



# The Global Annual Energy Meeting “The Coming Energy Market”, IV edition

## GAMESA: a vision from the market

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# Solid start of a new period

In 2012,  
Market environment:

- ▶ Electricity demand reduction.
- ▶ Adjustment of renewables support policies and reduction in utilities investment plans.
- ▶ Industrial excess capacity keeps pressure on margins.
- ▶ Wind competitiveness improvement.



## 2015 Current ENVIRONMENT:

- 1 **Improvement** in the **macroeconomic environment** and in **funding conditions**.
- 2 **Growth in energy demand**, especially in **emerging economies** where growth in wind installations is concentrated.
- 3 Greater **regulatory visibility and commitment to renewables**.
- 4 **Competitive environment**, but in an industry with a **healthy cost structure and sound balance sheets**.
- 5 **Wind power is increasingly competitive**.

**Improvement in the global renewables environment and wind competitiveness bode well for a more sustainable and sound future**

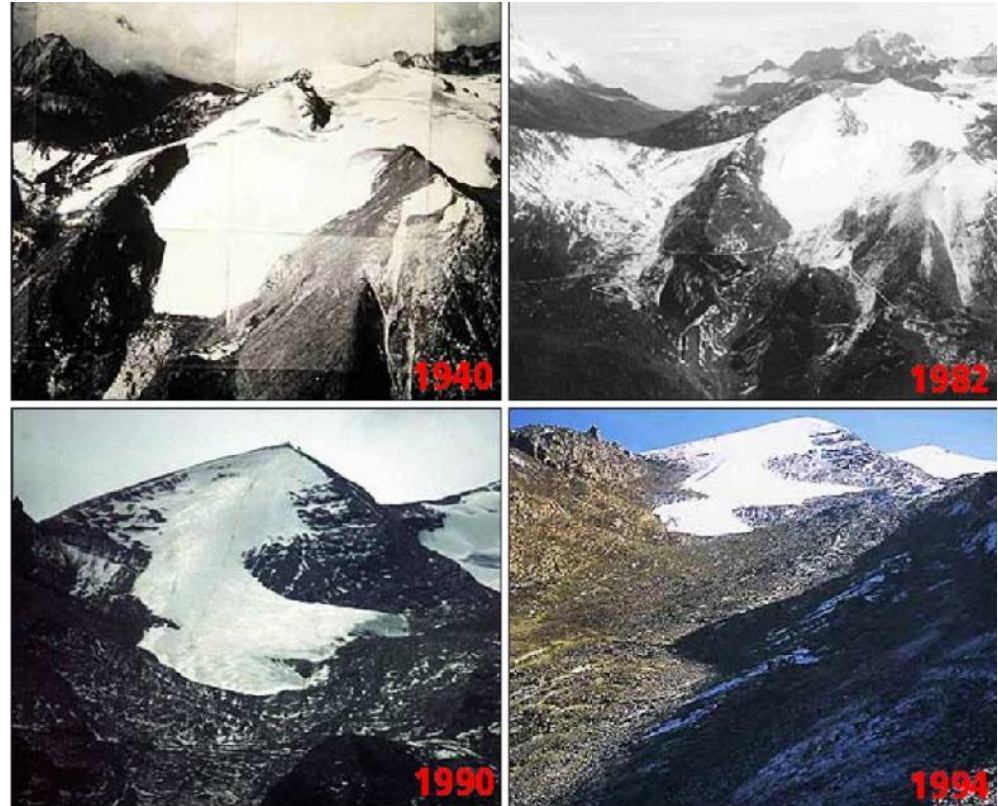
# Renewables.... Still wondering Why?

## 2009 COPENHAGUEN-2010 CANCUN:

The increase in global temperature **should be below 2°C** (by the end of the century), in a context of sustainable development

The combined average temperature over global land and ocean surfaces for 2015 has **raised in 0,85°C**

...Urgent measures should be adopted: the later we act, the worse and more expensive it will be

