



GREEN PAPER

A 2030 framework for climate and energy policies

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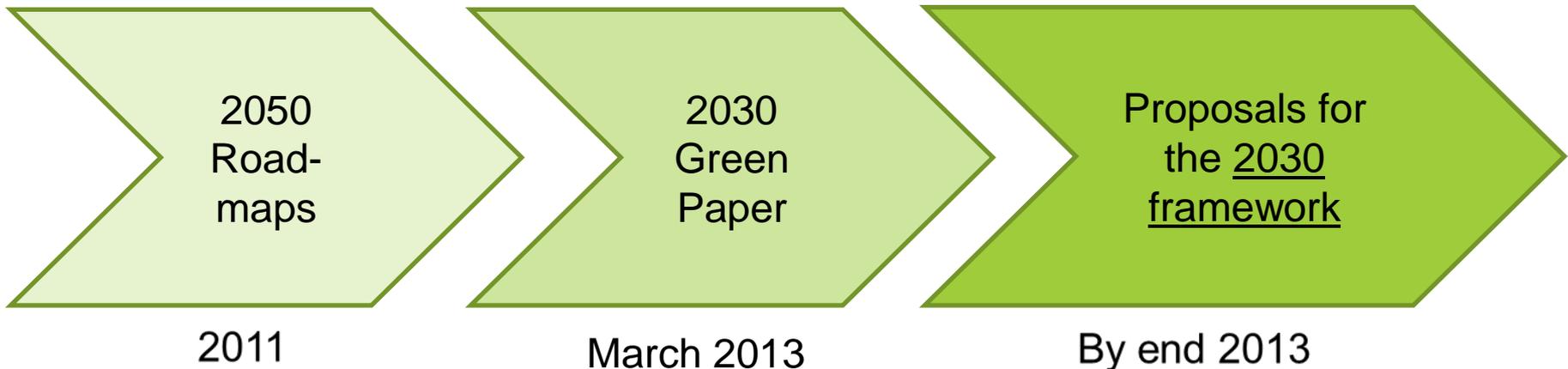
European Commission

Outline

- 1. Introduction: why this green paper now?***
- 2. EU 2020 climate and energy framework***
- 3. Key Issues to consider for 2030 framework***

Towards a 2030 policy framework for climate and energy policies

- *EU has a 2020 framework for energy and climate policies*



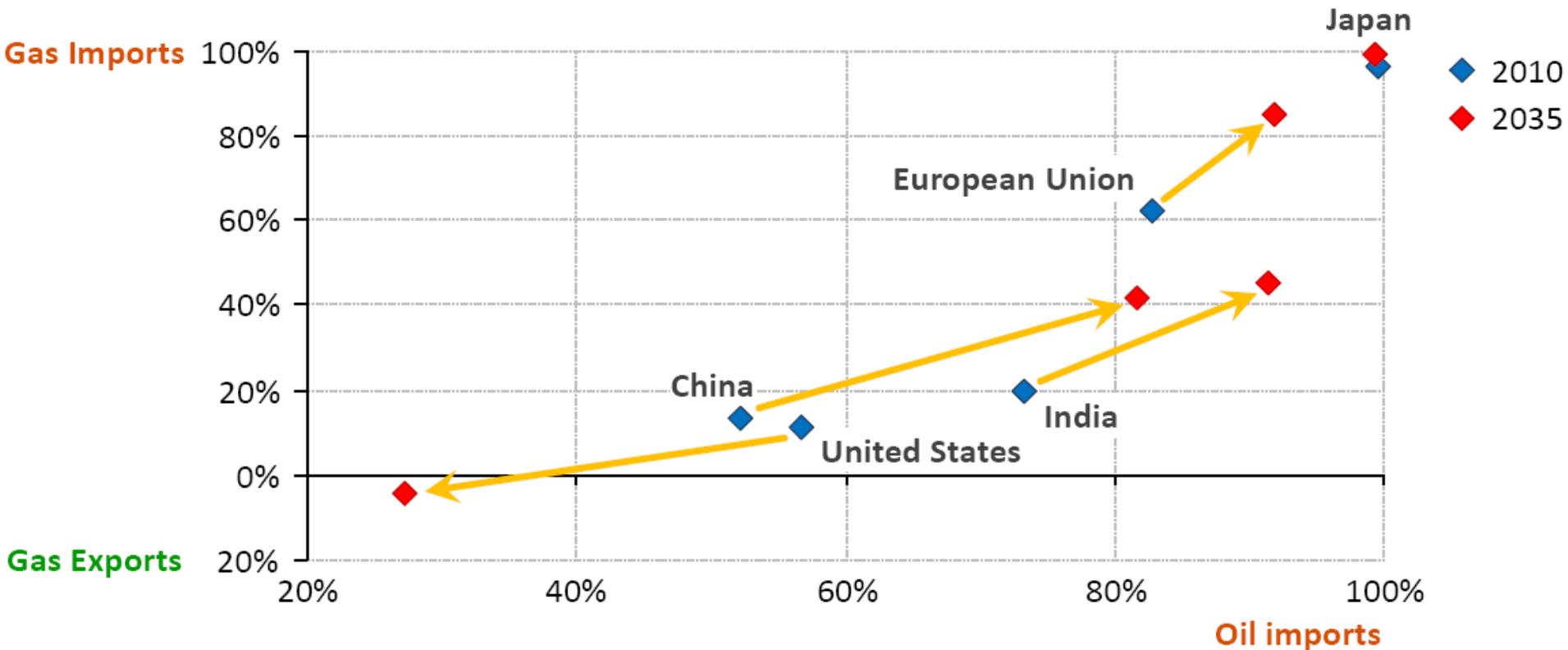
- *Consultation of stakeholders to obtain evidence and views on the 2030 framework*

