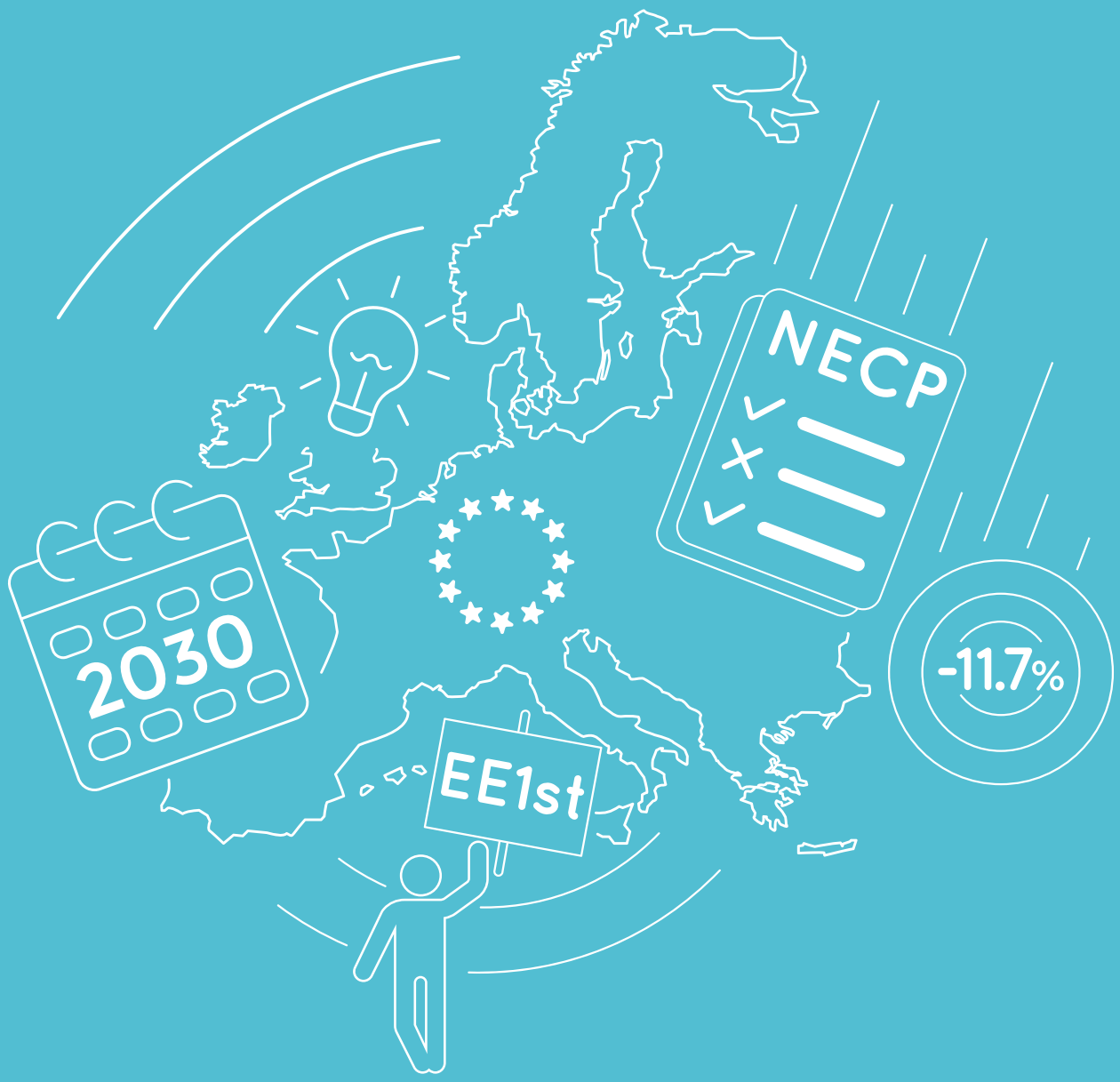

Planning for the 2023 EED:

Are EU countries up to the task?

The Coalition for ENERGY SAVINGS

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Are EU countries up to the task?

October 2023

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The Coalition for Energy Savings

The Coalition for Energy Savings strives to make energy efficiency and savings the first consideration of energy policies and the driving force towards a secure, sustainable and competitive European Union. Its membership unites businesses, local authorities, energy agencies, energy communities and civil society organisations in pursuit of this goal.

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Introduction

With only seven years to achieve the new 2030 EU energy efficiency target, national measures to implement the Energy Efficiency Directive (EED) must be put in place without delay to accelerate energy saving actions across sectors.

While the 2023 EED has just entered into force and Member States must transpose the new requirements into national law by October 2025, they should have already started designing additional measures to start implementing the EED in the draft update of their National Energy and Climate Plans (NECPs).

Regrettably, at the time of writing this report, three months after the 30th June 2023 deadline, twelve Member States have still not published their draft NECP updates (see Figure 1), showing a considerable delay in the planning of the required national measures to ensure the EU is on track towards its 2030 climate and energy goals.

This report thoroughly assesses whether the submitted[1] draft NECP updates correctly reflect the new provisions of the 2023 EED, particularly its Article 3 (energy efficiency first principle), Article 4 (Energy efficiency targets), Article 5 (public sector leading on energy efficiency), Article 6 (exemplary role of public bodies' buildings) and Article 8 (Energy Savings Obligation).[2] **It finds that no draft NECP update, out of the fifteen submitted, is fully compliant with the new requirements.**

The draft updates of the NECPs are, however, only the first step in the planning process. Final updates are due at the end of June 2024. EU countries still have time to make their plans more robust and, as a minimum, fully compliant with the new obligations of the EED, also taking into account the Commission's country-specific recommendations.[3]

Aligning with the 2023 EED objectives and the Governance Regulation is what is legally required for Member States, but the cost-effective energy savings potential is significantly higher across countries and sectors.[4] Tapping into this potential through ambitious NECPs would deliver even greater benefits for the EU society, including mitigation of climate change, resilience to volatile energy prices and improved energy independence.

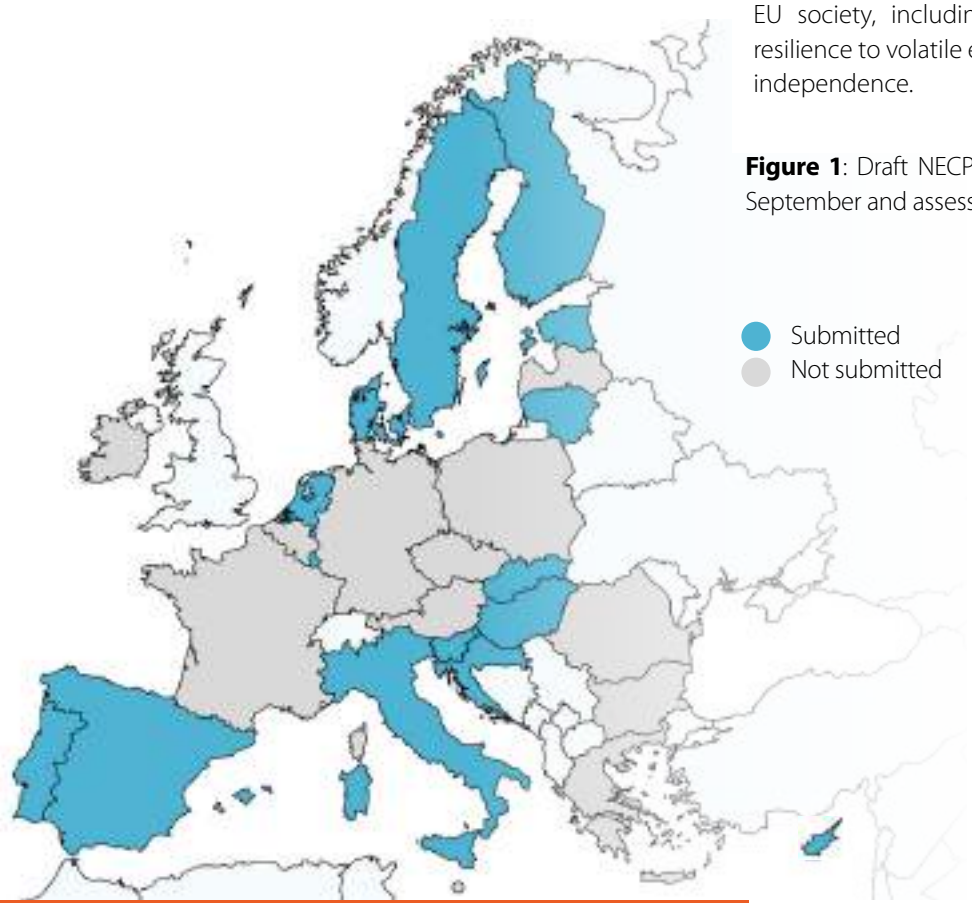


Figure 1: Draft NECP updates submitted on the 30th of September and assessed by this report

[1] This briefing analyses the draft NECP updates that were available on the European Commission's website on the 30th of September 2023 (Malta published its draft NECP update after the 30th of September).

[2] The 2023 EED is broader than the articles covered by this briefing; those articles are not in the focus of the Coalition for Energy Savings' work.

[3] The European Commission must issue country-specific recommendations to Member States on their draft NECP update by 30 December 2023 (Governance Regulation, Article 9).

[4] See Eichhammer, Scheuer, 2022. Assessing the impact of high energy prices on the economic potentials for energy savings in the EU.

2

Methodology for scoring and checking compliance

This report assesses how the new requirements of the 2023 EED, notably Article 3 (energy efficiency first principle), Article 4 (Energy efficiency targets), Article 5 (public sector leading on energy efficiency), Article 6 (exemplary role of public bodies' buildings) and Article 8 (Energy Savings Obligation) are reflected in the draft updates of the NECPs. The Governance Regulation also sets EED related planning obligations for example in relation to the renovation requirement for public buildings and the Energy Savings Obligation (ESO); these are also covered by this analysis.[5]

For every key requirement under each article, our assessment assigns a grading that is linked to a scoring system:

- **"not updated" is graded 0 points** (when the new requirements of the 2023 EED are not considered or reflected);
- **"insufficient" is graded 1 point** (when the section of the draft plan takes into account the new EED requirements, but with missing elements or not to the right level of ambition);
- **"compliant" is scored 2 points** (when the section of the draft plan is aligned with the requirements of the new EED and of the EED-related elements of the Governance Regulation).

[5] For a detailed explanation of the elements of the Governance Regulation that must be included in the draft NECP updates, read the Coalition for Energy Savings report The new 2023 Energy Efficiency Directive: Guidance and recommendations for national planning and implementation.

For the purpose of the grading, all the requirements are equally weighted, except the setting of i) the national energy efficiency contributions to meet the EU 2030 energy efficiency target of 11.7% (2023 EED Article 4.2) and ii) the annual end-use energy savings objective under the ESO (2023 EED Article 8.1). **As these provisions are the cornerstone of the EED and are crucial for the ambition of the energy efficiency framework as a whole, they have been weighted more (by a factor 3 and factor 2 respectively).**

The scoring system described above is used to evaluate compliance of the draft NECP updates with the new EED requirements. It is used to assess compliance with the planning obligations of the selected EED articles (see chapter 4) and to judge the overall compliance of each plan with the new EED (see chapter 3) through an aggregation of the article-by-article evaluation. For the aggregated assessment, the draft NECP updates are evaluated as follows:

- **Not updated** (score 0): The draft update of the NECP does not integrate the new 2023 EED requirements and/or still refers to the objectives and measures described in the 2019 NECP.
- **Partially updated** (score ranging from 1-9): The draft update of the NECP does not integrate all the new 2023 EED obligations, and when it does, the ambition of the new provisions is lower than required.
- **Updated but insufficient** (score ranging from 10-16): The new 2023 EED is mostly taken into consideration in the draft updated plan, but there are key elements missing, or the objectives and measures indicated are still insufficient to meet the new requirements.
- **Almost compliant** (score ranging from 17-29): The requirements of the new 2023 EED are taken into account in the draft update of the NECP, but there are still a few gaps or missing elements for certain provisions.
- **Compliant** (score ranging from 30-32): The draft update of the NECP is compliant with and correctly reflects the requirements of the new 2023 EED.

3

An evaluation of the draft NECP updates from an energy efficiency perspective

By the 30th of September 2023, only fifteen Member States submitted the draft updates of their NECPs; among the draft plans, there is a large discrepancy in how the new provisions of the 2023 EED are integrated.

In general, the new requirements of the revised 2023 EED on the EU energy efficiency target and the ESO are those that are better integrated in the draft NECP updates. On the contrary, Member States generally fail to include and correctly quantify the new public sector objective, only pay lip service to the energy efficiency first (EE1st) principle and are very timid when it comes to expanding the scope of the public buildings' renovation provision.

According to our assessment, **no draft NECP update, out of the fifteen submitted, is fully compliant with the new 2023 EED (see Figure 2).** Only four countries (Italy, Lithuania, Luxembourg and Spain) submitted draft plans that are almost aligned with the requirements of the new EED and of the Governance Regulation ("almost compliant").

Most of the remaining Member States fall short of presenting a draft NECP update that integrates energy efficiency considerations in a satisfactory way:

- **Four countries** (Croatia, Cyprus, Estonia and Hungary) submit draft plans **that do not consistently cover** the new elements of the EED in an adequate way ("updated but insufficient").
- **Three countries** (Portugal, Slovakia and Slovenia) only **partially update** their NECPs, by failing to take into account most, if not all, of the new key 2023 EED requirements ("partially updated").
- **Four countries** (Denmark, Finland, the Netherlands and Sweden) **do not reflect at all the requirements of the new EED** in their plans; at best, they acknowledge that a new directive has been adopted, but fail to update their drafts according to the new provisions ("not updated").