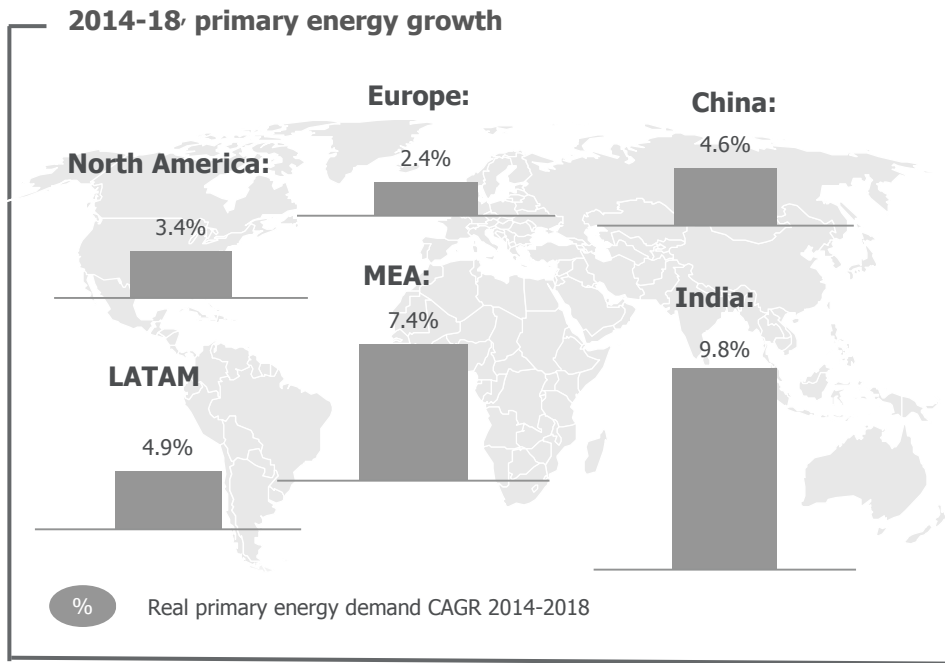


Glacier evolution in the Andes

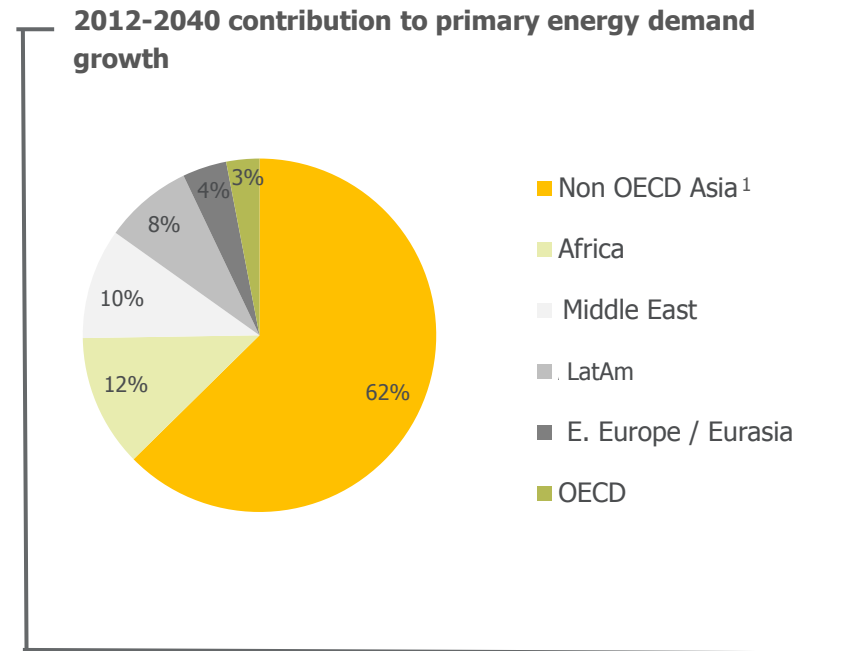
\*[source: <https://www.ncdc.noaa.gov/sotc/global/201509>. NOAA's National Centers for Environmental Information (NCEI) . US Department of Commerce]

# Growth in energy demand, especially in emerging markets

Which are expected to contribute with an 80% of the growth in energy demand over the next 30 years



