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**COMMISSION STAFF WORKING DOCUMENT**

**Assessment of the draft updated National Energy and Climate Plan of Malta**

*Accompanying the document*

**COMMISSION RECOMMENDATION**

**on the draft updated integrated national energy and climate plan of Malta covering the period 2021-2030 and on the consistency of Malta's measures with the Union's climate-neutrality objective and with ensuring progress on adaptation**

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# 1 SUMMARY

## 1.1 Overview of key objectives, targets and contributions in the draft updated NECP


The European Green Deal, the fast-evolving geopolitical context and the energy crisis have led the EU and its Member States to accelerate the energy transition and set more ambitious energy and climate objectives, including objectives to diversify energy supplies. These developments are reflected in the legislative framework adopted under both the ‘Fit for 55’ package and the REPowerEU plan.

Malta’s draft updated national energy and climate plan (‘the draft updated NECP’ or ‘the plan’), submitted on 6 October 2023, partially takes into account this new geopolitical and legislative framework.

Table 1: Summary of key objectives, targets and contributions of Malta’s draft updated NECP

|   |   | 2020     | Progress based on latest available data                    | 2030 national targets and contributions   | Assessment of 2030 ambition level   |
|---|---|----------|--|---|---|
|   | Binding target for greenhouse gas (GHG) emissions compared to 2005 under the Effort Sharing Regulation (ESR) (%)                          |          | 2021: +33.5%<br>2022: +35.1%<br><sup>1</sup>               | -19%  | NECP: No ESR projections included.<br>NECPR: +46.3%.  |
|   | Binding target for net greenhouse removals under the Regulation on Land Use, Land Use Change and Forestry (LULUCF)                        |          | Reported net emissions of 1 Kt CO <sub>2</sub> eq. in 2021 | -2 kt CO <sub>2</sub> eq. (additional removal target)<br><br>+2 kt CO <sub>2</sub> eq. (total net removals) | No LULUCF projections included.   |
|  | National target/contribution for renewable energy:<br><br>Share of energy from renewable sources in gross final consumption of energy (%) | 10%      | 2021: 12,2% (SHARES)                                       | Not available   | Malta’s reference to the 2019 NECP contribution of 11.5% is significantly below the 28% required pursuant Annex II of the Governance Regulation |
|  | National contribution for energy efficiency:  |          |  |   |   |
|   | Primary energy consumption (ktoe)   | 800 ktoe | 2021: 769 ktoe   | Not available   | MT primary energy consumption contribution is not available. EED recast   |

<sup>1</sup> The ESR emissions for 2021 are based on final inventory data and for 2022 on approximated inventory data. However, the final ESR emissions for 2021 and 2022 will only be established in 2027 after a comprehensive review.

|   |  |          |                |                  |   |
|---|--|----------|----------------|------------------|---|
|   |  |          |                |                  | Annex I formula results: 829 ktoe   |
|   | Final energy consumption (ktoe)            | 600 ktoe | 2021: 594 ktoe | Not available    | MT final energy consumption contribution is not available. EED recast Annex I formula results: 687 ktoe |
|  | Level of electricity interconnectivity (%) | 31%      | 40.9%          | 15% <sup>2</sup> |   |

Source: Eurostat; Malta’s draft updated national energy and climate plan

## 1.2 Summary of the main observations<sup>3</sup>

Malta’s draft updated plan refers to the revised energy and climate targets recently agreed under the ‘Fit for 55’ package and the **REPowerEU plan**. However, it does not sufficiently elaborate on how these targets will be effectively reached and the plan generally relies on existing measures. Regarding the **reduction of greenhouse gas emissions under the Effort Sharing Regulation**, the plan does not provide evidence and emission projections to demonstrate that Malta is on track to meet its national greenhouse gas target of -19% in 2030 compared to 2005 levels. According to Malta’s projections submitted in March 2023, there is a significant gap by over 65 percentage points, highlighting the need for more ambitious climate action notably for F-gases and in the transport sector, that accounts for almost half of Malta’s ESR emissions.

Regarding the **Land Use, Land Use Change and Forestry (LULUCF)**<sup>4</sup>, the draft updated plan does not set out a pathway to increase the land sector’s contribution to the EU’s overall enhanced climate target and does not reflect the increased ambition of the 2030 national target of -2 kt CO<sub>2</sub> equivalent (CO<sub>2</sub> eq.). The plan lacks any detailed projections to be able to assess level of the 2030 ambition, thus highlighting the need for enhanced climate action. The draft does not provide a clear implementation timeframe nor quantification of the impacts of specific policies and measures. It also lacks information on the status and progress in ensuring higher tier levels and geographically explicit datasets needed to ensure the robustness of net removal estimates.

<sup>2</sup> Calculated by the European Commission based on the ETNSO-E data (Winter Outlook 2022-2023). The 2030 level represents the general interconnectivity target of 15%. The level of ambition cannot be assessed, because the actual 2030 interconnectivity levels will depend on the implementation of the planned interconnectors and changes in the generation capacity.

<sup>3</sup> In addition to the notified draft NECP, this assessment also considers informal bilateral exchanges, which are part of the iterative process established under the Governance Regulation.

<sup>4</sup> Regulation (EU) 2018/841 of the European Parliament and of the Council of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework and amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU (OJ L 156, 19.6.2018, p. 1).

The **impact of policies and measures** on the achievement of the GHG mitigation targets lack details in terms of emissions reductions quantification, scope and timing. Actions are also lacking for some of the Energy Union dimensions.

On **Carbon Capture Utilisation and Storage (CCUS)**, the plan does not identify annual CO<sub>2</sub> emissions that can be captured, nor geological CO<sub>2</sub> storage capacity. No details on CO<sub>2</sub> transport are provided. Malta does not have significant industrial emissions; hence the use of carbon capture may also have limitations.

The draft updated plan reflects partial progress towards **international commitments** under the Paris Agreement. While Malta does not use coal in power production, it explicitly states that it has no plans to phase out any energy subsidies.

Regarding **adaptation to climate change**, the draft updated NECP does not contain adequate analysis of the relevant climate vulnerabilities and risks for the achievement of the national objectives, targets, and contributions and the policies and measures in the individual dimensions of the Energy Union. For instance, the vulnerability of the energy sector to floods, heat and drought, which may cause energy production disruptions, is not outlined. The link to the specific Energy Union objectives and policies, which adaptation policies and measures should support, is not specified and quantified. Adaptation policies and measures, to support Malta's achievement of national objectives, targets and contributions under the Energy Union, are not properly described in terms of their scope, timing and expected impacts.

For **renewable energy**, the draft updated plan does not reflect the updated EU policy framework for 2030. It refers to a contribution of 11.5% as notified in the 2019 NECP. However, this contribution is significantly below the share of 28% resulting from the formula in Annex II of Regulation (EU) 2018/1999 on the Governance Regulation of the Energy Union and Climate Action ("Governance Regulation") to contribute to the binding EU renewable energy target of 42.5% by 2030. Malta states that the increased ambition level will be reflected in the final updated plan which should reflect Directive (EU) 2018/2001 on the promotion of energy from renewable sources, as amended by Directive (EU) 2023/2413 ("revised REDII"). Malta did not include sector nor technology specific trajectories. The draft updated plan contains mostly the existing measures targeting both supply and demand side, and in most of the cases measures lack sufficient detail on the timetable and impacts.

Regarding **energy efficiency**, the Maltese draft updated plan is a preliminary update of the 2020 plan and does not report sufficient detail on the planned measures to achieve the 2030 energy efficiency goals. The increased ambition of Directive (EU) 2023/1791 on energy efficiency and amending Regulation (EU) 2023/955 ("EED recast") has not been taken into account, especially considering that no national contributions to the 2030 energy efficiency targets has been included.