Why a 2030 policy framework now?

- *long investment cycles require more certainty and reduced regulatory risk*
- *creates demand for efficient low carbon technologies, spurs R&D and innovation*
- *allows the EU to engage actively with other countries in international negotiations*



Net oil & gas import dependency in selected countries



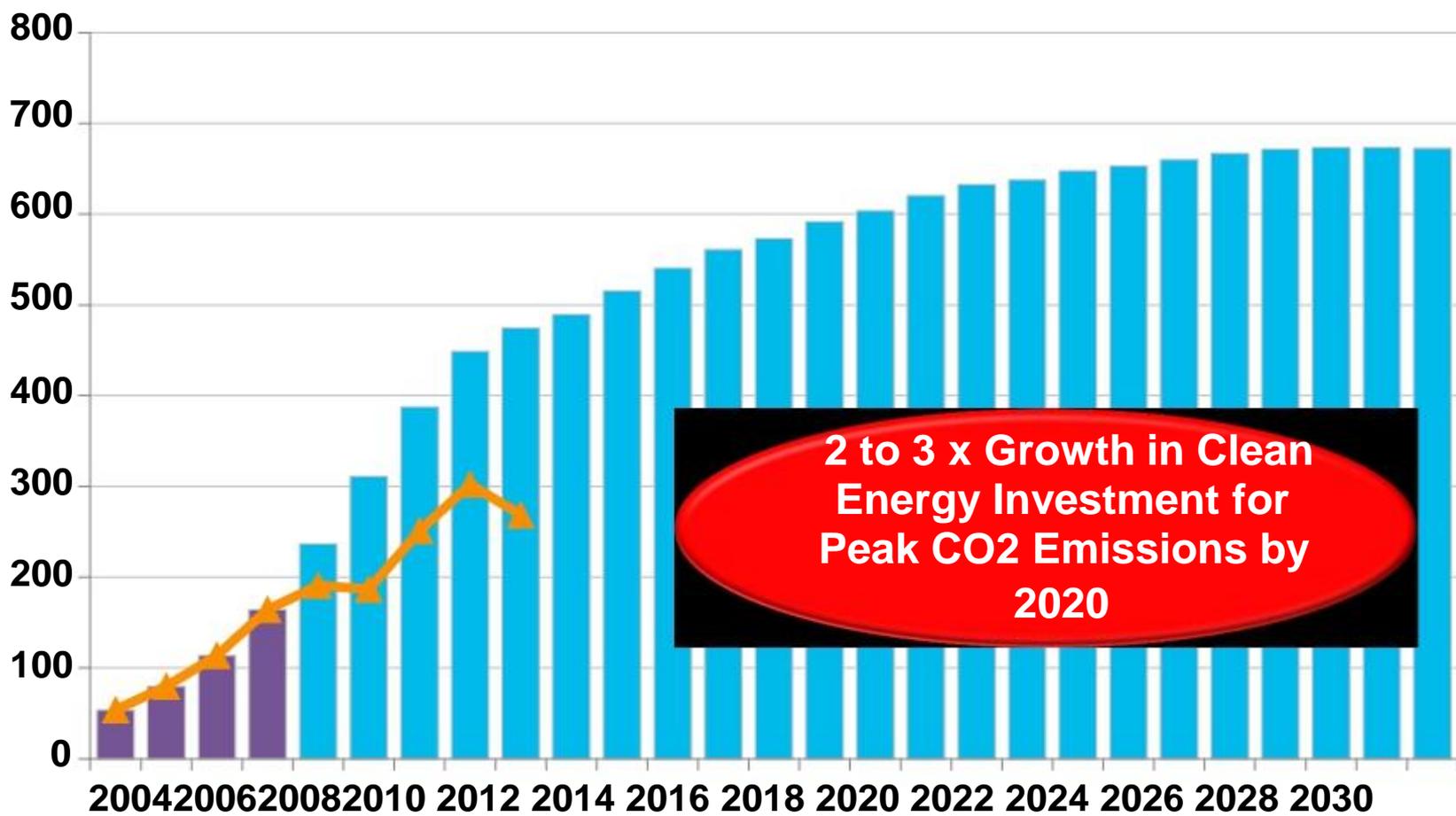
While dependence on imported oil & gas rises in many countries, the United States swims against the tide

