

# English summary

In 2022 and 2023 the EU governments and the European Parliament have adopted a number of major reforms of the Union's climate policy, in most cases based on the "Fit for 55" legislative package, launched by the European Commission in July 2021. The most important reform is the revision of the EU's three "greenhouse gas budget acts": the Emissions Trading Directive, the Effort Sharing Regulation and the LULUCF Regulation. The reform of these regulations was analysed separately in a previous ESO report, which is hereby supplemented.<sup>1</sup>

The Fit for 55 package also included a number of additional, legislative proposals aiming at facilitating the implementation of the new greenhouse gas budget acts.

In response to the Russian full-scale invasion of Ukraine and the obvious shortcomings in the Union's energy preparedness thereby revealed, the Commission in the spring of 2022 presented new proposals that would further strengthen two other parts of the Fit for 55-package – the Renewables Energy Directive and the Energy Efficiency Directive. The revisions of those directives resulted in decisions that go further than the original Fit for 55 proposals.

## *Updating the national energy and climate plan (NECP)*

No later than on June 30 next year all EU member states must have adopted updated versions of their ten-year integrated national energy and climate plans (NECP). The updated plans must show how the countries intend to contribute to and secure that the requirements of the new EU climate and energy legislation are complied with. Whereas the requirements on individual member

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<sup>1</sup> [Temperaturhöjning i klimatpolitiken – en ESO-rapport om EU:s nya lagstiftning i svensk kontext](#) (ESO 2023:7).

states are not defined explicitly in the legislation – which applies both to the renewable and energy efficiency directives – the NECP is still the most important instrument for the Union to secure that the legislation is respected and that the Union’s targets are met.

### *The Renewable Energy Directive (RED)*

With the revision of the Renewable Energy Directive, the overall EU target for the share of renewable energy by 2030 is increased from 32 to 42,5 percent. Compared to the reported share of renewables in 2021, this represents a doubling. All member states are obliged to contribute to achieving this target. Formally, no specific requirements are imposed on the renewable energy share in individual member states; however, an annex to another legislation (the Governance Regulation) contains a calculation formula indicating the requirements on each member state. In the updated national energy and climate plans, which member states are to finalize in 2024, they must specify both a target level for the share of renewables in 2030 and a trajectory leading to this level.

Within the transport sector, by 2030 the member states must *either* reach an energy-wise renewable share (including liquid, gaseous fuels as well as renewable electricity) of energy at least 29 percent, *or* a reduction of the carbon footprint per energy unit of the transport energy used in the country of at least 14,5 per (compared with a fossil default value).

In order to stimulate the expansion of renewable electricity production within the EU, the member states will be required to identify “*acceleration areas for renewable energy*” where the permit environmental review process will be simplified and less time consuming.

Sweden currently has the highest reported share of renewable energy within the EU (in 2021: 63 percent), but to meet the new requirements, this proportion must increase to just over 76 percent by 2030, according to the Swedish Energy Agency. The planned weakening of the reduction obligation, as well as plans to expand nuclear power, will affect Sweden's ability to meet the directive's requirements.

The requirements to establish “acceleration areas for renewable energy” likely mean that Sweden must transition to a planning model where the state identifies potential locations for wind power plants instead of, as is largely the case today, leaving it to investors to seek suitable locations. The timeframes for permit assessments related to the production, distribution, and storage of renewable energy must also be considerably shortened.

### *The Energy Efficiency Directive (EED)*

The recast energy efficiency directive entails the establishment of a binding target for the total final energy consumption within the EU by 2030, set at 763 million tons of oil equivalents (Mtoe) or the equivalent of 8,874 terawatt-hours (TWh), representing a reduction of about 21 percent compared to 2021. Preliminary, unofficial calculations suggest that the requirements for reduced energy consumption in Sweden may land at approximately the same level, i.e. a reduction of around one-fifth.

How reduced energy consumption will be reconciled with forecasts of rapidly increasing electricity use in Sweden, largely associated with the green industrial transition, is unclear. How Sweden intends to resolve this dilemma must be outlined in the updated national energy and climate plan by June 30, 2024. In the plan, the government must demonstrate how Swedish energy consumption will gradually approach the level stipulated by the directive.

If industrial electricity consumption is to increase significantly, energy consumption in other sectors will likely need to decrease considerably. A general increase in energy taxes seems unavoidable, but for households and businesses to cope with higher energy prices, the higher taxes must be combined with robust, efficient guidance, as well as targeted support for energy efficiency. Energy standards for new construction and major renovations will likely need to be tightened. A program for phasing out older, inefficient heating solutions may be required.

The preparedness of authorities to meet the requirements of the directive appears to be insufficient.

*Regulation on cars and carbon dioxide*

The new regulation implies increasingly stringent standards for permissible carbon dioxide emissions per kilometer from new passenger cars and light commercial vehicles (light buses/trucks). From 2035 onwards, essentially only vehicles with zero emissions will be allowed to be registered within the EU.

As this involves cross-Union product regulations, national measures are unlikely to lead to an overall reduction in average emissions from new vehicles within the Union. However, a low-emission Swedish vehicle fleet could make it easier for Sweden to meet the EU legislation's requirements for reduced emissions in the ESR sector (emissions outside the present emissions trading scheme) and decrease fuel costs for Swedish drivers. This could justify a tightened carbon dioxide differentiation of the vehicle tax for new cars.

*Regulation on the deployment of alternative fuels infrastructure (AFIR)*

The regulation includes detailed requirements for EU member states to ensure the establishment of a Union-wide network of charging stations for electric cars and hydrogen refuelling stations, primarily along the European transport network (TEN-T). The requirements for higher capacity and reduced distance between charging stations are gradually tightened.

On November 1, 2023, the Swedish Energy Agency and the Swedish Transport Administration submitted a proposal for a comprehensive action program for charging infrastructure and hydrogen tank infrastructure, which covers most of the AFIR requirements. The main uncertainty regarding AFIR is whether, and if so how, the government should get involved to ensure the operation of charging stations also along the least trafficked parts of the relevant road network.

*Regulation on the use of renewable and low-carbon fuels in maritime transport (Fuel EU Maritime)*

The regulation stipulates that shipping companies, port companies, and fuel companies must ensure that the life cycle greenhouse gas emissions (calculated per unit of energy) from the ship fuel used on larger vessels in EU-related traffic progressively decrease.

The regulation primarily targets shipping companies, port companies, and fuel suppliers. The state's role is limited.

*Regulation on ensuring a level playing field for sustainable air transport (ReFuel Aviation)*

The regulation introduces progressively stricter requirements for the incorporation of “sustainable aviation fuels” (SAF) in the fuel filled on aircrafts at major airports within the EU. The blend may consist of biofuels, but the regulation particularly promotes synthetically produced aviation fuel, manufactured with the use of renewable electricity or nuclear power. To prevent airlines from bypassing the new regulations by “tankering”, a requirement is introduced that aircraft must refuel at least 90 percent of their needs at the departure airport.

Non-fossil aviation fuel generally has a lower aromatic content than traditional aviation fuel, reducing the risk of so-called high-altitude or non-CO<sub>2</sub> effects. Therefore, there may be reasons to avoid using the limited amount of SAF initially available for shorter flights at lower altitudes, with a low risk of non-CO<sub>2</sub> effects.

The refuelling requirement at the departure airport eliminates a significant argument against abolishing the current prohibition on taxing aviation fuel for international flights.

With the introduction of the EU's quota obligation in 2025, Sweden should abolish the national reduction obligation for aviation fuel.