Throughout the draft updated NECP the **energy efficiency first principle** is reported to be considered in Malta's energy planning, policy and investment decisions, but measures reflecting this principle are not included in the plan. Regarding planned measures, the plan puts forward a set of measures addressing most of the relevant sectors, including buildings, transport and business sectors. However, the planned policy and financing measures do not provide a sufficient level of detail on expected savings, the contribution to the energy savings obligation and the energy efficiency targets. Moreover, the draft NECP does not

provide estimates of financial needs or funding sources for many of the proposed measures, which would be key to ensure timely implementation of the measures.

In relation to **buildings**, the Maltese draft NECP update does not provide an update of the key elements, targets and milestones (for 2030, 2040 and 2050) of the 2020 submitted Long-term Building Renovation Strategy (LTRS). The ambition is not changed from what was included in the previous NECP. Existing measures are updated in the draft NECP; however, quantitative information on these is missing, and thus is not possible to assess their ambition.

In relation to the **energy security** dimension, the draft updated NECP convincingly sets out targets and policies to enhance the national security of gas, electricity and oil supply. The draft updated plan envisages measures to further improve the already high security of **gas** supply, in particular by investigating a hydrogen-ready pipeline and maintaining the fuel-switching capability of electricity generation sources. The plan describes support to power storage deployment in the **electricity** sector but does not include a specific and dedicated measurable target. In the **oil sector**, Malta mainly aims to lower its dependence on oil by decreasing oil consumption through energy efficiency measures and by increasing the share of renewable energy sources.

The **electricity supply market** is currently closed, with Enemalta plc. (electricity DSO) being the exclusive electricity supplier on the island. There are currently regulated retail electricity prices in Malta, which have fully shielded consumers from recent energy price shocks. However, this also reduces incentives for the development of demand-side response or aggregation measures. The draft updated plan does not include details on how demand response and flexibility services will be encouraged or facilitated.

On **energy poverty**, the draft updated NECP provides an overview of the measures currently in place to protect and support both vulnerable consumers and energy poor households, both in terms of price support measures and income support schemes, as well as more structural measures. However, the plan does not contain a specific target for energy poverty and does not report on the number of households in energy poverty. The draft updated NECP states that internal discussions to update indicators and targets are ongoing, and that these are planned to be included in the final updated NECP (June 2024).

The **research, innovation, competitiveness and skills dimension** contains only qualitative targets and measures to support research, innovation and investments in clean energy technologies and the digitalisation of the energy value chain. The plan does not include a concrete breakdown of investments in research and innovation (R&I) specific for the energy sector for 2030 and 2050, nor does it provide competitiveness targets in this area. The plan does not provide detailed information about the investments needed for the manufacturing of key components and equipment for net-zero technologies, nor does it show how Malta will ensure the resilience of its supply chains in cases where there would not be enough domestic production of those components or equipment to reach its climate and energy targets. The plan includes measures to strengthen regional cooperation in energy R&I but lacks information on measures and investments to overcome the identified skills gaps.

**Just transition is addressed in a limited manner in the draft updated NECP.** Information on employment, social and skills consequences, including distributional impacts, of the climate and energy transition is limited. While the plan mentions an overall commitment to support a just transition, it does not include concrete policies and measures

except for the social ones. It also does not elaborate on the resources specifically devoted to supporting a just transition. Finally, the plan does not provide sufficient information for the preparation of the Social Climate Plan and on how the consistency of the two plans would be ensured.

As regards its **strategic alignment with other planning tools**, the draft updated NECP partially covers the implementation of the measures included in the amended Recovery and Resilience plan (“RRP”) and notably those in the new REPowerEU chapter which was adopted by the Council last July. Furthermore, the measures in the plan overall reflect the **2023 European Semester Country Specific Recommendations**, in particular with regard to energy security and energy efficiency that will allow to reduce Malta’s dependency on fossil fuels, reflecting the main challenges to be addressed by the country, such as the need to enhance diversification and reduce their dependency on fossil fuels by taking specific actions in renewable energy deployment and electricity grid development. Some of the CSRs such as the one on improved energy efficiency, particularly in residential buildings, are less reflected on the draft NECP.

Finally, besides an estimation of the investment needs for the period of 2020–2050 based on Malta's Long-Term Strategy, there is no assessment of the expected **investment needs or details regarding funding sources** to implement the planned policies and measures for each of the five dimensions. Investment needs will be updated in the final NECP in line with the new projections described in section 4 of the draft NECP. There is no macro-economic assessment provided in the draft NECP.

## **2 PREPARATION AND SUBMISSION OF THE DRAFT UPDATED NECP**

### **2.1 Process and structure**

The Maltese plan was notified on 6 October, more than 3 months after the legal deadline.

The plan is generally well developed and overall follows the structure provided by the Annex I template, covering in a general manner all five dimensions, and including objectives, targets or contributions for each, backed by policies and measures and underpinned by an analytical basis, including an impact assessment, although it is generally based on the final 2020 NECP.

In terms of the process for preparing the plan, Malta has not yet organised public consultations, including social partners and a multi-level dialogue. Regional cooperation focuses primarily on the dimensions of Energy Security and Renewable Energy deployment which has involved technical and environmental studies as well as accelerated permitting procedures.

The NECP does not highlight the role of regional and local authorities in the implementation of relevant policies and measures. A strengthened cooperation among various governance levels may help the country achieve the NECP targets and goals.

### **2.2 Public consultation**

The public participation procedure outlined in the plan did not ensure early public participation before decisions were taken and throughout the decision-making process.

Malta has not mentioned whether they have established a multilevel energy and climate dialogue.

Malta will launch an online public consultation before submission of the final updated NECP to involve local authorities, social partners, civil society organisations, the business community, industry, other stakeholders and the general public. The public consultation process will take place in line with the established national procedure for online public consultations. The government will encourage the general public, civil society organisations, trade unions, business organisations, trade unions, business organisations, political parties and Government institutions to participate. The specific timeframe for the consultation is not outlined.

In addition, the update of the NECP will be based on the integration of other key thematic policy areas and strategies (some of them are mentioned), which have undergone, or will undergo the process of the already established procedure of online public consultation with all the major stakeholders.

### **2.3 Regional consultations for preparing the draft updated NECP**

The draft plan does not appear to have been discussed on a regional level with other Member States. The plan indicates that due to the country's isolated geographical position, consultations with other Member States are largely confined to its neighbouring Member States with which it shares maritime borders. The draft updated plan indicates policy areas, which Malta perceives important for joint and coordinated planning with other Member States for the development of the NECP, mainly energy security and renewable energy deployment.

## **3 ASSESSMENT OF THE AMBITION OF OBJECTIVES, TARGETS AND CONTRIBUTIONS AND ADEQUACY OF SUPPORTING POLICIES AND MEASURES**

### **3.1 Decarbonisation dimension**

#### *3.1.1 Greenhouse gas emissions, removals and storage*

The plan partially embeds the increased climate targets included in the Effort Sharing Regulation and LULUCF Regulation, as part of the Fit for 55 legislative package.

Based on the information provided in the draft updated plan, Malta is planning to move towards climate neutrality by 2050, without specifying a concrete date when to actually achieve it. The draft updated plan does not include concrete pathways to 2030 and to 2050. There are no WEM or WAM projections (reference is made to the Low Carbon Development Strategy published in 2021, whose projections, target setting and modelling will be updated in the final NECP update). Projections submitted in March 2023 under Art. 18 of the Governance Regulation show net GHG emissions (i.e., including LULUCF and excluding international aviation) of 3 million tonnes of CO<sub>2</sub> eq. by 2050 considering existing measures.<sup>5</sup> This is equivalent to a projected increase in 2050 of 12%, compared to 1990. In the most recent years, net GHG emissions in Malta have been rising, mainly due

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<sup>5</sup> In March 2023, Malta did not submit GHG emission projections under the additional measure scenario.



to an increase in emissions in the transport and waste sectors. The information provided in the draft updated plan does not allow for a full assessment as to whether progress by Malta is consistent with the achievement of the EU climate-neutrality objective. However, based on all the available information, progress by Malta towards the EU climate-neutrality objective appears largely insufficient. Malta plans to provide updated projections in the final updated plan.

