REGULATOR FOR ENERGY & WATER SERVICES

2019 Annual Report of the Regulator for Energy and Water Services to the European Commission on the national energy sector in Malta

31 JULY 2019

1 Foreword

This report was prepared by the Regulator for Energy and Water Services (REWS) pursuant to the annual reporting obligations under Articles 37(1)(e) and 41(1)(e) of Directive 2009/72/EC and Directive 2009/73/EC, respectively.

The report, as far as applicable, follows the reporting structure recommended by the Council of European Energy Regulators (CEER).

The report describes the recent developments in the electricity and natural gas market, energy infrastructure, security of supply, relevant legislation and 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 2018.

2 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 2018.

Major Developments

Electricity generation and security of supply

During the year under review a 120MW steam plant located in Delimara Power Station was completely demolished while no new fossil fuel generation capacity was commissioned. The Regulator did not receive any a new applications for the construction of new fossil fuel plants.

At the end of 2018, the fossil fuel generation capacity in Malta amounted to 588.6MW, of which 367.6MW running mainly on natural gas (75MW of which dual fuel having the possibility to operate also on gas oil) with the remaining generation capacity 221MW running on gas oil.
The highest system demand for the year 2018 occured on the 3rd of August at 13:00 when the demand peaked at 465 MW.

In the year under review, the total amount of electricity sent out to the grid from all local generators, including Renewable Energy Sources (RES) and imports was 2,488.27 GWh, with an increase of 2.16% over the previous year. The physical imports from Italy (Sicily) measured on the Maltese side amounted to 605.67GWh, a reduction of 30% over the previous year. The contribution to the demand from all local generation increased to 76.1% from the 64% of the previous year. During the year under review, an amount of 10.54 GWh was physically exported to Italy.

Development of renewable energy

By the end of the year under review the installed electricity generation capacity from renewable energy sources was 136MWp. Solar Photovoltaic installations make up for over 96.7% of the renewable electricity generation capacity installed. The REWS continue to administer grant schemes for the purchase of solar photovoltaic installations targeting households. The allocation of the feed-in tariff for electricity exported to the grid from solar photovoltaic installations with a capacity of less than 1MWp is also administered by the REWS.

Electricity distribution and retail

The retail of electricity is not open to competition.

Enemalta plc continues to perform the functions of Distribution System Operator (DSO) and that of the sole supplier of electricity to final customers. Meter reading, billing and the handling of customer relations are performed by ARMS Ltd, which is a subsidiary company owned and controlled by Enemalta plc and the Water Services Corporation.

All customers of electricity remain on a regulated retail tariff. During the year under review, there were no changes in the electricity retail tariff structure.

Smart meter rollout

The electricity meters replacement program continues with the total number of smart meters installed and commissioned reaching 259,822 by the end of the year. By the end of the year under review 81% of the electricity meters installed were smart meters with Automatic Metering Management (AMM) capability.

Natural gas infrastructure

There is no natural gas transmission or distribution in Malta. A supply of natural gas for the sole purpose of electricity generation is provided through the LNG terminal operated by ElectroGas Malta at Delimara (located in the south of Malta, in the proximity of the power station). By the end of 2018, the LNG terminal delivered a total of 4,144 GWh of natural gas.

The natural gas pipeline between Malta and Italy (Gela) was confirmed as a Project of Common Interest and included in the third PCI list drawn up by the European Commission in 2017. The project implementation timeline has been revised after the conclusion of the studies on the route identification and basic design, which indicate that the project can be implemented earlier than what was declared in the 'Feasibility Study' of 2015 and Ten-Year Network Development Plan (TYNDP) 2017. The natural gas pipeline is planned to come into operation by 2024.

There were no changes to the duties of the Regulator in the year under review.

3 The Electricity Market

3.1 Network Regulation

3.1.1 Unbundling

- Articles 10,11 2009/72/EC and Article 3 Regulation (EC) 714/2009
- Article 26

Directive 2009/72/EC and Directive 2005/89/EC were transposed into national law through the Electricity Market Regulations (S.L. 545.13). These regulations take into account the derogations granted to Malta by virtue of Article 44 of Directive 2009/72/EC from the requirements of Article 9 (Unbundling of transmission systems and transmission system operators) and Article 26 of Directive 2009/72/EC (Unbundling of distribution system operators). Therefore, these two articles do not apply to Malta.

In Malta, there are no Transmission System Operators (TSOs) since there are no electricity transmission systems. The REWS did not receive any requests for the designation and/or certification of transmission system owners or operators, in the year under review.

