Council of the European Union

**Brussels, 19 November 2015**
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**CLIMA 127**
**AGRI 607**
**COMPET 524**
**TRANS 370**
**ENV 718**
**ECOFIN 891**
**RELEX 947**
**TELECOM 217**
**CONSOM 197**

**COVER NOTE**

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|---|---|
| From: | Secretary-General of the European Commission, signed by Mr Jordi AYET PUIGARNAU, Director |
| date of receipt: | 19 November 2015 |
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Delegations will find attached document SWD(2015) 233 final.

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**COMMISSION STAFF WORKING DOCUMENT**

**Country Factsheet Malta**

***Accompanying the document***

**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE, THE COMMITTEE OF THE REGIONS AND THE EUROPEAN INVESTMENT BANK**

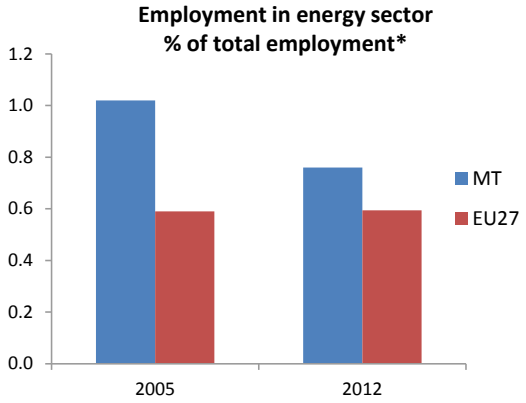
**State of the Energy Union**

{COM(2015) 572}
{SWD(2015) 208 à 209}
{SWD(2015) 217 à 232}
{SWD(2015) 234 à 243}


# Macroeconomic relevance of energy

## IMPORTANCE OF THE ENERGY SECTOR

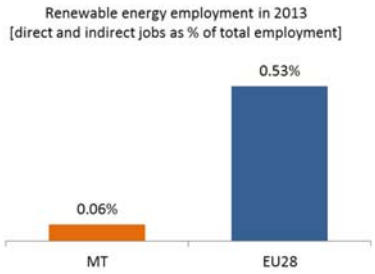
The share pf energy in total employment has been considerably higher than the EU average, but much less so in 2012 than 2005 which may for a part reflect restructuring in the sector.




*Source: EUROSTAT – National Accounts for EU27 – Malta NSO: Total gainful occupations**

According to EurObserv'ER, in 2013, the share of direct and indirect renewable energy related employment in total employment of the economy in Malta was estimated to be about 0.06%, below the EU average of 0.53%.

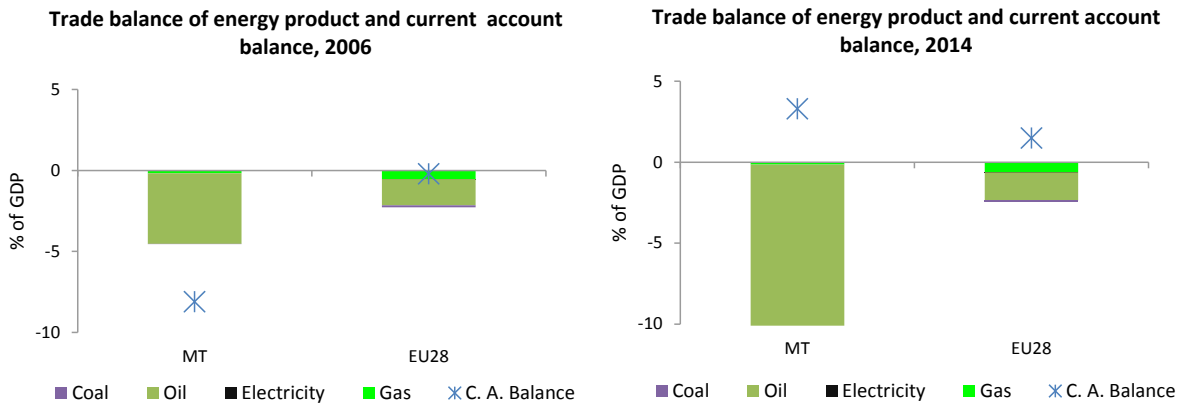
Limited resources and the small size of the market do not incentivize certain investments such as the production of photovoltaic panels.




