



Brussels, 18.12.2023
C(2023) 9601 final

COMMISSION RECOMMENDATION

of 18.12.2023

**on the draft updated integrated national energy and climate plan of Denmark covering
the period 2021-2030**

**and on the consistency of Denmark's measures with the Union's climate-neutrality
objective**

and with ensuring progress on adaptation

{SWD(2023) 911 final}

(Only the Danish text is authentic)

COMMISSION RECOMMENDATION

of 18.12.2023

on the draft updated integrated national energy and climate plan of Denmark covering the period 2021-2030

and on the consistency of Denmark's measures with the Union's climate-neutrality objective

and with ensuring progress on adaptation

(Only the Danish text is authentic)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 292 thereof,

Having regard to Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council¹ and in particular Article 9(2) and Article 14(6) thereof,

Having regard to Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999², and in particular Article 7(2) thereof,

Whereas:

Recommendations on Denmark's draft updated integrated National Energy and Climate Plan (NECP) of Denmark covering the period 2021-2030

- (1) Denmark submitted its draft updated integrated national energy and climate plan on 29 June 2023.
- (2) Article 3 and Annex I to Regulation (EU) 2018/1999 ('the Governance Regulation') lay down the elements that are to be included in the updated integrated national energy and climate plans. In December 2022, the Commission adopted the Guidance to Member States on the process and scope of preparing the draft and final updated national energy and climate plans³. The Guidance identified good practices and

¹ OJ L 328, 21.12.2018, p. 1

² OJ L 243, 9.7.2021, p. 1

³ 2022/C 495/02

outlined the implications of recent policy, legal and geopolitical developments in energy and climate policies.

- (3) In connection with the REPowerEU plan⁴, and as part of the 2022 and 2023 European Semester cycles, the Commission has put a strong focus on Member States' energy and climate related reform and investment needs to strengthen energy security and affordability by accelerating the green and fair transition. This is reflected in the 2022 and 2023 Country Reports for Denmark⁵ and the Council Recommendations to Denmark⁶. Member States should take into account the latest country-specific recommendations in their final updated integrated energy and climate plans.
- (4) The Commission's recommendations with regard to the delivery of national targets under the Effort Sharing Regulation⁷ (ESR) are based on the likelihood that the Member States will respect the 2030 targets, taking into account the rules for the use of flexibilities under the ESR.
- (5) The Commission's recommendations regarding Carbon Capture, Utilisation and Storage (CCUS) aim at having an overview of the intended deployment of these technologies at national level, including information about annual volumes of CO₂ planned to be captured by 2030, split by source of CO₂ captured coming from installations covered by Directive 2003/87/EC⁸ or from other sources, such as biogenic sources or direct air capture; about planned CO₂ transport infrastructure; and about potential domestic CO₂ storage capacity and injection volumes of CO₂ planned to be available in 2030.
- (6) The Commission's recommendations regarding the performance under the Land Use, Land Use Change and Forestry Regulation ('LULUCF Regulation')⁹ address the delivery by the Member State on the "no debit" rule for the period 2021-2025 (Period 1) and its national target for the period 2026-2030 (Period 2), taking into account the rules governing the use of flexibilities as set out in that Regulation. The Commission's recommendations also take into account that in Period 1 any excess in emissions under the LULUCF Regulation will automatically be transferred to the ESR.
- (7) For climate adaptation to properly support the achievement of energy and climate mitigation objectives, it is essential to identify the potential climate change hazards and analyse climate vulnerabilities and risks that may affect relevant areas, populations, and sectors. The Commission's recommendations on adaptation consider the extent to which Denmark integrated in its updated NECP adaptation goals that account for climate risks, that could prevent Denmark from meeting the objectives and targets of the Energy Union. Without specific adaptation policies and measures,

⁴ COM(2022) 230 final

⁵ SWD (2022) 607 final, SWD (2023)604 final

⁶ COM (2022) 607 final, Recommendation for a Council Recommendation; COM (2023) 604 final, Recommendation for a Council Recommendation

⁷ Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018, OJ L 156, 19.6.2018, p. 26. as amended by Regulation (EU) 2023/857 of 19 April 2023, OJ L 111, 26.4.2023, p. 1

⁸ Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (OJ 275, 25.10.2003, p. 32)

⁹ 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, OJ L 156, 19.6.2018, p. 1, as amended by Regulation (EU) 2023/839 of the European Parliament and of the Council of 19 April 2023 OJ, L328/1, 21.4.2023, p. 1

planned and implemented, the achievement of objectives in Energy Union dimensions is at risk.