International developments climate action

- ***Keeping average global temperature increase below 2°C confirmed as global objective (Copenhagen, Cancun)***
- ***Pledges from countries representing 80% of global GHG***
- ***growing global action, but fragmented and diverse***
 - South Korea : green growth, ETS
 - China : 5 year plan, pilot ETS, RES, industrial clean tech policy
 - Australia : ETS
 - US : performance standard power plants, CO2&cars, state RES portfolio standards, regional ETS
- ***Durban/Doha: working towards comprehensive climate agreement in 2015, including all major emitters***

CAPITAL REQUIREMENT TO 2030

(\$BN)

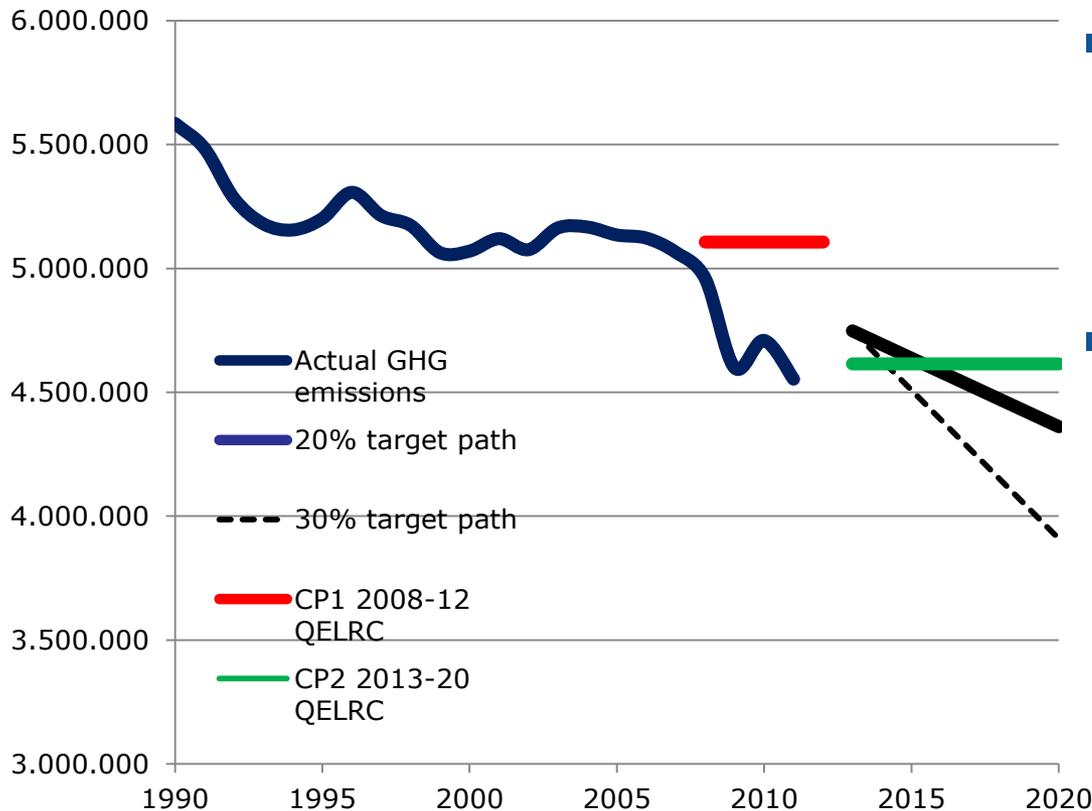


