



The 27th INTERNATIONAL
ELECTRIC VEHICLE
SYMPOSIUM & EXHIBITION

BARCELONA
17th-20th November 2013



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- Objectives
 - Delivering Carbon Neutral Electricity in Europe by 2050
 - Ensuring a cost-efficient reliable supply through an integrated market
 - Developing energy efficiency and the electrification of the demand-side to mitigate climate change

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Questions about EVS

- Can the Electricity System cope with the electrification of Road Transport?
- Is there a saving in CO₂ emissions or merely a transfer from the tailpipe to the power station?
- Are there other benefits for the electricity system?

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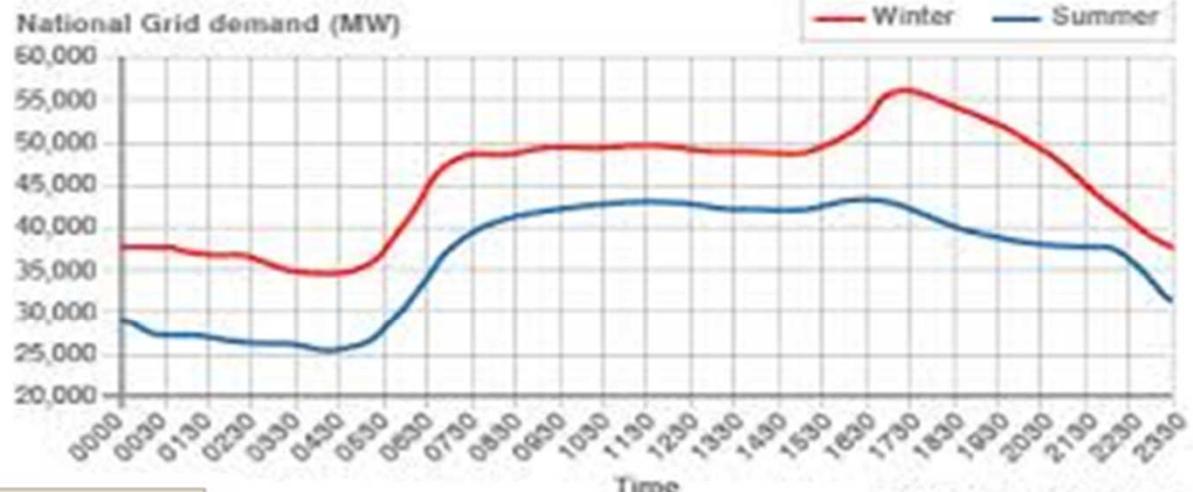


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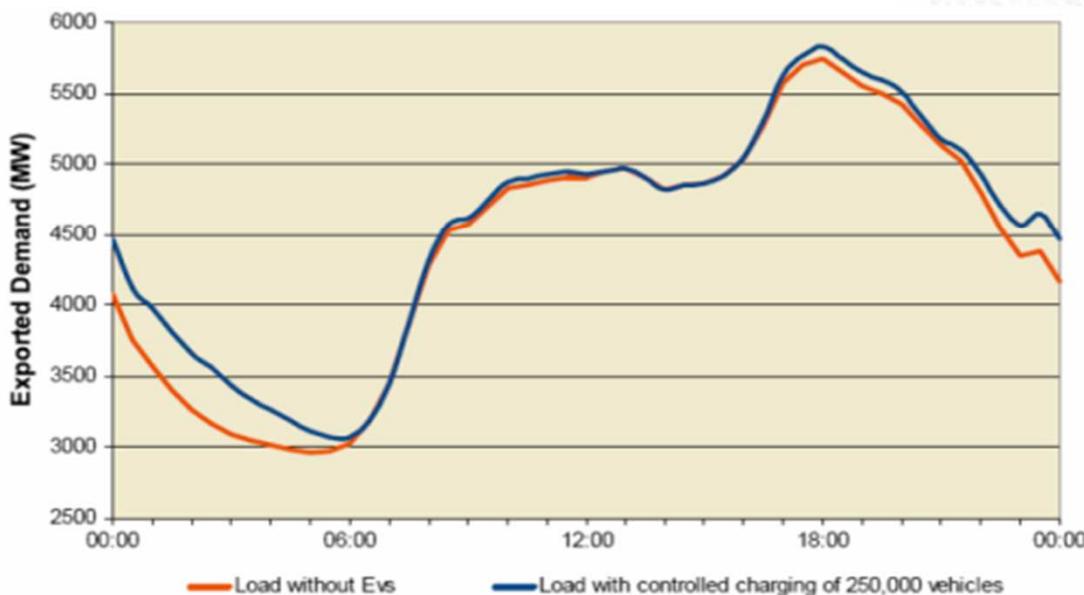