- (8) The Commission's recommendations regarding renewable energy ambition are based on the formula set out in Annex II to Regulation (EU) 2018/1999, which is based on objective criteria; and on the main policies and measures missing in Denmark's draft updated NECP to enable a timely and cost-effective achievement of Denmark's national contribution to the Union's binding renewable energy target of at least 42.5% in 2030, with the collective endeavour to increase it to 45% pursuant to Directive (EU) 2018/2001 as regards the promotion of energy from renewable sources as amended by Directive (EU) 2023/2413¹⁰. The Commission's recommendations are also based on Denmark's contribution to the specific targets of Articles 15a, 22a, 23, 24 and 25 of that Directive and the related policies and measures to rapidly transpose it and implement it. The recommendations reflect the importance of developing comprehensive long-term planning for the deployment of renewable energy, and in particular wind, to increase visibility for the European manufacturing industry and grid operators in line with the European Wind Power Package¹¹.
- (9) The Commission's recommendations regarding the national contribution to energy efficiency are based on Article 4 of the Directive (EU) 2023/1791 on energy efficiency¹²; and the formula in Annex I to that Directive, and the related policies and measures to implement it.
- (10) The Commission's recommendations pay particular attention to the targets, objectives and contributions and related policies and measures to deliver on the REPowerEU plan in order to rapidly phase out dependence from Russian fossil fuels. They take into account lessons learnt from the implementation of the Save gas for a Safe winter Package¹³. The recommendations reflect the imperative to make the energy system more resilient in light of the obligations stemming from Regulation (EU) 2019/941 on risk preparedness in the electricity sector¹⁴ and Regulation (EU) 2017/1938 on the security of gas supply¹⁵, and in line with the Commission Recommendation on energy storage¹⁶.
- (11) The Commission's recommendations take into account the need to accelerate the integration of the internal energy market to strengthen the role of flexibility and

¹⁰ Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (OJ L 328, 21.12.2018, p. 82), as amended by Directive (EU) 2023/2413 of the European Parliament and of the Council of 18 October 2023 amending Directive (EU) 2018/2001, Regulation (EU) 2018/1999 and Directive 98/70/EC as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652, OJ L, 2023/2413, 31.10.2023

¹¹ Communication on European Wind Power Action Plan COM (2023) 669 final, 24.10.2023 and Communication on delivering EU offshore renewable energy ambition, COM (2023) 668 final

¹² Directive (EU) 2023/1791 of the European Parliament and of the Council of 13 September 2023 on energy efficiency and amending Regulation (EU) 2023/955 (recast), OJ L 231, 20.9.2023, p. 1

¹³ Communication from the Commission to the European Parliament, the Council, the European economic and social committee, "Save gas for a safe winter", COM/2022/360 final

¹⁴ Regulation (EU) 2019/941 of the European Parliament and of the Council of 5 June 2019 on risk preparedness in the electricity sector and repealing Directive 2005/89/EC OJ L158/1

¹⁵ Regulation (EU) 2017/1938 of the European Parliament and of the Council of 25 October 2017 concerning measures to safeguard the security of gas supply and repealing Regulation (EU) n°994/2010, OJ L 280

¹⁶ Commission Recommendation of 14 March 2023 on Energy Storage – Underpinning a decarbonised and secure EU Energy system; C/2023/1729, OJ C 103 20.3.2023 p1

empower and protect consumers. The Commission's recommendations also consider the importance of assessing the number of households in energy poverty in line with the requirements of Article 3 of Regulation (EU) 2018/1999, and the Commission Recommendation (EU) 2023/2407¹⁷.