The electricity distribution system covering the whole country remains under the responsibility of one distribution system operator which forms part of a vertically integrated company, Enemalta plc. The electricity distribution system consists of a network of 5,179.1 kilometres, composed of 2,889.792 km of underground cables, 2,176.1 km of overhead cables and 113.235 km of submarine cables. The local distribution voltage range are 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.

Enemalta plc is required to keep unbundled accounts at internal management accounts level only.

3.1.2 Technical functioning

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

- Balancing services (Article 37(6)(b), Article 37(8)

The electricity system balancing is carried out by Enemalta plc in coordination with the Italian transmission system operator, Terna S.p.A. Any imbalances on the interconnector are settled in accordance with AEEGSI (Decision 549/2015/R/EEL) issued on the 20th November 2015[1].

Independent power producers connected to the distribution system do not have balancing responsibilities.

- Security and reliability standards, quality of service and supply (Article 37(1)(h))

[1] Deliberazione 20 Novembre 2015 549/2015/R/EEL-Disciplina degli sbilanciamenti effettivi applicabile all'interconnessione Italia-Malta

Enemalta plc is required to provide the REWS with information related to the quality of service. This information includes the SAIDI based on supply interruptions (planned and unplanned) data at 11kV level and which is used as an indicator of average minutes lost per customer per annum.

Table 1 shows the estimates provided by Enemalta plc for the average minutes lost per customer per annum for the years 2013 to 2018 due to planned and unplanned interruptions at 11kV or higher voltages. The overall figure for the average minutes lost per customer for the year 2018 was 113.38 minutes, that represent a decrease of 76.50% over 2017.

Table 1: Average minutes lost per customer per annum (minutes per year) 2013-2018

Year	2013	2014	2015	2016	2017	2018
Planned interruptions (customer minutes lost):	61.04	207	54.6	62.8	64.8	44.06
Unplanned interruptions (customer minutes lost):	360.04	570.6	172.8	101.02	417.60	69.32
Overall (customer minutes lost):	421.08	777.6	227.4	163.83	482.40	113.38

Source: Enemalta plc

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

In 2018, the average duration of a planned interruption was 1.36 hours and that of an unplanned interruption was 0.62 hours. Based also on the information provided by Enemalta plc, 98.06% of customers affected by an unplanned interruption had their supply restored within 3hrs while 83.97% of customers affected by a planned interruption had their supply restored within 3hrs.

For the year 2018, the number of planned interruptions per customer due to interruptions affecting the 11kV level was 1.87 and the number of unplanned interruptions per customer was 0.54. The average number of planned and unplanned interruptions per customer is shown in Table 2.

Table 2: Average number of interruptions per customer (2013-2018)

Year	2013	2014	2015	2016	2017	2018
Planned interruptions (number):	0.63	0.76	0.63	0.61	4.69	1.87
Unplanned interruptions (number):	4.13	4.59	2.49	1.99	0.59	0.54

Source: Enemalta plc

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

- Monitoring of time taken to connect and repair (Article 37(1)(m))

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 either the possibility to import and/or export through the metering equipment provided by the distribution system operator.

During the year 2018, 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 9.6 days. This represents an improvement over the previous year, when the average for the time taken to provide the same type of service was 12. Table 3 shows the developments in the average time taken by the distribution system operator to provide a new service between the year 2013 and 2018.

Table 3: Average time for the provision of a new service connection (2013-2018)

Year	2013	2014	2015	2016	2017	2018
Number of days	20.7	21.3	20.3	14.9	12	9.6

Source: Enemalta plc

According to the information 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 of 8.7 days for the year 2018 as shown in Table 4. The 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 98% of the PV systems newly connected to the distribution system during the year 2018 have a capacity of 41kWp or less.

Table 4: Average time for the connection of RES generators up to 41kWp (2013-2018)

Year	2013	2014	2015	2016	2017	2018
Number of days	16.3	29.1	14	16	8.6	8.7

Source: Enemalta plc

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

- Monitoring safeguard measures (Article 37(1)(t))

No crises in the energy system occurred in Malta in 2018 which would have required the implementation of safeguard measures as described in Article 37(1)(t) and Article 42 of Directive 2009/72/EC.

Enemalta plc is also required through the licence conditions to prepare and submit to the REWS Emergency Response and Security Plans for the distribution system and the power stations.