*Source: European Commission, based on EurObserv'ER and EUROSTAT*

## TRADE BALANCE OF ENERGY PRODUCTS

The almost full dependency on imported oil products translates into one of the largest energy trade deficits in the EU in GDP terms. It has also strongly increased over the period under consideration, but since 2005 the very large current account deficit has turned into a modest surplus in 2014. As a result of the investments in the generation and distribution sectors, the efficiency in the use of primary energy is expected to increase significantly which will reduce the demand for imports of energy products. The statistics of the trade balance of energy products for Malta are volatile over time depending on stock and valuation movements. The trend to a more balanced energy mix (such as through a higher share of renewable energy and the electricity interconnector) will most likely reduce this volatility.



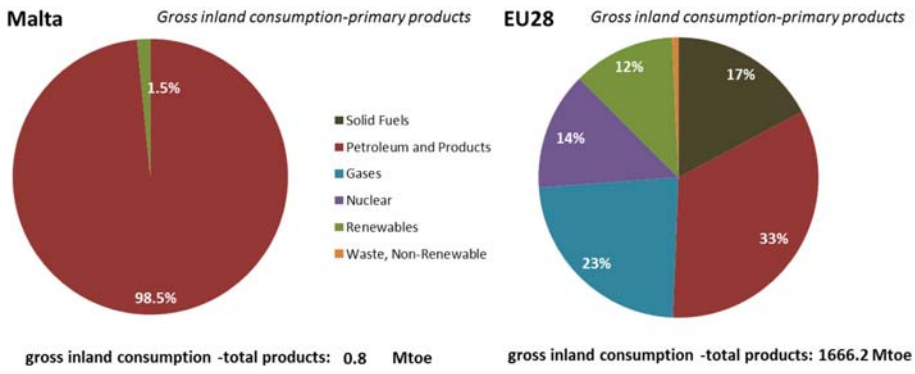

*Source: EUROSTAT*
*Note: Current account balance for EU28 from European Commission (AMECO)*

# 1. Energy Security, solidarity and trust

## ENERGY MIX

The energy mix of Malta differs totally from the one of the EU-28 due to a quasi-exclusive use of petroleum products. Therefore, Malta has focused its efforts on reforming the energy sector to diversify the energy mix. These measures are expected to bring an end to the oil dependency of the electricity sector, although import dependency will remain high (for gas and electricity).

*Gross inland energy consumption in 2013*

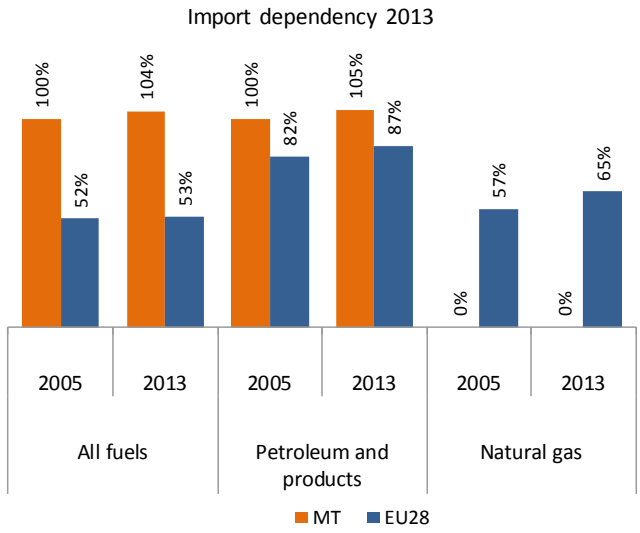



*Source: European Commission, based on EUROSTAT*

## IMPORT DEPENDENCY

Malta has a fuel import dependency ratio[1] of practically 100%. There is no data on the main trading partners of Malta regarding petroleum products. No gas is used in the energy mix.

[1] Note: A dependency rate in excess of 100% indicates that energy products have been stocked.



