COUNTRY PRACTICE
IN ENERGY STATISTICS

Topic/Statistics:

Sample Statistical Survey on Production and consumption of types of Energy by private entrepreneurs

Institution/Organization: State Statistical Committee

Country: Azerbaijan

Date: 26.05.2014

CONTENTS

Abstract

For the purpose to execute “Plan of Actions on EC Energy Reform Support Program for the Republic of Azerbaijan”, component “Sample statistical survey on production and consumption of types of energy by private entrepeneurs”, item 4.2 “Enhancement of official statistics in the field of energy”, confirmed by the decree of the Cabinet of Ministers of the Republic of Azerbaijan dated 16 December 2009, № 191, the sample statistical survey on production and consumption of types of energy by private entrepreneurs acting without formation of legal entity has been carried out by the State Statistical Committee. As a result of this survey, the new statistical information on production and consumption of energy products by private entrepreneurs acting in the country was initially obtained, detailed information on consumption of energy products by branches of economy was collected. At the same time, all of them serve to the completeness of energy balance.

2-energy (private entrepreneur) semi-annual, one time statistical questionnaire on “Consumption and production of types of energy by private entrepreneurs (natural persons)” and the methodological guidelines on filling in had been prepared for conduction of the survey.

The following main purposes were achieved by means of survey conduction:

- the data on energy products consumed by private entrepreneurs, its volume, surplus and distribution by the types of activity were initially obtained;
- the completeness of information on energy balance “final consumption sector” was provided;
- the volume of energy consumption by economic regions was defined;
- the quantity of electric energy consumed by private entrepreneurs was investigated;
- data on the volume of energy costs of private entrepreneurs was obtained.

Key elements

Name of the statistics	Sample Statistical Survey on Production and Consumption of types of Energy by private entrepreneurs (natural)
Background and purpose of the statistics	Initially obtain the data on energy products, its volume, surplus and distribution by the types of activity consumed by private entrepreneurs.
Population, sample and data sources	The total poplation had covered private entrepreneurs acting in Agriculture, forestry and fishing (section A); Mining and quarrying (section B); Manufacturing (section C); Electricity, gas and steam production, distribution and supply (section D); Water supply; sewerage, waste management and remediation activities (section E); Construction (section F); Trade; repair of motor vehicles (section G); Transportation and storage (section H); accommodation and food service activities (I); Information and communication (J) and other fields.
Main users	State Statistical Committee of the Republic of Azerbaijan (Department of Industry and Construction Statistics), Various institutes for research, universities, media etc.
Important contribution or issue addressed	
Other remarks	

1. General information

1.1. Name of the statistics/topic

The statistics/topic could either be a specific energy statistics (e.g. electricity production) or a topic within energy statistics (e.g. energy balances). For more information, please see Section III of the Instructions.

Sample Statistical Survey on Production and consumption of types of energy by private entrepreneurs.

1.2. History and purpose

State when the statistics were first published.

2013

Describe briefly the main purpose of producing the statistics and why it is relevant.

To provide the completeness of information on energy balance "final consumption sector" and define the volume of energy consumption by economic regions.

1.3. Reference period

State the time period the data are collected for.

The data were collected in two terms: The first term of data collecting was from 24th September to 8th October which covered the period January-June of 2012. The second term was from 21st January to 4thFebruary which covered the period July-December of 2012.

1.4 Period of the last annual account (e.g. for electricity), resp. the last 12 months before the term of the survey Frequency

Specify how often the statistics are disseminated (e.g. annually, monthly, quarterly, etc.). If the statistics are not produced at regular intervals, state at what times they have been produced in the past and the main reasons behind the irregularities.

It is the first sample statistical survey on Production and Consumption of energy by private entrepreneurs.

1.5. Dissemination

Describe how the statistics are published (e.g. printed publications, online publications, online databases, etc.). If applicable, include the web address to the main website of the statistics.

There is only printed publication of the results of sample statistical survey.

1.6. Regional level

State the lowest geographical level (e.g. administrative regions, municipalities, etc.) for which the statistics are made available to the public.

The sample statistical survey had covered all regions of the country by types of activity (dividing whole country into 10 economic regions and capital).

