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COMMISSION STAFF WORKING DOCUMENT

Assessment of the draft National Energy and Climate Plan of Malta

Accompanying the document

Commission Recommendation

**on the draft integrated National Energy and Climate Plan of Malta covering the period
2021-2030**

{C(2019) 4418 final}

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1. SUMMARY

Main observations¹

- ✓ The draft National Energy and Climate Plan (NECP) of Malta is putting a significant focus on the **decarbonisation (GHG and renewable energy) and energy efficiency dimensions**, both in terms of objective setting and associated policies and measures presented. The remaining dimensions of the draft NECP would need more concrete, measureable and time-related policy objectives.
- ✓ Concerning the **decarbonisation dimension**, Malta's 2030 target for **greenhouse gas (GHG) emissions** not covered by the EU Emissions Trading System (non-ETS), is -19 % compared to 2005, as set in the Effort Sharing Regulation (ESR)². However, Malta indicates that it does not intend to meet its non-ETS GHG reduction target domestically because of limited mitigation potential and high mitigation costs. Nevertheless, unexploited emission reduction potentials remain in transport, which forms the largest source of non-ETS GHG emissions, and in buildings including the use of fluorinated gases. More generally this approach seems to contrast with Malta's Vision Document for the Low Carbon Development Strategy from 2017 and is at odds with the long term strategy to fulfil the European Union and Member States' commitments under the UNFCCC and the Paris Agreement. It would require underpinning analysis.
- ✓ On **renewable energy**, the draft NECP does not include a formal proposal for a contribution to the 2030 EU target, but it explores two different scenarios. The ambition of both scenarios (10.6 % and 13.3 %) is significantly below the share of 21 % that results from the formula in Annex II of the Governance Regulation, a situation which would also require an indicative trajectory in the final plan that reaches all reference points³ in accordance with the national contribution in the final plan. The final plan would benefit from elaborating further on the policies and measures allowing the achievement of the contribution and on other relevant sectorial measures.
- ✓ The proposed contributions in energy efficiency for 2030 mean that **primary energy consumption** is projected to increase by 40.5 % and **final energy consumption** by 37.7 % compared to 2017. These contributions would be of very low ambition compared to what is expected at the EU level to collectively reach the Union's 2030 energy efficient targets. The final plan would benefit from more on details on adequate policies and measures.
- ✓ On **energy security, internal market dimension and research, innovation and competitiveness dimensions**, the draft NECP lacks clear, measureable and forward-

¹ 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.

² Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013.

³ Pursuant to Article 4(a)(2) of Regulation 2018/1999.

looking objectives. The Maltese draft NECP sets only qualitative and generic objectives, principally targeting diversification of energy sources. Foreseen plans of petroleum exploration need to be aligned with longer-term decarbonisation goals. Given that that existing levels largely exceed the EU requirements, no target for electricity interconnectivity in a 2030 perspective has been concretely spelled out. As regards energy poverty, the draft plan provides a satisfactory assessment of the current situation and makes a reference to existing policies.

- ✓ While being supported by extensive modelling, the robustness of the scenarios has been poorly evidenced in the draft NECP. The draft plan does not include any assessment of the impact of planned policies and measures.
- ✓ Malta's draft plan does include references to some of the projected **investment needs**, expenditures and funding sources, but this is mainly of qualitative nature. Thus the draft plan does not yet fully take advantage of the role that NECPs can play in providing clarity to investors and attract additional investments in the clean energy transition. Further quantification of the investment needs and expenditures, national and Union funding sources, market risks and barriers or other relevant information would be needed. The draft NECP does also not yet contain an **impact assessment** of planned policies and measures, which should be included in the final plan.
- ✓ The final plan would benefit from complementing the analysis of the interactions with **air quality and air emissions** policy, and presenting the impacts of policies and measures on air pollution, having in mind that the projected increase in bioenergy would make air impacts especially important to consider.
- ✓ The issue of a **just and fair transition** to a climate neutral economy could be better integrated throughout, by considering social and employment impacts related to a green/circular economy, such as shifts in sectors/industries (and the related skills/training impacts), distributional effects and revenue recycling.
- ✓ A list of all **energy subsidies** and actions undertaken and planned to phase them out, in particular for fossil fuels, need to be included in the final plan.
- ✓ **Good practice** worth mentioning is that, alongside the draft NECP, a well completed voluntary template on policies and measures has been provided.