The **ESR** sets Malta’s 2030 emissions reduction target to -19% by 2030, compared to 2005 levels. It is not possible to fully assess the level of Malta’s ambition based on the draft updated plan because it does not provide emissions projections from the effort sharing sectors. In its draft updated NECP, Malta acknowledges the challenges it faces in reaching its ESR target but states that it remains committed to comply with its expected contribution. The draft NECP argues that Malta’s societal, economic and geophysical realities including climate conditions lead to fewer options for modal shifts to reduce emissions. Transport accounts for almost half of Malta’s ESR emissions and the key policies and measures to reduce ESR emissions in the plan are targeted to this sector: the installation of EV charging points, the promotion of electrification of vehicles, the promotion of active mobility and cycling. However, without projections, it is not clear how emissions will evolve with additional policies. In 2021, Malta’s ESR emissions were below the Annual Emission Allocation (AEA) by 0.7 Mt CO<sub>2</sub> eq.

Although ESR projections are missing from the draft updated NECP, based on the latest data that had to be reported by Member States by 15 March 2023 under the Governance Regulation, Malta provided an ESR 2030 projection with existing measures (WEM) of an increase in emissions by 46.3% compared to 2005 and no ‘with additional measures’ (WAM) projection was provided. This is above their 2030 target by over 65 percentage points, highlighting the need for more ambitious climate action.

Member States have flexibilities under the ESR to comply with their targets. No specific use of ESR flexibilities is mentioned by Malta. To assess whether Member States comply, the use of saved AEAs from previous years and the ETS flexibility if needed are taken into account.

Table 2: ESR target and projections in Malta’s draft updated NECP

| <b>ESR target and projections<sup>6</sup></b> |                     |  |   |                             |                             |
|---|---------------------|--|---|-----------------------------|-----------------------------|
|   | <b>2030 target*</b> | <b>2021 performance (inventory data) *</b> | <b>2022 performance (approximated data) *</b> | <b>2030 WEM projection*</b> | <b>2030 WAM projection*</b> |
| <b>Malta</b>                                  | -19%                | 33.5%                                      | 35.1%   | -                           | -                           |
| <b>EU</b>                                     | -40%                | -14.5%                                     | -16.9%  | -27%                        | -32%                        |

\*Compared to 2005 emissions as set out in Annex I of Commission Implementing Decision (EU) 2020/2126.

<sup>6</sup> The comparison between the ESR target and emission projections does not take into account the flexibilities available for Member States under the ESR to comply with their 2030 targets. The ESR emissions will be comprehensively reviewed in 2027 (for the years 2021-2025) and 2032 (for the years 2026-2030).

The plan does not reflect the increased ambition of the **LULUCF Regulation** for 2030 and, in particular, the 2030 target of -2 kt CO<sub>2</sub> eq., and does not set a pathway towards the national targets.

The plan does not clearly set out a pathway to increase the contribution of land sector to the overall EU's enhanced climate target.

The draft NECP does not state whether removals from the LULUCF sector in Malta are projected to meet their 2030 target under a particular scenario. The plan provides an estimate for the total sequestration potential of Malta and outlines the current priorities in the LULUCF sector.

The draft updated plan lists some policies and measures to support the LULUCF sector, specifically in agriculture, mainly identifying opportunities for the future. Malta states their policies and measures are aligned with those included in the NECP 2019 and supported in the CAP strategic plan. There is no information regarding their implementation timeframe, the source of funding and, most importantly, the quantification of their impacts.

The draft updated NECP does not provide information on the status and progress to be made in ensuring the enhancements to higher tier levels and geographically explicit datasets for monitoring, reporting and verification (MRV), in line with the provisions under Regulation (EU) 2018/1999.

Overall, Malta does not clearly present how its policies and measures for the LULUCF sector will contribute to the long-term transition to climate neutrality by 2050.

The plan includes strong policies and measures for large-scale deployment of zero- and low-emission **mobility, transport and vehicles** – focusing on electromobility for Light (“L”) and passenger vehicles, public transport and public fleets. Originally, retrofitting of internal combustion engines to EV is also catered for.

The plan includes ambitious measures and resources allocated to promote active mobility (walking and, notably cycling). In 2022, European Alternative Fuel Observatory<sup>7</sup> counted 94 public recharging points (according to Regulation (EU) 2021/0223 Alternative Fuels Infrastructure Regulation (AFIR)) deployed in Malta and 5,317 electric vehicles registered. The objective in the Maltese plan to have at least 65,000 electric vehicles and 6,500 recharging points by 2030 and the expected nearly 4,000 recharging points according to the AFIR targets. Regarding public transport there is the plan to integrate 141 electric buses by 2026. The description of the measures related to electro-mobility (both relating to vehicles and to charging infrastructure) are included in the draft updated NECP; however, those relate mostly to existing measures with no details on how these objectives are planned to be achieved. The draft updated NECP indicates that a study is carried out by the government to assess the potential for the deployment of hydrogen in road, aviation and maritime transport sectors. The plan does not include roadmaps and/or measures for the production and deployment of sustainable aviation fuels (SAF) and/or sustainable maritime fuels, albeit referring to LNG for maritime and FuelEU / REFuelEU Aviation initiatives. However, the plan does mention ongoing projects focusing on the development of onshore power supply infrastructure to reduce emissions in particular for marine vessels when at berth.

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<sup>7</sup> <https://alternative-fuels-observatory.ec.europa.eu/>

The plan also quotes measures for the electrification in ports, and modal shift towards low-carbon modes, land and maritime public transport, including synergies with shared mobility based on e-vehicles, and incentives for the use of public transport by students, thereby also contributing to address partially at least transport poverty. The co-benefits of these measures for air quality are also explained.

The measures are qualitatively consistent with the CO<sub>2</sub> standards for cars and vans<sup>8</sup>.

The plan does not identify any annual emissions that could be captured by 2030 from ETS and non-ETS sources have been identified, nor any concrete estimation of **geological CO<sub>2</sub> storage capacity**. The plan does not foresee the deployment of any dedicated CO<sub>2</sub> transport capacities. At the same time, no potential storage capacity has been identified. No reference to CCS is made throughout the plan.

The plan pays limited attention to mitigating **non-CO<sub>2</sub> emissions** in different sectors. The plan addresses to some extent methane emissions in waste management, such as through improvements of waste management facilities and more diversion of waste away from landfills (e.g., the construction of an organic waste processing plant and a waste-to-energy plant), waste prevention measures as part of the Waste Management Plan 2021-2030, as well as gas extraction from landfills following the closure of the present landfills in operation.

However, the impact of these measures remains uncertain for several reasons. First, and more generally, the plan does not provide quantified projections of non-CO<sub>2</sub> emissions. Second, the plan indicates that the capacity of the organic waste processing plant is estimated at a maximum of 74,000 tonnes per year. Without knowing the impact of the other measures, this capacity seems insufficient to help Malta reach the targets on biodegradable waste set out in the Landfill Directive<sup>9</sup>. Finally, the information on the waste prevention measures is vague and does not explain how Malta seeks to increase its low capture rates in the separate collection system.

The plan addresses N<sub>2</sub>O emissions from agricultural soils through the support for organic farming and the reduced use of chemical N-fertilisers. The plan also includes measures aimed at reducing methane emissions in agriculture, including manure management. However, the plan remains unclear whether Malta seeks to reduce methane emissions from enteric fermentation, as it presents the issue of costs as a barrier.

Finally, on F-gases, it is noted that Malta has not ratified the Kigali Amendment to the Montreal Protocol, seven years after its adoption. The plan mentions F-gases from industrial processes and product use but does not present any mitigation measures. Instead, it mentions only vaguely the end-of-life treatment of HFCs and claims that there is no alternative climate-neutral technology to air conditioning units for cooling in Malta. The use of climate-friendly alternatives to HFCs with a high GWP in the air conditioning and cooling sector is possible in Malta, as is any other regions in the world. A broader uptake of these technologies requires, however, an upgrade of skills of technicians to ensure their

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<sup>8</sup> An EU-level reduction per OEM of 55% for cars and 50% for vans of CO<sub>2</sub> emission per km by 2030; 100% reduction (only Zero-Emission Vehicles - ZEV) at 2035. Measures such as corporate cars incentives and any fiscal incentive for ZEV shall be reported.