1.7. Main users

Identify the key users of the data and the main applications. Include both internal and external users, and if possible try to distinguish between end users and others.

State Statistical Committee of the Republic of Azerbaijan : Department of Industry and Construction Statistics;
Various institutes for scientific research, universities, media etc

1.8. Responsible authority

Statistics Azerbaijan, Department of Industry and Construction Statistics;
Ministry of Economy and Industry of the Republic of Azerbaijan.

1.9. Legal basis and legally binding commitments

"Plan of Actions on EC Energy Reform Support Program for the Republic of Azerbaijan", component "Sample statistical survey on production and consumption of types of energy by private entrepeneurs", item 4.2 "Enhancement of official statistics in the field of energy", confirmed by the decree of the Cabinet of Ministers of the Republic of Azerbaijan dated 16 December 2009, № 191.
Law on "Official Statistics". Article 11.

1.10. Resource requirements

The statistical survey is financed with the grant resource appropriated by European Commission to the "Energy Reform Support Program"

Specify the resource requirements for producing the statistics (e.g. man-labour days, number of workers involved in the statistical production process of the statistics/topic in question).

306 interviewers were involved in the statistical production process.

1.11. International reporting

Beneficiary report about financial operations realized with grant resource appropriated by the European Commission to the "Energy Reform Support Program".

2. Statistical concepts, methodology, variables and classifications

2.1. Scope

Describe the scope of the statistics (e.g. the statistics cover supply and use of all energy products in Norway, classified according to International Standard Industrial Classification of All Economic Activities – ISIC).

The statistics cover the energy consumption and production of Azerbaijan private entrepreneurs.

2.2. Definitions of main concepts and variables

Describe the main concepts (e.g.: territory principle, resident principle, net calorific value, gross calorific value).

Territory principle

Describe the main variables (e.g. how are the different energy products defined in the statistics? How are production, intermediate consumption, final consumption, transformation, feed stock, the energy sector, etc. defined?).

The first section of the survey comprises consumption, sales and stock of energy products:

Electricity
Natural gas
Motor petrol
Diesel fuel
Kerosene
Liquid gas
Lubricants
Heating energy
Wood

The second section of questions is about production of electricity by private entrepreneurs.

Produced electricity
Consumed for production of electricity

The third section consists of main economic indicators on private entrepreneurs.

Number of employees
Used production area (including cooled area, heated area)
Expenses of private entrepreneurs
Incomes of private entrepreneurs

2.3. Measurement units

Describe in what unit the data is collected (e.g. physical unit (m3, metric tons), monetary unit (basic prices, market prices)). Describe in what unit the data is presented. Describe if the calorific values are collected (e.g. on a net vs. gross basis) and how they are used.
If applicable, describe the density of the energy product(s) and the estimated *thermal efficiencycoefficients*of different energy products and consumer groups or by appliance. Thermal efficiencycoefficient indicates the share of the energy products which is actually usable for end consumption. Descriptions of density and thermal efficiency coefficient could alternatively be put in

Physical (kg, litre, kWh, m^3), monetary units and other quantitative consumption.

2.4. Classification scheme

Include references to relevant international and national standard classifications. If national, give a brief description of the standards. If available, include web addresses to the electronic version of the standards).

Manual on energy statistics prepared by IEA and Eurostat

2.5. Data sources

Give an overview of the different data sources used in the collection and compilation of the statistics/topic (e.g. household survey, enterprise/establishment survey, administrative data/registers, foreign trade statistics, production statistics and other primary/secondary data sources).
Examples of administrative sources/registers are: business register for enterprises and establishments, population register, land register, housing and building registers, tax registers, international trade registers, etc.

Sample statistical survey on Production and consumption of types of Energy by private entrepreneurs.

2.6. Population

Describe the entire group of units which is the focus of the statistics (the population).

The sample statistical survey had covered all regions of the country by types of activity and 15 percent or 16.8 thousand of natural persons.