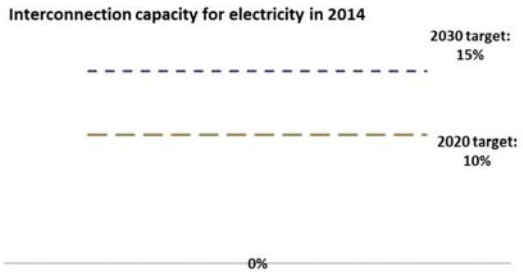

Top non-EU gas suppliers in 2013 (% in total imports)

| Malta | | European Union | |
|---|---|---|---|
| country | [%] | country | [%] |
| | | Russia | 39.0 |
| | | Norway | 29.5 |
| | | Algeria | 9.7 |
| | | Qatar | 6.7 |

*Source: European Commission, based on EUROSTAT*

# 2. A fully-integrated internal energy market

## INTERCONNECTIONS




*Source: European Commission based on ENTSO-E scenario outlook and adequacy forecast 2014*

*Note: Reference to 2030 target is based on October 2014 European Council conclusions stating that "the Commission will also report regularly to the European Council with the objective of arriving at a 15% target by 2030"*

The commissioning of the electricity interconnector between Malta and Italy on 9 April 2015 (supported by the European Energy Programme for Recovery) marked an end to the isolation of the Maltese distribution network from the rest of Europe. As a result, Malta's electricity interconnection capacity increased from 0% to approximately 35%.[2] In addition, a new gas-fired CCGT power plant and a Liquified Natural Gas facility (LNG) are being built. In addition, the existing power plant will be converted to run on natural gas once the new LNG facilities are built.

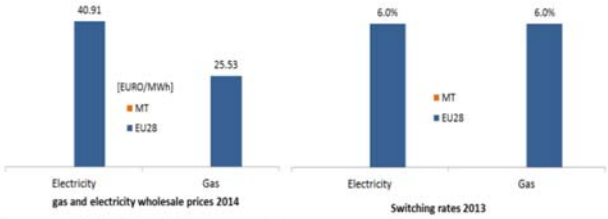
Malta is involved in one Project of Common Interest (in gas): connection of Malta to the European Gas network (gas pipeline with Italy at Gela and Floating LNG Storage and Regasification Unit).

[2] The graph reflects the situation in 2014 and therefore the increase of the interconnection level is not yet reflected.

## ELECTRICITY AND GAS MARKETS

*Market concentration index for power generation (left) and gas supply (right) (2013) (Herfindahl index – 10000 means monopoly)*


*Sources: European Commission based on ESTAT, CEER and Platts Power Vision*




*Sources:ESTAT and European Commission Calculations*

Enemalta PLC has a legal monopoly in electricity supply and is currently the main producer of electricity in Malta. The generation sector is open to competition but market size had restrained development until very recently with two major private energy generators as well as a number of small renewable energy suppliers entering the market. Dispatch and balancing is carried out by Enemalta plc.

The electricity retail sector is not open to competition and therefore customer switching is not possible in Malta (the physical and structural constraints are a barrier to an effective market). The Electricity Market Regulations have to be seen in the light of the derogations granted to Malta by virtue of Article 44 of Directive 2009/72/EC from the requirements of Articles 9, 26, 32 and 33 of this directive.

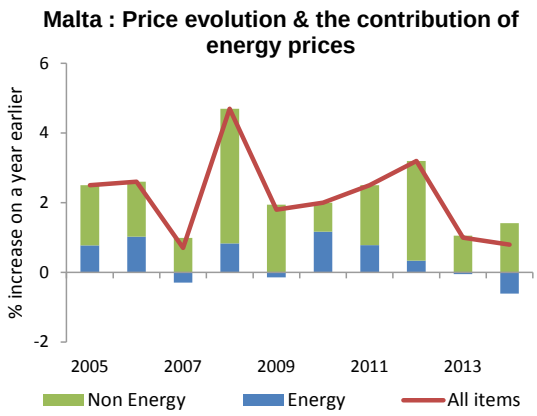
All consumers of electricity are on regulated retail tariffs. In 2014, retail electricity prices for households were below European average. The assessment of the retail electricity market expressed by consumers in an EU-wide survey is well above EU average[3].