- (12) The Commission's recommendations reflect the importance of ensuring sufficient investments in clean energy research and innovation to boost their development and manufacturing capacity, including appropriate policies and measures for energy intensive industries and other businesses, and the need to upskill workforce for a net-zero industry in order to consolidate a strong, competitive and clean economy within the Union.
- (13) The Commission's recommendations build on the commitments taken under the Paris Agreement to phase down the use of fossil fuels, as well as on the importance of phasing out fossil fuel subsidies.
- (14) The Commission's recommendation on investment needs follows its assessment of whether the draft updated plan provides a general overview of investment needs to achieve the objectives, targets and contributions for all dimensions of the Energy Union; indicates the sources of financing, distinguishing private and public sources; outlines investments consistent with Denmark's Recovery and Resilience Plan, Denmark's Territorial Just Transition Plan and the 2022-2023 country-specific recommendations issued under the European Semester; and includes a robust macro-economic assessment of planned policies and measures. The NECP should ensure the transparency and predictability of national policies and measures, to support investment certainty.
- (15) The Commission's recommendations reflect the crucial importance of a wide regional consultation, and of ensuring early and inclusive consultation on the plan, including effective public participation with sufficient information and timeframe, in line with the Aarhus Convention¹⁸.
- (16) The Commission's recommendations on just transition reflect the assessment of whether Denmark's plan identifies in sufficient depth the relevant social, employment and skills impacts of the climate and energy transition and outlines adequate accompanying policies and measures to promote a just transition, while contributing to the promotion of both human rights and gender equality.
- (17) The Commission's recommendations to Denmark are underpinned by the assessment of its draft updated NECP¹⁹, which is published alongside this Recommendation.
- (18) Denmark should take due account of the present recommendations when developing its final updated integrated NECP to be submitted by 30 June 2024.

Recommendations on the consistency with the Union's climate-neutrality objective and with ensuring progress on adaptation

- (19) Pursuant to Regulation (EU) 2021/1119 (the European Climate Law), the Commission is required to assess the consistency of national measures with the climate-neutrality

¹⁷ Commission Recommendation (EU) 2023/2407 of 20 October 2023 on energy poverty, C:2023/4080, OJL 2023/2407, 23.10.2023

¹⁸ Convention on access to information, Public Participation in Decision-making and Access to Justice in Environmental Matters of 25 June 1998 (the 'Aarhus convention')

¹⁹ SWD(2023) 911

objective and with ensuring progress on adaptation. The Commission assessed the consistency of Denmark's measures with these objectives²⁰. The below recommendations are based on that assessment. Denmark should take due account of the present recommendations and follow up on them in accordance with the European Climate Law.

- (20) A key step in strengthening the ambition on adaptation should be the completion of an appropriate legal framework for national climate policy that sets up binding, regularly updated adaptation goals to measure overall progress in building resilience. Adaptation policies should focus on areas or sectors particularly vulnerable to climate change, or whose activities are key to the resilience of other sectors, or which have significant importance to the national economy or public health. Priority response is required on impacts and risks that are expected to affect critical infrastructure or systems with long life span, or are expected to affect systems irreversibly, taking into account interaction with socio-economic development or other non-climatic drivers. Various EU funding instruments can be mobilised to fund adaptation. Climate resilience considerations should be put in the forefront when Member States design their national plans under the relevant EU funds. None of the spending should do harm to adaptation: that is, increase vulnerabilities either for the beneficiaries or for others.
- (21) The most vulnerable communities are those with elevated likelihood of being impacted by climate change. Unequal exposure and vulnerability to climate impacts of different regions and socio-economic groups worsens pre-existing inequalities and vulnerabilities. Just resilience should reduce the unequal burden of climate risk and ensure equity in the distribution of the benefits of adaptation.
- (22) Nature-based solutions offer efficient and cost-effective adaptation and mitigation options if their deployment is incentivised through strategic frameworks, policies and funding. They can be implemented independently or integrated in other adaptation and mitigation measures, combined with more technological or infrastructure-based solutions. Implementation needs to consider the complexity of ecosystems and the projected effects of climate change, the local context, linked interests and values, and socio-economic conditions.

