



2023 National Report of the Regulator for Energy and Water Services to the European Commission on the Electricity and Natural Gas sectors in Malta

Fulfilling the provisions of Article 59.1(i) of Directive 2019/944 and Article 41.1(e) of Directive 73/2009.

31 JULY 2023

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1- FOREWORD

This report was prepared by the Regulator for Energy and Water Services (REWS) pursuant to the annual reporting obligations under Article 59.1(e) of the Directive (EU) 2019/944 of the 5th of June 2019 on common rules for the Internal Market for Electricity (Directive (EU)

2019/944) and Article 41.1(e) of the Directive 2009/73/EC of the 13th of July 2009 concerning common rules for the Internal Market in Natural Gas (Directive 2009/73/EC). The report, as far as applicable, follows the reporting structure recommended by the Council of European Energy Regulators (CEER) published on the 2nd of March 2020.

The report describes the recent developments in the electricity and natural gas market, energy infrastructure, security of supply, relevant legislation as well as tasks carried out by the Regulator with respect to renewable energy and consumer protection.

The analysis and statistical data presented in this report relate essentially to the year 2022.

2 - MAIN DEVELOPMENTS IN THE GAS AND ELECTRICITY MARKETS

This section provides a summary of the key developments in the Electricity and Gas Markets in Malta during the year 2022.

2.1 Evaluation of the market development and regulation

- **Development of electricity demand level and sources of generation**

The volume of electricity injected into the Maltese distribution network in 2022 increased by 6.4% when compared to the previous year, reaching a total amount of 2,791.62 GWh¹. The increase in electricity demand was mainly met by imports from Italy.

The renewable energy capacity installed at the end of 2022 reached a total of 225.25 MW, an increase of 7.2% compared to the previous year. More than 95.4% of this capacity is made up of small installations with a maximum capacity of 11kWp or less. The electricity generated from renewable energy sources in 2022 is estimated at 296.8 GWh², representing an increase of 12.8% compared to the generation from renewable sources in 2021.

The energy mix of the electricity supplied to final end customers is similar to that for 2022, with a small decrease in the share of electricity generated locally from natural gas which was replaced by electricity imported from abroad. The emission factor for electricity supplied to final customers in 2022 was calculated at 391 gCO₂/kWh.

Smart meter rollout

In 2022, the percentage of smart electricity meters communicating remotely reached the level of 92.03% of all installed meters. This share of smart meters exceeds the threshold set by Directive (EU) 2019/944 which requires that 80% of the electricity final customers should be provided with a smart meter, latest by 2024, where the deployment of such meters is positively assessed. It should be noted that in Malta the 80% target was already reached in 2017.

¹ The figure does not include electricity generated mainly from renewable energy sources and consumed on site by producers but includes units exported to Italy.

² The figure is provisional.

- **Peak demand**

In 2022, the peak demand on the Maltese electricity distribution network reached 581.3 MW, representing an increase of 3.5% over the previous year. This peak demand occurred on the 7th of July 2022 at 15:00 and represents a historical record for the country. PV systems are estimated to have covered 21.3% of the peak demand. The distribution system operator was not required to operate any of its own backup power plants to meet the peak demand.

- **Cross-border projects**

The REWS continues to monitor the regulatory aspects of the cross-border projects that involve Malta, that is, the Melita TransGas Pipeline (MTGP) - Project of Common Interest (PCI) 5.19 and the Italy-Malta electricity link.

During the year under review, the MTGP was issued with the Environmental Impact Assessment and the Single Authorisation Decree by the competent Italian ministries. The second Italy-Malta electricity link was included in the Ten-Year Network Development Plan (TYNDP 2022), the development plan of the pan-European electricity infrastructure for the next ten years prepared by ENTSO-E³.

³ European association for the cooperation of transmission system operators for electricity.

2.2 Report on the implementation of the Clean Energy Package⁴

The EU Clean Energy Package is the European energy legislative framework developed to facilitate the transition away from fossil fuels towards cleaner forms of energy and to deliver towards the EU's commitments under the Paris Agreement on the reduction of greenhouse gas emissions. The package includes eight legislative instruments covering among other the electricity market and consumers, Energy Efficiency, Energy Performance in Buildings, Renewable energy and biofuel sustainability, risk preparedness in the electricity sector as well as governance of the Energy Union.

The Clean Energy package is composed primarily of the following elements:

- a) **Energy efficiency first:** a revamped directive on energy efficiency setting a new, higher target for reduction in energy use by 2030 of 32.5%, and a new Energy performance of buildings directive maximises the energy saving potential of smarter and greener buildings.
- b) **More renewables:** an ambitious new target of at least 32% share of renewable energy by 2030 has been fixed, with specific provisions to foster public and private investment, in order for the EU to maintain its global leadership on renewables.
- c) **A better governance of the Energy Union:** Under the Regulation (EU) 2018/1999 on the governance of the energy union and climate change, each Member State had to prepare a National Energy and Climate Plans (NECP) covering 2021-2030 setting out how to achieve its energy union targets, and in particular the 2030 targets on energy efficiency and renewable energy. The draft NECPs were analysed by the EU Commission who published country-specific recommendations in June 2019. Member states had to submit their final NECPs, taking into account the recommendations of the EU Commission, by 31 December 2019. A progress report on the NECP must be submitted to the Commission every two years.
- d) **More rights for consumers:** the new rules make it easier for individuals to produce, self-consume, store or sell the energy they produced, and strengthen consumer rights with more transparency on bills, and greater choice flexibility.
- e) **A smarter and more efficient electricity market:** the new laws will increase security of supply by facilitating the integration of renewables into the grid and management of risks, and by improving cross-border cooperation.

Directive (EU) 2019/944 on common rules for the internal market for electricity has been transposed into national law through the Electricity Regulations (S.L.545.34) which

⁴ Article 59.1(u) Directive: Roles and responsibilities of market participants pursuant to Regulation (EU) 2019/943.

replaced the Electricity Market Regulations (S.L.545.13) in 2021.

The Electricity Regulations (S.L.545.34) reflect the derogations granted to Malta under the Directive (EU) 2019/944. In particular, Article 66(3) of this Directive, provides that the following Articles shall not apply to Malta:

- Article 6 on Third-party access,
- Article 35 on Unbundling of Distribution System Operators, and
- Article 43 on Unbundling of Transmission System Operators.

Moreover, Article 66(5) of the Directive (EU) 2019/944 specifies that Article 4 (Free Choice of Supplier) is not applicable to Malta. This derogation is time-limited until 5 July 2027, however, may be extended by a maximum period of eight years by a decision of the EU Commission pursuant to paragraph 1 of Article 66.

3 - THE ELECTRICITY MARKET

3.1 Network regulation and technical functioning

3.1(a) Unbundling⁵

Unbundling is the separation of the electricity supply and generation activities from the operation of distribution and/or transmission networks. Directive (EU) 2019/944 retains the same unbundling principles of Directive 2009/72 EC with respect to transmission system operators (TSOs). Unbundling of TSOs, in general, may take the form of any of the following basic models: Ownership Unbundling, Independent System Operator and Independent Transmission Operator.

Article 35 of Directive (EU) 2019/944 requires that “*where the distribution system operator is part of a vertically integrated undertaking, it shall be independent at least in terms of its legal form, organisation and decision making from other activities not relating to distribution*”. However, in terms of Article 66 of Directive (EU) 2019/944, Article 43 (Unbundling of transmission systems and transmission system operators) and Article 35 (Unbundling of distribution system operators) of this directive do not apply to Malta.

In Malta, there are no TSOs since there are no electricity transmission systems.

The electricity distribution system covering the whole country remains under the responsibility of one Distribution System Operator (DSO), which forms part of a vertically integrated company, Enemalta plc. This company is also licensed to generate and supply electricity to final customers.

Under the Electricity Regulations (S.L. 545.34) electricity undertakings are required to keep within their internal accounting, separate accounts for each of their generation, distribution and supply activities as if these activities were being carried out separately in view to avoid discrimination, cross-subsidization and distortion of competition. In addition, the auditing of the published company accounts of such electricity undertakings must verify compliance with the requirement to avoid cross-subsidisation and non-discrimination.

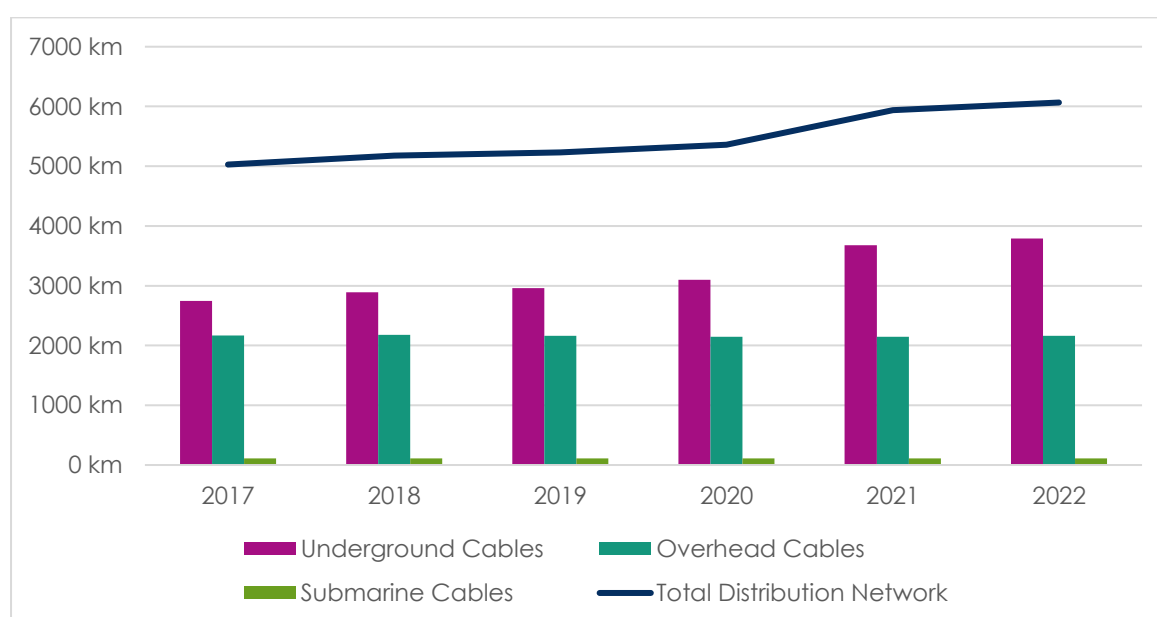
Enemalta plc is the only undertaking licensed to carry out all the three activities of generation, distribution, and supply together. The licence conditions issued to Enemalta plc require the submission of licence monitoring reports which include the submission by Enemalta plc of separate profit and loss accounts and balance sheets for each of the three activities.

⁵ Article 59.1(j) Directive 2019/944: Cross-subsidization.

3.1(b) Network extensions and optimisation⁶

The electricity distribution system consists of a network of 6066.259km (+2.2% over 2021), and is composed of 3789.569km of underground cables (+3.0% over 2021), 2163.49km of overhead cables (+0.9% over 2021) and 113.2km of submarine cables. The voltage levels of the distribution system are 220kV, 132kV, 33kV, 11kV and 400/230V. The low voltage network at 400/230V is mostly overhead whereas the network at higher voltages is mostly underground.