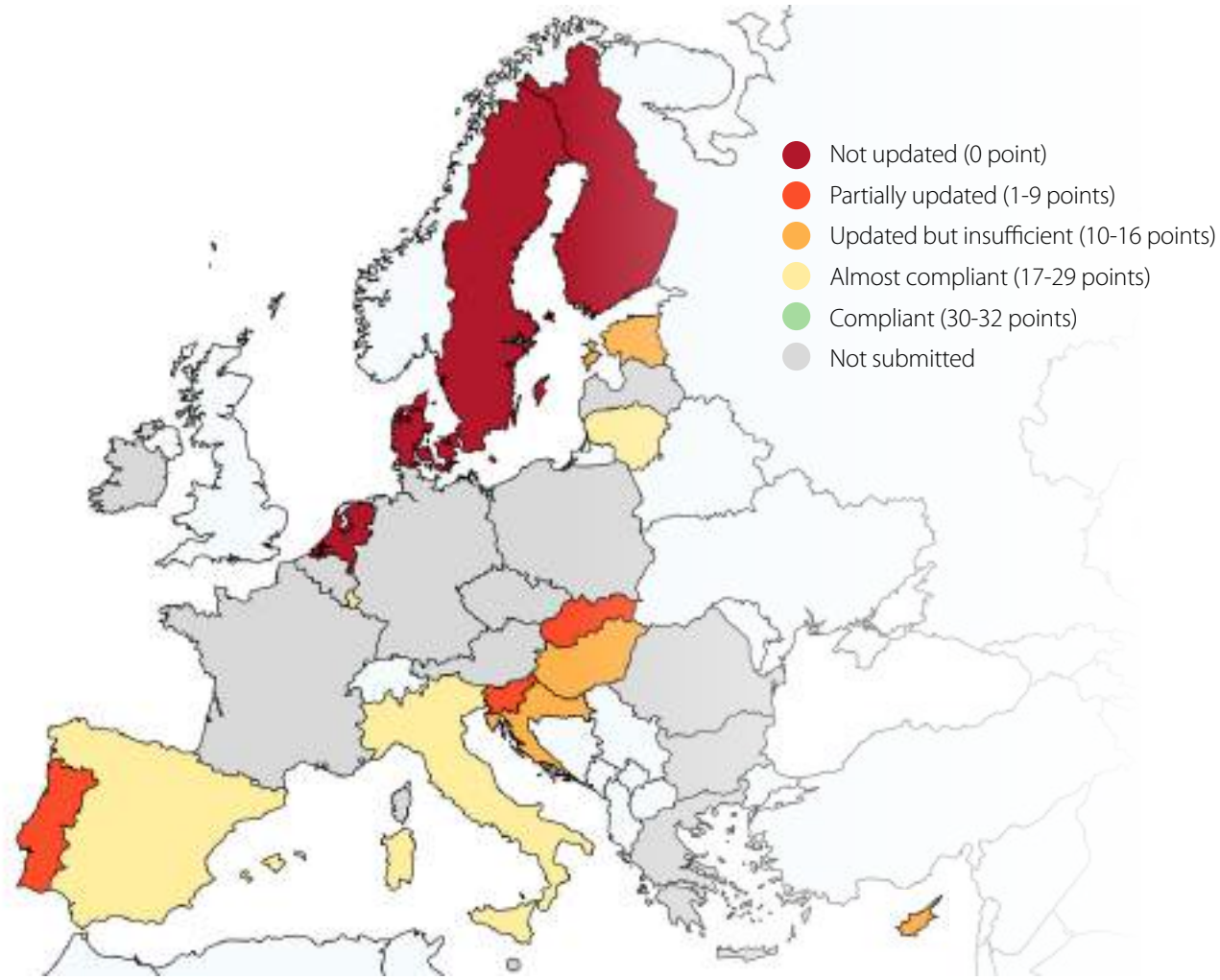


Figure 2: Overall compliance of draft NECP update with the 2023 EED

4

Assessment of 2023 EED requirements in draft NECP updates

This chapter provides a detailed analysis of how the new EED provisions have been integrated in the fifteen available draft NECP updates published on the Commission's website on the 30th of September 2023.

The analysis covers EED Articles 3, 4, 5, 6 and 8 (and the associated planning requirements included in the Governance Regulation). For each article, a summary of the key elements that Member States must include in their draft NECP updates is presented,[6] together with key findings of our analysis for each requirement and a national good practice.

The maps are based on the scoring described in chapter 2 and the detailed country assessment of each requirement can be found in Annex I to this report.

4.1 Article 3: The energy efficiency first principle

What must be reflected in the NECP updates?

The 2023 EED introduces a new article that grants a clear legal basis to the EE1st principle. Crucially, it requires Member States to ensure that energy efficiency solutions are assessed in the planning, policy and major investment decisions related to energy systems and non-energy sectors that have an impact on energy consumption.

There are also several requirements on how the EE1st principle must be integrated into the NECPs under the Governance Regulation. First, Member States must use the EE1st principle as an overarching principle when drafting their NECPs.[7] This means that the principle must be applied across all dimensions of the NECP (energy security, internal energy market, decarbonisation, research, innovation and competitiveness) and not just in the energy efficiency dimension, and that it must be used as an organizing principle, not simply mentioned.

Second, the 2023 EED mandates Member States to provide a list of the actions they plan to take to remove, if any, the regulatory and non-regulatory barriers to the implementation of the EE1st principle in their national legislation, and to nominate an entity responsible for the monitoring of the principle.

Key findings of our analysis:

- Only Cyprus provides an explanation of how the EE1st principle was considered across the dimensions of the plan. The dominating trend is that the draft NECP updates only mention the EE1st principle without offering details on how demand-side measures are put on an equal footing with supply-side ones when planning policies and measures.

- Only Lithuania explains how it intends to use the EE1st principle to guide the development of its energy system, including of its future gas infrastructure. However, Lithuania does not appoint an entity to monitor the application of the principle.

Best in class: Cyprus

Despite not listing specific measures to improve the application of the EE1st principle, Cyprus explains relatively well how energy efficiency solutions have been prioritised in the drafting of its plan. Cyprus also states that all *"cost-effective"* energy efficiency measures have been included in the updated NECP and that other decarbonisation measures have only been considered when alternative efficiency actions were deemed *"impractical, or very costly"*. However, the wider societal benefits of energy efficiency solutions do not seem to be factored into the cost-effectiveness assessment.

[6] For more information see the Coalition's report "The new 2023 Energy Efficiency Directive: Guidance and recommendations for national planning and implementation".

[7] European Commission, 2022. Commission Notice on the Guidance to Member States for the update of the 2021-2030 national energy and climate plans.

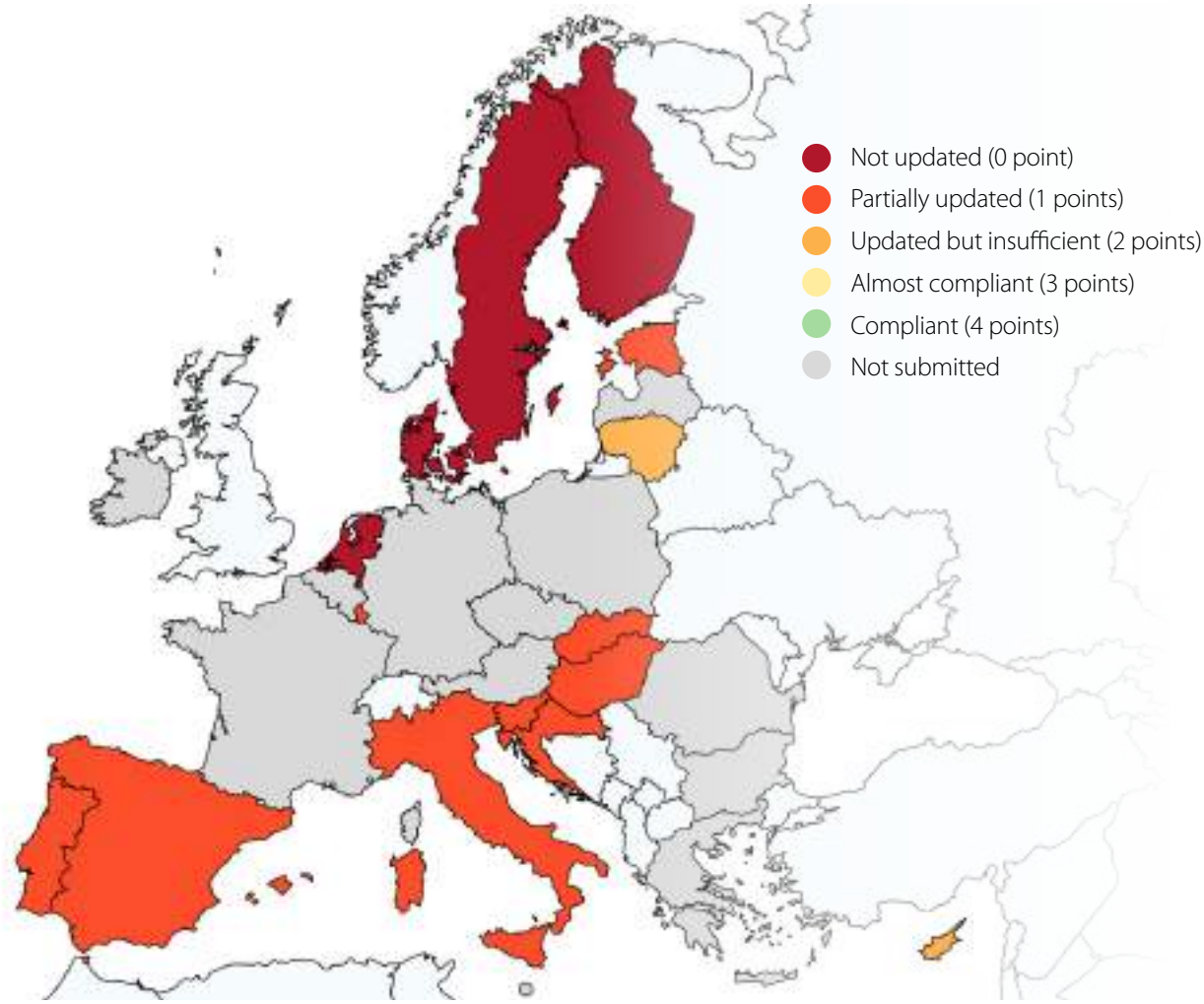


Figure 3: Assessment of compliance of draft NECP updates with the energy efficiency first principle

4.2 Article 4: Energy efficiency targets

What must be reflected in the NECP updates?

The 2023 EED sets an increased EU energy efficiency target for 2030, which is an 11.7% reduction of primary and final energy consumption compared to the PRIMES 2020 reference scenario.[8] For the first time, the EU target is divided among Member States according to a benchmark formula[9] that sets national contributions for primary and final energy in 2030. Member States must therefore set 2030 contributions for both primary and final energy consumption in their NECP updates. For final energy, Member States must declare an objective that deviates by a maximum of 2.5% from the formula's result.

To achieve this increased target, Member States must plan new policies, measures and programs and quantify associated energy savings in their NECP updates. Member States must also set a trajectory to achieve their energy efficiency contributions and indicate the share of energy consumption per sector in their national energy efficiency contribution.[10]

[8] For more information about the way the energy efficiency target is set, please refer to the Coalition's Guide to the 2030 Energy Efficiency Target.
[9] See the results of the 2023 EED formula in Annex II of this report.
[10] According to Article 4.2, Member States must provide the shares of energy consumption from the industry, residential, services and transport sectors. For the ICT sector, projection of energy consumption can be used.

Key findings of our analysis:

- Only Estonia, Italy and Lithuania have declared a final energy efficiency contribution which is in line with the EED requirements.[11] Lithuania sets as its contribution the result of the formula, while Estonia and Italy use the possibility to deviate by 2.5% from the formula's result. The three Member States also provide a primary energy contribution that is in line with the formula (Estonia and Lithuania) or use the 2.5% deviation for primary energy (Italy).
- Croatia, Cyprus, Hungary, Luxembourg, Slovenia and Spain set contributions for final energy that are not in line with EED formula's result (even taking the 2.5% flexibility), while Denmark, Finland, the Netherlands, Portugal and Sweden do not provide a contribution for final energy consumption, or do not revise it compared to their 2019 NECP. Slovakia declares a range of contributions, in line with the 2023 EED, but without truly committing to one.
- Seven Member States do not pledge a contribution for primary energy consumption or do not revise it compared to their 2019 NECP (Denmark, Finland, Hungary, Luxembourg, the Netherlands, Slovakia and Sweden). Five Member States do indicate a primary energy contribution, but below the EED formula's result (Croatia, Cyprus, Portugal, Slovenia and Spain).
- Regarding the trajectory to achieve these contributions, six Member States provide a trajectory to reach their objective (Croatia, Cyprus, Italy, Luxembourg, Slovenia and Spain). Among those, only Croatia and Luxembourg set a trajectory that appears to show a linear decrease of energy consumption; Slovenia follows a decreasing trend that is accelerating towards the end of the period.
- Only Italy reports the end-use consumption for 2030 of its sectors both in primary energy and final energy consumption. Seven Member States provide this share, but only in final energy (Cyprus, Hungary, Lithuania, Luxembourg, Slovakia, Slovenia, Spain). However, in most cases, the aggregation of each sector's energy consumption does not reach the indicated national energy efficiency contribution (Italy for final and primary energy consumption, Lithuania, Slovakia, Slovenia and Spain for final energy consumption).
- Only four Member States (Croatia, Cyprus, Estonia and Italy) plan policies and measures to support the delivery of their overall energy efficiency objective that are complementary to those set for the purpose of the ESO. However, these additional measures are often less detailed than the measures described under the ESO.

Best in class: Italy

The Italian draft NECP update sets an energy efficiency contribution that is in line with the EED formula using the 2.5% deviation possibility for both primary energy and final energy (despite this being mandatory only for final energy). It sets a trajectory that appears to follow a linear decrease of energy consumption (even if values for yearly energy consumption are not included). Italy also plans additional measures to meet its national energy efficiency contribution that are complementary to those planned under the ESO (even if a quantification of the expected energy savings is missing).

[11] Our analysis assumes that Member States' contributions in final energy are based on the updated definition of final energy of Article 2.6 of the 2023 EED.

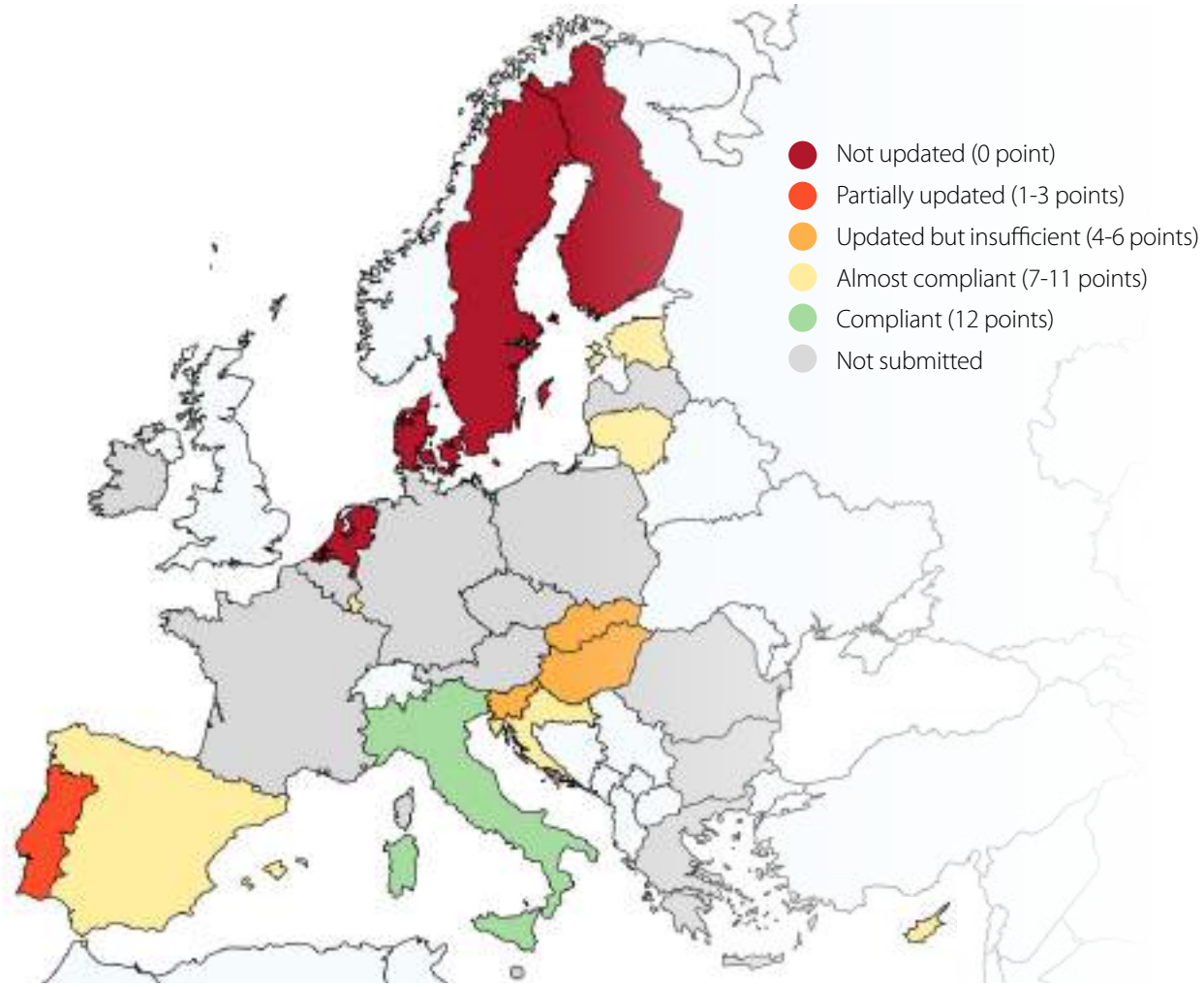


Figure 4: Assessment of compliance of draft NECP updates with the energy efficiency target

4.3 Article 5: Public sector leading on energy efficiency

What must be reflected in the NECP update?

