Energy Strategy and Energy Union: Secure, competitive, and sustainable energy

Building the Energy Union (/energy/en/topics/energy-strategy-and-energy-union/building-energyunion)

The Energy Union will help to provide secure, affordable and clean energy for EU citizens and businesses.

Clean Energy for All Europeans (/energy/en/topics/energy-strategy-and-energy-union/cleanenergy-all-europeans)

A package of proposed new rules aimed at providing the necessary legal framework to facilitate the clean energy transition.

Governance of the Energy Union (/energy/en/topics/energy-strategy-and-energyunion/governance-energy-union)

Proposed new rules on the Governance of the Energy Union will help to ensure its objectives are met. 2020 Energy Strategy (/energy/en/topics/energy-strategy-and-energy-union/2020-energystrategy)

The EU has set 20% targets for renewable energy, greenhouse

gas reduction, and energy efficiency for 2020.

2030 Energy Strategy (/energy/en/topics/energy-strategy-and-energy-union/2030-energystrategy)

The 2030 Energy Strategy proposes targets for renewables, energy efficiency, and greenhouse gas reductions for the period between 2020 and 2030.

2050 Energy strategy (/energy/en/topics/energy-strategy-and-energy-union/2050-energystrategy) EU strategy for the transition to a competitive, secure and sustainable energy system by 2050 and for reducing greenhouse gas emissions by at least 80%.

Energy Security Strategy (/energy/en/topics/energy-strategy-and-energy-union/energy-securitystrategy)

The EU Energy Security Strategy aims to ensure a reliable supply of energy for EU countries.

Clean Energy for EU Islands (/energy/en/topics/energy-strategy-and-energy-union/clean-energyeu-islands)

The Clean Energy for EU Islands initiative provides a long term framework to help islands generate their own sustainable, low-cost energy.

Overview

The European Union's energy policies are driven by three main objectives:

- We want secure energy supplies to ensure the reliable provision of energy whenever and wherever it is needed
- We want to ensure that energy providers operate in a competitive environment that ensures affordable prices for homes, businesses, and industries
- We want our energy consumption to be sustainable,

through the lowering of greenhouse gas emissions, pollution, and fossil fuel dependence.

These goals will help the EU to tackle its most significant energy challenges. Among these, our dependence on energy imports is a particularly pressing issue, with the EU currently importing over half its energy at a cost of €350 billion per year. Other important challenges include rising global demand and the scarcity of fuels like crude oil, which contribute to higher prices. In addition, the continued use of fossil fuels in Europe is a cause of global warming and pollution.

Key policy areas that will help us achieve our goals include:

- A European Energy Union that will ensure secure, affordable and clean energy for EU citizens and businesses by allowing a free flow of energy across national borders within the EU, and bringing new technologies and renewed infrastructure to cut household bills, create jobs and boost growth

- A European Energy Security Strategy which presents short and long-term measures to shore up the EU's security of supply
- A resilient and integrated energy market across the EU — the internal energy market. To this end, new pipelines and power lines are being built to develop EU-wide networks for gas and electricity, and common rules are being designed to increase competition between suppliers and to promote consumer choice
- Boosting the EU's domestic production of energy, including the development of renewable energy sources
- Promoting energy efficiency
- Safety across the EU's energy sectors with strict rules on issues such as the disposal of nuclear waste and the operation of offshore oil and gas platforms.

To pursue these goals within a coherent long-term strategy,

the EU has formulated targets for 2020, 2030, and 2050.

The 2020 Energy Strategy defines the EU's energy priorities between 2010 and 2020. It aims to:

- reduce greenhouse gases by at least 20%
- increase the share of renewable energy in the EU's energy mix to at least 20% of consumption
- improve energy efficiency by at least 20%

EU countries have agreed that the following objectives should be met by 2030:

- a binding EU target of at least a 40% reduction in greenhouse gas emissions by 2030, compared to 1990
- a binding target of at least 27% of renewable energy in the EU
- an energy efficiency increase of at least 27%, to be reviewed by 2020 with the potential to raise the target to 30% by 2030
- the completion of the internal energy market by reaching an electricity interconnection target of 15% between EU countries by 2030, and pushing forward important infrastructure projects.

Together, these goals provide the EU with a stable policy framework on greenhouse gas emissions, renewables and energy efficiency, which gives investors more certainty and confirms the EU's lead in these fields on a global scale.

On 30 November 2016, the Commission released a package of draft legislative proposals designed to help achieve these targets. The measures include draft proposals on electricity market design, renewables, and energy efficiency.

The EU aims to achieve an 80% to 95% reduction in greenhouse gases compared to 1990 levels by 2050. Its Energy Roadmap 2050 analyses a series of scenarios on how to meet this target.

Progress

The EU has already made important progress towards meeting its targets:

- The 'State of the Energy Union' reports show the progress that has been made since the adoption of the Energy Union strategy in February 2015
- Between 1990 and 2015, the EU cut greenhouse gas emissions by 22% and is well on track to meet its 2020 target
- In 2015, the estimated share of renewable energy in the EU's gross final energy consumption was 16.4%, up from 8.5% in 2005
- The latest renewable energy progress report from 2017 states that 25 EU countries are expected to meet their 2015/2016 interim renewable energy targets
- Energy efficiency is also improving: in 2014 the EU's primary energy consumption was only 1.6% above its 2020 primary energy consumption target. Although there was a slight increase in primary energy consumption in 2015, if countries implement all the necessary EU legislation, the 2020 target should be reached.

Energy projections

The EU produces market projection reports for 2030 and 2050 based on current trends and policies. They include information on possible energy demand, energy prices, greenhouse gas emissions and other potential developments.

Energy trends up to 2050

Related documents

- Energy 2020: A strategy for competitive, secure, and sustainable energy [COM(2010)639]
- A policy framework for climate and energy in the period

from 2020 to 2030 [COM(2014) 15]
- Energy Roadmap 2050 [COM/2011/885]
- European Energy Security Strategy [COM(2014)330]