Note: Global Futures figures from 2008 restated to reflect current investment calculation methodology

Source: New Energy Finance Global Futures 2008, Bloomberg New Energy Finance



Actual emissions and legislated target paths of EU-27, in thousand tCO₂-eq.



- *Between 1990 and 2011, EU-27 GDP grew by 48% while emissions decreased by 18.5%*
- *Despite increase of GHG emissions in 2010 compared to 2009, emissions in 2011 follow the decreasing trend since 2004*

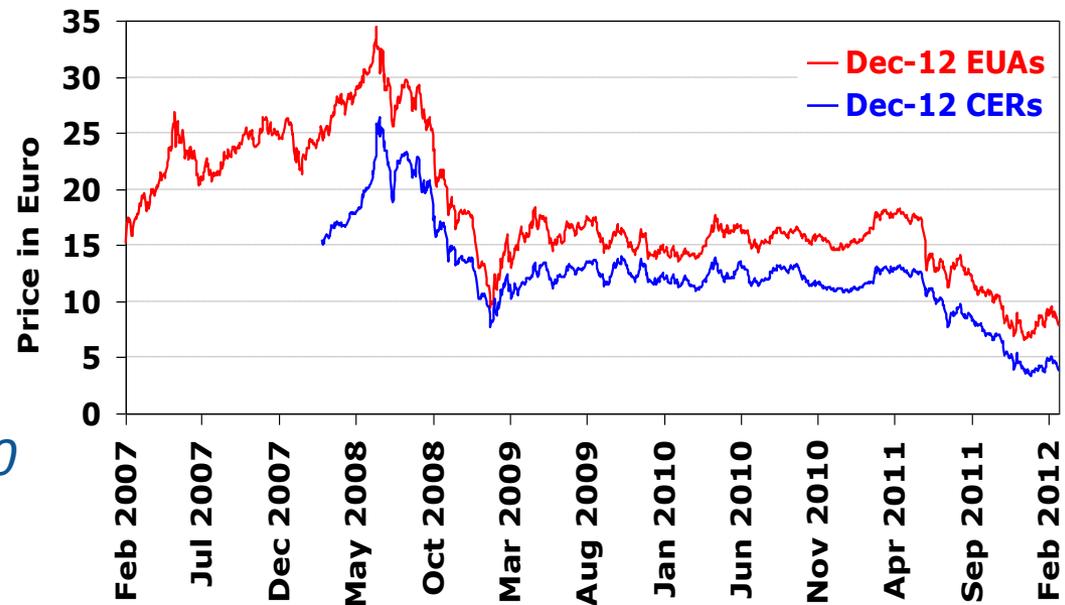
State of play: ETS

Achievements

- One carbon price, level playing field across the EU
- Functioning and liquid market
- Long-term clarity on reductions (-1.74%)

