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COMMISSION STAFF WORKING DOCUMENT

Assessment of the final national energy and climate plan of Latvia

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1. SUMMARY

Latvia's final integrated national energy and climate plan (NECP)¹ sets a target for **greenhouse gas** (**GHG**) **emissions** not covered by the EU emissions trading system (non-ETS) of -6% by 2030 compared to 2005. This is in line with the Effort Sharing Regulation (ESR)². Latvia intends to achieve this target domestically, but does not provide much information on the precise means of achieving this. Similarly, Latvia does not provide information on how it intends to achieve its land use, land use change and forestry (LULUCF) commitment that accounted emissions will not exceed accounted removals. In its final plan, Latvia has increased its total GHG emission reduction target to -65% by 2030 compared to 1990 (excluding LULUCF) and set the long-term target of climate neutrality by 2050, which is consistent with its national long-term strategy.

Latvia's **renewable energy** contribution to the 2030 EU-level target is 50% of gross final energy consumption in 2030. This is considered adequate as it is in line with the formula in Annex II to Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action (the Governance Regulation³).

On **energy efficiency**, the Latvia's contribution to the EU-level target is modest⁴ and amounts to 4.1 Mtoe of primary energy consumption and 3.6 Mtoe for final energy consumption⁵. Latvia has committed itself to applying the 'energy efficiency first' principle before taking any investment or policy decisions with energy-related impacts, including in relation to EU funds and taxation. The final NECP provides many elements on energy efficiency of buildings. Latvia has not yet submitted its long-term renovation strategy.

In its plan, Latvia set the objective to increase **energy security** mainly through the increase of renewables (including biofuels in the transport sector) and diversification of energy resources and supply routes, and also through energy efficiency measures.

Regarding the **internal energy market**, Latvia's final plan refers to the recently liberalised domestic electricity and gas markets, and presents targets and objectives for the rollout of smart meters in electricity. The electricity interconnection level by 2030 is expected to be at least 60% by 2030.

National objectives and funding targets on **research**, **innovation and competitiveness** are set at 2% of the GDP, with a 25% indicative sub-target for the decarbonisation objective. The target of 2% is, however, not underpinned by specific policy measures.

The planned amount of **investments needed** to implement the policies and measures in the plan adds up to EUR 8.2 billion from 2021 to 2030 (corresponding to around 2.7% of GDP per year). The investment needs planned for the main sectors are: energy efficiency in buildings (EUR 1.7 billion); energy efficiency and deployment of renewables in district heating and

¹ The Commission publishes this country-specific assessment alongside the 2020 Report on the State of the Energy Union (COM(2020)950) pursuant to Article 13 of Regulation (EU) 2018/1999 on Governance of the Energy Union and Climate Action.

² Regulation (EU) 2018/842 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030.

³ The Commission's recommendation with regard to the Member States' renewable ambitions is based on a formula set out in this Regulation. The formula is based on objective criteria.

⁴ In accordance with the methodology as illustrated in SWD(2019) 212 final.

⁵ The figures are provided in ranges, with the most ambitious ones considered for this assessment.

cooling (EUR 1.6 billion); decarbonisation of the energy sector (EUR 1 billion); sustainable transport (EUR 988 million); and energy infrastructure (EUR 830 million). The EU funding programmes will remain the main source of funding for the investment.

Regarding **energy subsidies**, the final NECP provides further information on energy subsidies, including some actions and plans to phase out fossil energy subsidies. A reassessment of the situation is to be carried out by 2023.

As regards the interactions with **air quality** and air emissions policy, the plan takes cross-effects into account on energy and transport but lacks more integrated consideration of synergies and trade-off effects.

On a **socially just and fair energy transition**, the final plan provides information on the social, employment and skills impacts of a transition to a climate-neutral economy, in particular in relation to renewables and energy efficiency. On **energy poverty**, the NECP reports the number of housholds at risk of energy poverty and sets an objective to reduce it to less than 7.5% by 2030.

There are **several examples of good practices** in Latvia's final NECP, in particular the increased level of ambition regarding the national contribution to the 2030 renewable target and the level of information on energy subsidies.

	National targets and contributions	Latest available data	2020	2030	Assessment of 2030 ambition level
GHG	Binding target for greenhouse gas emissions compared to 2005 under the Effort Sharing Regulation (ESR) (%)	8	+17	-6	As in ESR
्रम	National target/contribution for renewable energy: Share of energy from renewable sources in gross final consumption of energy (%)	40%	40%	50%	Adequate (50% is the result of RES formula)
	National contribution for energy efficiency: Primary energy consumption (Mtoe) Final energy consumption (Mtoe)	4.7 4.2	5.4 4.5	4.1 3.6	Modest Modest

The following table presents an overview of Latvia's objectives, targets and contributions under the Governance Regulation⁶:

⁶ 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 Council.



Sources: European Commission, Energy statistics, Energy datasheets: EU countries; European Semester by country; Latvia's final national energy and climate plan.

2. FINALISATION OF THE PLAN AND CONSIDERATION OF COMMISSION RECOMMENDATIONS

Preparation and submission of the final plan

Latvia notified the European Commission of its national energy and climate plan on 3 February 2020. While preparing its plan, Latvia consulted a wide range of stakeholders. A public consultation took place until 20 October 2019. Latvia has published a summary of the general public's views and of how those views were taken into account in the final NECP on the website of the Ministry of Economics⁷. Latvia has also carried out a strategic environmental impact assessment on the NECP and policy packages planned under each dimension, but it seems that the assessment was not carried out fully in line with Directive 2001/42/EC.

Consideration of Commission recommendations

In June 2019, Commission issued its recommendations on Latvia's draft plan⁸. Annex II to this report offers a detailed account on how the different elements of the Commission recommendations have been reflected in the final NECP. Overall, the final plan **partially addresses** the Commission recommendations. The main changes it introduces are set out below.

On greenhouse gas emissions in non-ETS sectors, Latvia has not addressed the recommendation to develop further its strategy for achieving its 2030 greenhouse gas target for sectors not covered by the EU emissions trading system of -6% compared to 2005, including further defining the necessary steps for implementing the described policies and analysing the role of the land use, land use change and forestry (LULUCF) sector based on the accounting rules under Regulation (EU) 2018/841. The plan does not contain information on the above elements; nor does it clarify whether Latvia intends to make use of the flexibility foreseen in the effort sharing Regulation (EU) 2018/842 to use within certain limits net removals from the LULUCF sector for compliance with the greenhouse gas reduction target under the effort sharing regulation.

On **renewable energy**, Latvia **partially addressed** the recommendation to increase the level of ambition for 2030 to a renewable share of at least 50% as Latvia's contribution to the EU's 2030 target for renewable energy and put forward detailed and quantified policies and measures. Latvia has indeed revised the level of ambition to 50% for 2030. However, several measures, in particular in transport, are not clearly explained, and most of the policies put forward will be a continuation of the existing ones, which may not be sufficient to achieve the target for 2030.