- RES regulatory framework: Report on connection, access and dispatching regimes for RES-E, in particular on priority issues. Report also on the balancing responsibility for RES-E. (Article 11 Regulation (EC) 713/2009)

The Electricity Market Regulations (S.L. 545.13) subject to fulfilment of the requirements related to the maintenance of the reliability, safety and stability of the distribution system and based on transparent and non-discriminatory criteria as defined by the REWS, state that the Distribution System Operator (DSO) is obliged to:

(a) guarantee the distribution of electricity produced from renewable energy sources wherever technically feasible and with regard to system stability;

(b) provide for priority access to the distribution system of electricity produced from renewable energy sources;

(c) give priority to generating installations using renewable energy sources in so far as the secure operation of the national electricity system permits and based on transparent and non-discriminatory criteria;

(d) ensure that appropriate distribution system and market-related operational measures are taken in order to minimise the curtailment of electricity produced from renewable energy sources;

(e) report to the Regulator if any significant measures are taken to curtail the renewable energy sources in order to guarantee the security of the national electricity system and security of energy supply and indicate corrective measures that will be taken to avoid inappropriate curtailment.

Generators producing electricity from renewable energy sources do not have balancing responsibilities. The distribution system operator did not report any curtailment of renewable energy sources during the year under review.

Administratively determined support for solar photovoltaic installations includes a grant of up to 50% of the eligible initial capital cost capped at €2,300 coupled with a feed-in tariff for households and a feed-in tariff for any PV system not benefitting from any investment support and with a capacity of less than 1MWp. The amount of capacity that may be allocated a feed-in tariff is capped. The feed-in tariffs, terms and conditions for the allocation and payment of feed-in tariffs are established by the Feed-in Tariffs Scheme (Electricity Generated from Solar Photovoltaic Installations) Regulations (S.L. 545.27).

The first competitive bidding process for the award of support to solar photovoltaic installations with a capacity of 1MWp or more, was concluded in May 2018 with a total capacity of 12.89MWp (sum of three different bids) awarded support by the Ministry for Energy and Water Management. A second competitive bidding process was launched on the 21st of August 2018 for a maximum capacity of 35MWp.

The export of electricity from combined heat and power plants, irrespective of the type of fuel used, is regulated through the Sale of Electricity generated from Cogeneration Units Regulations, and is paid by the distribution system operator at the proxy of the market price. The proxy of the market is also paid for exports from small wind turbines.

For all renewable energy generators and cogeneration plants the electricity may either be consumed on site or sold to the distribution system operator at the applicable tariff.

3.1.3 Network tariffs for connection and access

- Article 37(1)(a), Article 37(6)(a), Article 37(8), Article 37(10), Article 37(12), Article 37(3)(c) and (d)

The REWS is responsible for the fixing or approval of the connection and access tariffs to the distribution system, including distribution tariffs or their methodologies. The Regulator may require the distribution system operator, if necessary, 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 charges for connecting to the network and/or methodologies for the determination of such charges are established by the Electricity Supply Regulations. These provisions apply for all users wishing to connect to the network. There were no changes in the year under review.

In view of the derogation granted to Malta from Article 32 (Third Party Access) of Directive (2009/72/EC), any independent power producer connected to the distribution network is obliged to sell all the electricity produced and not consumed on site, to the sole supplier of electricity, Enemalta plc.

The retail tariff paid by consumers for electricity covers the costs and revenues pertaining to the operation of the distribution network apart from those related to the imported electricity, generation and supply activities. There are no separate tariffs for the use of the network.

- Prevention of cross-subsidies (Article 37(1)(f))

As already explained earlier on in this report, the network costs are covered by the retail tariff and there are no separate tariffs for the network. The method used for tariff regulation is based on the full cost recovery method.

The Electricity Market Regulations (S.L. 545.13) require electricity undertakings 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 have to 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 monitoring reports include the requirement for the submission by Enemalta plc of separate profit and loss accounts and balance sheets for each of the three activities.

3.1.4 Cross-border issues

- Access to cross-border infrastructure, including the procedures for the allocation of capacity and congestion management (Article 37(6)(c), Article 37(8), Article 37(9)), use of revenues for interconnectors (article 37(3)(f))

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

- Monitoring technical co-operation between Community and third-country TSOs (Article 37(1)(s))

Not applicable.

- Monitor TSO investment plans in view of TYNDP art 37(1)(g), PCIs, also national development plans

As previously stated in section 3.1.1, there is no TSO in Malta. The development of the distribution network and interconnections with other countries is currently under the responsibility of the distribution system operator.

The distribution system operator is required to provide information regarding the development of the network assets and new connections to the network of users.

The Regulator continues to monitor the development of the distribution network through specific reports required by the licence.

There are no PCI (European Projects of common interest) related to electricity infrastructure involving Malta.

- Cooperation (Article 37(1)(c))

Nothing to report.

3.1.5 Compliance

- Compliance of regulatory authorities with binding decisions of the Agency and the Commission (Article 37(1)(d)) and with the Guidelines (Article 39))

There were no binding decisions of the Agency or the Commission that required specific actions to be taken by the Regulator.

