ENERGY STATISTICS (2018)

NATIONAL REFERENCE METADATA IN SINGLE INTEGRATED METADATA STRUCTURE (SIMS)

CONCEPT 1 - CONTACT

Sub-Concept 1.1: Contact organisation

National Statistics Office (NSO)

Sub-Concept 1.2: Contact organisation unit

Regional, Geospatial, Energy and Transport Statistics Unit

Sub-Concept 1.3: Contact name

Ms. Marice Grech

Sub-Concept 1.4: Contact person function

Head of Unit

Sub-Concept 1.5: Contact mail address

National Statistics Office (NSO),
Lascaris, Valletta VLT 2000, Malta.

Sub-Concept 1.6: Contact e-mail address

marice.c.grech@gov.mt

Sub-Concept 1.7: Contact phone number

+356 2599 7703

CONCEPT 2 – METADATA UPDATE

Sub-Concept 2.1: Metadata last certified

19th November 2019.

Sub-Concept 2.2: Metadata last posted

1st October 2020.

Sub-Concept 2.3: Metadata last update

1st October 2020.

CONCEPT 3 – STATISTICAL PRESENTATION

Sub-Concept 3.1: Data description

Energy statistics are compiled on the basis of the data collected under the standard collection cycles as directed by Eurostat, in particular as specified in Annexes C and D of Regulation (EC) No 1099/2008 on energy statistics. NSO compiles and transmits:

1. Six monthly questionnaires:

   (i) *MOS – oil*: Data on the supply of oil including production, imports, exports, stock level and any changes in stock are provided. .

   (ii) *MOS – gas:* Data on the supply of natural gas including production, imports, exports, stock level and any stock changes are provided.

   (iii) *Monthly questionnaire oil (JODI):* Data on the supply of oil including production, imports, exports, stock levels and any changes in stock are provided

   (iv) *Monthly questionnaire gas (JODI):* Data on the supply of natural gas including production, imports, exports, stock level and any stock changes are provided.

   (v) *Monthly questionnaire electricity (ELEC3):* Data on the production, imports, exports, own use and distribution losses are provided.

   (vi) *Monthly questionnaire electricity (SEGELE):* Data on the production, imports, exports, own use and distribution losses are provided.

2. Two bi-annual questionnaires:

   (i) *Half-yearly questionnaire on electricity prices for households:* Prices are reported in national currencies per kWh and according to different bands of consumption which are:

- DA: customers consuming less than 1000 kWh.
- DB: customers consuming 1000 kWh or more but less than 2500 kWh.
- DC: customers consuming 2500 kWh or more but less than 5000 kWh.
- DD: customers consuming 5000 kWh or more but less than 15000 kWh.
- DE: customers consuming 15000 kWh or more.

   (i) *Half-yearly questionnaire on electricity prices for non-households*: Prices are reported in national currencies per kWh and according to different bands of consumption which are:

- IA: customers consuming less than 20 MWh.
- IB: customers consuming 20 MWh or more but less than 500 MWh.
- IC: customers consuming 500 MWh or more but less than 2000 MWh.
- ID: customers consuming 2000 MWh or more but less than 20000 MWh.
- IE: customers consuming 20000 MWh or more but less than 70000 MWh.
- IF: customers consuming 70000 MWh or more but less than 150000 MWh.

- IG: customers consuming 150000 MWh or more.

3. Seven annual questionnaires:

   (i) *Electricity & Heat:* Data on the gross and net production, imports, exports, own use, distribution losses and final consumption by sector are provided. Data are reported for calendar years.

   (ii) *Natural Gas:* Data on the supply of natural gas including production, imports, exports, stock level, any stock changes and total final consumption are provided. Data are reported for calendar years.

   (iii) *Oil:* Data on the supply of oil products including production, imports, exports, stock level, any changes in stock and gross inland deliveries for energy and non-energy use are provided. Data are reported for calendar years.

