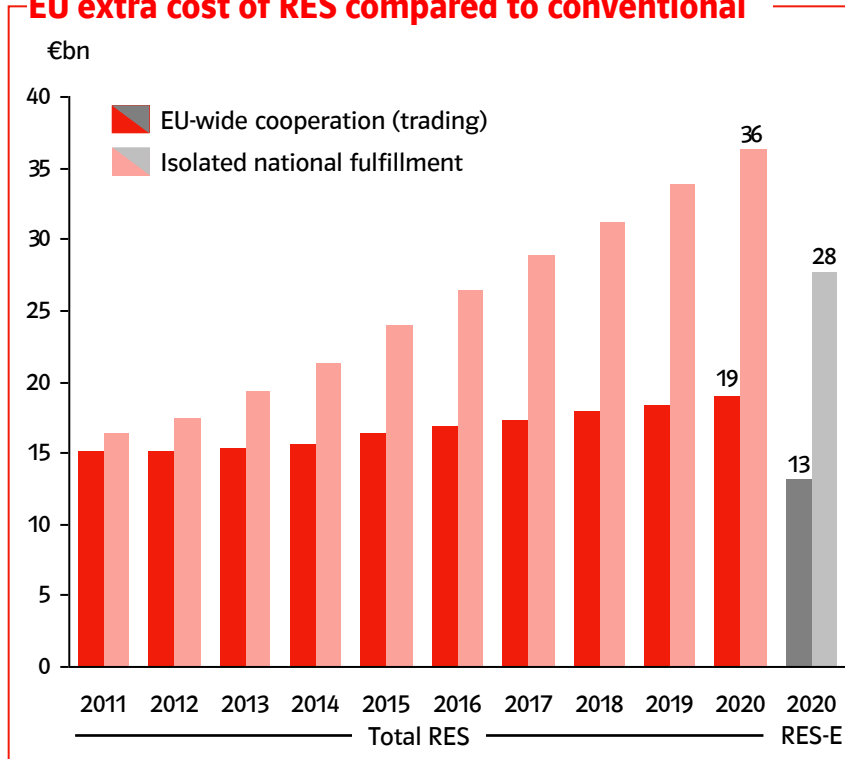
We engage the whole industry to drive performance – by collaborating and facilitating competition at the same time

Area of engagement	Partner
<p>Offshore</p> <ul style="list-style-type: none"> <li>• London Array project partnership</li> <li>• Fostering competition through wind turbine procurement: Amrumbank vs. Humber Gateway and Kårehamn</li> </ul>	   
<p>Onshore</p> <ul style="list-style-type: none"> <li>• Wind development</li> <li>• O&amp;M SCADA IEC interface</li> <li>• O&amp;M optimization</li> </ul>	  
<p>Solar</p> <ul style="list-style-type: none"> <li>• Helioenergy CSP project partnership</li> </ul>	

Fostering competition and innovation is key to make renewables competitive

# On the way to competitiveness, governments need to do their part by securing an efficient distribution of financial support

## EU extra cost of RES compared to conventional



## Isolated national efforts lead to higher costs

- National 2020 renewables targets of EU states are based on economic but not renewables potential
- Isolated national efforts lead to inefficient renewables deployment and higher total costs
- International cooperation and more efficient deployment could be facilitated by EU-wide trading of Green Certificates
- Annual EU-wide extra costs for RES-E in 2020 (compared to conventional alternative)
  - with isolated national fulfillment: ~€28bn
  - with EU-wide trading: ~€13bn
- An EU-wide Green Certificate trading could more than halve the extra costs of renewables

**Harmonized and cost-oriented support schemes support efficient technology deployment**

# We need reliable frameworks for renewables growth and an efficient integration into the energy system

## Streamlined permitting processes

- Reliable and consistent **planning and licensing regimes** facilitate investments and contribute to project (and in turn generation) cost reductions
- Ideally a '**one-stop shop**': A single, appropriately staffed authority is the sole contact developers
- A reliable process needs to be in place with clear timeframes for Environmental Impact Assessment, stakeholder assessment, and final permission
- **Example:** Realizing a wind farm of 800 MW in the US took about 2 years, while it takes 5 years to realize a 20 MW project in Europe

## Suitable grid infrastructure

- Renewables growth needs to be accompanied by **grid extensions** to avoid delays and regional grid bottlenecks
- Extension of **interconnections** and intraday trading supports balancing and integration of renewables
- Grid investments require an **accelerated permitting process** and suitable regulation
- **Example:** US CREZ grid extension took 10 months to decide and 3 years to realize, while permitting of German transmission lines takes up to 10 years

**Suitable grid infrastructure and fast permitting are key to further Renewables growth**

# Both industry and governments need to do their part to make renewables competitive and less dependent on support

## Industry

### Optimize renewables performance

- Ensure optimal use of capital by selecting the best sites
  - Industrialize the whole value chain: Reduce capital and operational costs
  - Collaborate to leverage competencies and to drive performance
  - Facilitate supplier competition
- Reduce Levelized Cost of Energy (LCOE)

## Governments

### Drive efficient system integration

- Design reliable, cost-oriented support mechanisms to drive competition
- Harmonize support mechanisms to ensure the most effective deployment
- Ensure reliable and consistent planning and licensing regimes
- Drive grid extensions and wider technical integration measures



**Make benefits of renewables visible and tangible to ensure broad public acceptance**

# E.ON Climate & Renewables

## At a glance

### Our scope and achievements

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- 818 employees of 35 nationalities in 11 countries
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  - **Onshore wind:** Add >500 MW net capacity p.a., reduce CAPEX by 25% by 2015
  - **Offshore wind:** New project in operation every 18 months, reduce installation costs by 40% by 2015
  - **Biomass:** Convert 2–4 fossil E.ON plants to realize scale and portfolio effects
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**Our ambition: To make clean energy better**

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*Roscoe, Texas, the world's largest onshore wind park (782 MW) – half the size of New York City*



*CSP plant Helienergy, Spain (2x50 MW)*



*Offshore wind park Robin Rigg, UK (180 MW)*



*PV ground-farm Brigadel, France (8 MW)*



*Biomass plant Steven's Croft, UK (43 MW)*

# Onshore wind

Grow with >500 MW net additions per year and reduce CAPEX by 25% by 2015

## Project highlights

### Industrialization and standardization

	2007	2008	2009	2010
	YE	New Build		
Ø Wind farm size (MW)	15	60	91	93
Ø Wind turbine size (MW)	1.2	1.4	1.7	2.7
# Wind turbine types	53	9	8	7



Roscoe, Texas, the world's largest onshore wind park (782 MW)

## Key facts

### E.ON project portfolio

- 3,216 MW installed capacity (global #8)
- 6.6 TWh electricity produced in 2010, equivalent to demand of ~1.7m homes

### E.ON ambition

- >500 MW net additions p.a. (60% in North America)
- EU focus regions: UK, Poland, Nordic, Spain, Italy, depending on market attractiveness
- Potential further growth in Brazil, India, Turkey\*
- Target to reduce CAPEX by 25% by 2015:
  - Standardized components and processes
  - Collaborative approach in procurement
  - Highly efficient Operations & Maintenance (O&M)

**Onshore wind will remain at the core of E.ON's renewable portfolio**

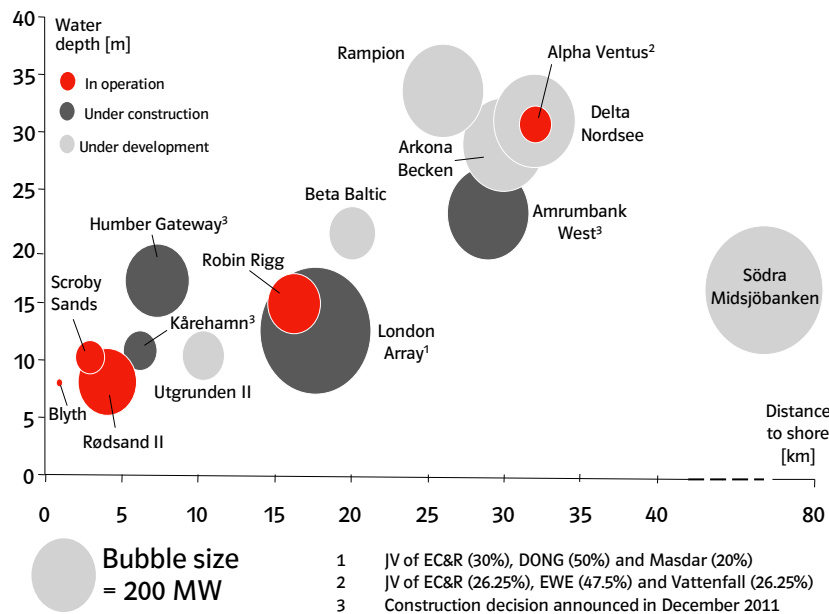
\* Focus markets of E.ON International Energy (EIE)

Note Project portfolio MW as of 30 September 2011, rounded

# Offshore wind

Realize a new project every 18 months and reduce CAPEX by 40% by 2015

## EC&R's offshore wind pipeline



The experience across a wide range of projects make E.ON one of the world's leading companies in the global offshore wind energy business

## Key facts

### E.ON project portfolio

- 467 MW installed capacity (global #3)
- 1.0 TWh electricity produced in 2010, equivalent to demand of ~260,000 homes
- London Array<sup>1</sup> (UK) – at up to 1,000 MW the world's largest offshore wind park – under construction
- Kårehamn (SE), Humber (UK) and Amrumbank (DE) to be constructed next – about 560 MW in total<sup>3</sup>

### E.ON ambition

- Bring a new project in operation every 18 months
- Focus regions: North Sea, Baltic Sea
- Target to reduce installation costs by >40% by 2015:
  - Major saving potential in hardware costs
  - Standardized, integrated design approach

**E.ON is a global leader in offshore wind, determined to keep pace in this growing market**

# Biomass

Focus on converting several fossil E.ON plants to realize scale and portfolio effects