<sup>9</sup> Malta reported to have generated 141,000 tonnes of biodegradable municipal waste in 1995, and landfilled 257,974 tonnes in 2019, 183% in comparison to the reference year and performing far from the target of 35%).

safe use. Malta should speed-up the implementation of corresponding requirements of the new F-gas Regulation that will become applicable early 2024.

These shortcomings are problematic, because HFCs from refrigeration and air conditioning and methane emissions from landfill sites represented 11% and 9% respectively of the 2021 value defined in Regulation (EU) 2018/842.

The analytical basis of the draft updated plan includes partial assessments of **the impact of policies and measures** on the achievement of the GHG mitigation targets, even though their individual impact is not quantified for all sectors. The description of the policies and measures could be described in more detail in terms of scope, impact and timing.

The draft updated plan reflects partial progress towards **international commitments** under the Paris Agreement. Malta does not use coal in power production. However, Malta explicitly states in the draft updated plan that it has no plans to phase out any fossil fuel subsidies.

On 21 October 2021, Malta submitted to the Commission its **national long-term strategy**. The strategy does not indicate a clear goal of achieving climate-neutrality by 2050. In March 2023, Malta reported on the status of implementation of its initial NECP, including progress towards the Union's climate-neutrality objective. However, Malta did not indicate a target year to achieve its climate-neutrality objective. The strategy was one of the foundations of the update to the NECP but the projections, targets and modelling will be updated in the final NECP, along with revised measures that will achieve more targeted outcomes and reductions.

### *3.1.2 Adaptation*

The draft updated NECP of Malta does not include an analysis of the relevant climate vulnerabilities and risks for the achievement of the different Energy Union objectives. Malta is currently undertaking the 'Climate Vulnerability Risk Assessment of the Maltese Economy'.

Malta did not include adaptation goals in its initial NECP. Adaptation goals are not included in the draft updated NECP either.

The draft updated NECP of Malta does not include adaptation policies and measures relevant for the individual dimensions of the Energy Union.

Regarding adaptation goals, the draft updated NECP of Malta states, under the decarbonisation dimension in the section on GHG emissions and removals, that the low carbon development strategy includes a section on adaptation and adaptation measures. However, this section of the strategy on adaptation and adaptation measures relates to the following sectors: water resources; infrastructure and transport; land use and buildings; natural ecosystems, agriculture and fisheries; health and civil protection; tourism; cross-sectoral.

No planned or implemented nature-based solutions are described in the draft updated NECP. The plan states that Malta is striving to develop a long-term strategy for the environment towards 2050, a first draft was published in September 2022, and that this strategy has many overlaps and complements the energy and climate objectives of the EU Green Deal, as it takes into account climate mitigation and adaptation measures including nature-based solutions.

Innovative approaches such as insurance policies or fiscal measures addressing a climate protection gap are not included in the draft updated NECP.

The draft updated NECP does not address investments aimed at minimising environmental impacts, such as biodiversity loss when contributing to climate adaptation.

### *3.1.3 Renewable energy*

**The draft updated NECP does not contain an updated renewable energy contribution** to the increased EU renewable energy target of 42.5% for 2030 and indicates that the ambition level will be increased where technically and financially feasible beyond the current level of 11.5% of 2019 NECP, in its final updated plan to reflect the updated EU legislation. The draft updated plan highlights several circumstances affecting renewable energy deployment most notably growth in population and GDP; however, it does not provide detailed information backed by potential studies on how it could overcome the various physical and spatial challenges the country is facing for renewable energy deployment. Therefore, Malta's renewable energy contribution is assessed on the basis of a share of 11.5% of the national gross final consumption of energy in 2030, notified in its 2019 final NECP, which was calculated in line with the EU 2030 renewable energy target of 32%. This contribution is significantly below the share of 28% resulting from the formula in Annex II of the Governance Regulation. Malta recognises the importance of statistical transfers but does not foresee the purchase of RES credits through statistical transfer for the period leading to 2030. The draft updated NECP does not include any trajectories for the period up to 2030 and no information beyond this period until 2040. Hence, it is impossible to assess the trajectories provided in the 2019 NECP to reach the reference points for 2025 and 2027 in line with the new EU target of 42.5%. No sectoral breakdowns are provided up until 2030 on **the renewable shares of energy and technologies** contributing towards the fulfilment of the sectoral shares for **renewable energy sources in electricity generation, transport and heating and cooling** in line with the revised REDII.

The draft updated plan does not include and information on the **innovative target for renewable energy deployment** by 2030. While the draft NECP mentions broadly wind energy considerations for Malta it does not include concrete projects. In addition, the draft plan references that, in January 2023, Malta agreed in the context of the priority offshore grid corridor South and West offshore grids (SW offshore) pursuant to Article 14(1) of the TEN-E Regulation (EU) 2022/869 to a non-binding offshore renewables goal of 0.4 GW in 2050. However, the draft plan does not reference the intermediary goals of 0.05 GW in 2030 and 0.4 GW in 2040. While the draft plan makes broad reference to how Malta is pursuing the future development of offshore renewables it does not contain concrete information on how these goals will be pursued by way of concrete projects which have not yet been identified.

The draft updated plan does not include information on a share of **renewable energy in buildings and industry**. No information was provided on the role of waste heat and renewable electricity in the accounting of the heating and cooling, buildings and industry targets, neither on the impacts on the targets setting and their achievement. The information provided in the plan is generally based on the 2019 final NECP.

Regarding **transport**, the plan highlights the obligation on importers of petrol and diesel, set by the national legal framework, S.L. 545.17, to increase biofuel blending from 10% in 2020 to 14% in 2030, for final consumption in the road transport sector. The obligation additionally requires importers of petrol and diesel to increase the share of advanced biofuels from 0.1% in 2020 to 3.5% in 2030, with the share in 2022 and 2025 being 0.2% and 1.0% respectively. There is currently no production of renewable hydrogen in Malta, no consumption of hydrogen in the energy sector and negligible consumption for other purposes. The draft updated NECP provides no information on the capacity of electrolyzers in 2030 and heat. The draft plan does mention the Melita TransGas hydrogen-ready pipeline project and if the pipeline connected to Italy is realized it could facilitate the future import of renewable hydrogen.

The draft updated plan contains the existing **policies and measures** aimed at achieving the contribution of 11.5% in gross final renewable energy by 2030. In the **electricity sector**, the draft updated plan does not mention the objective to accelerate the production of electricity from renewable energy through the use of reverse auctions and the promotion of long-term Power Purchase Agreement (PPA). The only PPA that the draft NECP refers to is the state aid approved PPA with a 215 MW Combined Cycle Gas Turbine. Malta makes no reference on how it will use guarantees of origin to enhance the current system to improve consumers' information. When it comes to **Joint projects**, several research and innovation projects are mentioned with other Member States. Joint projects in renewables, particularly offshore, are also mentioned, but they lack sufficient detail.

The draft updated plan includes references to some current support schemes for solar PV but that will contribute to objectives the EU Solar Energy Strategy. A fast track permitting system is mentioned for small scale solar PVs but further details are missing. Malta has put in place a battery storage scheme in 2021 in conjunction with solar PV systems aimed at to **promote self-consumption**, but without indication on the foreseen impacts of this scheme. The draft updated plan does not present sufficient and well-described measures, neither quantitative goals for promoting **renewable energy communities**. It only states that the limited space available for the deployment of PV installations is considered as a barrier for the uptake of renewable energy communities in Malta, and the same legal framework applies, originally established for cooperatives.

The draft updated plan does not indicate whether it has put in place a dedicated strategy on **energy system integration strategy**, but it refers to a number of planned measures which will contribute to the flexibility of the energy system. Malta intends to promote of utility-scale battery storage investments and some demand side response solutions (described in the energy security paragraph of chapter 3), and also intends to carry out an assessment on the vehicle-to-grid (V2G) potential as a flexibility solution given the projected increase of EVs.