⁷ https://em.gov.lv/lv/nozares_politika/nacionalais_energetikas_un_klimata_plans/

⁸ Commission Recommendation of 18 June 2019 on the draft integrated national energy and climate plan of Latvia covering the period 2021-2030, C/2019/4414.

On **energy efficiency**, Latvia **largely addressed** the recommendation to update and scale up its energy efficiency contribution to the EU 2030 target, including for policies and measures mostly targeting buildings and transport sectors. The contribution, even though increased in ambition, is still considered as modest. Latvia proposed new measures on energy efficiency and is stepping up efforts on the already existing measures (e.g. expanding its energy efficiency obligation scheme) to ensure that it can deliver its 2030 contribution. However, implementation of the measures will largely depend on the availability of funding that needs to be secured each year as part of the annual budgeting process. Latvia provided information on measures targeting the buildings in relation to elements of the long-term renovation strategy which has not been submitted yet.

On **energy security**, Latvia **partially addressed** the recommendation to specify the measures supporting the energy security objectives on diversification and reduction of energy dependency, including measures ensuring flexibility, and including an assessment of how proposed policies and measures ensure the achievement of the target to decrease energy dependency. The Commission also recommended that Latvia take into account the regional context when assessing resource adequacy in the electricity sector.

As regards the **internal energy market**, Latvia **partially addressed** the recommendation to define forward-looking objectives and targets concerning market integration, in particular measures to develop more competitive wholesale and retail markets. The plan notably presents targets and objectives for the rollout of smart meters for electricity. While some improvements were introduced, the final plan still lacks information on targets and a timeline for smart grids, demand response, flexibility, storage, consumer protection, distributed generation and competitively determined electricity prices, and real price signalling to develop more competitive markets. Latvia also stressed that it does not envisage to set other goals for integration of the retail electricity and gas market given the recently liberalised domestic electricity and gas markets.

On research, innovation and competitiveness, Latvia has not addressed the recommendation to clarify the national objectives and funding targets specifically related to the Energy Union to be achieved between 2020 and 2030, and to underpin such objectives with sufficiently specific and adequate policies and measures. Latvia revised downwards the overall research and innovation (R&I) target for 2030 from the 3% 'Lisbon target' to 2% in its final NECP. The new spending target for R&I is described as a 'desirable situation' and Latvia has not substantiated how the target of 2% will be underpinned by specific policy measures. The plan contains rough indications of how previous and indicative future spending break down, but the spending categories do not exactly follow the European strategic energy technology (SET) plan classification.

Latvia **largely addressed** the recommendation to reinforce **regional cooperation** between the Baltic countries (Estonia, Latvia and Lithuania) and to extend cooperation arrangements to new energy policy areas and broaden the geographic reach to include the Nordic countries (Denmark, Finland, Iceland, Norway and Sweden). Efforts were made notably in relation to strengthening the cooperation between the Baltic countries on developing policies in the transport sector.

Latvia **largely addressed** the recommendation to list actions undertaken and plans to **phase out energy subsidies**. Its final plan lists the energy subsidies, and the list appears to be in line with the identified figures in recent Commission analyses on energy subsidies.

Latvia **partially addressed** the recommendation to complement **analysis on air quality**. The final plan provides information on impacts on air pollution only for the energy and transport sectors. Information on complementary analysis of the interactions with air quality and air emissions policy is rather limited and the modelling results are not very clear.

Finally, Latvia **partially addressed** the recommendation to better integrate **just and fair transition aspects**, notably by providing more details on social, employment and skills impacts of the planned objectives and policies and measures, and include assessment of the situation regarding energy poverty, and targets for reducing and/or limiting energy poverty. The plan includes information on the impacts of planned policies and measures on jobs, whereas the assessment on the impact on social aspects is limited. Even though some assessment on energy poverty is included in the plan alongside the target to reduce the energy poverty by 2030, it is not supported by specific measures.

Links with the European Semester

In the context of the European Semester framework for the coordination of economic policies across the EU and of the country report 2019⁹, Latvia received one country-specific recommendation¹⁰ in relation to climate and energy, calling on it to 'focus investment-related economic policy on resource efficiency and energy efficiency, and energy interconnections'. In the 2020 country report¹¹ adopted on 20 February 2020, the Commission found that Latvia had achieved some progress on this recommendation.

Due to the COVID-19 crisis, the European Semester country-specific recommendations for 2020 addressed Member States' responses to the pandemic and made recommendations to foster economic recovery. In particular, the recommendations focused on the need to front-load mature public investment projects as soon as possible and promote private investment, including through relevant reforms, notably in the digital and green sectors. In this context, Latvia received a country-specific recommendation¹² stressing the importance of focusing investment on 'the green and digital transition, in particular on research and innovation, clean and efficient production and use of energy, sustainable transport and digital infrastructures'.

The Governance Regulation requires that Member States ensure that their national energy and climate plans take into consideration the latest country-specific recommendations issued in the context of the European Semester. Latvia's national energy and climate plan has the potential to support the implementation of the European Semester recommendations, as it identifies the necessary investment needs and the financial resources to meet them.

⁹ The Annex D to the 2019 Country report also sets out priority investments for the 2021-2027 cohesion policy, substantially contributing to the clean energy transition.

Recommendation for a Council Recommendation on the 2019 National Reform Programme of Latvia and delivering a Council opinion on the 2019 Stability Programme of Latvia, COM(2019) 514 final.
 Commission staff working document - Country Report Latvia 2020, SWD/2020/513 Final.

¹² Recommendation for a Council Recommendation on the 2020 National Reform Programme of Latvia and delivering a Council opinion on the 2020 Stability Programme of Latvia, COM(2020) 514 final.

3. Assessment of the ambition of objectives, targets and contributions and of the impact of supporting policies and measures

Decarbonisation

Latvia's binding 2030 **non-ETS greenhouse gas emission target** is -6% compared to 2005, which corresponds to a reduction of 8 Mt CO_2 eq compared to 2016. Latvia aims to achieve this target domestically.

Latvia projects that with the existing measures it will achieve the 2030 target (of -6%), whereas with additional measures it will overachieve (at -13%) its the emission reduction target. However, the plan does not describe the strategy for achieving its 2030 greenhouse gas emission targets and includes mainly general information that does not specify the planned policies and measures or their impact. Nor are the measures divided into the existing and planned categories. Therefore, it is not clear which set of measures gives the expected results to achieve the target.

In the final plan, Latvia increased its total national GHG emission reduction target to -65% by 2030 compared to 1990 (excluding LULUCF), which would amount to 9 Mt CO_2 eq.

Latvia does not provide information on the planned achievement of the LULUCF commitment, nor does it indicate whether it intends to use the flexibility from the LULUCF sector to the effort sharing sectors.