## Project highlight



*Biomass plant Steven's Croft in Scotland (43 MW, COD 2008)*

## Key facts

### E.ON project portfolio

- 43 MW installed capacity at Steven's Croft, Scotland's largest wood-burning plant
- 246 GWh electricity produced in 2010, equivalent to demand of ~60,000 homes

### E.ON ambition

- Convert 2–4 existing fossil E.ON plants to exclusively use biomass as fuel
- Exercise new-build options for monetizing
- Focus regions: UK, France, Italy, Belgium
- Support biomass co-firing in fossil E.ON plants
- Ensure sustainable international fuel sourcing

**Sustainable international fuel sourcing is key to large-scale biomass development**

# Photovoltaic

Grow with >70 MW net additions per year post 2012 and reduce CAPEX by 35% by 2015

## Project highlight



*PV ground-farm Brigadel in Southern France (8 MW, COD 2011)*

## Key facts

### E.ON project portfolio

- ~30 MW capacity installed
- Installed capacity to reach ~60 MW by early 2012
- Our largest PV farm (18 MW) currently under construction at the E.ON site Fiumesanto (Sardinia)

### E.ON ambition

- >70 MW net additions p.a. post 2012
- Focus regions: US, Italy, France
- Potential further growth in India and Turkey\*
- Target to reduce CAPEX by 35% by 2015
  - Focus on ground-farms to drive industrialization
  - Panel and system costs remain key lever

**We aspire to manage solar projects with same industrial approach we have in wind**

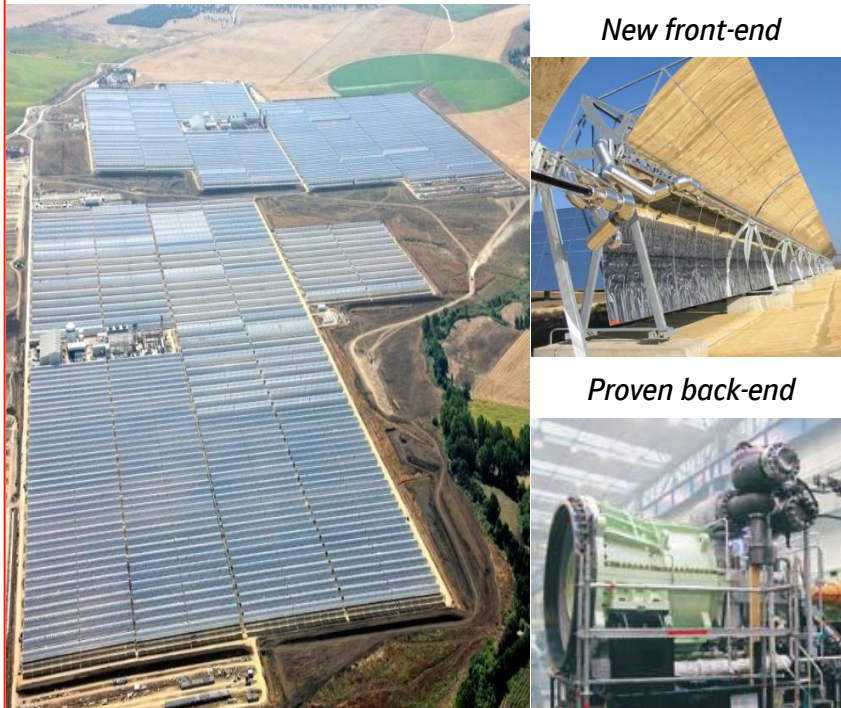
\* Focus markets of E.ON International Energy (EIE)

Note Project portfolio MW as of 30 September 2011, rounded; 3.9 MW consolidated

# Solarthermal: Concentrated Solar Power (CSP)

Grow flexibly with mid-sized plants to broaden technology experience

## Project highlight



CSP plant Helioenergy in Spain (2x50 MW, COD 2011)

## Key facts

### E.ON project portfolio

- Project "Helioenergy I" (50 MW) in Southern Spain operational since August 2011. "Helioenergy II" (50 MW) to be fully operational by end of the year
- Joint investment with partner Abengoa Solar

### E.ON ambition

- Grow flexibly with mid-sized plants
- Winning technology not yet identified (trough vs. tower)
- Need to broaden technology experience, including storage solutions
- Focus regions: Spain, Italy, US
- Potential further growth in India and Turkey\*
- Strong cost decrease needed, more projects required worldwide to make CSP competitive

**With integrated storage, solarthermal solutions can provide dispatchable solar power**

# E.ON Innovation Center Renewables

Deliver value through T&I\* projects that optimize existing assets and enable growth

## Project highlights



Blade run/repair guide



"Pelamis" wave energy demo



HCPV (high-concentration photovoltaic) demo

## Key facts

### E.ON Innovation Center project portfolio

- T&I projects in the 5 key renewable technologies: Wind / Solar PV / CSP / Biomass / Marine
- Project examples: Wind turbine blade run/repair guide (delivered), HCPV test site (in progress), "Pelamis" wave energy demonstration (in progress)
- Multiple external collaborations including research institutes, universities, OEMs, and engineering firms

### E.ON Innovation Center ambition

- Deliver tangible value to existing assets in the short-to-mid term; target €25m-€50m p.a. by 2015
- Develop, demonstrate and deploy new technical solutions to support existing business strategy
- Identify and explore new technology areas and innovation to help shape future business strategy

**All our Technology & Innovation activity in renewable energy is business-driven**

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# The "EU Green Package" set 2020 energy targets, leading to National Renewable Action Plans (NREAPs) of Member States

## EU Green Package 2010–2020: The „20/20/20“ targets

**CO<sub>2</sub>-Emissions**  
20–30% reduction

**Renewable Energies**  
20% share in energy demand

**Energy efficiency**  
20% energy savings

## Targets for National Renewable Action Plans (NREAPs)

**RES-Electricity**  
33.9% (1,200 TWh)

**RES-Heat**  
21.3% (1,250 TWh)

**RES-Transport**  
10.2% (350 TWh)

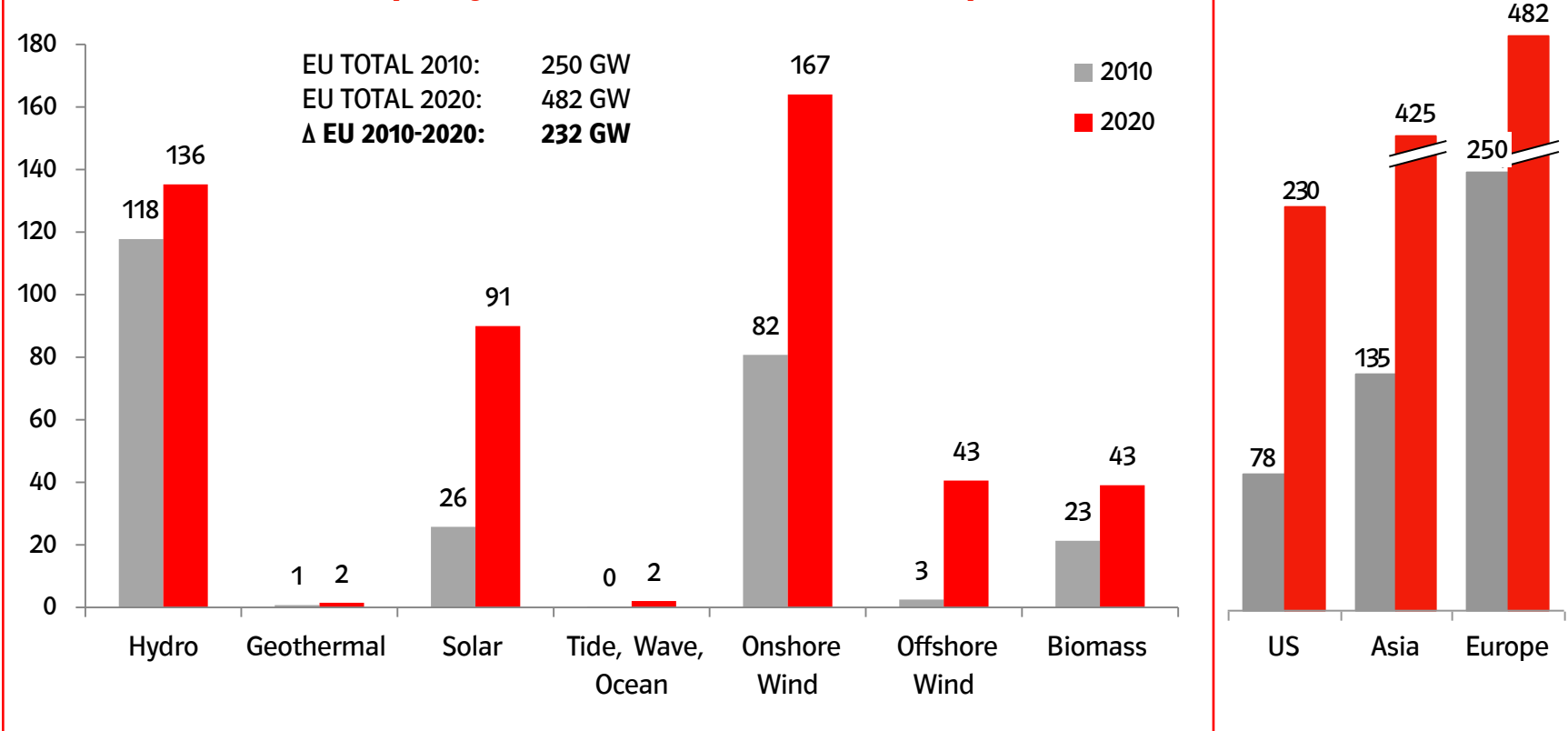
## National approaches

*If efficiency targets are missed,  
burden on RES increases*

- EU has set overall national targets, Member States decide how to reach them (technologies, policies)
- Next to Electricity, Heat and Transport sectors are also part of the renewables targets
- Energy Efficiency and the three sectoral Renewables targets are all interdependent – with the burden for RES-E increasing if any of the other targets are missed (which is likely)
- Meeting the RES-E target not only requires growing but also effectively integrating esp. wind and solar