Typical daily Electricity Demand

TYPICAL SUMMER AND WINTER DEMANDS



SOURCE: National Grid



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CO2 Emissions

Fleet Tailpipe emissions



2010

150 g/km

2015

130 g/km

Electricity Generation

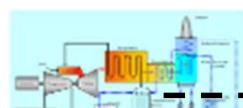


COAL



130 g/km

GAS



EU Grid average in 2009

56 g/km

WIND



80% wind and 20% Gas



50 g/km

10 g/km

0 g/km

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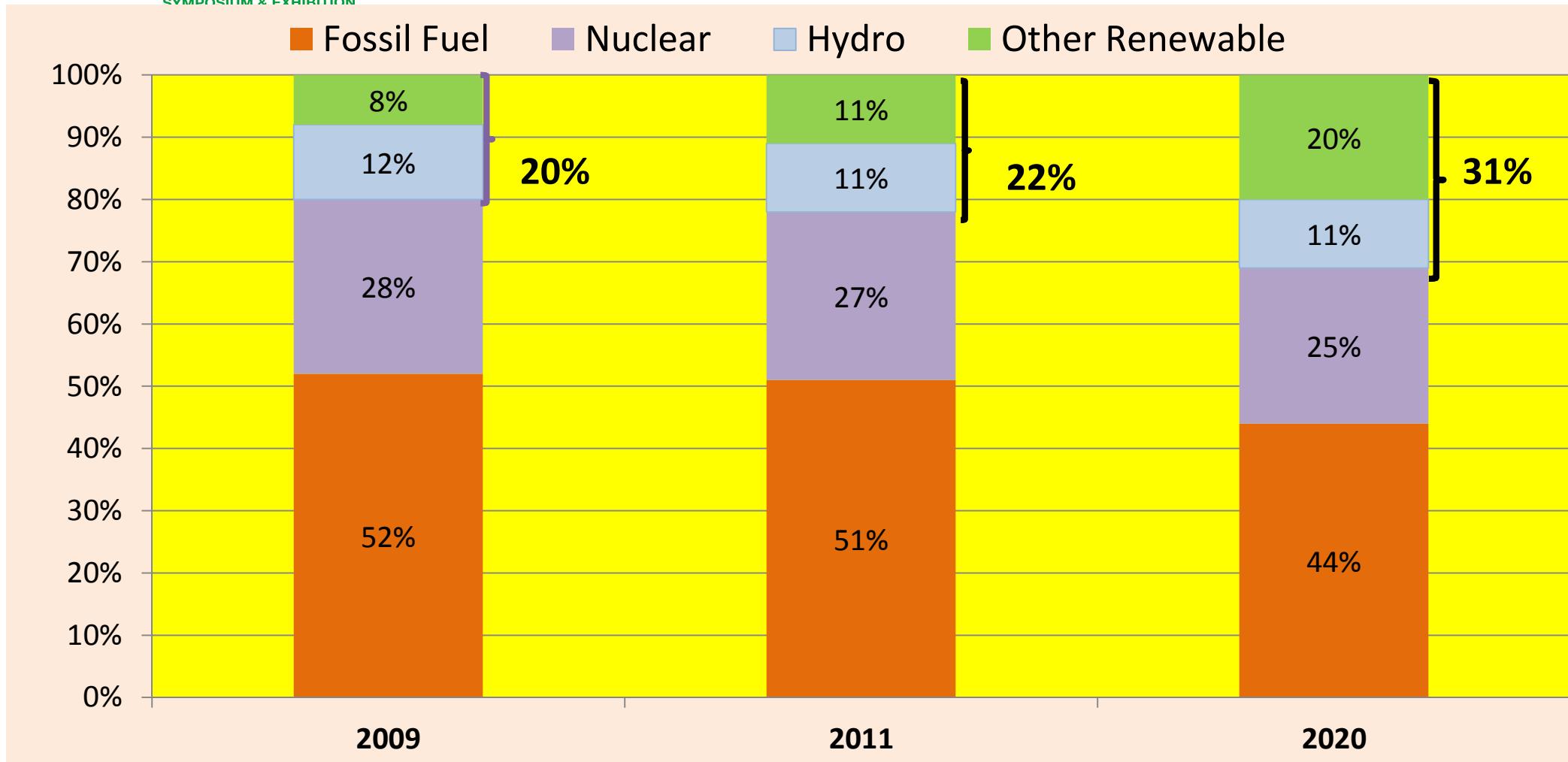


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Electricity Generation by Fuel European Grid



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Date	Publication
Oct 2009	Declaration on Standardisation
Sep 2010	Briefing on Emerging Market Models
May 2011	Position on Charging Needs
May 2012	Views on Charging Infrastructure
Sep 2013	Issues for Organising Market for Public Infrastructure

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- The European Electricity System is ready NOW to power electric vehicles
- CO₂ reductions will happen immediately and increase as the grid decarbonises
- Longer term issues will be managed and benefits will accrue at National Grid Level
- Shorter term issues at distribution level
- All issues easily managed by Smart Charging

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Thank You

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