



***Renewables: Current situation  
and portfolio outlook***  
**Renewable Energies Division**



**Valencia , 25 June 2007**

- **Context within which ENDESA is developing renewable energies**
- **ENDESA's vision, positioning, and action lines regarding renewable energies**
- **Project portfolio**

## EU energy policy targets make renewable energies the key to future action ...

### EU energy policy targets

- To combat climate change
- To promote employment and growth
- Security of Supply

### Renewable Energy 2020 targets

- ➔ 20% of primary energy will come from renewable energies (binding)
- ➔ Guideline proposals:
  - Electricity: 34% of total electricity consumption
  - Thermal use (biomass, solar): 18% of total thermal consumption
  - Biofuels: 14% of fuel for transport (with a binding minimum of 10%)

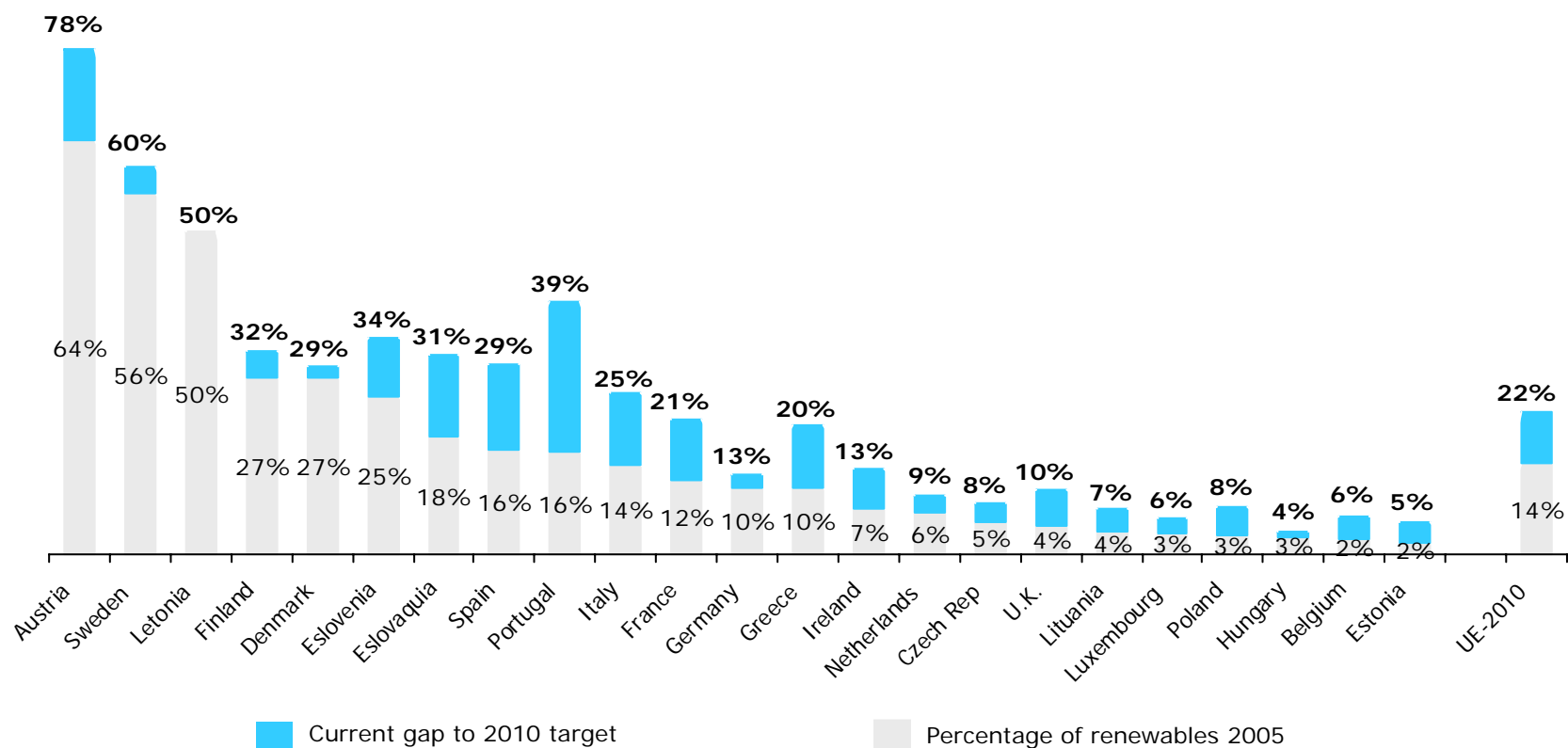
**... since today they are already an established reality**

- ➔ **Significant cumulative growth**
- ➔ **Resources with future potential**
- ➔ **Gradual achievement of economies of scale**
- ➔ **Strong technological development**
- ➔ **Opportunity for industrial development and job creation**