Figure 1: Electricity distribution network development over the last 6 years.



The Maltese electricity system has been synchronised with the Italian electricity grid since April 2015 through the 200MW HVAC 220kV electricity link. This interconnection is operated by Enemalta plc in coordination with the Italian transmission system operator, Terna S.p.A. Under this arrangement, the Maltese electricity system is being treated as a virtual consumption and production point connected to the Italian transmission grid.

3.1(c) Network tariffs⁷

Under the Electricity Regulations (S.L.545.34) the REWS has the duty to fix or approve in accordance with transparent criteria, transmission or distribution tariffs or their methodologies, or both. The Regulator is also responsible for fixing or approving sufficiently in advance of their entry into force at least the national methodologies used to calculate or

⁶ Article 59.1(k) and Article 59.1(l) Directive 2019/944: Investment plans and Smart grid development.

⁷ Article 59.1(o) Directive 2019/944: Evolution of network tariffs and levies.

establish the terms and conditions for connection and access to national networks. These tariffs or methodologies shall allow the necessary investments in the networks to be carried out in a manner to ensure the viability of the networks. If necessary, the Regulator may require the distribution system operator to modify the terms and conditions, including tariffs or methodologies referred to in this regulation, to ensure that they are proportionate and applied in a non-discriminatory manner.

The Maltese distribution system is not open to Third-party access, as Malta has been granted as derogation from Article 6 of Directive (EU) 2019/944 pursuant to Article 66 of the said Directive.

The charges for connecting to the network and/or methodologies for the determination of such charges are established by the Electricity Supply Regulations (S.L.545.01). These provisions apply for all users wishing to connect to the network.

With the Deliberation ARERA 576/2021/R/EEL8 concerning charges applicable to certain interconnections with foreign states, the Italian Regulator ARERA determined that, as from 2023, a transmission fee (€/MWh) applies to cover transport costs and dispatching fees on electricity withdrawn from the Italian system to Malta over the Malta-Italy electricity link. The afore-mentioned transmission fee applies until an Inter-TSO-Compensation mechanism is implemented in terms of Regulation (EU) 838/2010. ARERA's Deliberation also determined that no dispatching services fee (uplift fee) should apply since Malta does not depend on the electrical connection with Italy to cover its load.

For the year 2023, the abovementioned transmission fee applied determined by ARERA to the electricity imported through the Italy-Malta electricity link is 0.87 €/MWh.

3.1(d) Security and reliability regulation⁹

According to the Electricity Regulations (S.L. 545.34), "security" means both security of supply and provision of electricity, and technical safety.

Enemalta plc is required by the REWS, as part of the licence obligations, to prepare security and planning standards defining quality of supply objectives, together with minimum security objectives to be met.

Enemalta plc is also required to provide to the REWS information related to the quality of service. This information includes the System Average Interruption Duration Index (SAIDI). This parameter is determined using the data for the duration of supply interruptions (planned and unplanned) occurring at 11kV level or higher voltages and dividing this by the

⁸ Deliberazione 14 dicembre 2021, 576/2021/R/EEL, Definizione della regolazione delle partite economiche relative all'energia elettrica destinata agli stati interclusi nel territorio italiano e per i quali non e' attuato il controllo degli scambi programmati.

⁹ Article 59.1(m) Directive 2019/944: Network security and reliability issues;
Article 59.10 Directive 2019/944: Congestion Management.

number of customers served in the year of reference. Therefore, the SAIDI is an indication of the average minutes lost per customer per annum.

Table 1 shows the estimates provided by Enemalta plc for the SAIDI for the years 2016 to 2022 due to planned and unplanned interruptions at 11kV or higher voltages. As may be seen from *Table 1*, the average minutes lost per customer per annum for 2022 increased compared with the previous year.

Table 1: Average minutes lost per customer per annum (minutes per year) 2016-2022.

Year	2016	2017	2018	2019	2020	2021	2022
Planned interruptions	62.8	64.8	44.06	44.71	32.38	32.49	42.83
Unplanned interruptions	101.02	417.60	69.32	457.2	96.24	89.58	112.98
Overall	163.83	482.40	113.38	501.91	128.62	122.07	155.80

Source: Enemalta plc.

Enemalta plc submits to the REWS information related to number of interruptions, average duration of an interruption and supply restoration time.

In 2022, the average duration of a planned interruption (CAIDI) was 1.62 hours while the average duration of an unplanned interruption was 1.36 hours. Based also on the information provided by Enemalta plc, 63.84% of customers affected by an unplanned interruption had their supply restored within 1 hour; while 89.39% of customers affected by an unplanned interruption had their supply restored within 3 hours.

Enemalta plc is also bound to report the System Average Interruption Frequency Index (SAIFI); this is defined as the total number of interruptions divided by the number of customers served. The average number of planned and unplanned interruptions per customer is shown in *Table 2*.

Table 2: Average number of interruptions per customer (2016-2022).

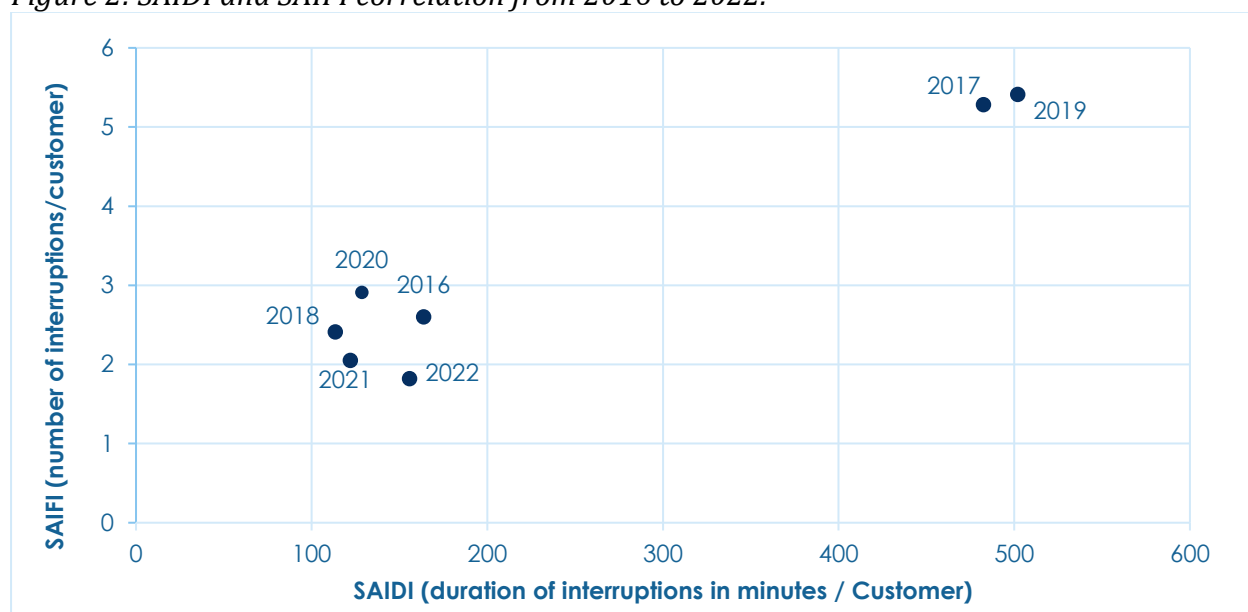
Year	2016	2017	2018	2019	2020	2021	2022
Planned interruptions	0.61	4.69	0.54	0.59	0.47	0.46	0.44
Unplanned interruptions	1.99	0.59	1.87	4.55	2.44	1.59	1.38
Overall interruptions	2.60	5.28	2.41	5.14	2.91	2.05	1.82

Source: Enemalta plc.

For the year 2022, the number of planned interruptions per customer due to interruptions affecting the 11kV level was on average 0.44 and the number of unplanned interruptions per customer was on average 1.38.

As shown in *Figure 2*, the continuity of electricity supply indicators for 2022 were at similar levels to those reported for 2021, 2020, 2018 and 2016.

Figure 2: SAIDI and SAIFI correlation from 2016 to 2022.



The Regulator monitors the time taken by the distribution system operator to provide new electricity service connections and the time taken to connect RES generators to the distribution system.

There is no definition established by law for the ‘time to connect’ customers and producers to the network. However, in general, in case of non-complex services, the time to connect customers and producers is taken to be the time that elapses between the submission of an application to the distribution system operator for connecting to the network and the date of the provision of the service connection and electricity meter. Normally, the activation of the service occurs on the same day on which the electricity meter is installed. Activation of the service is understood to be the possibility to either import and/or export through the metering equipment provided by the distribution system operator.

During the year 2022, based on the information provided by the distribution system operator, the average time for the provision of a new non-complex service connection, not requiring any type of extension of the network or new substation, was of 13.7 days. *Table 3* shows the developments in the average time taken by the distribution system operator to provide a new service between the year 2016 and 2022.

Table 3: Average time for the provision of a new service connection (2017-2022).

Year	2017	2018	2019	2020	2021	2022
Number of days	12	9.6	9.2	11.9	13.6	13.7

Source: Enemalta plc.

Based on data provided by the distribution system operator, the average time taken for connecting RES generators (average for capacities less than 41kWp) to the distribution system, which includes the provision of the necessary metering equipment, was 18.6 days for the year 2022 as shown in *Table 4*. RES generators with a capacity of less than 41kWp are normally connected to existing services or involve a non-complex new service. As a norm, the metering configuration used for RES generators includes a generation meter and an import/export meter. To note that more than 98.2% of the PV systems newly connected to the distribution system during the year 2022 have a capacity of less than 41kWp.

Table 4: Average time for the connection of RES generators less than 41kWp (2017-2022).

Year	2017	2018	2019	2020	2021	2022
Number of days	8.6	8.7	10.9	20.0	16.5	18.6

Source: Enemalta plc and REWS.

In general, the re-activation of supply by the distribution system operator after disconnection due to non-payment of electricity bills takes place within 24 hours of the settlement of debts.

As per the [National Risk Preparedness Plan 2022 – Electricity Sector](#), the REWS is responsible to collect information related to energy security of supply situation and report them to the Energy Crisis Coordinator (the Permanent Secretary of the Ministry responsible for Energy) and the National Designated Competent Authority (NDCA) [the Ministry responsible for Energy].

This security of supply report is prepared in collaboration with the distribution system operator, Enemalta plc. In addition, on a monthly basis, Enemalta plc submits to the REWS information related to local generation capacity availability, faults on the generation side, peak demand and amounts of electricity locally generated and imported.

The REWS also assists the Energy Crisis Coordinator and NDCA in taking the necessary informed decisions in case of electricity crisis.

3.1 (e) Monitoring balance of supply and demand¹⁰

According to Article 59(v) of Directive (EU) 2019/944, the REWS is responsible for monitoring investment in generation and storage capacities in relation to Security of Supply (SoS).

As shown in *Table 5*, the total local fossil fuel nominal generation capacity as at the end of 2022 was 588.6MW, that is the same figure reported for 2021. All the fossil fuel generation capacity is located at the Delimara Power Station site except for a 37MW open cycle gas turbine, denominated as GT9, located in the Marsa Power Station.

