



State of the Energy Union 2023: EU responds effectively to crisis, looks to the future, and accelerates the green transition

Brussels, 24 October 2023

In the [State of the Energy Union Report 2023](#), the European Commission looks back on the EU response to the unprecedented energy crisis of the past two years, assesses the state of play with the green transition at national, European and global level, and sets out the challenges and opportunities ahead as Europe pursues its ambitious climate and energy goals for 2030 and 2050.

The Report shows how the **EU responded collectively and effectively to Russia's aggression in Ukraine and weaponisation of its energy supplies**, by accelerating the clean energy transition, diversifying supplies and saving energy. The [REPowerEU Plan](#) and a series of emergency legislative measures ensured that Europe **avoided energy supply disruptions, eased pressure on energy markets, prices and consumers, and pursued the structural reform of our energy system**. This was done through the European Green Deal legislation and through increased deployment of renewable energy and improving energy efficiency. The EU is also on track to deliver on its REPowerEU targets. **Ahead of the winter 2023-2024, the EU is better prepared to ensure its energy security**, thanks to well-coordinated actions to fill gas storages, diversifying energy import routes and infrastructure, investments in renewable energy and energy efficiency, and collective efforts to reduce energy demand.

Key figures on the State of the Energy Union:

- The EU's **net greenhouse gas emissions decreased by around 3% in 2022**, reaching a reduction of 32.5% compared to 1990 levels;
- The EU drastically **reduced its dependence on Russian fossil fuel**: phasing out coal imports; reducing oil imports by 90%; reducing gas imports from 155bcm in 2021 to around 80 bcm in 2022 and to an estimated 40-45 bcm in 2023;
- The EU **reduced gas demand by more than 18%** compared with the previous five years, saving around 53 bcm of gas;
- **Gas storage facilities were filled to 95%** of capacity ahead of the winter of 2022-2023 and **stand at over 98% full today**, ahead of the coming winter;
- The EU Energy Platform organised **three rounds of joint purchase of gas, collecting 44.75bcm of demand** and matching it with 52bcm of supply offers;
- 2022 was a **record year for new solar photovoltaic (PV) capacity** (+41 GW), which is 60% more than in 2021 (+26 GW). New onshore and offshore wind capacity was 45% higher than in 2021;
- In 2022, **39% of electricity was generated by renewables**, and in May wind and solar surpassed fossil fuels for the first time in EU electricity generation;
- **Legislative targets were agreed for a minimum share of 42.5% of renewable energy** in the EU by 2030, and the ambition to reach 45%. Energy efficiency targets were also increased, to **reduce final energy consumption by 11.7% by 2030**.

Future challenges and opportunities

While the worst effects of the energy crisis may now be behind us, the Report highlights that there is no room for complacency. The **EU needs to continue to ensure affordable, reliable, and accessible energy for households and to enhance the industrial and economic competitiveness of its industry, supporting investments in clean technologies**.

While gas prices peaked in August 2022 at €294/MWh, they fell to an average of €44/MWh from January to June 2023. Electricity prices peaked at €474/MWh in August 2022 and fell to average of €107/MWh from January to June 2023. The Commission continues to **pay close attention to energy prices for citizens and industry**, and has published a recommendation on energy poverty and facilitated a joint declaration on enhanced consumer protection among key stakeholders in the

energy sector.

With a strong EU legislative framework now largely in place, **Member States need to implement their shared commitments, and the [National Energy and Climate Plans \(NECPs\)](#) are a key tool** for planning and **tracking this process**. This year's Report presents the first assessment of the Progress Reports submitted by Member States on their 2019 National Energy and Climate Plans, which is crucial to take stock of where the EU stands in delivering its climate and energy ambitions. The Commission is still waiting for several Member States to submit their updated NECPs to allow a thorough assessment by the end of this year of whether or not we are on track for achieving our revised 2030 targets, and what measures would be needed to address any shortfalls.

Already now, we can see that we **need to significantly accelerate our actions**. The share of renewable energy in gross final energy consumption reached 21.8% in 2021. With an average yearly increase of 0.67 percentage points since 2010, reaching the new 2030 EU target of 42.5% will require a much faster growth in the coming years. Greenhouse gas emissions continue to fall steadily each year, but the pace needs to pick up, and almost triple the annual reductions, to meet our 2030 targets.