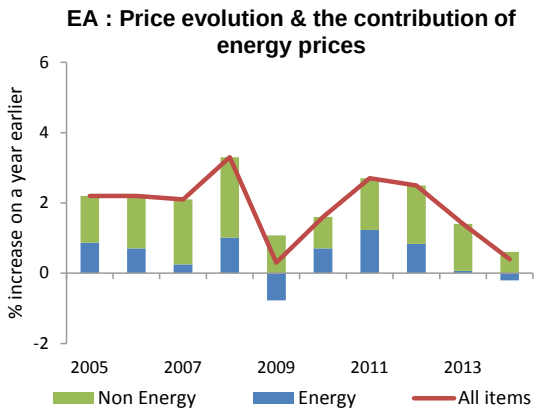
Malta is proceeding with electricity smart meter roll out.

## CONTRIBUTION OF ENERGY TO CONSUMER PRICE EVOLUTION

Despite Malta's almost complete dependency on imported oil products, neither overall infl nor the contribution of energy prices to inflation appears much more volatile than their Euro counterparts. The import price hedging arrangement in the sector may have had an impo stabilising impact on prices.

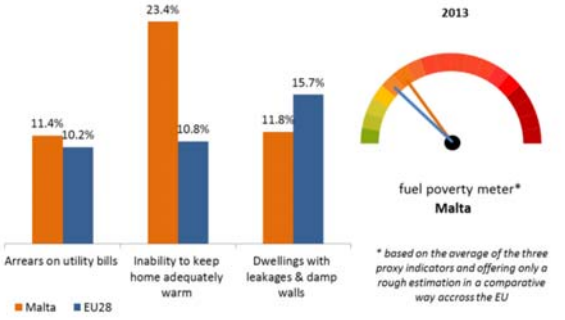
[3] 10th Consumer Markets Scoreboard (June 2014), http://ec.europa.eu/consumers/consumer_evidence/consumer_scoreboards/10_edition/index_en.htm




*Source: DG ECFIN based on Eurostat*

## VULNERABLE CONSUMERS

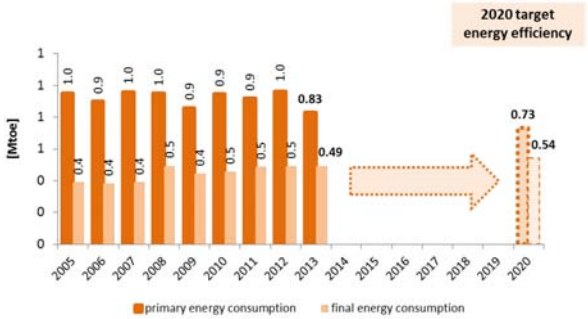



*Source: European Commission, based on on EUROSTAT SILC survey*

Based on a EUROSTAT survey on income and living conditions, three proxy indicators are used to assess fuel poverty. They indicate a relatively relevant issue for Malta. Vulnerable consumers may benefit from energy bill discounts. During 2013, 26.703 consumers received energy benefits (Source National Statistical Office). 12% of household consumers were defined as consumers with special needs.

# 3. Energy Efficiency and moderation of energy demand

## ENERGY EFFICIENCY TARGET 2020
## (0.726 Mtoe primary energy and 0.547 Mtoe final energy)




*Source: European Commission, based on EUROSTAT and on national energy efficiency targets as declared by the MS under the EED*

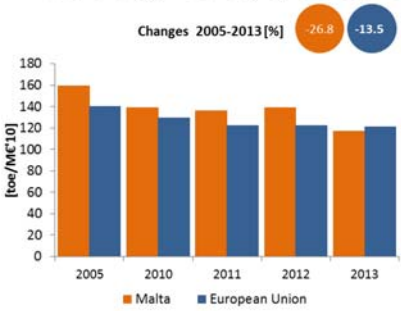
Malta's 2020 energy efficiency target was lowered this year from 0.825 Mtoe to 0.726 Mtoe expressed in primary energy consumption as the Maltese authorities plan to increase generation efficiency in the coming years. The target for 2020 expressed in final energy consumption was increased from 0.493 Mtoe to 0.547 Mtoe due to economic growth, which means that the target became less ambitious. Malta would need to increase its current efforts, in line with its National Energy Efficiency Action Plan, regarding energy efficiency to reach its 2020 target expressed in final energy consumption.