HEREBY RECOMMENDS THAT DENMARK TAKES ACTION TO:

CONCERNING THE DRAFT UPDATED NATIONAL ENERGY AND CLIMATE PLAN UNDER REGULATION (EU) 2018/1999

1. Set out cost-efficient additional policies and measures, notably in the transport and agricultural sectors, to bridge the projected gap of 10.5 percentage points to meet the national greenhouse gas target of -50% in 2030 compared to 2005 levels under the ESR. Provide updated projections to show how the existing and planned policies will deliver on the target and, if necessary, specify how flexibilities available under the ESR will be used to ensure compliance. Complement the information on the policies and measures, clearly spelling out their scope, timeline and, where possible, expected greenhouse gas reduction impact, including for measures in Union funding programmes, such as the common agricultural policy.

²⁰ EU Climate Action Progress Report 2023, COM(2023) 653 final, and Commission Staff Working Document Assessment of progress on climate adaptation in the individual Member States according to the European Climate Law, SWD(2023) 932

2. Identify the sources of CO₂ emissions that are planned to be captured.
3. Set out a concrete pathway towards reaching the national LULUCF target as defined in Regulation (EU) 2018/841. Include additional measures in the LULUCF sector, quantifying their expected impacts to ensure that greenhouse gas removals in this sector are effectively aligned with the 2030 EU net removal target of – 310 MtCO₂eq and with the country-specific removal target of – 441 ktCO₂eq defined in Regulation (EU) 2018/841. Provide additional details about the planned measures, including quantifying their expected impact in terms of removals or emissions from the LULUCF sector. Provide clear information on how public funds (both Union funds, including the common agricultural policy, and State aid) and private financing through carbon farming schemes are consistently and effectively used to achieve the net removal national target. Provide information on the status and the progress to be made in ensuring the enhancements to higher tier levels/geographically explicit datasets for monitoring, reporting and verification, in line with Part 3 of Annex V to Regulation (EU) 2018/1999.
4. Provide additional analysis on the relevant climate vulnerabilities and risks regarding the achievement of the national objectives, targets, and contributions and the policies and measures in the different dimensions of the Energy Union. Better outline and quantify the link to the specific Energy Union objectives and policies, that adaptation policies and measures should support. Set out additional adaptation policies and measures in sufficient detail to support Denmark's achievement of national objectives, targets and contributions under the Energy Union.
5. Confirm the projections of a share of renewable energy sources of 71% as a contribution to the EU's binding renewable energy target for 2030 as laid down in Article 3(1) of Directive (EU) 2018/2001 as amended in line with the formula in Annex II to Regulation (EU) 2018/1999. Confirm the related indicative trajectory that reaches the reference points for 2025 and 2027 pursuant to Article 4 (a)(2) of Regulation (EU) 2018/1999.
6. Provide estimated trajectories and a long-term plan for the deployment of renewable energy technologies over the next 10 years, with an outlook to 2040. Include an indicative target for innovative renewable energy technologies by 2030 in line with Directive (EU) 2018/2001 as amended. Include a specific target to contribute to the indicative sub target in buildings for 2030. Confirm that projections included in the draft plan are contributing to the binding targets in heating and cooling for both 2021-2025 and 2026-2030, and the indicative target to achieve the top-ups of Annex IA of Directive (EU) 2018/2001 as amended. Confirm that the share of renewable energy in heating and cooling will remain higher than 60% for the period until 2030. Confirm that the projections included in the plan are contributing to the binding level for RFNBO in industry by 2030 respectively. Include the sub-target for advanced biofuels and renewable fuels of non-biological origin (RFNBOs), in transport by 2030.
7. Further develop detailed and quantified policies and measures in a way that enables a timely and cost-effective achievement of Denmark's national contribution to the EU's binding renewable energy target of 42.5% in 2030, with the collective goal to increase it to 45%. Describe further the renewable technologies for which it plans to designate 'renewables acceleration areas' with faster and simpler procedures. Describe the design of the obligation on fuel suppliers in the transport sector in line

with Directive (EU) 2018/2001 as amended and include comparable measures for promoting hydrogen in industry and prepare the EU for renewable hydrogen trade.