Preparation and submission of the draft plan




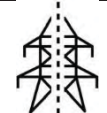
The Maltese draft National Energy and Climate Plan was submitted on 21 December 2018. The development of the draft plan required the coordination and contributions from several entities. A dedicated Inter-Ministerial Steering Committee (IMSC) was notably established for this purpose. The Ministry for Energy and Water Management was the leading Ministry in the development of the draft NECP.

In line with the provision of the Governance Regulation, the Maltese draft NECP does not yet include the outcome of the **public consultation** and **regional cooperation** processes. The draft NECP specifies that both processes will start in 2019. The public consultation process was in the meanwhile officially launched in March 2019. When it comes to regional cooperation, the draft NECP stresses that geographic conditions would limit the opportunities for regional cooperation

with neighbouring Member States. However, the draft NECP already indicates that consultations will take place, with a focus on neighbouring Member States with maritime borders.

Overview of the key objectives, targets and contributions

The following table presents an overview of Malta's objectives, targets and contributions under the Governance Regulation⁴:

	National targets and contributions	Latest available data	2020	2030	Assessment of 2030 ambition level
	Binding target for greenhouse gas emissions compared to 2005 under the Effort Sharing Regulation (ESR) (%)	+28	+5	-19	As in ESR
	National target/contribution for renewable energy: Share of energy from renewable sources in gross final consumption of energy (%)	7.2	10	10.6 – 13.3	Below 21 % (result of RES formula)
	National contribution for energy efficiency: Primary energy consumption (Mtoe) Final energy consumption (Mtoe)	0.8 0.6	0.8 0.6	1.2 0.9	Very low Very low
	Level of electricity interconnectivity (%)	24	24	Not provided	N/A

Sources: EU Commission, ENERGY STATISTICS, Energy datasheets: EU28 countries; SWD(2018)453; European Semester by country⁵; COM/2017/718; Maltese draft NECP.

⁴ Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council.

⁵ https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction/european-semester/european-semester-your-country_en.

2. ASSESSMENT OF THE AMBITION OF OBJECTIVES, TARGETS AND CONTRIBUTIONS AND ADEQUACY OF SUPPORTING POLICIES AND MEASURES

Dimension decarbonisation

Greenhouse gas emissions and removals

The draft NECP acknowledges Malta's binding **non-ETS emission reduction target** of 19 % by 2030 relative to 2005 emissions. Malta states it does not intend to meet this target domestically because of limited mitigation potential and high mitigation costs, but rather to continue its current practice of ensuring compliance with non-ETS annual targets by purchasing emission allocations from other Member States until 2030.

Malta's reliance on purchased emission allocations from other Member States seems to contrast with its national climate objectives for 2030 and beyond. In Malta's Vision Document for the Low Carbon Development Strategy from 2017, the Maltese Government has committed to move towards a reduction of national GHG emissions post-2020 and progress in reducing national GHG emissions post-2030.

Malta's GHG emissions increase both under the scenario with existing measures (WEM) and with additional measures (WAM). While the draft NECP identifies dozens of policies and measures, there is very limited quantitative data on their expected emission reduction impact.

By far the largest non-ETS sector is **transport**, accounting in 2016 for 47 % of all GHG emissions in effort sharing sectors. A good overview of measures to support public transport, cars sharing and other means of transport, alternative fuels and multimodality is provided. **Electromobility** is being supported via investments in charging infrastructure and other means. The Plan would benefit from more clearly noting the impact of specific measures such as setting a cut-off date for the import of internal combustion engine passenger cars to Malta, but this may be updated in the final plan.