## ENERGY INTENSITY

Primary energy intensity in Malta has decreased since 2005 at a faster pace than for the EU as a whole, and is now lower than EU average. Energy consumption in industry, when reported to gross

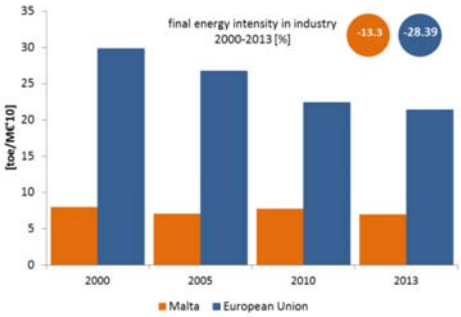
value added of the sector, is lower in Malta than for the EU as a whole, and could be explained by sectoral specialisation.

*Primary energy intensity of the economy*




*Source: European Commission based on EUROSTAT and European Commission/AMECO*

*Final energy intensity in industry*



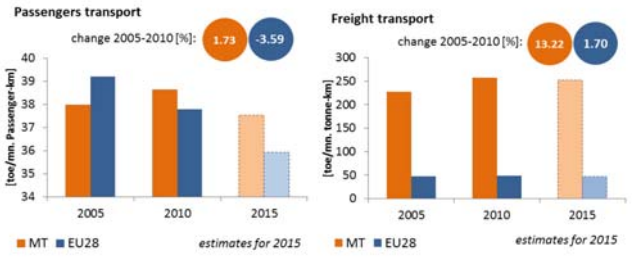

*Source: European Commission based on EUROSTAT and European Commission/AMECO*

Specific energy consumption by households is way below EU average. The specific energy intensity of passenger cars increased since 2005, and is now above EU average (since Malta is a small island, the models used to calculate EU energy intensity are at their limits of accuracy and should therefore be interpreted with caution).

*Final energy consumption per m2 in residential sector, climate corrected*

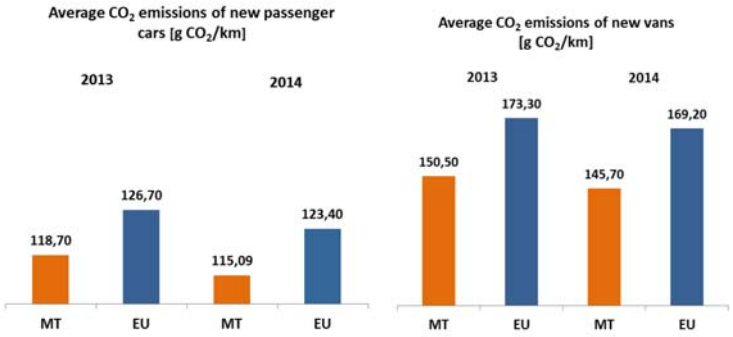

*Source: European Commission based on Odyssee database*

*Specific energy intensity for passengers and freight transport*[4]




*Source: PRIMES model background data and estimations based on EU Commission and EU MS inputs. Results to be interpreted with caution due to Malta's geographical characteristics.*

EU legislation sets mandatory CO2 emission reduction targets for new cars and vans. By 2021, the fleet average to be achieved by all new cars is 95 grams of CO2 per kilometre. For new vans, the fleet average is set at 147 g/km by 2020.

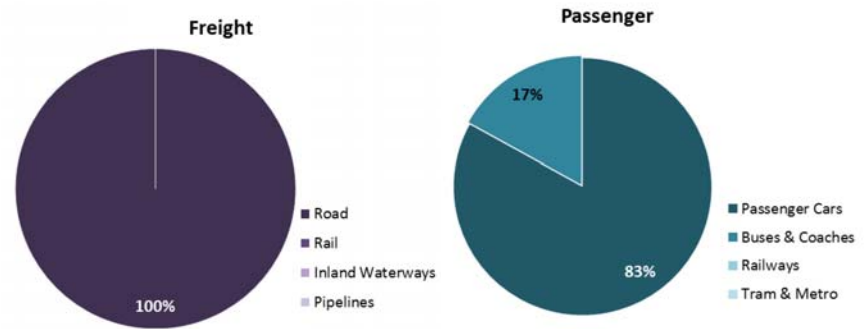



*Source: European Environmental Agency. 2014 values are provisional. 2013 EU average refers to EU-27.*

[4] Statistics on energy demand for passengers and freight transport are not available and model estimates have been used instead. These issues should be borne in mind when comparing energy intensity in freight or passenger transport between Member States, which should be regarded as merely indicative.