Since 2017, DPS-2A Open Cycle Gas Turbine, MPS-GT9 Open Cycle Gas Turbine and DPS-2B Combined Cycle Gas Turbine, all owned by Enemalta plc, have been mainly used as backup reserve capacity. The total actual available capacity of these power plants is normally around 150MW.

Table 5: Local fossil fuel generating plants figures for the year 2022.

Generating plant name	Technology	Fuel	Licensee	Installed Nominal Capacity (MW)
DPS-2A / MPS-GT9	Open Cycle Gas Turbine	Gas Oil	Enemalta plc	111
DPS-2B	Combined Cycle Gas Turbine	Gas Oil	Enemalta plc	110
DPS-3	Combined cycle diesel engines converted	Natural Gas / Gas Oil	D3 Power Generation Ltd	152.6
DPS-4	Combined Cycle Gas Turbine	Natural Gas	ElectroGas Malta Ltd	215
				588.6

Source: Enemalta plc and other sources.

To note that around half of the combined cycle diesel engines capacity (DPS-3) is dual fuel (natural gas/gas oil) while the other half runs on natural gas only.

In addition to the above-mentioned fossil fuel generating plants, there is also one CHP (Combined Heat and Power) 0.049 MWe plant licensed by the REWS and connected to the grid running on Liquid Petroleum Gas (LPG).

The total electricity generation capacity from renewable energy sources installed by the end of 2022 is 225.25MW. As may be deduced from the breakdown in *Table 6*, the renewable energy generation capacity installed consists mainly of solar photovoltaic installations.

¹⁰ Article 59.1(v) Directive 2019/944: Investment in generation and storage capacities in relation to security of supply.

Table 6: Installed capacity renewable energy as the end of the year 2022.

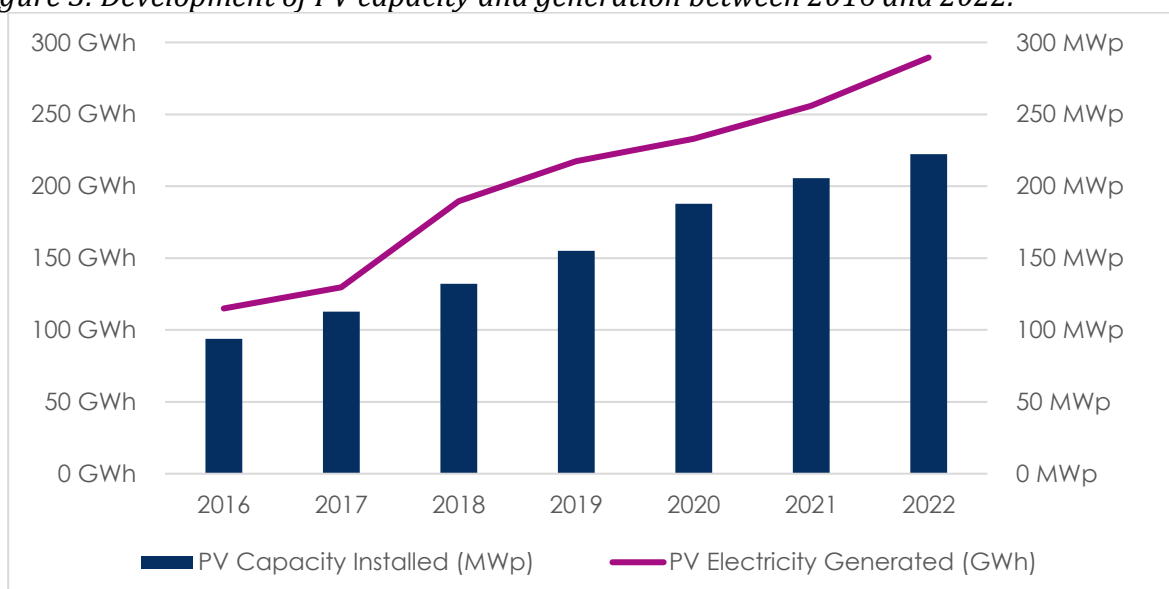
Renewable energy technology	Capacity installed (MW)
Solar photovoltaic systems	222.37 MWp
Micro wind	0.0655 MWp
Biogas CHP plants	2.813 MWe
Total capacity installed	225.25 MW

Source: REWS and Enemalta plc.

A biogas generation plant of 1.737MWe was decommissioned during the year under review.

In 2022, 17.57MWp of new solar photovoltaic capacity was connected to the public grid while 0.632MWp was decommissioned (this means an increase of 8.2% in the total solar photovoltaic capacity connected to the grid over the previous year, taking into account decommissioned capacity). *Figure 3* shows the development in the uptake of PV capacity and electricity generation since 2016.

The largest solar photovoltaic installation is 5.4MWp while 95.4% of the PV installations connected to the grid by the end of 2022 have a capacity of 11kWp or lower.

Figure 3: Development of PV capacity and generation between 2016 and 2022.

Source: REWS, Enemalta plc and NSO¹¹.

There is only one supplier of electricity to final customers, Enemalta plc; this entity is also the distribution system operator, with the obligation to meet all the demand including the peak demand.

¹¹ <https://nso.gov.mt/renewable-energy-from-photovoltaic-panels-pvs-2022/>

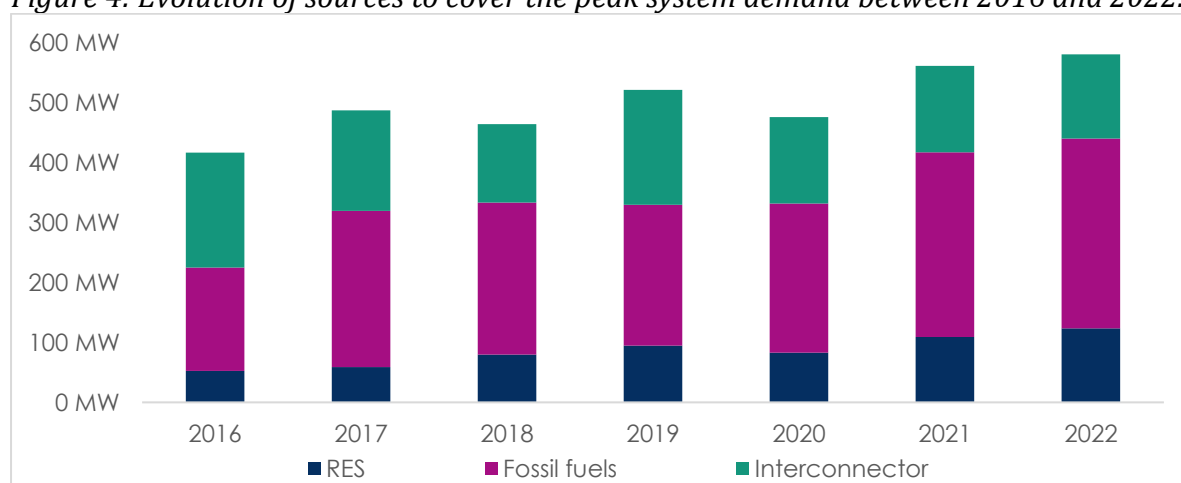
The units sent out to the grid in 2022 (these units include losses in the grid and exports to Italy and exclude self-consumption on site by producers) was 2,791.62 GWh¹² of which 1,944.70 GWh (69.66% of the total) was supplied from local fossil generation plants. The fuel mix contribution of petroleum products from local generation for the year 2022 was 2.01% while the share of natural gas was 67.65%. The contribution to the demand of imports from the electricity link with Italy (Sicily) during 2022 increased from 20.85% to 23.15%. The electricity sent out to the grid from local renewable energy sources is estimated at 200.78GWh¹³.

A number of renewable energy producers self-consume on-site at least a part the electricity produced without it being exported to the public grid. It is estimated that in 2022 the total electricity generated from renewable energy sources was 296.8 GWh¹⁴ (with an increase of 12.8% over the previous year).

The peak system demand, as reported by Enemalta plc for 2022, occurred on the 7th of July at 15:00. The system demand at that time reached the level of 581.3MW which represents an increase of 3.5% over the previous year and is the highest peak load ever recorded. The peak demand was covered by 54.5% of local fossil fuel generation, 24.16% by the Italy-Malta electricity link and the contribution from solar photovoltaic installations estimated at 21.3%. No Enemalta backup power plants were used to cover peak demand in 2022.

Figure 4 shows the evolution of the system peak demand between 2016 and 2022 and the sources used to meet the peak demand each year.

Figure 4: Evolution of sources to cover the peak system demand between 2016 and 2022.



Source: Enemalta plc.

No investment in fossil fuel generation or energy storage capacities in relation to security of supply has been carried out during the year under review and the Regulator did not receive any request to authorise or license any new generation plants other than solar photovoltaic installations. The only storage capacity installed consists of small battery storages installed

¹² This figure refers to the units sent out to the grid from all sources and does not include exports to Italy and self-consumption on site by producers.

¹³ The figure is provisional and estimated from Enemalta smart meters data for 2022.

¹⁴ The figure is provisional.

by households through investment grant schemes amounting to total capacity of 3602.95 kWh at the end of 2022.

The distribution system operator did not report any plans that show the need for new investments in fossil fuel generation capacity.

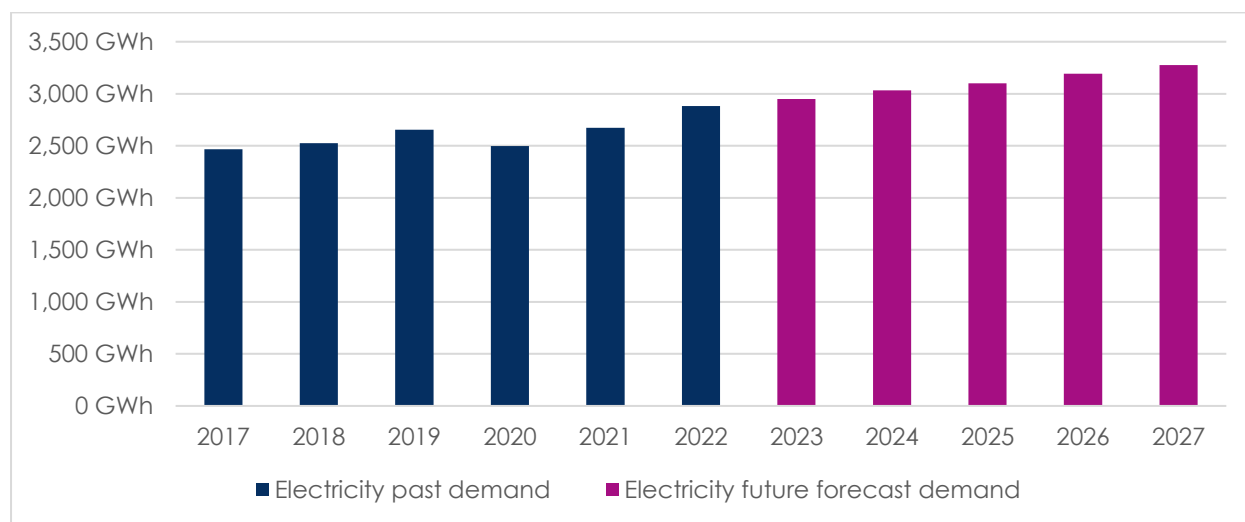
The 2022 projections of the DSO for the annual electricity demand from 2023 until 2027, as provided to the Regulator, are shown in *Table 7* and a comparison of the forecasted demand with past demand is shown in *Figure 5*.