The State of the Energy Union Report highlights the **importance of boosting the EU's competitiveness and industrial leadership** in the new global energy context, and of concluding legislation on the [Electricity Market Design](#), [Net-Zero Industry Act](#) and [Critical Raw Materials Act](#) in particular. These proposals will complement the ['Fit for 55' legislation](#) and **support the development of clean energy sources, grids and stable markets across Europe**. The recently-launched **clean transition dialogues with industry** will be an important tool for implementing legislation and identifying and addressing bottlenecks such as investment barriers or skills shortages. The Commission will also work with Member States to **pursue the phase out of fossil fuel subsidies as soon as possible**, which remain a major obstacle to the clean energy transition and a drag on our climate objectives.

Background

The State of the Energy Union Report, which is published each year, is structured in three parts in 2023. The first part describes how the high climate and environmental ambitions under the European Green Deal provided the basis for the EU's crisis response strategy and a strategy for growth and competitiveness. The second part analyses the state of play in the implementation of the Energy Union in all its five dimensions based on the Commission's assessment of Member State progress reports on their National Energy and Climate Plans. The last part points to future challenges for the EU energy system and energy policy.

Today's Report is accompanied by a series of reports and annexes covering different aspects of the energy and climate transition, including an assessment on progress in implementing the National Energy and Climate Plans, the climate action progress report, the annual reports on competitiveness and energy subsidies, and a report on bioenergy sustainability, among others. It also includes a recommendation on energy poverty and a staff working document that was published on 23 October.

For More Information

[Factsheet State of the EU Energy Union 2023](#)

[State of the Energy Union Report 2023](#)

[State of the Energy Union Report 2023 – 28 country fiches](#)

[Climate Action Progress Report 2023](#)

[National Energy and Climate Plans Progress Reports' technical assessment](#)

[Report on Energy subsidies](#)

[2023 Competitiveness Progress Report](#)

[Report on Bioenergy sustainability](#)

[Report on renovation of the national stock of buildings](#)

[Report on the implementation of the electricity directive](#)

[Report on the quality of petrol and diesel used for road transport](#)

[Report on implementation of Geological Storage of Carbon Dioxide](#)

[Report on the implementation of the EU strategy on adaptation to climate change](#)

Report on the functioning of the carbon market in 2022 (publication tbc)

[Energy poverty webnews](#) ([Commission Recommendation](#) and [Staff Working Document on Energy](#))

[State of the Energy Union Report webpage \(with full set of documents and reports\)](#)

[Energy Union webpage](#)

[REPowerEU Plan](#)

[National Energy and Climate Plans \(NECPs\)](#)

[Delivering the European Green Deal](#)

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Quotes:

We are living through a period of heavy turbulence, driven by high energy prices and high inflation. Our first concern this year has been the protection of households and businesses across the EU, and solidarity with Ukraine. Today's report underlines the effectiveness of our actions to diversify our energy supplies. Joint gas purchasing has played an important role, and can be a model for future collective efforts in the green transition.

Maroš Šefčovič, Executive Vice-President for European Green deal, Interinstitutional Relations and Foresight - 24/10/2023

This year's State of the Energy Union Report underlines the commitment and determination shown last year by all Europeans to overcome the energy crisis together. Our actions – as individuals and collectively – helped avoid the worst impact of Putin's war against Ukraine and the weaponization of energy. The findings of the report show that REPowerEU plan is delivering: Clean energy transition, diversification and energy efficiency are the answers to increasing our energy security and meeting our Green Deal targets.

Kadri Simson, Commissioner for Energy - 24/10/2023

The past years have been incredibly challenging for Europe, but we have not turned away from our firm belief that the European Green Deal is the answer to both our energy security and our climate challenges. At COP28, Europe will have a strong story to tell. We have made progress on emission reductions, renewable energy deployment, and investing in clean mobility. And we have done this while growing our economy and investing in the clean technologies of the future. Going forward, we will also work to phase out, as soon as possible, any fossil fuel subsidy that does not address energy poverty or the just transition.

Wopke Hoekstra, Commissioner for Climate Action - 24/10/2023

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