- Compliance of transmission and distribution companies, system owners and electricity undertakings with relevant Community legislation, including cross-border issues (Article 37(1)(b), Article 37(1)(q), Article 37(3)(a), (b), (e) and Article 37(5) all but (a) and (c) + imposing penalties (Article 37(4)(d))

No non-compliance issues were identified in 2018.

3.2 Promoting competition

3.2.1 Wholesale markets

There are no power exchanges in Malta. The electricity generation sector was liberalised in 2005 however significant Independent Power Producers (IPPs) entered the sector in 2017. The entry into the generation market of these IPPs namely D3 Power Generation Ltd and ElectroGas Malta Ltd reduced the dominance of Enemalta plc in the generation sector. Between them these two IPP's accounted for 69.2% the electricity sent to the grid from all sources during the year 2018. Enemalta plc remains the sole supplier of electricity which is sourced from the IPP's generating mainly from natural gas, RES generators (mainly solar photovoltaic systems) and from imports through the interconnector Italy (Sicily)-Malta. Enemalta plc is obliged to dispatch the available sources on economic merit order basis with electricity from renewable energy benefitting from priority of dispatch.

In view of the fact that 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 the Feed-in Tariffs Regulations. 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 interconnector is mainly traded in the Italian day-ahead market.

Table 5 shows the development in the contribution of local generation sources and imports to electricity send to the Maltese grid.

Table 5: Electricity Sent Out to the Maltese grid by Source (GWh) in 2018

Electricity Sent Out to the Maltese grid by Source (GWh)	2017	2018
Enemalta plc (own generation)	171.85	6.583
Local Fossil fuel IPP's	1,268.56	1,706.69
RES	129.72	179.88
Interconnector (import)	864.37	592.12
Total Electricity System Demand	**2,434.50**	**2,488.27**

Source: Enemalta plc

During the year under review 10.55 GWh were exported from Malta to the Italian grid.

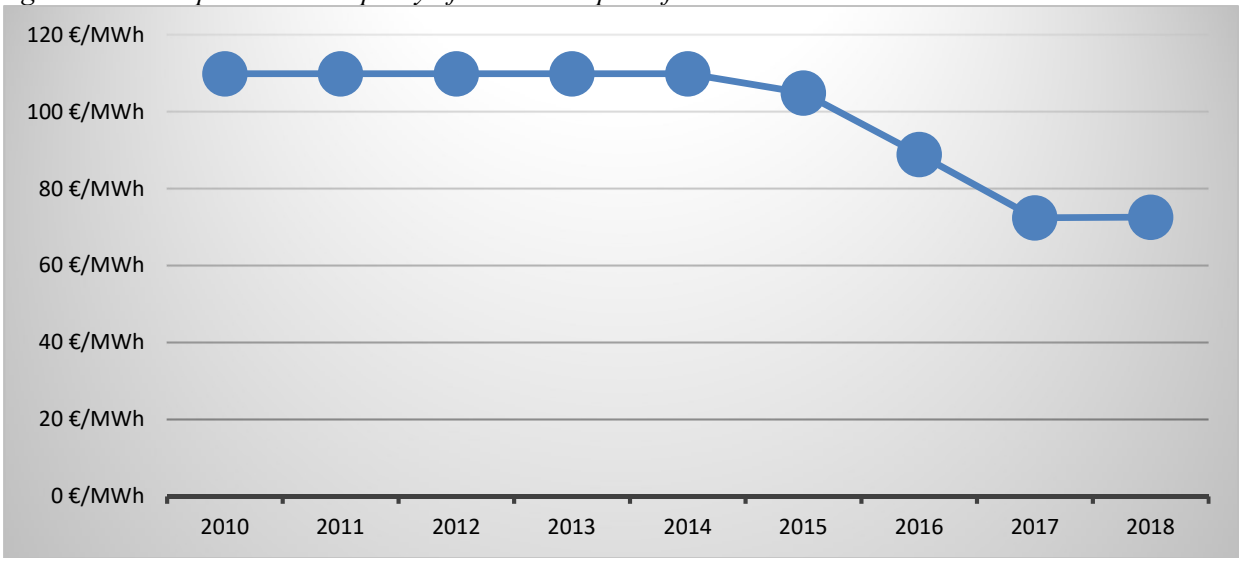
3.2.1.1 Monitoring the level of prices, the level of transparency, the level and effectiveness of market opening and competition

- Article 37(1) (i), (j), (k), (l), (u) and Article 40 (3)

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 will exclude that portion of the forecast demand which is not expected to be met by conventional and imported electricity. The methodology was included in the State Aid decision of CION[2] issued in relation to the notified competitive bidding process for the granting of operational aid to generators producing from renewable energy sources with capacity of 1MWp or more. Figure 1 shows the developments in the proxy of the wholesale market price between 2013 and 2018.