Table 7: Demand of electricity forecast 2023-2027.

Year	Estimated Annual Electricity Demand (MWh)
2023	2,949,226
2024	3,033,873
2025	3,101,167
2026	3,194,029
2027	3,275,027

Source: Enemalta plc.

Figure 5: Past demand and future forecast of electricity.¹⁵



Source: Enemalta plc. and REWS.

¹⁵ Figures for electricity past demand include electricity produced by small producers and consumed on site.

3.1(f) Cross-border issues¹⁶

There are no TSOs in Malta. The development of the distribution network and interconnections with other countries is currently under the responsibility of the distribution system operator.

The Regulator was not involved in specific cooperation activities with other regulatory authorities in relation to capacity allocation and congestion management.

On the 8th of June 2021, the Government announced the decision to construct a second electricity cable link between Malta and Italy. This new 118km long 225MW 220kV HVAC electricity link, consisting mainly of sub-sea cable between Malta (Magħtab) and Sicily (Ragusa), will be laid in parallel but at a safe distance to the existing HVAC cable link which was commissioned in 2015. The implementation of this project has been entrusted to the public owned company Interconnect Malta Ltd (<https://icm.mt/>).

This project has been included in the TYNDP 2022 list with the name “Malta-Italy Cable Link No.2”. More detailed information and the project sheet is available at the following link <https://tyndp2022-project-platform.azurewebsites.net/projectsheets/transmission/1085>
The expected commissioning date of this project is 2026.

There are no Projects of Common Interest (PCIs) related to electricity infrastructure involving Malta.

3.1(g) Implementation of Network Codes and guidelines¹⁷

- *Commission Regulation (EU) 2015/1222 establishing a guideline on Capacity Allocation and Congestion Management (CACM GL).*

This Regulation is not applicable to Malta since there are no cross-border interconnectors subject to capacity allocation and congestion management.

- *Commission Regulation (EU) 2016/1719 establishing a guideline on Forward Capacity Allocation guideline (FCA GL).*

This Regulation is not applicable to Malta since there are no cross-border interconnectors subject to capacity allocation and congestion management.

- *Commission (Regulation (EU) 2017/2195) establishing a Network Code on Electricity Balancing (BAL NC).*

¹⁶ Article 59.1(w) Directive 2019/944: Technical cooperation between Union and third-country transmission system operators.

¹⁷ Article 59.7 Directive 2019/944: Network Codes (Demand Connection Code, Requirements for Generators, High Voltage Direct Current Connections, Operations, Emergency and Restoration, Forward Capacity Allocation, Capacity Allocation & Congestion Management, Electricity Balancing).

This Regulation lays down guidelines on electricity balancing, including the establishment of common principles for the procurement and the settlement of frequency containment reserves, frequency restoration reserves and replacement reserves and a common methodology for the activation of frequency restoration reserves and replacement reserves.

In the absence of a liquid wholesale market, only the DSO bears balancing responsibility in Malta, as established by the Electricity Regulations (S.L. 545.34). Independent power producers and active customers connected to the distribution system do not have responsibilities in this aspect. The DSO is therefore responsible to balance the Maltese distribution system in coordination with the Italian transmission system operator, Terna S.p.A. Any imbalances that occur on the Malta-Italy electricity link are settled in accordance with AEEGSI (Decision 549/2015/R/EEL)¹⁸ issued on the 20th of November 2015 and amended by ARERA Decision 576/2021/R/EEL issued on the 14th of December 2021.

- *Commission Regulation (EU) 2016/631 establishing a Network Code on Requirements for Generators (RfG NC)*

This network code establishes requirements for grid connected power-generating facilities, namely synchronous power-generating modules, power park modules and offshore power park modules, connected to the interconnected system. The network code aims to set out harmonised rules for grid connection for power-generating modules to ensure a clear legal framework for grid connections, facilitate Union-wide trade in electricity, ensure system security, facilitate the integration of renewable electricity sources, increase competition, and allow more efficient use of the network and resources, for the benefit of consumers.

The Electrical Installations Regulations (S.L.545.24) require that the interface protection system of generators connected at low voltage level should comply with MSA EN 50549-1 or an equivalent standard. As noted earlier on in this report, the new generators that are being connected to the grid are inverter-based generators (solar photovoltaic installations) mainly rated 11kWp or less.

- *Commission Regulation (EU) 2016/1388 establishing a Network Code on Demand Connection (DCC NC)*

The Network Code on Demand Connection sets harmonised requirements for the connection to the transmission grid of new demand facilities, distribution facilities, distribution systems and demand units that provide demand response services to

¹⁸ Deliberazione 20 Novembre 2015 549/2015/R/EEL-Disciplina degli sbilanciamenti effettivi applicabile all'interconnessione Italia-Malta.

relevant system operators and relevant TSOs. In Malta, there are no transmission systems and no new distribution systems.

- *Commission Regulation (EU) 2016/1447 Establishing a Network Code on Requirements for grid connection of High Voltage Direct Current systems and direct current-connected power park modules (HVDC NC)*

There are no high voltage direct current networks or direct current-connected power park modules in Malta.

- *Commission Regulation (EU) 2017/2196 of 24 November 2017 establishing a Network Code on electricity Emergency and Restoration (NC ER).*

The aim of this regulation is the safeguarding of operational security, prevention propagation or deterioration of an incident to avoid a widespread disturbance and the blackout state and facilitating efficient and rapid restoration of the electricity system after an emergency or blackout incident.

There are no transmission systems in Malta and hence no need for a designation of a transmission system operator. The electricity link Italy-Malta, an HVAC 220kV 200MW cable, is treated as part of the distribution system in Malta and is not open to third party access. The DSO/supplier is the sole user of the electricity link Italy-Malta and mainly to purchase electricity from the Italian market and supply final customers in Malta. On the local generation side, there are three main fossil fuel generators and a number of small independent renewable energy producers.

The Maltese electricity system is not a transit system but a small peripheral system which qualifies as a “small interconnected system” under Directive (EU) 2019/944, since the demand in 1996 was less than 3000GWh. Electrically, Malta is treated as a load connected to the Italian system.

Therefore, the Maltese system does not have the coordination complexities of large systems with one or multiple TSOs that manage large interconnected systems with a large number of generators and various DSOs connected to them, which may present coordination challenges in particular during an emergency. The role of the DSO is to implement the requirements determined by the TSO. It is in view of this, that certain concepts in the Commission Regulation (EU) 2017/2196 are not deemed to apply to the Maltese system.

The contractual agreement with Terna S.p.A requires only that the DSO implements low-frequency demand disconnection settings that are consistent with the corresponding settings for the Italian grid.

Nevertheless, in view of the objectives of Regulation (EU) 2017/2196, the REWS is working to ensure that the existing defence and restoration procedures implemented at the DSO level are fully documented and aligned as far as applicable with the requirements of the Regulation.

3.2 Competition and market functioning

3.2.1 Wholesale markets

There are no liquid wholesale markets in Malta. The electricity generation sector was liberalised in 2005, however significant Independent Power Producers (IPPs) entered the sector in 2017. Other independent power production are small producers generating electricity from renewable sources. The fossil fuel IPPs, namely D3 Power Generation Ltd and ElectroGas Malta Ltd, accounted for 69.11% of the electricity sent out to the grid from all sources during the year 2022. The involvement of Enemalta plc in the electricity generation sector is mainly limited to the provision of backup generation service. This is evident from the fact that while Enemalta plc owns 22.13% of the production capacity, only 0.55% of the electricity sent out to the grid during 2022 was produced by its own plants.

Enemalta plc remains the sole supplier of electricity to final customers. The demand for electricity is met from the IPPs generating mainly from natural gas, RES generators (mainly solar photovoltaic systems) and from imports through the Italy-Malta electricity link. Enemalta plc is obliged to dispatch the available sources on economic merit order basis with electricity from renewable energy benefitting from priority of dispatch.

Since the retail market is not open to competition, all independent power producers may either consume on site the electricity generation and/or sell to Enemalta plc. The trading arrangement between Enemalta plc and the fossil fuel independent power producers for the supply of electricity is based on long term bilateral contracts.

The sale of electricity from PV installations connected to the grid is governed mainly by Feed-in Tariffs Scheme (Electricity Generated from Solar Photovoltaic Installations) Regulations (S.L. 545.27) or contracts for operating aid concluded pursuant to a competitive bidding process.

During the year 2022, the Feed-in Tariffs Scheme Regulations (S.L. 545.27) provided for the allocation of feed-in tariffs to new solar photovoltaic installations rated below 40kW. A total capacity of 8MWp was made available for the allocation of a feed-in tariff under this scheme. The feed-in tariff allocation process is administered by the REWS.

Support for RES generators with a capacity of 40kW or more is allocated through a competitive bidding process. During the year under review, the Regulator administered seven invitations to bid (ITB) for the award of support to RES generators ranging from 40kW up to less than 1000MW. The calls for bids were staggered between the 4th of January 2022 and the 24th of October 2022.

The Sale of Electricity generated from Cogeneration Units Regulations regulate the sale of electricity from co-generation plants irrespective of primary energy source. The electricity exported to the grid from approved cogeneration plants is paid by Enemalta plc at the proxy of the market price.

Electricity imported through the electricity link is mainly traded in the Italian day-ahead market.

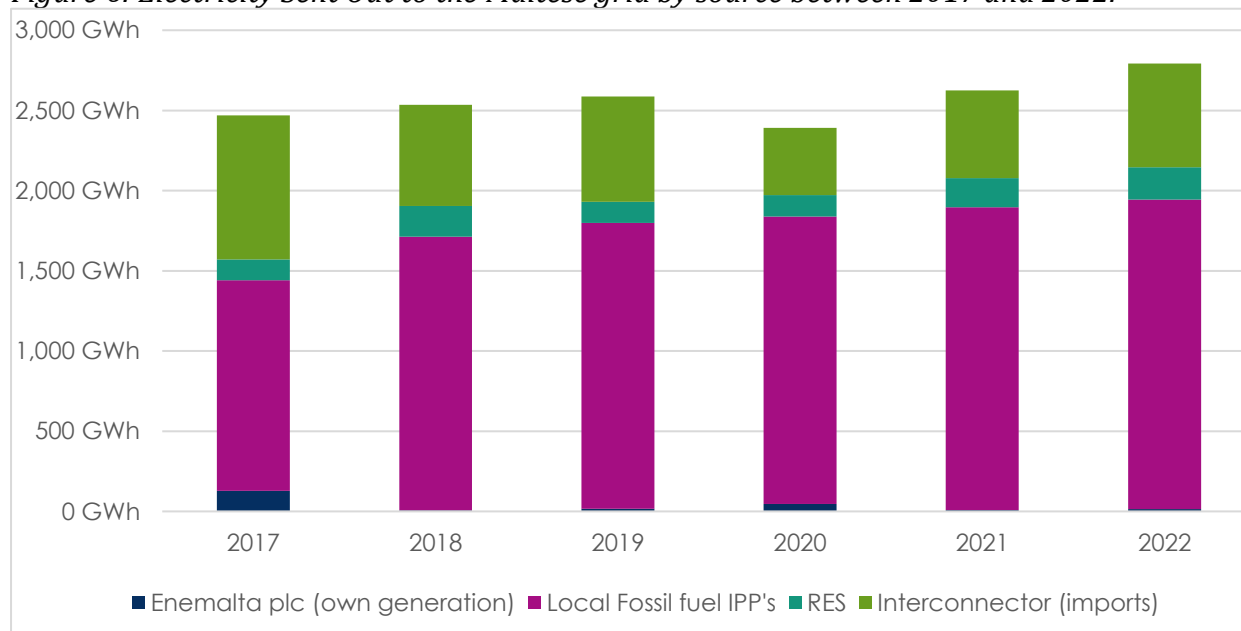
Table 8 and Figure 6 shows the development in the contribution of local generation sources and imports to electricity sent to the Maltese grid.