The 2023 EED introduces a target for Member States to reduce the energy consumption of all public bodies combined by 1.9% each year by taking actions across sectors, including, for example, healthcare, water management and wastewater treatment, public lighting, education and social services.

The objective only becomes binding two years after the end of the transposition period (October 2027). The energy consumption of public bodies in municipalities with less than 50,000 inhabitants is not included until 31 December 2026 and of public bodies in municipalities with less than 5,000 inhabitants until the end of 2029. In addition, Member States can exclude the energy consumption of public transport and armed forces from the obligation.

Finally, Member States must describe the measures planned to achieve the energy consumption reduction objective in the public sector.

Key findings of our analysis:

- The public sector obligation is the requirement of the 2023 EED that has been the least integrated in the draft NECP updates. This is most likely because it is a new obligation and Member States had limited time to collect the data of their public sector's energy consumption and to devise an appropriate strategy to reduce it.

- According to our analysis, six Member States acknowledge the new public sector obligation (Cyprus, Hungary, Italy, Lithuania, Luxembourg and Spain) but, out of those, only the Italian draft NECP update seems to set its public sector objective correctly. Luxembourg identifies an energy consumption objective, but this appears to cover only a fraction of the public sector obligation (public buildings only).

- Only Luxembourg and Spain plan a new measure specifically designed to fulfil the public sector obligation. Several Member States (Croatia, Cyprus, Estonia, Hungary, Portugal, Slovakia) mention measures that could have a positive impact on the public sector energy consumption but without linking them to the new public sector objective.

Best in class: Italy

Italy indicates a specific amount of energy savings to be achieved every year in its public sector (based on a study estimating the energy consumption of its public authorities). The yearly energy savings rate appears to be in line with the requirement to reduce the public sector's energy consumption by 1.9% per year. However, Italy does not indicate the measures necessary to achieve this objective.

[27] Member States must also report as part of their integrated progress reports under Article 17 of the Governance Regulation the final energy consumption reduction of public bodies achieved annually.

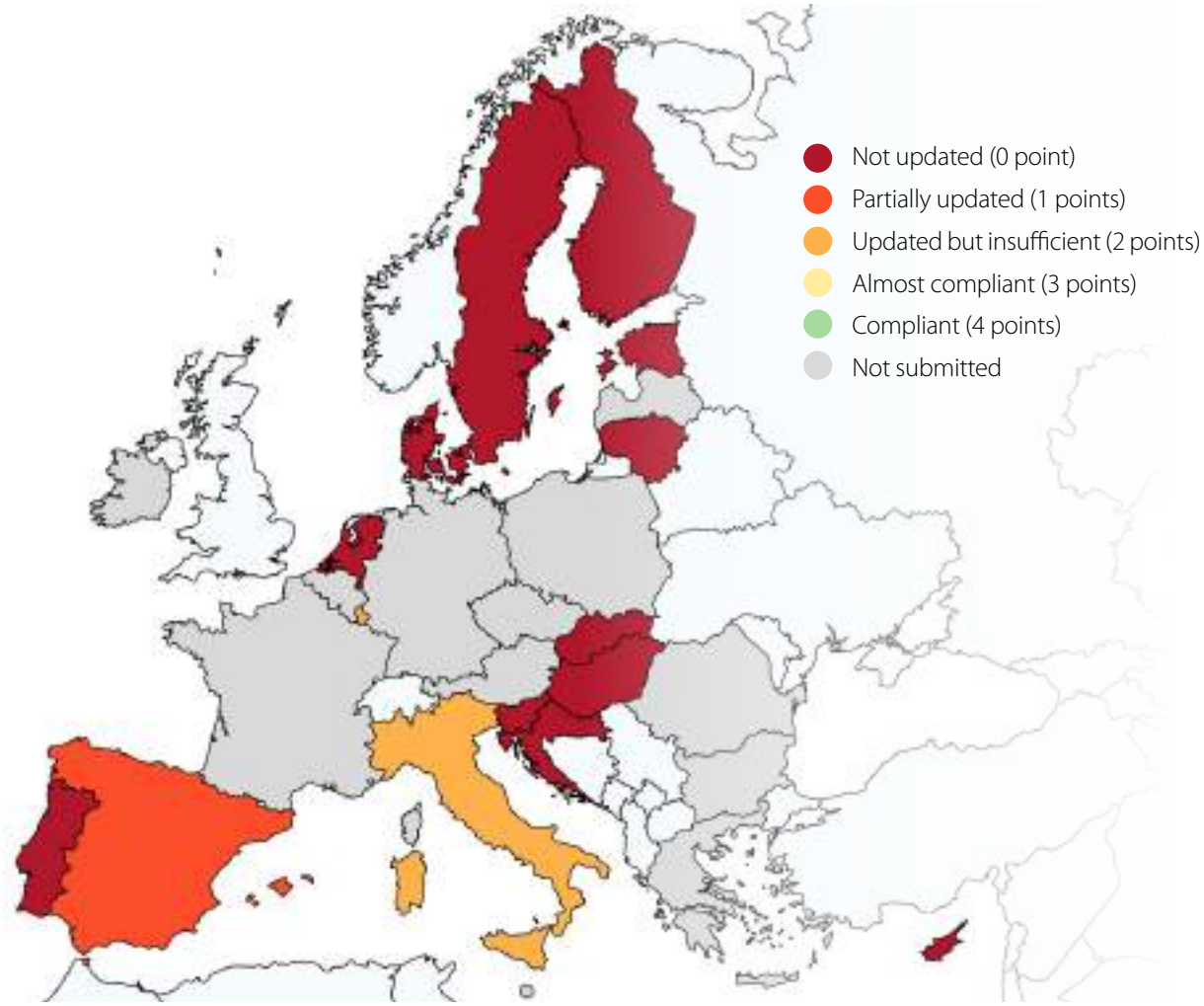


Figure 5: Assessment of compliance of draft NECP updates with the public sector obligation

4.4 Article 6: The exemplary role of public buildings

What must be reflected in the NECP update?

The 2023 EED extends the 2012 EED requirements to renovate central government buildings by mandating that at least 3% of the total floor area of heated and/or cooled buildings owned by public bodies are renovated annually. The renovated buildings have to achieve either nearly-zero building (NZEB) standards or the zero-emission building (ZEB) standard (as defined in the upcoming recast of the Energy Performance of Buildings Directive).

There are several flexibilities to the renovation requirement allowed, including the possibility to exclude social housing, to renovate certain building types to a lower level of performance or to count new buildings owned by public bodies in exceptional cases. Member States may use a new alternative approach, which must deliver the same amount of energy savings every year; the alternative approach requires issuing a building renovation passport for the buildings under the scope of the obligation and ensuring that those buildings are renovated to NZEB levels by 2040 at the latest.

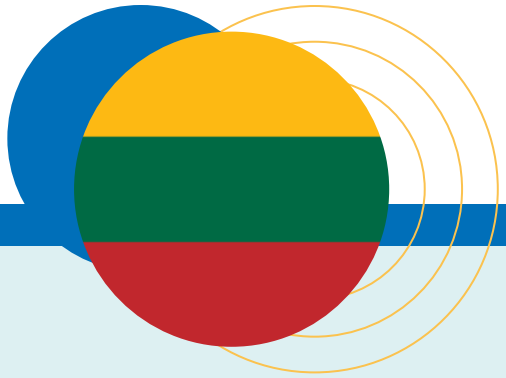
There are also several requirements on public buildings renovation under the Governance Regulation. Member States must indicate the total floor area to be renovated in the 2021-2030 period for the default approach or the equivalent energy savings to be achieved, if the alternative approach is chosen. The NECP must also outline the policy measures and programs to achieve the renovation objective.

Key findings of our analysis:

- Seven Member States mention the new broader renovation obligation for all buildings owned by public bodies (Cyprus, Hungary, Italy, Lithuania, Luxembourg, Portugal and Spain). However, only Italy and Lithuania commit to the new renovation obligation and provide a detailed quantification of the floor area to be renovated (default approach).

- Croatia, Cyprus, Estonia, Luxembourg, Slovakia and Spain only commit to the old 2012 EED public building obligation (renovation of central government buildings). These Member States provide specific numbers of floor area to be renovated or equivalent energy savings, except for Luxembourg.

- Several Member States (Italy, Lithuania, Luxembourg and Spain) indicate one or several measures specifically to fulfil the new renovation requirement for public buildings. However, the measures are often not precisely quantified in terms of the floor area to be renovated per year, equivalent energy savings expected or the level of energy performance to be achieved following the renovations.



Best in class: Lithuania

Lithuania correctly extends the public building renovation requirement and provides a quantification of the floor area to be renovated every year, together with an estimation of the energy savings expected from the two measures it will put in place to deliver the objective. However, the measures are not described in detail and there is no clarity on whether the renovations will reach NZEB or ZEB levels.

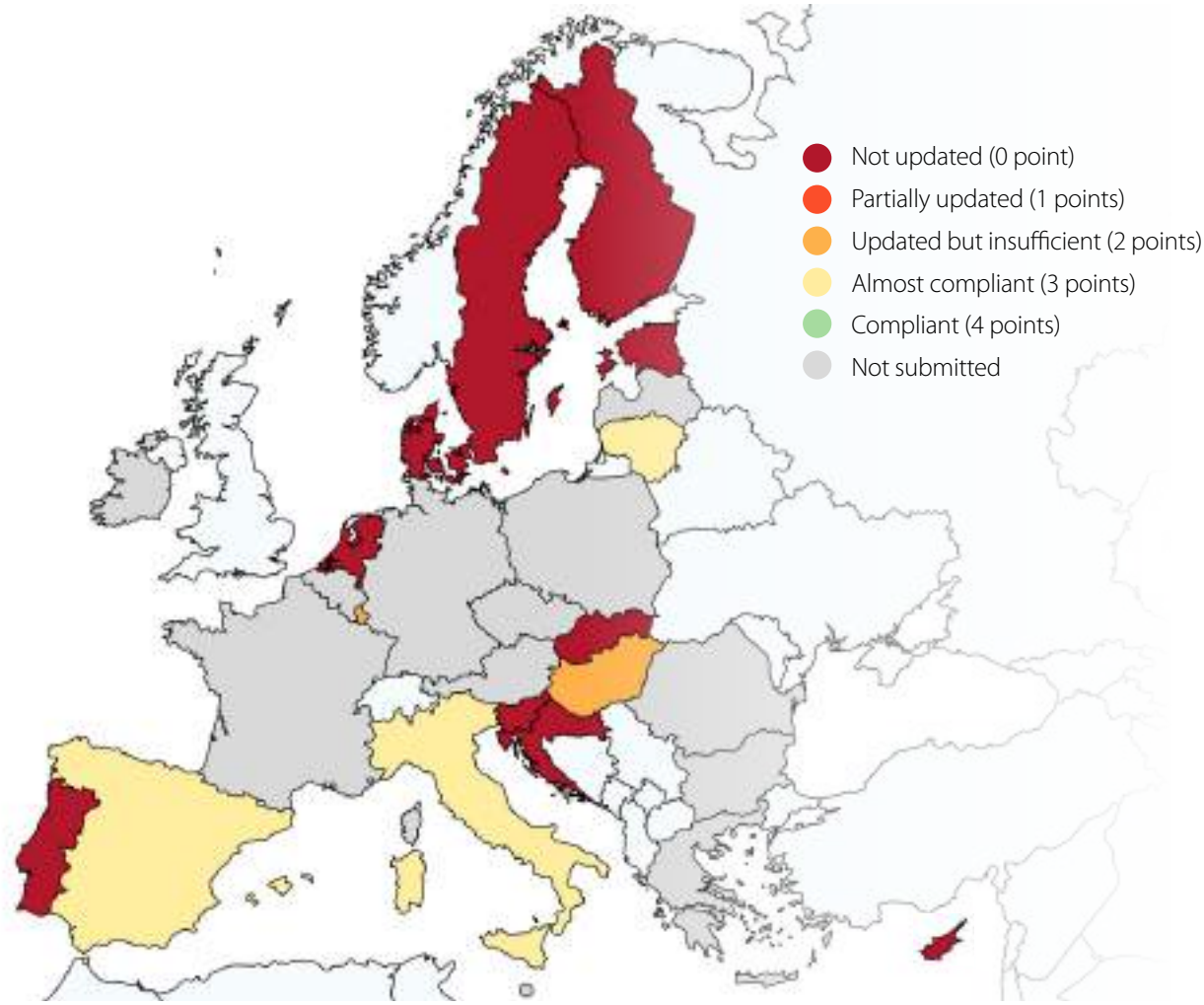


Figure 6: Assessment of compliance of draft NECP updates with the renovation requirement for public buildings

4.5 Article 8: Energy Savings Obligation

What must be reflected in the NECP update?

The 2023 EED progressively strengthens the ambition of the ESO, with an increase of the yearly energy savings rate from the current 0.8% to 1.3% annual energy savings in 2024-2025, 1.5% in 2026-2027 and 1.9% in 2028-2030. The end-use energy savings are cumulative over the 2021-2030 period.

The 2023 EED also introduces a new sub-target to deliver a share of the end-use energy savings among people affected by energy poverty, vulnerable customers, low-income households and, where applicable, people living in social housing. The accounting rules for the energy savings declared have also been updated, including the progressive exclusion of energy savings from direct fossil fuel combustion and further clarification on how to apply the additionality principle to EU law.

Finally, the 2023 EED requires Member States to consider and promote the role of citizens' energy communities in achieving the ESO's objectives.

In the framework of the NECPs, several requirements are imposed on Member States regarding the ESO. Member States need to include the calculation of their cumulative energy savings objective (updated according to the increased annual rates) and provide thorough details of the measures planned to meet their ESO.