## 2010 country by country UE renewable targets will be revised upwards for 2020

### EU targets for renewable energies <sup>(1)</sup> at 2010

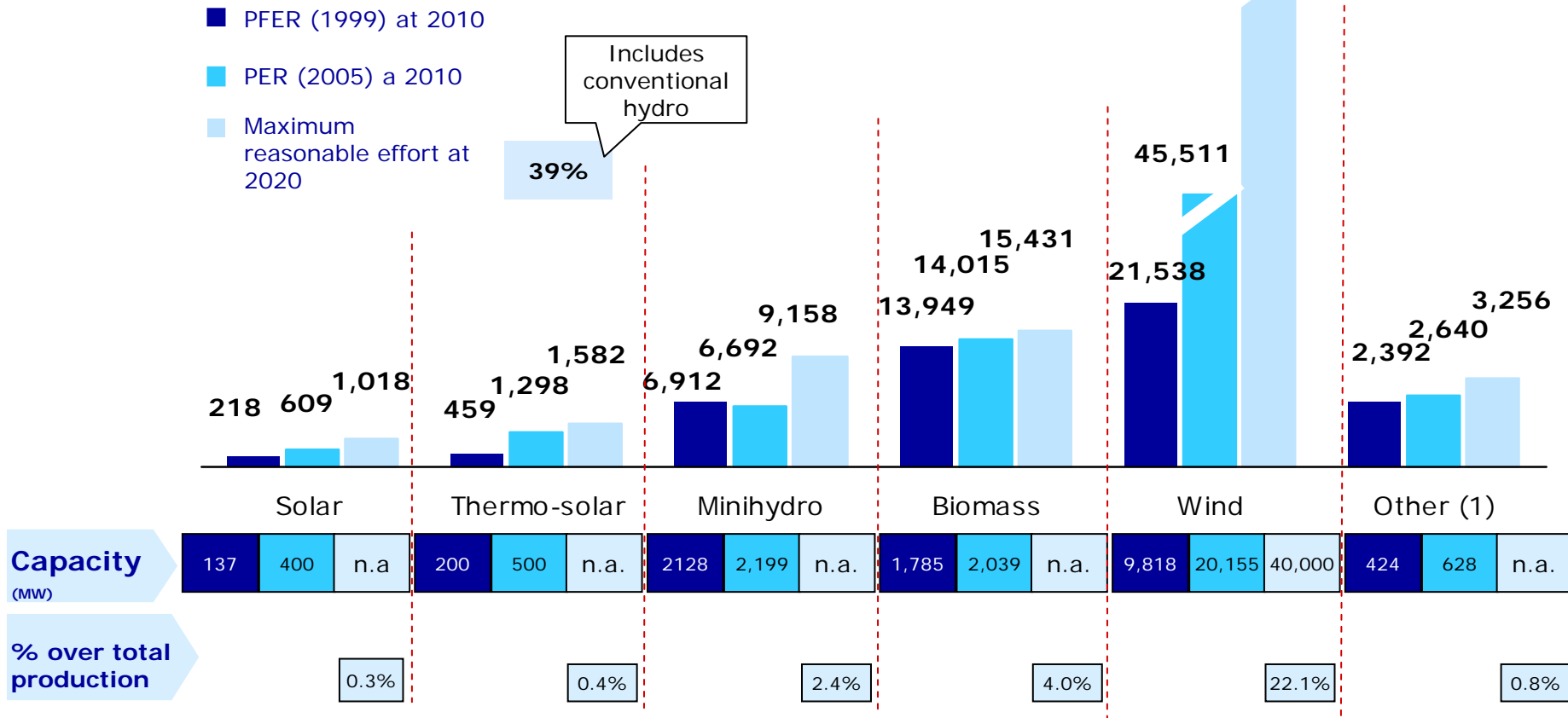
% electricity consumption



(1) Includes large hydro  
Source: EC Communication

## Spanish targets for renewable energies

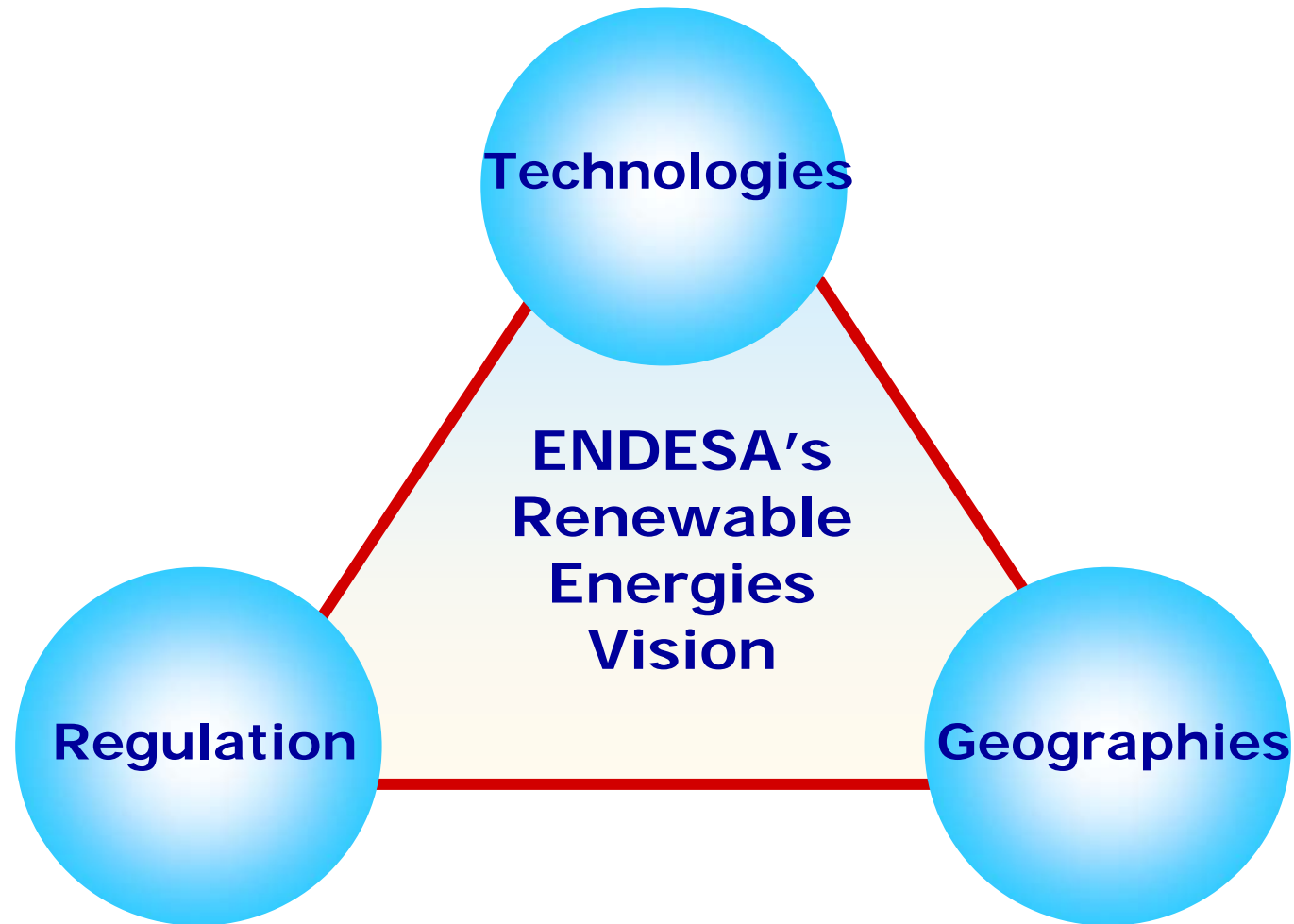
GWh

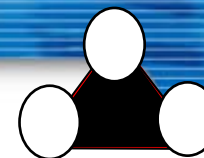


(1) Waste treatment, SUW, Biogas; (\*) Mini-hydro data PFER and PER for P<10MW.  
Source: MITYC (Ministry of Industry, Tourism and Trade)

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## Conceptual framework of ENDESA's vision and positioning regarding renewable energies





### Growth ...

- Strengthening commitment to renewable energies ...
- ... as a profitable business ...
- ... aligned with a greater effort to ensure sustainability, protect the environment, and combat climate change

### ... global...

- International expansion based on ...
- ... ENDESA's institutional presence, territorial structure, and multinational organization...
- ... leading the development of emerging markets and
- ... supporting economic and social development wherever it operates

### ... diversified

- Consideration of all sources of renewable energy ...
- ... driving the development of all technologies ...
- ... as well as participating in "adjacent" businesses: CDM/JI

### ... & integrated

- Consideration of the energy side of the business and not just the financial side
- Use of regime integration and manageability criteria for renewable energies and management of fuels
- ... to maximize economic and energy values throughout the ENDESA Group<sup>8</sup>



## Regulatory framework

**Economic incentives**

**Incentives for technological and industrial development**

**Procedures to remove access barriers**

### Current

- Compensation for the higher direct generation costs

- Measures to ensure that the industry achieves the economies of scale necessary to reduce costs

- Entry hierarchy
- Regulate and facilitate administrative procedures
- Regulated business