Regarding transport performance, in EU-28 the inland freight modal shares are 71% by road, 17% by rail, 7% by inland waterways and 5% by pipelines. The respective inland passenger modal shares are 82% by private car, 9% by buses and coaches, 7% by railways and 2% by tram and metro. In Malta, freight and passenger transport is completely based on road, as there is no rail infrastructure.

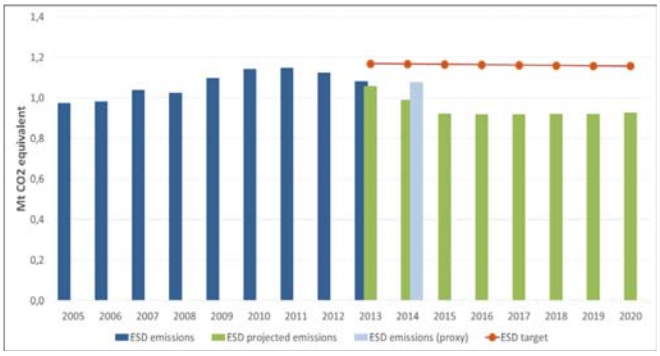
*Modal share Malta*




*Source: Eurostat and EU transport in figures 2015. Data refers to 2013. Modal shares based on tonne-kilometres for freight sector and passenger-kilometres for passenger sector, freight data based on activity within country territory. Estimates are made when data is missing.*

# 4. Decarbonisation of the economy

## NON-ETS GHG EMISSION REDUCTION TARGET 2020 (+5% by 2020 as compared to 2005 in the non-ETS sector)




*Source: European Commission based on EEA. Based on preliminary inventory data*

*ESD (Effort Sharing Decision) emissions are the emissions from sectors not covered by the EU ETS.*

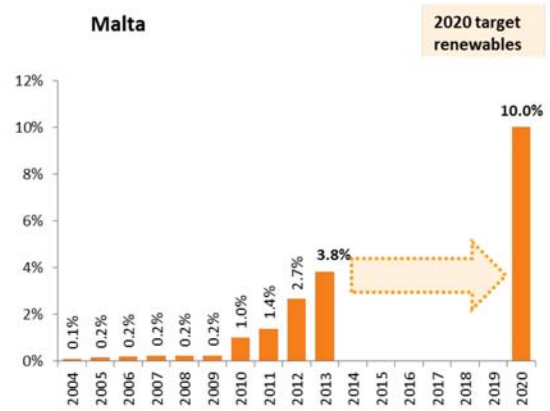
Emissions have decreased by approximately 2% between 2005 and 2014 approximated data.

According to its 2015 projections, Malta is on track to reach its greenhouse gas emission reduction target for 2020.

| Non-ETS Emissions (vs. 2005) | Projections/proxy | target |
|---|---|---|
| Projections with existing measures 2020 | -16% | +5% |
| Proxy 2014 | -2% | +6% |

*The projections, submitted by the Member States, undergo a QA/QC (quality assurance/ quality control) process to fill any gaps and to align the projections with historic data.*

## RENEWABLE ENERGY SHARE TARGET 2020 (10%)




*Source: European Commission based on EUROSTAT*

Malta's renewable energy share has recently increased, reaching 3.8% in 2013, above the indicative trajectory towards the 2020 renewable energy targets. However, significant renewables deployment is needed in view of the steeper trajectory towards 2020. Use of the cooperation mechanisms with other Member States could be considered to facilitate the achievement of the renewable energy target.

### GREENHOUSE GAS EMISSION INDICATORS

- In Malta the Energy sector contributes to 65% of the total emissions, a share that is well above the EU average. This is due to the 99% share of petroleum in the energy mix. It is projected that total GHG emissions are expected to fall by around 40% by 2016 relative to 2013, with the power generation sector share dropping to around 44% of the total emissions as from 2016 onwards (Source: Policies and Measures (PAMS) Malta 2015).
- In 2014 the revenues from the auctioning of ETS allowances amounted to EUR 3.9 million, which are used or planned to be used for energy and climate-related purposes, mainly in the renewables sector.

