



2030

FRAMEWORKforCLIMATE&ENERGY

#EU2030

Dr. Tudor Constantinescu Principal Advisor European Commission – DG Energy



Outline

- 1. Climate and energy: where do we stand?
- 2. Motivation for the 2030 framework
- 3. Main elements
- 4. Challenges and benefits
- 5. How it works
- **6. European Energy Security Strategy**
- 7. Summary



1. Climate and energy: The 2050 framework

- DG CLIMA presented "A Roadmap for moving to a competitive low carbon economy in 2050" in March 2011.
- DG ENER presented the Energy Roadmap 2050 in December 2011, with key efforts on:
 - Energy savings;
 - Energy market integration;
 - Infrastructure development, and the security of energy systems;
 - Technical innovation and low-carbon energy sources;
 - Demand management.



2. Climate and energy: where do we stand?

Main changes

Impact of the financial crisis

Fall in private investment, tight financing conditions

Shale gas
US oil and gas production

Ukraine Crisis
Implications for
EU energy security

Fukushima

Some countries phase out nuclear power production, others will continue

Renewable energy saw rapid cost decreases

Technologies are gradually becoming competitive

Rising energy demand and rising prices By 2030, world economy set to double and energy demand to rise by 1/3



3. Why a new framework for 2030?

Sustainability

Cost-effective reduction of GHG Emissions until 2050 and EU contribution to COP 2015

Security of Supply

Today EU imports fossil fuels worth € 400 billion per year

2030
Climate &
Energy
Framework

Investor certainty

Providing clear signals on policy framework after 2020

Competitiveness

Competitive and affordable energy prices, Growth and jobs



4. Main elements



New governance system



5. Main challenges for 2030...

Energy **costs**

• Increasing in any event: renew ageing energy system, rising fossil fuel prices, adherence to existing policies

Additional **investments** to achieve 2030 framework

 Shift away from fuel expenditure towards investments, additional € 38 billion investment/year 2011-2030 compared to the reference scenario

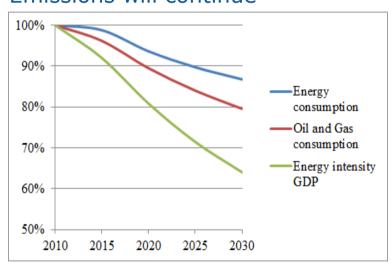
Differences between Member States

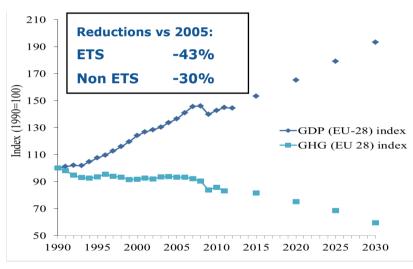
 Future discussion will have to be centred on how to ensure an equitable burden sharing affordable for all



6. ... and benefits

 Decoupling of Gross Domestic Product growth from Greenhouse Gas Emissions will continue





- Energy system costs: 0.15% of GDP in 2030
- Investments: additional € 38 billion per year next 2 decades
- Fuel savings: additional € 18 billion fuel per year next 2 decades
- Energy security: additional 11% cut in energy imports in 2030
- **Innovation:** jobs & growth
- Health and air pollution benefits: €7-13.5 billion in 2030



7. How it works: New Governance system

National plans for competitive, secure and sustainable energy

Plans to improve EU wide coherence and provide investor certainty well before 2020:

- How to achieve domestic objectives (<u>non-ETS</u> GHG target, contribute to EU <u>renewable energy</u> target, <u>energy savings</u>, etc).
- What other important choices such as <u>nuclear</u>, <u>shale</u> <u>gas</u>, <u>low carbon fuels</u>, <u>CCS</u>, etc.
- How it contributes to strengthens the <u>internal</u> <u>market</u> (renewables deployment, balancing markets, generation adequacy and construction of interconnectors).



7. How it works: New Governance system (Con'd)

National plans for competitive, secure and sustainable energy

Commission develops detailed guidance on the new governance process and contents of national plans

Member States prepare plans based on an iterative process (including consultation neighbouring MS)

Commission assesses Member States' plans and commitments (2030 targets!)