   (iv) *Renewables & Waste:* Data on the following variables is provided: Gross electricity and heat production by type; supply, transformation, energy sectors and end use; technical characteristics of installations in heat pumps; production of solid biofuels and biogases; imports and exports. Data are reported for calendar years.

   (v) *Energy Consumption in Households:* Data on the final energy consumption in the residential/household sector by type of end use are provided. Data are reported for calendar years.

   (vi) *Coal:* This is not applicable for Malta; thus, the questionnaire is sent with zero values.

   (vii) *Nuclear:* This is not applicable for Malta; thus, the questionnaire is sent with zero values.

NSO also compiles and disseminates two national news releases on energy statistics:

(i) *Renewable Energy from Photovoltaic Panels:* The following data are compiled and disseminated: stock of PV installations by region/district and sector; total kWp of connected PVs by sector and region/district and estimated total GWh produced by connected PVs by region/district. Data are disseminated for calendar years.

(ii) *Electricity Supply:* The following data are compiled and disseminated: composition of electricity supply in MWh; gross production of electricity by month in MWh; electricity production from power plants by month in MWh; estimated electricity production from renewable sources by month in MWh; imports and exports of electricity by month in MWh; electricity supply by month in MWh; electricity maximum demand by month in MW and CO_2 equivalent emissions from power plants in kt. Data are disseminated monthly and for calendar years.

Sub-Concept 3.2: Classification system

The main legislation covering data collection of energy quantities is Regulation (EC) No 1099/2008 of the European Parliament and of the Council of 22 October 2008 on energy statistics. This legislation provides all the classifications which are required to be adhered to. In addition, each Eurostat questionnaire that NSO must compile and transmit is accompanied by reporting instructions which need to be followed in order to ensure harmonisation across the European Community. For those questionnaires which require data by industry classification, the classification of economic activities is in accordance with NACE Rev.2 classification.

Sub-Concept 3.3: Sector coverage

The main economic sector covered by the datasets is the energy market in Malta. In addition, wherein energy data are to be provided by industry, the following economic sectors are covered by the energy data provided: transport, industry, commercial and public services, agriculture, fishing and residential.

Sub-Concept 3.4: Statistical concepts and definitions

For the list of the main statistical variables measured for each questionnaire and news release, refer to Sub-Concept 3.1. The statistical variables measured are in line with Eurostat guidelines and recommendations.

Sub-Concept 3.5: Statistical unit

The basic units of statistical observation for which data are provided are the following:

(i) Enterprises in the electricity market;
(ii) Enterprises in the fuels market;
(iii) Private households;
(iv) Public sector; and
(v) Industry sector.

Sub-Concept 3.6: Statistical population

The target statistical population encompasses all energy providers within Malta. These comprise – the power stations in Marsa, Delimara, D3, Electrogas and the Interconnector that generate electrical energy; the fuel service providers comprising the importers and distributors of fuel in the Maltese islands; natural gas and renewable energy. The latter comprises photovoltaic panels, micro wind turbines, Combined Heat and Power (CHP) plants, biodiesel and biogas.

Sub-Concept 3.7: Reference area

The monthly, bi-annual, annual questionnaires and the '*Electricity Supply*' news release mentioned in sub-concept 3.1 are compiled and disseminated at NUTS 1 and NUTS 2 levels.

The news release '*Renewable Energy from Photovoltaic Panels*' is compiled and disseminated at NUTS 3, LAU 1 and LAU 2 levels.

Sub-Concept 3.8: Time coverage

- The six-monthly questionnaires cover data for each calendar month.
- The two bi-annual questionnaires cover data for the respective 6 months of that year. When providing data for the second semester of the year, annual data are also provided.
- The seven annual questionnaires cover data for each calendar year.
- The news release *'Renewable Energy from Photovoltaic Panels'* cover annual data for calendar years.
- The news release '*Electricity Supply'* cover annual data for calendar years and provides monthly data for each reported calendar year.