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

Figure 1: Developments in the proxy of the market price for 2010-2018



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 which in terms of the Electricity Market Regulations. In terms of the aforementioned regulations, in view of the derogations from the application of Articles 32 and 33 of Directive 2009/72/EC granted to Malta pursuant to Article 44 of Directive 2009/72/EC and until such time as the aforesaid derogations remain in force, the licence for the supply of electricity shall be issued only to the distribution system operator, designated under same regulations.

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

3.2.2.1 Monitoring the level of transparency, including compliance with transparency obligations, and the level and effectiveness of the market opening and competition

- Article 37(1) (i), (j), (k), (l), (u) and Article 40 (3)

The electricity retail market is not open to competition. All consumers of electricity are on regulated retail tariffs approved by the REWS.

3.2.2.2 Recommendations on supply prices, investigations and measures to promote effective competition

- Article 37(1)(o)
- Article 37(4)(b)

The supply market is not open to competition. The procedure for the approval of the electricity retail prices is established by regulation 36 of the Electricity Supply Regulations.
The principles underlying the determination and approval of the retail tariffs are published on the Regulator's website[3]. In the event of a review of the electricity retails tariffs, the REWS publishes the documents related to the review process.

[3] REWS website: **www.rews.org.mt**

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.

The regulated electricity retail tariffs are composed of a fixed annual service charge and a kWh consumption tariff structure.

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 is composed of a number of tiers of consumption with the corresponding kWh tariff. The tariffs are based on a cumulative consumption per annum and are applied pro rata on basis of the number of days covered by the bill. The kWh tariff 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 750 kWh 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 (5.5kGVAh).

There were no changes in the retail tariffs for household and non-household customers.

Figure 2: Household bill in Euros based on an annual consumption of 3500kWh

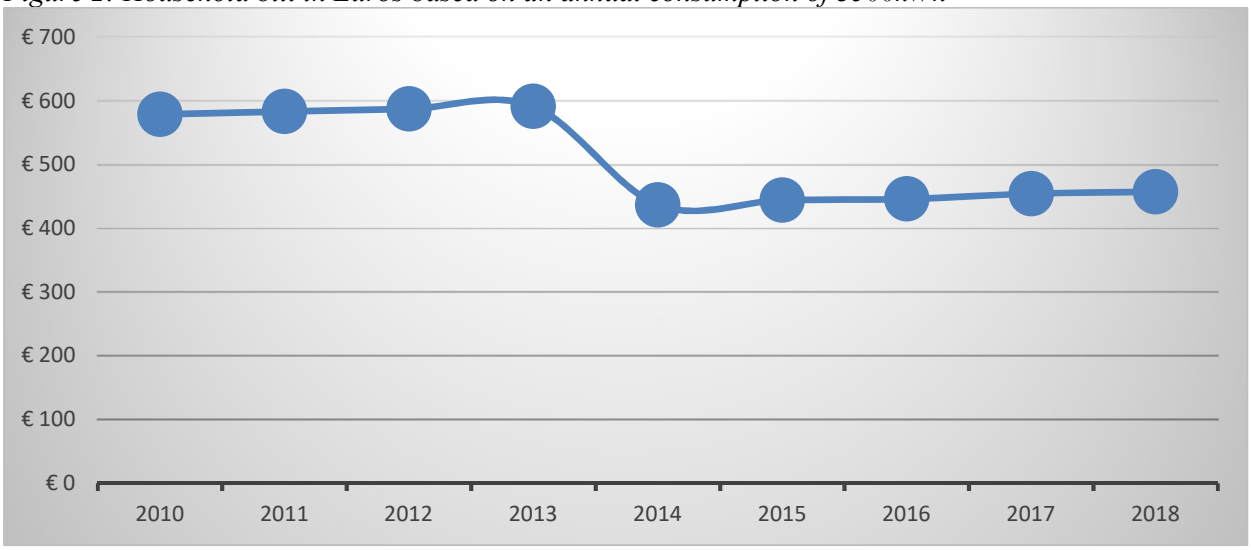


Figure 2 shows the developments in the household bill between 2010 and 2018 based on a consumption of 3500kWh and the national average electricity price per kWh for the reference band of consumption DC (2500kWh<consumption<5000kWh) as reported by the Maltese National Statistics Office to Eurostat. It 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.

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

3.3 Security of supply

3.3.1 Monitoring balance of supply and demand

- Article 4 72/2009

The REWS is responsible for monitoring the Security of Supply (SoS) and is required to prepare a report (at least every two years) on electricity operational network security and security of supply. During the year under review the REWS was not required to implement any safeguard measures in terms of Article of Directive 2009/72/EC.

