The “Fit for 55” Package

with focus on Policies for Energy Efficiency and Renewable Energy Sources

Paolo bertoldi
Joint Research Centre
Some key facts from the State of the Energy Union 2021

- In 2020, EU GHG emissions are -31% compared to 1990 due to the impact of the Covid pandemic on energy consumption but also due to continued decarbonisation trends.

- In 2020, for the first time, renewables overtook fossil fuels as the EU’s main power source (38% of EU electricity, fossil fuels 37% and nuclear 25%). The share of renewable energy sources in the overall EU energy mix is expected to have reached at least 22% although some Member States are at risk of failing to meet their national binding target;

- EU primary energy consumption declined by 1.9% and final energy consumption by 0.6% in 2019 compared to 2018;

- EU net energy import dependency reached 60.6% 2019 compared to 58.2% in 2018 and 56% in 2000; the highest level in the past 30 years;

- Energy poverty affects up to 31 million people in the EU as of 2019. This underlines the importance of shielding the vulnerable from the current price spike and ensure a just transition towards climate neutrality.

- Energy prices rebounded in the post Covid period reaching very high levels.
The Climate Target Plan published in September 2020 shows that “at least 55% target” by 2030:

• 1) is feasible;
• 2) will put us on the right trajectory towards climate neutrality;
• 3) requires more effort and contribution of all sectors of economy.

The Climate Target Plan prepared the ground for the necessary transformation of policies for the decarbonisation of the European economy as set out in the European Climate Law.
The Fit for 55 Package – Overview

The package aims to make the EU ‘fit for 55’ and deliver the transformational change needed in a
• fair,
• cost-efficient and
• competitive way.

It cements the EU’s global leadership by action and by example in the fight against climate change.
Policy mix at a glance

<table>
<thead>
<tr>
<th>Pricing</th>
<th>Targets</th>
<th>Rules</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Stronger ETS including in aviation</td>
<td>- Updated Effort Sharing Regulation</td>
<td>- Stricter CO\textsubscript{2} performance for cars &amp; vans</td>
</tr>
<tr>
<td>- Extending the ETS to maritime, road transport, and buildings</td>
<td>- Updated LULUCF Regulation</td>
<td>- New infrastructure for alternative fuels</td>
</tr>
<tr>
<td>- Carbon Border Adjustment Mechanism</td>
<td>- Updated Energy Efficiency Directive</td>
<td>- FuelEU: Cleaner maritime fuels</td>
</tr>
</tbody>
</table>

Support measures

Using revenues and regulations to promote innovation, build solidarity and mitigate impacts for the vulnerable, notably through the new Social Climate Fund and enhanced Modernisation and Innovation Funds

The Fit for 55 Package consists of a set of **inter-connected proposals that strike a careful balance** between pricing, targets, standards and support measures.
EU ETS

• Existing ETS
  • Increase of 18 pp of emissions reduction (from -43% to -61% by 2030)
  • Remove free allowances for aviation
  • Review of the Market Stability Reserve
  • Will now include maritime transport

• New ETS
  • For road transport and buildings, operational as of 2025
  • Emissions reduction of 43% by 2030
  • Climate Social Fund to address possible social impacts
ESR and LULUCF

• ESR
  - Increase of 11 pp of emissions reduction (from -29% to -40% by 2030)
  - Keep existing architecture and scope: will continue to cover road transport and buildings sectors, alongside their inclusion in the new ETS

• LULUCF
  - More powerful incentives to grow and improve natural carbon sinks
  - Binding targets to increase net carbon removals from 2026 to 2030
  - Significant simplification of rules
  - EU-wide target of climate neutrality in land use, forestry and agriculture sector by 2035
Policy measures on transport

- Stronger CO2 emissions standards for cars and vans
- Alternative Fuels Infrastructure Regulation
- ReFuelEU Aviation Initiative
- FuelEU Maritime Initiative
Policy measures on taxation and trade

• Revision of the **Energy Taxation Directive**: Shifting tax incentives away from fossil fuels and towards clean technologies

• New **Carbon Border Adjustment Mechanism**: Carbon price on imports of a targeted selection of products to prevent ‘carbon leakage’
Support measures for a fair transition

• The Social Climate Fund: 1) support households, transport users, and micro-enterprises; 2) support investments in energy efficiency, buildings renovation, clean heating and cooling, integration of renewable; 3) provide direct income support for vulnerable households; 4) finance zero-and low-emission mobility

• Financed by the EU budget, using an amount equivalent to 25% of the expected revenues ETS building and road transport. It will provide €72.2 billion for the period 2025-2032
The Energy Efficiency Directive
Structure and Coverage of the EED

1. TARGETS

- EE TARGETS
  - 2020 targets (Art. 3)
  - Additional targets (e.g., specific sectors)
  - Primary & final energy savings under the ESD

- CROSS SECTORAL
  - Energy Efficiency Obligation Scheme (Art. 7)
  - Energy audits & management systems (Art. 8)
  - Metering & billing (Art. 9-11)
  - Consumer information & training (Art. 12&17)
  - Energy Services (Art. 18)
  - Other horizontal measures (Art. 19-20)