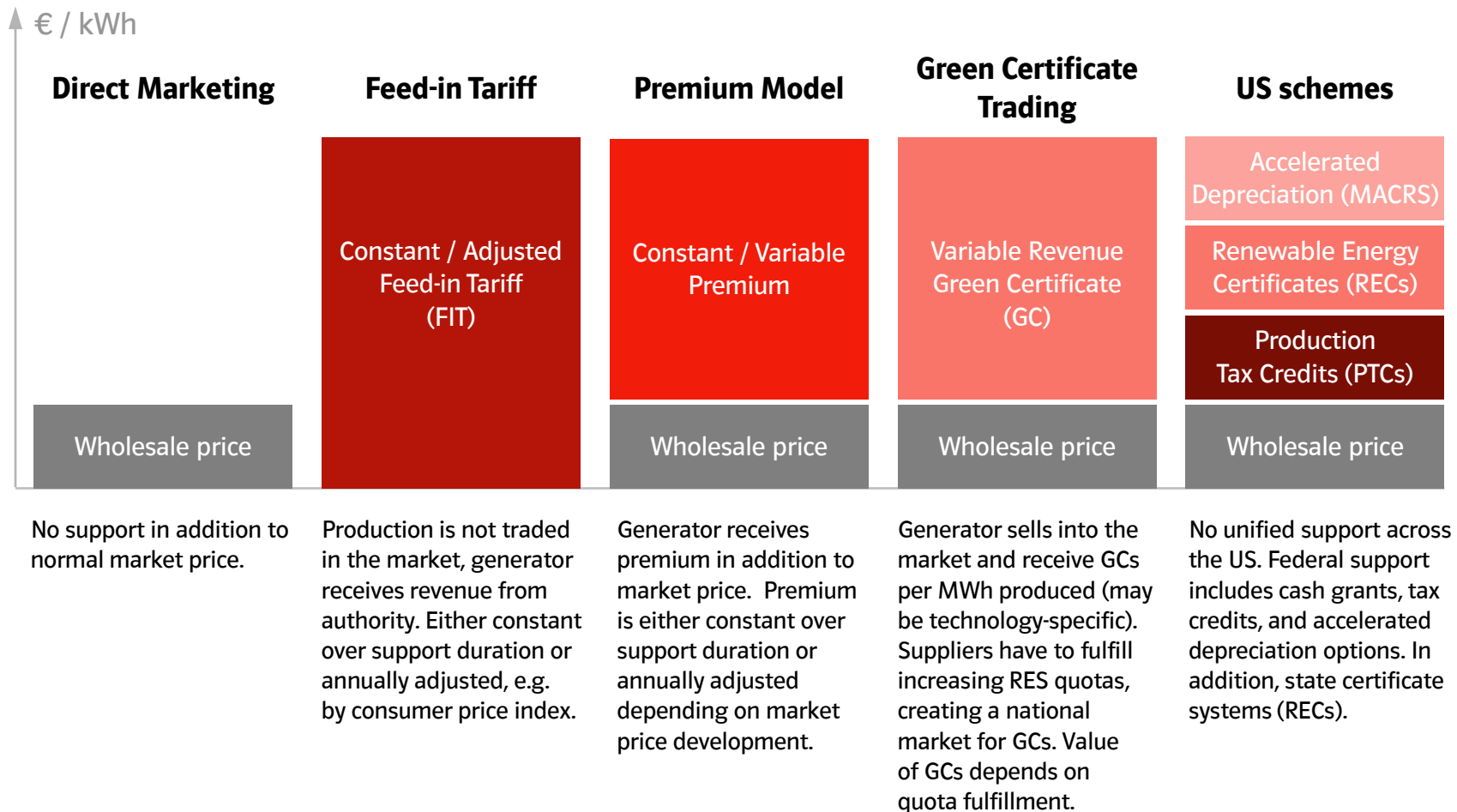
# EU renewables capacity is planned to double again by 2020

**Installed renewables capacity in EU-27: 2010 actual vs. 2020 planned (GW)**



**Onshore wind +85GW (110%) · Offshore wind +40GW (1,300%) · Solar +65GW (250%)**

# Governments use a range of support schemes to drive the development of renewable generation



# Feed-in-tariffs and green certificates dominate in the EU – with very different and ever-changing regulatory details

## Examples: Feed-in tariffs

### Onshore

Germany	90 €/MWh (first 5yrs) + 49 €/MWh (next 15 yrs)
France	82 €/MWh (first 10yrs) + 82-28 €/MWh (next 5yrs)
Spain	79 €/MWh (20yrs)*
Portugal	74 €/MWh (20yrs, MW cap)

### PV

Portugal	310–317 €/MWh (15yrs, MW cap)
France	116 €/MWh (20yrs) or tender***

### CSP

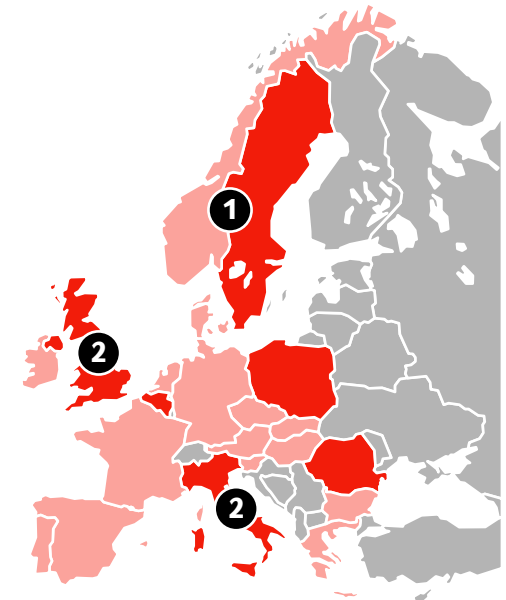
Spain	290 €/MWh (25yrs)*
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## Examples: Green certificates

Italy	~156 €/MWh (15yrs)
UK	~120 €/MWh (20yrs)
Poland	~116 €/MWh (no limit)
Sweden	~93 €/MWh (15yrs or 2035)

Italy	~243–346 €/MWh** No GC, but a premium (20yrs)
-------	--

Italy	~291–351 €/MWh** No GC, but a premium (25yrs)
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### Upcoming changes

- 1 Norway and Sweden to form a joint green certificate market (2012)
- 2 UK and Italy plan to move to a feed-in model (2013/14)

\* In Spain investors can decide between receiving a FIT or premium on an annual basis

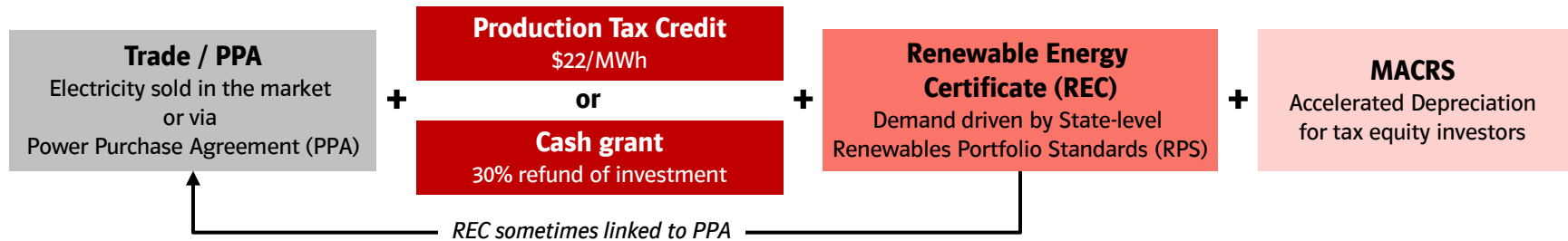
\*\* Italian PV and CSP premiums decrease during the year, e.g. in 2011 PV receives 346€ at the beginning and 243€ at the end of the year

\*\*\* Feed-in for ground-farms <12 MW; tender process for larger installations starting in September, opportunity to receive significantly higher feed-in