The report related to security of supply of electricity 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 total system demand in 2018 was 2,488 GWh of which 1,713 GWh (68.9% of the total) was supplied from local fossil generation plants. The local fossil fuel electricity sent out mix for the year 2018 consisted of 0.57% gas oil and 99.43% natural gas. The contribution to the demand of imports from the interconnector with Italy (Sicily) during 2018 decreased to 24% of the demand from the 36% of the previous year, this due to an increase in the local electricity production.

The electricity generated and sent out to the grid from generators producing from renewable energy sources (mainly solar photovoltaic installations) in 2018 was 179.88GWh[4], that mean an increase of 38.67% over the previous year. This figure does not include electricity generated by RES and consumed on site by the producers.

During the year 2018, the system demand reached a maximum of 465MW which represents a decrease of 4.7% over the previous year. This peak, as reported by Enemalta plc, occurred on the 3rd August. The figure for the peak demand includes the internal consumption of the local fossil fuel power stations. The peak demand was met by 254MW provided by local fossil fuel generation capacity, 131MW imported through the Italy-Malta interconnector and a contribution from solar photovoltaic installations estimated at 80MW.

3.3.2 Monitoring investment in generation capacities in relation to SoS

- Article 37(1) (r)

Operational network security.

- Article 7 2005/89/EC

Investment in interconnection capacity for the next 5 years or more.

[4] The figure is provisional

- Article 7 2005/89/EC

Expected future demand and envisaged capacity for the next 5 years and 5-15 years.

- Article 7 2005/89/EC

In the year under review the Regulator did not receive any request to authorise the construction or to licence new fossil fuel generation capacity.

The total local fossil fuel nominal generation capacity at the end of 2018 remained at 588.6 MW, as shown in Table 6. All the fossil fuel generation capacity is located at the Delimara Power Station site except for a 37MW open cycle gas turbine, denominated GT9, located in the Marsa Power Station.

DPS-2A Open Cycle Gas Turbine, MPS-GT9 Open Cycle Gas Turbine and DPS-2B Combine Cycle Gas Turbine, owned by Enemalta plc, since 2017 have been being used as backup reserve capacity.

Table 6: Local fossil fuel generating plants figures for the year 2018

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

Is to be noted that 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.

The total electricity generation capacity from renewable energy sources installed by the end of 2018 was 136MWp. As may be deduced from the breakdown in Table 7, the renewable energy generation capacity installed consists mainly of solar photovoltaic installations.

Table 7: Installed capacity renewable energy as the end of the year 2018

Renewable energy technology	Capacity installed (MW)
Solar photovoltaic systems	131.6MWp
Micro wind	0.0698MWp
Biogas plants	4.419MWe
Total capacity installed	**136MWp**

Source: REWS and Enemalta plc records

During the year under review, the installed solar photovoltaic installation capacity increased by 19.24MWp (that means 17.19% of increase over the last year). The largest solar photovoltaic installation is 2MWp while 96.7% of the PV installations connected to the grid by the end of 2018 have a capacity of 11kWp or lower.

No fossil fuel generation capacity is expected to come into operation in the near future.

The distribution system operator did not report any plans for new investments concerning electricity interconnectors and therefore in terms of electricity interconnections Malta will continue to rely on the 200MW [5] HVAC interconnector with Italy commissioned in 2015 for the foreseable future.

The forecasted electricity demand in MWh for the next five years 2019 to 2023 is shown in Table 8.

Table 8 – Demand forecast 2019-2023

Year	Estimated Demand (MWh)
2019	2,872,858
2021	3,184,165
2023	3,344,820

Source: Enemalta plc

3.3.3 Measures to cover peak demand or shortfalls of suppliers

There is only one supplier of electricity in Malta and the onus to meet all the demand including the peak demand is on Enemalta plc as the distribution system operator and sole supplier of electricity to final customers.

[5] The net maximum importation capacity of electricity to the interconnector is actually 192MW due to losses in the interconnector.

4 Gas Market

Since the year 2017, LNG has been being imported through an LNG facility consisting of a floating LNG floating storage unit (FSU) and onshore re-gasification plant on the Delimara site. The FSU has an LNG storage capacity of 125,000 m^3 and the re-gasification plant with a maximum natural gas output rate of 89,000 Nm^3/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) electricity generation plants. The re-gasification plant is designed to meet simultaneously the full load natural gas requirements of 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).

There is no transmission or distribution of natural gas.