8. Include an assessment of the domestic supply of forest biomass for energy purposes in 2021-2030 in accordance with the strengthened sustainability criteria of Article 29 of Directive 2018/2001 as amended and of the compatibility of the projected use of forest biomass for energy production with Denmark's obligations under the revised LULUCF Regulation, particularly for 2026-2030, together with national measures and policies to ensure such compatibility. Include measures to promote the sustainable production of biomethane given Denmark's sustainable biogas/biomethane potential and production, profile of natural gas consumption and existing infrastructure, digestate use and biogenic CO₂ applications.
9. Provide to the extent possible an expected timeline of the steps leading to the adoption of legislative and non-legislative policies and measures aimed at transposing and implementing the provisions of the Directive (EU) 2018/2001 as amended, in particular for the measures mentioned in the previous points.
10. Include a national energy efficiency contribution on final energy consumption to the EU's binding final energy consumption target for 2030 in line with Article 4 and Annex I of Directive (EU) 2023/1791, or equal to the corrected indicative national contribution that the Commission will submit to each Member State by 1 March 2024 under Article 4(5) of that Directive. Include a national energy efficiency contribution on primary energy consumption in the EU's indicative primary energy consumption target in line with Article 4 and Annex I of Directive (EU) 2023/1791. Specify the amount of energy consumption reduction to be achieved by all public bodies disaggregated by sector. Also include the total floor area of heated and/or cooled buildings owned by public bodies to be renovated yearly or corresponding yearly energy savings to be achieved. Put forward the amount of cumulative energy savings to be achieved over the period from 1 January 2021 to 31 December 2030 and, where relevant, an explanation on how the annual savings rate and the calculation baseline were established.
11. Set out complete policies and measures to achieve the national contributions on energy efficiency and, in particular how the Energy Efficiency First principle will be implemented. Specify robust energy efficiency financing programmes and support schemes, able to mobilise private investments and additional co-financing. Also, set energy savings measures to ensure the achievement of the required amount of cumulative end-use energy savings by 2030.
12. Include an updated ambition level to ensure a highly energy efficient and decarbonised national building stock and to transform existing buildings into zero-emission buildings by 2050. Include intermediate milestones for 2030 and 2040, and a comparison with the most recent long-term renovation strategy. Include more information on related measures for buildings and provide their expected impact in energy savings.
13. Strengthen the resilience of the energy system, in particular by setting an objective for energy storage deployment. Further explain how Denmark intends to encourage gas demand reduction, as well as develop detailed policies and measures to reach this objective towards 2030. Assess the adequacy of the oil infrastructure (refinery, oil stocks) with the expected decline in oil demand and the move towards lower-carbon alternatives.