Key findings of our analysis:

- Six Member States (Croatia, Cyprus, Estonia, Italy, Lithuania and Spain) correctly calculate and notify their annual energy savings rate for the Energy Savings Obligation in line with the new 2023 EED. Slovakia provides two numbers in the range of the cumulative objective required by the 2023 EED, without truly committing to one. Finally, the cumulative objective Luxembourg notifies is in line with the 2023 EED even if there is an error in its calculation.
- Out of the countries above, five provide a list of measures quantified in terms of energy savings, which aggregated would reach (Croatia) or even likely overachieve (Italy, Lithuania, Luxembourg and Spain) their cumulative objective.
- Many Member States report measures to fulfil their ESO's objective, but only a few Member States provide a detailed list of measures (Croatia, Lithuania, Italy and Spain). Cyprus, Hungary, Luxembourg, Portugal, Slovakia include a high-level explanation of the newly planned measures, with few practical details on the implementation steps or the expected savings.
- Only Cyprus provides a precise quantification of the energy savings to be achieved among vulnerable customers and those affected by energy poverty. The draft plan refers to the methodology to define this sub-target provided in the 2023 EED.[12] However, Cyprus does not lay out the measures to achieve this objective. Most of the Member States do not acknowledge the new sub-target, with the exception of Italy, which however does not properly quantify it.
- No draft NECP updates includes specific policy measures in the framework of the ESO to promote citizens' energy communities.

Best in class: Spain

The Spanish draft NECP update includes a specific annex on the ESO. It provides accurate information on the setting of the ESO baseline, on the calculation of the yearly energy savings, and on the cumulative objective over the period. Spain also outlines 23 measures for the purpose of the ESO that are well explained, with a detailed description of the implementation steps and the expected energy savings per measure. If the measures fully deliver the expected energy savings, it seems likely that Spain will overachieve its Article 8 objective. However, Spain does not include the new energy poverty sub-target in the ESO.

[12] To know more about the methodology to define the energy poverty sub-target in the ESO, see SocialWatt, 2023. Implementing the new Energy Efficiency Directive to alleviate energy poverty.

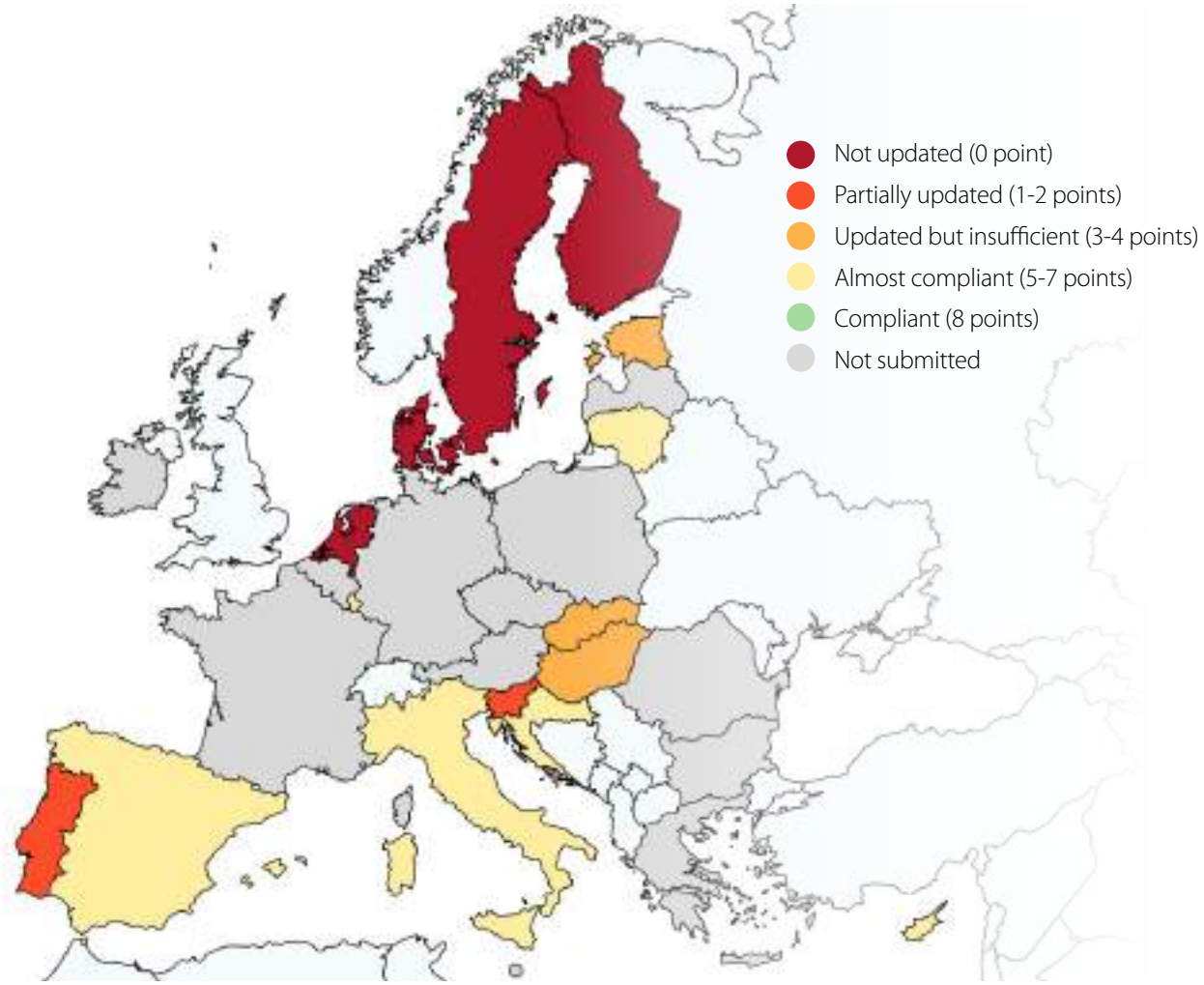


Figure 7: Assessment of compliance of draft NECP updates with the Energy Savings Obligation

Conclusions and recommendations

Meeting the objectives of the 2023 EED is paramount to reaching the EU's 2030 climate and energy security goals and ensuring that the clean energy transition is fair and affordable for all. Despite the urgency of starting to plan and implement policies and measures, **our analysis of the fifteen draft NECP updates shows that no draft plan is fully compliant with the new EED.**

In the next months, Member States must improve their plans and submit final updates that are robust and put their countries on the right path towards meeting the 2030 EU climate and energy objectives, particularly the energy efficiency one. In that framework, the European Commission will have a vital role to play to spot the weaknesses of the plans and suggest improvements through its country-specific recommendations.

From the detailed analysis in this report, these are the Coalitions' recommendations to ensure that the final NECP updates, due by June 2024, better integrate the new energy efficiency requirements:

Recommendations to Member States

The eleven[13] Member States (Austria, Belgium, Bulgaria, Czech Republic, France, Germany, Greece, Ireland, Latvia, Poland, Romania) that have still not submitted their draft NECP updates must do so without any further delay and to the best possible standard (following the Coalition's recommendations laid out in our previous report on the implementation of the 2023 EED). This is crucial to enable the European Commission's review as well as stakeholders' scrutiny and to allow improvements.

The fifteen Member States that have submitted their draft NECP updates must improve their plans. In particular, we advise them to:

- **Correctly set the objectives:** Ensure that the energy efficiency contribution outlined is in line with the EED formula's result and that the definition of the other objectives in the 2023 EED is accurate (namely, the public sector obligation, renovation of public buildings and the Energy Savings Obligation).
- **Describe in detail the measures:** The national policies and measures to achieve the EED objectives must be well described, with clarity on their timeline and allocated resources, and their impacts in terms of energy savings accurately quantified. If not, the objective will not be credible, and, therefore, probably difficult to achieve.
- **Streamline the EE1st principle:** The EE1st principle must be used as an organizing principle of the overall NECP, not just reflected in the energy efficiency dimension of the plan. The positive benefits of energy savings across sectors must be correctly valued and fully captured.
- **Focus on alleviating energy poverty:** Despite the recent surge in energy poverty, most of the draft NECP updates miss the opportunity to plan measures to make the energy transition more inclusive for all. In particular, the specific actions to save energy among energy-poor households under the Energy Savings Obligation are only very rarely specified.

Finally, **a good NECP is just the first step of delivery, but not, per se, a guarantee of a successful one.** All Member States must urgently start to put in place additional measures, catalyse investments, engage with citizens, and mobilise stakeholders and local authorities to save energy across sectors.

Recommendations to the European Commission

- The guidance note to help Member States with the implementation of the 2023 EED must be published without delay. It is essential to provide clarity to Member States on the new provisions and smooth out the implementation process.

- The Commission's country-specific recommendations on the draft NECP updates must be actionable and well-detailed, including specific suggestions for improvements. They should also encompass an analysis of the credibility of the measures, including the expected energy savings.

- As the revision of the Energy Performance of Buildings Directive (EPBD) is still ongoing, clarity on many of the buildings' related elements of the NECP is still missing. Once the EPBD is adopted, the Commission should therefore engage with Member States to ensure that the new obligations are well understood and correctly integrated into the energy efficiency dimension of the plan, as stronger actions in the buildings sector are essential to meet the higher 2030 EU energy efficiency objective.

- The inclusion of the EE1st principle into the NECPs has to be taken seriously. The European Commission should make detailed recommendations, with practical examples, on how to streamline the principle into the other dimensions of the plans, using as a starting point its EE1st recommendations and guidelines.[14]

- The Commission should provide an analysis and concrete advice on the definition and alleviation of energy poverty within the NECPs, in particular how the declared energy efficiency measures can be improved to target the most vulnerable.

[13] The Maltese draft NECP update was published in the Commission's website after the 30th of September and it is not covered by this analysis.

[14] European Commission, Recommendation and guidelines on Energy Efficiency First: from principles to practice, September 2021.

Annex I

This annex provides a detailed analysis of the integration of the 2023 EED new requirements into the draft updates of the NECPs.

It analyses the draft NECP updates that were available on the European Commission's website on the 30th of September 2023 (Croatia, Cyprus, Estonia, Hungary, Italy, Lithuania, Luxembourg, Portugal, Slovakia, Slovenia and Spain).

The draft NECP updates of Denmark, the Netherlands, Finland and Sweden were not assessed as those plans do not take into account the 2023 Energy Efficiency Directive at all.

In each table, a grading is given for each requirement, "not updated", "insufficient" or "compliant". For more information about the methodology and the scoring system, please refer to Chapter 2 of this report.

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1. Croatia (link to plan here)

Article		Description	Assessment	Grading
Energy efficiency target	Energy efficiency contribution	Croatia notifies an energy efficiency contribution in 2030 of 6.55 Mtoe for final energy consumption and 8.14 Mtoe for primary energy consumption.	The objectives for final and primary energy are not in line with the EED formula (even taking into account the possibility to deviate from the formula's result by 2.5%). Final energy consumption should not be higher than 6.01 Mtoe (EED formula result for final energy with 2.5% deviation) and 6.83 Mtoe (EED formula result for primary energy without 2.5% deviation).	Insufficient
	Trajectory	Croatia provides a graph with a trajectory towards its 2030 energy efficiency contribution for primary energy and final energy.	Croatia does not indicate specific values for yearly energy consumption. The trajectory appears to be linear and achieves an energy consumption in 2030 (both for final and primary energy) in line with the Croatian energy efficiency contribution.	Compliant
	Share of energy consumption per sector	Missing.	Croatia does not report the expected share of primary and final energy consumption for each sector.	Not updated

	Policies and measures	The draft plan includes a list of measures, complementing those reported for the purpose of the Energy Savings Obligation (ESO), such as an energy renovation program for heritage buildings and the promotion of energy management systems in the service and production sectors.	The measures are detailed, including information on the funding source, the responsible entities and the monitoring methods. However, for some measures, the expected energy savings are not quantified. In addition, Croatia presents a scenario with additional measures that provide energy savings close to the amount needed to reach its notified final energy contribution.	Compliant
Energy Efficiency First principle	Use as an overarching principle in the NECP	Croatia mentions the Energy Efficiency First (EE1st) principle, namely in the context of the building sector (see policy measure ENU-2, *Promotion of decarbonisation and the application of the "energy efficiency first" principle in building*).	The EE1st principle is only acknowledged but not used as an overarching principle in the drafting of the NECP.	Insufficient
	Concrete measures to systemize the EE1st principle	Missing.	Croatia does not specify any policies or measures to increase the application of the EE1st principle or to comply with the new obligations under Art.3.	Not updated

Public sector obligation	Public sector objective	Missing.	Croatia does not acknowledge the new public sector obligation.	Not updated
	Policies and measures	Several measures (ENU-5, ENU-7, ENU-8, ENU-9) listed in the general policies and measures section will have a positive impact on the energy consumption of the public sector and are estimated to save at least 204.06 ktoe.	Croatia does not list measures aiming at specifically achieving the public sector objective. However, the Croatian NECP still plans measures addressing energy consumption in the public sector, which are generally well explained and quantified.	Not updated
Renovation of public buildings	Objective	The draft plan indicates that Croatia will use the alternative approach to the 3% central government buildings renovation requirement (old EED). It commits to achieve 0.116 ktoe annual energy savings.	Croatia does not align its objective with the revised Art.6 in the 2023 EED (no extension of the scope and no reference to renovations to Nearly-Zero Energy Buildings (NZEB) or Zero-Emission Building (ZEB) level).	Not updated
	Policies and measures	One measure (ENU-5, *Energy renovation programme for public sector buildings*) is provided to increase the renovation rate of public buildings, but limited to central government buildings only.	Croatia does not provide specific measures for the purpose of complying with the new Art.6 requirements.	Not updated

Energy Savings Obligation	Objective	Croatia acknowledges the increase ESO annual rate and indicates that its updated cumulative target from 2021 to 2030 will be 4,313 ktoe.	Croatia takes into account the new EED requirements with regard to the updated ESO and correctly calculates its cumulative objective. Croatia provides a detailed explanation of the setting of the ESO baseline, the calculation of the yearly energy savings, and the cumulative objective. The energy savings resulting from the planned measures are close to the overall cumulative objective (4,245 instead of 4,313 ktoe).	Compliant
	Policies and measures	Croatia provides a detailed list of measures for the purpose of the ESO. The most impactful measure is the Croatian Energy Efficiency Obligation Scheme (ENU-1), which is set to fulfil 70% of the ESO cumulative objective. Other alternative measures relate to energy renovation programmes, the increase of efficiency in manufacturing industries and the improvement of the public transport system.	Croatia indicates a series of measures that are for the majority already in the existing NECP, with a few additional newly planned measures. However, the Croatian Annex on the ESO underlines that the distribution of the goal between the EEOS and alternative measures is not yet determined. The measures are described in detail with the implementation process of the measure, the funding source, the responsible entities, and the monitoring methods. However, the eligibility of the measures according to the new accountability rules is not provided. On the positive side, the Croatian Annex specifies that double counting has been avoided with the use of the SMiV (System for Measuring and Verifying) system.	Compliant

	Energy poverty sub-target	Croatia does not mention the new energy poverty sub-target in the ESO, nor does it declare the share of energy poverty in the country necessary to calculate this new sub-target. It however notes that it will develop a program to define the energy poverty share in the Croatian population.	No specific quantification of the energy savings, as required by the energy poverty sub-target in the ESO is provided. A few policy measures are however indicated that will have a positive impact on energy poverty (ENU-1, ENU-2, ENU-3, ENU-4, UET-9 and potentially UET-8).	Not updated