Challenges ahead

- not driving investments
- interaction policy instruments
- link to international credits
- carbon leakage
- auctioning revenues –NER 300



State of play: Internal market

Achievements

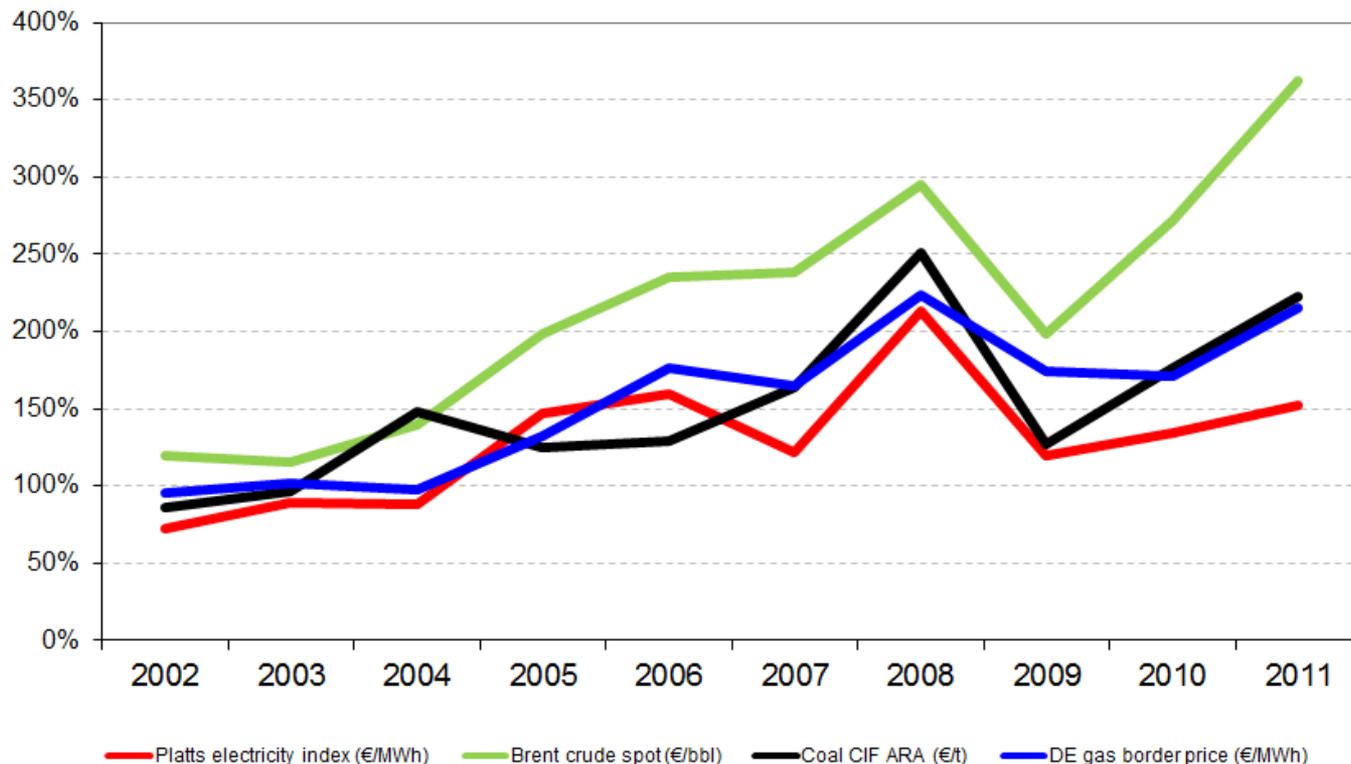
- *Wholesale electricity prices kept in check*
- *Increasing competition in electricity and gas markets*
- *Increase in liquidity and transparency in wholesale markets*
- *Improved unbundling and open access to network*

Challenges Ahead

- *Market fragmentation resulting from MS national policies*
- *national capacity mechanisms can distort investment signals and cross-border trade*
- *Need to reward efforts in flexible generation and demand side management*
- *third liberalisation package still not fully implemented in some MS*
- *Remaining legacy positions of electricity incumbents*

Internal market helps keeping prices in check

Wholesale electricity prices in the EU have risen three times less than the import price of gas and four times less than the price of crude oil in the last 10 years, but increases in taxes and levies.