With respect to the land use, land use change and forestry (**LULUCF**) sector, it is not possible to assess whether Malta will meet the no-debit commitment (i.e. emissions do not exceed removals) by 2030 based on the information provided in the draft plan. To assess the achievement of the no-debit commitment Malta will have to apply the accounting rules as set out in the LULUCF Regulation⁶. No policies and measures targetting the LULUCF sector have been presented in the draft NECP. With respect to the National Forestry Accounting Plan including the national Forest Reference Level, submitted by Malta as required by Article 8(3) of the LULUCF Regulation, the Commission has put forward minor technical recommendations requesting action on a limited number of issues, detailed in SWD(2019)213.

The draft plan mentions several **agriculture** policies, mostly for managing manure and methane emissions. Adaptation is identified as an aspect of low carbon transition for the agricultural sector.

⁶ Regulation (EU) 2018/841 on greenhouse gas emissions and removals from land use, land use change and forestry.

Renewable energy

The Maltese draft NECP does not include a contribution EU **renewable energy target** for 2030. The draft NECP instead provides two scenarios, respectively leading to a share of 10.6 % in 2030 (Scenario 1, with no renewable cooling) and one of 13.3 % of energy from renewable sources in gross final consumption of energy in 2030 (Scenario 2, with renewable cooling) up from 10 % in 2020. Those levels are significantly below the share of 21 % in 2030 that results from the formula in Annex II of the Governance Regulation⁷. Despite the draft NECP not clarifying Malta's official contribution, Maltese authorities confirmed to the Commission the contribution of at least 10.6 % of renewable energy in gross final energy consumption by 2030. That contribution may be increased to 13.3 %, depending on the statistical methodology retained for accounting for cooling from heat pumps. Malta provided the **indicative trajectory** to reach the 2030 shares set out in the draft plan in a way that satisfies the reference points. However, for policy scenario 1 (renewable share of 10.6 %), the small increase in RES Shares is expected to happen post 2027.

Little explanation is given on how the overall contribution was set. The main reasons invoked for the overall low level and sectoral renewable energy shares (expected growth in energy use, sustained GDP growth and limited potential, especially as regards available space) don't fully capture Malta's potential.

The Annex of the draft NECP includes annual trajectories for sectoral shares and by technology, in shares and absolute values. Although further renewable energy capacity deployment is expected, the increase of shares in **renewable electricity** shares is expected to slow down; the share should reach 9.03 % in 2030, up from 7.93 % in 2020. Very little re-powering is envisaged prior to 2030. Most it should come from PV, which should contribute to 30-40 % of the total renewable energy share in 2030. Malta does not foresee the development of renewable energy communities and intends to explore any potential barriers to renewable self-consumption. In this regard, more detailed information in the final NECP would be welcomed.

The largest increase in absolute terms will happen in the **heating and cooling sector**. The renewable energy share in the heating and cooling sector is 22.65 % in Scenario 1 and 33.84 % in Scenario 2, up from 20.67 % in 2020. However, given the expected growth in energy demand, the share of renewable energy in the heating and cooling sector is expected to decrease after 2027, thus not complying with the indicative increase objective of the Renewable Energy Directive of 1.3 percentage point. The role of waste cold was not included in the draft plan. Malta does not have any district heating and cooling and the draft NECP does not plan any development or see economic potential in that sector. The main renewable technologies in this sector will be solar water heaters and heat pumps.

For transport, most renewable energy, including for 2030, will come from biofuels; the shares are in line with the renewable energy in the **transport sector objectives** of the Directive (15.84 % in 2030 and ambition to reach at least 3.5 % of advanced biofuels). However, in the final plan the calculation of the transport target as requested in Articles 25-27 of Directive 2018/2001 including the disaggregation of the biofuels and applicable multipliers needs to be elaborated. More information on biomass supply more specifically on the origin would be welcomed.