Specify the following statistical units:

- Reporting unit
- Observational unit
- Analytical unit

Examples of different kind of statistical units include: enterprise, enterprise group, kind-of-activity unit (KAU), local unit, establishment, homogeneous unit of production.
In most cases the reporting unit, observational unit and analytical unit are identical, but there are examples where this is not the case. In electricity statistics, you may find that energy companies (the reporting unit) provide data about different consumers like the individual household or manufacturing company (the observational unit). The analytical unit may be a group of energy consumers, defined by the ISIC.

The reporting unit, the observational unit and the analytical unit are Azerbaijan private entrepreneurs

2.7. Sampling frame and sample characteristics

Describe the type of *sampling frame* used in the collection and compilation of the statistics (e.g. list, area or multiple frames). A sampling frame is the source material or device from which a sample is drawn. Note that the sampling frame might differ from the population.

Sampled population was defined on the regions by optimal distribution in the same quantity. The criterion for distribution of sampled population by groups was the distribution of subjects by types of activities. Sample units were private entrepreneurs covered by the sample i.e. directly surveyed entrepreneurs. These units were defined by simple accidental sampling order, by the equal probability principle. For realization of this process the total population of private entrepreneurship objects were grouped by the regions and types of activity and the sample was conducted within each group by accidental way.

For each survey(s) used for the compilation of the statistics, specify the *sampling design* (e.g. random, stratified, etc.). Describe the routines employed for updating the sample. Include information about the sample size, and discuss to what extent the sample covers the population (e.g. energy consumption in the sample compared to total energy use by the population).

Note that chapter *2.7: Sample frame and sample characteristics* may overlap with chapter *3.4:Grossing up procedures.*

Random sample survey. These units were defined by simple accidental sampling order, by the equal probability principle. For realization of this process the total population of private entrepreneurship objects were grouped by the regions and types of activity and the sample was conducted within each group by accidental way.

2.8. Collection method

For each survey used for the compilation of the statistics/topic, describe how the data are collected (e.g. face-to-face, telephone, self-administered, paper and internet-based questionnaires, or administrative data and registers).

The data was collected face-to-face and marked on the paper.

2.9. Survey participation/response rate

For each survey used for the compilation of the statistics/topic, specify the average response rate, or refer to response rates for specific surveys conducted.
The respondent rates for the single surveys are:

Respondent rate of the survey is15.0 percent or 16.8 thousand of natural persons. All sample units were participated.

3. The statistical production process

3.1. Data capture and storage

Paper questionnaire responses are entered manually into the production database.The local statistical authorities of the SSC controlled the filling in of the questionannire by private entrepreneurs covered by the sample and the online collection of the data, the Main Calculation Center had provided the preparation of the software and obtaining of summary tables.

3.2. Data editing

Describe the regular routines employed for detecting and correcting errors. This may include:

- Manual routines for detecting and correcting errors
- Automatic error-detection (and correction)
- Micro- and macro editing procedures
- Data validation procedures
- Outlier identification
- Processes and sources used for quality controls

The completeness and correctness of the questionnaires filled in and presented by entrepreneurs are defined on their initial reception and during the process of data input. For this purpose, control notes were presented in data input documents of the questionnaire; collected, checked and input data were processed and the summary tables were prepared.

3.3. Imputation

Describe the principles for imputation and the assumptions that these principles are based on.
Note that this chapter may overlap with chapter *3.2: Data editing* and chapter *5.2: Accuracy*

3.4. Grossing up procedures

Describe how the population is divided into strata and what statistical models the estimations in the strata are based on. Describe how sub-indices are combined into aggregate indices and how uncertainty is estimated.

The criterion for distribution of sampled population by groups was the distribution of subjects by types of activity.

3.5. Analytical methods

Give a description of any analytical methods used to adjust the data (e.g.: seasonal adjustment and temperature adjustment). A more detailed description of the analytical method can also be included as an annex.

For adjusting data the survey has been carried out in 2 terms. Each term has covered semiannual period: January- June and July-December.

4. Dissemination

4.1. Publications and additional documentation

Describe the form of dissemination of the statistics/topics in question (e.g. printed publications, website, etc.). Please provide relevant website link(s) if available.

"Result of sample statistical survey on production and consumption of types of energy by private entrepreneurs" exists in printed form.

Give a complete reference to publicly available statistics databases where data from the statistics can be extracted. Include web addresses if available online.