Note 2011 support levels; simplified view

# US Renewables policy is a combination of federal framework and individual state policies

## Onshore Wind revenue stream



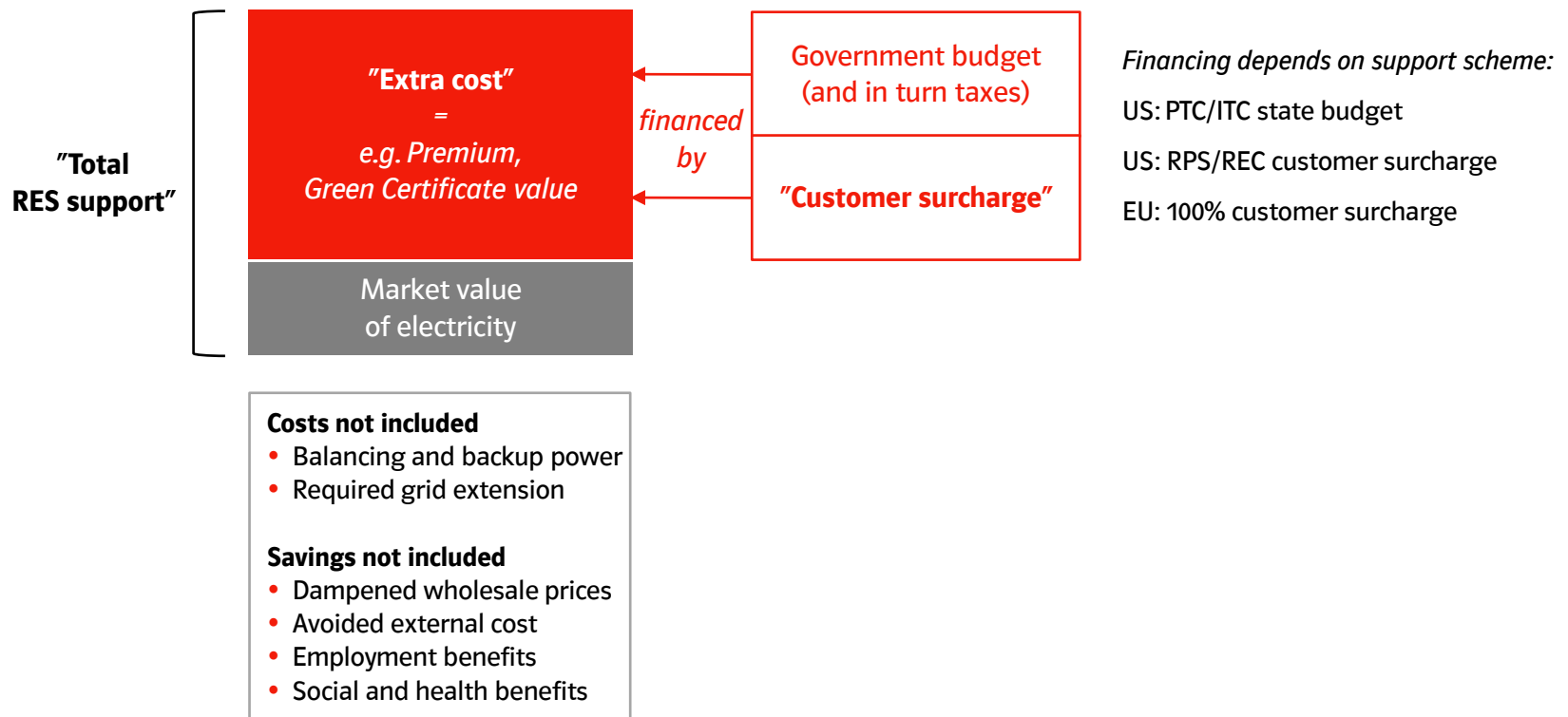
## PV and CSP revenue stream



### Important to note

- Federal Renewables support is based on tax instruments like Production Tax Credits or Investment Tax Credits for Renewables (and temporarily Cash Grants), but **no federal Renewables target has been set**
- On state-level, Renewable Portfolio Standards set targets for Renewables and the trading of Renewable Energy Certificates (REC), sometimes with specific solar requirements

# For the time being, renewables still require support to make them competitive – with respective impact on the public



**RES extra costs are small compared to other subsidies, but more visible to customers**

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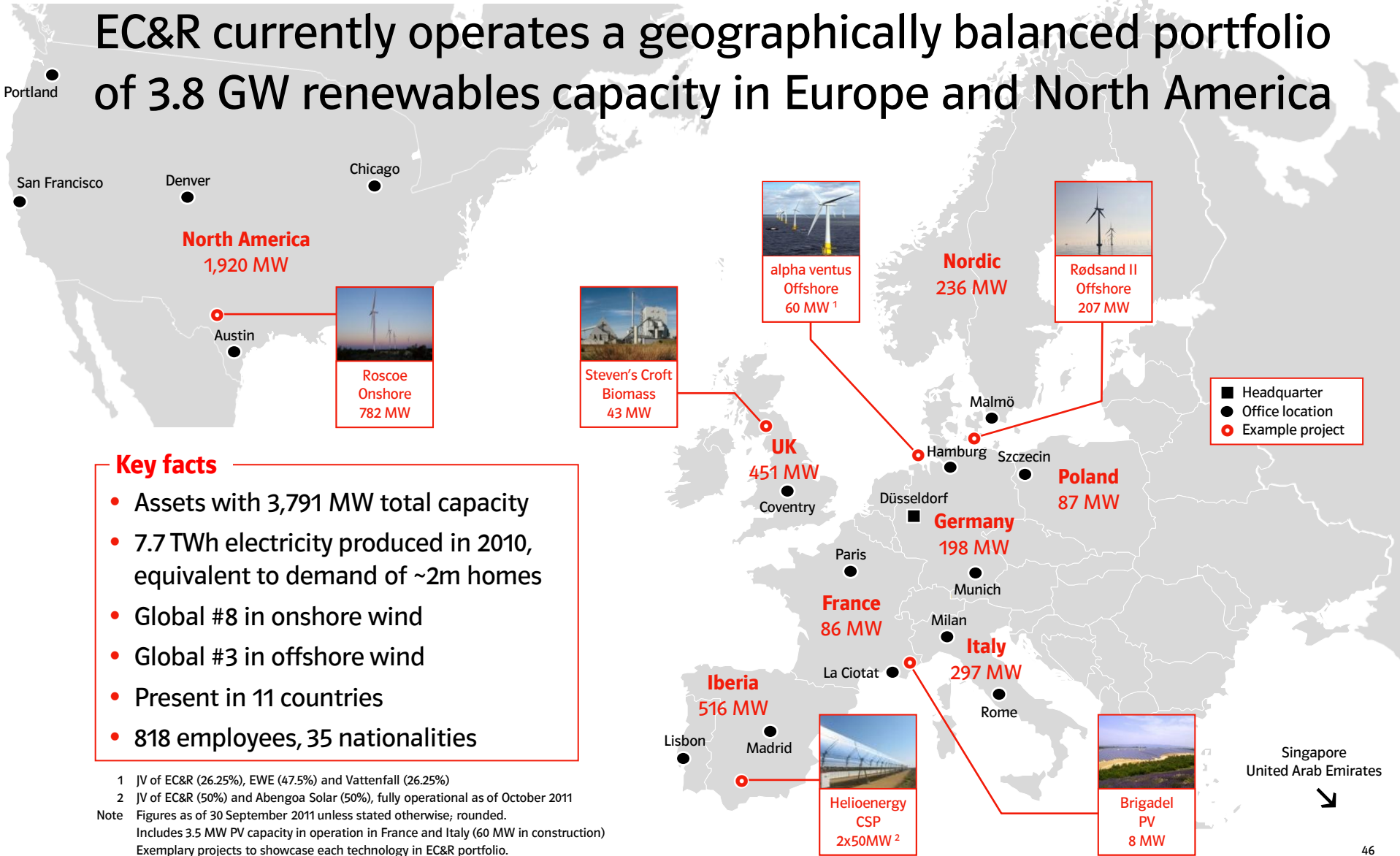
Technology summaries

Policy frameworks

**Country summaries**

Organization

# EC&R currently operates a geographically balanced portfolio of 3.8 GW renewables capacity in Europe and North America



# France: Market profile



## Market and Regulation

### Political environment

- Introduced renewables support later than many other EU countries
- Renewables are supported via feed-in tariff
- Since recently, use of tenders to fix feed-in tariffs for specific installations, with strong focus on renewable cost reduction, qualitative criteria, domestic value creation

### Renewable energy targets for 2020<sup>1</sup>

Technology	2010	2020
Onshore wind	5.5 GW	19 GW
Offshore wind	0.0 GW	6.0 GW
Biomass	0.1 GW	2.4 GW
PV	0.7 GW	4.8 GW

## EC&R portfolio and approach

### Existing E.ON portfolio

- 86 MW installed capacity
  - 83.5 MW onshore wind
  - 2.5 MW PV

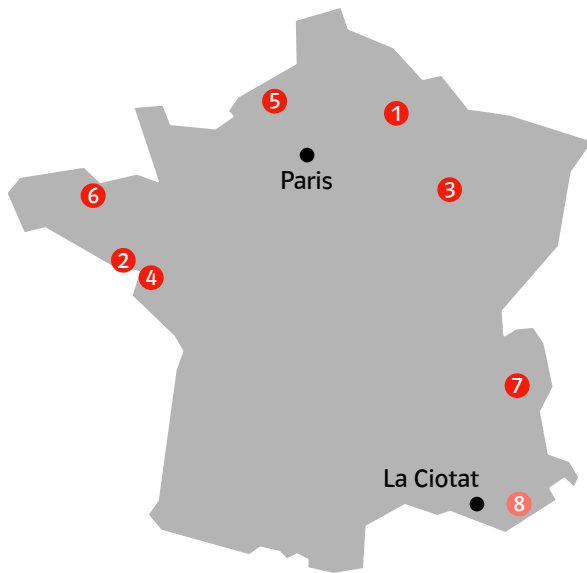
### E.ON approach & pipeline

- **Onshore wind:** Manage existing portfolio, currently no further growth planned
- **Offshore wind:** Scouting opportunities to participate in offshore tender process
- **Biomass:** Participated in tender for biomass conversion, waiting for final selection decision to be fully confirmed, permitting process ongoing
- **PV:** Pipeline to realize 10–20 MW p.a. via tenders. Entered first tender in Sep 2011 (decision in 2012), second tender round expected for late 2012

<sup>1</sup> Targets according to National Renewables Action Plan (NREAP) reported to EU Commission  
Note E.ON equity MW as of 30 September 2011, rounded

# France: Assets in operation and under construction

## France



- Site in operation
- Site under construction
- Office location

## Onshore wind parks in operation

	Project location	Net MW	Commissioning year
1	Lehaucourt	10.0	2007
2	Ambon	10.0	2008
3	LV Cernon	10.0	2008
4	Muzillac	10.0	2008
5	Caulières	17.5	2010
6	Kergrist	26.0	2010
<b>Total</b>		<b>83.5</b>	

## Solar PV farms in operation

	Project location	Net MW	Commissioning year
7	Le Lauzet	2.5	2009
<b>Total</b>		<b>2.5</b>	

## Solar PV farms under construction

	Project location	Net MW	Commissioning year
8	Brigadel	8.0	2011
<b>Total</b>		<b>8.0</b>	

# Germany: Market profile



## Market and Regulation

### Political environment

- Strong focus on renewables following the “energy turn-around” („Energiewende”) and accelerated nuclear phase-out
- Long-term renewables growth track until 2050 fixed in law<sup>1</sup>
- New legislation and government action to accelerate on grid extensions and offshore grid

### Renewable energy targets for 2020<sup>2</sup>

Technology	2010	2020
Onshore wind	27 GW	36 GW
Offshore wind	0.1 GW	10 GW

## EC&R portfolio and approach

### Existing E.ON portfolio

- 198 MW installed capacity
  - 182 MW onshore wind
  - 16 MW offshore wind: E.ON share in Germany’s first far-shore wind park Alpha Ventus

### E.ON approach & pipeline

- **Onshore wind:** Manage existing portfolio, currently no further growth planned. Provide expertise to third-party investments as a service.
- **Offshore wind:** Strong pipeline in place. Construction of Amrumbank West (288 MW, COD 2015) announced in December 2011.

