

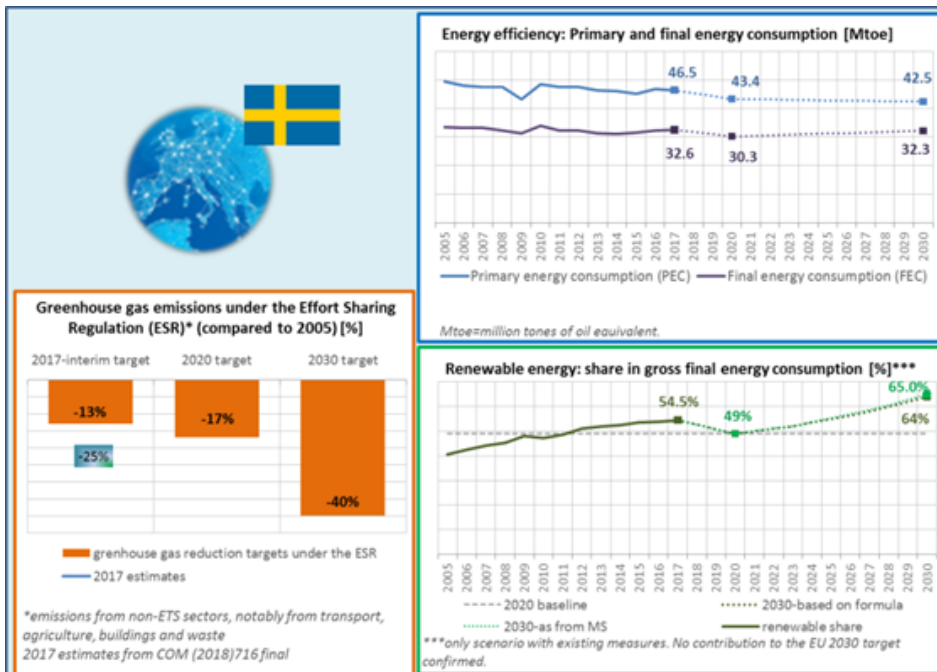


SWEDEN

Summary of the Commission assessment of the draft National Energy and Climate Plan 2021-2030

The EU has committed itself to a clean energy transition, which will contribute to fulfilling the goals of the Paris Agreement on climate change and provide clean energy to all. To deliver on this commitment, the EU has set binding climate and energy targets for 2030: reducing greenhouse gas emissions by at least 40%, increasing energy efficiency by at least 32.5%, increasing the share of renewable energy to at least 32% of EU energy use and guaranteeing at least 15% electricity inter-connection levels between neighbouring Member States. To ensure that the EU targets are met, EU legislation requires that each Member State drafts a 10-year National Energy and Climate Plan (NECP), setting out how to reach its national targets, including the binding national target for reducing greenhouse gas emissions that are not covered by the EU Emissions Trading System (ETS). The European Commission has analysed each draft NECP. The summary of this assessment for Sweden is outlined below. The final NECPs for the period 2021-2030 are due to be submitted by Member States by the end of 2019.

SWEDEN - National targets and contributions foreseen in the draft National Energy and Climate Plan



Sources: Sweden's draft National Energy and Climate Plan, Eurostat (PEC2020-2030, FEC2020-2030 indicators and renewable SHARES), COM(2018)716 final (2017 GHG estimates)