In relation to **industry**, the draft updated plan does not include specific measures to promote renewable-based electrification of industrial processes to replace fossil fuels used for industrial heating with the aim of reducing the use of fossil fuels and replace by renewable hydrogen and renewable electrification where it could be feasible. No specific targets, quotas, schemes that also highlight renewable hydrogen trade were included. The draft updated plan contains a comprehensive set of measures to promote electrification of transport (including public transport fleets) via incentives and subsidy schemes, most of which are financed under the Malta's RRP. In the future, e-mobility is considered as a key contributor to reduce the GHG emissions in road transport in Malta. The draft updated

NECP indicates that a study is being carried out by the government to assess the potential for the deployment of **hydrogen** in road, aviation and maritime transport sectors. There is currently no production of renewable hydrogen in Malta, no consumption of hydrogen in the energy sector and negligible consumption for other purposes.

Measures related to **bioenergy** availability and bioenergy sustainability have not been included. However, in the draft plan, it is explained that, due to land availability, Malta does not have any potential for cultivation of biomass, and that the biomass currently used for energy purposes (small amounts and mainly in the residential sector) is imported. Malta does not plan to include any measures to promote biomass, since this would require imports and cause additional transport costs. The cascading principle has not been highlighted exhaustively, however, as mentioned above, Malta does not plan any measures for the promotion of the use of biomass for energy purposes. The draft plan states that the biofuels placed on the market (including imported biofuels) have to fulfil the RED II sustainability criteria but does not include any similar reference for bioliquids and biomass fuels. The plan has not assessed the impact that bioenergy trajectories may have on LULUCF sinks, biodiversity and air quality. Regarding biomethane the draft plan mentions that if the Melita TransGas hydrogen-ready pipeline project is realised, biomethane could be imported as well. However, no measures are provided for the promotion of biomethane deployment.

The draft updated plan does not include **mapping of the areas** necessary to achieve the updated national contribution to the 2030 Union's renewable energy target of 42.5% or on the designation of renewables acceleration areas and dedicated infrastructure areas. For the streamlining of administrative procedures and time limits for granting permits Malta intends to set up one or more contact points, but no information is provided on the technology targeted. National Regulator for Energy and Water Services is responsible for coordinating the process with the relevant authorities. The Regulator is currently putting in place an electronic platform that integrates different steps of the permitting process. In addition, Malta has already introduced a system of fast track permitting for PVs with less than or equal to 16 amps per phase to facilitate the installations and their connection to the grid. Malta states that it is currently exploring the possibility of establishing offshore renewable energy farms (wind and/or solar) within the maritime EEZ area. The plan has not elaborated on the additional human resources dedicated to permitting.

### **3.2 Energy efficiency (including buildings) dimension**

**Malta reports no national contribution for primary nor for final energy consumption.** Moreover, Malta does not report information on the WEM and WAM scenarios in the draft updated NECP, stating only that projections on different scenarios are in progress and detailed information on measures will be included in the final updated NECP.

The target on reducing total final energy consumption of all public bodies is not well described in the draft updated NECP and does not include enough information regarding the measures planned, including the information on the exclusion or inclusion of public transport or armed forces.

Some information is provided on the obligation to renovate public buildings pursuant to Article 6 EED recast on the exemplary role of public bodies' buildings. The draft updated NECP mentions commitments under the RRP that is in line with the long-term renovation strategy to renovate and improve the energy efficiency of 9,232 m<sup>2</sup> of public buildings.

The renovation will achieve a reduction of primary energy demand of at least 30%. The total cumulative savings requirement for the period 2021-2030 amounts at 118.7 ktoe for Malta, based on the new ambition of the EED recast. The draft updated NECP lists energy saving measures, but these are not sufficiently well described and contain only a partial estimation of energy savings. Based on the available information it is not possible to assess, whether these measures will deliver the savings required post-2020 to fulfil the energy savings obligation of Article 8 EED recast or not. More details are needed in order to understand how these measures contribute to the achievement of the 2030 energy efficiency contributions.

The Maltese draft NECP states that the energy efficiency first principle has already been considered in Malta's energy planning, policy and investment decisions, however it does not include measures that show how this principle will be implemented.

The draft updated NECP presents 15 main energy efficiency measures, covering all sectors, with a main focus on transport aiming at its full electrification. The measures range from grant schemes incentivising the purchase of electric vehicles by private individuals or supporting businesses in carrying out investments leading to improved energy efficiency to regulatory measures to increase energy efficiency in buildings. Malta reports that several further measures are under development and the full list, including new measures, will be provided in the final updated NECP. The impact of the measures is not always quantified. Therefore, it is not possible to assess the contribution of the measures to reach the reported targets. Moreover, information on required investments and funding for the measures is missing.

The Maltese draft NECP update does not provide an update of the key elements, targets and milestones (for 2030, 2040 and 2050) of the 2020 submitted **long-term building renovation strategy (LTRS)**. The ambition is not changed from what was included in the previous NECP. Existing measures are updated in the draft updated NECP but quantitative information is missing. Therefore, it is not possible to assess the ambition of the listed measures.

In the draft updated NECP, Malta states that the main driver of consumption in the residential sector is the growing population, particularly number of households. The average energy consumption per household is estimated to increase by 3.7% between 2020 and 2030, while the **number of households is estimated to increase by 25%**. In a WEM scenario, Malta reports that the **process of electrification** will continue, leading to a projected 12% increase of electricity consumption per household by 2030 with respect to 2020. On the other hand, non-electric energy consumption per household (mainly LPG for cooking and heating) is expected to drop by 25% from 2020 to 2030.

The targets are the same as in LTRS. For example, for **residential buildings**, energy efficiency improvements will affect 5-6% of the stock per year, with a deep renovation rate of 0.6% starting 2025. The high marginal costs for renovations will require the use of financial incentives to mobilise investments in the private sector to achieve very high levels of performance. For **private non-residential buildings**, the renovation rate is expected to be 1.1% from 2021 to 2030 and increase to 3% in 2050.

The draft updated NECP mentions policies to stimulate the uptake of additional energy efficiency measures in existing buildings (**information, economic measures**) as well as via minimum standards affecting newly built and existing buildings that are rented (**regulatory and enforcement measures**). The Government will continue incentivising



the uptake of new technologies as well as fostering behavioural change where necessary, e.g., through public information campaigns and technical visits for tailored support. As of 2022, this professional advice was also extended to micro-SMEs to advise them on efficient energy and water use in their businesses.

### 3.3 Energy security dimension

The plan acknowledges that Malta is a geographically isolated island with a high **import dependency** due to the lack of domestic conventional energy sources and relatively limited renewable energy resource potential. Fossil fuels play an important role in the Maltese energy mix, accounting for 96% of the gross available energy in 2021<sup>10</sup>. Import dependency on third countries is relatively high and has been on an increasing trend in the past years, from 39% in 2013 to 45% in 2021<sup>11</sup>. The draft updated plan does not provide any forecasts for the evolution of these indicators. Malta was not directly affected by the disruption of Russian gas supplies as it has a long-term LNG supply agreement, is not interconnected to the trans-European gas network and is not dependent on gas imports from Russia.

The draft updated plan asserts an aim to achieve greater security of supply through **diversification and lower energy import dependency** through the deployment of renewables. More specifically, the plan aims to continue to ensure the capability to source LNG from diverse international sources (in the short to-medium term); pursue options to enable sourcing and delivery of sustainable fuels; complete a second electricity interconnector with Italy; and explore the possibility of interconnections with neighbouring third countries. The measures related to renewables deployment are described in the section 3.1.3.

**Natural gas** in Malta is used solely for the generation of electricity and currently constitutes the largest share of Malta's electricity generation mix at approximately 70%<sup>12</sup>. The only source of natural gas in the country is LNG, which is imported via marine carriers under long-term *take-or-pay* supply agreements. LNG supplied to the country between 2017 and 2021 originated from eight different countries, with the highest share coming from South America (69%). LNG is imported through an LNG facility consisting of an LNG floating storage unit and an onshore regasification unit at the Delimara site. Malta's direct dependency from Russian gas was 0% in 2021<sup>13</sup>. This allows Malta to benefit from a high level of gas supply security, even if it does not have any gas storage facility nor connection to the continental gas network.