| Largest Sectors of GHG Emissions in 2012 (*) | Malta | EU Average |
|---|---|---|
| Energy/power industry | 65% | 33% |
| Transport | 18% | 20% |
| Industry | 8% | 19% |
| Agriculture (incl. forestry & fishery) | 3% | 12% |
| Residential & Commercial | 4% | 13% |
| Waste & others | 2% | 3% |

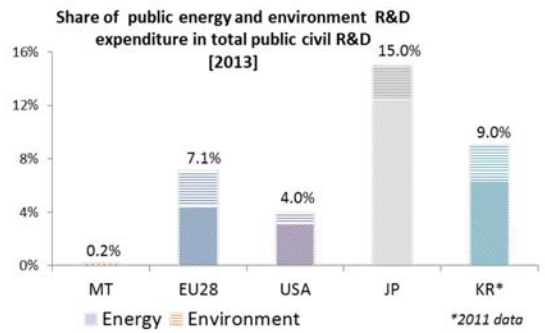
| GHG Emissions | Malta | EU |
|---|---|---|
| EU ETS auctioning revenues in 2014(EUR millions) | 3.9 | 3205 |
| Share of ETS emissions in 2013 | 61% | 42% |
| GHG emissions/capita in 2013 ($tCO_2$equivalent) | 6.6 | 8.9 |
| Carbon intensity of economy in 2013 ($tCO_2$equivalent/EUR millions) | 391 | 346 |

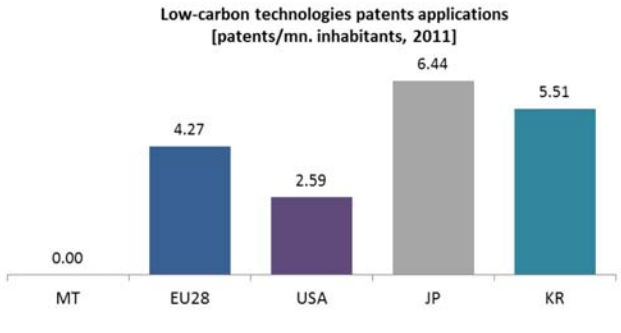
*Source: European Commission based on EEA*
*(*)Sectoral breakdown for 2013 data not available.*

## 5. Research, innovation and competitiveness

### RESEARCH AND INNOVATION

Malta allocates a very low share of its public support to R&D to the field of sustainable energy, low-carbon and environment.