Indicate whether you charge users for access to the statistics at any level of aggregation.

No charge.

4.2. Revisions

Describe the current revision policies. E.g.: Is historical data revised when new methodology, new definitions, new classifications etc. are taken into use? Is the data continuously revised, or is the data revised at certain points in times (e.g. every third year, annually, etc.)?

No revision to these statistics.

If applicable, describe any major conceptual or methodological revisions that have been carried out for this statistic/topic in the past.

No methodological revisions in the past.

4.3. Microdata

Describe how microdata are stored.

The Main Calculation Center had provided the preparation of the software and obtaining of summary tables.

Specify if microdata are available for scientific and/or public use. If so, describe under what conditions these are made available.

Microdata are available for scientific and/ or public use, as all data are anonymized. These data can be bought with following special rules formed by SSC on transferring data.

4.4. Confidentiality

Describe the legal authority that regulates confidentiality, and what restrictions are applied to the publication of the statistics.

That means data are only supplied in anonymized form, therefore no conclusions to single households are possible.

Describe the criteria used to suppress sensitive data in statistical tables (cell suppression).

Not relevant

Describe how confidential data are handled.

Personal data (e. g name, address, telephone number, etc) was deleted before publishing or using for scientific research.

Describe any confidentiality standards that go beyond what is legally required.

Not relevant

5. Quality

5.1. Relevance

State to which degree the statistical information meet the real needs of clients/users.

The data on energy products consumed by private entrepreneurs, its volume, surplus and distribution by the types of activity were initially obtained; the completeness of information on energy balance final consumption sector was provided.

5.2. Accuracy

State the closeness of computations or estimates to the exact or true values that the statistics were intended to measure.

Measurement and processing errors

Discuss the measurement and processing errors that are relevant for the statistics. Try as far as possible to give an estimation of the size and scope of the errors.

Non-response errors

State the size of the unit non-response and the item non-response, distributed by important variables in the population (e.g. region, industry) . Consider if the non-response errors are systematic, and if so, describe the methods used to correct it. Indicate whether the effects of correcting non-response errors on the results have been analysed, and, if so, describe them.

Non- response errors were correcting immediately during the process of data input. For this purpose, control notes were presented in data input documents.

Sampling errors

Discuss the size of the sampling errors. Compare the population and sample with regards to important properties (e.g. coefficient of variance).

Other sources of error

Discuss other sources of errors that might be relevant for the statistics. E.g.: Model assumption errors, coverage errors

Not relevant

5.3. Timeliness and punctuality

Specify the time between the end of the reference period and publication.
If the statistics are published both as preliminary and final figures, specify the time between publication of preliminary and final figures. You should also point out whether the publication date is set according to certain rules (e.g. advance release calendar, a specific day or prior to other publications).

Planning and conduct of statistical surveys are carried out according to previously declared Program of Statistical Activities.

Point out if there have been any major discrepancies between the planned publication date and the actual publication date in recent years. If so, state the length of this discrepancy and its cause.

No major discrepancies between the planned publication date and the actual publication date in recent years.

5.4. Accessibility

Describe how easily accessible the statistics are. In particular, is there an advance release calendar to inform the users about when and where the data will be available and how to access them?

Are metadata and other user support services easily available? Are there particular groups that don't have access to the published statistics (e.g.: visually disadvantaged)?

The statistics are accessible with following special rules formed by SSC on transferring confidential data.

5.5. Comparability

Discuss the comparability of the statistics over time, geographical areas and other domains.

Comparability over time

Discuss comparability over time and include information about whether there have been any breaks in the time series of the statistics and why. Also describe any major changes in the statistical methodology that may have had an impact on comparability over time.

Comparability over time was provided. There is no time break in the time series.

Comparability over region

Discuss comparability over geographical areas, and include information about whether the statistics are comparable to relevant statistics published by other countries and/or international organizations

Comparability over other domains

Discuss comparability over domains, and include information about whether the statistics are comparable between different industries, different types of households etc.

Not relevant

5.6. Coherence and consistency

Discuss the coherence/consistency between preliminary and final figures.