Sub-Concept 3.9: Base period

Energy data are available from 1990, however, normally the unit takes 2010 as the base year.

CONCEPT 4 – UNIT OF MEASURE

1. Monthly questionnaires:

   (i) *MOS – oil*: Data are submitted in thousand Metric Tons.

   (ii) *MOS – gas:* Data are submitted in million Cubic metres.

   (iii) *Monthly questionnaire oil (JODI):* Data are submitted in thousand Metric Tons.

   (iv) *Monthly questionnaire gas (JODI):* Data are submitted in TJ.

   (v) *Monthly questionnaire electricity (ELEC3).* Data are submitted in GWh.

   (vi) *Monthly questionnaire electricity (SEGELE).* Data are submitted in GWh.

2. Bi-annual questionnaires:

   (i) *Half-yearly questionnaire on electricity prices for households:* Prices are reported in Euro (€) per kWh.

   (ii) *Half-yearly questionnaire on electricity prices for non-households*: Prices are reported in Euro (€) per kWh.

3. Annual questionnaires:

   (i) *Electricity & Heat:* Data are submitted in GWh for electricity and in TJ for heat.

   (ii) *Natural Gas:* Data are submitted in million Cubic metres and in TJ.

   (iii) *Oil:* Data are submitted in thousand Metric Tons.

   (iv) *Renewables & Waste:* Data are submitted in GWh, TJ and thousand tonnes.

   (v) *Energy Consumption in households:* Data are submitted in GWh, TJ and KT.

(vi) Coal and Nuclear: Zero figures are submitted since we don't have this type of energy in Malta.

National news releases on energy statistics:

(i) *Renewable Energy from Photovoltaic Panels:* Data are compiled and disseminated in kWp, GWh and stock of PV installations.

(ii) *Electricity Supply:* The data are compiled and disseminated in MWh, MW and in KT.

CONCEPT 5 – REFERENCE PERIOD

Monthly data refers to calendar months; semester data refers to six calendar months and annual data refers to calendar years.

CONCEPT 6 – INSTITUTIONAL MANDATE

Sub-Concept 6.1: Legal acts and other agreements

The main legislation covering data collections of energy quantities is Regulation (EC) No 1099/2008 of the European Parliament and of the Council of 22 October 2008 on energy statistics.

Regulation (EU) 2016/1952 is the legal basis for the collection and reporting of natural gas and electricity price statistics for household and non-household customers.

The Malta Statistics Authority (MSA) Act empowers the NSO to collect, compile, extract and release official statistics related to demographic, social, environment, economic and general activities and conditions of Malta.

Sub-Concept 6.2: Data sharing

The data are transmitted to Eurostat on the basis of Regulation (EC) No 1099/2008 of the European Parliament and of the Council of 22 October 2008 on energy statistics. In addition, the data may also be shared locally with other National Authorities such as the Regulator for Energy and Water Services, the Energy and Water Agency and the Malta Resources Authority based on Memorandum of Understanding between each National Authority and the National Statistics Office.

CONCEPT 7 – CONFIDENTIALITY

Sub-Concept 7.1: Confidentiality – Policy

At National level:

The NSO requests information for the compilation of official statistics according to the articles of the MSA Act – Cap. 422 and the Data Protection Act – Cap. 586 of the Laws of Malta implementing the General Data Protection Regulations (GDPR).

Article 40 of the MSA Act stipulates the restrictions on the use of information while Article 41 stipulates the prohibition of disclosure of information. Furthermore, Section IX of the Act (Offences

and Penalties) lays down the measures to be taken in case of unlawful exercise of any officer of statistics regarding confidentiality of data.

Since its inception, the NSO has always assured that all data collected remains confidential and that it is used for statistical purposes only according to the articles and derogations stipulated in the laws quoted above. The Office is obliged to protect the identify of data providers and refrain from divulging any data to third parties that might lead to the identification of persons or entities.

