How the EU built the 2030 energy efficiency target
### Institutional process of setting the 2030 target

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Energy efficiency targets for 2030 (Articles 1 & 3)

Headline target of at least 32.5% to be achieved collectively by the EU in 2030

- Nature of the target is not specified.
- The target is calculated relative to the projections from the PRIMES REF2007.
- The target translates into **1273 Mtoe** of primary energy consumption (PEC) and/or **965 Mtoe** of final energy consumption (FEC).
- The Commission is required to assess the target and to propose revising it upwards by 2023.
The 2030 target in the provisional agreement – Level of efforts

- 175 Mtoe in 10 years
- 210 Mtoe in 10 years

20% target 2020 (1483 Mtoe)
32.5% target (1273 Mtoe in 2030)
National energy efficiency contributions (Article 3 & Governance)

Indicative national contributions

- **National contributions to the Union target** in their energy and climate plans.

- Assessment by the Commission if the contributions are sufficient to reach the 2030 target.

- Assumption of the level of national contributions if draft plans are not submitted on time.

- Recommendations in case of an **ambition gap**.

- Recommendations in case of **collective delivery gap**.

- **Member States’ delivery gaps** shall be addressed by recommendations.
Impact Assessment

- **What's the problem?** What is the optimal level of ambition for the goal?

- **Baseline:** EU CO27, the lowest common denominator among the three institutions (Commission, Parliament, Council).

- **Other hypotheses:** More ambitious objectives (30%, 33%, 35%, 40%), including elements of renewables, respecting the consistency with Council and Parliament.

- **Multi-dimensional assessment of costs and benefits:** Investments, energy purchases, energy imports, macro-economic effects (GDP, employment), air quality, etc.
Methodology to assess different ambition levels for 2030 in the Impact Assessment of the Commission proposal
Clean Energy for All Europeans

The main steps

2. Elaboration of various policy scenarios.
3. Assessment of the policy scenarios taking into their impacts (costs and benefits) → modelling.
The starting point

EU Reference Scenario 2016
The starting point – EU Reference Scenario 2016 (I)

- Projecting energy, transport and greenhouse gas emission trends based on adopted policies.
- The time horizon of projections covers the period up to 2050.
- It is not a forecast, but a simulation given certain market conditions and policies adopted until end of 2014.
- It assumes relevant binding 2020 targets are met.
- It uses a range of economic / energy / environment models.
The starting point - EU Reference Scenario 2016 (II)

• Results are available for the EU and individual Member States.

• The European Commission develops the Reference Scenario in collaboration with EU Member States and a European modelling consortium.

• It provides a benchmark against which expected impacts of new policies could be analysed (such as for Impact Assessments).

• EU energy trends showed good progress, but more effort needed to meet medium to long term targets and objectives.
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Website: https://ec.europa.eu/energy/en/data-analysis/energy-modelling

Entry point for all modelling-related information related to EU Reference Scenario and Clean Energy for All Europeans package

Methodology, assumptions and detailed results presented in the EU Reference Scenario 2016 publication

A visualisation tool helps explore the results in a user-friendly way

Contact: ENER-REFERENCE2015@ec.europa.eu
The Energy Efficiency Impact Assessment

Some insights on modelling related aspects
The role of modelling in the Impact Assessment

- **Identify the level of energy efficiency ambition** for 2030 in order to fulfil the political mandate.

- An **explicit energy efficiency target** for 2030 already agreed by the European Council and the European Parliament.

- REF2016 projects a **23.9% primary energy consumption reduction** compared to the 2007 baseline projections for 2030.
CLEAN ENERGY FOR ALL EUROPEANS

Construction of scenarios

- The **first policy option**: 27%. EUCO27 baseline scenario.
- Four **further policy options** explore 2030 targets of a 30%, 33%, 35% and 40%. EUCO30, EUCO+33, EUCO+35 and EUCO+40.
- Other targets agreed by the European Council.

Source: PRIMES
The assessment of the policy scenarios

In the Impact Assessment the following aspects were assessed:

- Energy system impacts – PRIMES model;
- Macro-economic impacts – Two macroeconomic models: E3ME and GEM-E3 to represent two different schools of economic thought;
- Further work on multiple benefits.
Commission proposal

30% energy efficiency target was considered ambitious, representing a realistic, albeit rather cautious, assessment of costs and benefits.
Why a higher target is a right move

- Energy efficiency is a cost-effective way to reduce GHG emissions.
- Tackling climate change asks for more efforts.
- Any number between 30% and 35% could be justified.
- Additional investment in energy efficiency is a challenge.
How "32.5%" is to be treated by the Member States

- Target level compared to the 2007 Reference Scenario projections in 2030 is a convention.

- The level of ambition for the EU is an outcome of the impact assessment and political decision.

- Member States shall take into account the level of the EU headline target when setting their indicative contributions.

- 32.5% is not a benchmark for Member States’ level of ambition.

- No other modelling exercise is a benchmark for Member States’ level of ambition.
The 2030 target in the provisional agreement – Various references
Some lessons learned useful for the Energy Community

32.5% is not a good benchmark.

The target level should be based on a clear and transparent methodology.

It is useful to have

- A proper Impact Assessment;
- Realistic projections on future trends.

Assessment of energy savings potential and cost-benefit analyses are helpful.

The target needs to be ambitious.
Thank you!

Energy Efficiency Unit
DG ENER, European Commission