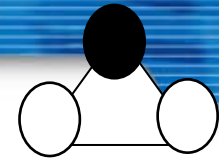
### Future

- Major upward revision of binding RE targets ...
- ... and their gradual technological maturity
- ... will require an appropriate adjustment to the regulatory framework, ... turning "Special Regime" (renewable) energies into "Ordinary" (conventional) energies ...
- ... once they are managed within the electricity sector under the same criteria as conventional technologies (manageability)

**Targets (EU)**

**Renewables 12% primary energy 2010**

**Renewables 20% primary energy 2020**



### Positioning

#### Wind power

- Growth and self-development of ENDESA's high quality portfolio, in terms of size and visibility

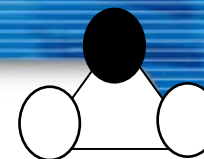
#### Solar

### Action lines

- To maximize capacity for self-development projects
- To accelerate and complete inorganic growth in key geographic areas that have strong growth potential, regulatory stability, and adequate return on investment
- To ensure the availability of equipment by using the major suppliers around the world
- To optimize the operation of the current generation portfolio
- To maximize intra-group synergies to accelerate portfolio growth and maturity

#### Biomass

#### Mini-hydro



### Positioning

Wind power

**Solar**

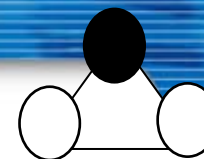
Biomass

Mini-hydro

- To promote integrated photovoltaic installations as a way to get closer to the consumption points...
- ... and co-leading the technological development of thermoelectric solar in preparation for its introduction in the market

### Action lines

- To capture market growth in photovoltaic solar and thermoelectric solar energies
- To participate in solar thermoelectric development projects with the most suitable partners
- To achieve the right technological position in preparation for the emergence of new generation technologies
- To maximize intra-group synergies
- International expansion into countries in which ENDESA already operates (Mediterranean)
- Hybrid solar/biomass technologies



## Positioning

- Aims to lead development in biomass by leveraging co-firing
- ... and biomass market development initiatives

## Action lines

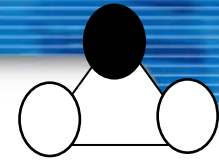
- To accelerate the conversion of coal-fired plants to co-firing
- To ensure the transfer of best practices between countries (Italy and in the field experiences in Spain)
- Simplification and adaptation to multi-product
- To lead the creation of a biomass market by leveraging a real demand adapted to the seasonality of supply
- To create logistics centres for the marketing of biomass fuels
- To establish regional programmes for managing farm and forestry waste and the development of energy crops

Wind power

Solar

**Biomass**

Mini-hydro



Wind  
power

Solar

Biomass

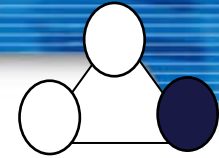
**Mini-  
hydro**

### Positioning

- To make use of all existing opportunities to develop new mini-hydroelectric plants under the "Special Regime"

### Action lines

- To make use of all existing opportunities to develop new mini-hydroelectric plants under the "Special Regime" for renewable energies wherever they may present themselves...
- ... starting with the considerable portfolio of mini-hydro plants in Spain (333 MW under the "Special Regime") ...
- ... and the portfolio of mini-power plants currently operating under the "Ordinary Regime" for conventional generation (935MW < 10MW)
- In Latin America, to make use of the region's hydrological potential



### Geographic areas in which ENDESA currently operates

#### Spain and Portugal

- Principal growth area in the short-/medium-term
- Focus on growth through self-development projects, maximizing today's high quality project portfolio involving all energy technologies

#### Europe

- Leveraging ENDESA's presence abroad (Italy, France, Poland, Greece)
- Execution of existing acquisition agreements
- Development of a structure based on self-development projects

#### Latin America

- Establishment of a structure based on self-development projects
- Accelerated development of the portfolio
- Maturing of regulatory frameworks
- Joint business development between Spain and Latin America

#### Other areas

- Study of opportunities in highly attractive countries in terms of potential revenues, regulatory stability, and resources

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## **ENDESA has a high quality portfolio of wind farms in Spain and Portugal**

**Spain**

- 1 Sizeable
- 2 Geographically diversified
- 3 With a high level of maturity
- 4 With a conservative implementation rate