14. Put forward clear objectives and targets for demand response to improve the flexibility of the energy system in light of an assessment of the flexibility needs and describe further measures to facilitate energy system integration in connection with Article 20a of Directive (EU) 2018/2001 as amended.
15. Further develop the approach to addressing energy poverty by including an assessment of the situation of current households affected and indicating a specific measurable reduction target as required by Regulation (EU) 2018/1999 and taking account of Commission Recommendation (EU) 2023/2407. Prioritise effective and well-targeted structural measures to address the root causes of energy poverty.
16. Further clarify national objectives in research, innovation and competitiveness to deploy clean technologies, establishing a pathway for 2030 and 2050 with a view to support the decarbonisation of industry and the transition of businesses towards a net zero and circular economy. Put forward policies and measures to promote the development of net-zero projects including those relevant for the energy intensive industries. Describe, in particular, a predictable and simplified regulatory framework for permitting procedures and how access to national funding will be simplified where needed. Provide detailed policies and measures for the development of clean energy-related skills and to facilitate open trade for resilient and sustainable supply chains of key net-zero components and equipment.
17. Specify the reforms and measures to mobilise the private investments needed to achieve the energy and climate targets. Provide a comprehensive and consistent overview of the public and private investment needs in aggregate and by sector. Complement a top-down economy-wide approach with a bottom-up project-specific assessment. Include a breakdown of total investment needs with additional information on the national, regional and Union funding sources as well as private financial sources to be mobilised. Add a short description of the type of financial support scheme chosen to implement the policies and measures, which are financed through public budget, and the use of blended financial instruments making use of grants, loans, technical assistance, public guarantees, including the role of national promotional banks in the respective schemes and/or how private financing is mobilised. Consider the cost-effective generation of transfers to other Member States under the ESR as funding source. Provide a robust assessment of the macroeconomic impact of the planned policies and measures.
18. Further detail the analytical basis by providing projections under the planned policies and measures on how the energy system will develop with an outlook to 2040.
19. Explain how and by when Denmark intends to phase out remaining fossil fuel subsidies.
20. Provide more detailed information on the social, employment and skills consequences, or any other distributional impacts, of the climate and energy transition and on the planned objectives, policies and measures to support a just transition. Specify the form of support, the impact of the initiatives, the targeted groups and the resources dedicated, taking into account the Council Recommendation on ensuring a fair transition towards climate neutrality²¹. Include, to the extent possible, more elements to provide an adequate analytical basis for the

²¹ Council Recommendation of 16 June 2022 on ensuring a fair transition towards climate neutrality, OJ C243, 27.6.2022 p.35-51

preparation of a future Social Climate Plan, in accordance with Regulation (EU) 2023/955²², including indications on how to assess the challenges and social impact on the most vulnerable of the emissions trading system for fuel combustion in buildings, road transport and additional sectors, and to identify potential beneficiaries and a relevant policy framework. Explain how the policy framework identified in the NECP will contribute to the preparation of Denmark's Social Climate Plan and how the consistency between the two plans will be ensured.

21. Provide a clear and more detailed overview on how the consultation process has enabled participation from all relevant authorities, citizens and stakeholders including social partners, in the preparation of both the draft and the final updated plan.
22. Expand the already good regional cooperation by pursuing efforts to sign all the needed bilateral solidarity arrangements for the security of gas supply with its neighbours (Poland), including those arising from the building of new cross-border infrastructure.

CONCERNING THE CONSISTENCY OF NATIONAL MEASURES WITH THE CLIMATE-NEUTRALITY OBJECTIVE AND WITH ENSURING PROGRESS ON ADAPTATION UNDER REGULATION (EU) 2021/1119

1. Complete the establishment of an appropriate legal framework for climate change adaptation policy and action. Ensure that the adaptation priorities, strategies, policies, plans, and efforts are commensurate with the predicted future climate vulnerabilities and risks based on the best available science and the climate prediction and early warning tools available. Put climate resilience considerations more to the forefront in the use of support from Union funding programmes, such as the common agricultural policy and other relevant EU funds. EU funds should be spent in such a way that they increase climate resilience and do not increase vulnerabilities (i.e., do no significant harm to adaptation).
2. Engage stakeholder groups that are particularly vulnerable to the impacts of climate change in Denmark's adaptation policy design and implementation. Document the processes and outcomes of relevant consultations.
3. Promote nature-based solutions and ecosystem-based adaptation in national strategies, policies and plans and provide investments for their deployment.

Done at Brussels, 18.12.2023

*For the Commission
Kadri Simson
Member of the Commission*

²² Regulation (EU) 2023/955 of the European Parliament and of the Council of 10 May 2023 establishing a Social Climate Fund and amending Regulation (EU) 2021/1060 (OJ L 130, 16.5.2023, p. 1)