- The Swedish **draft integrated National Energy and Climate Plan (NECP)** is largely based on the Energy Bill and the existing climate framework. It describes a wide range of existing policies for reducing greenhouse gas emissions, as part of an overall framework to promote the transformation of the Swedish economy to become sustainable and climate neutral by 2045. This transformation needs to be underpinned by equally ambitious policies on the security of supply, internal market dimensions and research, innovation and competitiveness dimensions.
- Sweden's 2030 target for **greenhouse gas (GHG) emissions** not covered by the EU Emissions Trading System (non-ETS), is -40% compared to 2005, as set in the Effort Sharing Regulation (ESR)^[1]. Based on the Swedish projections, the European Commission estimates that existing policies may be sufficient to achieve this target. However, the final plan would benefit from including assessments of the impact of individual or groups of policies and measures. Sweden has also set a national 2030 target for emissions not included in the emissions trading system (non-ETS emissions), which is more ambitious than its ESR target. This high ambition of Swedish climate policy is well noted. Sweden has an ambitious target for reducing emissions from transport. The draft NECP shows that Sweden uses carbon and energy taxes as important policies to achieve its targets.
- **Land use, land use change and forestry (LULUCF)** is important in Sweden due to its large forested area. There is an active policy in this area. However, the draft plan does not clearly explain how Sweden would comply with the no-debit commitment under the LULUCF Regulation that accounted emissions do not exceed accounted removals^[2].
- The draft NECP illustrates that the existing policies and measures will result in a 65% share of **renewable energy** in final energy consumption. This would be a significant share, slightly above the share of 64% that results from the formula. However, it is not clearly stated whether this share - resulting from a scenario based on already adopted measures - can be considered a contribution to the EU renewable energy target for 2030. For the reference points of the indicative trajectory that Sweden put forward, the expected share reached in 2025 falls short by 3 percentage points. The final plan would benefit from elaborating further on the policies and measures allowing the achievement of the contribution and on other relevant sectorial measures. Sweden aims at generation 100% of its electricity from renewable energy sources by 2040.
- The Swedish draft plan states that Sweden's energy use in 2030 is to be 50% more efficient than in 2005. The target is expressed in terms of primary energy use in relation to gross domestic product (GDP), and is based on a scenario reflecting existing measures adopted before 30 June 2016. Sweden's contribution to the EU headline target for 2030 translates into 42.5 Mtoe of **primary** and 32.3 Mtoe of **final energy consumption**. The proposed reductions in energy consumption are modest in comparison to the efforts needed to reach the EU headline target, in particular the ambition for final energy consumption appears to be low. This risks missing opportunities in terms of growth and jobs. The final plan would benefit from more details on adequate policies and measures.
- In the **energy security dimension**, the Swedish draft NECP relies on well-functioning energy markets to prevent and mitigate disruptions and shortages of energy, and describes some policies regarding security of supply measures of different energy sources. The final plan would benefit from an analysis of the implications on energy security of the ambitious renewable energy target for electricity.

^[1] Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013.

^[2] Regulation (EU) 2018/841 of the European Parliament and of the Council of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, and amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU.

- Sweden's interconnectivity level is well above the EU-wide interconnection level of 15%. Yet, the draft NECP does not present any interconnection level for 2030, but refers to a projected interconnection level of 27%. For **internal market**, there are specific policies presented for distributed generation, storage, demand response and flexibility. There is little information presented on the current situation in the electricity and gas markets.
- The draft plan describes the objective for public research and innovation, which is to contribute to Sweden's energy and climate targets and hence the transformation of the industry and economy. Additional insights are needed in the final plan as regards **research, innovation and competitiveness**, in particular specific objectives and funding targets where available and applicable, and a description of policies and measures until 2030.
- Sweden's draft plan includes some references to projected **investment needs**, expenditures and funding sources to reach the 2030 targets, mainly qualitative. A systematic analysis of investment needs and funding sources will be needed in the final plan to allow fully taking advantage of the role NECPs can play in providing clarity to investors and attracting additional investments in the clean energy transition.
- The draft NECP only uses climate and energy scenarios based on existing policies and measures adopted before 30 June 2016. The draft plan announces that for the final plan the scenarios will be updated based on recent developments and will include also scenarios with additional measures.
- **Regional cooperation** across the Energy Union dimensions is already taking place between Sweden and neighbouring Member States. There is potential for intensifying the existing cooperation arrangements between Nordic countries, especially in the internal market and energy security dimension, extending them to new areas and broadening the geographic reach to include the Baltic States.
- The final plan would benefit from an analysis of the interactions with **air quality and air emissions policy** and a presentation of impacts of policies and measures on air pollution. The projected increase in bioenergy would make air impacts especially important to consider.
- The final plan would benefit from details on the **just transition aspects**, and if applicable, considerations in terms of the costs and benefits as well as the cost effectiveness of planned policies and measures in relation to the issue of just transition. The draft plan envisages training programmes for energy-efficiency of residential buildings to be continued.
- A list of all **energy subsidies** and actions undertaken and planned to phase them out, in particular for fossil fuels, need to be included in the final plan.
- An example of **good practice**, providing a national framework for achieving the objectives of the draft NECP, is Sweden's Climate Act. It sets legally binding long-term targets, requires annual climate reports and establishes an independent climate advisory board. Sweden's long-term climate strategy is consistent with national objectives of the draft NECP and in line with the Governance Regulation.

Related links:

- [National Energy & Climate Plans](#) – for links to the Commission recommendations and Staff Working Document for Sweden and all other Member States, to the Commission Communication assessing all draft NECPs, and to the draft NECPs themselves.
- More information about the [Clean energy for all Europeans package](#)
- More information about the [2030 climate & energy framework](#)