**Portugal**

- 5 Good size and guaranteed implementation

**Europe**

- 6 Acquired portfolio under development in France, Italy & Greece

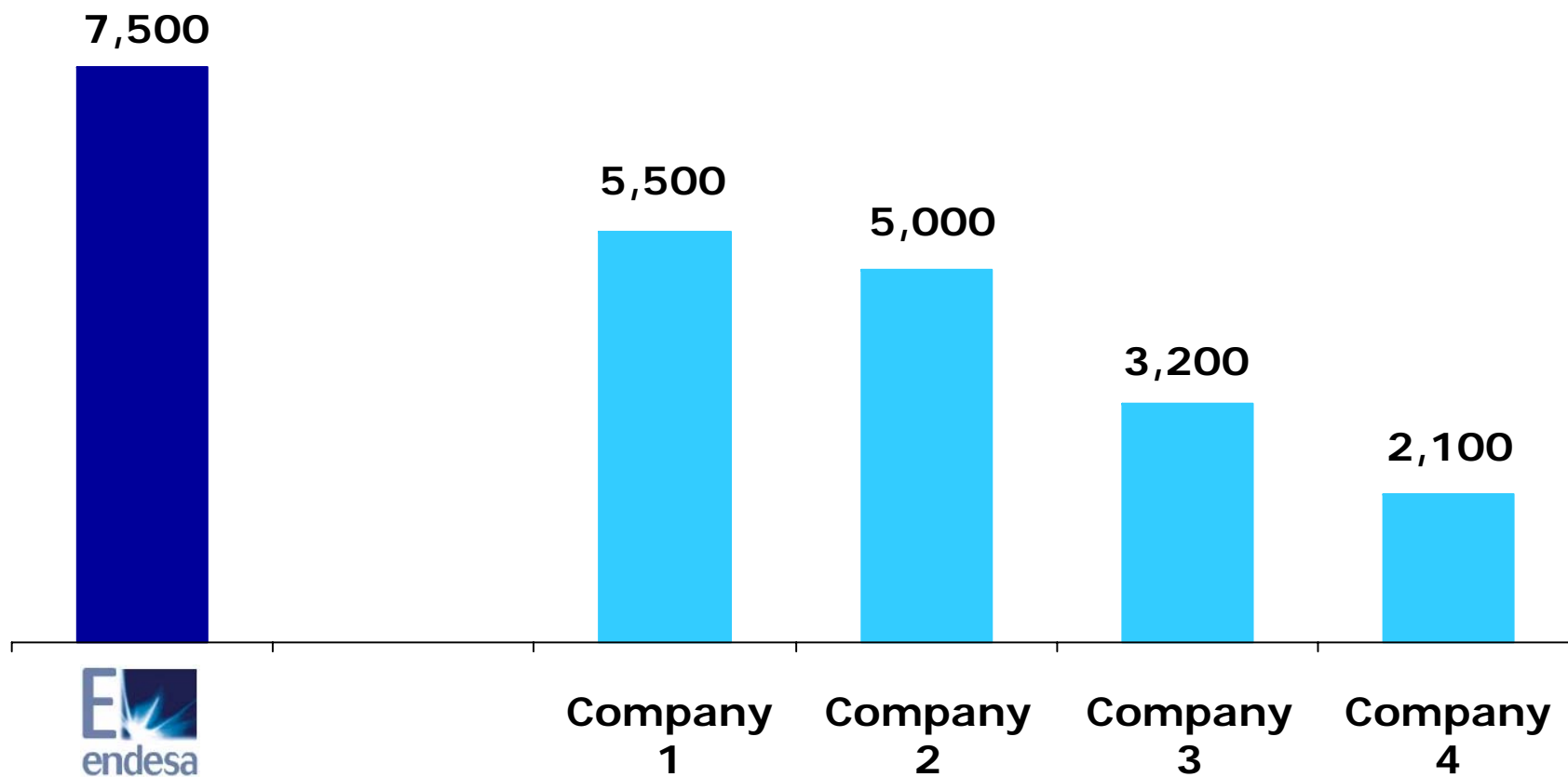
**Latin America**

- 7 Research into future portfolio ahead of regulatory maturity



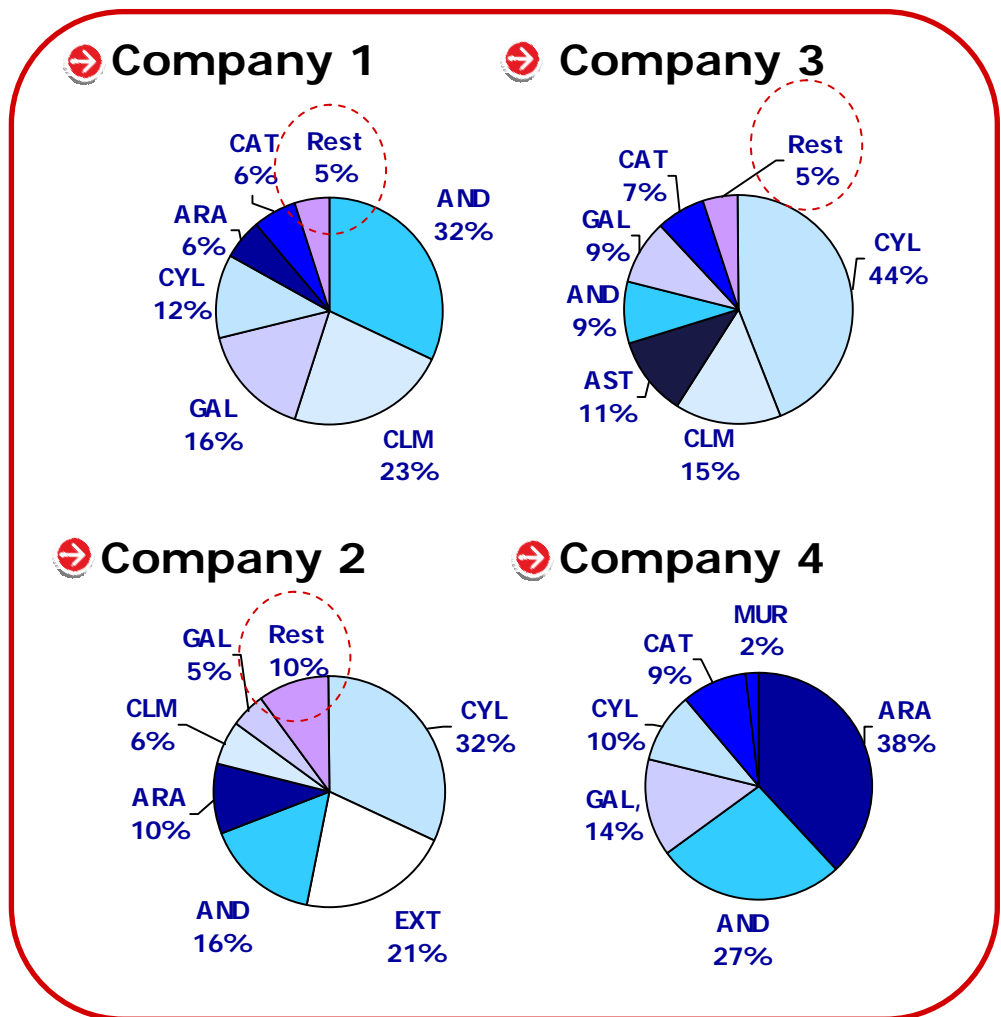
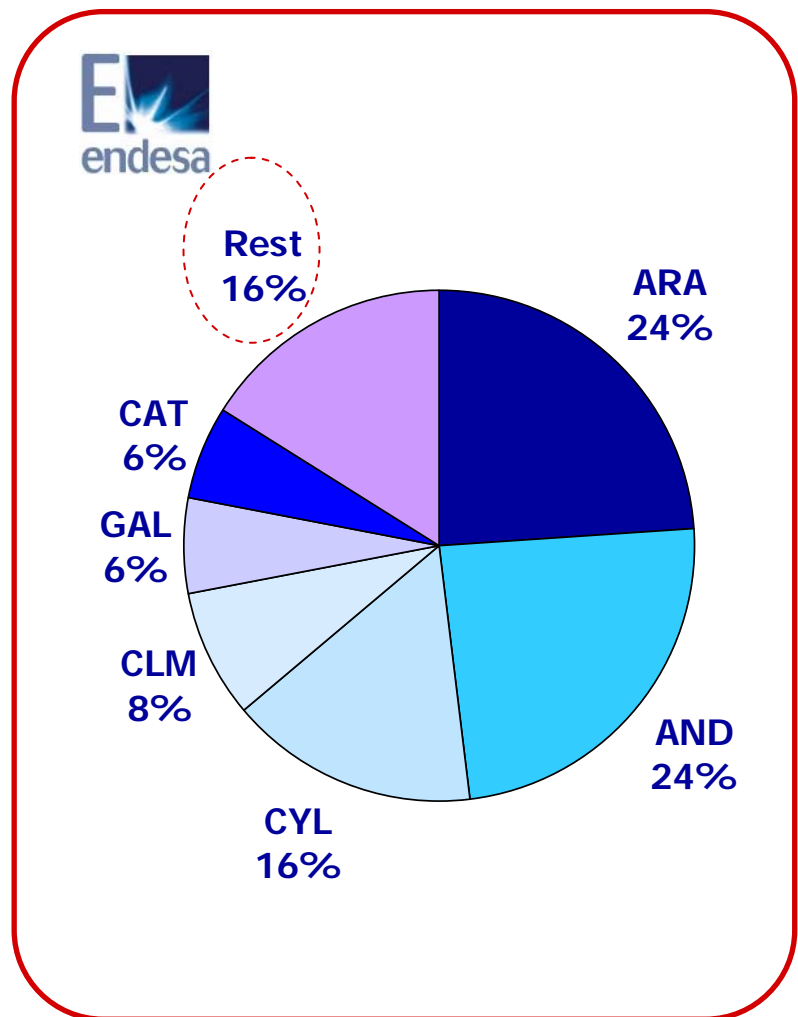
# 1 Size of ENDESA's portfolio in Spain compared to our main competitors