Latvia has set a target for emission reductions in the **transport sector** (total reduction of GHG by ≥ 6 by 2030 compared to 1990). The final plan notes that wider use of biogas (advanced biofuels) and biofuels (first generation and advanced biofuels) is intended for the transport sector, in addition to the railway electrification project considered in the baseline scenario. It is expected that GHG emissions in the transport sector would decrease by approximately 1 140 kt CO₂ eq. by 2030.

In addition, Latvia aims to facilitate faster uptake of electric vehicles, which would also have a positive impact on road transport by reducing PM2.5 emissions by around 13% by 2030. The NECP provides an estimation of GHG emission reductions in the **building** sector (135 kt CO2 eq. between 2017 and 2030). The plan refers to the renovation of residential and public buildings as the main driver for emissions reduction in the sector.

The plan considers **LULUCF** and **agriculture** and includes for the two sectors policies and measures on fertilizer an improved manure management, animal nutrition, improving the CO_2 sequestration of forest stands, afforestation, and increase of use of wood in construction. The plan, however, does not refer to the common agricultural policy. For **forestry**, the plan addresses synergies between mitigation and adaptation objectives and policies.

The plan recognises the country's vulnerability to climate change and the relevance of climate resilience for the achievement of mitigation objectives. The final NECP refers to the **2030 national climate adaptation plan** but does not include any adaptation measures for the period up to 2030.

Latvia notified its long-term strategy to the Commission on 20 February 2020. Latvia aims to achieve climate neutrality by 2050. This objective covers greenhouse gases emitted in all sectors of the economy; natural sinks will compensate for the remaining emissions most difficult to abate. The long-term strategy addresses many elements required by Article 15 of the Governance Regulation, some of them only partially.

Renewable energy

The national contribution to the 2030 EU renewable energy target is specified in the plan and the **renewable share** is set at 50% in gross final consumption of energy in 2030. This level is considered adequate since it is in line with the formula in Annex II to the Governance Regulation. Latvia might risk falling short of its 2030 contribution, if the speed of renewables deployment is not kept. Latvia provided an indicative trajectory for achieving its renewable energy contribution that reaches all the reference points under Article 4(a)(2) of Regulation (EU) 2018/1999. However, sectoral trajectories and quantities of technologies that would underpin the reference points and the progress towards fulfilling the overall renewable contribution are missing.

Latvia's energy and climate plan lacks concrete policy measures and instruments, quantified results and targeted actions. Overall, it is not clear how the proposed overall renewable contribution will be achieved by 2030. There are only a few specific measures which appear to be the continuation of existing measures without the necessary update and additional efforts to achieve the planned 2030 contribution. The sectors and subsectors are not covered by measures.

On **electricity**, Latvia aims to increase the share of electricity produced from renewable energy sources by 2030 to more than 60%. The policies and measures are considered sufficient to achieve the target.

Latvia aims to increase the share of renewable energy in **heating and cooling** to 57% by 2030 and asserts that it will implement a 0.55 percentage point average annual renewable share increase in heating and cooling. However, the proposed trajectory only amounts to a 0.42 pp. average annual increase in the share of renewables from 53.4% in 2020 to 57.59% in 2030. The plan aims to promote the use of renewables in industry and in district heating, and to promote local and individual cooling systems, with particular attention to zero-emission technologies. In addition, Latvia aims to: (i) upgrade the existing district heating infrastructure for the use of cooling in buildings; (ii) introduce the use of renewable energy in centralised cooling to ensure more efficient use of the heating system and technologies used; and (iii) improve the overall heating market. However, since these policies and measures lack necessary detail it is hard to assess whether they would result in the target being achieved.

On **transport**, Latvia plans to achieve a 7% share from renewable energy in 2030 by committing to reaching 3.5% with advanced biofuels, and by increasing the electrification of rail and through electromobility. Latvia has envisaged to reduce biofuels produced from food and feed stock after 2025. However, the plan does not provide detailed information on trajectories and measures, and it is not clear how these targets would be achieved. In addition, the plan does not clearly explain the contributions and applicable multipliers. Although the plan mentions a supplier obligation for mandatory biofuel blending obligation and use of biofuels in public transport, it is not clear how these measures will contribute to the advanced biofuel sub-target. The impacts of the measures and details on financing remains unclear.

Energy efficiency

Latvia's national contribution for **energy efficiency** in 2030 is 4.1 Mtoe for primary energy and 3.6 Mtoe for final energy.

The plan provides descriptive information on **policies and measures** beyond 2020, mostly targeting the building and transport sectors, but also the heating and cooling sector. The implementation of those measures will heavily depend on the available EU funding.

Latvia notified the **cumulative energy savings** of 1 760 ktoe (in line with the 0.8% annual energy savings rate from final energy consumption) to be achieved under Article 7 of the Energy Efficiency Directive¹³ for the period 2021-2030. Latvia aims to achieve the energy savings obligation via the extended energy efficiency obligation scheme (EEOS) and a wide range of alternative policy measures targeting the residential, industry and transport sectors, also via the use of taxation measures. These policies and measures seem sufficient to deliver the pledged ambition if the delivery of energy savings will be ensured in accordanace with the requirements of Article 7 of the Energy Efficiency Directive.

Regarding energy efficiency in **buildings**, Latvia plans to upgrade the energy performance of its whole residential building stock. The target envisaged (average consumption of up to 120 kWh/m²/year for heating in 2030) supported by specific renovation objectives (notably renovation of at least 2 000 multi-apartment buildings and at least 5 000 single family buildings by 2030) seems realistic. However, it would not be sufficient to decarbonise the building stock by 2050, and does not fully reflect the energy savings potential of the building sector in Latvia. The plan presents a number of policies and measures to support improvement of the energy performance of buildings (retrofitting, including installation of low carbon technologies) together with the installation of zero-emission renewable technologies or connection to district heating. These measures would need to be more detailed and complemented by other actions aimed at removing existing barriers to renovation and the uptake of energy performance contracting in the national long-term renovation strategy, not yet submitted.

Energy security

Latvia aims to increase security of supply mainly through the increase of renewables (including biofuels in the transport sector), the **diversification of energy resources** and supply routes but also through energy efficiency measures. In fact, Latvia aims to significantly increase the installed wind and solar technology capacity in view of diversification of energy sources. However, in the context of a growing share of renewables, Latvia does not provide detailed targets or objectives to increase flexibility of the system and to support the integration of more renewables into the electricity system.

Latvia identifies the need to develop a well-functioning legal framework for the implementation of **demand-response** services at regional level. While the plan envisages to establish a legal framework for the development of aggregators by 2022, it does not include any quantitative indicators apart from the timeline.

Latvia has set the target to reduce the **share of imports** in gross national energy consumption to 30-40% by 2030; imports may not be larger than 14.1 TWh by 2030.