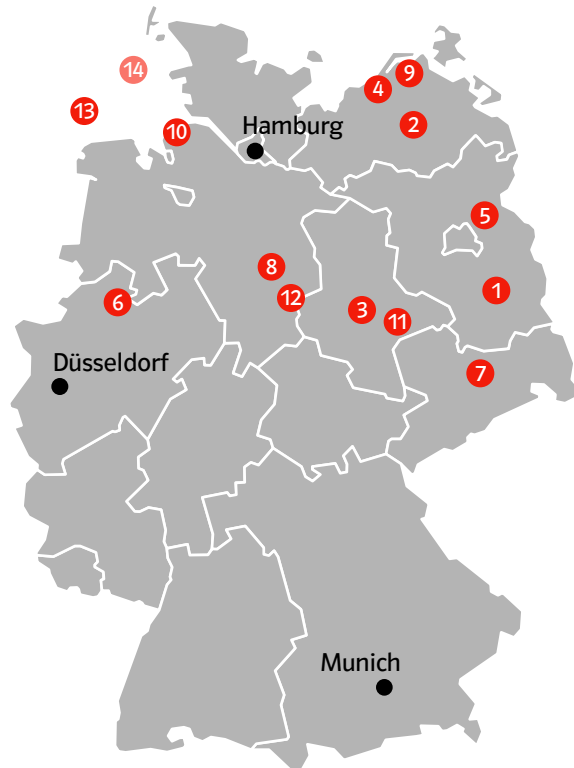
<sup>1</sup> Renewable Energy Act (EEG) amended July 2011

<sup>2</sup> Targets according to National Renewables Action Plan (NREAP) reported to EU Commission

Note: E.ON equity MW as of 30 September 2011, rounded

# Germany: Assets in operation and under construction

## Germany



- Site in operation
- Site under construction
- Office location

## Onshore wind parks in operation

	Project location	Net MW	Commissioning year
1	Brandenburg	50.8	2001
2	Mecklenburg-West Pomerania	36.7	2001
3	Saxony-Anhalt	19.9	2002
4	Kessing	0.4	2002
5	Schönerlinde	0.8	2002
6	Rheiner Windpark	2.5	2002
7	Saxony	23.6	2004
8	Helmstedt-Treue	8.0	2005
9	Dargelütz	22.0	2006
10	Cuxhaven	2.5	2006
11	Riethnordhausen	7.4	2007
12	Treue-Ost	8.0	2007
<b>Total</b>		<b>182.6</b>	

## Offshore wind parks in operation

	Project location	Net MW	Commissioning year
13	Alpha Ventus	15.8	2010
<b>Total</b>		<b>15.8</b>	

## Offshore wind parks under construction

	Project location	Net MW	Commissioning year
14	Amrumbank West <sup>1</sup>	288.0	2015
<b>Total</b>		<b>288.0</b>	

Note E.ON equity MW as of 30 September 2011, rounded  
 1 Construction decision announced in December 2011

# Italy: Market profile



## Market and Regulation

### Political environment

- Renewables support based on two instruments:
  - Green Certificate Scheme for wind and biomass
  - Feed-in premium for PV and CSP
- Green Certificate Scheme to change to a tender-based feed-in tariff from 2013 (respective decree expected for autumn 2011)
- Recently introduced a new "Robin Hood" tax on all generation revenues including renewables – specific impact currently being investigated

### Renewable energy targets for 2020<sup>1</sup>

Technology	2010	2020
Onshore wind	5.8 GW	12 GW
PV	8.8 GW	8.6 GW <sup>2</sup>
Biomass	1.0 GW	1.6 GW

<sup>1</sup> Targets according to National Renewables Action Plan (NREAP) reported to EU Commission

<sup>2</sup> PV target has been significantly increased from NREAP to now 16 GW by 2016

Note E.ON equity MW as of 30 September 2011, rounded

## EC&R portfolio and approach

### Existing E.ON portfolio

- 297 MW installed capacity
  - 296 MW onshore wind
  - 1.4 MW PV

### E.ON approach & pipeline

- Onshore wind:** Moderate growth expected depending on new tariffs / system change in combination with Robin Hood tax
- PV:** ~50 MW to be operational by early 2012. Further growth of 20–40 MW p.a. envisaged, but Robin Hood tax may have negative impact
- Biomass:** Potential conversion of existing fossil E.ON plant being investigated
- CSP:** Potential mid to long-term project

# Italy: Assets in operation and under construction

## Italy



- Site in operation
- Site under construction
- Office location

## Onshore wind parks in operation

	Project location	Net MW	Commissioning year
1	Florinas	20.0	2004
2	Iardino	14.0	2005
3	Vizzini	23.8	2006
4	Montecute	44.0	2006
5	Poggi Alti	20.0	2006
6	Marco A. Severino	44.0	2007
7	Serra Pelata I + II	54.0	2007
7	Piano di Corda I + II	44.0	2007
9	Santa Ninfa	32.3	2007
<b>Total</b>		<b>296.1</b>	

## Solar PV farms in operation

	Project location	Net MW	Commissioning year
10	Fiumesanto Car Park	1.4	2009
<b>Total</b>		<b>1.4</b>	

## Onshore wind parks under construction

	Project location	Net MW	Commissioning year
11	Alcamo	32.0	2011
<b>Total</b>		<b>32.0</b>	

# Italy: Assets in operation and under construction (cont.)

## Italy



- Site in operation
- Site under construction
- Office location

## Solar PV farms under construction

	Project location	Net MW	Commissioning year
12	Civitella	6.1	2011
13	Lombardia (Costa Di Nobili)	2.7	2011
14	Nepi I+II	4.0	2011
15	Piemonte (Frugarola)	2.8	2011
<b>Total</b>		<b>15.6</b>	<b>2011</b>

# Nordic: Market profile



## Market and Regulation

### Political environment

- **Denmark:** Variable premium for renewables, offshore projects have to qualify via a tender
- **Sweden:** Renewables supported via technology-neutral Green Certificate Scheme
- **Norway:** From 2012 joint Green Certificate Scheme with Sweden

### Renewable energy targets for 2020<sup>1,2,3</sup>

Technology	2010	2020
<b>Denmark<sup>1</sup></b>		
Offshore wind	0.6 GW	1.3 GW
<b>Sweden<sup>2</sup></b>		
Onshore wind	1.8 GW	4.3 GW
Offshore wind	0.1 GW	0.2 GW

1 Targets according to National Renewables Action Plan (NREAP) reported to EU Commission

2 Swedish figures are not targets but projections

3 Norway is no EU member state and does not have an NREAP. It targets 13.2 TWh additional RES-E generation by 2020.

Note E.ON equity MW as of 30 September 2011, rounded

## EC&R portfolio and approach

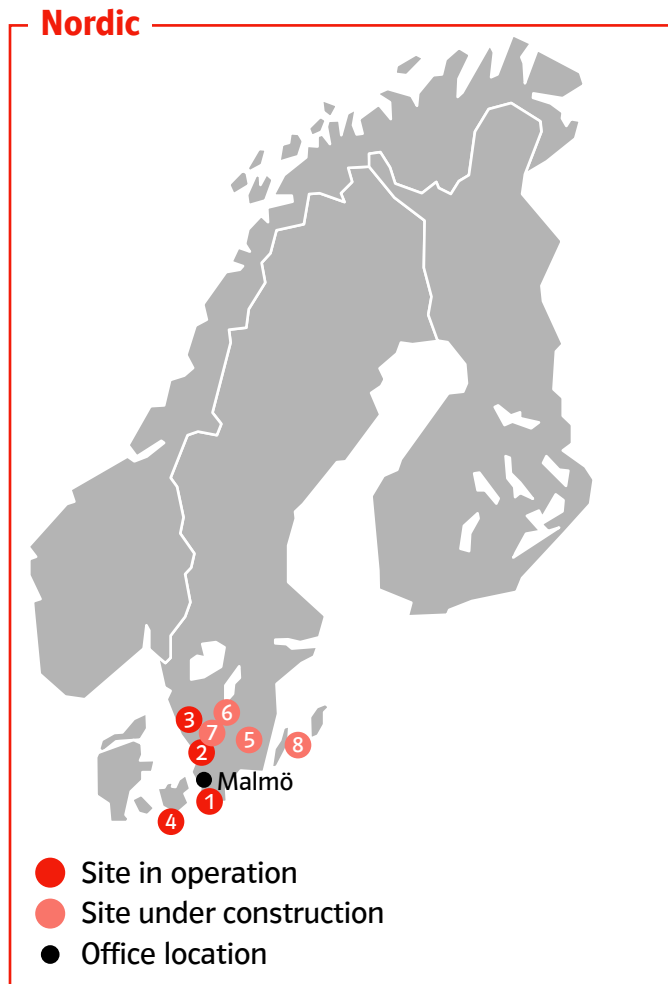
### Existing E.ON portfolio

- 236 MW installed capacity
  - 29 MW onshore wind in Sweden
  - 207 MW offshore wind in Denmark

### E.ON approach & pipeline

- **Onshore wind Sweden:** Strong growth with increasing project size
- **Onshore wind Norway:** Potentially attractive growth opportunity
- **Offshore wind Denmark:** Attractive market, growth depending on tender participation and outcome
- **Offshore wind Sweden:** Construction of Kårehamn (48 MW, COD 2013) announced in December 2011. Physically attractive market, but technology-neutral certificate system puts offshore at a disadvantage.