State of play: Renewable energy

Achievements

- ***good progress towards targets***
- ***accelerated deployment – strong impact on investments***
- ***important effects in terms of emission reductions***
- ***drove down costs key technologies (PV, wind), globalisation***

Challenges ahead

- ***increasing expenditures (feed-in tariffs) in times of fiscal consolidation***
- ***successful industrial policy?***
- ***market integration – grid integration***

State of play: Energy Efficiency

Achievements

- ***CO2&cars (130g/km in 2015, 95g/km in 2020)***
- ***energy efficiency standards (lighting, appliances, motors...)***
- ***energy labelling (domestic appliances)***
- ***Recent adoption of Energy Efficiency Directive (October 2012)***

Challenges ahead

- ***finance (renovation of buildings –link with MFF)***
- ***structural changes (urban planning, modal shift)***
- ***system changes (electrification)***



1. Targets: general and GHG emissions

- ***Current targets were designed to be mutually supporting and interact***
- ***Which targets can drive energy and climate policies most simply and cost effectively to 2030?***
 - *at EU, national or sectoral level? legally binding?*
 - *to recognise interactions between multiple targets*
- ***GHG: key issue is deciding on the most appropriate level for intermediate target***
 - *Roadmap indicates 40% reduction in EU is cost effective*

1. Targets: renewables and efficiency

- ***is a renewables target necessary to ensure increased renewables shares post 2020?***

- *reduced energy import dependence and jobs and growth*
- *with or without sub-targets for sectors such as transport, industry and agriculture?*
- *impacts on internal market, energy prices, sustainability?*

- ***possible energy efficiency target: consistency with other targets essential***

- *Member States' targets or sector specific targets?*
- *what metric to be used?*

2. Coherence of policy instruments

- ***How to ensure consistency and improve cost efficiency of combination of instruments?***
- ***balance EU measures and Member States' flexibility without fragmenting internal market***
- ***How to best use EU financial support?***
- ***Assess role of international credits***
 - *contributed to present surplus*
 - *create uncertainty on domestic action*
 - *Other market mechanisms might better reflect capacities of others to act*

3. Fostering competitiveness (i)

- ***Climate and energy policies drive demand, growth***
 - *Clean + efficient technologies, products and services create jobs*
 - *reduce air pollution, leading to health benefits*
 - *improve resilience to energy price peaks*
- ***Impact on energy prices, vulnerable households, competitiveness of energy-intensive industries***
 - *divergence notably with US (shale gas)*
 - *various drivers of energy prices, including taxes and levies, need to be analysed*



Fostering competitiveness (ii)

- *Full implementation of internal market legislation*
- *Environmentally safe exploitation of indigenous oil and gas resources*
- *Diversification energy supply routes*
- *Investments in energy efficiency*
- *renewable power requires better management of grids and continued reduced costs + innovation*

Fostering competitiveness (iii)

- *International climate action key, but concerns regarding degree of reciprocity and impact on competitiveness*
- *ETS creates level playing field and minimises costs*
- *Whether and how should current approach to limit impacts on the competitiveness of energy intensive sectors exposed to carbon leakage risk continue?*
- *How to use ETS auctioning revenue to assist sectors with innovation?*



Acknowledging differing capacities

- *Should similar distribution tools as in 2020 framework be maintained?*
- *Differentiating targets can increase costs if there is not sufficient flexibility to achieve them*
- *Member States where investments most needed and beneficial often have less capacity to implement them*
- *Should toolbox of EU policies to ensure access to finance for investments be enhanced?*



QUESTIONS

- ***Lessons learned?***
- ***Targets?***
- ***Instruments?***
- ***Competitiveness and security of supply?***
- ***Capacity and distributional aspects?***

Public consultation open until 2 July. For more information see:

http://ec.europa.eu/energy/consultations/20130702_green_paper_2030_en.htm