Discuss the coherence/consistency between monthly, quarterly or yearly statistics within the same subject area. Can the results of different frequencies for the same reference period be combined in a reliable manner?

The data of the first half-year is coherent with the data of the second half-year.

Discuss the coherence/consistency with other related statistics (also those produced by other institutions/organisations on the same subject).

6. Future plans

Are there any current or emerging issues that will need to be addressed in the future? These could include gaps in collection, timeliness issues, data quality concerns, funding risks, confidentiality concerns, simplifications to reduce respondents' burden etc.?

It is considered to carry out the sample statistical survey on consumption of energy products by private entrepreneurs and households according to the" State Program on Improvement of the Official Statistics in the Republic of Azerbaijan 2013-2017".

Annexes

Annex I
Questionnaires

OFFICIAL STATISTICAL OBSERVATION

Dear entrepreneur! The State Statistical Committee conducts the inquiry among natural persons randomly sampled for the purpose to study the volume of energy products produced and consumed by private entrepreneurs and to prepare statistical data on energy statistics. The State Statistical Committee asks you to respond the questionnaire and ensures the confidentiality and the use of the received data only for statistical purposes.

Thank you in advance for cooperation.

Private entrepreneur's:

Name, surname_____

Location _____

Address _____

region (city)

_____

village (street)

Main type of activity_____

ID Code _____

report form №

2-energy (private entrepreneur)

Approved by the decree of the State Statistical Committee of the Republic of Azerbaijan dated 27 August 2012, № 63/14.

semiannual, one time

(2012 half years)

It is filled in by interviewer based on the replies of private entrepreneur and presented to the local statistical bodies during 5 days after the period of survey conduction.

Consumption and production of energy products by private entrepreneurs (natural person)

Section I. Consumption, sale and stock of energy products

Energy product	Code of row	Stock for the beginning of half year	Quantity of energy products during half year	Consumed for own business purposes during half year	Sold	Stock for the end of half year
A	**B**	**1**	**2**	**3**	**4**	**5**
Electricity, kWh	1	x				x
Natural gas, thsd. cub.m	2	x			x	x
Motor petrol - for all purposes, litre	3				x	
of which: for motor	3.1				x	
Diesel fuel – for all purposes, litre	4				x	
of which: for motor	4.1				x	
for tractor	4.2				x	
Kerosene, litre	5					
Liquid gas (liquefied petroleum gas) – for all purposes, kg	6					
of which for motor	6.1				x	
Lubricants, kg	7					
Heating energy, Q.cal	8	x				x
Wood, cub. meter	9					
Other _____ (please specify)	10					

Section II. Production of electricity by private entrepreneur

(this section is intended for private entrepreneurs produced electricity with generator and etc. using any energy product)

11. Produced electricity ☐ kWh

11.1 including:

due to alternative energy sources (solar, wind and etc.) ☐ kWh

12. Consumed for production of electricity:

12.1 petrol ☐ litre 12.2 diesel fuel ☐ litre.

For reference: Breaks in electricity supply for private entrepreneurs in average per day:

no breaks ☐ 0-1 hour ☐ 2-4 hours ☐ 5 hours and over ☐

Section III. Main economic indicators

13. Number of employees		person
14. Used production area		sq. m
including:		
14.1 cooled area		sq. m
14.2 heated area		sq. m
15. Expenses of private entrepreneur (semi-annual)		manat
15.1 energy costs		manat
including:		
15.1.1 fuel		manat
15.1.2 electricity		manat
15.1.3 heating		manat
16. Incomes of private entrepreneur (semi-annual)		manat

Interviewer _____
(name, surname, telephone number)