Size of ENDESA's portfolio in Spain vs. main competitors (MW)



Source: Public information from third companies

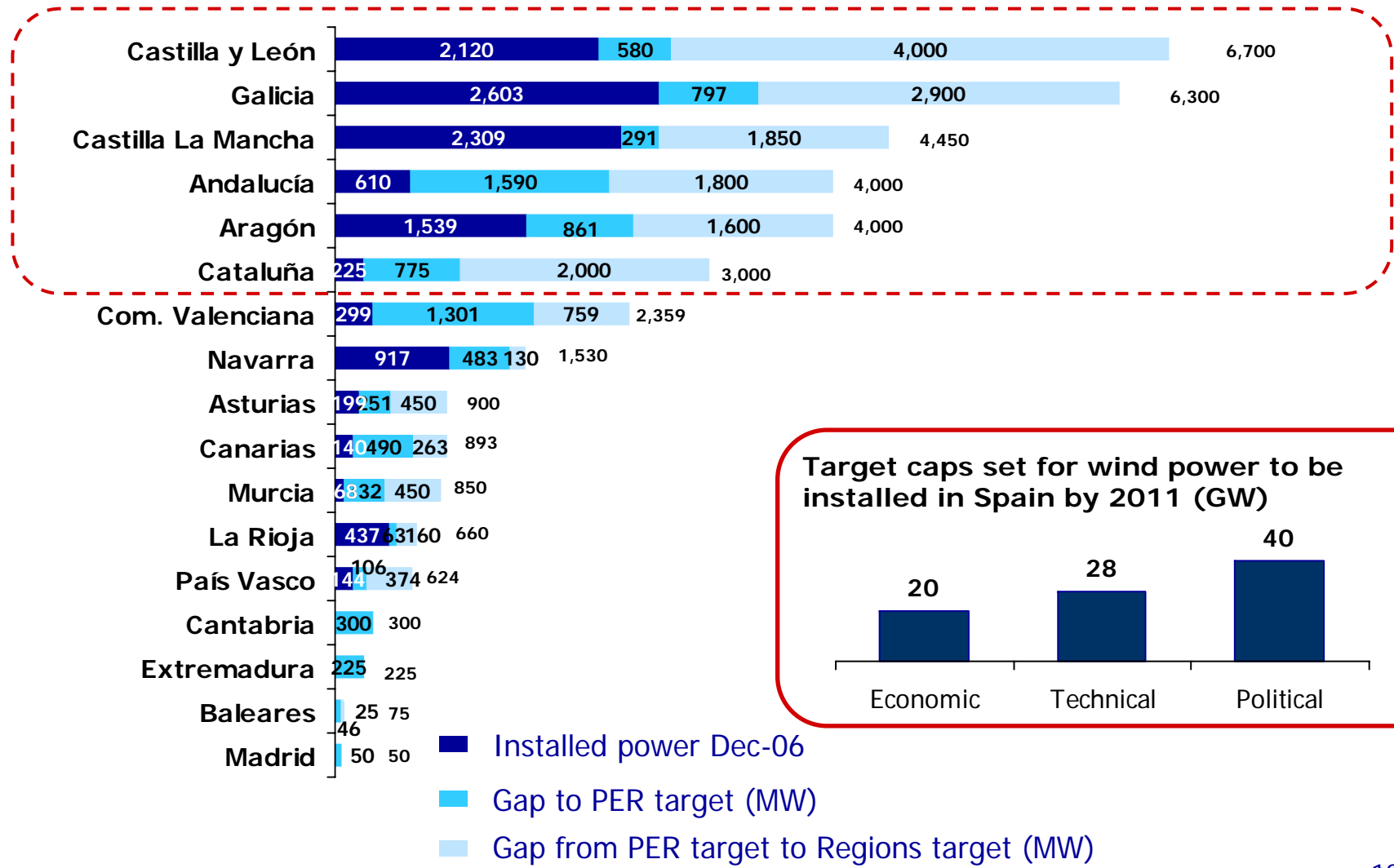
**2 Appropriately diversified to ensure development according to each Region's maturity ...**



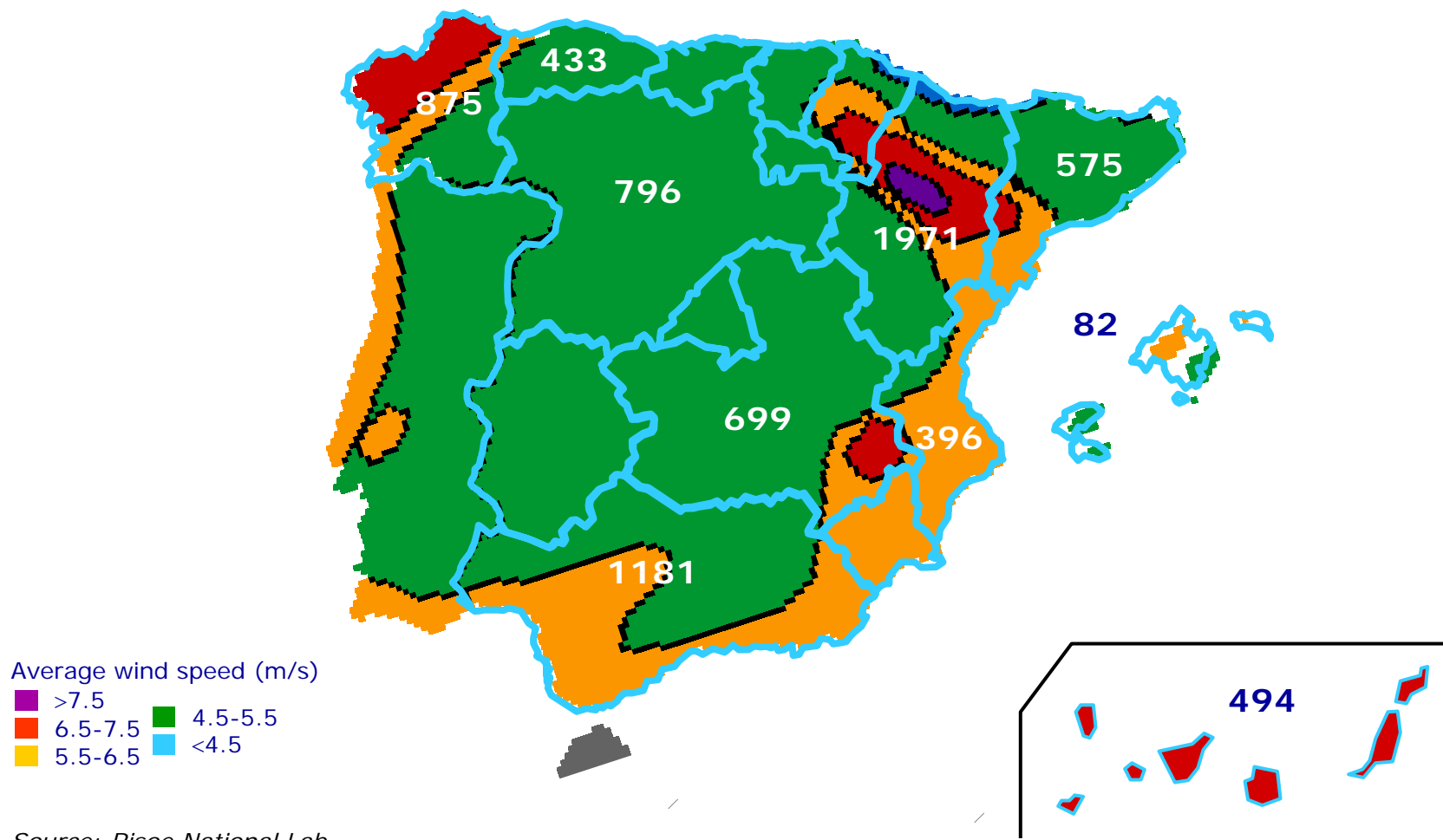
Source: Public information from third companies