4.1 Network regulation

4.1.1 Unbundling

- Articles 10,11 2009/73/EC Article 3 Regulation (EC) 715/2009
- Article 26

There are no natural gas transmission systems or distribution systems in Malta. The LNG terminal constructed by ElectroGas Malta Ltd forms part of a single project which includes the construction of the combine cycle gas turbine by the same company with the sole scope of supplying electricity and natural gas to Enemalta plc. ElectroGas Malta Ltd is required to keep separate accounts in its internal accounting for the LNG terminal, supply of natural gas and generation of electricity.

4.1.2 Technical functioning

- Balancing services (Article 41(6)(b), Article 41(8))
- Security and reliability standards, quality of service and supply (Article 41(1)(h))
- Monitoring time taken to connect and repair (Article 41(1)(m))

Not applicable since there is no distribution of natural gas other than to the two power plants DPS-3 and DPS-4.

- Monitoring access to storage, linepack and other ancillary services (Article 41(1)(n))
- Monitoring correct application of criteria that determine model of access to storage (Article 41(1)(s))
- Monitoring safeguard measures (Article 41(1)(t))

Not applicable.

4.1.3 Network and LNG tariffs for connection and access

- Article 41(1)(a), Article 41(6)(a), Article 41(8), Article 41(10) and Article 41(12)

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 Ltd in terms of the gas and electricity supply agreements concluded pursuant to a tendering procedure.

- Prevention of cross-subsidies (Article 41(1)(f))

Not applicable.

- Regulated and negotiated access to storage 41(1)(s)

Not applicable.

4.1.4 Cross-border issues

- Access to cross-border infrastructure including allocation and congestion management (Article 41(6)(c), Article 41(8), Article 41(9), Article 41(10) and Article 41(12))

There are no natural gas interconnectors.

- Cooperation (Article 41(1)(c))

Not applicable.

- Monitoring investment plans and assessment of consistency with Community-wide network development plan Article 41(1)(g), PCIs and national development plans

The Regulator continues 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) project consists of a natural gas pipeline with a capacity of 2 bcm/year, diameter of 22" (DN 560) and an approximate length of 159km (151 km offshore, 7 km onshore in Sicily and 1km onshore in Malta). The MTGP, which is also a Project of Common Interest (PCI 5.19), will reach the aims to end Malta's isolation from the European gas network, to integrate it in the EU gas market and to improve its security of energy supply. The MTGP is included in the list of projects of the ENTSO-G Ten-Year Development Plan of the Natural Gas Transmission Network 2018-2027. Commissioning of the MTGP is expected by 2024.

In 2018, a public undertaking was also established, holding the name Melita TransGas Company Limited (MTG Co.), to take over the role of the Project Promoter of PCI 5.19. This company succeeded the Ministry for the Energy & Water Management in the responsibility of planning, implementing and constructing the MTGP. Eventually MTG Co. will take the role of the prospective Transmission System Operator (TSO) once the pipeline will be commissioned.

During the year under review the MTGP project was awarded a Connecting Europe Facility (CEF) grant of 3.68 million€ for the co-financing for studies related to the project development. The Project Promoter awarded a number of contracts related to the financial engineering, environmental, routing and front-end engineering design of the project which are required for the issuance of the necessary permits.

On the 30th of March 2018, the Project Promoter launched a public consultation pursuant to Article 9(4) of the TEN-E Regulation. A non-binding Market Test was conducted between April and May 2018. It

indicates an expected gas flows via the MTG pipeline between 4.6 and 6.1 TWh/year in the period 2025 – 2045. The Project Promoter started the consultation with the competent national authorities, REWS for Malta and ARERA for Italy, on the Investment Request/CBCA proposal with the aim to submit a formal Investment Request in the first months of 2019.

4.1.5 Compliance

- Compliance of regulatory authorities with binding decisions of the Agency and the Commission (Article 41(1)(d)) and with the Guidelines (Article 43))

Nothing to report.

- Compliance of transmission and distribution companies, system owners and natural gas undertakings with relevant Community legislation, including cross-border issues (Article 41(1)(b), Article 41(1)(r), Article 41 (3) and Article 41(5)) + imposing penalties (Article 41(4)(d))

Nothing to report.

4.2 Promoting Competition

4.2.1 Wholesale markets

LNG is imported in Malta by ElectroGas Malta Ltd, regasified onshore and supplied to the power plants DPS-3 and DPS-4 by the same company.

4.2.1.1 Monitoring the level of prices, the level of transparency, the level and effectiveness of market opening and competition

- Article 41(1) (i), (j), (k) (l) (u) and Article 44(3)

Not applicable since there is no natural gas market.

4.2.2 Retail market

There is no retail market for natural gas.

4.2.2.1 Monitoring the level of prices, the level of transparency, the level and effectiveness of market opening and competition

- Article 41(1) (i), (j), (k), (l), (u) and Article 44(3)

Not applicable.