2. POLICY MEASURES

- BUILDING SECTOR
  - Renovation Strategy (Art. 4)
  - Other building-related measures

- PUBLIC SECTOR
  - Central government renovation (Art. 5)
  - Other public buildings (Art. 5)
  - Public procurement (Art. 6)

- INDUSTRY TRANSPORT
  - Measures & savings in industry & transport sectors

- ENERGY SUPPLY
  - Promotion of efficient heating & cooling (Art. 14)
  - Energy transformation, transmission, distribution and demand response (Art. 15)

Art. refers to specific Articles of the EED 2012
Progress towards 2030 targets at EU27 level
The Recast EED -1

• The **Commission proposal** for a recasts the EED directive introduced a higher target for reducing **primary (39%)** and **final (36%)** energy consumption by 2030 now binding at EU level up from the current target of 32.5% (for both primary and final consumption).

• It introduces a **benchmarking system** for Member States to set their national indicative contributions to the binding EU target.

• The new directive also proposes to nearly double Member State annual **Energy Savings Obligations** in end use (ex Art.7) now set at **1.5 %** of energy sales.

• The proposal focuses on sectors with high energy-savings potential: heating and cooling, industry (including data centres).
The Recast EED - 2

• The EED introduces a new requirement on Member States to take measures to implement energy efficiency improvements for people affected by or in risk of energy poverty, vulnerable customers and people living in social housing. Parts of these measures are expected to be financed via revenues from ETS allowances on building and transport or from the new Social Climate Fund.

• Member States will be required to address the split incentives between owners and tenants over renovation. Member States will be required to establish one-stop shops providing technical administrative and financial advice, for facilitating the uptake the energy performance contracting.

• The EED set a legal basis for the application of the “energy efficiency first” principle, to ensure its practical implementation and systematically assessing possible energy efficiency solutions in policy and investment decisions.
Other EU initiatives for Energy Efficiency

• Taking up a number of elements outlined in last year’s Renovation Wave strategy, the proposal includes measures to boost renovation up to 2% in a way that also benefits society in terms of addressing energy poverty and strengthening consumer empowerment.

• Given the potential for renovation to act as a springboard for economic recovery following the Covid-19 pandemic and the emphasis given to the building sector in the EU’s Recovery and Resilience Facility – the proposal also outlines a range of changes that should increase the uptake of energy efficiency investments.

• The new Bauhause Initiative to design buildings and public space coupling aesthetic, sustainability and social inclusions.
The Renewable Energy Directive – RED II
Overview of the EU RES Directives and other policies
EU MSs share of energy from renewables
The Commission proposed RED II revision raises the ambition of the existing legislation to align it with EU’s increased climate ambition.

It also seeks to introduce new measures to complement the already existing building blocks established by the 2009 and 2018 directives, to ensure that all potentials for the development of renewable energy are optimally.

It seeks to convert into EU law some of the concepts outlined in the energy system integration and hydrogen strategies, published in 2020. The strategies outlined ways of creating an integrated energy system, based on renewable energy and fit for climate neutrality, and turning hydrogen into a viable solution to help reach the objectives of the European Green Deal.
The revised directive increases the overall renewables target (proposed to be increased to 40%), but also strengthened measures for transport or heating and cooling.

The Commission is also aiming at a more energy efficient and circular energy system that facilitates renewables-based electrification, and promotes the use of renewable and low-carbon fuels, including hydrogen, in sectors where electrification is not yet a feasible option, such as transport.
Overall ambition – the EU-level target

---

**Overall RES share**

**REDII**

- 32% EU binding
- MS contributions + indicative formula

**REDII revision**

- 40% EU binding
- MS contributions + indicative formula

---

**Fit-for-55**

- **actual**
  - 2010: 14.4%
  - 2019: 19.7%
  - 2030 (REDII): 32%
  - 2030 (MS plans): 33%
  - 2030 (Fit-for-55): 40%
Facilitating Energy System Integration

**Enhance system integration of EVs via RES-signals and smart charging**

**Enable real-time access to EV batteries information**

**Stronger incentives for RES-E in transport through a credit mechanism**

**Enabling framework to tackle remaining barriers to a high level of RES-E supply**

**RFNBOs sub-target for transport [2.6]%**

**RFNBOs sub-target for industry [50]%**

**Accounting of RFNBOs in the sector where consumed**

**Extension of the certification and database for RES fuels (incl H2) to all uses**

**Revised AFID, CO2 for cars** (combined action to boost transport electrification)

**Fuel Aviation & Maritime** (combined action to drive RES Hydrogen uptake in those sectors)
Concluding remarks
Conclusions

- Integrated policy packages with many measures covering all sectors.

- Energy Efficiency (EE) and Renewables Energies (RES) are key policy areas for the decarbonisation of the EU economy.

- Both EE and RES also contribute to the security of energy supply and can help in reducing the impact of the current energy prices.

- Energy Efficiency also contribute to reducing Energy Poverty and boost the local economy by creating local jobs, hence key role in RRP.

- EE and RES are fully aligned with the Green Deal goals of decarbonizing the EU economy, while having a prosperous economy and leaving no one behind.
Thank you
Presentation of proposals