

Air quality in Europe

The future is electric

Hans ten Berge
EURELECTRIC

EEF Dinner debate
Brussels, 23 April 2013

ABOUT EURELECTRIC

EURELECTRIC represents the EU electricity industry

- Across the whole electricity value chain -

**ENERGY POLICY
& GENERATION**



MARKETS

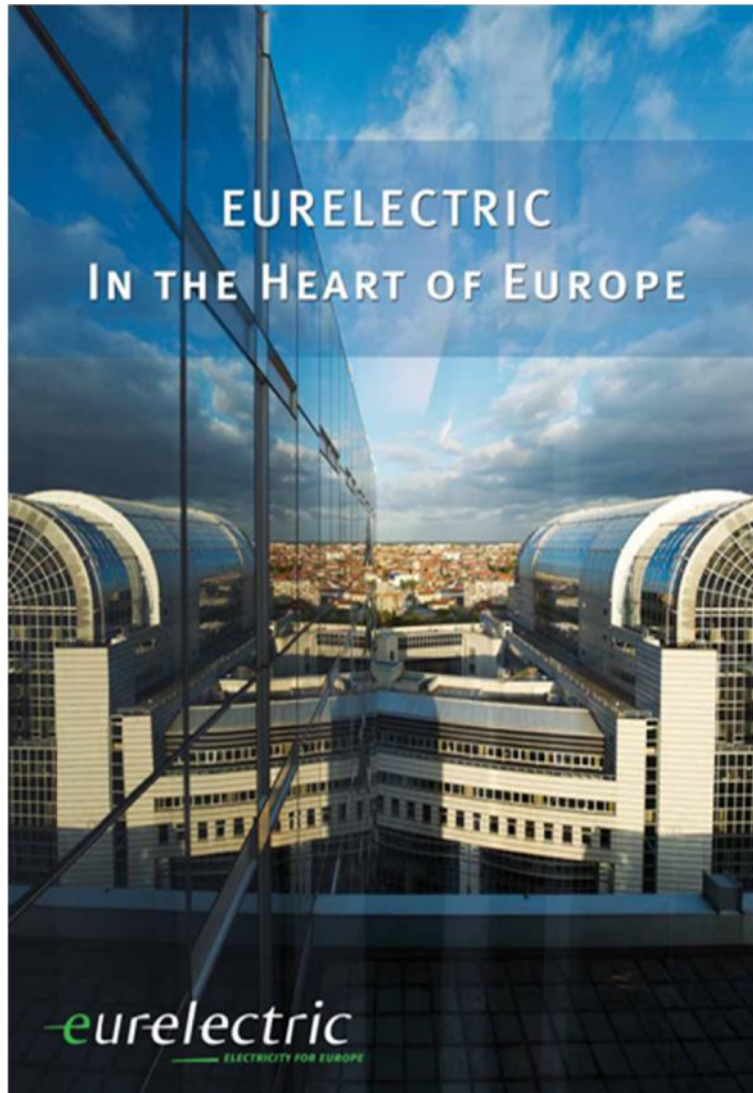


**ENVIRONMENT
& SUSTAINABLE
DEVELOPMENT**



**NETWORKS
& DISTRIBUTION**





The voice of the European Electricity Industry:

- A truly integrated EU market
- Carbon-neutrality by 2050
- “Electricity is the solution”