During 2009, the NSO has set up a Statistical Disclosure Committee to ensure that statistical confidentiality is observed, especially when requests for microdata are received.

Upon employment, all NSO employees are informed of the rules and duties pertaining to confidential information and its treatment. In line with stipulations of the MSA Act, before commencing work, every employee is required to take an oath of secrecy whose text is included in the same Act.

An internal policy on anonymisation and pseudo-anonymisation is in place to ascertain that adequate methods are used for the protection of data which the office collects and shares with the public in its capacity as the National Statistics Office. The policy is meant to safeguard confidentiality of both personal and business data entrusted to the NSO. The document provides guidance for all NSO employees who process data on a daily basis as to how anonymisation and pseudo-anonymisation methods should be applied. The policy applies to all confidential, restricted and internal information, regardless of form (paper or electronic documents, applications and databases) that is received, processed, stored and disseminated by the NSO.

At European level:

Regulation (EC) No 223/2009 on European statistics (recital 24 and Article 20(4) of 11 March 2009 (OJ L 87, p. 164), stipulates the need to establish common principles and guidelines ensuring the confidentiality of data used for the production of European statistics and the access to those confidential data with due account for technical developments and the requirements of users in a democratic society.

Sub-Concept 7.2: Confidentiality – Data Treatment

Energy statistics data are published in aggregated format and there is no risk of disclosure.

CONCEPT 8 – RELEASE POLICY

Sub-Concept 8.1: Release Calendar

An advance release calendar is maintained by the NSO and published on the NSO website. The calendar projects three months of news releases (including the current and two subsequent months).

Sub-Concept 8.2: Release Calendar access

https://nso.gov.mt/en/News_Releases/Release_Calendar/Pages/News-Release-Calendar.aspx

Sub-Concept 8.3: User access

An internal policy on dissemination is in place to govern the dissemination of official statistics in an impartial, independent and timely manner, making them available simultaneously to all users.

The NSO's primary channel for the dissemination of official statistics is the NSO website. Tailored requests for statistical information may also be submitted through the NSO website.

Moreover, relevant news releases are available in electronic format on the NSO website.

In addition, the energy data which are compiled and transmitted by the NSO to Eurostat can also be accessed for free on Eurostat's website.

CONCEPT 9 – FREQUENCY OF DISSEMINATION

Data are disseminated on an annual, bi-annual and monthly basis.

CONCEPT 10 – ACCESSIBILITY AND CLARITY

Sub-Concept 10.1: News release

The NSO compiles and disseminates two annual national news releases on energy statistics: Renewable Energy from Photovoltaic Panels and Electricity Supply.

Sub-Concept 10.2: Publications

Not applicable.

Sub-Concept 10.3: Online Database

Not applicable.

Sub-Concept 10.4: Micro-data access

Not applicable.

Sub-Concept 10.5: Other

Not applicable.

Sub-Concept 10.6: Documentation on methodology

Work processes and procedures for the compilation of the Energy Statistics are documented in a standardised reporting template and aligned to the GSBPM model. The model covers all phases of the statistical production process, from the initial stages of identifying what statistics are needed and the scope of the particular survey, to the final stages of dissemination and evaluation. GSBPM is only available internally and may be accessed by all NSO employees.

The questionnaires listed in sub-concept 3.1,which are compiled and disseminated to Eurostat, are in line with the Energy Statistics Manual and the reporting instructions associated with each

questionnaire. The Energy Statistics Manual provides background information and a deeper knowledge of some of the difficult issues related to energy statistics. In addition, the bi-annual questionnaires listed in sub-concept 3.1 are in line with the Compilers Guide on European Statistics on Natural Gas and Electricity Prices. The latter offers an overview of the conceptual issues,practical information and guidance to reporting authorities compiling and reporting natural gas and electricity prices to Eurostat.