Table 8: Electricity Sent Out to the Maltese grid by contributors (GWh) between 2017 and 2022.

[GWh]	2017	2018	2019	2020	2021	2022
Enemalta plc (own generation)	127.67	6.58	16.62	47.34	9.26	15.35
Local Fossil fuel IPPs	1313.70	1706.71	1782.57	1790.83	1887.96	1929.96
RES¹⁹	129.78	190.67	131.00	133.41	180.37	200.78 ²⁰
Electricity Link (imports)	897.07	631.29	656.76	419.81	547.25	646.14
Total Electricity Sent Out	2468.16	2535.25	2586.94	2391.38	2624.84	2791.62

Source: Enemalta plc, NSO and REWS.

Figure 6: Electricity Sent Out to the Maltese grid by source between 2017 and 2022.



Source: Enemalta plc, NSO and REWS.

19 As of 2019 the units sent out from RES do not include the electricity generated and consumed on-site (self-generated units) by producers. The total electricity generated by RES is estimated as 222.64GWh in 2019, 242.73 GWh in 2020, 263.11 GWh in 2021 and 296.8 GWh in 2022.

20 The figure is estimated and provisional.

During the year under review, 6.029GWh were exported from Malta to the Italian grid.

The Fuel Mix indicates the share of the different primary energy sources used to produce the electricity available for consumers from the public grid. Under the Electricity Regulations (S.L. 545.34) suppliers of electricity are required provide final customers with information concerning the Fuel Mix and environmental impact of the electricity supplied by them. Given that there is only one electricity supplier in Malta, the Fuel Mix and environmental impact in term of CO₂ direct emissions factor are the same of all customers in Malta. Fuel Mix data is updated on annual basis and is also published on website of Enemalta plc, link: https://www.enemalta.com.mt/environment/fuel_mix_for_energy_distribution/.

The Regulator monitors the process of determination and disclosure of the Fuel Mix and of the CO₂ emissions factor in accordance with regulation 5 of the First Schedule of the Electricity Regulations (S.L.545.34).

Figures 7a and 7b shows the Fuel Mix for the years 2021 and 2022. To note that electricity self-generated by producers (most of them having photovoltaic installation) has not been included given that this electricity is not injected into the distribution network.

Figure 7a: Fuel Mix Disclosure 2021-2022.

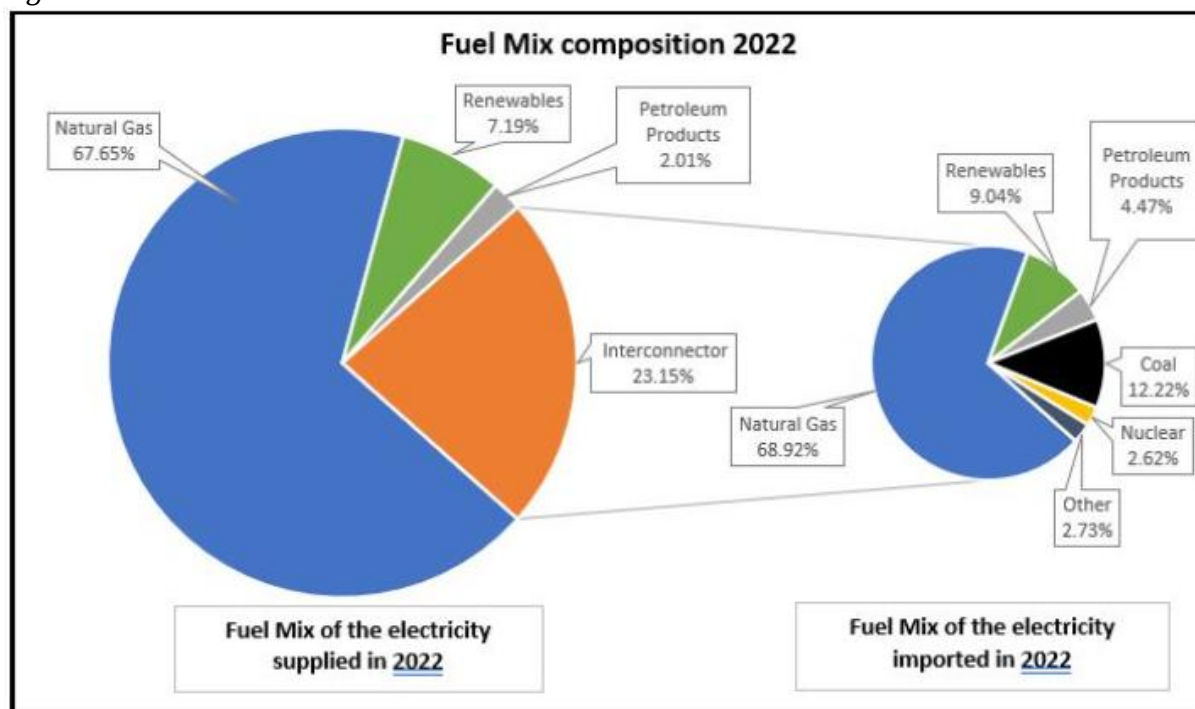


Figure 7b: Fuel Mix Disclosure 2021-2022.

Fuel mix composition of the electricity supplied by Enemalta in accordance with regulation 5(a) of the First Schedule of the Electricity Regulations (S.L.545.34)		
Primary sources:	2021	2022
▪ Natural Gas	70.64%	67.65%
▪ Renewables	6.87%	7.19%
▪ Petroleum Products	1.64%	2.01%
▪ Interconnector*	20.85%	23.15%
*Interconnector sources:		
▪ Natural Gas	63.61%	68.92%
▪ Renewables	10.81%	9.04%
▪ Coal	12.94%	12.22%
▪ Petroleum Products	4.43%	4.47%
▪ Nuclear	6.42%	2.62%
▪ Other	1.79%	2.73%
Environmental impact of the electricity supplied by Enemalta in accordance with regulation 5(b) of the First Schedule of the Electricity Regulations (S.L.545.34)		
	2021	2022
▪ CO ₂ emissions	388 g/kWh	391 g/kWh
For more information on the environmental impact of your electricity supply visit www.enemalta.com.mt or call 80072224		

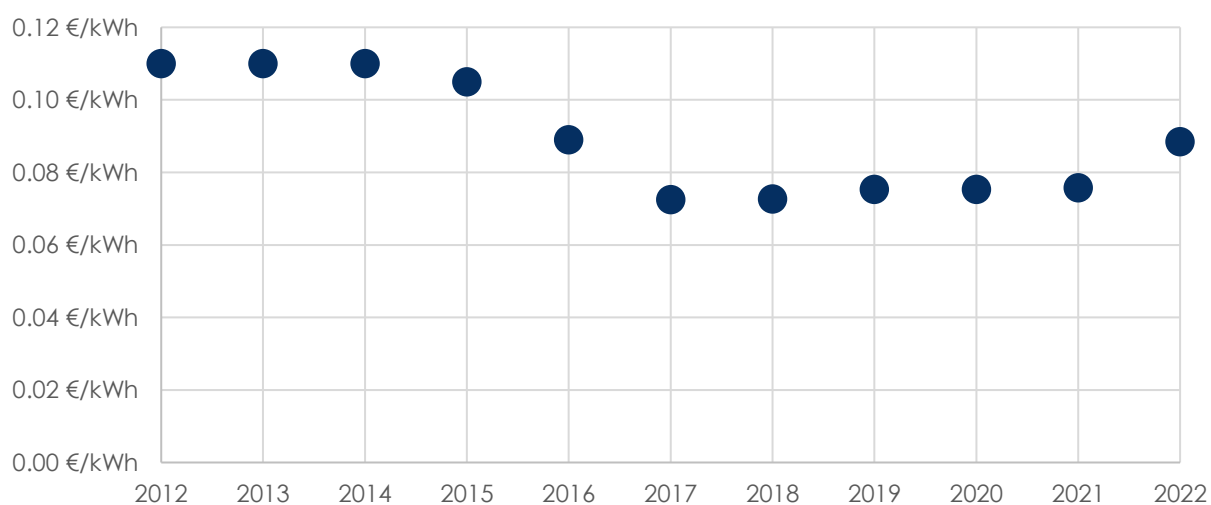
3.2.1(a) Monitoring the level of prices, the level of transparency, the level and effectiveness of market opening and competition²¹

In the absence of a liquid wholesale market, the REWS determines the proxy of the wholesale market price on an annual basis. This price is the reference used to determine the amount of operational aid paid to PV installation benefitting from a feed-in tariff and is also the rate paid to generators exporting electricity to the grid and not eligible for any operational support. The REWS determines the proxy of the market price by estimating the variable cost of meeting the demand forecast for a given year from local fossil fuel generation and imported electricity; and then uses the average of this estimate as a proxy for the market price. The demand assumption excludes that portion of the forecasted demand which is not expected to be met by conventional and/or imported electricity. The methodology was

²¹ Article 59.1(n) and 59.1(o) Directive 2019/944: Transparency Obligations and Market opening and competition.

included in the State Aid decision of CION²² issued in relation to the notified competitive bidding process for the granting of operational aid to generators producing electricity from renewable energy sources with capacity of 1MWp or more. The proxy of the market determined by the REWS, normally every year, and it is published in Feed-in Tariffs Scheme (Electricity Generated from Solar Photovoltaic Installations) Regulations (S.L.545.27). *Figure 8* shows the developments in the proxy of the wholesale market price between 2012 and 2022.

Figure 8: Developments in the proxy of the market price for 2012-2022.



3.2.2 Retail market

The situation in the electricity retail market remains unchanged. The activity of supply of electricity must be performed under a licence issued by the REWS in terms of the Electricity Regulations (S.L. 545.34). In view of the derogation from Article 4 (Free choice of supplier) of Directive (EU) 2019/944 granted to Malta pursuant to Article 66(5) of the said Directive, the licence to supply electricity may only be issued to the distribution system operator designated under the aforementioned regulations.

Therefore, Enemalta plc remains the only undertaking in Malta holding a licence to supply electricity to final customers and given this market set-up customer switching cannot be implemented in Malta.