2. Cyprus (link to plan here)

Article		Description	Assessment	Grading
Energy efficiency target	Energy efficiency contribution	Cyprus' national energy efficiency contribution is based on a scenario that projects a final energy consumption of 1.88 Mtoe and a primary energy consumption of 2.28 Mtoe for 2030.	Both the primary and final energy contributions are not in line with the EED formula's result (even taking into account the possibility to deviate from the formula's result by 2.5% for final energy). Cyprus's national energy efficiency contribution should amount to no more than 1.852 Mtoe for final energy and 2.038 Mtoe for primary energy.	Insufficient
	Trajectory	Cyprus provides a trajectory towards its 2030 energy efficiency objectives for primary and final energy, with yearly consumption values for primary energy.	The trajectory follows a progressive minimal downward trend for primary energy and stabilizes for final energy.	Compliant
	Share of energy consumption per sector	The draft plan indicates the projected evolution of the final energy consumption for each of its sectors in 2030 (see Page 51 in EN version).	Cyprus correctly provides the share of final energy consumption per end-use sector. The contribution of the different sectors adds up to 1.84 Mtoe, which is in line with the overall national energy efficiency	Insufficient

			contribution for final energy as per projection. However, Cyprus does not provide a projection per end-use sector for primary energy.	
	Policies and measures	Cyprus provides a list of measures that promote energy efficiency mostly in the framework of the ESO. A few other measures are provided for the overall energy efficiency objective. Cyprus acknowledges that the measures planned are not enough to reach the increased energy efficiency contribution and indicates that additional measures will be planned in the final NECP update (See Pages 94-95 in EN version).	The measures listed by Cyprus are not well detailed and not quantified in terms of energy savings per measure with the exception of the measures planned in the framework of the ESO.	Insufficient
Energy Efficiency First principle	Use as an overarching principle in the NECP	Cyprus declares that the EE1st principle has been addressed in the preparation of the revised NECP through the prioritization of energy efficiency policies and measures, and that other decarbonisation measures have only been taken into account when alternative efficiency actions are deemed "*impractical or very costly*". It	Cyprus provides explanations of how the EE1st principle was considered across the dimensions of the plan. However, it is not fully integrated in the other dimensions of the plan beyond the energy efficiency dimension. Cyprus' reasoning is also still based on pure economic cost-effectiveness without taking into account the wider benefits of energy savings, making these	Compliant

		also states that all "*cost-effective measures*" have been included in the updated NECP.	measures appear too costly or described as "*unrealistic*" (Cyprus gives as an example the acceleration of buildings' renovation by 2030).	
	Concrete measures to systemize the EE1st principle	Missing.	Cyprus does not indicate how the principle was applied in the planning phase of the projects mentioned under the EE1st section. Cyprus indicates a list of projects that could increase energy consumption, without explaining how or whether the principle was applied. In addition, Cyprus does not specify any policies or measures to increase the application of the EE1st principle or to comply with the new obligations under Art.3.	Not updated
Public sector obligation	Public sector objective	Cyprus states that at the time of the preparation of the draft update, the national plan for meeting the public sector objective had not been completed, the planning will be presented in the final NECP in 2024.	Cyprus acknowledges the new public sector obligation. However, Cyprus does not quantify the required reduction of energy consumption nor provides a list of the public bodies covered. The starting date of the obligation is also missing.	Not updated
	Policies and measures	The draft plan lists measures to provide energy upgrades in "*public*	The draft plan does not include measures specifically for the purpose of the public	Not updated

		state buildings" and for the wider public sector in the framework of the ESO, indicating that those will impact the energy consumption of the public sector.	sector obligation. The measure to provide energy upgrades in the public sector is not estimated in terms of the expected energy savings and stops in 2026.	
Renovation of public buildings	Objective	The draft plan acknowledges the new increased renovation obligation for all buildings owned by public bodies. Cyprus indicates that the public building renovation requirement for 2021-2030 amounts to 0.11 ktoe, but this target is calculated on the basis of the old obligation (based on the alternative approach).	Cyprus does not use the new increased renovation obligation for all buildings owned by public bodies to achieve either NZEB or ZEB standards. The draft plan does not indicate whether Cyprus will use the default or the alternative approach to comply with the new obligation.	Not updated
	Policies and measures	Cyprus indicates measures to provide energy upgrades in "*public state buildings*" and for the wider public sector (including one measure specifically for hospitals) (See page 90 EN version) in the framework of the ESO.	The measures are only briefly described and no quantification of the floor area to be renovated or equivalent energy savings is provided.	Not updated
Energy Savings Obligation	Objective	Cyprus acknowledges the increased ESO annual rates under the revised EED Art.8, with the specific derogation	Cyprus correctly calculates its cumulative objective. However, the draft plan does not explain how the	Compliant

		to achieve an annual rate of energy savings of 0.45% from 2024 to 2030. Cyprus indicates that its objective amounts to 349,04 ktoe of cumulative savings over the period 2021-2030.	ESO baseline was set or the yearly energy savings were calculated (it is stated that more detailed information will be included in the final NECP update). As there is almost no quantification of the measures' expected energy savings, it is not possible to calculate whether the measures notified would deliver the cumulative energy savings objective.	
	Policies and measures	The draft plan provides a list of 17 measures to fulfil the ESO. It encompasses one Energy Efficiency Obligation Scheme and 16 alternative policy measures. Cyprus claims that these measures allow to "*marginally achieve*" the ESO cumulative objective. The measures relate to, among others, additional building renovations, more efficient road lighting, energy savings measures in the road transport and the water sector.	The measures detailed by Cyprus are only briefly described with no details on the implementation process, the funding streams, the entities responsible or the expected energy savings. It is therefore not possible to verify that the measures declared in the draft plan achieve the ESO objective. Only the expected cumulative savings of the EEOS are quantified (100 ktoe over the 2023-2030 period). There is no proof that double counting was avoided or any evidence that measures are eligible and appropriate.	Insufficient
	Energy poverty sub-target	The draft plan sets the new energy poverty sub-target for the ESO at 67.36 ktoe. This corresponds to 19.3% of its total objective, which is the share of	Cyprus positively indicates an energy poverty sub-target in line with the revised EED. However, the measures to reach the sub-target are not yet provided.	Compliant

		people living in energy poverty, low-income and vulnerable consumers. The share was calculated by using the average of the four indicators provided in the 2023 EED. Cyprus indicates that the energy poverty sub-target will be reached by a combination of the EEOS and alternative measures. It also adds that more information on the data and methodology to calculate the sub-target will be included in the final NECP, following a study (which could modify the declared share).		

3. Estonia (link to plan here)

Article		Description	Assessment	Grading
Energy efficiency target	Energy efficiency contribution	Estonia indicates a 2030 national energy efficiency contribution for final energy of 30.19 TWh (2.59 Mtoe) and a primary energy contribution of 45.72 TWh (3.93 Mtoe).	The contribution in final energy is aligned with the result of the formula using the 2.5% deviation flexibility (2.62 Mtoe). For primary energy, the contribution is close to the formula's result (3.927 Mtoe).	Compliant
	Trajectory	Estonia does not set a clear trajectory to achieve its national energy efficiency contribution. It however indicates a projection (which looks similar to a trajectory) for primary and final energy consumption up to 2030 with no precise yearly consumption values.	It is not clear whether the reported projections are the trajectories requested by the 2023 EED. The projection for primary energy does not meet Estonia's energy efficiency contribution; the projection for final energy comes close to the 2030 national energy efficiency contribution.	Insufficient
	Share of energy consumption per sector	Estonia reports the share of final energy consumption in end-use sectors in 2030 which is the same as in 2021 (see Page 149 in EN version). Estonia also provides a graph with the primary energy consumption per	Estonia does not provide exact values for final energy in end-use sectors in 2030, it only refers to 2021 data which could signal a lack of updated analysis.	Insufficient

		sector by 2030 and beyond (See Page 150 in EN version).	In addition, the data indicated in the draft plan for the primary energy consumption per sector is not precisely quantified.	
	Policies and measures	Estonia provides a list of measures beyond the scope of the ESO to reach the overall energy efficiency target.	The measures listed are the same as those included in Estonia's 2019 integrated NECP, with only a brief description of the measure and no quantification of the energy savings expected.	Not updated
Energy Efficiency First principle	Use as an overarching principle in the NECP	Estonia only briefly mentions the EE1st principle in footnotes.	Estonia does not use the EE1st principle as an overarching principle. The application of the EE1st principle when drafting the NECP is not detailed or explained, including in relation to the associated benefits of the EE1st principle or the responsible authority.	Insufficient
	Concrete measures to systemize the EE1st principle	Missing.	Estonia does not specify any policies or measures to increase the application of the EE1st principle or to comply with the new obligations under Art.3.	Not updated
Public sector obligation	Public sector objective	Missing.	Estonia does not acknowledge the new public sector obligation.	Not updated

	Policies and measures	Estonia indicates a measure "*HF4 Investments in street lighting renovation programme*" (already present in the 2019 NECP) which could have a positive impact on the public sector energy consumption.	The reported measure is not directly linked to the new public sector obligation and the expected energy savings are not quantified.	Not updated
Renovation of public buildings	Objective	Estonia's plan describes the baseline of the old renovation requirement for central government buildings, indicating that, in 2022, 835,310 m² of floor area of central government buildings did not meet the minimum requirements (Art.5 of the 2012 EED).	Estonia does not acknowledge the new increased renovation obligation for all buildings owned by public bodies to achieve either NZEB standards or the ZEB standards.	Not updated
	Policies and measures	Estonia indicates two measures that could possibly serve the purpose of Art.6 (HF1: Renovation of public and commercial buildings and HF5b: Additional renovation of central government buildings).	The HF1 and HF5b measures were already present in the 2019 NECP (and therefore do not seem to be updated to fulfil the new public bodies' building renovation objective).	Not updated
Energy Savings Obligation	Objective	Estonia acknowledges the increased ESO annual rate and indicates that its cumulative objective amounts to 21 279 GWh or 76 604 TJ over the period	Estonia correctly calculates its cumulative objective. It also provides a detailed explanation of the setting of the ESO baseline, the calculation of the yearly energy	Compliant

		2021-2030 which is equivalent to 1.8 Mtoe.	savings to be achieved and the cumulative objective (see Page 37 in EN version). As there is no quantification of the measures' expected energy savings, it is not possible to calculate whether the measures declared would deliver the cumulative energy savings objective.	
	Policies and measures	Estonia provides a list of measures to fulfil the ESO (see Page 99 EN version).	The measures provided have not been updated compared to the 2019 integrated NECP and the details of the measures are lacking, e.g., there is no calculation of the expected energy savings. There is also no proof that there is no double counting or any evidence that measures are eligible and appropriate.	Not updated
	Energy poverty sub-target	Missing. Estonia indicates that, according to data from the European Energy Poverty Observatory, in 2016 2.7% of the population was unable to keep their homes warm, and 7.9% of households faced energy bill arrears.	Estonia does not declare the share of people living in energy poverty and also does not acknowledge the new energy poverty sub-target in the ESO. It however lists measures that will have a positive impact on energy poverty, such as support for the renovation of small and multi-dwelling buildings; those measures are however the same as the previous NECP (see Page 59 in EN version).	Not updated

4. Hungary (link to plan here)

Article		Description	Assessment	Grading
Energy efficiency target	Energy efficiency contribution	Hungary indicates as its national energy efficiency contribution that its final energy consumption "*does not exceed*" 750 PJ (17.913 Mtoe) by 2030.	Hungary's final energy efficiency contribution is not in line with the EED formula, even taking into account the possibility to deviate from the formula results by 2.5% (with which Hungary's contribution should amount to no more than 16.596 Mtoe). In addition, Hungary fails to indicate a primary energy efficiency contribution.	Insufficient
	Trajectory	Missing.	Hungary does not set a trajectory to achieve its final energy objective.	Not updated
	Share of energy consumption per sector	Hungary provides an evolution of the energy consumption of its total primary energy, total final energy and final energy per sector according to two scenarios (with existing measures, WEM and with additional measures, WAM). Hungary also indicates the evolution of the primary energy	Hungary does not indicate the share of primary energy consumption per end-use sector, only by energy carrier. In addition, interestingly, the industry sector energy consumption increases under the WAM scenario compared to the WEM scenario. Finally, both the projections of the WEM and the WAM scenarios overachieve Hungary's	Insufficient

		consumption mix by energy carrier under the WEM scenario for 2030.	declared final energy objective (to 742 PJ and 739 PJ respectively), which is positive.	
	Policies and measures	Hungary provides a list of measures in the scope of the ESO, the Long-Term-Renovation Strategy and for the public sector to reach its overall energy efficiency target. No additional measure is indicated to deliver specifically the overall energy efficiency contribution.	The measures have a very short description with regards to the aim of the measure, investment needs and target group, but they lack details with regards to implementation, responsible entity, monitoring and are not quantified in energy savings terms.	Insufficient
Energy Efficiency First principle	Use as an overarching principle in the NECP	Hungary highlights as a footnote of the dimensions "internal energy market" and "energy security" that these are in line with the EE1st principle.	Beyond the footnotes, the application of the principle in the other dimensions of the NECP is not detailed. Consequently, the EE1st principle is not used as an overarching principle in the Hungarian NECP.	Insufficient
	Concrete measures to systemize the EE1st principle	Missing.	Hungary does not specify any policies or measures to increase the application of the EE1st principle or to comply with the new obligations under Art.3. There is no responsible authority for its application identified and no consideration of the multiple benefits of energy efficiency.	Not updated