In addition, each published national news release is accompanied with methodological notes which provide details on variable definitions and any methodological aspects of the news release. These methodological notes may be found at the end of each news release.

Sub-Concept 10.6.1: Metadata completeness rate

Information about all required metadata concepts (and sub-concepts thereof) are provided.

Sub-Concept 10.7: Quality Documentation

The procedures used for the analysis of data are documented in line with the GSBPM model and made available to NSO staff members only.

Energy Statistics SIMS reports are available to the public on the NSO's metadata website including concepts related to metadata and quality.

A quality report on the half-yearly questionnaires on electricity prices for households and non-households is submitted to Eurostat every three years.

No quality reports are submitted with respect to monthly and annual questionnaires.

The NSO has developed an internal Quality Management Framework (QMF) which is built on common requirements of the ESS Code of Practice (ESS CoP). A document was prepared to include a set of general quality guidelines spanning over all statistical domains. Assuring methodological soundness is an integral part of the QMF, nonetheless, the document spans also on other areas related to institutional aspects.

CONCEPT 11 – QUALITY MANAGEMENT

Sub-Concept 11.1: Quality Assurance

The accuracy of energy statistics is ensured by adherence to the methodological manuals specified in sub concept 10.6.

The NSO has developed an internal Quality Management Framework (QMF) which is built on common requirements of the ESS Code of Practice (ESS CoP). A document was prepared to include a set of general quality guidelines spanning over all statistical domains. Assuring methodological soundness is an integral part of the QMF, nonetheless, the document spans also on other areas related to institutional aspects.

Every five to seven years, the NSO participates in a Peer Review exercise through which the compliance of its operations with principles of the ESS CoP is assessed by an expert team. Peer Reviews are indeed part of the European Statistical System (ESS) strategy to implement the ESS CoP. Each NSI is expected to provide information as requested by a standard self-assessment

questionnaire. Following this an expert team visits the office to meet NSI representatives and main stakeholders. Peer Reviews result in a compliance report and the listing of a set of Improvement Actions which need to be followed up by the NSI. The next round of Peer Reviews is planned to be carried out in 2022.

Sub-Concept 11.2: Quality Assessment

The compilation and dissemination of energy statistics through the output delineated in sub-concept 3.1 is in adherence with the Energy Statistics Manual, the reporting instructions associated with each questionnaire and the Compilers Guide on European Statistics on Natural Gas and Electricity Prices.

The data sources conduct their own quality assessments, however, the NSO verifies the data submitted by these sources for implausible combinations, consistency across time, data gaps and coherence. Such consistency checks ensure that the overall quality of energy statistics is good.

CONCEPT 12 - RELEVANCE

Sub-Concept 12.1: User needs

The major users of Energy Statistics are Eurostat and DG ENER. Eurostat uses the data submitted by Member States to produce tables and indicators about energy statistics which are disseminated by means of news releases, publications and online databases. These data help DG ENER and the European Commission to assess the progress of Member States towards achieving targets in the energy domain. Further, the data are also used by the International Energy Agency.

Locally, the data are used by internal units within the NSO, namely: National Accounts, Short-term Statistics and the Environment, Transport and Agriculture Statistics unit. In addition, local stakeholders include the Energy and Water Agency, the Malta Resources Authority and the Regulator for Energy and Water Services.

Sub-Concept 12.2: User satisfaction

The last User Satisfaction Survey was held in 2014 with the aim to collect information about key users' satisfaction with statistical output.

The NSO keeps record of the number of News Releases and publications disseminated on its website; the users to whom statistical products are provided; as well as the number of requests that are processed every year.

Sub-Concept 12.3: Data Completeness

The data completeness rate stands at 100%. All the energy statistics required according to Regulation (EC) No 1099/2008 are compiled.