⁷ Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action.

The draft NECP includes a comprehensive list of policies and measures in place and under development. While those lack details in terms of timeframe for the implementation and supporting budgetary resources, they seem to be consistent with the low level of ambition of the contribution. They mostly rely on the extension of the current schemes, with some effort to lift regulatory obstacles for some technologies. The draft NECP identifies a number of barriers, notably in the electricity sector, which it describes as hard to address satisfyingly.

Dimension energy efficiency

Via its draft NECP, Malta intends to almost halve its **primary energy intensity** from 0.15 Mtoe/EUR in 2005 to 0.08 Mtoe/EUR by 2030, while GDP is projected to almost triple by 2030 compared to 2005 levels. The energy intensity data and projections do not correspond to the WAM scenario (even considering the differences for inclusion of heat pumps). The target is translated into primary energy consumption of 1156 Ktoe and final energy consumption of 858 Ktoe in 2030. The proposed figures for 2030 contributions mean that primary energy consumption is projected to increase by 40.5 % and final energy consumption by 37.7 % compared to 2017. There is no information provided on relevant circumstances affecting energy consumption, which would justify this high growth and according to the data from the WEM scenario primary energy intensity was at 0.08 Mtoe/EUR already in 2015. Consequently, the contributions are considered to be of very low ambition compared to what is expected at the EU level (admittedly against much lower EU-wide economic growth) to collectively reach the European Union's 2030 energy efficient targets.

The four planned measures cover the electricity market, the industry/service sectors and complementary ambits as street lighting and water networks. In terms of cumulative savings over the period 2021-2030, the largest impacts will be on the industry and service sectors.

The cumulative savings under Article 7 of the Energy Efficiency Directive⁸ are calculated at 83 Ktoe. The country does not plan to use an energy efficiency obligation scheme. Instead, a tax scheme for energy use and carbon dioxide emission above stated minimum levels is implemented. A good overview is provided on existing measures to improve energy efficiency of the transport sector. However, more information on measures related to intelligent transport systems, digitalisation and automation would be desirable. These measures are in different stages of implementation or are being considered. The listed measures cover around 50 % of the total cumulative savings requirement (not including the solar thermal scheme), but some additional transport measures are still under consideration. Some actions towards electro-mobility and for recharging points are presented (procurement is underway for 118 medium-fast EV chargers and 22 Rapid EV chargers). It is stated that no specific objectives for energy poverty are set. Besides, it is not made entirely transparent which of the measures described will be reported under Article 7.

The draft NECP contains some general information relating to policies and measures for buildings that could be implemented as part of its long-term renovation strategy. Given the significant contribution of a cost-effective transformation of existing buildings into nearly zero-energy buildings to the Union's energy efficiency target, realistic and ambitious measures and policies for the implementation of a coherent long-term renovation strategy should be developed.

⁸ Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency as amended by Directive (EU) 2018/2002.

The potential for combined heat and power and district heating and cooling systems is very low for Malta due to the warm climate. No specific information on impacts of heating and cooling policies and measures is provided. Cost assumptions are provided for solar PV and offshore wind, with respect to the potential new policy on solar water heaters. On the other hand, the potential of heat pumps is well illustrated by the expectation of an increase in number even without policy intervention.

Overall, the proposed new measures (i.e. planned after 2018) can be considered as a follow up of measures already implemented to meet the 2020 target. The level of ambition is not so high, but it seems consistent with the low ambition of the target. Given the lack of impact assessment it is difficult to assess if the measures are ambitious and sufficient to meet the target.