Public sector obligation	Public sector objective	Hungary mentions the new public sector obligation.	Even if the new obligation is acknowledged, Hungary does not provide the amount of the energy consumption reduction objective, a list of its public bodies, their energy consumption, or the exemptions that will be used.	Not updated
	Policies and measures	Hungary lists one policy measure with regards to the public sector "*The National Energy Network*", established in 2017, that aims at promoting energy efficiency for public bodies.	The measure is not directly linked to the public sector obligation and is not precisely quantified in terms of expected energy savings. It is very briefly described with some details about the responsible entity but without more information on implementation and monitoring.	Not updated
Renovation of public buildings	Objective	Hungary mentions the new renovation obligation for all buildings owned by public bodies. Hungary seems to indicate that the renovation within the cost-optimal range of the Hungarian public buildings stock would deliver 6.6 PJ of savings for the 10 years, while the extension under the 2023 EED to NZEB level for public buildings would deliver 14.615 PJ of savings per year under the next 10 years. According to the Hungarian draft,	Hungary provides no detailed quantification of the floor area to be renovated or a full indication of the equivalent energy savings. It remains unclear whether Hungary will use the default approach, as it has done in the past, and whether it will use exemptions for the new extended renovation requirement to public bodies buildings. As a strategic goal, Hungary still quotes the renovation of the floor area of central government buildings (old EED requirement).	Insufficient

		this would deliver cumulative savings of 80 PJ.		
	Policies and measures	Hungary states that in order to achieve its renovation objective, it will use financing through Energy Services Companies, and the Energy Efficiency Obligation Scheme. Furthermore, Hungary mentions that energy efficiency measures are also supported by "*The National Energy Network*" (see above).	It is not clear how the renovations will be performed and whether the funding streams will be enough to ensure that these renovations materialize. The description of the measures is not connected to the renovation requirement and lacks detail, e.g. with regards to the energy savings to be achieved.	Insufficient
Energy Savings Obligation	Objective	Hungary indicates a cumulative ESO of 336 PJ, which equals 8.025 Mtoe, by 2030.	Hungary's declared objective is insufficient to meet its increased ESO. Hungary seems to refer only to the past ESO annual rate of 0.8% from 2021 to 2030. Indeed, the 2019 Hungarian NECP indicated a cumulative ESO objective of 331.23 PJ, close to the level indicated in the draft NECP update. In addition, Hungary does not provide an explanation for the setting of the ESO baseline, the yearly energy savings or the cumulative energy savings objective. Finally, as there is no quantification of the measures' expected energy savings, it is not possible to calculate whether the measures declared	Insufficient

			would deliver the cumulative energy savings objective.	
	Policies and measures	Hungary provides a list of policies and measures to fulfil the ESO. It indicates that the EEOS will fulfil 26% of the ESO objective, while alternative policies will fulfil 74% of the target. A few new measures compared to the 2019 NECP are presented, namely the setting of an Energy Efficiency Obligation Scheme in 2021 or a renovation aid scheme. Older measures are also described, such as a tax advantage for businesses to perform energy efficiency-enhancing investment, or the National Energy Network, both established in 2017.	The measures provided by Hungary are not well detailed, there is no quantification of the expected energy savings (except for the EEOS, which is quantified in the framework of Art.6), the implementation steps of the measure, the entity responsible or how the expected savings comply with the new Art.8 accounting and eligibility rules. There is only a brief description of the measures and the funding available for the measures. Hungary also adds to its draft NECP update an Annex which provides a list of planned measures, but these do not seem to have been updated as some of the measures in the plan are not yet reflected in the Annex. There might be confusion with regard to the Long-Term Renovation Strategy, as these measures are detailed in the ESO, with only a reference under the appropriate section.	Insufficient
	Energy poverty sub-target	Hungary only briefly tackles the issue of Energy Poverty in its plan by stating that it aims to "*reduce the number of vulnerable consumers through integrated support in the relevant programmes, for example in*	The draft plan does not acknowledge the energy poverty sub-target in the ESO nor provides a quantification of energy poverty in Hungary. Policy measures to reduce energy poverty are not listed.	Not updated

		the area of energy efficiency". It furthermore states that "*Vulnerable customers/households are those who have difficulties in securing the basic energy needs of their homes*" and mentions definitions with indicators to determine vulnerable customers for each supporting policy measure.		

5. Italy (link to plan here)

Article		Description	Assessment	Grading
Energy efficiency target	Energy efficiency contribution	Italy sets its energy efficiency contribution in 2030 at 94.4 Mtoe of final energy consumption and 115 Mtoe of primary energy consumption.	Italy sets a contribution that is in line with the EED formula, using the 2.5% deviation flexibility (both for final energy and primary energy).	Compliant
	Trajectory	Italy sets a trajectory from 2021 to 2030 for both final and primary energy which appears to follow a linear decrease of energy consumption.	The trajectory is provided in a graph with no underlying yearly consumption values, except for 2030. The 2030 energy consumption indicated in the trajectory (122 Mtoe for primary and 100 Mtoe for final energy) does not match the reported energy efficiency contribution.	Compliant
	Share of energy consumption per sector	Italy indicates the projections of energy consumption for primary and final energy and for each of its sectors by 2030 both in percentages and Mtoe (Pages 327 in EN version). The draft plan also provides numbers for the expected evolution of each sector's energy consumption by 2025, 2030	The share per sector for both final and primary energy is indicated; however, the primary and final energy consumption for 2030 do not match the national energy efficiency contributions submitted by Italy. This shows that additional sectorial measures are needed, which Italy indicates it will do in its final update of the NECP.	Compliant

		and 2040 according to existing policies and measures.		
	Policies and measures	The draft plan lists energy savings measures that will contribute to achieve the energy efficiency contribution (complementary to the measures declared under the ESO). These measures concern among others public procurement, a national portal on the energy performance of buildings, and energy audits (see from Page 249 EN version). Italy indicates that the measures planned in the draft update of its NECP do not reach the level of Italy's energy efficiency contributions (100 instead of 94.4 Mtoe for final energy). Italy indicates that more measures will be planned in its final NECP update to fill this gap.	The measures declared in the framework of Art.4 are not detailed and their expected savings are often not quantified (only for energy audits and for the measures declared specifically in the framework of the ESO). Additional measures will be needed to reach the level of the energy efficiency contribution for final energy consumption.	Compliant
Energy Efficiency First principle	Use as an overarching principle in the NECP	Italy mentions the EE1st principle in a footnote with regard to the internal market dimension and in the context of Cohesion Policies.	Italy does not underline in its draft update NECP the EE1st principle as a core element of its energy policy.	Insufficient

	Concrete measures to systemize the EE1st principle	Missing.	Italy does not specify any policies or measures to increase the application of the EE1st principle or to comply with the new obligations under Art.3.	Not updated
Public sector obligation	Public sector objective	Italy indicates that it is planning to achieve 86.7 ktoe of savings per year in the public sector. The draft plan references a study that estimates the energy consumption of all public authorities. The study currently excludes the energy use of public transport but includes armed forces. However, Italy notes that further studies are necessary to estimate the energy consumption of small municipalities to make use of the temporary exemptions. No clear starting date for the obligation is provided but the draft plan mentions its indicative nature for the first two years after the EED transposition deadline.	When compared to the total energy consumption of the public sector (4.6 Mtoe), Italy's annual reduction objective of 86.7 ktoes is equivalent to a 1.88% reduction per year, which fulfils approximately the 1.9% requirement of the EED. The use of further exclusions could reduce the reported objective.	Compliant
	Policies and measures	Missing.	Despite the obligation being quantified and counted, the Italian draft NECP does not list the measures to achieve it.	Not updated

		Italy does not specify the measures envisaged to reach the public sector obligation.		
Renovation of public buildings	Objective	Italy extends the 3% renovation objective to all buildings of the public administration. It sets two scenarios (maximal and minimal) of the square meters to be renovated by 2030, amounting to 63 million m2 and 42 million m2 of floor area respectively. However, it clarifies that further research is needed to identify the extent of the exemptions provided in EED Art.6 text. Italy does not clarify whether these renovations will reach NZEB level (or ZEB level).	Italy positively uses the default approach and provides detailed quantification of the floor area to be renovated. Further exemptions could impact the renovation of public buildings negatively and reduce the floor area to be renovated annually.	Compliant
	Policies and measures	Italy lays down a policy in the framework of Art.8 ("Energy upgrading programme for public administration") in order to upgrade the energy efficiency of public buildings (See Page 236 EN version). This policy will also be used to fulfil its Art.6 objective.	The measure "Energy upgrading programme for public administration" is detailed both in terms of the practical steps of implementation and funding streams for local authorities as well as the quantification of the energy savings expected (0.54 Mtoe) for the purpose of Art.6. However, there is little information on how the expected savings are calculated,	Insufficient

			and if they will be monitored or verified. In addition, estimated savings only refer to the new projects after 2025 and no details are provided regarding the depth of the renovations or the overall floor area that will be renovated (so it is not possible to assess whether it matches the declared objective of Art.6).	
Energy Savings Obligation	Objective	Italy indicates that its cumulative ESO by 2030 amounts to a minimum of 73.42 Mtoe of final energy savings.	The draft plan correctly calculates its ESO baseline, the yearly savings and the cumulative savings to be achieved. The total declared savings of the planned measures would amount to 74.2 Mtoe, slightly higher than the ESO cumulative objective.	Compliant
	Policies and measures	The draft plan lays down a detailed list of measures to fulfil its Art.8 objective such as (in order of energy savings magnitude), tax deductions for retrofitting buildings, the 'Certificati Bianchi' mechanism (the EEOS), the transition plan 4.0 and 5.0 and energy efficiency measures implemented through the Kyoto Fund. The tax deductions for retrofitting buildings provides almost half of Italy's ESO.	Italy provides a good description on the planned measures, both in terms of the aim and content of the measure, expected outcomes, entities responsible and funding resources. However, no explanation regarding the eligibility of the measures, its consistency with the new accounting Art.8 rules or assessment of potential double counting is provided.	Compliant

	Energy poverty sub-target	Italy indicates that a share of cumulative energy savings will be achieved among households in energy poverty, vulnerable customers and, where applicable, people living in social housing. Italy states furthermore that a new project, entitled Energy Poverty Indicators Calculation (EPIC project), will be launched to design and implement analytical and statistical processes for energy poverty.	Italy does not provide the share of people in energy poverty, the quantification of the savings to be achieved among the targeted groups, or the measures foreseen.	Insufficient

6. Lithuania (link to plan here)

Article		Description	Assessment	Grading
Energy efficiency target	Energy efficiency contribution	Lithuania sets its national energy efficiency contribution in 2030 at 4.2 Mtoe for final energy consumption and 5.2 Mtoe for primary energy consumption.	Lithuania sets a contribution that is in line with the EED formula both for final energy (4.248 Mtoe) and primary energy (5.157 Mtoe), without using the 2.5% flexibility possibility.	Compliant
	Trajectory	Missing. Lithuania only indicates projections for 2025 and 2030 energy consumption.	Lithuania does not set a trajectory in its draft plan. 2025 projections are set on a downward trend compared to 2021 data and seem aligned with a linear rate of decrease.	Insufficient
	Share of energy consumption per sector	The draft plan provides projections of the final energy consumption of each of its sectors in 2030 with new policies (see Page 42 in EN version) and with existing policies (see Pages 218 & 255 in the EN version).	Lithuania provides projections for the share of energy consumption per sector in final energy, but not in primary energy. Even the projections with the new policies do not add up to Lithuania's reported energy efficiency contribution for final energy (4.4 Mtoe compared to 4.2 Mtoe).	Insufficient

	Policies and measures	Lithuania indicates a list of energy savings measures, but only in the framework of Art.8. No additional measures are indicated to deliver on the overall energy efficiency contribution.	The policies and measures in the framework of Art.8 are described, but they lack detail (see below).	Insufficient
Energy Efficiency First principle	Use as an overarching principle in the NECP	The draft plan clearly states the importance of the EE1st principle as one of the main principles of national energy efficiency policies.	The clear explanation of the importance of the EE1st principle and the general ambition of the Lithuanian NECP showcases that the EE1st is used as a principle in national policy. However, the EE1st principle does not seem to be enshrined in the other dimensions of the plan and it is not used as an overarching principle in Lithuania`s draft NECP.	Insufficient
	Concrete measures to systemize the EE1st principle	Lithuania lists national laws that require to prioritise energy efficiency options when they are more cost-effective than supply-side solutions, in decisions on the planning and financing of energy transmission or distribution networks or systems. Lithuania also indicates that it will amend its national "Energy Efficiency Improvement Act" to enshrine in law actions to monitor the principle and	Lithuania provides an explanation on how it intends to use the EE1st principle to frame its energy system, including its future gas infrastructure. However, Lithuania declares no concrete regulatory measures to structurally increase the application of the EE1st principle. This is not fully in line with the new requirements in Art.3, also given that no responsible authority for its application is identified and the choice between demand and supply-side solutions is still based on	Insufficient

		extend its application to non-energy sectors having an impact on energy consumption.	pure economic considerations, without factoring in the multiple benefits of energy efficiency.	
Public sector obligation	Public sector objective	Lithuania recognizes the new obligation for public bodies to reduce their energy consumption by 1.9% per year but states that the list of public bodies needs to be updated before providing an estimation.	The draft plan does not provide a clear objective, information on the application of the exemptions, or the starting date of the public sector obligation.	Not updated
	Policies and measures	Missing.	No measure is specifically indicated to fulfil the objective of the public sector obligation.	Not updated
Renovation of public buildings	Objective	Lithuania extends the 3% renovation target to municipal buildings on top of the central government buildings. This represents an annual renovation of 960,000 m2 of public buildings' floor area. Lithuania indicates that 0.578 TWh, or 49.7 ktoe, of cumulative savings are expected from the two main renovation measures that would help fulfil this objective.	With regards to the renovation obligation, Lithuania correctly extends the 3% target to public bodies buildings but does not indicate whether these renovations must achieve NZEB or ZEB level. It positively chooses the default approach but does not clarify whether social housing will be included within the renovation requirement. Lithuania indicates the total floor area to be renovated and the equivalent of energy savings.	Compliant

	Policies and measures	Lithuania lays down two measures (EE3-E and EE3-P, both on "*Renovation of public buildings*") that can help fulfil the renovation objective under Art.6.	The measures are not described in detail. Only the aim of the policies (in floor area to be renovated), their timeline, and the depth level of the renovation required are provided (which is only to class C or B of the Energy Performance Certificate, not in line with the NZEB requirement per EED rules). There is no explanation about the source of the funding, the legal basis, or the entity responsible for the implementation and monitoring and verification of the measures.	Insufficient
Energy Savings Obligation	Objective	Lithuania indicates that its cumulative ESO by 2030 amounts to 39.3 TWh or 3383,9 ktoe.	Lithuania correctly calculates its ESO baseline and the cumulative savings to be achieved. Lithuania however does not indicate the yearly energy savings rates and a precise explanation of how the cumulative objective was calculated. The cumulative savings projected by each individual measure listed under the plan match and even overachieve Lithuania's cumulative ESO target (total of 46.4 TWh).	Compliant
	Policies and measures	Lithuania lays down a detailed list of measures to fulfil its Art.8 objective, dividing between existing policy measures and planned policy	The draft plan positively describes most of its policies and measures in detail, including a quantification in terms of energy savings, except for transport and industry measures,	Compliant

		measures. The planned policy measures are often a strengthening of pre-existing measures. The most impactful measures (in terms of energy savings) are higher excise duties and taxes on fuel consumption, the renovation and modernisation of multi-apartment buildings, and the transformation of boilers into more efficient technologies. A few measures regarding transport and industry are also listed, but their expected energy savings are not quantified. Lithuania provides also details on the description of most of its policies and measures (except for measure P16.1) including with information on how the measures will be implemented, monitored and verified.	which are not correctly evaluated. Lithuania however lacks proof of their eligibility according to the new more stringent Art.8 accounting rules (in particular related to the fossil-fuel exclusion). The direct evidence that there is no double counting is also missing.	
	Energy poverty sub-target	Lithuania notes that energy poverty is estimated at 28% of the population in 2018 based on specific indicators and sets specific targets to reduce it by 2025 and 2030.	Lithuania does not acknowledge the energy poverty sub-target in the ESO. It however indicates that some of the policy measures in the framework of Art.8 will have a positive impact on energy poverty, but does not provide any quantification of the energy savings that will be achieved among the priority groups.	Not updated