The plan does not elaborate on **cybersecurity**. Overall, the planned policies and measures are considered not sufficiently elaborated in relation to the achievement of the objectives to provide a comprehensive framework for the energy security dimension.

Internal energy market

Latvia's final plan states the need to maintain the country's generation capacity, including from a growing share of renewables. The plan sets an **interconnectivity level** in electricity of at least 60% by 2030, which is well above the target set at EU level. Latvia identifies the need for further

¹³ Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency as amended by Directive (EU) 2018/2002.

reinforcements of the internal grid and cross-border interconnections. Latvia also plans to deepen the integration of the Baltic electricity system into the European electricity market, notably in view of achieving the synchronisation with the continental European network by 2025. Finally, Latvia aims to further develop offshore grid capacity in the Baltic Sea, including via cross-border renewable projects in the context of the Baltic Energy Market Interconnection Plan (BEMIP).

Latvia's final plan presents targets and objectives for the rollout of smart meters for electricity and includes a timeline for this. However, for gas smart meters it does not specify a target. The plan does not provide information on targets and timeline on several **retail market** issues, including smart grids, demand response, flexibility, storage, consumer protection, distributed generation and competitively determined electricity prices or real-price signals.

Latvia sets the objective to support the socially most vulnerable sections of society in order to mitigate the possible negative effects of electricity price increases. Latvia presents the current measures in place but does not specify a quantitative objective. In addition, Latvia sets an objective to reduce the share of households not able to heat their homes properly to less than 7.5% by 2030 (EU average is 8%). However, the current level in Latvia is already at 7.5%, which makes the objective unambitious. The plan does not provide sufficient detail on how to reach this objective or details on the measures to be put in place.

The plan illustrates ongoing efforts to assess potential measures and solutions addressing **energy poverty** that could be included in the updated plan in 2023. Latvia does not envisage any plans to set other goals for integration of the retail electricity and gas market given the recently liberalised domestic electricity and gas markets.

Research, innovation and competitiveness

In the final NECP, Latvia reduced its indicative research and innovation target from 3% to 2% of GDP by 2030 with an indicative sub-target of 25% for the decarbonisation objective. Even the lowered target of 2% is not underpinned by sufficiently specific policy measures. The plan contains some general innovation support measures and energy efficiency and renewable energy are envisaged to be the main priority areas for reserach and innovation. Most measures are expected to be supported from EU funds; no clear commitments are indicated with respect to state budget funding.

Latvia has set some indicative objectives for research, innovation and competitiveness dimension, which refer to target values for 2030 for specific areas¹⁴. At the same time, underpinning measures are not sufficiently developed. Existing sustainable, industrial and R&I policies do not explicitly target the development and deployment of clean technologies to achieve the modernisation, energy efficiency and decarbonisation objectives. On competitiveness, the stated goal is the ability to produce and sell demand-driven, knowledge-intensive products and services, with high added value. The actions in relation to research and innovation aim to: (i) strengthen the contribution of R&I to energy and climate objectives; (ii) prioritise targeted investments; and (iii) develop cooperation and coordination between science and industry for the

¹⁴ Share in turnover of innovative products (>14%); share of innovative enterprises (>40%); share of exports from high-tech sectors (>15%); positioning in Global Competitiveness Index (<40); R&I investment (>2% GDP); R&I in energy and climate objectives and public finance in research, innovation and development (\geq 25% of respective totals); foreign public funding for energy, climate and transport (\geq 25% of Latvian entities).

uptake and commercialisation of results. A reference is made to the need for increased crossborder cooperation, especially with Baltic and Nordic countries, to attract international partners and investors.

While concrete measures are currently lacking to ensure the above objectives are met, Latvia states that a more detailed follow-up action plan with measures to boost competitiveness will be included in the 2021-2027 national industrial policy guidelines.

In its final energy and climate plan, Latvia considers hydrogen as a 'future alternative fuel to replace petroleum products' in the transport sector. The plan includes, among the potential priority areas, innovative solutions for renewable technologies like the production and use of hydrogen, developing an action plan for the deployment of hydrogen infrastructure, while also taking actions to set up adequate market conditions.

It is stated in Latvia's plan that the country ranked 39th at the European Patent Office with only 6.2 patent applications per 1 million inhabitants. Between 2014 and 2017, 11 out of 63 patent applications from Latvian residents (17%) were registered in the field of smart energy and clean technologies. In addition, out of the total number of Latvian scientific staff, around 1 000, or 18%, of the total carry out work connected to research in the priority areas of the Energy Union, namely energy, construction, climate and environmental engineering. Energy researchers *stricto sensu* account for 8% of the total number of Latvian scientific staff.

Latvia participates to some extent in three strategic energy technology (SET) plan implementation working groups: (i) positive energy districts; (ii) energy systems; and (iii) energy efficiency in industry. Indicative funding to energy efficiency, renewable energy sources, smart energy systems and sustainable transport is expected to account for 93% of the total R&I investments for sustainable energy for 2021 to 2027. Latvia does not explain its activities and funds allocated under each implementation plan or how the strategic energy technologies (SET) plan contributes to achieving their national energy and climate objectives.

4. COHERENCE, POLICY INTERACTIONS AND INVESTMENTS

Overall, Latvia's final plan does not specifically address interactions between the different policy dimensions, although several policies and measures listed are likely to influence other dimensions.

The plan explores **synergies** between policies notably of the decarbonisation (GHG and renewable energy) and energy efficiency dimensions. Latvia aims to increase the security of supply mainly through increased deployment of renewable energy and through energy efficiency measures. For example, measures to improve energy efficiency in the buildings sector will aim at integrating renewable energy solutions to increase the overall energy performance of buildings. The final plan provides information on the planned investments needed to implement the policies and measures, amounting to EUR 8.2 billion from 2021 to 2030 (which corresponds to around 2.7% of GDP per year). The EU funding programmes will remain the main source of investment. Almost all areas of investments are covered in line with the Annex D to the European Semester Report 2019: energy efficiency of buildings, investments in the development of new regional central heating networks, promoting the use of renewable technologies, modernisation of infrastructure, sustainable transport i.e. reducing GHG emissions, improving the efficiency of waste and waste water management.

A description of existing **energy subsidies** is provided and is based on internationally used definitions. Reference is made to the categories of energy subsidies identified by the European

Commission: (i) exceptions, credits and reductions of tax expenses; (ii) direct transfers in the form of grants, dotations, soft loans; and (iii) indirect transfers (capacity mechanisms).

The final plan lacks analysis of the interactions with **air quality** and air emissions policy and presenting impacts of policies and measures on air pollution. It is projected in the target scenario that emissions of fine particulate matter (PM2.5) in the energy sector will decrease in 2030 by about 7.5% compared to 2016, mainly due to energy efficiency measures. The use of wind power would allow reducing emissions by 3% by 2030. However, the plan lacks more general projections of air pollutants and explanations on the methodology used.