CONCEPT 13 – ACCURACY AND RELIABILITY

Sub-Concept 13.1: Overall accuracy

The accuracy of energy statistics is high as the data collection covers all licensed operators and facilities that provide energy to end-users. However, data may still be subject to revision as the data collection and validation process, mainly by the Energy and Water Agency, the Regulator for Energy and Water Services and Enemalta plc. is an ongoing process which may result in revised data for the more recent years.

Sub-Concept 13.2: Sampling errors

Not applicable.

Sub-Concept 13.3: Non-sampling error

Potential sources of non-sampling error relate to processing errors. Each Eurostat questionnaire listed in sub-concept 3.1 has validation rules in place in order to keep errors to a minimum. Prior to transmitting the data to Eurostat, the data are validated as explained in sub-concept 11.2 to limit any possible errors.

Sub-Concept 13.3.1: Coverage error

The data coverage is considered as optimal as the administrative sources did not report any instances of missing data.

Sub-Concept 13.3.1.1: Over Coverage

Not applicable.

Sub-Concept 13.3.1.2: Common Units Proportion

Not applicable.

Sub-Concept 13.3.2: Measurement error

No further calculations are undertaken on the data collected from administrative sources.

Sub-Concept 13.3.3: Non-response error

Data are collected from administrative sources and do not have any missing information.

Sub-Concept 13.3.3.1: Unit non-response

Data are collected from administrative sources and do not have any missing information.

Sub-Concept 13.3.3.2: Item non-response

Not applicable.

Sub-Concept 13.3.4: Processing error

Each Eurostat questionnaire listed in sub-concept 3.1 has validation rules in place in order to keep errors to a minimum. Prior to transmitting the data to Eurostat, the data are validated as explained in sub-concept 11.2 to limit any possible errors.

Sub-Concept 13.3.5: Model assumption error

Not applicable as no model is assumed.

CONCEPT 14 – TIMELINESS AND PUNCTUALITY

Sub-Concept 14.1: Timeliness

- Monthly questionnaires: For the monthly questionnaires listed in sub-concept 3.1, the time period for the transmission of data are M + 3 months with M being the reference month. However, the time period for the transmission of data of the monthly questionnaire oil (JODI) is M + 25 days.

- Bi-annual questionnaires: For the bi-annual questionnaires listed in sub-concept 3.1, the time period for the transmission of data are S + 3 months with S being the reference semester.

- Annual questionnaires: For the annual questionnaires listed in sub-concept 3.1, the time period for the transmission of data are Y + 11 months with Y being the reference year.

- National news releases: For the national news releases listed in sub-concept 3.1, the dissemination of the news release '*Renewable Energy from Photovoltaic Panels' is* Y + 5 months, while the dissemination of the news release *'Electricity Supply'* is Y + 9 months, with Y being the reference year.

Sub-Concept 14.2: Punctuality

The news releases disseminated nationally have always been delivered on time based on their scheduled release dates as shown in the advanced news release calendar published by the NSO.

CONCEPT 15 – COHERENCE AND COMPARABILITY

Sub-Concept 15.1: Comparability – Geographical

Countries that report data in accordance with the legislation listed in sub-concept 6.1 and the methodological guidance described in sub-concept 10.6, use common definitions and classifications thus, ensuring comparability across countries.

Sub-Concept 15.2: Comparability – Over Time

Comparability over time is ensured through the implementation of a constant methodology as endorsed by Eurostat. Detailed data on Energy Statistics are comparable from 2010 onwards.

Sub-Concept 15.3: Coherence – Cross Domain

Not applicable.

Sub-Concept 15.3.1: Coherence – Sub-Annual and Annual statistics

The monthly data reported in the monthly questionnaires are coherent with annual data reported in the annual questionnaires for electricity and gas. However, with respect to oil, monthly data may differ from annual data since annual data as provided by the oil operators to the REWS is audited while monthly data are not. In this case, monthly data are then revised in line with the audited annual data, in order to ensure coherence between the sub-annual and annual statistics.

Sub-Concept 15.3.2: Coherence – National Accounts

Not applicable.