Date of filling in "____" _____ 2012

Annex II

Example of publication tables

Volume of natural gas and electric energy consumed for business purposes

Types of economic activity	Natural gas, thsd. cubic m	Electric energy, thsd. kVt/hour
Total	**352128,2**	**1105662,4**
Agriculture, forestry and fishing	7740,3	81100,0
Mining	51,1	10700,0
Manufacturing	**268355,5**	**69935,2**
of which:		
Manufacturing of food products	211014,2	13022,7
Manufacturing of beverace	4986,2	540,3
Textile industry	5,4	1539,9
Manufacturing of wearing apparel	190,1	3906,9
Manufacturing of leather, leather producs and woodwork	53,2	575,5
Other wood products excepted furniture, production of wood products and stopper plug	90,2	4200,0
Paper products	11,4	1197,6
Polygraphic activity and cycle style of recorded data to Carriet	64,6	857,2
Chemical industry	2530,4	600,1
Manufacture of rubber and plastics products	21880,5	2699,0
Other non metallic mineral products	25594,7	7800,0
Metallurgy industry	4,0	55,3
Production of finished metallic goods	1357,2	1089,3
Production of computers electronic and optical products	32,4	13,2
Manufacture of electrical equipment	1,5	104,6
Manufacture of machinery and equipment	3,0	181,0
Production of automobiles, trailers and semitrailers	0,4	630,0
Manufacture of furniture	108,3	1921,0
Production of other industry products	347,1	1638,0
Repair and installation of machinery and equipment	80,6	27363,6
Electricity, gas and steam production, distribution and supply	3,0	325,9
Water supply; waste treatment and disposal	64,3	320,8
Construction	5432,0	7700,0
Trade: repair of transport means	23645,0	595700,0
Transportation and storage	415,5	2775,4
Accommodation and food service activities	36696,1	67836,9
Information and communication	1318,9	7656,1
Other branches of economy	8406,6	261612,2

Distribution of volume of natural gas and electric energy consumed for business purposes by types of economic activity, %

Types of economic activity	Natural gas		Electric energy	
	consumed, thsd. cubic m.	share in total number	consumed, thsd. kVt/hour	share in total number
Total	352128,2	100,0	1105662,4	100,0
Agriculture, forestry and fishing	7740,3	2,2	81100,0	7,3
Mining	51,1	0,0	10700,0	1,0
Manufacturing	268355,5	76,2	69935,2	6,3
of which:				
Manufacturing of food products	211014,2	59,9	13022,7	1,2
Manufacturing of beverace	4986,2	1,4	540,3	0,0
Textile industry	5,4	0,0	1539,9	0,1
Manufacturing of wearing apparel	190,1	0,1	3906,9	0,4
Manufacturing of leather, leather producs and woodwork	53,2	0,0	575,5	0,1
Other wood products excepted furniture, production of wood products and stopper plug	90,2	0,0	4200,0	0,4
Paper products	11,4	0,0	1197,6	0,1
Polygraphic activity and cycle style of recorded data to Carriet	64,6	0,0	857,2	0,1
Chemical industry	2530,4	0,7	600,1	0,1
Manufacture of rubber and plastics products	21880,5	6,2	2699,0	0,2
Other non metallic mineral products	25594,7	7,3	7800,0	0,7
Metallurgy industry	4,0	0,0	55,3	0,0
Production of finished metallic goods	1357,2	0,4	1089,3	0,1
Production of computers electronic and optical products	32,4	0,0	13,2	0,0
Manufacture of electrical equipment	1,5	0,0	104,6	0,0
Manufacture of machinery and equipment	3,0	0,0	181,0	0,0
Production of automobiles, trailers and semitrailers	0,4	0,0	630,0	0,1
Manufacture of furniture	108,3	0,0	1921,0	0,2
Production of other industry products	347,1	0,1	1638,0	0,1
Repair and installation of machinery and equipment	80,6	0,0	27363,6	2,5
Electricity, gas and steam production, distribution and supply	3,0	0,0	325,9	0,0
Water supply; waste treatment and disposal	64,3	0,0	320,8	0,0
Construction	5432,0	1,5	7700,0	0,7
Trade: repair of transport means	23645,0	6,7	595700,0	53,9
Transportation and storage	415,5	0,1	2775,4	0,3
Accommodation and food service activities	36696,1	10,4	67836,9	6,1
Information and communication	1318,9	0,4	7656,1	0,7
Other branches of economy	8406,6	2,4	261612,2	23,7