Dimension energy security

The Maltese draft NECP has set qualitative and generic objectives with regards to energy security, principally targeting a further diversification of energy sources. The Gas-Pipeline project with Italy (by 2024) is illustrated in the draft NECP as the key measure to improve security of energy supply whilst indirectly leading to emission reductions through the replacement of a Floating Storage Unit of LNG. The planned domestic extraction of natural gas and crude oil exploration are indicated as possible objectives to enhance diversification of primary sources of energy to reduce Malta's dependence. In the draft NECP the Government signalled its intention to continue to promote petroleum exploration opportunities and seek to attract more investment in this sector. Also the maximisation of indigenous renewable energy should further contribute to diversifying the energy mix of Malta and reduce its import dependency. However, the draft plan lacks of details on how renewable energy, storage and demand response may impact energy security. The draft plan describes existing and upcoming measures with the reference to the relevant EU legislations.

Dimension internal energy market

Malta has currently no transmission system and no wholesale market neither for electricity nor for natural gas.

The draft NECP does not address the area of **retail markets and system flexibility** in a structured way. Whereas a general goal is often described, no discrete national objectives or specific policy have been provided in most areas. For example, the draft NECP does not provide information on the current situation as regards barriers for new market participants (e.g. aggregators) and the uptake of the different sources of flexibility (demand-response, storage, distributed generation), nor does it specify in detail the related objectives and supporting policies. The final plan would benefit from an qualitative analysis of the potential to increase system flexibility describing objectives, policies and a timeline to realise this flexibility and ensure the non-discriminatory participation of new market participants and the different flexibility sources in all energy markets.

Regarding **electricity interconnectivity levels**, Malta's existing level exceeds the EU threshold at present⁹. The draft NECP however stresses the importance of interconnection capacity. The final

⁹ Malta's current level of interconnectivity is expected to remain above the EU-wide target of 15 %, at the end of 2017 the level was 29 %. MT expects a level between 24-35 % during 2021-2030.

plan could include a complete review of the EU funding received in this respect. The afformentioned gas-pipeline PCI is projected to drive average local generation costs to better align with those in Sicily and Italy and to ensure generation adequacy in Malta.

As regards **energy poverty**, the draft plan provides a satisfactory assessment of the current situation and makes a reference to existing policies (e.g. reduction of energy bills as well as overall tariffs, improvement in energy efficiency, all part of a set of measures adopted under the Strategic Policy for Poverty Reduction and for Social Inclusion 2014-2024).

Dimension research, innovation and competitiveness

As already mentioned, the draft plan does not specify any research, innovation or competitiveness objectives to be achieved by 2030 or 2050 which would allow an assessment on their ambition. The draft NECP includes a description of specific programmes, including funding, and of the current level of public and private research and innovation spending, as well as a breakdown of energy prices. However, information on the current situation of low-carbon technologies sector is missing. The draft plan is also missing a description of existing energy subsidies.

The information provided by the draft NECP as regards policies and measures is largely incomplete. Although the draft NECP includes a description of specific programmes, including funding, and the current level of public and private research and innovation spending, it does not have a forward-looking perspective towards 2030. Moreover, due to the absence of objectives and targets, an assessment on the sufficiency of the policies and measures is impossible.

The NECP would benefit from presenting a comprehensive analysis on where the low-carbon technologies sectors are currently positioned in the global market, highlighting areas of competitive strengths and potential challenges. Measurable objectives for the future could be envisaged on that basis, together with policies and measures to achieve them, making appropriate links to enterprise and industrial policy.

Malta indicates that it is seeking to contribute to the **Strategic Energy Technology (SET) Plan** actions, but does not specify which specific projects it is interested in participating to. A description of how the national energy and climate targets for the period 2021-2030 are aligned with the agreed SET Plan targets is also missing from the draft NECP.

3. COHERENCE, POLICY INTERACTIONS AND INVESTMENTS

The policies presented in the draft NECP seems generally in line with the set objectives. However, the interactions across key policies and measures as well as across dimensions have not been well addressed principally due to the omission of an impact assessment of planned key policies and measures. As a consequence, the draft NECP has not provided information on how positive interactions may be maximised or negative interactions mitigated.