Overall, the draft updated plan sets out targets and describes measures to further strengthen the country's security of gas supply. For instance, to further diversify its sources, Malta is investigating a hydrogen-ready pipeline project with Italy: this project has been provisionally listed as EU Project of Common Interest (2023 list). The plan also mentions the acceleration of renewables deployment and the reduction of gas demand. The maintenance of fuel switching capability of electricity generation sources is noted as well,

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<sup>10</sup> Eurostat data.

<sup>11</sup> Eurostat data.

<sup>12</sup> [https://energy.ec.europa.eu/data-and-analysis/eu-energy-statistical-pocketbook-and-country-datasheets\\_en](https://energy.ec.europa.eu/data-and-analysis/eu-energy-statistical-pocketbook-and-country-datasheets_en).

<sup>13</sup> European Commission, [https://economy-finance.ec.europa.eu/system/files/2023-06/ip242\\_en.pdf](https://economy-finance.ec.europa.eu/system/files/2023-06/ip242_en.pdf).

with Malta having the capability to run gasoil-fired power plants for a limited period of time during emergencies. Malta is the only country in the EU which increased its gas consumption between August 2022 and August 2023. Gas consumption increased by 12% during the period in comparison with the reference period, well above the -15% indicative target and the EU27 average (-18%)<sup>14</sup>. Yet, because of its particular geographical situation and of the specificities of its energy system, Malta can bring only a limited contribution to the reduction of gas demand in Europe. It is however positively noted that the draft updated NECP describes the gas demand reduction measures implemented and expresses the intention to integrate them into the medium-term planning towards 2030.

As regards the **electricity sector**, because of the importance of gas in the electricity mix, the security of electricity supply is highly intertwined with the security of gas supply. To further strengthen the security of electricity supply in the country, a decision was taken to invest in a second 200 MW electricity sub-sea link with Italy (Sicily) by 2026. This second cable link with Italy would contribute to long-term security of supply as well as allow for the integration of a higher share of renewable energy sources. It should also ensure Malta's ability to meet the N-1 system adequacy criterion<sup>15</sup>.

The draft updated plan assesses options to increase the **flexibility** of the system and to deploy energy storage capacities, notably through the installation of large-scale battery systems. The plan does not include a dedicated strategy for flexibility or storage, however. Two utility scale Battery Energy Storage Systems (BESS) are under development. Furthermore, the Government will continue to provide financial support to further increase the deployment of solar PV technologies in conjunction with behind-the-meter battery storage systems. According to a study on energy storage of March 2023 commissioned by the European Commission, Malta had no operational power storage capacity at the time of the publication. One of the main barriers identified for storage deployment was the absence of a specific regulatory framework dedicated to it, which resulted in significant uncertainty for utilities<sup>16</sup>. Lastly, the draft updated plan also refers to an update of the *Electricity Supply Study* carried out in 2021, which supports Malta in identifying cost-optimal solutions to ensure resource adequacy by 2040.

**Oil products** represent more than 84% of Malta's energy mix. As there is no refinery in Malta, the country is fully dependent on oil product imports from third countries (top 3 oil products sources in the first half of 2023 were Italy, Spain and Turkmenistan). Less than 20% of oil product imports are used for national consumption (of which 70% is for transport) with more than 80% used for international bunkers.

Measures for oil security of supply are well reflected in the draft updated plan which includes details on the oil stock system and the oil supply disruption emergency plan. Malta

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<sup>14</sup> DG ENER Chief Economist Team based on ESTAT NRG\_CB\_GASM (sub-series IC\_CAL\_MG subtracted by TOS) in TJ (as of 29 September 2023, 11:00).

<sup>15</sup> The N-1 criterion is a long-established operational standard to measure the resilience of a grid, and which means that the network must be able to withstand the (temporary) loss of the biggest asset on the network.

<sup>16</sup> This figure is derived from the database which accompanied the ENTEC study on Storage funded by the European Commission and published in November 2022, by taking into account only the "operational" facilities: [https://op.europa.eu/en/publication-detail/-/publication/dfcaa78b-c217-11ed-8912-01aa75ed71a1/language-en?WT\\_mc\\_id=Searchresult&WT\\_ria\\_c=37085&WT\\_ria\\_f=3608&WT\\_ria\\_ev=search&WT\\_URL=https%3A//energy.ec.europa.eu/](https://op.europa.eu/en/publication-detail/-/publication/dfcaa78b-c217-11ed-8912-01aa75ed71a1/language-en?WT_mc_id=Searchresult&WT_ria_c=37085&WT_ria_f=3608&WT_ria_ev=search&WT_URL=https%3A//energy.ec.europa.eu/).

does not evaluate the impact on security of supply of the large proportion of stocks held abroad in the form of tickets (84%), however, which can be difficult to renew in case of supply crisis. Malta's aim to lower its dependence on oil through energy efficiency measures and an increasing share of renewable energy sources is positively noted. The plan does not explain the resulting expected share of oil in the energy mix by 2030, however.

**Cybersecurity** measures and actions are well elaborated in the draft updated NECP. Malta states it has transposed Directive (EU) 2016/1148 concerning measures for a high common level of security of network and information systems across the Union into national law and elaborates on a number of specific measures.

It is also positively noted that the draft updated plan covers **critical infrastructure protection**. In particular, energy has been identified as key critical infrastructure in 2011 under Maltese legislation, and consequently the utility Enemalta has developed an Operator Security Plan for the generation and distribution sectors. By contrast, the **resilience of the supply chains** in terms of access to critical raw materials needed for the green transition and the **implications for energy security of climate change** are not covered in the plan.

The draft updated NECP describes measures in the event of security of supply crisis for electricity and for gas in detail by referring to all the mandatory documents to be prepared under EU legislation. In this regard, Malta submitted its National Risk Assessment, its Preventive Action Plan, its Emergency Plan, as well as the Common risk assessments for the Algeria, Libya and Caspian Regional Risk groups. At the time of writing, they are all being assessed by the European Commission.

### **3.4 Internal energy market dimension**

The draft plan points out that Malta as an island is in a specific situation and that it has derogations from key internal energy market rules both as regards electricity and natural gas.

Malta's usage of natural gas is linked only to gas-fired power plants, that rely on Liquefied Natural Gas (LNG) imports delivered via sea vessels and stored in a floating storage unit (FSU) situated adjacent to an existing gas fired power plant in Delimara. Malta is 70% reliant on natural gas for electricity generation. There is no gas distribution system in Malta and no other natural gas consumers. In addition, Malta is not interconnected with the European mainland gas grids. It has proposed a project in this respect to interconnect with the South of Italy which is a Project of Common Interest on the 5<sup>th</sup> Union List. This project is planned to be ready to transmit 100% pure hydrogen in the future, although its use will depend on whether hydrogen demand picks up locally for power generation or for maritime transport.

The draft plan addressed **Malta's electricity interconnections**. Malta is interconnected with Italy through a sub-sea cable that was completed in 2015 and a new interconnector is under development to be completed by 2026. The second electricity interconnector will also ensure that Malta reaches the 15% interconnection target. The project has been included under Malta's MFF programme 2021–2027 under ERDF and the funding application will be submitted in 2023.

Moreover, the plan also describes one of Malta's objectives in terms of diversification of energy resources and supply, i.e., to explore the possibility of interconnections with

neighbouring third countries. In order to tackle the variable nature of large scale solar and wind generation, Malta is also planning investments in utility-scale battery storage in addition to the new interconnector with Italy. Two utility scale Battery Energy Storage Systems (BESS) are under development, both of which have a planned commissioning date of Q2 2026. The first project located in Marsa is funded with EUR 12 million from RRF. The second project, part financed through ERDF funds, will be located within the site of the Delimara power station. The capacity of the two battery systems is not put into relation in the draft plan to the energy storage needs.

