



**The Coalition for
ENERGY SAVINGS**



2050 Energy Efficiency Vision

for a fast, fair and attractive energy transition
through removing market barriers to energy savings
and working with new societal trends

Since 2000, energy efficiency improvements across the EU have led us to consume one fifth less energy than we would have otherwise used, making it the biggest energy resource of this century. The remaining energy savings potentials until 2050, based on today's available cost-effective technologies and solutions, are still enormous. Tapping them will require new actions. New societal trends, like digitalisation, emerging economic and social models, and increasing quality of life expectations, have a significant impact on the potentials and their delivery.

Europe's energy transition is at the heart of an economic transformation aimed at providing increased quality of life for all and to having thriving EU industries while staying within planetary and climate boundaries. From its broad perspective as a diverse and representative group, the Coalition for Energy Savings sees major opportunities in the energy transition driven by the Energy Efficiency First principle. It will deliver multiple benefits such as reduced energy bills, new local jobs, better health and increased well-being, energy independence while reducing greenhouse gas emissions. The energy transition offers us a chance to stop wasting energy across sectors, to upgrade Europe's ageing and inefficient buildings and mobility infrastructure, to improve its competitiveness and to tackle climate change and deliver the Paris Agreement.

This vision is informed by a decade of work by the Coalition for Energy Savings and its Members to put energy efficiency at the top of the EU's energy and economic agenda and builds on research by Fraunhofer ISI on 2050 Energy Savings Scenarios published in January 2019.

Glossary:

'New societal trends' mean very recent developments in economies and societies identified by experts as having a significant impact on the way we live, work and move in future. This includes currently digitalisation, emerging economic and social models, transformation of industry, and increasing quality of life expectations.

'Energy efficiency' means the ratio of output of performance, service, goods or energy, to input of energy. (Energy Efficiency Directive 2012, Article 2.4)

'Energy savings' means an amount of saved energy determined by measuring and/or estimating consumption before and after implementation of an energy efficiency improvement measure. (Energy Efficiency Directive 2012, Article 2.4 and 2.5)

'Energy efficiency first' means taking utmost account in energy planning, and in policy and investment decisions, of alternative cost-efficient energy efficiency measures to make energy demand and energy supply more efficient, in particular by means of cost-effective end-use energy savings, demand response initiatives and more efficient conversion, transmission and distribution of energy, whilst still achieving the objectives of those decisions. (Governance Regulation 2018, article 2.18)

'Cost-effective' energy savings potential means the savings which result from deploying economic and available efficiency technologies across sectors. A technology is economic when the expected financial savings due to the avoided fuel procurement exceed the additional investment to implement the technology. (Fraunhofer ISI)



A fast, fair and attractive energy transition based on delivering the full energy savings potential

Delivering the full energy savings potential will transform today's economy into a highly energy-efficient economy where the remaining energy demand can be readily supplied from renewable energy sources in a cost-effective manner. It will make the energy transition fast, fair and attractive and allow the EU to reach net zero greenhouse gas emissions by 2050, at the latest.

FAST: The full range of cost-effective energy efficiency technologies, solutions and services are available now and, when deployed, contribute to a fast reduction of greenhouse gas emissions.

FAIR: Well implemented energy efficiency policies and measures contribute to a fair energy transition as they reduce energy poverty, enhance social inclusion, increase health and well-being and guarantee access to affordable energy services for all.

ATTRACTIVE: Removing market barriers will foster the uptake of energy efficiency solutions, maintain a vibrant, fair and functional internal market and deliver cost-effective energy savings potentials which will provide returns on investment and benefits for all: private and public investors, individuals and companies.



A strong policy framework for removing market barriers and working with new societal trends

The Energy Efficiency First principle is applied to energy policies and beyond to policies that frame new societal trends. This will enhance the cost-effective energy savings potentials based on today's technologies and solutions and secure its delivery.

The cost-effective savings potentials and their delivery are both strongly impacted by new societal trends such as digitalisation, emerging economic and social models, industrial transformation and increasing quality of life expectations.

According to the 2019 study by Fraunhofer ISI, based on today's technologies and solutions, the cost-effective energy savings potential for 2050, which can be reached if market barriers are removed, stands at 51% compared to the baseline development of final energy consumption. This potential could increase to 67% through working with new societal trends, or fall to 32%, if these trends are ignored and play a negative role.

In order to properly address the opportunities stemming from new societal trends, the Energy Efficiency First principle has to be systematically applied when designing policies and measures which shape the framework in which new trends evolve.

The EU can show leadership in the transition towards a prosperous and net-zero greenhouse gas emission future by developing robust and coherent policies allowing all parts of society to seize the opportunities from technological, economic and social innovation while increasing energy savings.

About the Coalition for Energy Savings

The Coalition for Energy Savings strives to make energy efficiency and savings the first consideration of energy policies and the driving force towards a secure, sustainable and competitive European Union. Its membership unites businesses, professionals, local authorities, cooperatives and civil society organisations in pursuit of this goal.

Coalition members represent:

- more than 500 associations, 200 companies, 1,500 cooperatives
- 15 million supporters and 1 million citizens as members of cooperatives
- 2,500 cities and towns in 30 countries in Europe



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