# Nordic: Assets in operation and under construction



## Onshore wind parks in operation

	Project location	Net MW	Commissioning year
1	Southern Sweden	18.2	1996–2007
2	Halland I (Sweden)	5.1	2011
3	Västra Götaland I (Sweden)	6.0	2011
<b>Total</b>		<b>29.3</b>	

## Offshore wind parks in operation

	Project location	Net MW	Commissioning year
4	Rødsand II (Denmark)	207.0	2010
<b>Total</b>		<b>207.0</b>	

## Onshore wind parks under construction

	Project location	Net MW	Commissioning year
5	Kalmar I / Nybro (Sweden)	20.0	2011
6	Skane I / Skabersjö (Sweden)	5.1	2011
7	Halland II / Knäred (Sweden)	18.0	2012
<b>Total</b>		<b>43.1</b>	

## Offshore wind parks under construction

	Project location	Net MW	Commissioning year
8	Kårehamn (Sweden) <sup>1</sup>	48.0	2013
<b>Total</b>		<b>48.0</b>	

Note E.ON equity MW as of 30 September 2011, rounded

<sup>1</sup> Construction decision announced in December 2011

# Poland: Market profile



## Market and Regulation

### Political environment

- Renewables are supported via technology-neutral Green Certificate Scheme which is fixed till 2017, but extension is expected to meet 2020 targets
- EU Commission is pushing Poland for stronger efforts in renewables sector
- New energy law expected in 2012: Current scheme might become technology-specific (i.e. different number of Green Certificates per technology)

### Renewable energy targets for 2020<sup>1</sup>

Technology	2010	2020
Onshore wind	1.1 GW	5.6 GW

## EC&R portfolio and approach

### Existing E.ON portfolio

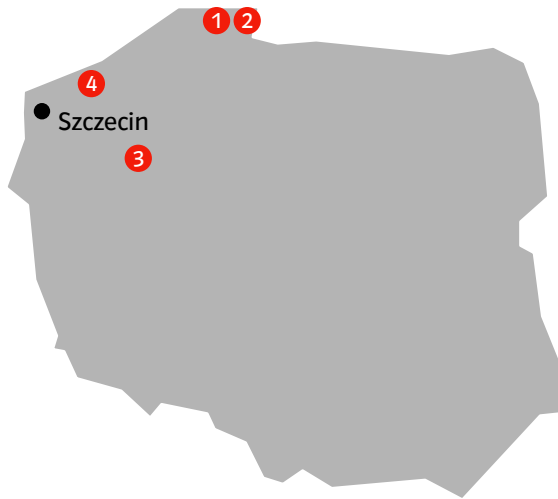
- 86.5 MW installed capacity, all onshore wind

### E.ON approach & pipeline

- **Onshore Wind:** Continued strong growth expected

# Poland: Assets in operation and under construction

## Poland



- Site in operation
- Site under construction
- Office location

## Onshore wind parks in operation

	Project location	Net MW	Commissioning year
1	Lebcz 1 ( Gdańsk)	5.9	2007
2	Lebcz 2 ( Gdańsk)	7.4	2008
3	Wielkopolska	52.5	2010
4	Barzowice	20.7	2011
<b>Total</b>		<b>86.5</b>	

# Portugal: Market profile



## Market and Regulation

### Political environment

- Renewables are supported via feed-in tariff
- Projects have to qualify for tariff via tender process
- Due to state deficit, the International Monetary Fund (IMF) forces the government to lower subsidies for renewables
- Discussions ongoing between government and renewable associations regarding retroactive cuts

### Renewable energy targets for 2020<sup>1</sup>

Technology	2010	2020
Onshore wind	3.7 GW	8.5 GW

## EC&R portfolio and approach

### Existing E.ON portfolio

- 75 MW installed capacity, all onshore wind

### E.ON approach & pipeline

- **Onshore Wind:** Manage existing portfolio, currently no further growth planned

<sup>1</sup> Targets according to National Renewables Action Plan (NREAP) reported to EU Commission  
Note E.ON equity MW as of 30 September 2011, rounded

# Portugal: Assets in operation and under construction

## Portugal



- Site in operation
- Site under construction
- Office location

## Onshore wind parks in operation

	Project location	Net MW	Commissioning year
1	Joguinho (Torres Vedras)	11.7	2006
2	Alto Folgorosa	8.1	2008
3	Espinhaço de Cão	10.0	2008
4	Barão São João	45.0	2009
<b>Total</b>		<b>74.8</b>	

# Spain: Market profile



## Market and Regulation

### Political environment

- Renewables are supported via feed-in tariffs or premium, operator can choose between the two options on an annual basis
- Projects have to be included in pre-registry to receive support
- Current legislation expires at the end of 2012 for wind and at the end of 2013 for CSP. A new decree is expected to adopt current costs of projects and a new capacity limit for each technology (pre-registry per technology)

### Renewable energy targets for 2020<sup>1, 2</sup>

Technology	2010	2020
Onshore wind	20 GW	35 GW
CSP	0.6 GW	4.8 GW

## EC&R portfolio and approach

### Existing E.ON portfolio

- 441 MW installed capacity
  - 381 MW onshore wind
  - 25 MW CSP
  - 25 MW small hydro
  - 10 MW small biogas

### E.ON approach & pipeline

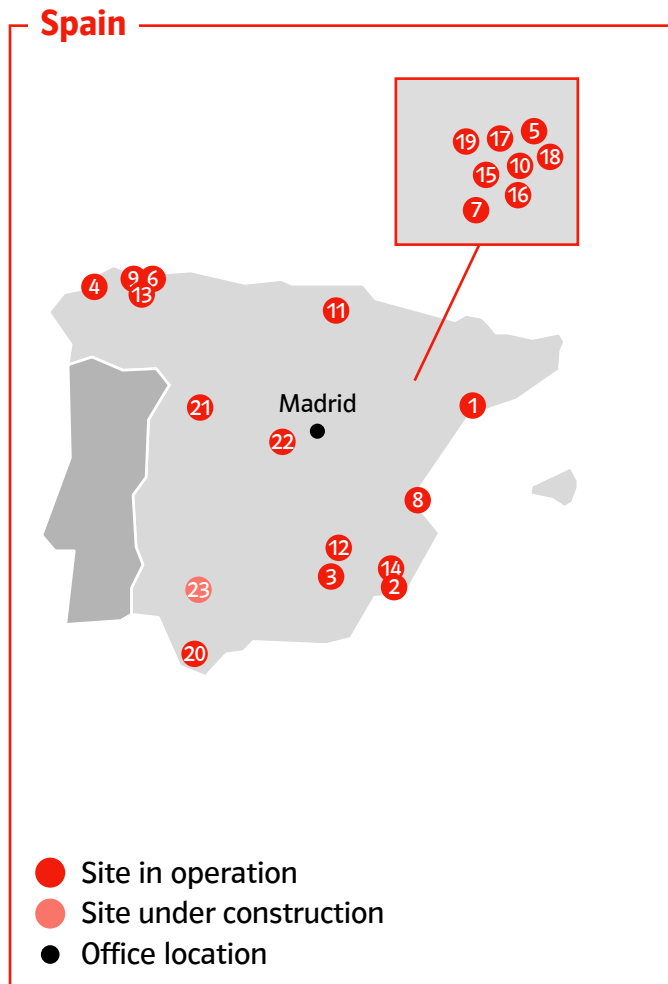
- **Onshore wind:** Participating in tenders; overall moderate growth expected, mainly depending on new remuneration scheme
- **CSP:** Project "Helioenergy I" in partnership with Abengoa Solar operational since August 2011. "Helioenergy II" to be operational by end of 2011. Attractive market but further growth depending on new remuneration scheme.

<sup>1</sup> Targets according to National Renewables Action Plan (NREAP) reported to EU Commission

<sup>2</sup> CSP target down from 5.0 GW as of latest Renewable Energy Plan

Note E.ON equity MW as of 30 September 2011, rounded

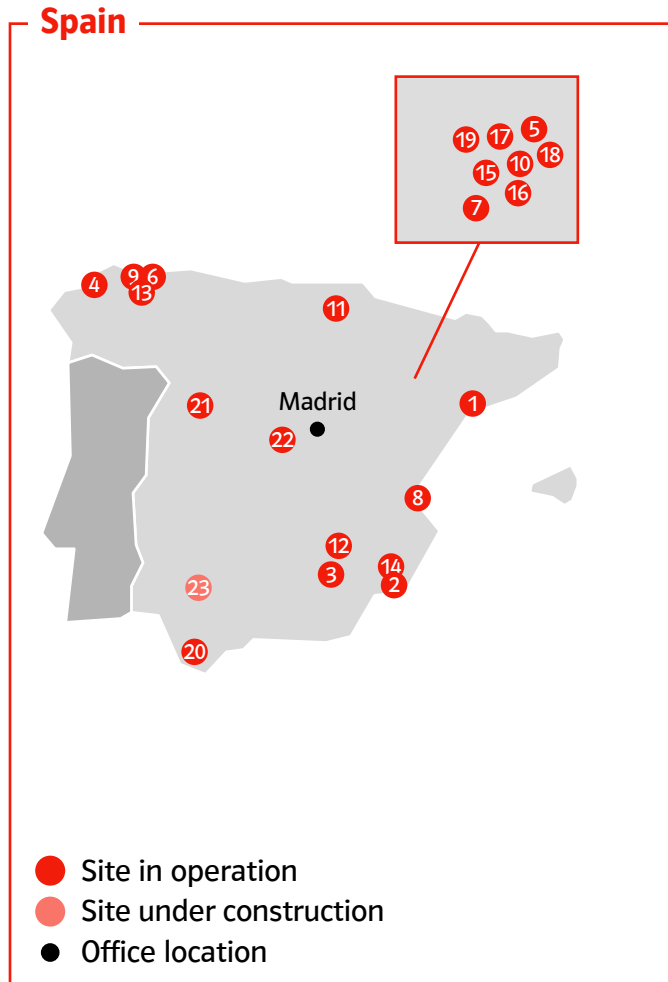
# Spain: Assets in operation and under construction