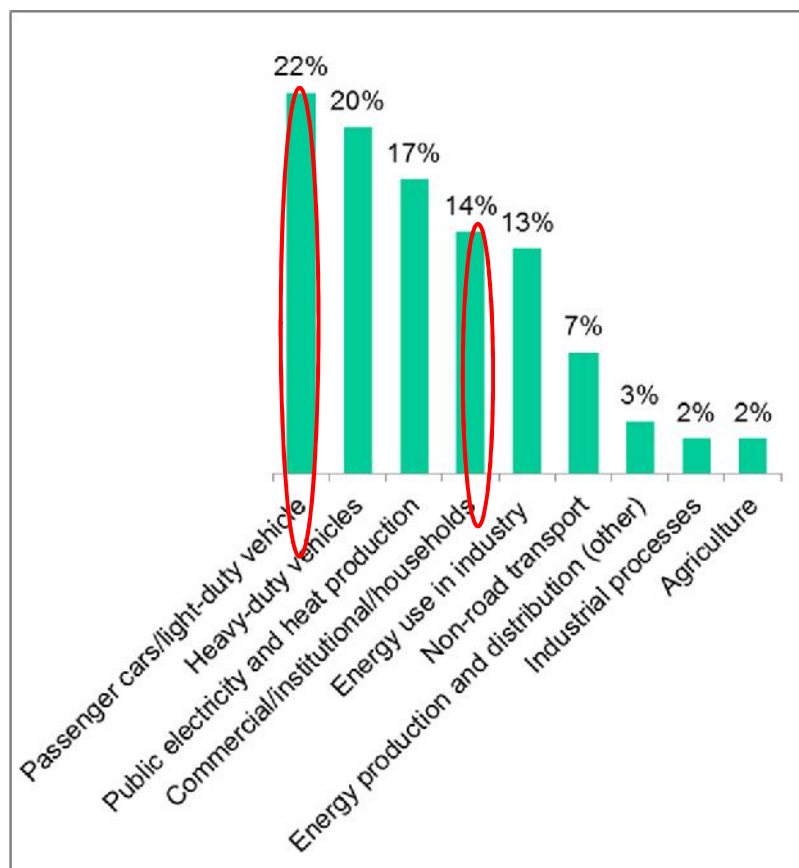
ELECTRICITY AND AIR QUALITY

Why electricity and air quality?

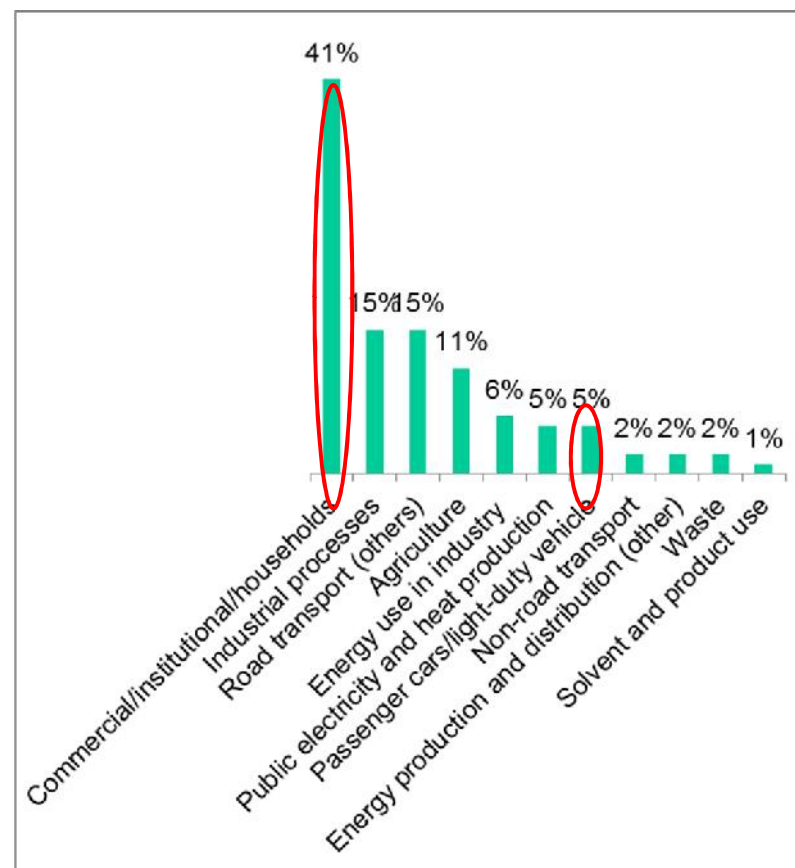
- **Electricity has NO emissions at the point of use**
- **Electricity is a widely available energy vector across Europe**
- **Electricity use can reduce emissions from the residential and transport sectors**