2 .. and focused on the Regions with the best growth outlooks ...

Wind power targets & progress to date, by Regions (MW)



ENDESA's portfolio by Regions (MW)



Source: Risoe National Lab

## **ENDESA's wind power portfolio viability in Spain is based on three dimensions**



### **Technical viability**

- **The project is feasible from an engineering point of view**
- **Includes: civil work, turbines installation, physical access to evacuation point**



### **Economic viability**

- **The project is attractive from a financial point of view**
- **There is wind power enough to ensure profitability of the project**

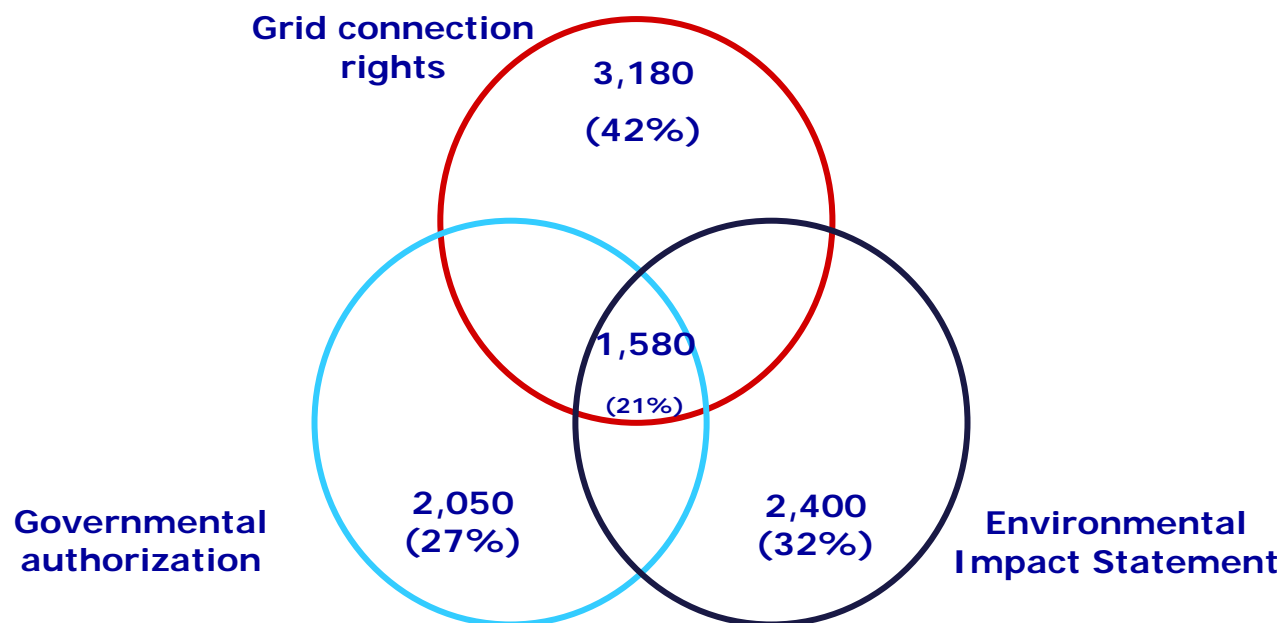


### **Administrative/Governmental viability**

- **Includes all necessary steps to get the required authorizations to build and run the wind farm: administrative/governmental authorization, connection rights and environmental impact statement.**

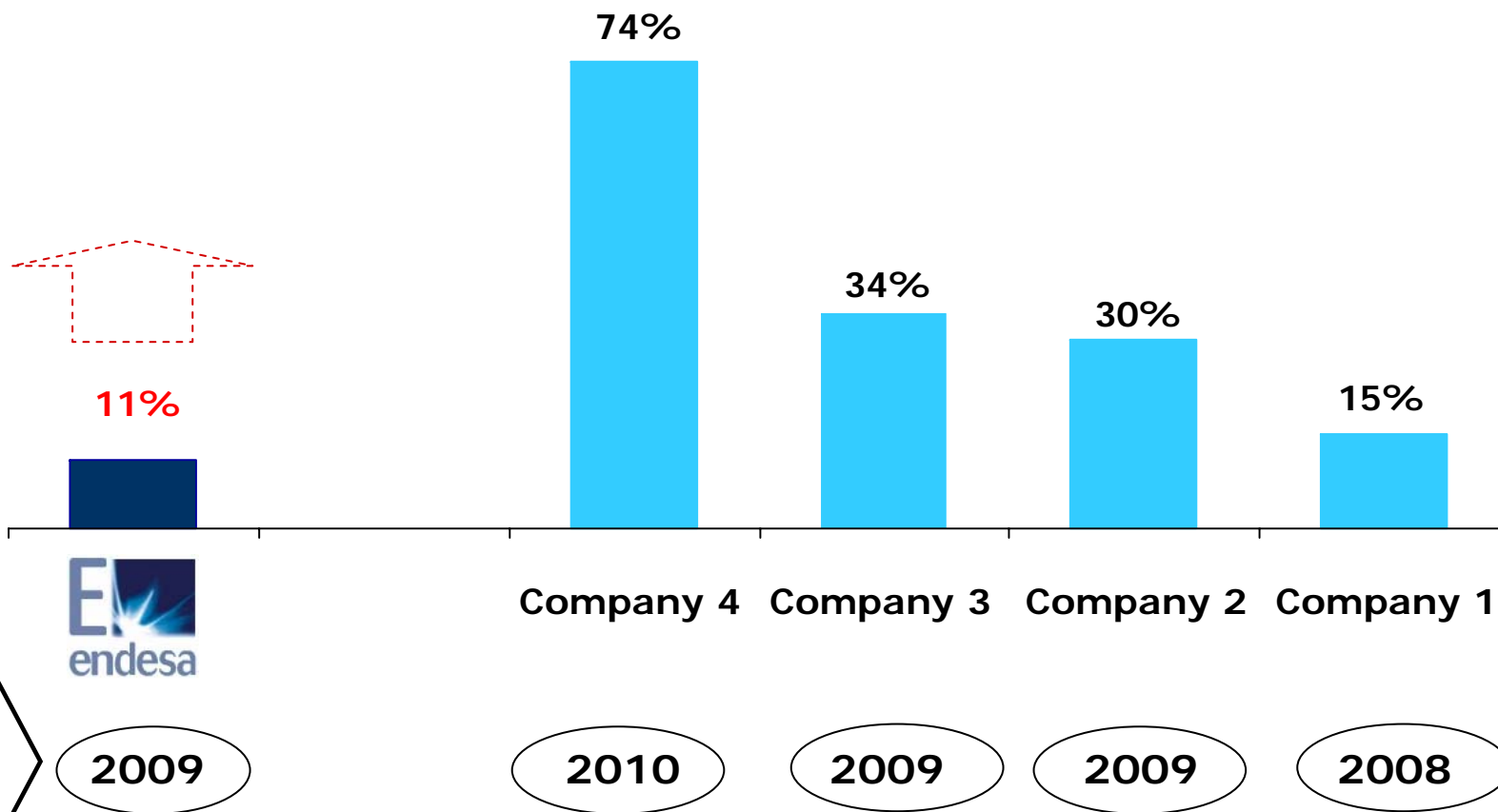
**3 7,500 MW with economic and technical viability and without environmental obstacles...**