Source: Economist Intelligence Unit



Source: International Energy Agency. 2014 Perspectives

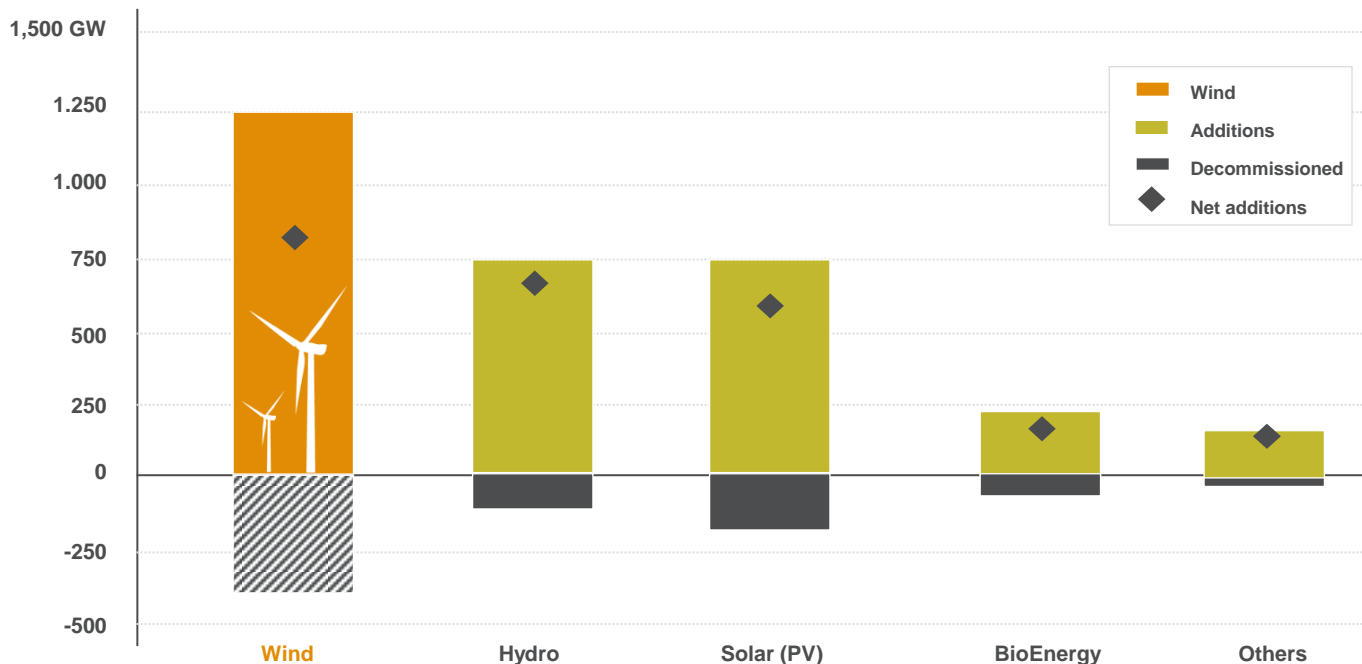
(1) Asia, excluding Japan and South Korea

► More than 80% of the long term growth in primary energy comes from emerging markets.