The final plan provides further detail on planned specific actions in relation to **circular economy** with a view to contributing to a reduction in GHG emissions. These include listing citizen engagement actions and educating the public on the environmental impact of products. Further quantification efforts would be welcome in future NECP iterations, in line with the most recent scientific evidence.

The plan does not cover **biodiversity**, the role of ecosystem services for mitigation and adaptation or the potential trade-offs with climate and energy policies. It lacks analysis on the interactions between climate and energy policies, especially in relation to **bioenergy** and the sustainable supply of biomass, and the impact on LULUCF.

Latvia has committed to applying the 'energy efficiency first' principle before taking any investment or policy decisions having energy-related impacts including in relation to EU funds and taxation. The Ministry of Economics aims to develop operational guidelines for cost-benefit analysis assessments by 2022. The application of the 'energy efficiency first' principle is recognised as an important element that will allow reaping energy saving potential in other sectors such as transport and agriculture if implemented in practice.

The NECP does not consider how **climate change risks** might affect some aspects of energy supply (e.g. wildfires and storms destroying power networks, availability of hydro power). Information is also lacking on adaptation co-benefits for energy efficiency, such as in the thermal management of buildings.

Latvia included in its final plan a section on the impact of planned policies and measures on employment; however, the assessment on the impact on social aspects is limited. Overall, the implementation of energy efficiency and renewable policies can lead to an average of up to 4 600 new jobs by 2030 and around 6 100 indirect jobs by 2030. The final version of the plan fully complies with **data transparency** requirements and with the use of European statistics.

5. GUIDANCE ON THE IMPLEMENTATION OF THE NATIONAL ENERGY AND CLIMATE PLAN AND THE LINK TO THE RECOVERY FROM THE COVID-19 CRISIS

Latvia needs to swiftly proceed with implementing its final integrated national energy and climate plan, notified to the Commission on 3 February 2020. This section provides some guidance to Latvia for the implementation phase.

This section also addresses the link between the final plan and the recovery efforts from after the COVID-19 crisis, by pointing at possible priority climate and energy policy measures Latvia

could consider when developing its national recovery and resilience plan in the context of the Recovery and Resilience Facility¹⁵.

Guidance on the implementation of the national energy and climate plan

In the plan, Latvia confirms the non-ETS 2030 target for a -6% reduction in **greenhouse gas emissions** compared to 2005, in line with the Effort Sharing Regulation. The plan projects that Latvia will achieve this target by implementing the existing measures.

The Latvian contribution to the EU 2030 renewables target is sufficiently ambitious when compared to the share resulting from the formula in Annex II to the Governance Regulation. In contrast, the Latvian contribution to the 2030 energy efficiency target is assessed as modest. Latvia's plan therefore leaves scope to further develop and strengthen policies and measures on both renewables and energy efficiency, so as to contribute more to the EU climate and energy targets and strengthen the green transition.

On **renewables**, Latvia is committed to increasing the share of renewables in gross final energy consumption to 50% by 2030. It might risk falling short of its 2030 contribution, if the speed of renewables deployment is not kept. Latvia would therefore benefit from setting specific policies and measures and exploring additional resources that can be mobilised to achieve its renewable objectives. Economically sustainable support schemes and putting in place well-designed measures in electricity, heating and transport would be especially important. Specific attention is needed for transport in order for it to face the challenge of electromobility, achieve a rapid switch to renewables in the various modes of transport and build the capacity for advanced biofuels. Implementation capacities would be strengthened by exploring the right enabling framework for renewable self-consumption and energy communities and for simplified administrative and regulatory arrangements. The increase of renewables in the heating sector could be facilitated by more focus on the link between modernising heating systems and building renovation and by harnessing local renewable sources other than biomass, such as ambient, geothermal and solar heat. Latvia would also benefit considerably from continued active cooperation at regional level on offshore wind power development¹⁶, electromobility, advanced biofuels and other renewable areas, and effective use of EU funds. The sustainable use of biomass and its actual impacts on carbon sinks and biodiversity would require continued vigilance due to the high share of biomass in the energy sector.

As regards **energy efficiency**, Latvia would benefit from introducing additional policies and measures to deliver additional energy savings by 2030 given its high untapped energy savings potential, especially in transport, buildings and industry. To achieve a higher impact, those

¹⁵ On 17 September 2020, the Commission has put forward the Annual Sustainable Growth Strategy 2021 (COM(2020) 575 final), as well as guidance intended to help Member States prepare and present their recovery and resilience plans in a coherent way, without prejudice to the negotiations on the proposal for a Regulation on the Recovery and Resilience Facility in the European Parliament and the Council (Commission Staff Working Document. Guidance to Member States – Recovery and resilience plans, SWD (2020) 205 final).

¹⁶ In this context, the Commission will help address related issues in a strategic manner in its upcoming Strategy for Offshore Renewable Energy by identifying key actions in the area of maritime planning, upscaling technologies, and a new approach to infrastructure planning and offshore renewables capacity building.

measures could build on the existing policies and instruments which had proved successful so far, namely buildings renovation programmes and energy efficiency measures in industry. The planned extension of the energy efficiency obligation scheme to possibly cover thermal energy suppliers and suppliers of motor and heating fuel in the 2021-2030 period could be a cost-effective way of achieving the required energy savings under Article 7 of the Energy Efficiency Directive and of delivering multiple benefits to customers.

Improving energy efficiency in buildings has much potential for speeding up energy savings and contributing to the recovery of the economy after the COVID-19 pandemic. Building on the momentum of the '**renovation wave'** initiative¹⁷, there is scope for Latvia to intensify efforts to improve the energy performance of the existing building stock with well-designed measures, targets and action, while giving due attention to energy poverty. Further support for the renovation of public and private buildings could be provided through increased public funding and by leveraging EU and national budgets with private investments, combining grants, lending, guarantees and loan subsidies. To this end, the ELENA technical assistance facility under the Invest EU initiative could be a useful tool in preparing the projects. Latvia is expected to provide a robust and comprehensive long-term renovation strategy, in accordance with Article 2a of the Energy Performance of Buildings Directive. The long-term renovation strategy is required to set out a roadmap for decarbonisation by 2050 with ambitious renovation milestones for 2030, 2040 and 2050, measurable progress indicators, expected energy and wider benefits, measures and actions to renovate the building stock, and a solid finance component with mechanisms for mobilising public and private investment.

Further measures supporting the **energy security** objectives, for example to ensure system resilience and flexibility and to preserve and strengthen cybersecurity, would be important for Latvia's energy sector. Latvia is encouraged to concentrate on the swift implementation of all investments and measures required for synchronisation with the European continental grid, together with Lithuania and Estonia. In the context of significant increases in renewable electricity generation, more detailed consideration and measures on generation adequacy from a regional perspective may be necessary.