Sub-Concept 15.4: Coherence – Internal

Data are internally coherent as the totals in each dataset are equal to the sum of components. In addition, the data for the imports and exports of fuels are in line with the data reported in the International Trade Statistics.

CONCEPT 16 – COST AND BURDEN

No systematic study about the cost associated with the data collection and production for energy statistics has been carried out. The data used by the NSO to compile energy statistics are mainly provided by administrative sources which have been set up as a requirement of other regulations and directives.

CONCEPT 17 – DATA REVISION

Sub-Concept 17.1: Data revision – Policy

Revision of data is compliant with the ESS Code of Practice principles.
At the NSO, there is currently no internal policy governing revisions that occur for all statistics produced. Nonetheless, a revisions policy is being drafted to safeguard a coordinated revisions system across statistical domains.
This policy will take account of the need and causes for revisions; time and frequency of revisions; data and other statistical products affected by such revisions; and length of periods revised.

Sub-Concept 17.2: Data revision – Practice and Data Revision

In cases where the administrative sources revise the data which have already been used in the questionnaires transmitted to Eurostat, the data will be revised and resubmitted accordingly. With regard to the national news releases, any previously published data which have been revised, if any, will be updated in line with the revised data prior to publishing. Users will be informed of such revisions in the methodological notes of each news release.

CONCEPT 18 – STATISTICAL PROCESSING

Sub-Concept 18.1: Source data

The following entities provide the administrative data required for the compilation and dissemination of energy statistics:

Regulator for Energy and Water Services (REWS)

The Regulator for Energy and Water Services (REWS) was established by the House of Representatives on 31st July 2015 through the Regulator for Energy and Water Services Act (Act XXV) of 2015. The functions of the REWS are established by law and the REWS is responsible for the regulation of energy and water services in Malta. Article 5 of the REWS Act further describes the functions of the Regulator.

The regulator provides the NSO with monthly and annual data regarding the oil balance sheet and the sectoral use of fuel originating from private operators. Operators in the fuel sector are obliged to supply monthly and annual audited data to REWS. The data consists of imports, exports, bunkering, stocks and gross inland consumption. The regulator also provides the NSO with monthly and annual LNG data which consists of imports, exports, stocks, own use, deliveries to power generation and gross inland deliveries – observed. Further, monthly electricity generation data are also provided to NSO. This consists of electricity generated through D3 and D4 plants, amount of electricity used in station, amount of electricity sent on the grid, amount of electricity generated by using gas oil and LNG, amount of electricity sent out by using gas oil and LNG and the amount of gas oil and LNG consumed in the power plants. The regulator also provides an annual co-generation report in accordance with EU Directive 2004/8/EC.

Energy and Water Agency (EWA)

The Energy and Water Agency is a Government Agency established via LN 340/2016 within the Ministry for Energy and Water Management. Set up in 2014 the Agency is tasked with formulating and implementing Government's national policies in the energy and water sectors, aimed at ensuring security, sustainability and affordability of energy and water in Malta. The Energy and Water Agency is entrusted with the direct running of key national projects and the empowerment of key stakeholders to implement such projects. Examples of such projects include: the Malta-Italy Gas Pipeline Interconnection, Communal Solar PV Farms, Conversion of Street Lighting into LED Technology, Għajn – the National Water Conservation Awareness Centre and Valley Rehabilitation Projects.

The Agency provides the NSO with annual data on energy generation from renewable sources. This consists of electricity produced from; CHP plants, solar photovoltaic panels, wind, imports from biomass and solar water heaters. Heat produced from CHP plants and renewable electricity generated from heat pumps is also provided to NSO. Further, it also provides annual data on PV capacity and annual data on oil balance split by sectoral use.

Enemalta plc.

Established in 1977, Enemata plc. is the leading energy services provider in the Maltese Islands, entrusted with the generation and distribution of electricity, and the development of the national electricity distribution network. The Company aims to offer reliable services to its customers, whilst developing efficient electricity infrastructure to provide for the nation's energy requirements.