## Onshore wind parks in operation

	Project location	Net MW	Commissioning year
4	Pax	19.2	1997
5	Borja 1	8.1	1997
6	Ascoy	1.5	1998
7	Remolinos	5.9	1998
8	Planas de Pola	17.8	1999
9	Pico Gallo	24.4	2001
10	Borja 2	10.8	2001
11	Páramo de Poza	15.0	2002
12	Boquerón	24.8	2003
13	Carcelén	11.4	2004
14	Bodenaya	18.0	2005
15	San Juan de Bargas	21.0	2005
16	Mallén	30.0	2006
17	Magallón	14.5	2006
18	Mingorrugio	26.0	2009
19	Sierra de Tineo	44.0	2009
20	La Victoria	24.0	2011
21	Matabuey	14.4	2011
22	Hiperion II	50.0	2011
<b>Total</b>		<b>380.7</b>	

# Spain: Assets in operation and under construction (cont.)



## Small biogas sites in operation

	Project location	Net MW	Commissioning year
1	Juneda (Lerida)	4.3	2001
1	VAG (Lerida)	6.0	2004
<b>Total</b>		<b>10.3</b>	

## Small hydro sites in operation

	Project location	Net MW	Commissioning year
2	E2I CRISA	5.3	2005
3	Giribaile (Jaén)	20.0	2007
<b>Total</b>		<b>25.3</b>	

## CSP plants under construction\*

	Project location	Net MW	Commissioning year
23	Helioenergy I+II	50.0	2011
<b>Total</b>		<b>50.0</b>	

\* Helioenergy I operational as of August 2011, Helioenergy II to be operational by end of 2011

Note E.ON equity MW as of 30 September 2011, rounded

# UK: Market profile



## Market and Regulation

### Political environment

- Strong focus on low-carbon policy with a target of 80% carbon reduction by 2050; introduction of a carbon tax
- Renewables supported by Renewable Obligation Certificate Scheme (ROCS), to be updated with new technology-specific ROC bands during 2012 (effective from 2013)

### Renewable energy targets for 2020<sup>1</sup>

Technology	2010	2020
Onshore wind	4 GW	15 GW
Offshore wind	1.3 GW	13 GW
Biomass	0.6 GW	3.1 GW

## EC&R portfolio and approach

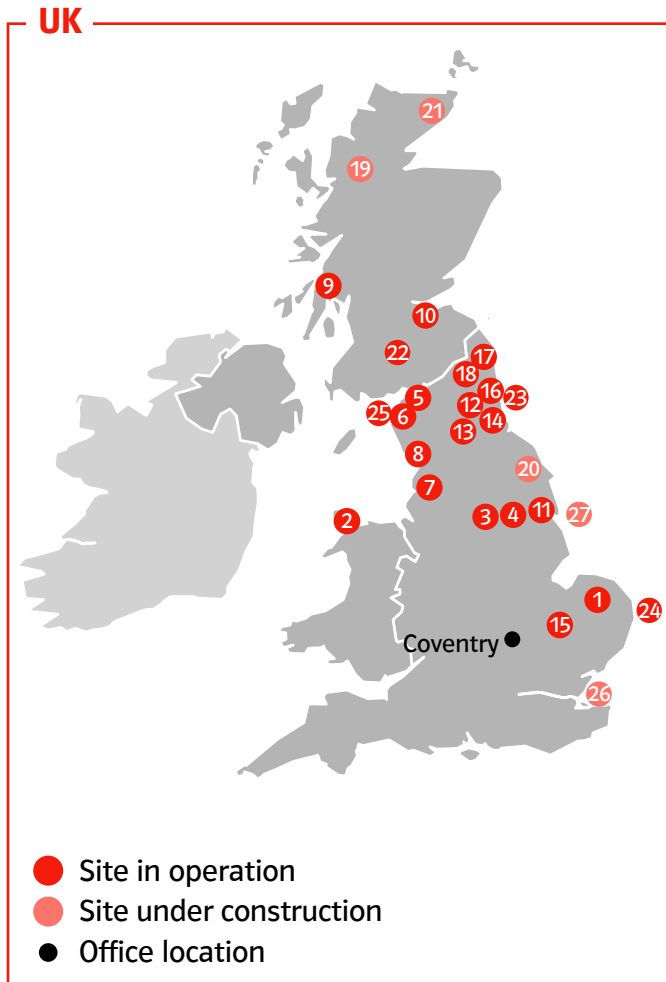
### Existing E.ON portfolio

- 451 MW installed capacity
  - 164 MW onshore wind
  - 244 MW offshore wind
  - 43 MW biomass

### E.ON approach & pipeline

- **Onshore wind:** Continued strong growth expected with increasing project size
- **Offshore wind:** Strong pipeline in place. Construction of Humber Gateway (219 MW, COD 2015) announced in December 2011. Rampion being prepared as Round 3 project.
- **Biomass:** Potential conversion of 1–2 existing fossil E.ON plants. Continue selective new build projects.

# UK: Assets in operation and under construction



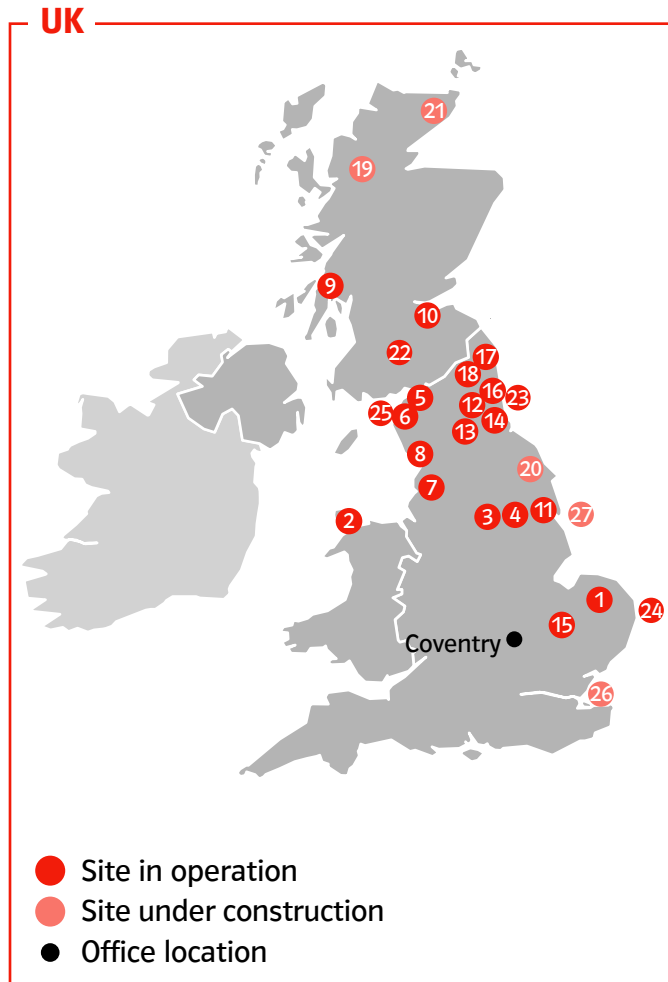
## Onshore wind parks in operation

	Project location	Net MW	Commissioning year
1	Blood Hill (Norfolk)	2.3	1992
2	Rhyd-y-Groes (Wales)	3.6	1992
3	Ovenden Moor (Yorkshire)	4.6	1993
4	Royd Moor (Yorkshire)	3.3	1993
5	Oldside (Cumbria)	5.4	1996
6	Siddick (Cumbria)	4.2	1996
7	Askam (Cumbria)	4.6	1999
8	Lowca (Cumbria)	4.6	2000
9	Deucheran Hill (Kintyre Peninsula)	15.8	2001
10	Bowbeat (Scotland)	31.2	2002
11	Out Newton (Northumberland)	9.1	2002
12	Holmside (County Durham)	5.1	2004
13	High Volts (County Durham)	7.8	2004
14	Hare Hill (County Durham)	5.1	2004
15	Stags Holt & 5A (Cambridgeshire)	20.0	2007/10
16	Haswell Moor (County Durham)	10.3	2010
17	Great Eppleton (Sunderland) [Repower]	7.8	2011
18	Butterwick Moor (County Durham)	18.8	2011
<b>Total</b>		<b>163.6</b>	

## Onshore wind parks under construction

	Project location	Net MW	Commissioning year
19	Rosehall (Scotland)	24.7	2012
20	Tween Bridge (Yorkshire)	44	2012
21	Camster (Scotland)	50	2013
<b>Total</b>		<b>118.7</b>	

# UK: Assets in operation and under construction (cont.)



## Biomass plants in operation

	Project location	Net MW	Commissioning year
22	Steven's Croft (Lockerbie)	43.4	2008
<b>Total</b>		<b>43.3</b>	

## Offshore wind parks in operation

	Project location	Net MW	Commissioning year
23	Blyth (Northumberland)	3.8	2000
24	Scroby Sands (Great Yarmouth)	60.0	2004
25	Robin Rigg (Solway Firth)	180.0	2010
<b>Total</b>		<b>243.8</b>	

## Offshore wind parks under construction

	Project location	Net MW	Commissioning year
26	London Array	189.0	2012
27	Humber Gateway <sup>1</sup>	219.0	2015
<b>Total</b>		<b>408.0</b>	

Note E.ON equity MW as of 30 September 2011, rounded

<sup>1</sup> Construction decision announced in December 2011

# US: Market profile



## Market and Regulation

### Federal level

- No renewables targets
- Renewables support through cash grants or alternatively Production Tax Credit (PTC)
- For wind projects, cash grants currently expire end 2011 and PTC expires end 2012. For solar projects, both expire 2016
- PTC has been extended several times several times, even retroactively, but current debate about federal debt and spending cuts runs against extension
- 2012 Presidential elections will divert attention from decisions on new legislation

### State level

- 27 of the 50 US States have Renewable Portfolio Standards (RPS) similar to a quota, with certificates to track fulfillment and support renewables