# Environment analysis

## Wind power share

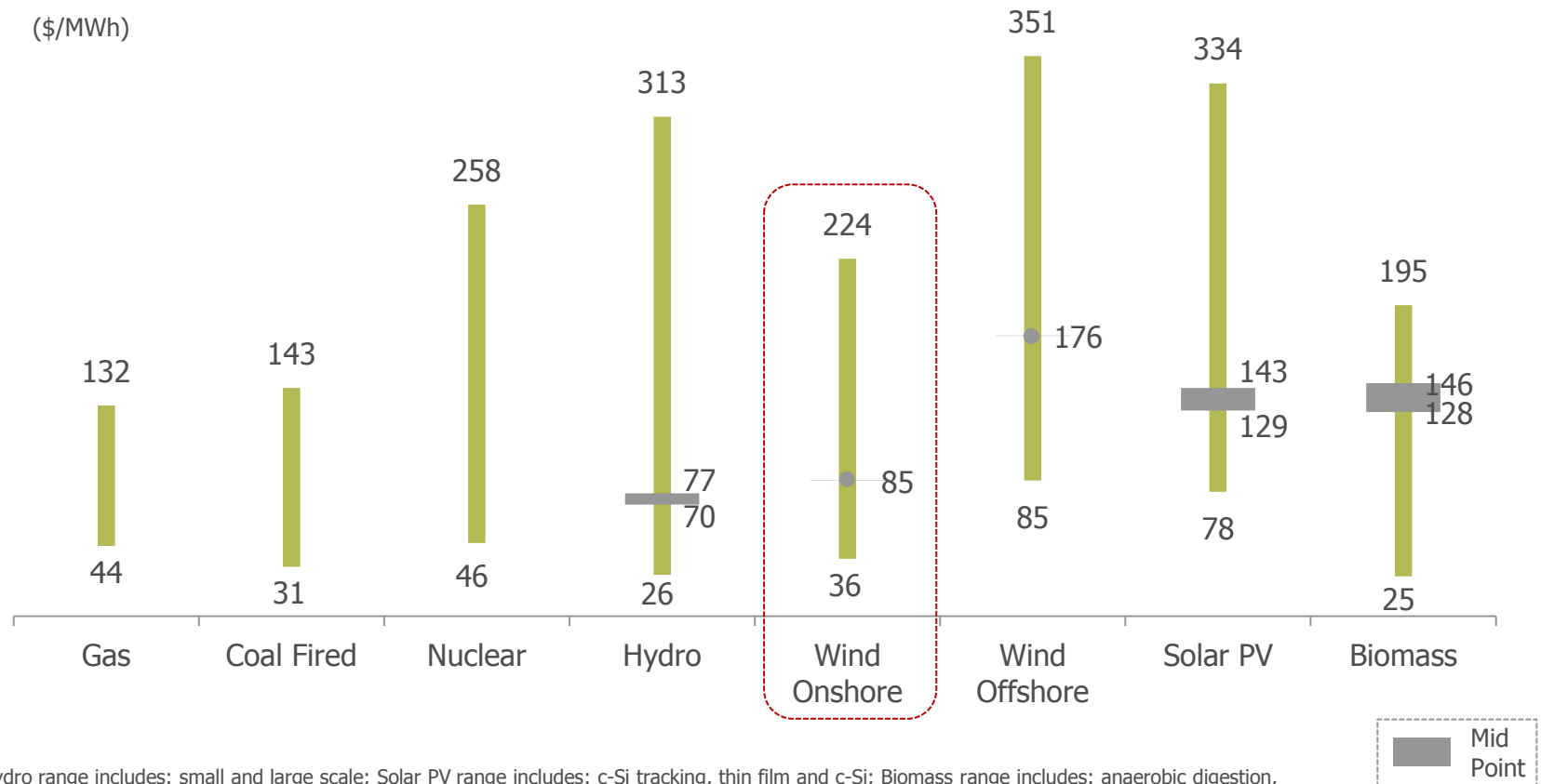
ACCUMULATED RENEWABLE ENERGY-BASED CAPACITY  
ADDITIONS & WITHDRAWALS, 2013-2035



Source: IEA and Gamesa Marketing

Over half of the world's additions in power capacity is based on renewable energies, increasing its current generation share of **20%** to **31%** in 2035. Forecast of over **700 GW** for Conventional Power (fossil and nuclear) to decommission by 2025

# Wind energy competitive in terms of LCoE



Note: Hydro range includes: small and large scale; Solar PV range includes: c-Si tracking, thin film and c-Si; Biomass range includes: anaerobic digestion, gasification and incineration. Source: Bloomberg New Energy Finance. LCoE (March 2015)

**Wind power is now the CHEAPEST electricity to produce in both Germany and the U.K., even without government subsidies. Bloomberg New Energy Finance (Oct 6<sup>th</sup> 2015).**

# Greater regulatory visibility and commitment to renewables. From Rio´92 to Paris´15... and beyond

## International agreements

### International agreements advancing towards setting new renewable targets.

- European Union 2030 Climate and Energy Framework.
- U.S. – China Joint agreement on Climate Change to reduce emissions.
- COP 21 meeting in Paris to replace The Kyoto Protocol 1997 beyond 2020.



## Auctions in Europe

**Trend towards competitive auction systems in Europe** from 2017 onwards.

## U.S.

**Regulatory uncertainty in the U.S. in the mid term**, however with an attractive proposal for the long term: renewable energy contribution to the mix up to 13% in 2030 (EPA1).

**American Business Act on Climate Pledge.** Signatory Companies demonstrate their support for action on climate change and the conclusion of a climate change agreement in Paris

## Emerging markets demand

### Growth in emerging markets leveraged on increasing energy demand.

- New renewable targets and regulation in India.
- 2017-2020 Plan in China: 20 GW/year of wind onshore installations and cumulative objective of 200 GW by 2020; 10 GW by 2020 of offshore wind.
- Renewable energy auctions (production and/or installations): Brazil, Egypt, Morocco, South Africa, Chile, Guatemala,...

(1) EPA: Environmental Protection Agency

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**Muchas Gracias**

**Obrigado**

**Thank you**

**Gamesa**

