Lessons learned in the energy transition - The EU Experience

Climate Action Group
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The EU's response to Paris

2030 Framework for Climate and Energy

2020

-20 % Greenhouse Gas Emissions

20% Renewable Energy

20 % Energy Efficiency

10 % Interconnection

2030

≤ -40 % Greenhouse Gas Emissions

≥ 27 % Renewable Energy

≥ 27 % Energy Efficiency*

15 % Interconnection

* Proposed to increase to 30%
GHG reduction targets ETS and Non ETS

Emission reductions in ETS and Non-ETS compared to 2005

- **ETS**
  - 2020: -21%
  - 2030: -43%

- **Non-ETS**
  - 2020: -10%
  - 2030: -30%

**Including Road Transport, Housing, Agriculture etc.**
CLEAN ENERGY FOR ALL EUROPEANS – THE OPPORTUNITY

THE ENERGY SYSTEM OF TOMORROW WILL LOOK DIFFERENT

2015
Paris Climate Agreement

2030
50% of electricity to come from renewables

2050
Carbon free electricity & transport further decarbonised

A UNIQUE OPPORTUNITY TO MODERNISE OUR ECONOMY

Stimulate investment
Create jobs and growth

Secure energy supplies

Empower consumers
Accelerate decarbonisation
Clean Energy for All Europeans – The Proposals

Putting energy efficiency first

Making the EU world leader in renewables

New Electricity Market Design

Energy Union Governance
PUTTING ENERGY EFFICIENCY FIRST

Energy Efficiency Directive

- Binding 30% energy efficiency target for 2030;
- Create 400,000 new jobs;
- Reduce gas imports by 12%;
- Save €70 billion in fossil fuel imports;
- Empower consumers by granting access to information on their energy consumption;
- Cut health-related damage costs by up to €8.3 billion.

Energy Performance of Buildings

- Clear vision for a decarbonised building stock;
- Smart & Efficient buildings through use of Information and Communication Technologies and Smart Technologies;
- Smart Finance for Smart Buildings initiative:
  - More effective use of public funding
  - Aggregation of funds
  - De-risking
- Protect vulnerable groups & address energy poverty.
MAIN ELEMENTS OF THE ENERGY UNION GOVERNANCE

Integrated National Energy and Climate Plans (2021 to 2030)

National progress reports

European Commission monitoring
STREAMLINING OF PLANNING OBLIGATIONS

Existing obligations:
- National Renewable Energy Action Plan Template
- Climate Action Planning Obligations
- National Energy Efficiency Action Plan Template
- Energy Security
- Internal energy market
- Research & Innovation

New elements and reflection of existing obligations:
- Streamlining of Obligations

Integrated National Energy and Climate Plans
European Union: Decoupling economic growth from greenhouse gas emissions

GDP +50%

GHG emissions -22%
Significant reduction of GHG intensity of EU economy

EU is one of the most GHG efficient major economies

EU is set to become the most GHG efficient economy in the G20 through the implementation of the 2030 climate and energy targets

Challenges ahead

- EU as technology provider ("renewable no. 1")
- Network development
- Market integration

Achievements

- drove down costs key technologies (PV, wind)
- accelerated deployment – strong impact on investments patterns
- emission reductions
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