**Wind farm portfolio in Spain**



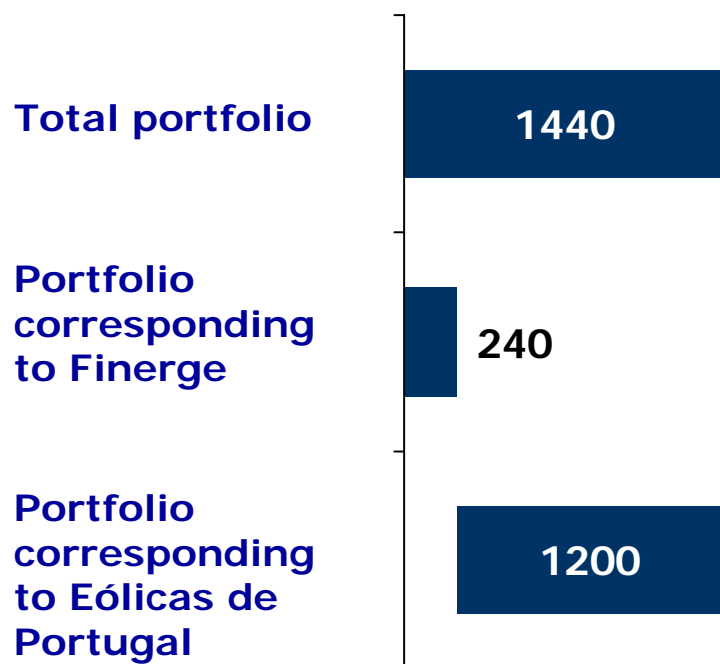
**Royal Decree 661/07 makes access and connection rights to transmission or distribution networks an essential requirement (bottle neck) for the granting of governmental authorization**

Portfolio implementation according to growth plans announced to the market (%)



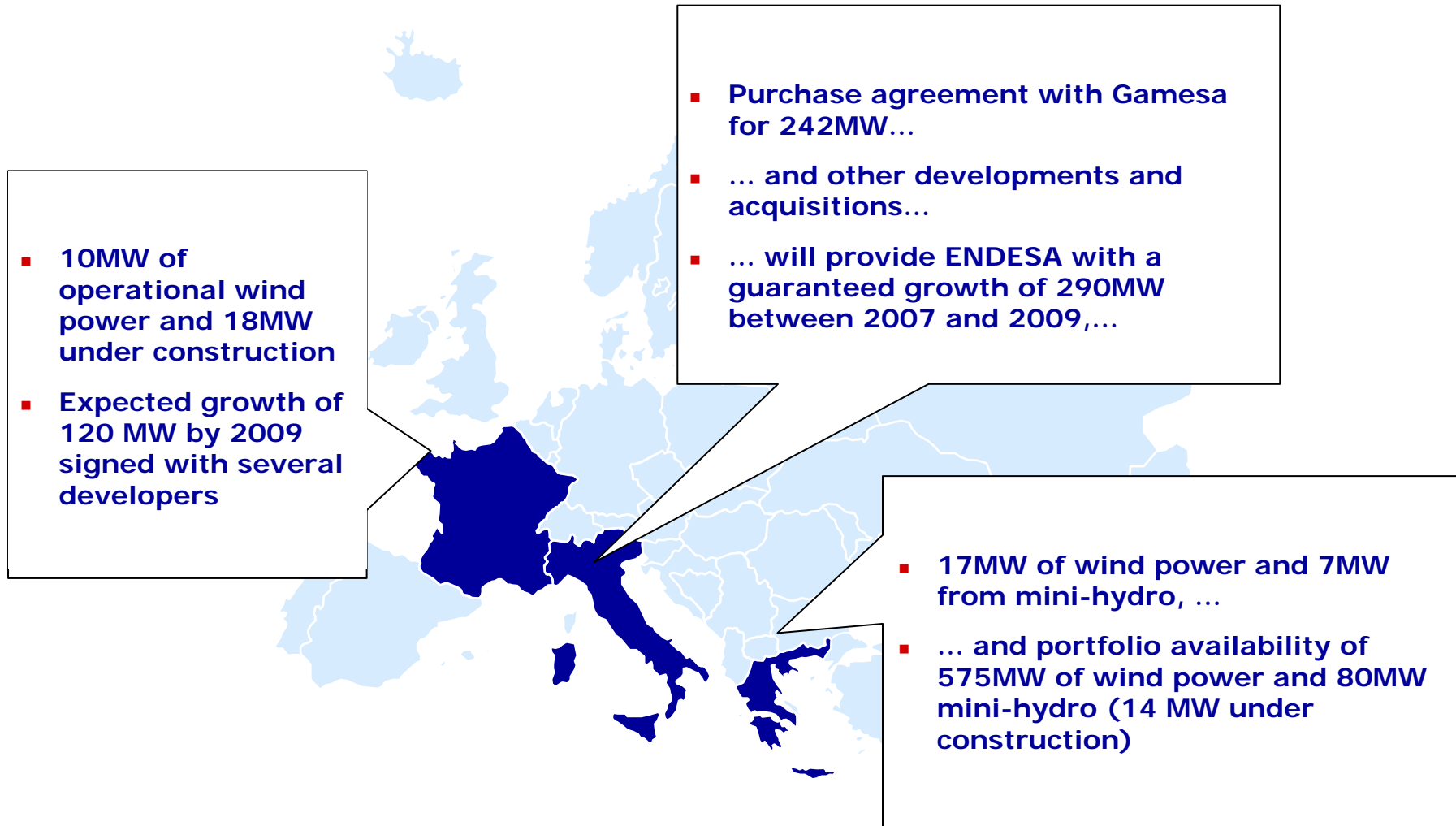
Implementation target 2006 to ...