A range of **interactions** could have been identified, particularly across decarbonisation (including renewable energy) and energy efficiency dimensions. For example, information is lacking on beneficial interactions between adaptation and energy efficiency, such as in the thermal management of buildings. Ensuring the resilience of the energy system is identified as a priority, but there is no explicit reference made to climate change impacts other than for a special risk assessment undertaken for the power supply sector. Acknowledgment and assessment of

these interactions remain therefore to be addressed further in the final NECP. Further interactions between the decarbonisation and energy security dimensions can be identified. Those notably relate to the programmes of oil exploration that might conflict with the long term climate goals as well as to the obligations encouraging the use of biofuels over fossil fuels, which may impact consumer.

The draft NECP also lacks a detailed explanation on how the energy efficiency first principle has been considered in the development of the key policies and measures.

The draft plan has very limited information on interactions with relevant policies like the **circular economy**. Considering the relevance for greenhouse gas emission reductions, the final plan could better reflect such interactions. The draft plan describes the key challenges that the country faces related to waste (landfilling, low recycling rates, no fully compliance with the waste hierarchy), and mentions that addressing these issues would reduce GHG emissions.

The plan describes some measures related to **biodiversity** and **ecosystems** preservation (within the Rural Development Programme, the “34U” campaign, investments to improve resilience of ecosystems), but would benefit from an analysis of the synergies and trade-offs between climate and biodiversity (e.g. role of ecosystems for mitigation and adaptation).

The draft plan lacks quantitative information on the interactions with **air quality and air emissions policy**, while the projected increase in bioenergy would make air impacts especially important to consider. The final version of the plan shall at least include the required information about the projected air pollutants emissions under the planned policies and measures.

The draft NECP does not contain a quantitative assessment of the **investment needs** and expenditures, funding sources, market risks and barriers or other relevant information. Nevertheless, Malta’s draft plan does include references to some of the projected investment needs, expenditures and funding sources, mainly of qualitative nature. According to the document, this information will be provided in the final version of the plan. Some investment needs could partly be covered by EU funds, in particular cohesion policy funding, notably in line with the investment guidance for 2021-2027 of the 2019 European Country Semester Report for Malta and with any other relevant legislation.

The section on national policies, timelines and measures planned to **phase out energy subsidies** remain to be filled. The consistency of energy subsidies with the decarbonisation objectives of the Maltese draft NECP will only be assessed in light of the final plan.

Links with the European Semester

Identifying financing needs and securing the necessary funding will be key to deliver on Malta’s energy and climate objectives. The Commission had addressed this question as part of the 2019 European Semester process. Based on the 2019 Country Report for Malta, published on 27 February 2019¹⁰, the 2019 European Semester country-specific recommendations to Malta issued on 5 June 2019¹¹ highlight the need to invest in ‘resource and energy efficiency, sustainable transport, and reducing traffic congestion’. When preparing its overview of investment needs and

¹⁰ SWD(2019) 1017 final.

¹¹ COM(2019) 518 final.

related sources of finance for the final plan, Malta should take into account these recommendations and links to the European Semester.

4. REGIONAL COOPERATION

Malta considers regional cooperation as a key element of its draft NECP. In this vein, the Maltese draft NECP highlights several opportunities of further regional cooperation despite the geographic boundaries that would limit such opportunities.

Concerning decarbonisation, the draft NECP recalls that the Declaration on Environment and Climate Change endorsed under the Union for the Mediterranean (UfM) aims at strengthening regional co-operation across the region in the several areas including climate change and sustainable consumption and production (SCP). Concerning renewable energy, the use of cooperation mechanisms might be necessary in view of the acquisition of renewable energy credits notably to meet the 2020 renewable target.