However limited information on key policies and measures to incentivize demand response was provided, without providing a clear overview of the **flexibility** needs and on the need to enable the consumers to rapidly reap the benefits of it. The plan mainly states that the potential for demand response is to be assessed. Furthermore, it points out that retail prices are regulated with only limited incentives for flexibility.

Regarding **energy poverty**, the draft plan does not provide any analysis of households in energy poverty, neither does it establish a national objective to reduce energy poverty. Furthermore, there is no reference to national objectives or a concrete timetable to develop the specific measures announced nor reference to the link between energy efficiency and social policies and measures. The draft NECP states, that internal discussions to update indicators and targets in line with the new requirements are ongoing, and these will be included in the final updated NECP.

In the **wider context of vulnerable households**, which might not necessarily be limited to energy poor households, Malta is implementing several affordability and partially also structural measures to support vulnerable households while improving energy efficiency. The Energy Benefit scheme administered by the Department of Social Security within the Ministry for the Family, Children's Rights and Social Solidarity, under which vulnerable households receive a direct reduction in their utility bills. The Eco-reduction scheme under which households that consume electricity below a defined threshold receive a direct rebate on 15-25% of their electricity bills. In another measure, professional advice can be sought, free-of-charge, by the Energy and Water Agency to vulnerable and low-income households on energy efficient appliances, water efficiency and behavioural change. Furthermore, financial schemes aimed at reducing energy and water consumption in low income or vulnerable households through the replacement of old and inefficient appliances are provided.

### **3.5 Research, innovation, competitiveness and skills dimension**

#### *3.5.1 Research and innovation*

Malta reported on the national objectives for research and innovation in clean energy technologies in qualitative terms only. The Malta Council for Science and Technology prepared a draft updated National Research and Innovation Strategic Plan for 2023–2027, which outlines the overall framework and governance driving research and innovation (R&I) activities in Malta. Building on this strategic plan, Malta's National Strategy for R&I in Energy and Water 2021–2030 identifies three R&I priority areas for the energy transition: renewable solutions for islands, integration of renewable electricity and energy efficiency solutions<sup>2</sup>. Additionally, the Maltese Smart Specialisation Strategy 2021–2027<sup>3</sup> includes five specialisation areas related to the Energy Union, including the Sustainable

Use of Resources for Climate Change Mitigation and Adaptation supporting decarbonisation and the uptake of renewables and storage solutions.

The recently established Research and Innovation in Energy and Water platform (RINEW) is intended to become the primary tool for implementation of Malta's Strategy for R&I in energy and water. RINEW brings together the government, academia, industry and businesses, and has a dedicated governance.

Total yearly R&I public expenditure in clean energy and low carbon technologies was around EUR 793 thousand in 2020 and EUR 943 thousand in 2021, averaging around 2.5% of the total R&I public expenditure. The plan does not report on future spending for R&I in clean energy technologies for 2030 and 2050. Neither the draft updated NECP, nor the national plans include more operational details outlined in a more programmatic approach. Such details, targeting a longer-term perspective, could include specific priorities for R&I in energy coupled with financial allocations or funding targets, and implementation milestones.

The National Research and Innovation Strategic Plan mentions the current trend of increasing importance of strategic bilateral and regional cooperation, as well as a drive to developing strategic bilateral and multilateral partnerships in R&I that would contribute to key European initiatives. Together with Cyprus and the Netherlands, Malta has initiated the Mediterranean Island Cleantech Innovation Ecosystem (MICIE) project. The project intends to develop action plans to enhance R&I activities in Malta and Cyprus. Additionally, Malta actively participates in the Clean Energy Transition Partnership and has allocated a national contribution of EUR 3.5 million.

### 3.5.2 *Competitiveness*

The draft updated NECP of Malta does not include any specific national objectives or targets on competitiveness. Malta does not provide detailed information about the investments already implemented or foreseen in the near future for the manufacturing of key components and equipment for net-zero technologies. It also does not indicate how it will ensure the resilience of its supply chains if there is not enough domestic production of components or equipment needed to be deployed for reaching the national and climate targets.

The National Strategy for Research and Innovation in Energy and Water intends to step up the support for research in companies, as R&I activities undertaken by businesses are currently very limited. Malta reports that a vast majority of companies do not see R&I activities as a compelling area of investment.

The Energy and Water Agency (EWA) manages a funding scheme for R&I that publishes annual calls. The funding scheme will start targeting more technically mature projects that should become ready to deploy results on the market. Priority is now given to projects at experimental design stage aiming to deliver functional system prototypes (to reach Technology Readiness Level 7). This is a shift from the previous funding calls that targeted Technology Readiness Levels 2 to 6 and should support increasing the competitiveness of companies that apply for funding. Supported projects have typically two years for completing their actions and receive grants of up to EUR 200,000. The draft updated NECP does not, however, indicated planned future funding under this scheme.

The plan acknowledges the importance of digitalising the energy system and the need for further studies and investments in this area. The majority of consumers are already equipped with first-generation smart meters. The rollout of second-generation smart meters has started (for instance all new residential consumers are receiving such meters) so that more than 18% of installations are already upgraded. The continuation of the deployment of modern, second-generation smart meters is the only measure envisaged in the plan with regard to the digitalisation of energy. No specific targets are set out.

### 3.5.3 Skills

The draft updated NECP refers to the 2023 Country Specific Recommendations for Malta which includes a call to step up policy efforts aimed at the provision and acquisition of the skills needed for the green transition. Malta will continue its efforts to boost research, innovation and competitiveness based on the Smart Specialisation Strategy 2021–2027 focusing on renewables, thereby also boosting local green jobs and skills. However, the draft updated NECP does not further elaborate on skill shortages and measures and investments to overcome them to boost European competitiveness in clean energy technologies, equipment and components and skills development required for the clean energy transition, connecting for instance with relevant European Year of Skills initiatives, etc.

## 4 JUST TRANSITION

Just transition aspects are addressed to a limited extent in the draft updated NECP. Malta declares full support for a just transition and highlights the Government’s commitment to continue providing support to territories, groups, and individuals facing socio-economic challenges to ensure a fair transition to a carbon-neutral economy in the plan. Nevertheless, the provided analysis is limited in terms of social, employment and skills consequences, or any other distributional impacts on vulnerable groups, of the energy and climate transition. Furthermore, the plan does not provide sufficient information for the preparation of the Social Climate Plan, as assessed in Chapter 7. However, Malta states that the results of the socio-economic impact assessment, including just transition elements, will be incorporated into the updated final NECP.

Jobs opportunities are mentioned in the context of the Smart Specialisation Strategy 2021-2027 and commitments made in 2023 to make the Mediterranean Region a Hub of Green Energy. With regards to training, the draft updated NECP refers to the open call under the Recovery and Resilience Plan supporting training and certification programme for professionals and tradesmen in the buildings and construction industry with focus on climate change and sustainability. But overall, concrete measures to support **employment and affordable and inclusive education, training and life-long learning** in the context of the climate and energy transition are not included in the plan.

Despite the lack of an overall strategy to address just transition, the draft update of the plan includes a number of **social measures** to support, amongst others, vulnerable and energy poor households as well as provision of advice, technical assistance, and information campaigns on energy consumption audits sustainable use for consumers. Incentives to the use of sustainable transport, such as the National Free Public Transport Service, are also

included. Finally, the plan does not detail resources devoted to supporting the just transition except the European Social Fund Plus (ESF+).

## **5 REGIONAL COOPERATION**

The draft updated plan recognises the strategic role for regional cooperation. Nevertheless, the plan highlights the particular context for regional cooperation due to Malta's isolated geographical position. Regional cooperation is mostly considered relevant for the energy security and renewable energy dimensions. Malta relies greatly on its electricity interconnection to Italy for electricity imports, and notes that work is ongoing to enhance cooperation with Italy with notably a second electricity interconnector under development. There are also plans for a gas interconnector with Italy.