**5 In Portugal ENDESA's portfolio represents 38% of the government's target for 2010**



- ➔ In Portugal, the regulatory framework ensures the implementation of the entire portfolio, with guaranteed evacuation capacity anywhere in the country
- ➔ ENDESA's activity in renewable energies in Portugal through:
  - Finerge, 100% subsidiary
  - 30% interest in Eólicas de Portugal Wind Power Consortium with EDP

## Available wind power portfolio to date in France, Italy and Greece is nearly 1,000 MW



## **Latin America: aim to consolidate the portfolio anticipating the regulation maturity**

- **To help the different Governments to mature their respective regulatory frameworks**
- **Development/research of projects:**
  - Brazil
  - Mexico
  - Chile
  - Peru
  - Argentina
- **Ensuring future developments by seeking out the most valuable locations**
- **Development of singular projects (Chile): first wind farm connected to Chile's national grid, operational in 2007 (18 MW)**

## In other technologies, ENDESA also has a high quality portfolio

### Solar

- > 100 MW for the installation of photovoltaic solar at facilities with their own land (power plants, landfills) and high quality solar resources
- Agreement with Isofotón: (i) guaranteed supply of 100+250 MW solar panels; (ii) participation in polysilicon plants; (iii) development of concentration technologies

### Biomass, biogas & waste

- Portfolio of coal-fired thermal power plants generating over 5000 MW in Spain, ...
- ... as our main assets in our leadership in co-firing (15%)
- Experience in biomass (44 MW)....
- ....and biogas and waste treatment (91MW)

### Mini- hydro

- Spain: 333 MW in mini-hydro power plants under the "Special Regime" for renewable energies and 935 MW in power plants <10 MW (currently under the "Ordinary Regime" for conventional generation)
- Power plants in Italy under renewal process
- Major hydrological resources in Latin America

- **Extensive current political commitments on renewable energies translate into very demanding targets ...**
- **... which will generate significant growth in renewable energies given the technological progress being made**
- **Endesa's vision for its renewable energy business is shaped by its commitment to global territorial growth across all technologies, integrated within the electricity system**
- **The visibility and scale of Endesa's renewables pipeline guarantees its future positioning, setting the stage for the development of higher growth programs**



## Legal Information

This document was made available to shareholders of Endesa, S.A.. In relation with the announced joint offer by ENEL SpA and Acciona, S.A., Endesa shareholders are urged to read the report of Endesa's board of directors when it is filed by the Company with the Comisión Nacional del Mercado de Valores (the "CNMV"), as well as Endesa's Solicitation/Recommendation Statement on Schedule 14D-9 when it is filed by the Company with the U.S. Securities and Exchange Commission (the "SEC"), as it will contain important information. Such documents and other public filings made from time to time by Endesa with the CNMV or the SEC are available without charge from the Endesa's website at [www.endesa.es](http://www.endesa.es), from the the CNMV's website at [www.cnmv.es](http://www.cnmv.es) and from the SEC's website at [www.sec.gov](http://www.sec.gov) and at Endesa's principal executive offices in Madrid, Spain.

This presentation contains certain "forward-looking" statements regarding anticipated financial and operating results and statistics and other future events. These statements are not guarantees of future performance and they are subject to material risks, uncertainties, changes and other factors that may be beyond ENDESA's control or may be difficult to predict.

Forward-looking statements include, but are not limited to, information regarding: estimated future earnings; anticipated increases in wind and CCGTs generation and market share; expected increases in demand for gas and gas sourcing; management strategy and goals; estimated cost reductions; tariffs and pricing structure; estimated capital expenditures and other investments; estimated asset disposals; estimated increases in capacity and output and changes in capacity mix; repowering of capacity and macroeconomic conditions. For example, the investment plan for 2007-2009 included in this presentation are forward-looking statements and are based on certain assumptions which may or may not prove correct. The main assumptions on which these expectations and targets are based are related to the regulatory setting, exchange rates, divestments, increases in production and installed capacity in markets where ENDESA operates, increases in demand in these markets, assigning of production amongst different technologies, increases in costs associated with higher activity that do not exceed certain limits, electricity prices not below certain levels, the cost of CCGT plants, and the availability and cost of the gas, coal, fuel oil and emission rights necessary to run our business at the desired levels.

In these statements we avail ourselves of the protection provided by the Private Securities Litigation Reform Act of 1995 of the United States of America with respect to forward-looking statements.

The following important factors, in addition to those discussed elsewhere in this presentation, could cause actual financial and operating results and statistics to differ materially from those expressed in our forward-looking statements:

**Economic and industry conditions:** significant adverse changes in the conditions of the industry, the general economy or our markets; the effect of the prevailing regulations or changes in them; tariff reductions; the impact of interest rate fluctuations; the impact of exchange rate fluctuations; natural disasters; the impact of more restrictive environmental regulations and the environmental risks inherent to our activity; potential liabilities relating to our nuclear facilities.

**Transaction or commercial factors:** any delays in or failure to obtain necessary regulatory, antitrust and other approvals for our proposed acquisitions or asset disposals, or any conditions imposed in connection with such approvals; our ability to integrate acquired businesses successfully; the challenges inherent in diverting management's focus and resources from other strategic opportunities and from operational matters during the process of integrating acquired businesses; the outcome of any negotiations with partners and governments. Delays in or impossibility of obtaining the pertinent permits and rezoning orders in relation to real estate assets. Delays in or impossibility of obtaining regulatory authorisation, including that related to the environment, for the construction of new facilities, repowering or improvement of existing facilities; shortage of or changes in the price of equipment, material or labour; opposition of political or ethnic groups; adverse changes of a political or regulatory nature in the countries where we or our companies operate; adverse weather conditions, natural disasters, accidents or other unforeseen events, and the impossibility of obtaining financing at what we consider satisfactory interest rates.

**Political/governmental factors:** political conditions in Latin America; changes in Spanish, European and foreign laws, regulations and taxes.

**Operating factors:** technical problems; changes in operating conditions and costs; capacity to execute cost-reduction plans; capacity to maintain a stable supply of coal, fuel and gas and the impact of the price fluctuations of coal, fuel and gas; acquisitions or restructuring; capacity to successfully execute a strategy of internationalisation and diversification.

**Competitive factors:** the actions of competitors; changes in competition and pricing environments; the entry of new competitors in our markets.

Further details on the factors that may cause actual results and other developments to differ significantly from the expectations implied or explicitly contained in the presentation are given in the Risk Factors section of Form 20-F filed with the SEC and in the ENDESA Share Registration Statement filed with the Comisión Nacional del Mercado de Valores (the Spanish securities regulator or the "CNMV" for its initials in Spanish). No assurance can be given that the forward-looking statements in this document will be realised. Except as may be required by applicable law, neither Endesa nor any of its affiliates intends to update these forward-looking statements.



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