7. How it works: GHG target implementation (Con'd)

Overall 2030 <u>domestic</u> GHG target -40% compared to 1990

ETS target -43% compared to 2005 Non ETS target -30% compared to 2005

Translate into:

- Linear Reduction factor from 2021 onwards -2.2% for all ETS sectors
- Non ETS targets for Member States



8. European Energy Security Strategy

- June European Council welcomed EESS (May proposal)
- Called for immediate implementation of a set of most urgent measures to increase EU energy security in the <u>short term</u>, before the winter of 2014/2015, e.g. by:
 - reinforcing existing emergency and solidarity mechanisms (gas storage, emergency infrastructure and reverse flows)
 - pursuing relevant energy infrastructure investments
 - strengthening the Energy Community with EU neighbours
- Energy security <u>stress tests</u> with Member States
- Council stressed that the <u>EESS is closely linked to the</u> <u>2030</u> Framework on Climate and Energy



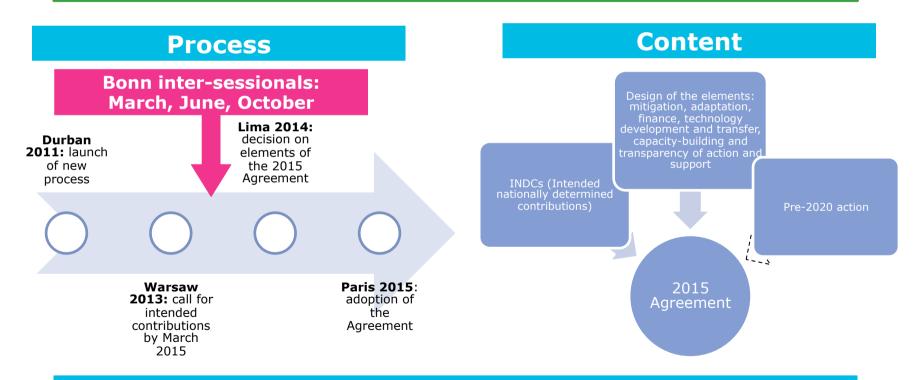
9. European Energy Security Strategy

- Medium to long-term energy security measures:
- Importance of energy efficiency (EED review and 2030 target proposed by Commission in July)
- Integrating the European energy market and fostering missing infrastructure (Projects of Common Interest)
- Interconnectivity must be increased (EU electricity interconnection target of 15% in 2030 proposed)
- European Council will take a final decision on the 2030
 Framework <u>and</u> energy security no later than October.



10. Global context: the 2015 Agreement

A new international climate agreement applicable to all to keep global average temperature increase below 2°C



Role of major economies essential:
US (Obama Climate Change plan, EPA power plant rule);
China (5-year plan, peaking?); EU (2030 climate&energy framework)...



11. UNFCCC negotiations—Bonn, June 2014: steady progress towards Paris

Intended nationally determined contributions (INDCs):

Will Parties be ready by March 2015? What will contributions look like?

EU, US, China clear frontrunners.
Other major economies preparing; international support available

Consensus that **all must contribute emission reductions**; discussions on
adaptation and finance
ongoing

Elements of the 2015 Agreement:

How will the agreement address mitigation, adaptation, finance, technology, capacity-building, transparency?

Elements to be decided in Lima; emerging consensus on ambitious mitigation commitments from the outset, and on a mechanism to continue increasing ambition

Challenges: adaptation, finance, rules base

Pre-2020 climate action:

Can we close the "ambition gap"?

Multi-stakeholder exchanges on land use and urban environment following up on energy efficiency and renewables in March

Way forward: expand current technical work to new areas?

June Bonn session confirmed that negotiations are on track for December 2015



12. Summary

- Key elements of the 2030 Framework:
 - √ 40% GHG target at EU level (ETS and non-ETS)
 - ✓ At least 27% Renewable Energy target at EU level
 - √ 30% Energy Efficiency (savings) target at EU level
 - ✓ New Governance System
 - ✓ Key indicators for energy security and competitiveness
 - ✓ Reform of ETS
- Decision on 2030 Framework and EESS in October



THANK YOU!





ec.europa.eu/energy