As regards the **internal market**, Latvia would benefit from strengthening the monitoring and analysis of retail market competitiveness, in anticipation of a fully functioning competitive electricity market. This can be achieved notably by: (i) developing and establishing a mechanism to track evolution and actual progress; and (ii) introducing potential remedies. It is of great importance to take action to support further development of the retail electricity market and foster competition using concrete targets/timelines, and to implement tangible measures to digitise the energy system and empower consumers. This includes measures on enabling system flexibility, demand response, storage, real-time price signals, consumer protection, energy communities and the non-discriminatory participation of renewable energy, as well as measureable indicators to assess related progress.

Latvia would benefit from developing targeted national energy-related policies and measures in **research**, **innovation and competitiveness**. This would help it achieve the national objective of

¹⁷ Communication 'A Renovation Wave for Europe – greening our buildings, creating jobs, improving lives', COM(2020)662 and SWD(2020)550.

total research and innovation spending of 2% of GDP by 2030 and the objectives of the European Green Deal. Dedicated regulatory measures are necessary to unlock private research and innovation activities over the next decade.

For all investments implementing the national energy and climate plan, Latvia is invited to ensure these are in line with national, regional or local plans for **air pollution** reduction, such as the National Air Pollution Control Programme (NAPCP), and relevant air quality management plans.

Latvia estimates that between 2021 and 2030, approximately EUR 8.2 billion in **investments will be needed** to implement the policies and measures in the national energy and climate plan, corresponding to about 2.7% of GDP per year. EU funding programmes are expected to be the main source of investment. By sector, investment needs are assessed at: EUR 1.7 billion for energy efficiency in buildings; EUR 1.6 billion for energy efficiency and deployment of renewables in district heating and cooling; EUR 1 billion each for decarbonisation of the energy sector and for sustainable transport; and EUR 0.8 billion for energy infrastructure. In order to attain its energy and climate objectives, Latvia needs to focus investments along these priorities.

Latvia is invited to continue ongoing efforts on **regional cooperation**, notably with the other countries of the Baltic Sea region, with a view to intensifying exchanges and initiatives that will facilitate implementation of its national energy and climate plan, in particular as regards relevant cross-border issues, including those in the context of the BEMIP High-Level Group. Latvia is also invited to better exploit the potential of **multilevel climate and energy dialogues** to actively engage with regional and local authorities, social partners, civil society organisations, the business community, investors and other relevant stakeholders and to discuss with them the different scenarios envisaged for its energy and climate policies.

Latvia could also benefit from more rigorous analysis of **just and fair transition** aspects, particularly by developing a more comprehensive assessment of the social, employment and skills impacts of the objectives, policies and measures in its plan.

Given the relatively high number of households at risk of **energy poverty** in Latvia, it will be important to continue carefully monitoring the evolution of energy poverty and to develop targeted policies and measures. Latvia is encouraged to consult the Commission Recommendation of 14 October 2020 on energy poverty and its accompanying staff working document providing guidance on the definition and quantification of the number of households in energy poverty and on the EU-level support available to Member States' energy poverty policies and measures. The momentum provided by the 'Renovation Wave' initiative is an opportunity to intensify efforts to tackle energy poverty by improving the energy performance of the existing building stock through dedicated measures in this area. Energy poverty could also be addressed through specific support to socially innovative solutions and social enterprises that work on addressing this challenge (e.g. energy-awareness campaigns, retraining unemployed as energy advisors, supporting green installations by social cooperatives, buying energy-saving appliances for social enterprises to rent out).

Latvia is invited to extend and update reporting on **energy subsidies** and continue implementing concrete measures for phasing out subsidies by 2030, in particular for fossil fuels. The green transition in Latvia would receive a more effective boost from rapid phase-out of the fossil fuel subsidies identified in the NECP and recent Commission analyses. This would involve further

development and implementation of concrete plans with associated timelines, coupled with measures to mitigate the risk of households' energy poverty.

For all investments implementing the national energy and climate plan, Latvia is invited to ensure these are in line with national, regional or local plans for **air pollution reduction**, such as the National Air Pollution Control Programme (NAPCP), and relevant air quality management plans.

In implementing its plan, Latvia is invited to make the **best possible use of the various funding sources available**, combining scaled-up public financing at all levels (national and local, as well as EU funding) and leveraging and crowding in private financing. Tables 1 and 2 in Annex I provide an overview of EU funding sources which should be available to Latvia during the forthcoming multiannual financing period (2021-2027) and EU funding addressed to all Member States and companies. For the forthcoming period, the European Council has committed to the mainstreaming of climate action into all EU programmes and instruments and to an overall target of at least 30% of EU funding to support climate objectives. At the same time, EU expenditure should be consistent with the Paris Agreement and the 'do no harm' principle of the European Green Deal. At EU level, funding will be available for Latvia from the Innovation Fund and the Modernisation Fund, and will also be based on revenues from the auctioning of allowances under the EU emissions trading system.

Link to the recovery from the COVID-19 crisis

The vast majority of Member States' final national energy and climate plans were drafted before the COVID-19 crisis, and the present Staff Working Document assesses Latvia's plan in that context. Nevertheless, the implementation of Latvia's final integrated national energy and climate plan will need to fully take into account the context of the post-COVID-19 recovery.

In the context of the Recovery and Resilience Facility, which is expected to be operational on 1 January 2021, **the final plan constitutes a strong basis for Latvia to design climate and energy-related aspects of its national recovery and resilience plan**, and to deliver on broader European Green Deal objectives.

In particular, **mature investment projects outlined in the plan, as well as key enabling reforms that address inter alia, investment-barriers, should be frontloaded as much as possible**. The link between investments and reforms is of particular relevance for the national recovery and resilience plans, to ensure a recovery in the short to medium term and strengthening resilience in the longer term. In particular, Member States' recovery and resilience plans should effectively address the policy challenges set out in the country-specific recommendations adopted by the Council.

In addition, **the Commission strongly encourages Member States to include in their recovery and resilience plans investment and reforms in a number of 'flagship' areas**¹⁸. In particular, the 'Power up', 'Renovate' and 'Recharge and refuel' flagships are directly related to energy and climate action and to the contents of the final national energy and climate plans. Measures under the 'Reskill and upskill' flagship are also essential to foster the climate and energy transition in all Member States.

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Cf. Annual Sustainable Growth Strategy 2021 (COM(2020) 575 final), pp. 9-12.

In turn, the Recovery and Resilience Facility will provide opportunities to accelerate Latvia's green transition while contributing to economic recovery. In order to follow the commitment of the European Council to achieve a climate mainstreaming target of 30% for both the multiannual framework and Next Generation EU, Latvia's recovery and resilience plan will have to include a minimum of 37% expenditure related to climate. Reforms and investments should effectively address the policy challenges set out in the country-specific recommendations of the European Semester, and will have to respect the principle of 'do no harm'.