On energy efficiency, Malta considers the Concerted Action of the Energy Efficiency Directive (CA-EED)¹² a useful regional cooperation forum for the sharing of best practices and dissemination of knowledge on the implementation of the Energy Efficiency Directive.

The importance of regional cooperation is most present in the energy security dimension of the draft NECP, with the gas pipeline interconnection to the European gas network being the predominant cross-border cooperation project in the foreseeable future. As far as interconnection are concerned, explicit reference is made to future bilateral discussions with Italy, regarding the electricity interconnector relationship and future gas pipeline projects (connection to TransEuropean Gas Network). The draft NECP also mentions ongoing cooperation with other Member States supporting the preparation of the general emergency preparedness plans on the identification and protection of critical infrastructures as well as on national emergency stock holdings.

In May 2017, the Clean Energy for EU Islands Initiative was launched, aiming at accelerating the clean energy transition by helping islands reduce their dependency on energy imports and making better use of locally available renewable energy sources. It also provides a forum for exchange of best practices and aims to promote modern and innovative energy systems and reduce greenhouse gas emissions on islands. In view of the finalisation and subsequent implementation of its final plan Malta could consider enhancing cooperation with other Member States and island regions facing similar challenges and opportunities, including in areas such as interconnection, clean transport, system integration of local renewable production, specific demand response opportunities, for example from desalination plants or cooling loads, and the cost-effective deployment of energy storage systems.

¹² Directive 2012/27/EU on energy efficiency.

5. COMPLETENESS OF THE DRAFT PLAN

Information provided

The draft NECP of Malta is consistent with the structure of the binding template annexed to the Governance Regulation¹³. Additionally, a well completed voluntary template for policies and measures has been provided.

The **decarbonisation dimension** of Malta's draft NECP is partially complete with respect to the required information. The estimated ESR trajectory¹⁴ with binding **greenhouse gas** reduction limits for all years 2021-2030 is missing. The draft plan does not provide accounted projections for the LULUCF sector and it is thus not possible to assess whether the LULUCF no-debit commitment¹⁵ will be achieved. Malta intends to only include an impact assessment of planned policies and measures in the final version of the NECP. It is therefore not possible to assess the impacts of the proposed policies and measures on greenhouse gas emissions and removals at this stage.

Adaptation goals are not included in other objectives and targets, even if adaptation is an integral part of Malta's Climate Action Act and future Low Carbon Vision.

On **renewable energy**, the draft NECP does not indicate a clear contribution to the 2030 European renewable target. Instead, the draft NECP provides two scenarios. The draft NECP includes a comprehensive list of policies and measures in place and under development and identifies a number of policy and technological challenges. However those generally lack detail in terms of timeframe for the implementation and supporting budgetary resources currently allocated to those.

Concerning **energy efficiency**, Malta sets its target in terms of energy intensity and translates it into primary and final energy consumption levels as requested. However, numerical data with a trajectory from 2021 onwards is not clearly spelled out and the information on the sectoral split for energy intensity and primary energy consumption is missing. Key elements of the long-term renovation strategy are not included in the draft NECP, notably: indicative milestones for decarbonising the building stock in 2040 and 2050, the domestically established measurable progress indicators, an evidence-based estimate of the expected energy savings and wider benefits of renovation, the total floor area to be renovated or equivalent annual energy savings to be achieved and the contribution of the renovation of buildings to the Union's 2030 energy efficiency target. The figures on cost-optimal minimum energy performance requirements are reported without explaining the calculation methodology, making it difficult to put into context. On policies and measures, some indications are provided, but Malta has not provided information on the effectiveness of the existing measures and projected impact of future policies and

¹³ Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action, Annex I.

¹⁴ Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013.

¹⁵ 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.

complete their planned timeframes. No information is provided on policies and measures to realise energy efficiency potentials in the gas and electricity sectors.