4.2.2.2 Recommendations on supply prices, investigations and measures to promote effective competition

- Article 41(1)(p)

Not applicable.

- Article 41(4)(b)

Not applicable.

4.3 Security of supply

4.3.1 Monitoring balance of supply and demand

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. The REWS is not however 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 nor it is responsible for the forecasting of gas demand.

There are no gas distribution networks and the LNG terminal has been constructed and being used for solely to supply the electricity generation plants DPS-3 and DPS-4.

The data for LNG imports and consumption of natural gas are collected from ElectroGas Malta Ltd.

4.3.2 Expected future demand and available supplies as well as envisaged additional capacity

LNG import in Malta started in 2017. The total amount of LNG delivered to Malta during 2018 was 4,144 GWh. The total amount of natural gas delivered to the electricity generation plants during 2018 was 3,665 GWh, with an increment of 22.45% over 2017. The main cause of this figure is the fact that in DPS-4 was operative for nine months during 2017, given that started electric production in April 2017.

During 2018 all the importation of LNG was from non-EU Member States.

The forecasted demand of natural gas for electricity generation for the years 2020, 2025 and 2030 is shown in Table 9.

Table 9: Forecast for the natural gas daily consumption for electricity generation

Year	Estimated Demand (MWh/day)
2020	12,000
2025	12,500
2030	13,000

Source: Enemalta plc

4.3.3 Measures to cover peak demand or shortfalls of suppliers

ElectroGas Malta, the LNG system operator and importer of LNG and supplier of natural gas, is contractually bound in terms of a gas supply contract to maintain a minimum stock of LNG of 20,000m^3 at all times. During the year 2018, the total consumption of natural gas of DPS-3 and DPS-4 power plants was of 3.665 TWh (HHV). The average daily consumption of LNG is 10.08GWh, while the peak daily consumption was of 15.8 GWh and happened on the 6th of August.

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 interconnection to the Italian electric grid are expected to act as a backup reserve capacity to meet the electricity demand.

5 Consumer protection and dispute settlement in electricity and gas

5.1 Consumer protection

- Compliance with Annex 1 (Article 37(1)(n)) and (Article 41(1)(o))

The Electricity Market Regulations (S.L.545.13) transpose the measures related to customer protection provided in Annex I of Directive 2009/72 and establish the obligation to provide universal service to all household customers by the distribution system operator. The Electricity Market Regulations require also that electricity suppliers provide customers, in or 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 as regards 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.

The requirements emanating from the Electricity Market 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, in particular 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.

In view of the fact that there is only one supplier the contract of supply is automatically of an indefinite nature. In the absence of an open electricity supply market, customer switching is not possible to implement.

Customer Complaints

In terms of the Electricity Market Regulations (S.L.545.13) and the Natural Gas Market Regulations (S.L. 545.12) 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 have to 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 during the year 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.

The REWS received 46 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 and were resolved without the need of a formal decision procedure being initiated and concluded.

Disconnections for non-payment

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 2018 was 2115 of which 1447 were household customers and 668 non-household customers. Table 10 shows the number of disconnections for non-payment between the years 2014 and 2018.

Table 10 – Number of disconnection for Residential/ Non-Residential consumers (2014-2018)

Year	2014	2015	2016	2017	2018
Residential/Domestic	2,327	7,162	5,695	2,053	1,447
Non-residential	1,237	4,538	6,082	924	668

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 and the length of time for which the debt has been due and takes 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, so as to avoid disconnection.

Vulnerable consumers

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 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 2018, the consumers that received energy benefits amounted to 23,638 which represents 9.48% of all household consumers.

Table 11 – Number of vulnerable customers and their share on household customers (2014-2018)

Year	2014	2015	2016	2017	2018
Number of vulnerable customers	25,276	23,662	24,044	20,488	23,638
Share of vulnerable customers	10.9%	8.1%	8.84%	8.3%	9.48%

Source: Enemalta plc

- Ensuring access to consumption data (Article 37(1)(p)) and (Article 41(1)(q))

Electricity bills issued to customers include contact details of ARMS Ltd who 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.

By the end of 2018, 259,822 electricity meters supplying households and non-households were smart meters complete with Automatic Metering Management (AMM) function capability.

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 CO_2 emissions. The bill also includes the consumption related to the previous year and projections for electricity annual consumption.

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

5.2 Dispute Resolution

- Article 37(11), 37(5)(c), Article 37(4)(e)
- Article 41(11) and Article 41(4)(e)

The Electricity Market Regulations (S.L. 545.13) and the Natural Gas Market Regulations (S.L. 545.12) provide 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 are allowed to make any submissions that they deem necessary.

Any decision taken 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 2018.