All the customers pay regulated retail tariffs. Retail tariffs featuring also an off-peak tariff component are available specifically for electric vehicle (EV) charging. Operators of publicly accessible EV charging points may add a premium for the charging service on top of the regulated electricity tariff.

²² State Aid SA. 43995 (2015/N) – Malta Competitive Bidding Process for Renewables Sources of Energy Installations, Brussels, 26.8.2016 C(2016) 5423 final.

Further details may be found on the Regulator’s website:

<https://www.rews.org.mt/#/en/a/13-regulated-electricity-tariffs> .

The retail tariff paid by consumers for electricity covers the costs and revenues pertaining to the operation of the distribution network. In addition to this, the paid tariff also covers costs and revenues relating to the imported electricity, generation, and supply activities. There are no separate tariffs for the use of the network.

3.2.2(a) Monitoring the level of transparency, including compliance with transparency obligations, and the level and effectiveness of the market opening and competition²³

3.2.2(a)i Market opening and competition

The electricity retail market is not open to competition. The procedure for the approval of the electricity retail prices is established by Article 36 of the Electricity Supply Regulations (S.L.545.01).

The principles underlying the determination and approval of the retail tariffs are published on the Regulator’s website²⁴. In the event of a review of the electricity retails tariffs, the REWS publishes the documents related to the review process.

Electricity tariffs are established through legislation which is published in the Government Gazette (the official Government publication for the promulgation of laws), the REWS’s website and the websites of Enemalta plc and of Automated Revenue Management Services Ltd (ARMS Ltd) respectively.

3.2.2(a)ii Prices for household customers

The regulated electricity retail tariffs are composed of a fixed annual service charge and a kWh consumption tariff structure. For non-residential consumers a maximum demand charge also applies. No tariffs specifically for the use of the network are applied.

The fixed annual service charge differentiates between a single-phase service and a three-phase service, and between residential/domestic premises and non-residential premises. In addition, all consumers with a service connection capacity rating exceeding 60Amps/phase are required to pay a maximum demand tariff.

The kWh consumption tariff structure consists of tiers of consumption with the corresponding kWh tariff. The tariffs are based on a cumulative consumption per annum and are applied *pro rata* based on the number of days covered by the bill. The kWh tariff

²³ Articles 59.1(o), 59.1(s) and 5.1 of Directive 2019/944.

²⁴ REWS website: www.rews.org.mt

structure applicable for the consumption of electricity differentiates between registered primary residence premises, domestic premises, and non-residential premises. Household consumers may benefit from a percentage reduction of electricity rates, referred to as an ‘eco reduction’ on their electricity consumption bill on one registered primary residence as follows:

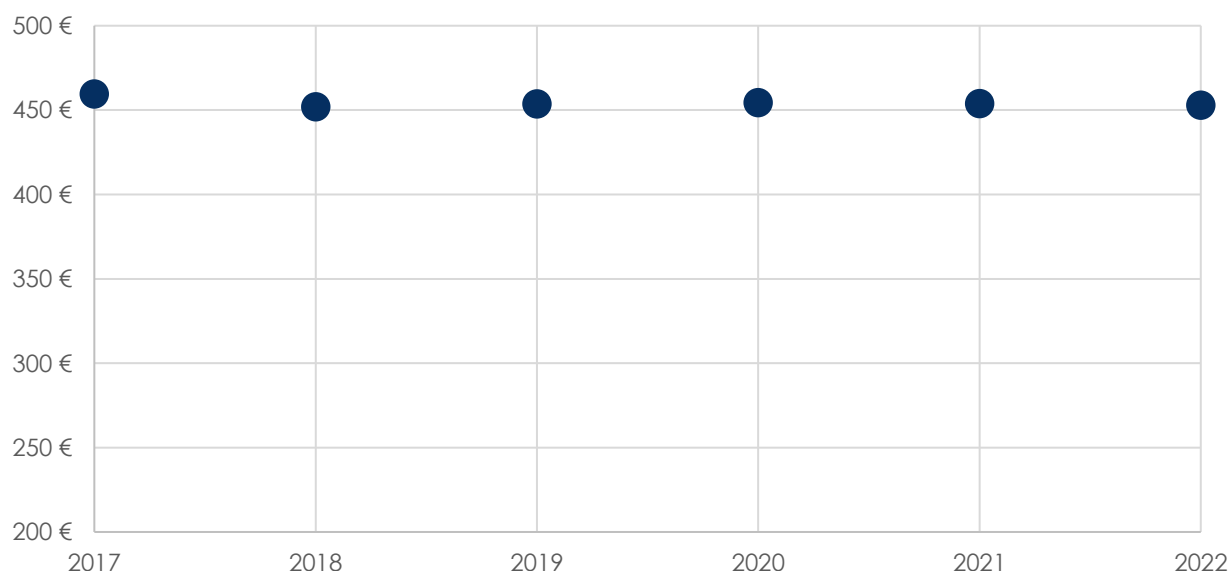
- households composed of two or more persons may benefit from a two tier eco reduction mechanism provided that the consumption per person does not exceed 1750kWh per annum. A reduction of 25% in the consumption bill is possible if the consumption does not exceed 1000kWh per person for the first tier. The second tier consists of a reduction of 15% in the bill on the next 750kWh per person/household,
- single person households enjoy a reduction of 25% in their consumption bill if their annual electricity consumption does not exceed the 2000kWh/annum.

The domestic premises tariffs are applicable for electricity consumed in premises intended for domestic use and which are not registered as a primary residence.

The non-residential premises tariffs are applicable for electricity consumed in all the other premises which are not registered either as a primary residence or as domestic premises. Non-residential consumers with a service rating above 100A/phase may choose to be billed on a kVAh tariff. A night and day tariff is available for non-residential consumers with annual consumption exceeding of 5GWh (5.5GVAh).

During the year under review there were no changes in the retail tariffs for household and non-household customers.

Figure 9: Average end-user price of households consuming in the band 2500 - 5000 kWh (based on a consumption of 3500kWh per year).



Source: REWS elaboration based on EUROSTAT data.

Figure 9 shows the developments in the average household bill between 2017 and 2022 based on a consumption of 3500kWh and the national average end-user electricity price per kWh for the reference band of consumption DC (2500kWh<consumption<5000kWh) as reported by the Maltese National Statistics Office to Eurostat. It should be noted that tariffs and tariff bands are applied pro rata according to the days covered by the bill and therefore a change in the billing period may affect the average price per kWh.

The household tariffs are inclusive of 5% Value Added Tax and 0.0015€/kWh excise duty.

Presently there are no plans for the phasing out of regulated prices.

3.2.2(a)iii Prepayment systems

Prepayment contracts are not available to customers in Malta.

3.2.2(a)iv Dynamic price contracts

In Malta dynamic price contracts are not available. All customers, both household and commercial, are on regulated tariffs and the energy component does not vary with wholesale prices. To note that in Malta there are no liquid wholesale markets.

3.2.2(a)v Smart meter use

Smart meters rolled out by the Maltese DSO, Enemalta plc., have the following functionalities:

- Remote spot readings for import and export registers, maximum demand, load profiles;
- Time-of-use consumption reading;
- Remote activation and deactivation;
- Remote power limit curtailment;
- Voltage variations data collection;
- Remote meter diagnostics (to detect if meter is healthy or faulty).

Data related to the rollout of Smart Meters in Malta are reported in section 3.2.2(b)vi (Customer consumption data provision).

3.2.2(a)vi Switching rate

Enemalta plc. Is the only undertaking in Malta holding a licence to supply electricity to final customers and therefore, customer switching cannot be implemented in Malta.

3.2.2(a)vii Charges for maintenance services

The regulated electricity retail tariffs in Malta are composed of a fixed annual service charge and a kWh consumption tariff structure. For non-residential consumers a maximum demand charge also applies. No specific charges for maintenance services are applied.

3.2.2(a)viii Relationship between household and wholesale prices

Not applicable since there is no liquid wholesale market in Malta.

3.2.2(a)ix Distortion or restriction of competition

The electricity retail market is not open to competition.

3.2.2(a)x Competitive prices

Not applicable since the electricity market in Malta is not open to competition and all consumers are on regulated tariffs.

3.2.2(b) Consumer protection and dispute settlement²⁵

The Electricity Regulations (S.L.545.34) transpose the measures related to customer protection provided in Annex I of Directive (EU) 2019/944 and establish the obligation to provide universal service to all household customers by the distribution system operator. The Electricity Regulations require also that electricity suppliers provide customers with the bills and promotional materials, information related to the energy sources mix and environmental impact of the electricity supplied.

In addition, customers are to be provided with:

- information concerning their rights regarding the means of dispute settlement available to them in the event of a dispute; and
- contact information of consumers' organisations, energy agencies or similar bodies, including website addresses from which information may be obtained on available energy efficiency improvement measures, comparative end user profiles and, or objective technical specifications for energy-using equipment.

²⁵ Articles 59.1(o), 59.1(p), 59.1(s), 59.1(t), 59.1(y), 59.1(z), 5.2, 5.3, and 5.4 Directive 2019/944: Complaints by household customers, Disconnection rates, Restrictive contractual practices, Protection of energy poor and vulnerable household customers, Intervention in price setting for vulnerable household customers, Customer consumption data provision, Availability of comparison tools, Obstacles to and restrictions of consumption of self-generated electricity and citizen energy communities.

The requirements emanating from the Electricity Regulations related to customer protection and provision of information are included in the licence conditions of Enemalta plc as supplier of electricity.

In general, the terms and conditions for the electricity supply service are currently implemented through legislative instruments, mainly, the Electricity Supply Regulations (S.L.545.01) which specify *inter alia* the services and maintenance provided, applicable tariffs, and conditions for termination and renewal. The rights and obligations of customers are detailed in the Customer Charter published by Enemalta plc which constitute the basis of the deemed contract of customers with Enemalta plc. The Enemalta Customer Charter is available at the following link

<https://www.enemalta.com.mt/wp-content/uploads/2018/03/Enemalta-plc-Customer-Charter-EN.pdf>

Since there is only one supplier, the contract for the supply of electricity is automatically of an indefinite nature. In the absence of an open electricity supply market, customer switching is not possible to implement. The Electricity Regulations (S.L.545.34) provides that complaints against the distribution system operator may be referred to the Regulator for Energy and Water Services. The REWS is obliged to issue a decision within four months from the date that a complaint is lodged. The timeframe for the issue of the decision may be extended by a further two months with the agreement of the complainant. Before a decision is issued, the REWS discusses the complaint with the parties involved who may make any submissions that they deem necessary.

Any decision issued by the Regulator for Energy and Water Services under the Act is binding unless overruled on appeal.

An appeal on a decision issued by the Regulator for Energy and Water Services may be lodged to the Administrative Review Tribunal.

No binding decisions related to the disputes or refusals related to connection to the network and/or network tariffs were issued by the REWS during 2022.

3.2.2(b)i Complaints by household customers

In terms of the Electricity Regulations (S.L.545.34) the Regulator carries out the function of an energy ombudsman in order to ensure the efficient treatment of complaints and out-of-court dispute settlements.