Production of electric energy by private entrepreneur, thsd.kVt/hour

Types of economic activity	Produced electric energy - total	Electric energy produced by generators	including:		By means of alternative sources of energy (sun, wind and etc.)
			motor petrol generators	diesel fuel generators	
Total	**285,5**	**285,1**	**150.9**	**134.2**	**0.4**
Agriculture, forestry and fishing	20.6	20.5	17.5	3.0	0.1
Mining	17.5	17.5	10.6	6.9	-
Manufacturing	**85.4**	**85.4**	**38.8**	**46.6**	**-**
of which:					
Manufacturing of food					
Products	26.7	26.7	2.0	24.7	-
Manufacturing of beverace	2.7	2.7	-	2.7	-
Other wood products excepted furniture, production of wood products and stopper plug	6.8	6.8	6.8	-	-
Manufacture of rubber and plastics products	10.8	10.8	10.8	-	-
Other non metallic mineral products	26.3	26.3	18.9	7.4	-
Production of finished metallic goods	6.7	6.7	0.1	6.6	-
Manufacture of furniture	5.4	5.4	0.2	5.2	-
Electricity, gas and steam production, distribution and supply	0.2	0.2	0.2	-	-
Construction	31.8	31.7	18.1	13.6	0.1
Trade: repair of transport means	66.2	66.0	45.4	20.6	0.2
Transportation and storage	4.0	4.0	1.8	2.2	-
Accommodation and food service activities	26.8	26.8	6.4	20.4	-
Information and communication	0.2	0.2	0.2	-	-
Other branches of economy	32.8	32.8	11.9	20.9	-

Detailed description on analytical methods

If relevant, a detailed description of analytical methods used in the statistical production (like seasonal adjustment, temperature adjustment etc.) may be described in an annex. A short description can also be included in chapter 3.5: Analytical methods or under other suitable chapter

Annex III

METHODOLOGICAL GUIDELINES

on filling in of the questionnaire № 2-energy private entrepreneur (natural person) on energy consumption and production by private entrepreneur (natural person)

General provisions. Present methodological explanations cover compilation of the questionnaire for the survey conducted once in a half year for the purpose to collect data on the volume of fuel and energy produced and consumed by private entrepreneurs acting without formation of legal entity. Randomly sampled private entrepreneurs take part in inquiry.

Methodological explanations. Questionnaire consists of three sections. **Section I** reflects questions on consumption, sale and stock of main types of energy products (electricity, natural gas, motor petrol, kerosene, liquid gas, lubricants, heating energy and wood).

Energy carrier is indicated in Column "A" of the section and code of row – in Column "B".

Stocks for **the beginning of half year** are indicated in the 1-st column, stocks for **the end of half-year** – in 5-th column. Stock indicates the quantity of residues of fuel in storehouses, other places for storage, as well as containers of vehicles of private entrepreneurs. The indicator of stock for the beginning of half year is the available reserves in the beginning of the same reporting period. For example, if the survey period covers the first half year and the survey is conducted on September, then 1 January 2012 is considered as the beginning of the reporting period and 30 June – as the end of the reporting period. If the survey covers the second half year then the beginning of half year is 1 July and the end – 31 December. The quantity of energy products received during the corresponding half year of the reporting year is indicated in **the 2-nd column**. The volume of energy products consumed by natural person during half year is indicated in **the 3-rd column**. As for energy product consumed during half year it is considered the data on the half of the year. For example, if the survey is conducted for the first half of a year then it should be indicated only energy products consumed on January-June. In **the 4-th column** energy product purchased for own needs and further sold is indicated. This indicator characterizes the volume of energy sold to population as well as other legal or natural entity during half year taking into account stocks remained from the previous periods.

1-st row. The **quantity of electricity** consumed by natural persons during half year is indicated in this row (on the 2-nd column). In this row the quantity (kWh) of **electricity** consumed during half year by private entrepreneur (natural person) based on watt-hour meter indicators. For calculation of the quantity of electricity consumed during the half of the year it is necessary to deduct from watt-hour meter indicator for the last day of half year the indicator for the beginning of this period and to find the difference derived in kWh. In case if natural person has no watt-hour meter or it is not in order it is necessary to divide the amount paid for electricity into 6.0 gepiks (kopecks) and find out kWh of the consumed electricity. At this time arrears from the previous periods are not considered and only the whole amount paid or payable for half year is covered.