The draft updated plan also points to regional cooperation in the context of the Med9 group (Italy, Croatia, Cyprus, France, Greece, Malta, Portugal, Slovenia, and Spain) seeking to turn the region into a hub of green energy. The plan specifies that more information on regional cooperation will be included in the final updated plan.

The plan notes that Malta is open to future regional cooperation in the area of renewable energy projects. This is not specified further, however.

## **6 INTERNAL COHERENCE AND POLICY INTERACTIONS WITHIN THE DRAFT UPDATED NECP**

The draft plan acknowledges key synergies within and between the 5 dimensions of the Energy Union, including the impact of increasing flexibility and demand response measures on the penetration of renewable energy, as well as on the integration of the internal energy market. Similarly, the interaction of key objectives of diversification of energy sources is directly related to the deployment of renewable sources. The updated plan did not provide concrete actions including a comprehensive analysis of consistency of policies and measures in each dimension and a quantitative analysis of interactions of the objectives set out, for example those related to energy storage, demand response and system flexibility coupled with the acceleration of RES deployment.

## **7 STRATEGIC ALIGNMENT WITH OTHER PLANNING INSTRUMENTS**

**The draft updated NECP covers adequately the main Recovery and Resilience Plans (RRP) reforms and investments, as adopted by Council last July.** The modified RRP, including the REPowerEU chapter supports climate change objectives with EUR 225.9 million or 68.8% of the plan's total allocation, while measures within the REPowerEU chapter support climate change objectives with 100% of the chapter's total estimated costs. The most important contributions to this RRP target are the investment in the electricity grid, energy efficient renovation and transport decarbonisation measures. In some cases, RRP measures are the key to the achievement of the NECP objectives. This is for example the case for renovation and greening of public sector buildings, where the renovation including retrofitting, of two public schools (St Benedict College Ghaxaq Primary School and Gozo College Nadur Primary School) and a public hospital (Mount Carmel) are mentioned. The decision to roll-out the electrification of Public Transport Fleet through

the replacement and integration of 141 electric buses by 2026 out of which 102 will be financed through Malta's allocated RRP Funds, with an investment of €34 million. The RRP investment C7I1 to strengthen and widen the electricity distribution network through investments in the grid, distribution services and battery storage.

The draft updated NECP includes or refers to 14 out of the 18 climate relevant measures of the modified RRP. But in vast majority of the cases the RRP measures are not explicitly mentioned in the draft plan, so that measures that are reflected, many times, lack granularity and detail to allow for a full comparison with those in the RRP. Among the RRP measures that are not reflected in detail in the draft NECP, Reform C7-R1 "Review of existing permitting systems to streamline processes and accelerate permit-granting procedures for renewable energy projects" should be noted. While this RRP reform aims to increase the share of renewables in Malta's energy mix by accelerating permit-granting procedures for renewable energy projects and introducing the obligation to install rooftop solar panels on certain new buildings, the draft plan fails to include any details of the planned actions to implement it.

The draft updated NECP is consistent with **the Territorial Just Transition Plan (TJTP)** although it is only briefly explained how the Just Transition Fund (JTF) fits with its objectives and investment needs.

In the draft updated plan, Malta does not provide the quantification of the climate impacts of measures currently included in the **CAP Strategic Plan (CSP)**, thus the plan does not explain whether the CSP is in line with the new LULUCF and ESR targets and whether additional measures are necessary to ensure this alignment under the review process of the CSP.

The draft updated NECP provides an inadequate analytical basis for the preparation of the **Social Climate Plan (SCPs)** that will address the impacts of the new emissions trading system for fuel combustion in buildings, road transport and additional sectors (ETS2) on vulnerable households, transport users and micro enterprises. The draft NECP contains a section dedicated to Energy Poverty, under which it refers to the Social Climate Fund (SCF). It provides a general timeline for the development of the SCP, a reference to engagement with key stakeholders, and mentions that this timeline will enable the SCP to dovetail with the final NECP foreseen for mid-2024. However, at this stage, the plan stops short of any detail and there is no concrete timetable to develop specific measures. The plan does not outline reforms or a policy framework for the future SCP. Nonetheless, the plan contains several measures that would be, in principle, eligible under the SCF, such as the energy benefit scheme or the eco-reduction scheme, but no explicit link is made with the SCF. Thus, the current draft does not explain how the SCP will build on the NECP update and how the consistency between the two plans will be ensured.

The draft updated plan mentions the interactions and co-benefits between energy and climate and clean air objectives. For several measures outlined in the draft NECP, clean air co-benefits are mentioned. The draft NECP is being updated at the same time as the Maltese Air Quality Plan. No reference is made to the Maltese **national air pollution control programme (NAPCP)**. No projections are provided and thus the impact of planned policies and measures on the main air pollutants for which Directive 2016/2284 sets emission reduction commitments is not quantified.

In the draft updated plan, Malta does not provide the quantification of the climate impacts of measures currently included in the **CAP Strategic Plan (CSP)**, thus the plan does not



explain whether the CSP is in line with the new LULUCF and ESR targets and whether additional measures are necessary.

Compared to the **National Adaptation Strategy**, the plan is less detailed and less ambitious on the respective actions.

In the draft updated NECP of Malta partially addresses the 2022 and 2023 **country-specific-recommendations** to enhance diversification and reduce their dependency on fossil fuels by taking specific actions such as the promotion of floating wind generation and pursuing efforts on energy efficiency including on public and private buildings and transport. Moreover, the draft updated NECP includes actions to upgrade Malta's electricity interconnection with Italy and its electricity distribution infrastructure to allow a higher roll out of renewables and to focus on energy storage facilities to ensure flexibility and security of supply.

## **8 FINANCING THE ENERGY AND CLIMATE TRANSITIONS**

### **8.1 Investments needs**

The draft plan does not include information on the expected investment needs to implement the planned policies and measures for each of the five dimensions. Investment needs will be updated in the final NECP in line with the new projections described in section 4 of the draft NECP. The draft NECP includes only an estimation, based on Malta's Long-Term Strategy, of the investment needs for the period of 2020–2050, with the total amount of net marginal investment (public and private) for this reference period reaching €15.3 billion with no significant details.

### **8.2 Funding sources**

The plan does not outline the main sources of financing for most of the planned policies and measures. Where it does mention sources, it relies on EU (the RRF in particular), national and private funding without systematically specifying the share of each component.

## **9 ROBUSTNESS OF THE ANALYTICAL BASIS OF THE DRAFT UPDATED NECP**

The draft updated NECP is based on quantitative analysis and offers a relatively detailed description of historical trends and different assumptions and parameters used. Historical and projected key macroeconomic indicators such as GDP, population, number of households and gross value added are based on statistics from the National Statistics Office and Ministry for Finances and Employment. International fuel price projections are based on Commission recommended parameters. Historical key energy indicators such as final and primary energy consumption and renewable energy shares are reported from official Eurostat statistics, such as the energy balances and the SHARES tool, but no projections are provided. Despite a relatively detailed description of inputs, the methodologies and models used for the energy system analyses are not described.

The draft plan does neither include a With Existing Measures (WEM) scenario nor a With Additional Measures (WAM) scenario. However, concerning the WEM scenario, it refers

to the Low Carbon Development Strategy published in 2021, which is based on a marginal-abatement-cost approach. In the decarbonisation dimension, only total CO<sub>2</sub> emission projections are presented, without information at the sectoral level, and covering only the period until 2030 and not until 2040/2050. A complete update of the modelling assumptions, WEM and WAM projections and impact assessment are foreseen for the final NECP update by June 2024.

The new ETS for buildings, road transport and additional sectors (ETS 2) has been considered in the plan but not in scenario projections.

The impact assessment of additional policies and measures is limited to presenting some abatement potential estimates for 2030 and 2050 for three sectors: energy, transport and waste, based on a compilation of Marginal Abatement Cost Curves. No macro-economic assessment is provided, but some qualitative expected impacts are described. The assessment of the impact on public budget is insufficiently detailed, and it is not clear how public spending would be financed. The draft updated plan states that a socio-economic impact assessment and a full assessment of policy interactions will be incorporated into the final NECP update.