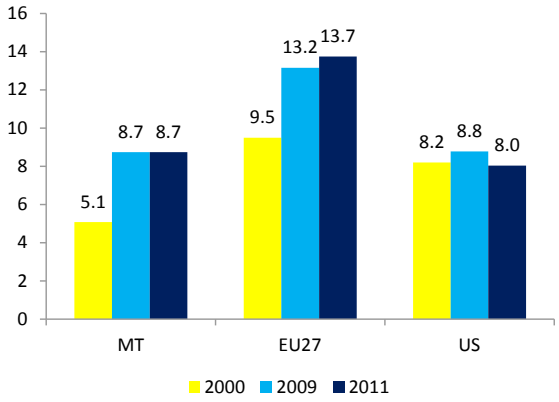




*Source: European Commission based on EUROSTAT*

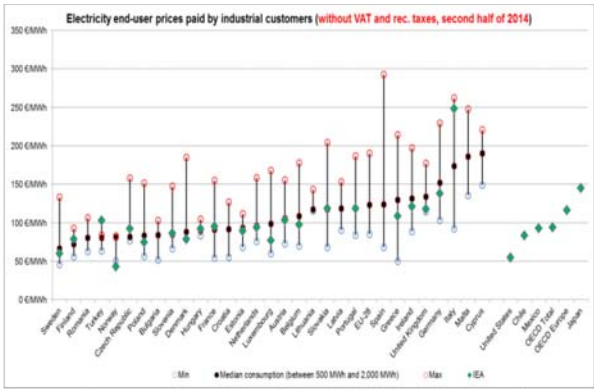
### COMPETITIVENESS

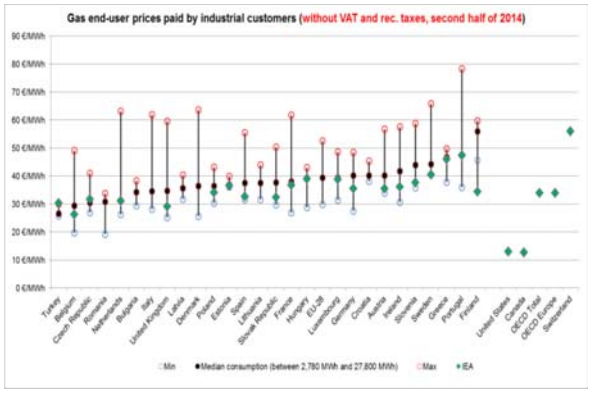
The real unit energy costs[5] in Malta are lower than the EU average and have risen so that it is in line with the US level, but no data is available to explain the decomposition of this indicator between energy intensity and energy prices.
Electricity prices paid by industrial customers in Malta are among the highest in the EU, well above EU average and the price paid by most non-EU trade partners. However, energy prices for the commercial and industrial sector have since been revised downward.

*Real unit energy costs (% of value added)*




*Source: European Commission*




*Source: European Commission based on EUROSTAT and IEA*

## 6. Post-2020 Energy and Climate policy Strategy

### COMPREHENSIVE MEDIUM TO LONG-TERM STRATEGY (post-2020) FOR CLIMATE AND ENERGY

- Malta has not yet established a medium-to-long term strategy on energy and climate covering the period beyond 2020, and no specific targets for 2030 have been set. Current climate-related measures are outlined in the "*National Strategy for Policy and Abatement Measures Relating to the Reduction of Greenhouse Gas Emissions*" published in 2009 covering until 2020.
- On 7 July 2015 Malta enacted Act No. VVII of 2015 entitled the Climate Action Act to streamline the country's commitments on climate change.
- Malta is preparing a national *low-carbon development strategy*. In addition, various sectorial studies and strategies are being developed, such as the "Energy Roadmap 2050 study on the decarbonisation of the energy sector by 2050", and the National Transport Strategy (which has a long range timeline with trends up to 2050).

[5] This indicator measures the amount of money spent on energy sources needed to obtain one unit of value added.

### NATIONAL TARGETS, especially for 2030

| Objective, 2030-2050 | Targets | Comments |
|---|---|---|
| GHG reduction | No | |
| Renewable energy | No | |
| Energy Efficiency / savings | No | |

## 7. Regional Cooperation

Regional cooperation on infrastructure development is necessary to optimise the identification of regional infrastructure priorities and to coordinate cross-border investments. Malta is a member of two Regional Groups established under the TEN-E Regulation: North-South electricity and gas interconnections in Western Europe.

## 8. Cohesion policy contribution

The EU Cohesion policy provides for important investment possibilities to implement energy policy objectives in Malta which will be complemented by national public and private co-financing, aiming at optimal leverage. It also ensures integrated territorial solutions to challenges by supporting capacity building, technical assistance and territorial cooperation.

*Energy efficiency:* Over 2014-2020, EU Cohesion Policy will invest some EUR 15 million in energy efficiency improvements in public and residential buildings and in enterprises in Malta. These investments are expected to contribute to a decrease of around 170 000 kWh per year of decreased primary energy consumption of public buildings. A further estimated EUR 52 million will be invested in transport, of which EUR 28 million will be used to support the move towards an energy-efficient, decarbonised transport sector.

*Decarbonisation:* Overall, the EU Cohesion Policy investments in Malta over 2014-2020 are expected to contribute to an estimated annual decrease of GHG of around 68 000 tonnes of CO2eq. Over 2014-2020, EU Cohesion Policy will invest some EUR 31 million in renewable energy (solar) in in public and residential buildings and in enterprises in Malta. These investments are expected to contribute to around 80 MW of additional capacity of renewable energy production.

*Research, Innovation and Competitiveness:* Over 2014-2020, EU Cohesion Policy will invest significantly in R&I and in SME competitiveness in Malta. This will be based on the national strategy for smart specialisation. For Malta, the strategy includes seven areas of specialisation, plus ICT as a horizontal enabler. One of the seven areas targets resource efficient buildings, aiming to develop solutions for improved resource efficiency in new and existing buildings through, inter alia, demonstration projects and optimisation of building design. At this stage, the allocations foreseen for investments in R&I and adoption of low-carbon technologies in Malta are not specified, but should become available in line with the evolving content of the smart specialisation strategy.