7. Luxembourg (link to plan here)

Article		Description	Assessment	Grading
Energy efficiency target	Energy efficiency contribution	Luxembourg reports a national energy efficiency contribution in 2030 of 35,430 GWh (3.05 Mtoe) for final energy consumption. Luxembourg mentions that it will compare its national contribution with the update of the 2020 Reference Scenario, to be provided by the European Commission.	Luxembourg's final energy contribution is similar to the target set in its 2019 integrated NECP. Its objective for final energy is not in line with the EED formula (even taking into account the possibility to deviate from the formula's result by 2.5%), as the final energy objective of Luxembourg must be of no more than 2.78 Mtoe. Luxembourg does not provide an objective for primary energy consumption.	Insufficient
	Trajectory	Luxembourg indicates a projection of the evolution of its final energy consumption according to the scenario "With Existing Measures" and the scenario "With Additional Measures" (See Page 65 in EN version).	The projection "With Additional Measures" could be considered as a trajectory as it reaches in 2030 the level of Luxembourg's final energy objective. The projection follows a linear trend of decrease, increasing with time. No numbers year by year are provided.	Compliant
	Share of energy consumption per sector	Luxembourg indicates the projection for the final energy consumption target for each of its sectors in 2030	Luxembourg does not provide a projection for primary energy consumption in its end-use sectors.	Insufficient

		in GWh (amounting to 35,430 GWh for all sectors, see Page 58 in EN version).	The aggregated projection of final energy consumption in 2030 is in line with Luxembourg's reported national energy efficiency contribution by 2030.	
	Policies and measures	Luxembourg indicates a list of energy savings measures in the framework of Art.8 and with regards to the Long-Term Renovation Strategy. No other measures are indicated to deliver the overall energy efficiency contribution.	The measures are well described, especially with regard to the state of progress, implementation and responsible entities. However, a quantification of energy savings to be projected per measure is often missing.	Insufficient
Energy Efficiency First principle	Use as an overarching principle in the NECP	Luxembourg mentions the EE1st principle as a way to reach energy and climate objectives.	The EE1st principle is acknowledged but not used as an overarching principle in the NECPs or across various dimensions of the plan.	Insufficient
	Concrete measures to systemize the EE1st principle	Missing	Luxembourg does not specify any policies or measures to increase the application of the EE1st principle or the new obligations under Art.3. There is no responsible authority for its application identified and no consideration of the multiple benefits of energy efficiency solutions.	Not updated

Public sector obligation	Public sector objective	Luxembourg mentions the new public sector obligation as per EED revision. It also indicates the level of energy consumption linked to buildings of "*State entities*" and "*municipal entities*" and calculates the combined reduction objective of the mandatory four years of the obligation (from 2027 to 2030), acknowledging that the definition of public sector buildings is under revision. Luxembourg indicates that the obligation starts in 2027.	Luxembourg seems to limit the calculation of the public sector objective to the consumption of public buildings only, which would be a fraction of the complete public sector obligation. This limited definition would amount to 58,840 MWh or about 5 toe of energy savings by 2030. Luxembourg seems also to indicate that the consumption of public transport and armed forces buildings will be included, but that the exact figures still need to be developed.	Insufficient
	Policies and measures	Luxembourg indicates a series of measures that could help to fulfil the public sector objective, mostly with regard to buildings and to the "*pioneer role of the public sector*".	The measures declared are mostly limited to buildings and only one overall measure ("*The pioneer role of the public sector*") is directly linked to the public sector obligation, but without explaining what actions will be put in place or the expected energy savings. The measures are noted as being either under analysis or planned.	Insufficient
Renovation of public buildings	Objective	Luxembourg provides an estimation of the floor area of buildings owned by the state (5,400,000 m2) but indicates that it is not possible to	It is unclear yet whether Luxembourg will use the default or the alternative approach and which exemptions will be used (for instance regarding the inclusion of social	Insufficient

		calculate the total surface area of state buildings of the Art.6 baseline as there is no clarity on NZEB/ZEB levels as per EPBD and EED revisions yet (see main report). Luxembourg indicates that it will prepare a list of all public bodies' buildings covered by the obligation.	housing). An indication of the total floor area to be renovated from 2021-2030 is missing.	
	Policies and measures	Luxembourg indicates a series of measures that can help to fulfil the renovation objective under Art.6 (Measures number 303 – 319 – 320 – 321 in the plan).	The measures (in particular 303 and 319) are limited to the description of the new Art.6 obligation without explaining what actions will be put in place or the expected savings. The measures are described as "*being under analysis*".	Insufficient
Energy Savings Obligation	Objective	Luxembourg indicates that its cumulative ESO by 2030 amounts to 42,538 GWh of final energy savings, or 3,658 ktoe.	Luxembourg correctly calculates its ESO baseline (according to Eurostat data) and explains how the calculation baseline was established. However, Luxembourg does not accurately calculate its cumulative energy savings objective. Instead of using 0.8.% in the cumulation for the year 2021-2023, from 2024 onwards this rate is replaced with more ambitious percentages (see Page 59 EN version). In addition, when aggregating Luxembourg's planned measures for the	Compliant

			ESO, it seems that it will overachieve its Art.8 objective.	
	Policies and measures	Luxembourg lays down a detailed list of measures to fulfil its Art.8 objective. Two measures make up the bulk of the energy savings: Luxembourg's Energy Efficiency Obligation Scheme (32% of the total) and a CO_2 tax on liquid fuels (66%). Luxembourg notes that it has avoided double counting with regard to the EEO scheme and alternative measures.	In addition to the EEOS and the CO_2 tax, Luxembourg indicates ten other measures, which are not quantified precisely in terms of savings (only in ranges). The measures are explained in detail notably on the description of the policy, its state of play of the legislative references or entity responsible, but no details about the verification and monitoring of the measures are provided. There is no description of the eligibility of the energy savings declared under the EED rules (as for the CO_2 tax with the Energy Taxation Directive or the upcoming extension of the ETS) and no real evidence detailing that there is no double counting between measures.	Insufficient
	Energy poverty sub-target	Luxembourg indicates that the share of the population living in energy poverty is 3% in September 2022 according to national indicators.	Luxembourg does not acknowledge the new energy poverty sub-target in the ESO and does not quantify it with a precise number.	Not updated

8. Portugal (link to plan here)

Article		Description	Assessment	Grading
Energy efficiency target	Energy efficiency contribution	Portugal declares a national energy efficiency contribution in 2030 of a 35% reduction compared to the PRIMES 2007 scenario, only for primary energy consumption. This is equivalent to a target of about 20.7 Mtoe (own calculation).	Portugal fails to provide a national energy efficiency contribution in final energy. The contribution in primary energy is not in line with the EED formula's result (15.164 Mtoe) and is unchanged compared to the Portuguese 2019 integrated NECP.	Not updated
	Trajectory	Portugal provides "*an indicative pathway"* for primary energy that ends in 2021 and only indicates the declared energy efficiency objective for 2030, without precising yearly energy consumption values (see Page 46 EN version). A projection is also indicated for primary energy consumption according to the "With Existing Measure" scenario (see Page 169 EN version).	Portugal does not set a trajectory for final energy consumption by 2030. It only provides a pathway that stops in 2021 and projections for primary energy only.	Not updated
	Share of energy	Missing.	The share of final energy consumption per sector is however not displayed.	Insufficient

	consumption per sector	Portugal indicates a projection for the evolution of its energy consumption for primary energy consumption by source (see Page 170 in EN version).		
	Policies and measures	The draft plan lists energy savings measures in the framework of Art.8, with regards to the Long-Term Renovation Strategy, the public sector and other policies and measures to achieve the national energy efficiency contribution. Portugal clearly indicates whether each measure was already included in the 2019 Portuguese NECP or whether it is a new measure.	The measures provided lack details in their description, the funding source and entity responsible are not indicated, energy savings are not quantified, and the implementation and monitoring is not specified.	Insufficient
Energy Efficiency First principle	Use as an overarching principle in the NECP	Portugal underlines its commitment to the EE1st principle when deciding on investment projects in the energy sector, with a view of sustainability and cost-effectiveness.	The principle is not translated into concrete actions in the draft NECP and it is not used as an overarching principle to draft the plan across dimensions.	Insufficient
	Concrete measures to systemize the EE1st principle	Missing	Portugal does not specify any policies or measures to increase the application of the EE1st principle or to comply with the new obligations under Art.3. There is no responsible authority for its application	Not updated

			identified and no consideration of the multiple benefits of energy efficiency.	
Public sector obligation	Public sector objective	Missing.	Portugal does not acknowledge the new public sector obligation.	Not updated
	Policies and measures	Portugal indicates a series of measures in the public sector, such as on public street lighting or the decarbonisation of public administration buildings.	Portugal does not connect the measures indicated to the new public sector obligation.	Not updated
Renovation of public buildings	Objective	Portugal mentions the new extended renovation obligation for public buildings. The draft plan reports the equivalent annual energy savings for the public sector buildings (page 50 EN version).	Portugal does not provide any estimation of the floor area to be renovated, but only generally refers to the amount of total primary energy savings to be achieved in 2050 with the renovation of the building stock (0.11 Mtoe). Also, Portugal does not specify whether it will use the alternative or the default approach (in the past, Portugal used the default approach).	Not updated
	Policies and measure	Portugal indicates that the Energy Efficiency Programme in Public Administration will be reviewed and extended to include local and regional public administration (measure 1.5.1).	The measure is only an indication of the upcoming review of the program, which does not provide any information on the practical steps of implementation.	Not updated

Energy Savings Obligation	Objective	Portugal mentions the increased ESO annual rates under Art.8. Furthermore, it indicates that its cumulative energy savings over the 2021-2030 period will amount to around 6,739,682 toe.	Portugal still uses the old ESO annual rate to calculate its annual end-use objective and does not adapt its previous calculations to reflect the increased objective. As there is no quantification of the measures' expected energy savings, it is not possible to calculate whether the measures declared would deliver the cumulative energy savings objective.	Not updated
	Policies and measures	Portugal adds a few new measures compared to its 2019 NECP and extends some existing measures, particularly to push towards more energy-efficient buildings (including through financial and technical assistance and promoting prosumer actions).	The measures provided in the draft plan (whether new or existing) are not detailed. For most measures, Portugal only indicates the funding source and the entity responsible. There is no information on how the measures will be implemented, their impact in terms of energy savings, the legal act to establish them, or on how double counting will be avoided.	Insufficient
	Energy poverty sub-target	The draft plan refers to two indicators related to energy poverty: "beneficiaries of the Social Energy Tariff" and "inability to keep dwelling warm during winter". Portugal indicates that measures are envisaged to reduce energy poverty, in particular the "Valle Efficiency" program.	The Portuguese NECP does not acknowledge the new energy poverty sub-target in the ESO. The "Valle Efficiency" program is outdated, as it has been discontinued.	Not updated

9. Slovakia (link to plan here)

Article		Description	Assessment	Grading
Energy efficiency target	Energy efficiency contribution	The draft plan states that to comply with the 2023 EED the national energy efficiency contribution in final energy in 2030 should be set at 8.463 Mtoe (a 12% reduction compared to the PRIMES 2020 scenario). It also indicates that with the 2.5% deviation, the contribution would be in the range between 8.252 Mtoe and 8.675 Mtoe for final energy.	The draft plan mentions different possible final energy consumption levels that could be selected as the Slovakian energy efficiency contribution, without committing to one. The 8.463 Mtoe is approximately compliant with the result of the EED formula for final energy (8.461 Mtoe), without using the 2.5% flexibility. Slovakia does not provide a contribution for primary energy consumption.	Insufficient
	Trajectory	Missing.	Slovakia does not set a trajectory to achieve its energy efficiency contribution.	Not updated
	Share of energy consumption per sector	Slovakia indicates a projection for final energy consumption for each of its sectors in 2030 (expressed in percentage) with existing measures compared to their energy consumption in 2020 (see Page 286 in EN version).	Slovakia provides the share of final energy consumption per end-use sector, however, the data indicated is not precisely quantified. The shares provided fail to reach the range indicated by Slovakia for its final energy contribution (increasing by 5% in 2030 compared to 2020 consumption, which is	Insufficient

			already above Slovakia's range of final energy contribution, see page 286). Slovakia fails to provide a projection for primary energy consumption in its end-use sectors.	
	Policies and measures	The draft plan lists energy savings measures in the framework of Art.8 and, in another section, measures tapping into the energy efficiency potentials of gas and electricity infrastructure in order to achieve the national energy efficiency contribution. No additional measures are indicated to specifically deliver the overall energy efficiency contribution.	Measures generally lack details, the entity responsible for implementing them is mostly not indicated, energy savings are not precisely quantified per measure, only as a share per sector, and the implementation and monitoring are not specified.	Insufficient
Energy Efficiency First principle	Use as an overarching principle in the NECP	The draft plan refers several times to the EE1st principle, including as part of the strategy of the five dimensions of the Energy Union. It is also mentioned in footnotes regarding the internal market and energy security dimension.	Slovakia does not seem to translate the principle into concrete actions in its draft NECP, it does not adequately reflect it in all the dimensions of the plan and it does not use it as an overarching principle.	Insufficient

	Concrete measures to systemize the EE1st principle	Missing.	Slovakia does not specify any policies or measures to increase the application of the EE1st principle or to comply with the new obligations under Art.3. The authority responsible for its application is not identified and there is no consideration of the multiple benefits of energy efficiency.	Not updated
Public sector obligation	Public sector objective	Missing.	Slovakia does not acknowledge the new public sector obligation.	Not updated
	Policies and measures	Slovakia indicates a series of measures in the public sector, such as renovation of public buildings, public lighting and green procurement.	Slovakia does not directly connect these measures to the new obligation. The measures are embedded in a general description of the context of the measures, but lack a more detailed explanation, including of the expected energy savings per measure.	Not updated
Renovation of public buildings	Objective	The draft plan mentions that Slovakia will use the alternative approach to the renovation requirement. It sets an objective of 52.1 GWh/year as the equivalent annual energy savings to fulfil the 3% renovation rate of central government buildings (page 64 EN	Slovakia does not acknowledge the new extended renovation obligation for public buildings. However, in line with the Governance Regulation, it indicates the equivalent annual energy savings as per alternative approach between 2021 – 2030,	Not updated

		version). Furthermore, the plan indicates a "*medium deep*" renovation of at least 117 000m² of the total floor area of historical and detached public buildings.	which was missing in Slovakia's 2019 integrated NECP.	
	Policies and measures	Slovakia indicates a number of measures with regards to the renovation of public buildings in the framework of Art.8 in Annex II, however Annex II is not attached to the plan. Measures connected to public buildings renovation under Art.8 include e.g. investment in "*medium deep*" renovation, the "*Quick Fixes"* support program and data collection on public buildings. Furthermore, a financial measure regarding the improvement of the energy efficiency of buildings is listed.	The measures are not connected to the extended renovation obligation for public buildings and are not described in detail (see Art.8). There is often no explanation about the implementation of the measure, the legal basis, or the entity responsible for the implementation and monitoring and verification.	Not updated
Energy Savings Obligation	Objective	Slovakia indicates different projections for the ESO annual rate according to different methodologies (depending on how it calculates its final energy consumption). For the 2023 EED, Slovakia indicates two	Slovakia provides the different requirements for the ESO according to two methodologies. It provides calculations of two ESO baselines and two cumulative objectives. The objectives indicated are in the range of the cumulative objective required by the 2023 EED. However, the yearly annual savings	Insufficient

		cumulative targets of 6.137 Mtoe or 6.899 Mtoe for the period 2021-2030.	provided seem inconsistent with the ESO methodology. Moreover, Slovakia does not clearly commit to achieving one of the two cumulative objectives. In addition, as there is no direct quantification of the measures' expected energy savings, it is not possible to calculate whether the measures would deliver the cumulative energy savings objective.	
	Policies and measures	Slovakia lays down a list of measures to fulfil its Art.8 objective, this includes a short general description of the context of the measures divided into different sectors and the share of energy savings per measure per sector. Measures include multi-apartment buildings/renewal, energy savings agreements, and e-mobility in road passenger transport.	The measures provided by Slovakia are not detailed. There is no explanation of how the measure will be implemented, of the outcome in terms of cumulative energy savings (and the supporting rationale), the legal act for the policy or how they comply with the EED rules with regards to double counting and eligibility. Many measures already exist in Slovakia's 2019 integrated NECP (with a different name).	Insufficient
	Energy poverty sub-target	Slovakia states that a definition of energy poverty and some specific measures are being prepared in the framework of the 2023 EED. Slovakia indicates measures to alleviate energy poverty, such as the "*Home*	Slovakia does not acknowledge the new energy poverty sub-target in the ESO and therefore does not provide the quantification of the energy savings required or the target groups.	Not updated

		Light Recover" program to allow 100% funding for the renovation of single-family houses.		