Air quality: key emitting sectors

NOx emissions (2010)-EU 27

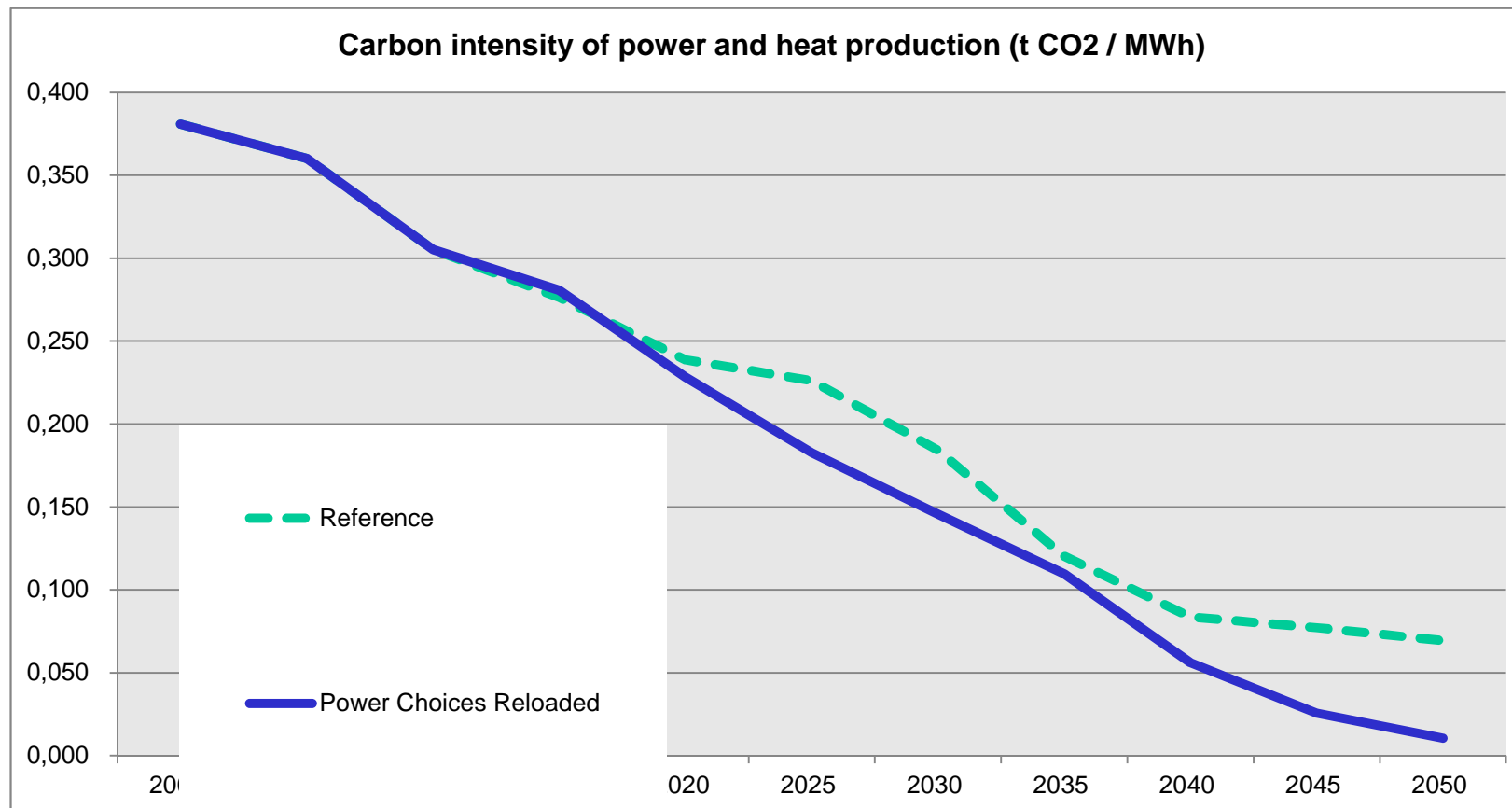


PM10 emissions (2010)-EU 27



Source: EEA Technical report 8/2012

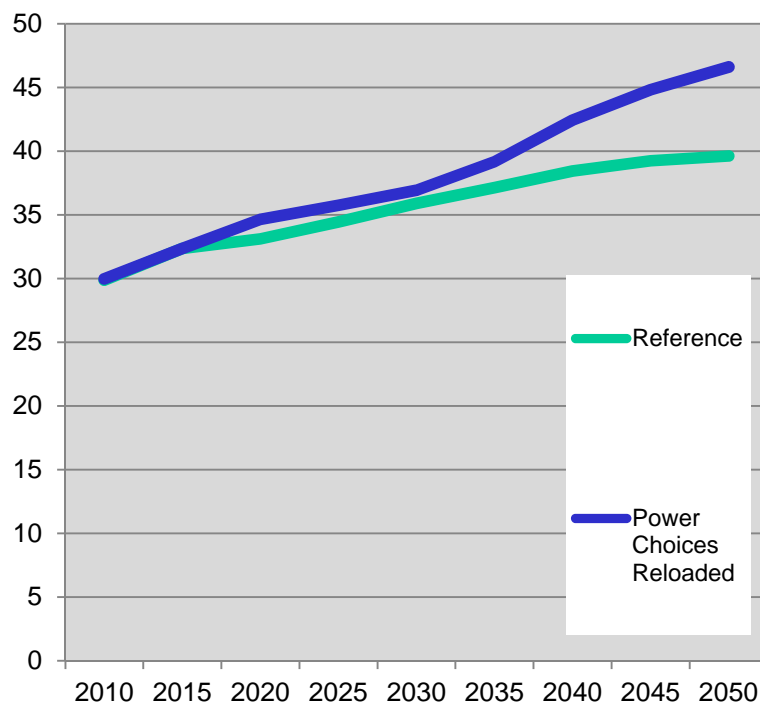
Evolution of carbon intensity in the electricity/heat mix