The 2-nd row indicates the quantity of **natural gas** in cubic meters based on utility meter indicators. To get the quantity of gas consumed during half year it is necessary to deduct from utility meter indicator for the last day of half year the indicator for the beginning of this period. In case if natural person has no utility meter or it is not in order it is possible to

get the volume of natural gas by dividing the amount paid for half year into 10gepiks(because 1 cubic meter of gas is for 10 gepiks). If on half year payment the natural person had arrears from the previous periods then consumption should be defined based on amount of payment for average half year.

3-rd row. In this row total volume of **motor petrol** consumed (for example, consumed for domestic purposes, as fuel in vehicles and other purposes) during the corresponding half year by natural person regardless of purposes should be indicated. In 3.1 row the volume motor petrol used as fuel only for own vehicle should be indicated. The volume of fuel used for vehicle is defined based on the corresponding registration documents, in case of absent of such documents it is defined by dividing the spent amount by the cost of a litre of motor petrol. Moreover, this indicator could be defined based on run of vehicle for half year. At this time it is defined by dividing the distance reached by vehicle during the survey period by the quantity of fuel consumed in average for 100 km. For example, if fuel consumed by truck for 100 km makes 25 litres then fuel consumption of vehicle for 500 km during the surveyed week would make 500/100 x 25 = 125.

4-th row. Here it should be indicated total volume of diesel fuel consumed by **natural person** for all purposes during half year; in 4.1 row the volume of diesel fuel (vehicle transport) consumed for passenger and cargo transportation should be indicated. Consumption of diesel fuel is calculated according to recommendations related with petrol consumption.

5-th row. The volume of kerosene consumed by private entrepreneur during half year for several purposes (heating and etc.) is indicated.

6-th row. Liquid gas (bottled gas). Total volume of liquid gas consumed by private entrepreneur during half year is indicated. Here it should considered total consumption by natural person and in 6.1 row – the volume of gas consumed as fuel for own vehicle.

In 7-th row the lubricants consumed by private entrepreneur for equipment in the process of production and service, as well as for vehicle, are indicated.

8-th row. The quantity of heating energy purchased by private entrepreneur based on contract or agreement from heating centres. The quantity of heat is defined by calculation based on amount paid during half year.

9-th row. It characterizes the volume of wood consumed by private entrepreneur for fuel purpose. Here it is not considered wood consumed as raw material for purchasing (for example, timber and etc.), production of other products.

Other type of fuel means other energy products (for example, coal and etc.) consumed by **private entrepreneur** for fuel purpose.

In the **reference** part of the questionnaire the information on the quantity of breaks in electricity at average per day supplied for private entrepreneurs by corresponding energy providers during half year should be indicated.

Section II of the questionnaire is about production of electricity by private entrepreneur. This section is planned for private entrepreneurs producing electricity by generators using any energy product (petrol, diesel fuel), as well as due to alternative energy sources (solar, wind and etc.). **In 11-th row** it is indicated the production of electricity at the expense of all sources during half year, including in 11.1 row – from alternative energy

sources (solar, wind and etc.). **Solar and wind energy** is one of more efficient technologies for production of electricity. Being one of the main types of alternative energy it is considered advantageous for Azerbaijan climate. Solar energy is get by using the parabolic mirrors that reflects and collects solar energy in several collectors producing a high temperature and moves along the Sun; wind energy is get by means of electric power stations supplied with special equipment. **In 12-th row** of the section the volume of fuel consumed to get electricity is indicated.

Section III consists of main economic indicators on private entrepreneurs (natural person).

In **13-th row** the information on number of employees, i.e. number of workers hired by private entrepreneur is indicated.

In **14-th row** the information on total production area used by private entrepreneur (natural person) should be indicated in square meters, including cooled area – in **14.1 row** and heated area – in **14.2 row**.

In **15-th row** the information on semi-annual costs of natural person is indicated, in **15.1 row** – costs for energy, in **15.1.1-15.1.3 rows** – correspondingly costs for fuel, electricity and heating energy. The value of energy products purchased for sale, as well as costs regarding to their sale are not included here.

In **16-th row** the semi-annual incomes of natural person is indicated.