## EC&R portfolio and approach

### Existing E.ON portfolio

- 1,920 MW installed capacity, all onshore wind

### E.ON approach & pipeline

- **Onshore wind:** Strong growth focus with ~500 MW net additions p.a. in mainly PJM/MISO/ESCO zones
- **PV:** Focus on growth in California and Arizona, with a target of ~80 MW p.a. post 2012
- **CSP:** New focus market

# US: Assets in operation and under construction



## Onshore wind parks in operation

	Project location	Net MW	Commissioning year
1	Forest Creek (Texas)	124.2	2006
2	Munnsville (New York)	34.5	2007
3	Sand Bluff (Texas)	90.0	2008
4	Roscoe (Texas) <sup>1</sup>	209.0	2008
5	Champion (Texas) <sup>1</sup>	126.5	2008
6	Inadale Phase 1/2 (Texas) <sup>1</sup>	197.0	2008
7	Panther Creek I & II (Texas)	258.0	2008
8	Pyron (Texas) <sup>1</sup>	249.0	2009
9	Papalote I (Texas)	179.9	2009
9	Papalote II (Texas)	200.1	2010
11	Stony Creek (Pennsylvania)	52.5	2009
12	Panther Creek III (Texas)	199.5	2009
<b>Total</b>		<b>1,920.2</b>	

## Onshore wind parks under construction

	Project location	Net MW	Commissioning year
13	Settlers Trail (Illinois)	150.0	2011
14	Pioneer Trail (Illinois)	150.0	2012
15	Magic Valley I (Texas)	203.3	2012
16	Wildcat / Grant I (Indiana)	203.0	2012
17	Anacacho	99.8	2012
<b>Total</b>		<b>807.1</b>	

<sup>1</sup> Part of the Roscoe complex

Note E.ON equity MW as of 30 September 2011, rounded

# Content

E.ON

Achievements

Ambition

Addendum

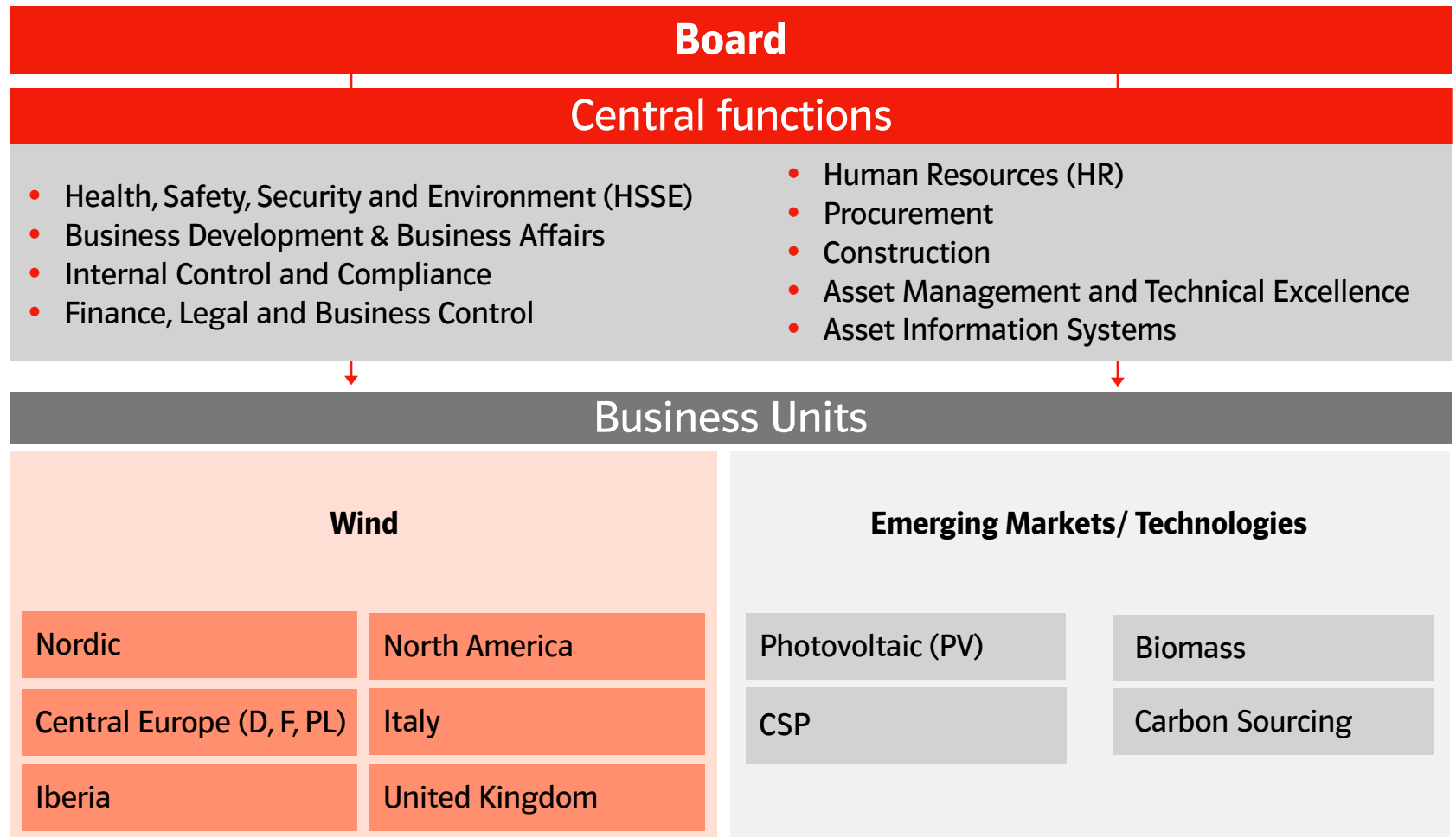
Technology summaries

Policy frameworks

Country summaries

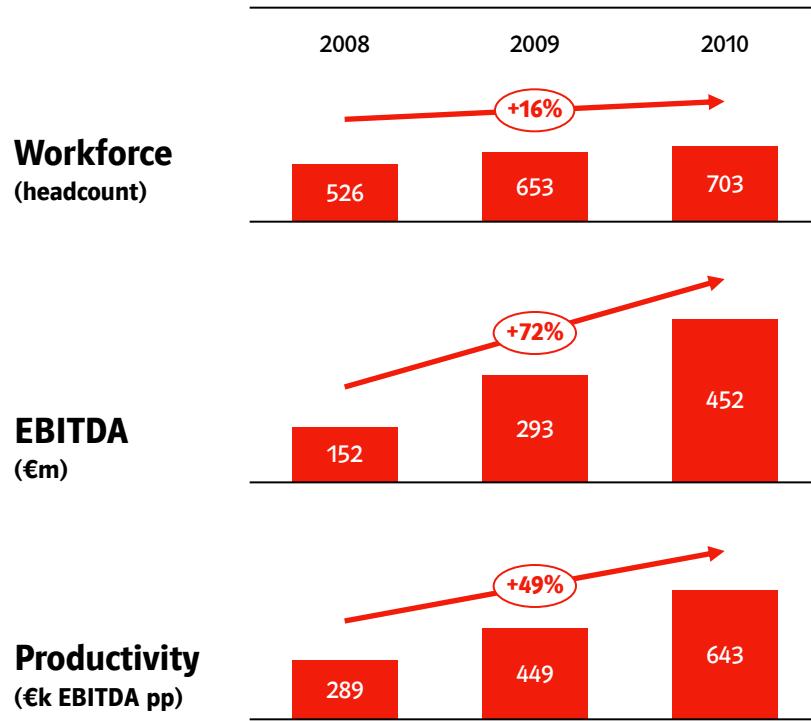
**Organization**

# Organizational setup



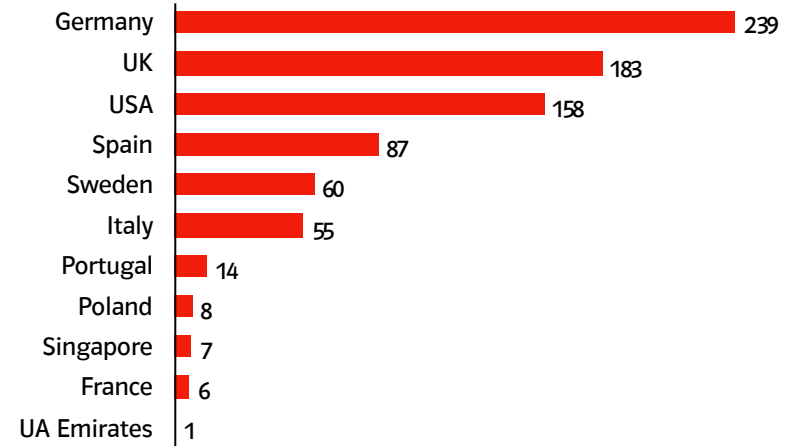
# Our people and diverse culture are key to our success

## Development of EC&R's workforce and productivity



## EC&R - a diverse team

- 818 employees
- Operations in 11 countries



- 35 different nationalities
- 72% men, 28% women

**EC&R continuously creates new jobs - and significant productivity increases**

# E.ON Climate & Renewables Board of Management

**Mike Winkel**

*CEO*



- German native
- Studied Business Economics and Power Engineering in Zittau and in Oxford
- Expert in trading and optimization of power plants
- Former Deputy General Manager of E.ON Russia

**Cord Landsmann**

*CFO*



- German native
- PhD in Finance, 12 yrs utilities experience
- International M&A experience
- Expert in Finance
- Skilled in intercultural working environment (U.S., Europe)

**Michael Lewis**

*MD Europe*



- British native
- Mechanical Engineer, MSc Pollution Control, Diploma Accounting and Finance
- 17 years in international energy industry

**Hervé Touati**

*MD Emerging Technologies & New Markets*



- French native
- PhD in Electrical Engineering
- Began career in the computer industry
- Formerly a McKinsey advisor for the Financial and Energy Sectors

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