Based on Latvia's final national energy and climate plan, and on the investment and reform priorities identified for Latvia in the European Semester, the Commission services invite Latvia to consider, while developing its national recovery and resilience plan, the following climate and energy-related investment and reform measures:

- Measures accelerating the deep renovation of buildings and improving energy efficiency in the industry as well as in the heating and cooling sectors;
- Measures improving energy efficiency and renewable energy use in transport, including by developing the infrastructure for electric mobility, and supporting a modal shift; measures to complete Rail Baltica;
- Measures supporting the further deployment and integration of renewable energy, including promoting the use of renewables in buildings; measures to phase out fossil fuel tax advantages, and aligning heating tariffs and car taxation with emission intensity; in cooperation with other concerned Member States, investments and related measures required for the synchronisation with the European continental grid by 2025.

The above mentioned measures are indicative in nature and not meant to be exhaustive. They aim to orient reflections in the development of the national recovery and resilience plan. They do not prejudge the position of the Commission on the actions to be proposed. This position will, inter alia, need to comply with the agreed legislative text on the Recovery and Resilience Facility.

ANNEX I: POTENTIAL FUNDING FROM EU SOURCES TO LATVIA, 2021-2027

Table 1:EU funds available, 2021-2027: commitments, EUR billion

Programme	Amount	Comments
Cohesion policy funds (ERDF, ESF+, Cohesion Fund)	4.3	In current prices. Includes funding for European territorial cooperation (ETC). Does not include amounts transferred to the Connecting Europe Facility.
Common agricultural policy – European Agricultural Fund for Rural Development, and direct payments from the European Agricultural Guarantee Fund.	3.3	In current prices.
Recovery and Resilience Facility	1.9	In 2018 prices. Indicative grants envelope, sum of 2021- 2022 and estimated 2023 commitments. Based on the Commission's summer 2020 GDP forecasts.
Just Transition Fund	0.2	In 2018 prices. Commitments both under the multi-annual financial framework (MFF) and Next Generation EU.
Modernisation Fund	0.1	Approximation: 7/10 of the allocations of ETS allowances to provide revenue to the Modernisation Fund tentatively allocated to Member States for 2021-2030 and assuming a carbon price of EUR 20 per tonne.
ETS auction revenue	0.04	Indicative: average of actual 2018 and 2019 auction revenues. The amounts in 2021 to 2027 will depend on the quantity and price of auctioned allowances.

Programme	Amount	Comments
Horizon Europe	91.0	In current prices. Includes Next Generation EU credits.
InvestEU	9.1	In current prices. Commitments both under the multi-annual financial framework (MFF) and Next Generation EU. Includes the InvestEU fund (budgetary guarantee to public and private investment) and the advisory hub (technical advice). Does not consider appropriations available to beneficiaries through implementing partners, such as the European Investment Bank.
Connecting Europe Facility Transport Energy 	24.1 5.8	In current prices. The commitment for transport includes the contribution transferred from the Cohesion Fund. Excludes Connecting Europea Facility Military Mobility funding for dual use infrastructure.
Recovery and Resilience Facility	360.0	In 2018 prices. Non-allocated commitments for loans. Loans for each Member State will not exceed 6.8% of its gross national income.
Technical Support Instrument	0.9	In current prices.
Programme for Environment and Climate Action (LIFE)	5.4	In current prices.
European Agricultural Fund for Rural Development	8.2	In current prices. Commitments under Next Generation EU.
Innovation Fund	140.0	Approximation: 7/10 of the allocations of ETS allowances to provide revenue to the Innovation Fund for 2021-2030 and assuming a carbon price of EUR 20 per tonne.

Table 2:EU funds available to all Member States, 2021-2027, EUR billion

Note to both tables

The figures provided by programmes under the EU budget include both the proposals under the forthcoming multiannual financial framework, and the reinforcement of these under the Next Generation EU instrument outside the EU budget.

The figures quoted in this document are based on the conclusions of the European Council of 17-21 July 2020. They however do not prejudge the outcome of the ongoing discussions between the European Parliament and the Council on the elements of the recovery package, such as the Multiannual Financial Framework, the sectoral programmes, their structure and budgetary envelopes, which will be concluded in accordance with their respective adoption procedure.

For most of the above funds, support to the climate and energy transition is one objective among others. However, for the forthcoming period, the European Council has committed to the mainstreaming of climate action into all EU programmes and instruments and to an overall target of at least 30% of EU funding to support climate objectives. EU expenditure should also be consistent with the Paris Agreement and the 'do no harm' principle of the European Green Deal.

Some of the programmes listed in Table 2 provide funding through open calls to companies, not public administrations.

ANNEX II – DETAILED ASSESSMENT OF HOW COMMISSION RECOMMENDATIONS HAVE BEEN ADDRESSED

Recommendations		Assessment	
Decarbonisation – GHG	Develop further its strategy for achieving its 2030 greenhouse gas target for sectors not covered by the EU emissions trading system of -6% compared to 2005. This includes further defining the necessary steps for implementing the described policies and analysing the role of the Land Use, Land Use Change and Forestry sector based on the accounting rules under Regulation (EU) 2018/841 of the European Parliament and of the Council.	Not addressed	Latvia did not provide information on developing further its strategy for achieving its 2030 greenhouse gas target for sectors not covered by the EU emissions trading system. The plan does not contain the necessary steps for implementing the described policies and analysing the role of the land use, land use change and forestry sector. The plan does not clarify whether Latvia intends to make use of LULUCF flexibilities.
Decarbonisation - renewables	Significantly increase the level of ambition for 2030 to a renewable share of at least 50% as Latvia's contribution to the Union's 2030 target for renewable energy, as indicated by the formula in Annex II under Regulation (EU) 2018/1999.	Fully addressed	Latvia increased the ambition level for renewable energy to 50% by 2050.
	Include an indicative trajectory in the final integrated national energy and climate plan that reaches all the reference points pursuant to Article 4(a)(2) of Regulation (EU) 2018/1999 in accordance with that share, in view of the need to increase the level of efforts for reaching this target collectively.	Partially addressed	Latvia provided an indicative trajectory for achieving its 2030 renewable contribution that reaches all the reference points pursuant to Article $4(a)(2)$ of Regulation (EU) 2018/1999. However, sectoral trajectories and quantities of technologies that would underpin the reference points and the progress towards fulfilling the overall renewable contribution are lacking.