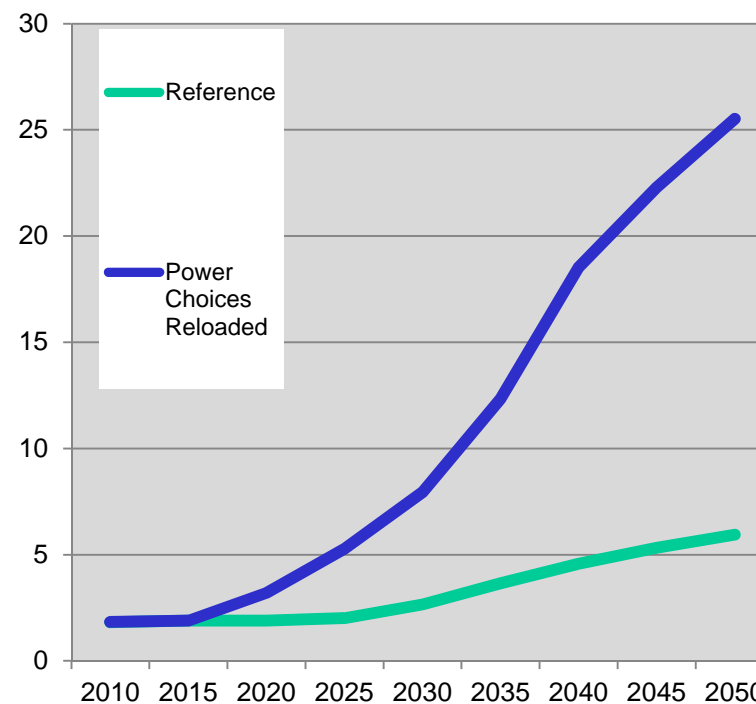
Source: EURELECTRIC, *Power Choices Reloaded*, Forthcoming

Shift to electricity in final energy use

% electricity in stationary final energy demand



% electricity in transport final energy demand



Source: EURELECTRIC, *Power Choices Reloaded*, Forthcoming

Electricity: the way forward

- Electricity will have to play a much greater role than now to contribute to the decarbonisation of transport and heating/cooling (with co-benefits on air quality)
 - Confirmed by EC 2050 Energy Roadmap and European Environment Agency
 - Current framework in contradiction with direction set

Energy end-use: decarbonised and depolluted

Climate/energy and air quality: evolutive frameworks

- **2020 objectives**
 - Climate and energy (20/20/20)
 - Air quality (TSAP)
- **Work on-going for post-2020 framework**

→ 2050 objectives: a carbon-neutral power sector

Buildings and appliances: a rear-view mirror

- **Energy performance of buildings and space/water heaters based on old criteria**
 - Carbon constraint ignored
 - Evolution of electricity mix towards decarbonisation ignored

→ Lock-in of CO₂ and air pollutants emissions from direct fossil fuel heating for the lifecycle of buildings and appliances

What do we need to deliver on electrification?

- **The power sector needs a clear and consistent 2030 framework for climate/energy and air quality**
- **EC proposal on clean transport fuels welcome**
 - **Standards are indispensable for the widespread roll-out and acceptance of charging stations for EV**
 - **Positive step towards development of EV infrastructure**

What do we need to deliver on electrification?

- The legislative framework must support the potential for electricity to deliver on climate policy objectives with co-benefits on air quality
 - Energy Efficiency must encompass a carbon content component and reflect the evolution of the mix
 - Electricity solutions for the residential sector can be implemented
 - Electric vehicles can be deployed

Thank you for your attention

Contact: htenberge@eurelectric.org