Enemata plc. provides the NSO with monthly electricity data, fuel used and capacities. It also provides annual PV installations with REWS identification number, together with the X and Y coordinates. Further, annual electricity maximum demand and net maximum electricity capacity and peak load is also provided to the NSO.

ARMS Ltd.

ARMS Ltd. provides a range of specialist services to the Maltese community on behalf of its business owners and partners, within the remit of the Utility Retail and Supply Sector.

ARMS Ltd. provides annual billing data split by non-residential, residential, domestic and street lightning. In addition, it also provides semester data on electricity consumption and electricity prices for the household and industry sectors respectively.

Sub-Concept 18.2: Frequency of data collection

Regulator for Energy and Water Services (REWS)

The regulator provides the NSO with monthly and annual data regarding the oil balance sheet and the sectoral use of fuel originating from private operators. Operators in the fuel sector are obliged to supply monthly and annual audited data to REWS. The data consists of imports, exports, bunkering, stocks and gross inland consumption. The regulator also provides the NSO with monthly and annual LNG data which consists of imports, exports, stocks, own use, deliveries to power generation and gross inland deliveries – observed. Further, monthly electricity generation data are also provided to NSO. This consists of electricity generated through D3 and D4 plants, amount of electricity used in station, amount of electricity sent on the grid, amount of electricity generated by using gas oil and LNG, amount of electricity sent out by using gas oil and LNG, the amount of gas oil and LNG consumed in the power plants. The regulator also provides an annual co-generation report in accordance with EU Directive 2004/8/EC.

Energy and Water Agency (EWA)

The Agency provides the NSO with annual data on energy generation from renewable sources. This consists of electricity produced from; CHP plants, solar photovoltaic panels, wind, imports from biomass and solar water heaters. Heat produced from CHP plants and renewable electricity generated from heat pumps is also provided to NSO. Further, it also provides annual data on PV capacity and annual data on oil balance split by sectoral use.

Enemalta plc.

Enemalta plc. provides the NSO with monthly data on electricity, fuel used and capacities. It also provides annual PV installations with REWS identification number, together with the X and Y coordinates. Further, annual electricity maximum demand and net maximum electricity capacity and peak load is also provided to the NSO.

ARMS Ltd.

ARMS Ltd. provides annual billing data split by non-residential, residential, domestic and street lightning. In addition, it also provides semester data on electricity consumption and electricity prices for the household and industry sectors respectively.

Sub-Concept 18.3: Data Collection

The administrative data listed in sub-concepts 18.1 and 18.2 are received by email and are password encrypted. When the administrative data are received, the NSO makes sure that all the variables requested have been provided by the administrative data source. In cases where not all the variables have been provided, the NSO informs the administrative data source accordingly.

Sub-Concept 18.4: Data Validation

The NSO verifies all the administrative data received from REWS, EWA, Enemalta and ARMS. Checks for implausible combinations, contradictory values, missing values and for time series consistency are carried out. Whenever, anomalous values and data gaps are identified, clarifications are sought and in certain cases the data may also be revised by the data provider. Besides such checks, the annual data provided to Eurostat as per the Energy Statistics Regulation is subjected to the validation tests proposed by Eurostat and the International Energy Agency.

Sub-Concept 18.5: Data Compilation

The data compilation process is done through the administrative databases. The data compiled are used to compile the monthly, bi-annual and annual questionnaires which are transmitted to Eurostat. In addition, the administrative data are also used to compile the two news releases Renewable Energy from Photovoltaic Panels and Electricity Supply.

Sub-Concept 18.5.1: Imputation

Not applicable as no imputation is carried out.

Sub-Concept 18.6: Adjustment

Not applicable.

Sub-Concept 18.6.1: Seasonal Adjustment

Not applicable.

CONCEPT 19 - COMMENTS

No further comments.