	Put forward detailed and quantified policies and measures that are in line with the obligations laid down in Directive (EU) 2018/2001 and enable a timely and cost-effective achievement of this contribution.	Partially addressed	Latvia details many policy intentions and desired types of actions. However, the description is general and lacks concrete policy measures and instruments, quantified results and actors. Specific renewable measures are few and appear to be the continuation of existing measures without the necessary update and the additional efforts, which would be needed to achieve the planned 2030 contribution. The sectors and subsectors are not sufficiently covered by specific measures. Overall, the measures included in the plan are mostly existing measures and as such may be insufficient to reach the 2030 planned contribution level of 50%.
	Put forward detailed measures to meet the indicative target in the heating and cooling sector included, in Article 23 of Directive (EU) 2018/2001 and the transport target in Article 25 of Directive (EU) 2018/2001.	Not addressed	Latvia asserts that it will implement a 0.55 percentage point average annual renewable share increase in heating and cooling. However, the proposed trajectory only amounts to a 0.42 pp. increase from 53.4% in 2020 to 57.59% in 2030.
	Provide more details on the enabling frameworks for renewable self-consumption and renewable energy communities with measures, in line with Articles 21 and 22 of Directive (EU) 2018/2001.	Not addressed	Latvia affirms the need to increase the share of self- consumers and provide them with an enabling framework. However, it is not clear how this would be done. Information on an enabling framework for renewable energy communities is also lacking.
Energy efficiency	As regards energy efficiency, increase the level of ambition, especially towards reducing primary energy consumption. Support it with policies and measures that would deliver additional energy savings in order to reach the Union's 2030 energy efficiency target.	Largely addressed	Latvia increased the ambition level for primary energy consumption but did not change its final energy consumption contribution. The policy measures seem to be comprehensive and appropriate to deliver the energy efficiency ambition, provided there will be available funding.
	Provide more detailed description of the planned policies, in particular in buildings and transport sector as well as concrete estimates of energy savings of existing and planned policy measures by 2030 and timelines for accompanying investments.	Partially addressed	Annex 4 contains a comprehensive overview of policies targeting different sectors, notably buildings and transport, but fails to provide the impacts and investment amounts allocated per policy measure (except for a few) and it is therefore hard to assess the impact of those measures. The information provided on the renovation of the building stock is much improved and will be further specified in the national long-term renovation strategy which has not been submitted yet.

Energy security	Specify the measures supporting the energy security objectives on diversification and reduction of energy dependency, including measures ensuring flexibility, including an assessment of how proposed policies and measures ensure the achievement of the target to decrease energy dependency. Take into account the regional context when assessing the resource adequacy in the electricity sector.	Partially addressed	Most of the policies and measures in the plan are of a general nature, with no specific timeline. Latvia did not fully address the Commission recommendation to design measures to develop more competitive retail markets, and did not assess how measures ensuring flexibility will impact energy security.
Internal energy market	Define forward-looking objectives and targets concerning market integration, in particular measures to develop more competitive wholesale and retail markets.	Partially addressed	Latvia sets an interconnectivity level of at least 60 % by 2030, and also presents targets and objectives for the rollout of smart meters for electricity with a timeline. However, it does not specify a target for gas smart meters. Latvia also does not plan to set other goals for the integration of the retail electricity and gas markets given the recently liberalised domestic electricity and gas markets.
Research, innovation and competitiveness	Clarify the national objectives and funding targets in research, innovation and competitiveness, specifically related to the Energy Union, to be achieved between 2020 and 2030, so that they are readily measurable and fit for purpose to support the implementation of targets in the other dimensions of the integrated national energy and climate.	Not addressed	Latvia revised downwards the overall R&I target for 2030 from 3% to 2% in the final NECP. The new spending target for R&I – 2% from GDP – is described as a 'desirable situation'. 25% or more of indicative R&I investments in 2030 are expected to be in the field of low carbon technologies.
	Underpin such objectives with specific and adequate policies and measures, including those to be developed in cooperation with other Member States, such as the Strategic Energy Technology Plan.	Not addressed	The R&I target of 2% is not underpinned by sufficiently specific policy measures and binding commitments. There are a number of general R&I fostering programmes, mostly financed from EU funds. The Latvian authorities refer to the possibility of creating a Latvian innovation and technology support fund. Non-budgetary measures (e.g. regulation) to unlock private R&I are not detailed. In Latvia, most of low carbon R&I spending is public.
Investments and funding sources	No recommendation	n/a	-
Regional cooperation	Intensify the good regional cooperation arrangements between Baltic countries (Estonia, Latvia and Lithuania); extend them to new areas and broaden the geographic reach to include the	Largely addressed	Latvia intends to strengthen cooperation between the Baltic countries on developing policies in the transport sector. Agricultural and forestry activities are also mentioned but are

	Nordic countries (Denmark, Finland, Iceland, Norway and Sweden). The focus of the regional exchanges should be on internal energy market and energy security areas, in view of the changes in the electricity systems accommodating higher shares of renewable electricity, which will increase electricity import/export and enhance the need for system flexibility, as well as the decarbonisation of the transport sector and regional cooperation in research.		not described in detail. Latvia aims to continue cooperation under the Regional Gas Market Coordination Group and the Baltic Energy Market Interconnection Plan (BEMIP), in particular to develop offshore wind power capacities in the Baltic Sea.
Energy subsidies	List all energy subsidies.	Largely addressed	The final NECP provides further information on energy subsidies, including describing and indicating figures on seven environment or energy taxes where relief/exemption from payment of these taxes or different tax rates are used. The final plan provides information on taxes and duty
			expenses for fossil fuels.
	List actions and plans to phase out energy subsidies, in particular for fossil fuels.	Largery addressed	Actions and plans to phase out fossil energy subsidies are described in the plan in the section on greening taxes. The final plan indicates that tax breaks for fossil fuels would no longer be applied by 2030.
Air quality	Complement the analysis of the interactions with air quality and air emissions policy, presenting the impacts on air pollution for the various scenarios, providing underpinning information, and considering synergies and trade-off effects.	Partially addressed	The NECP refers to the 2019-2030 action plan for the reduction of air pollution (adopted in April 2020). The interactions between both documents are not clearly explained.
			Impacts on air pollution for the various scenarios are presented only for the energy and transport sectors. Information on complementing analysis of the interactions with air quality and air emissions policy is rather poor. Presented modelling results are unclear. There is insufficient information on how the synergies and trade-off effects will be considered.

Just transition	Integrate just and fair transition aspects better, notably by		Latvia has assessed the impact of policies and measures on
and energy	providing more details on social, employment and skills		employment, but the analysis is not sufficiently
poverty	impacts of planned objectives, and policies and measures.		comprehensive. Social analysis is limited to energy poverty,
	Include an assessment of the situation regarding energy		while the impact on skills has not been analysed. The role of
	poverty, and targets for reducing and/or limiting energy		social dialogue is not covered.
	poverty together with policies and measures as required by		
	Regulation (EU) 2018/1999.		
	Include an assessment of the situation regarding energy	Partially addressed	Some assessment on energy poverty is included in the plan
	poverty, and targets for reducing and/or limiting energy		alongside the target to reduce the households at risk of
	poverty together with policies and measures as required by		energy poverty by 2030, but it is not supported by concrete
	Regulation (EU) 2018/1999.		measures.