



مركز الإحصاء
STATISTICS CENTRE



مسح الطاقة Energy Survey

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Overview

The Statistics Centre – Abu Dhabi conducts energy surveys to develop a comprehensive data system on the various activities of natural gas consumption in the Emirate of Abu Dhabi, with the survey covers the gaps in terms of natural gas-related data that would aid in the development of energy indicators.

Objectives

- Close existing gaps in information about the consumption of natural gas and liquefied petroleum gas (LPG) to produce statistics that serve the energy balance;
- Provide a frame of the companies that constitute the main users and distributors of natural gas in the Emirate of Abu Dhabi;
- Determine the quantities of natural gas, compressed natural gas (CNG), synthetic natural gas (SNG) and natural gas sold by ADNOC Distribution to households and companies by sector;
- Determine the consumption by the transportation sector of NGV gas sold at petrol stations;
- Determine the quantities of natural gas supplied by ADNOC parent company to the liquefaction plants;
- Determine the quantities of natural gas and LPG sold by ADNOC parent company to companies by sectors;
- Determine sales of CNG and piped LPG and LPG cylinders by the companies operating in the distribution of gas to households and companies, detailed by sector.

Concepts and Definitions

Compressed natural gas (CNG): Natural gas for use in certain natural gas-powered vehicles, stored in high-pressure cylinders.

Natural Gas Vehicles (NGV) gas: It is an alternative fuel for vehicles powered by compressed natural gas as a clean and environmentally friendly alternative. This fuel can be used in all types of transport, including vehicles, buses, trucks and cranes, forklifts, etc.

Liquefied petroleum gas (LPG): Light petroleum gases that are kept in a liquid state by pressure, often stored of gas cylinders that are used in restaurants and homes. Vaporizing LPG with diluting agent makes it usable only for the purpose of supplying buildings through pipelines networks only.

Targeted Community and Sampling Frame

The 2021 energy survey project covers all the companies operating in the distribution of CNG and piped LPG cylinders (comprehensive survey). This survey fills the gaps in natural gas related data to contribute to the development of energy indicators.

Establishments Excluded from the Targeted Frame

No establishment is excluded from the targeted frame as the survey is comprehensive, covering all companies operating in the distribution of compressed natural gas and piped LPG and LPG cylinders in the Emirate of Abu Dhabi from January 1, 2020 to December 31, 2020.

Survey Coverage

The survey covers the three regions of the Emirate of Abu Dhabi: Abu Dhabi, Al Ain, and Al Dhafra, encompassing all establishments involved in the distribution of compressed natural gas and liquefied petroleum gas.

Survey Frame

The survey frame was established after consulting with the relevant departments in order to identify the 71 establishments operating in the distribution of compressed natural gas and liquefied petroleum gas. The details gathered are examined to identify the establishments from which data will be obtained. The data will be obtained from all of the establishments involved in the distribution of compressed natural gas and liquefied petroleum gas, using a comprehensive survey methodology.

Data Collection Methodology

Data collection is carried out over 44 business days, during which the identified establishments are visited, and their data are collected using various methods that ensure high data quality and response rates. As a result, specialists determine the most suitable method based on the type of the establishment, using one of the following collection methods:

- Internet Data Collection: Collecting data from the establishments via an electronic questionnaire available on the internet and accessed through a link sent to the establishment;
- Data Collection by e-mail: Data collection by e-mail, through e-mailing the questionnaire in Excel format to the establishments
- Online Interviewing: Data collection through phone calls or through digital means of communication for completing the questionnaire by the respondent via computer.

Data Collection Method

Establishments listed under the survey frame are contacted and their data are collected using computers or tablets, or through conducting an online interview with the respondent, whereby the enumerator shall, during the first visit, complete the cover page of the questionnaire and allow the establishment to select their preferred data collection method, whereby the establishment may directly complete the remaining data, or through completing an electronic questionnaire or an Excel file. Accordingly, the Back-Office Enumerator provides the establishment with an electronic link including the following options:



- **Electronic Questionnaire:** Once the Field Enumerator sends the link, the follow-up process, if necessary, is initiated via phone or e-mail to ensure that the link is provided to the establishment. The follow-up process will be repeated on a regular basis and the necessary assistance will be provided from the time the link is accessed until the questionnaire is submitted.
- **Excel File Questionnaire:** Similarly, to the aforementioned approach, once the Field Enumerator sends the link, the follow-up process is initiated via phone or e-mail, if needed, as to ensure that the link for downloading the Excel file is made available. The follow-up process will be repeated on a regular basis, and the necessary assistance will be provided from the time the link is accessed until the questionnaire is uploaded. The Field Enumerator must review the questionnaire to ensure the authenticity of all items and, if necessary, liaise with the establishment. Following the completion of the review process, the field enumerator will enter the data. The questionnaire will then be reviewed by the Senior Field Enumerator before being submitted to the Data Editor for final approval.

Classifications and Guides

The following classifications were used in the survey:

- **Economic Activity:** International Standard Industrial Classification of All Economic Activities (ISIC 4).

Data Editing

- **Editing Purpose:** Partial and complete editing aims to check the data in terms of the following and editing them should there be any errors:
 1. Outlying answers falling beyond the previously set range (such as the range set by the experts' or based on previous answers), or definitive answers that do not equate to the specific categories;
 2. Consistency, such ensuring that class total tallies with the reported total, or in the case of answering sets of logically different questions.
 3. Conflicting answers and inaccurate flow through the determined patterns;
 4. Missing data that may be directly filled from other parts of the same record (including the survey frame);
 5. Records duplication; and
 6. Estimates conflicting with external sources.
- **Partial Editing Methodology:** There are many types of data editing processes that are carried out pursuant to the available editing rules adopted in terms of the detailed statistical processing methodology. The editing rules will be classified as follows:
 - Consistency Editing: Comparing the various answers retrieved from the same record to verify their consistency with the other answers, such as in terms of equal values' total: Value 1 + Value 2 + Value 3 = Value 4).
 - Logical Adjustments: Such adjustments shall comply with the previously set rules. For instance, in case $Total_Val_Actual_Sum_T3 > 0$, then $TOTAL_Val_T3 > 0$.
 - Missing Adjustments: No data shall be missing. For instance, the case entitled T_RESPONDENT_MAIN_NAME shall not be empty.



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