10. Slovenia (link to plan here)

Article		Description	Assessment	Grading
Energy efficiency target	Energy efficiency contribution	Slovenia reports a national energy efficiency contribution in 2030 of 4.426 Mtoe for final energy consumption and 6.026 Mtoe for primary energy consumption.	Slovenia's objective for final energy is not in line with the EED formula or with the 2.5% deviation flexibility (but it is relatively close, as the final energy objective of Slovenia must be no more than 4.394 Mtoe to comply with the deviation). Similarly, Slovenia is not in line with the result of the EED formula for primary energy consumption (5.787 Mtoe).	Insufficient
	Trajectory	Slovenia provides a detailed trajectory towards its 2030 energy efficiency objective expressed in final and primary energy, with precise yearly consumption data.	Slovenia's declared trajectory is following a decreasing trend which is progressively tightening (it is not linear, the largest drop in energy consumption is expected at the end of the period).	Compliant

	Share of energy consumption per sector	Slovenia indicates projections for the evolution of each sector's final energy consumption for 2025, 2030 and 2040 according to two different scenarios (with existing measures and with additional measures) (see Page 128 in EN version).	Slovenia's projections for the residential and services sectors are not singled out but are included in a "*Wide Use*" sector. Slovenia also does not provide a projection for primary energy consumption in its end-use sectors. In addition, Slovenia's final energy projection in 2030 according to the NECP scenario (with additional measures) does not match Slovenia's reported final energy objective in 2030 (4.555 against 4.426 Mtoe).	Insufficient
	Policies and measures	Missing. Slovenia mentions that it has not yet updated the Chapter III of its NECP dedicated to policies and measures.	No measure is indicated to fulfil the higher energy efficiency objective.	Not updated
Energy Efficiency First principle	Use as an overarching principle in the NECP	Slovenia mentioned as its key objective to accelerate the energy and material efficiency improvements in all sectors "*according to the energy efficiency first principle*".	The EE1st principle is only briefly referred to, with no indication on whether it is used as an overarching principle across the draft plan.	Insufficient
	Concrete measures to systemize the	Missing.	Slovenia does not specify any policies or measures to increase the application of the	Not updated

	EE1st principle	Slovenia mentions that it has not updated the Chapter III dedicated to policies and measures.	EE1st principle or to comply with the new obligations under Art.3.	
Public sector obligation	Public sector objective	Missing.	Slovenia does not acknowledge the new public sector obligation.	Not updated
	Policies and measures	Missing. Slovenia mentions that it has not yet updated the Chapter III of its NECP dedicated to policies and measures.	Slovenia does not indicate measures in the public sector that could help fulfil the public sector obligation.	Not updated
Renovation of public buildings	Objective	Missing. The renovation requirement for public buildings is not mentioned.	Slovenia does not acknowledge the new renovation obligation for public buildings or recall its previous obligation.	Not updated
	Policies and measures	Missing. Slovenia mentions that it has not yet updated the Chapter III of its NECP dedicated to policies and measures.	Slovenia does not indicate measures to fulfil the revised renovation obligation for public buildings.	Not updated
Energy Savings Obligation	Objective	Slovenia mentions the increased ESO annual rates to comply with the 2023 EED. However, Slovenia only indicates its yearly energy savings (with a mistake for the starting date of the	The cumulative annual energy savings rate for the ESO is missing. Slovenia does not provide details on how the ESO baseline is set, nor the cumulative energy savings it has to achieve. As there is no description of the	Insufficient

		increased ESO rate to 1.3% which is set at 2023 and not 2024 and a mistake to increase the rate to 1.5% already in 2025 not 2026).	measures with quantified energy savings, it is not possible to calculate how much energy savings the ESO is projected to achieve.	
	Policies and measures	Slovenia mentions that it did not update its Chapter III on the envisaged policies and measures to achieve the higher energy and climate objective.	Slovenia does not indicate measures to fulfil a higher annual energy savings rate in line with the revised EED.	Not updated
	Energy poverty sub-target	The draft plan quantifies the share of households in energy poverty in a range between 4.9% to 7.2% of the population in 2022 (according to figures of its Statistical Office). Slovenia declares its intention to reduce the share of households in energy poverty in a range between 4.6 % and 3.8 % by 2030.	Slovenia does not acknowledge the new energy poverty sub-target in the ESO and therefore not the specific quantification of the energy savings required.	Not updated

11. Spain (link to plan here)

Article		Description	Assessment	Grading
Energy efficiency target	Energy efficiency contribution	Spain declares a national energy efficiency contribution in 2030 of 70.2 Mtoe for final energy consumption and 96.7 Mtoe for primary energy.	Spain's contribution for final energy is not in line with the EED formula even with the 2.5% deviation flexibility (maximum of 67.02 Mtoe). Similarly, Spain is not in line with the result of the EED formula for primary energy consumption without deviation (81.782 Mtoe).	Insufficient
	Trajectory	Spain provides the planned level of final energy only through one milestone in 2025. However, it also indicates that the proposed yearly reduction of energy consumption is equivalent, from 2019 to 2030, to 1.6% for final energy and 1.9% for primary energy.	Spain provides a yearly estimate of the reduction of primary and final energy consumption in percentage, even if no precise yearly consumption information is indicated.	Compliant
	Share of energy consumption per sector	Spain indicates the evolution by 2030 of its energy consumption for its total primary energy consumption, disaggregated for all sectors and for the total final energy consumption	Spain does not provide a projection for primary energy consumption in its end-use sectors.	Insufficient

		and final energy share of the industry, residential, services and transport (see from page 409 in EN version).	In its projection for final energy, Spain omits the consumption of the agriculture sector, and the service sector is bundled with other sectors. In addition, the projections for Spain's total primary energy by 2030 fall short of Spain's contribution (102.178 against 96.7 Mtoe). The aggregation of the final energy consumption of all sectors falls short by 3 Mtoe to Spain's declared final energy contribution.	
	Policies and measures	Spain provides 23 measures (15 "*sectoral measures*" and 8 "*horizontal measures*" under the ESO that will have an impact on the energy efficiency objectives for the sectors of transport, industry, residential, tertiary and agriculture and fishery (for instance the Energy Savings Certificate Scheme, the promotion of energy performance contracting or the promotion of energy audits).	The measures declared are detailed, albeit the "*sectoral measures*" are more detailed than the "*horizontal measures*" (for instance, no quantification of the expected energy savings is provided for the majority of the horizontal measures). No specific funding seems to be allocated to most of the measures, making their success more difficult.	Compliant
Energy Efficiency	Use as an overarching principle in the NECP	The draft plan underlines that priority must be given to energy efficiency, in line with the EE1st principle, to	EE1st is not used as an overarching principle. It is only briefly referred to, with no indication of its systematic inclusion and	Insufficient

First principle		achieve the overall objectives of the NECP.	consideration in the drafting of the updated NECP.	
	Concrete measures to systemize the EE1st principle	Missing.	Spain does not specify any policies or measures to improve the application of the EE1st principle or to comply with the new obligations under Art.3. The authority responsible for its application is not identified and there is no consideration of the multiple benefits of energy efficiency.	Not updated
Public sector obligation	Public sector objective	Missing. Spain only acknowledges the new public sector obligation.	Spain does not provide a quantification of the baseline or the required energy consumption reduction. It remains unclear whether exemptions are used and when the public sector obligation will start.	Not updated
	Policies and measures	Spain indicates a measure (2.17) under the public sector obligation which envisages the "*introduction in public administration of the purchase of goods, works and services with the highest energy efficiency possible*" (both for construction and purchase/lease of public buildings).	The measure is well explained and can have a positive impact on the reduction of consumption in the public sector. However no exact quantification of the expected amount of energy savings is provided, nor a quantified impact on the public sector obligation. It is stated that the measure has no financial needs, which might hamper its success.	Insufficient

Renovation of public buildings	Objective	Spain mentions the new increased renovation obligation for all buildings owned by public bodies. However, it provides a quantification of the floor area to be renovated for central government buildings only (300.000 m2 per year), not for the rest of the "*territorial administrations*".	Spain does not provide a complete indication of the total floor area to be renovated under the new Art.6 objective. Furthermore, even if Spain increases the scope of the renovation objective to state, autonomous communities and local authorities, it does not refer to the required level of renovation to NZEB or ZEB level required under the new Art.6. Spain seems to be using the default approach, as for the last obligation period.	Insufficient
	Policies and measures	Spain indicates two measures (2.17 and 2.11) which envisage "*the introduction in public administration of the purchase of goods, works and services with the highest energy efficiency possible*" (both for construction and purchase/lease of public buildings) and energy efficiency in buildings in the tertiary sector (which also encompass public buildings). The latter foresees the extension of the renovation obligation from the central state to all public buildings and is projected to achieve 3,361 ktoe over the period 2021-2030.	The measures are well explained and can have a positive impact on the consumption of public buildings. For the first measure, no quantification of the expected savings is provided and it is not certain whether the indicated actions can be counted under the 2023 EED Art.6 rules. However, the second measure indicates a quantified impact on the renovation requirements of buildings owned by public bodies, as well as details on the implementation, bodies responsible, policy mechanisms, legislative measures and financial needs.	Compliant

Energy Savings Obligation	Objective	Spain mentions the increase of the ESO annual rates under Art.8 and indicates that its updated cumulative target from 2021 to 2030 will be of 53,593 ktoe.	Spain acknowledges the increased ESO and correctly calculates its cumulative objective. Spain also provides a detailed explanation of the setting of the ESO baseline and of the calculation of the yearly energy savings and the cumulative objective (see Annex F). With the sum of alternative measures and the EEO, it is likely that Spain will overachieve its Art.8 obligation.	Compliant
	Policies and measures	Spain provides a detailed list of 23 measures for the purpose of the ESO (15 sectoral measures and 8 horizontal measures). The measures projected to generate the most energy savings relate to the Energy Savings Certificate Scheme, mobility, non-energy intensive and energy intensive industries and buildings in the residential sector. The draft plan explains that the energy savings have been calculated according to TIMES-Sinergia model and provides a detailed explanation of the model's methodology in Annex B of the plan.	The 15 sectoral measures indicated are well explained with a detailed description, an indication of the expected savings, the bodies responsible, the eligible actions, the funding instruments and the legislative measures envisaged, though it is unclear how the expected savings per measure were calculated. On the other hand, the majority of the 8 horizontal measures are not quantified in terms of energy savings, except for the Energy Savings Certificate Scheme. Most of the measures are already existing (see Page 527 in EN version). The eligibility of the policy measures is only provided for the EEOS but not for each alternative policy measure. The prohibition of double counting is underlined but no specific explanation of	Compliant

			how the double counting of savings has been avoided is provided for each measure.	
	Energy poverty sub-target	Spain provides several indicators to identify energy poverty but without singling out a specific number (see Page 87 in EN version). Spain indicates its aim to reduce each of the four indicators identified in its 'National Strategy against Energy Poverty' by at least 25% in 2025. In addition, several measures are described as having a positive impact on energy poverty, in particular measure 4.2 ("Fight against energy poverty").	Spain does not acknowledge the new energy poverty sub-target in the ESO and does not provide the specific quantification of the energy savings required.	Not updated

Annex II: Result of the EED formula calibrated to a 2030 EU energy efficiency target of 11.7%

Table 1: Result of the EED formula calibrated to a 2030 EU energy efficiency target of 11.7% for final energy consumption (FEC)

	REF2020 baseline	11.7% 2030 EU energy efficiency target	
	FEC	FEC target	Calibrated FEC
	[Mtoe]	[%]	[Mtoe]
BE	33.07	-13.0%	28.78
BG	9.98	-11.3%	8.85
CZ	22.92	-11.8%	20.21
DK	15.38	-10.7%	13.73
DE	178.73	-12.7%	155.95
EE	2.87	-10.9%	2.56
IE	11.12	-11.3%	9.86
EL	16.23	-9.8%	14.64
ES	72.41	-9.7%	65.38
FR	118.06	-11.9%	104.01
HR	6.64	-11.6%	5.87
IT	102.78	-10.4%	92.12
CY	2.04	-11.5%	1.81
LV	3.71	-11.6%	3.28
LT	4.80	-11.6%	4.25
LU	3.13	-13.5%	2.72
HU	18.37	-11.9%	16.19
MT	0.77	-10.4%	0.69
NL	43.18	-11.0%	38.42
AT	24.56	-13.1%	21.35
PL	66.02	-12.6%	57.73
PT	14.84	-9.7%	13.41
RO	25.25	-9.9%	22.76
SI	4.79	-10.6%	4.29
SK	9.61	-12.0%	8.46
FI	24.10	-14.5%	20.60
SE	29.02	-13,5%	25.10
EU27	**864.41**	-11,70%	**763.00**

Table 2: Result of the EED formula calibrated to a 2030 EU energy efficiency target of 11.7% for primary energy consumption (PEC)

	REF2020 baseline	11.7% 2030 EU Energy efficiency target	
	PEC	PEC	Calibrated PEC
	[Mtoe]	[%]	[Mtoe]
BE	38.34	-11.9%	33.77
BG	15.59	-12.1%	13.71
CZ	32.76	-12.1%	28.81
DK	17.23	-9.9%	15.52
DE	221.37	-12.5%	194.23
EE	4.54	-13.5%	3.93
IE	12.57	-10.7%	11.23
EL	18.80	-8.9%	17.13
ES	91.50	-10.6%	81.78
FR	179.19	-12.2%	157.34
HR	7.63	-10.4%	6.83
IT	125.42	-10.3%	112.16
CY	2.30	-11.4%	2.04
LV	4.17	-10.7%	3.73
LT	5.67	-9.0%	5.16
LU	3.21	-12.2%	2.82
HU	26.08	-10.6%	23.31
MT	0.91	-8.6%	0.83
NL	52.30	-11.6%	46.21
AT	28.44	-12.5%	24.88
PL	89.15	-13.5%	77.16
PT	16.92	-10.4%	15.16
RO	33.22	-9.2%	30.16
SI	6.47	-10.6%	5.79
SK	15.37	-11.4%	13.62
FI	34.32	-13.2%	29.78
SE	40.83	-13.2%	35.42
EU27	**1,124.31**	-11.70%	**992.50**

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