Customer complaints must be addressed at the first instance by Enemalta plc or by its contractor ARMS Ltd. ARMS Ltd deals with issues related to billing or meter reading, while Enemalta plc deals directly with issues related to connection to the grid and voltage quality. Enemalta plc is required to retain and update a register of all complaints related to the electricity service and to submit information on an annual basis related to the complaints received and time to respond to such complaints as part of the licence monitoring reports. Currently the complaints register held by Enemalta plc does not distinguish between households and non-household customers.

Customers that cannot resolve their complaint with Enemalta plc., following the completion of their complaints handling process, may refer their complaint to the REWS for consideration.

The dispute resolution procedures to be followed by the Regulator are established by the (S.L.545.30) Dispute Resolution (Procedures) Regulations published in 2016. Generally, the Regulations require that the REWS is to issue a determination to resolve the dispute within four months from the date on which the dispute is notified to it by a party to the dispute.

During 2022, the Regulator received 21 complaints related to electricity from customers that were not satisfied with the solution provided by the supplier. Most of the complaints were related to billing issues.

The Office of the Ombudsman informed the Regulator that it had received 16 complaints related to the energy sector during 2022.

3.2.2(b)ii Disconnection rates

As part of the conditions of its licence, Enemalta plc is required to report to the REWS data related to disconnections of customers for non-payment. The total number of disconnections for non-payment of electricity consumption that was reported to the Regulator for 2022 was 1,012 of which 667 were household customers and 345 non-household customers. To note that during the year under review 857 customers were reconnected after the disconnection for non-payment. *Table 9* shows the number of disconnections for non-payment between the years 2017 and 2022.

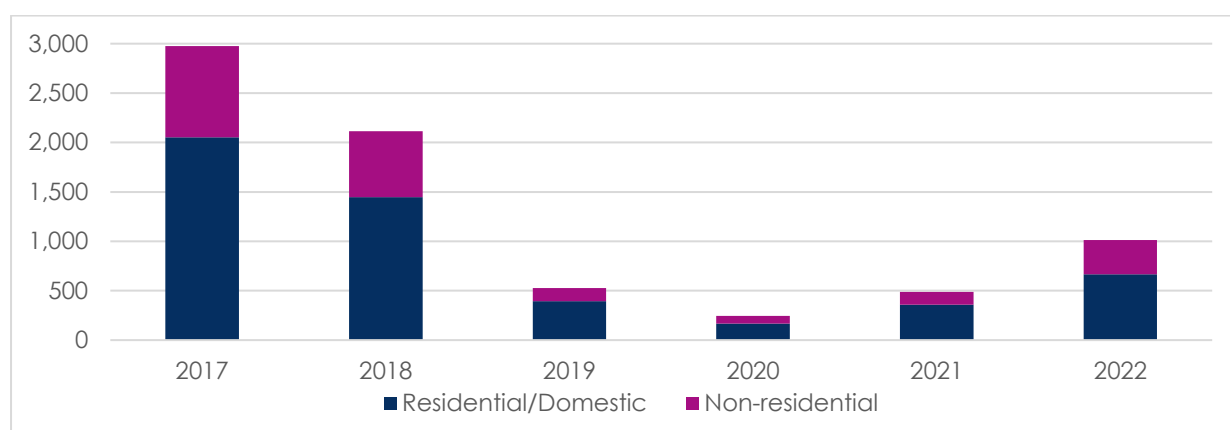
Table 9: Number of disconnections for non-payment (2017-2022).

Year	2017	2018	2019	2020	2021	2022
Residential/Domestic	2,053	1,447	393	167	357	667
Non-residential	924	668	135	79	132	345
Total	2977	2115	528	246	489	1,012

Source: Enemalta plc.

In general, a customer failing to pay a bill within 45 days recognised from the date of issue of the bill, receives a reminder requesting the settlement of the outstanding amounts within 10 days. In the event of non-payment, the customer receives a final notice to settle amounts due within 7 days; otherwise, the supply could be suspended. The actual suspension of supply depends on the amount due, the length of time for which the debt has been due while taking into account established thresholds.

In addition, customers who are unable to pay their bills are afforded the facility to enter into an agreement with Enemalta plc to pay their bill by instalments, to avoid disconnection.

Figure 10: Number of disconnections for non-payment that occurred between 2017 and 2022.

Source: Enemalta plc.

3.2.2(b)iii Restrictive contractual practices

According to regulation 47(1)(p) of the S.L. 545.34, the Regulator has the duty to monitor the occurrence of restrictive contractual practices, including exclusivity clauses which may prevent large non-household customers from contracting simultaneously with more than one supplier or restrict their choice to do so. Furthermore, the Regulator has the authority to inform the national competition authorities of such practices. The exercise of the duties emanating from the regulations have to be seen in the context of a market with one supplier of electricity.

3.2.2(b)iv Protection of energy poor and vulnerable household customers

Vulnerable electricity customers are catered for within the social policy framework. The Department of Social Policy has established the criteria whereby certain categories of energy consumers may be eligible to receive energy benefits. The energy benefit amounts are deducted directly from the electricity bills.

Consumers that may benefit from energy benefits include families with low incomes, households having a family member with a disability, families on social assistance or special unemployment benefit, and persons on a pension or a carer's pension.

During the year 2022, the consumers that received energy benefits amounted to 23,790 which represents 7.59% of all household consumers, as shown in *Table 10*.

Table 10: Vulnerable customers and their share over household customers (2017-2022).

Year	2017	2018	2019	2020	2021	2022
Number of vulnerable customers	20,488	23,638	23,560	23,666	23,657	23,790
Share of vulnerable customers	8.3%	9.48%	8.55%	9.35%	7.78%	7.59%

Source: Enemalta plc.

3.2.2(b)v Intervention in price setting for vulnerable household customers

Eligible household customers, as determined by the ministry responsible for social welfare on the basis of a number of published criteria, are assisted in the paying their bills through energy benefits. Otherwise, there are no specific tariffs for these customers.

3.2.2(b)vi Customer consumption data provision

Electricity bills issued to customers include contact details of ARMS Ltd which is responsible for meter reading, billing, debt collections, and the provision of customer relations services on behalf of Enemalta plc, the electricity supply licence holder.

Table 11: Smart Meter (SM) installation development between 2017 and 2022.

Year	2017	2018	2019	2020	2021	2022
Total SM reachable remotely	243,712	259,822	297,626	310,128	324,095	337,922
Total Active meters	317,747	314,942	336,254	344,232	356,646	367,195
Share of SM reachable remotely	76.70%	82.50%	88.51%	90.09%	90.87%	92.03%
Household SM reachable remotely	212,479	248,672	258,536	270,032	282,344	292,614
Household Active Meters	269,025	275,106	284,572	293,257	303,892	313,386
Share of Household SM reachable remotely	78.98%	90.39%	90.85%	92.08%	92.91%	93.37%

Source: Enemalta plc.

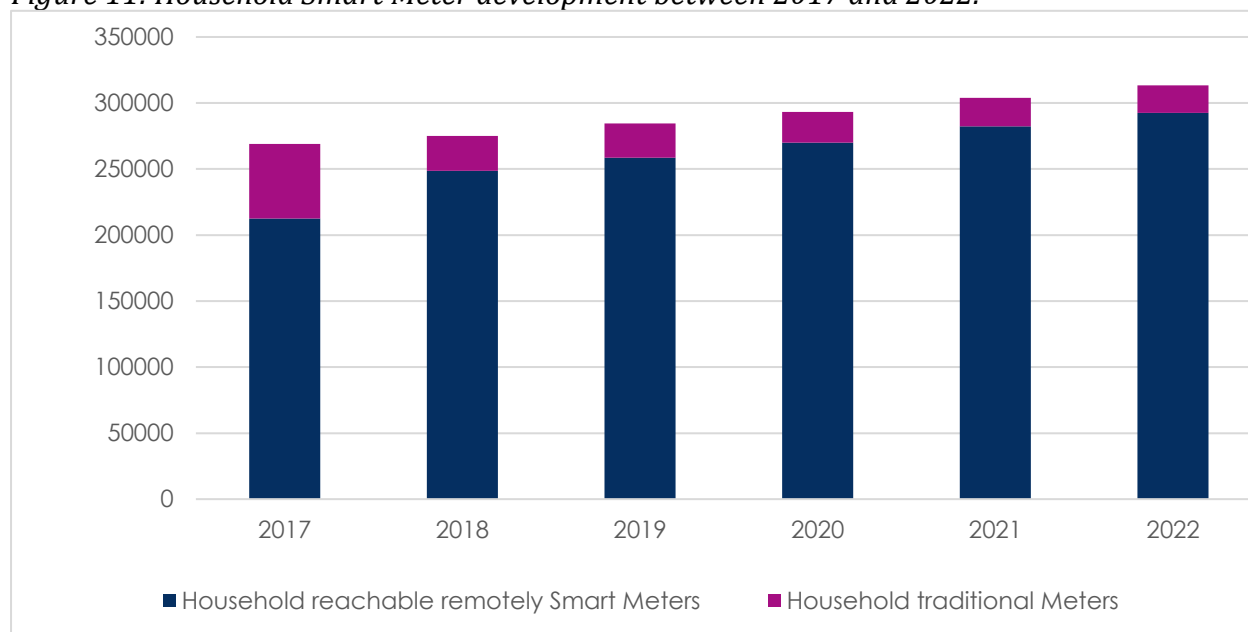
In the year 2022, 337,922 electricity meters supplying households and non-households were smart meters with Automatic Metering Management (AMM) function capability, this is an increase of 4.3% in the number of meters with AMM over the past year.

Table 11 and Figure 11 report the data relating the smart meters roll out over the past years. It is possible to highlight that at the end of 2022 this technology represents 93.37% of household meters active in Malta.

In general, households not yet provided with a smart meter, receive bills calculated on actual consumption at least every six months, while households provided with a smart meter connected to the Automatic Metering Management (AMM) receive bills based on actual readings on a bimonthly basis. The frequency of actual bills for non-household consumers varies from one month to six months.

The bill includes a breakdown of the bill calculations, total electricity consumption for the period covered by the bill, the average consumption per day, applicable tariffs, and CO₂ emissions. The bill also includes the consumption related to the previous year and projections for electricity annual consumption.

Figure 11: Household Smart Meter development between 2017 and 2022.



Source: Enemalta plc.

Where the customer is also a producer of renewable electricity, the bill includes the number of units generated and exported to the grid together with a breakdown of the calculation of the revenue due from the sale of the electricity to Enemalta plc. Most of the electricity generated from renewable energy and exported to the grid is produced by solar photovoltaic installations. In general, the metering set-up used in the case of customers who are also producers consists of a generator meter and import-export meter, thus, customers who self-consume the electricity produced can keep track of their consumption.

Customers have the option to register on the ARMS Ltd portal to access the detailed breakdown of unpaid bills and history of previous bills and payments.

3.2.2(b)vii Availability of comparison tools

There is no scope for comparison tools since electricity tariffs in Malta are regulated and there is only one electricity supplier.

3.2.2(b)viii Obstacles to and restrictions of consumption of self-generated electricity and citizen energy communities

The consumption of self-generated electricity has always been an option available to owners of generators. The specific provisions of the Directive (EU) 2019/944 related to self-generated electricity and citizen energy communities have been transposed to national legislation in the Electricity Regulations (S.L.545.34), taking into consideration the derogations under Article 66 of Directive (EU) 2019/944.