On **energy security**, the Maltese draft NECP provides general information under the headings of the individual sub-points of Annex I¹⁶ of the energy security dimension. However clear, measureable and forward-looking objectives are missing. References to the existing preventive action and emergency plans for gas and to oil stocks and emergency procedures are missing. Information on future electricity generation adequacy, including on demand response and storage is also limited. Information on existing risk preparedness plans and the target date for the plans of the Risk Preparedness Regulation, as well as on measures for cybersecurity remain to be further explored.

The **internal market** dimension lacks clear, measureable and forward-looking objectives. The draft NECP contains only limited information on core quantitative parameters on the functioning of the national retail market, preventing a full assessment of the draft plan. Clear and verifiable measures should be presented on how the stated objectives can be reached. Additional information on the aspects listed under market integration is required, in particular on system flexibility and, if assessed relevant, on the objectives for energy poverty. On infrastructures, calculation methods for the 15 % interconnection targets are not provided. In addition, the draft NECP provides insufficient information as regards national objectives aimed at ensuring consumer participation in the energy system, through self-generation and new technologies, including smart meters, for which more information is needed (e.g. status of roll out, penetration rate per customer category, plans for future upgrades, etc.). The final plan would also benefit from details on just transition issues, such as information on the applicability of the concept of just transition in the national context, for example related to the clean energy transition in EU islands, and, if applicable, considerations in terms of costs and benefits and cost-effectiveness of planned policies and measures, in line with point 5.2 of the Annex.

As regards **research, innovation and competitiveness**, Malta indicates in its draft NECP that the strategy for research and innovation in the area of energy will be developed by the end of 2019. As a result, the information provided related to research, innovation and competitiveness is largely incomplete. The draft NECP is missing concrete measurable objectives and funding targets to be achieved by 2030. The draft plan does not include specific 2050 national objectives related to the promotion of clean energy technologies and does not include objectives related to competitiveness. Information on concrete policies and measures is not included, and neither is a clear description of cooperation with other Member States in this area nor financing measures.

Robustness of the Maltese draft National Energy and Climate Plan

Most of the required elements of the **analytical basis** are present. The draft NECP of Malta reports both with existing measures (WEM) and with additional measures (WAM) projections¹⁷, using some of the voluntary reporting templates. The report uses extensively Eurostat data, as well as data from the National Statistics Office.

The **WEM** and **WAM** projections largely cover the five dimensions of the Energy Union. Additional information would be desirable on some variables such as: (i) projections of all

¹⁶ Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action.

¹⁷ In the draft plan, the WEM and WAM projections are called 'reference scenario' and 'policy scenario' respectively.

variables to 2040, (ii) numerical values for data currently shown in a graphs, (iii) the differentiation of sectoral GHG emissions per IPCC sector, (iv) the differentiation of sectoral GHG emissions per IPCC gas, (v) the differentiation of sectoral GHG emissions between those covered by the EU ETS and those falling under the Effort Sharing Regulation, (vi) GHG emissions from international aviation, (vii) GHG emissions and sinks from LULUCF, and (viii) non-GHG air pollutants, and (ix) energy-related investment costs.

The projections are presented in a largely **transparent** way, with key parameters documented. Additional information would be desirable on: (i) specific investment costs for technologies and (ii) the number of passenger-kilometres and freight transport tonnes-kilometres. Data sources have been provided yet additional information on the models used for generating the projections would further enhance the transparency of the final plan. Malta's draft plan includes a list of existing and planned policies, and measures and their inclusions on the WEM and WAM scenario respectively.

The draft NECP does not contain an **impact assessment** of planned policies and measures. The assessment in the final plan should include, Macroeconomic and, to the extent feasible, the health, environmental, employment and education, skills and social impacts, including just transition aspects.

The draft NECP follows the international fuel and EU ETS carbon price assumptions recommended by the Commission. The base year figures are aligned with EUROSTAT except for (i) population, and (iii) renewable energy shares.