4 - THE GAS MARKET

Since the year 2017, LNG (Liquified Natural Gas) is imported through an LNG facility consisting of a floating LNG Floating Storage Unit (FSU) and an onshore Regasification Unit (RU) on the Delimara site. The FSU has an LNG storage capacity of 125,000 m³ and the regasification plant with a maximum natural gas output rate of 89,000 Nm³/hr of natural gas.

The capacity of the LNG terminal is fully contracted to supply natural gas to two electricity generation plants, DPS-3 (owned by D3 Power Generation Ltd) and DPS-4 (owned by ElectroGas Malta Ltd). The regasification plant is designed to meet simultaneously the full natural gas load required by DPS-3 and DPS-4.

ElectroGas Malta Ltd has a licence to carry out the functions of an LNG system operator and an authorisation to import LNG and to supply natural gas to the two electricity generation plants, issued under the Natural Gas Market Regulations (S.L. 545.12).

At present in Malta there is no transmission or distribution of natural gas, and therefore no TSO or DSO is operating in the gas sector.

During 2022, the REWS continued to monitor the regulatory aspects related to the proposed Melita TransGas Pipeline (MTGP) - Project of Common Interest (PCI) 5.19 that is planned to connect Malta to the European gas transmission network in Gela (Italy).

4.1 Network Regulation

4.1.1 Network and LNG tariffs for connection and access²⁶

The capacity of the LNG terminal is fully contracted to supply natural gas to the power plants DPS-3 and DPS-4; and LNG terminal tariffs form part of the fees payable by Enemalta plc to ElectroGas Malta Ltd in terms of the gas and electricity supply agreements concluded pursuant to a tendering procedure.

4.1.2 Balancing²⁷

Not applicable since there is no gas transmission system established in Malta.

²⁶ Articles 41.(1)(a), 41.6(a), 41.1(s), 41.1(n) Directive 2009/73: Tariff regulation methodology, Connection and Access to national network access tariffs methodology, Access to storage facilities, linepack and other ancillary services.

²⁷ Articles 41.(6)(b) Directive 2009/73.

4.1.3 Cross-border issues²⁸

During 2022, the Regulator continued to monitor the work on the planned natural gas transmission pipeline that will connect Malta (Delimara) to the Italian natural gas grid in Gela.

The Melita TransGas Pipeline (MTGP) was identified as a Project of Common Interest (PCI 5.19) under the priority corridor “North-South gas interconnection in Western Europe” in the first PCI list in 2013, and subsequently confirmed in all the following PCI lists, till the 5th published in November 2021. The MTGP project promoter (Interconnect Malta Ltd) has applied for its inclusion in the 6th PCI list according to the provisions of Article 24 of the new TEN-E Regulation (EU) 2022/869.

During the year under review, the project promoter embarked on studies to assess the financial and economic feasibility of the hydrogen-ready pipeline between Malta and Italy for importing green hydrogen as an option for the future de-carbonisation of the Malta’s power generation sector and other inland sectors. For this scope, the Project’s engineering design and financial engineering studies are being updated to make the pipeline capable of transporting blends of renewable gases/natural gas and pure hydrogen to the Maltese islands. These studies also include a non-binding market test to assess the demand and market research to investigate the sourcing of green hydrogen from Italy.

In May 2022 the Environmental Impact Assessment (EIA) of the MTGP for Italy was completed with a positive outcome by the Ministry of Ecological Transition (MiTE) of Italy. The Ministry of the Environment and Energy Security of Italy concluded the procedure for the Single Authorisation Decree (Italian permit) on the 29th of November 2022 with a positive outcome.

The REWS has been involved in providing feedback to the ACER PCI Monitor report 2022 published in June 2022 (details of the MTGP are available in the Annex II²⁹).

4.1.4 Implementation of Network Codes and guidelines³⁰

No updates or developments to report.

²⁸ Articles 41.6(c), 41.9, 41.10, 41.11, 41.1(c), 41.1(g) Directive 2009/73: Access to cross-border infrastructure including allocation and congestion management, Cooperation agreements/activities between NRAs regarding cross-border issue, Monitoring Community-wide network development plans, PCIs and national development plans.

²⁹ <https://www.acer.europa.eu/gas/infrastructure/ten-e/pci-monitoring>

³⁰ Capacity Allocation Mechanisms (CAM NC, Regulation (EU) 2017/459), Balancing (BAL NC, Regulation (EU) 312/2014), Interoperability and Data Exchange (INT NC, Regulation (EU) 2015/703), Tariff (TAR NC, Regulation (EU) 2017/460).

4.2 Competition and market functioning

4.2.1 Wholesale market

At present there is no wholesale gas market in Malta and no transmission or distribution gas system is present. The only gas infrastructure available is an LNG terminal that was developed by ElectroGas Malta Ltd as part of a gas and power supply contract, with its full capacity dedicated to supply natural gas for electricity generation to two power plants (one owned by ElectroGas Malta Ltd, the other owned by D3 Power Generation Ltd) located adjacent to the terminal.

4.2.1(a) Monitoring the level of prices, the level of transparency, the level and effectiveness of market opening and competition³¹

ElectroGas Ltd reports Urgent Market Messages on the GME portal. This information is accessible at the following electronic address: <https://pip.ipex.it>. This disclosure of inside information is done in accordance with Article 4(a) REMIT Regulation and with ACER Guidance on the REMIT application and covers the unavailability of electricity and gas facilities (namely the Re-gasification Plant and D4 Power Station) that are likely to significantly affect wholesale energy prices and other relevant market information.

4.2.2 Retail Market

4.2.2(a) Monitoring the level of prices, the level of transparency, the level and effectiveness of market opening and competition³²

Not applicable since there is no retail market for natural gas.

4.2.3 Consumer protection and dispute settlement³³

Not applicable since there is no retail market for natural gas.

³¹ Articles 41.1(i), 41.1(j), 41.1(k), 41.1(l), 41.1(u) Directive 2009/73: Monitoring transparency, market opening and competition, Restrictive contractual practices, Contractual freedom of supply contracts, Data exchange processes.

³² Articles 41.1(i), 41.1(j), 41.1(k), 41.1(l), 41.1(u) Directive 2009/73: Monitoring transparency, market opening and competition, Restrictive contractual practices, Contractual freedom of supply contracts, Data exchange processes.

³³ Annex 1, Articles 41.1(o), 41.1(q), 41.11, 41.4(e) Directive 2009/73: Measures on Consumers protection, Ensuring access to consumption data, dispute settlement and rights of investigation.

4.3 – Security of Supply³⁴

Under the Natural Gas Market Regulations, the REWS has the responsibility to monitor the balance between supply and demand of natural gas, the level of expected future demand and available supplies, envisaged additional capacity being planned or under construction, quality and level of maintenance of the networks, as well as measures to cover peak demand and to deal with shortfalls of one or more suppliers.

Data for LNG imports and consumption of natural gas is collected from ElectroGas Malta Ltd. During the year under review, ElectroGas Malta Ltd reported no major incident affecting the Security of Supply.

REWS is not the competent authority for security of natural gas supply within the meaning of Regulation (EU) 2017/1938 concerning measures to safeguard the security of gas supply. However, as prescribed by the Preventive Action Plan and by the Emergency Plan submitted to the EU Commission in January 2020, the Regulator provides to the Crisis Manager (the Permanent Secretary of the Ministry for the Environment, Energy and Enterprise) a monthly report addressing gas supply/ demand/stock levels and forecast use, collecting information provided by gas facility operators and the electricity system operator.

4.3.1 Monitoring balance of supply and demand

LNG import in Malta started in 2017. The total amount of LNG imported to Malta during 2022 was 4,178GWh (HHV). The total amount of natural gas delivered to the electricity generation plants during 2022 was 4,170GWh (HHV) in line with 2021 figure.

During 2022, all the importation of LNG was from non-EU Member States (Trinidad and Tobago and the U.S.A.).

The demand of natural gas for electricity generation for the next 5 years is reported in Table 12 and it is compared with past demand in *Figure 14*.

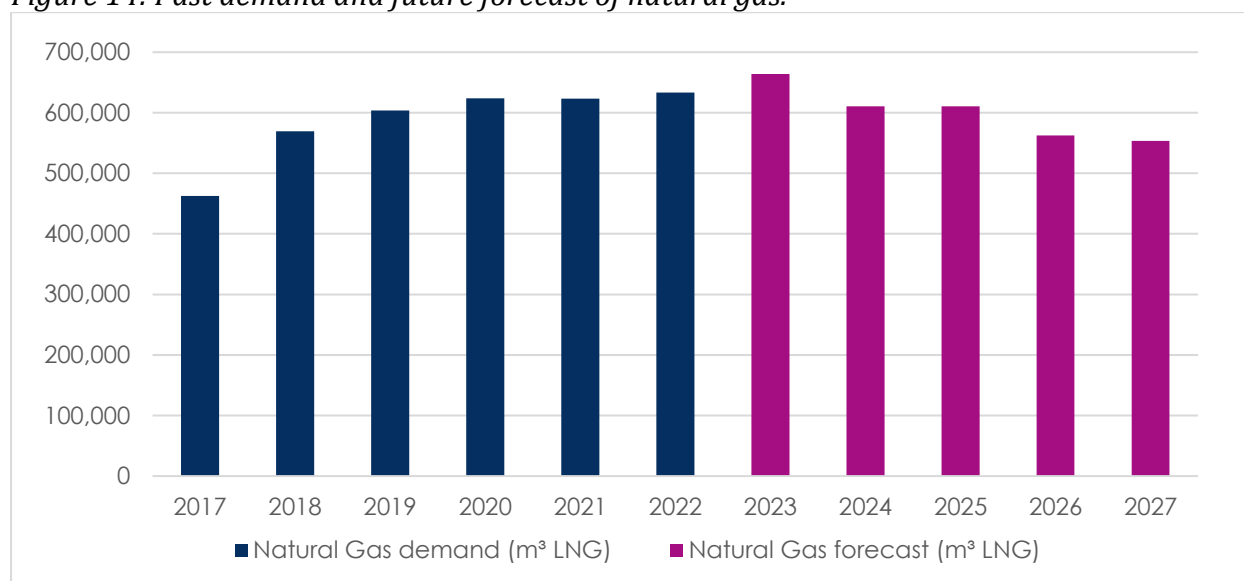
Table 12: Projected LNG consumption 2023-2027.

Year	Projected Annual Consumption (m ³ of LNG)
2023	664,118
2024	610,479
2025	610,479
2026	562,513
2027	553,792

Source: Enemalta plc.

³⁴ Articles 41.1(t) and 41.1(h) Directive 2009/73: Safeguard measures and Security and reliability standards.

Figure 14: Past demand and future forecast of natural gas.



Source: ElectroGas Ltd and Enemalta plc.

4.3.2 Measures to cover peak demand or shortfalls of suppliers

The average daily consumption of LNG during the year was 11.42 GWh, while the peak daily consumption occurred on the 12th of July 2022 and reached a value of 17.4 GWh.

Presently, in the event of a shortage of natural gas, the oil-based generation plants owned by Enemalta plc, the dual fuel part of DPS-3 and the electricity cable link to Italy are expected to act as a backup reserve capacity to meet the electricity demand.