

**\*\*FINAL REPORT\*\***

**NATIONAL ENERGY STATISTICS ACTION PLAN FOR THE  
REPUBLIC OF AZERBAIJAN**

**Produced with the support of the INOGATE Programme**

**“INOGATE Technical Secretariat and Integrated Programme in support of the  
Baku Initiative and the Eastern Partnership Energy Objectives”**

---

## CONTENTS

<b>1. INTRODUCTION</b> .....	<b>3</b>
<b>2. CONCEPT AND METHODOLOGY</b> .....	<b>4</b>
<b>3. ENERGY STATISTICS COUNTRY PROFILE</b> .....	<b>5</b>
3.1. LEGAL AND INSTITUTIONAL FRAMEWORK .....	5
3.2. CAPACITIES AND CAPABILITIES IN ENERGY STATISTICS SYSTEMS .....	7
3.3. ENERGY PROFILE OF THE AZERBAIJAN .....	8
3.4. REVIEW OF AVAILABLE METHODOLOGIES APPLIED IN THE PROCESS OF COLLECTING, ELABORATING AND PROCESSING OF ENERGY STATISTICS DATA .....	9
3.5. ENERGY BALANCES COMPILATION AND THEIR SUBMISSION TO THE IEA.....	10
3.6. REPORTING ON MONTHLY ENERGY STATISTICS .....	11
3.7. REPORTING ON ENERGY PRICES .....	11
3.8. ENERGY AND ENERGY INDICATORS REPORTING .....	11
<b>4. ENERGY STATISTICS ACTION PLAN 2012 - 2015</b> .....	<b>12</b>
4.1. KEY AREA 1: LEGAL AND INSTITUTIONAL FRAMEWORK STRENGTHENING .....	13
4.2. KEY AREA 2: DEVELOPMENT OF A REPORTING SYSTEM BASED ON INTERNATIONAL (IEA /EUROSTAT) STANDARDS .....	14
4.3. KEY AREA 3: ENERGY BALANCES COMPILATION AND SUBMISSION OF THE QUESTIONNAIRES TO THE IEA .....	16
4.4. KEY AREA 4: DEVELOPMENT OF A REPORTING SYSTEM FOR MONTHLY ENERGY STATISTICS .....	16
4.5. KEY AREA 5: DEVELOPMENT OF A REPORTING SYSTEM ON ENERGY PRICES .....	16
4.6. KEY AREA 6: DEVELOPMENT OF A REPORTING SYSTEM ON ENERGY AND ENERGY EFFICIENCY INDICATORS.....	17
<b>5. NEEDED RESOURCES FOR THE ACTION PLAN IMPLEMENTATION AND SUPPORT FROM THE ITS PROJECT</b> .....	<b>18</b>
<b>ANNEX 1 – LIST OF THE MEETINGS DURING THE INCEPTION MISSION</b> .....	<b>25</b>
<b>ANNEX 2 – AREAS FOR TECHNICAL ASSISTANCES UNDER THE ITS PROJECT</b> .....	<b>26</b>
5.1. LIST OF THE ACTIVITIES .....	26
5.2. BRIEF DESCRIPTION OF THE INDICATIVE TECHNICAL ASSISTANCES (TA) UNDER THE ITS PROJECT .....	28
<b>ANNEX 3 – INDICATORS FOR MONITORING THE PROJECT IMPLEMENTATION AND SUCCESS</b> .....	<b>33</b>
<b>ANNEX 4 – CONTACT DETAILS</b> .....	<b>34</b>
<b>ANNEX 5 – PROPOSED MANNER OF ADOPTION OF ESAP</b> .....	<b>35</b>

## 1. INTRODUCTION

A unified approach to activities related to energy statistics is needed for various reasons – it helps policy makers in the decision making process, reduces administrative workload when collecting and supplying data, reduces efforts of organisations in explaining differences between different datasets, helps general public to understand the energy situation in their own country, as well as in other countries. Detailed, complete, timely and reliable statistics are essential to monitor the energy situation both at the country level and at the regional level.

At the beginning of 2012, the EU launched a technical assistance project, which addresses, among other areas, energy statistics in the countries in the INOGATE area (Belarus, Moldova, Ukraine, Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Turkmenistan, Uzbekistan, and Tajikistan).

The assistance in the field of energy statistics will be implemented during the following 2,5 years through the ITS project (*INO GATE Technical Secretariat and Integrated Programme in support of the Baku Initiative and the Eastern Partnership Energy Objectives*) and its specific Component D: *Support to statistical cooperation*.

The main aim of the ITS project and Component D is to assist the Partner Countries (PCs) in developing their institutional frameworks for energy statistics, in order to harmonise them with international standards, and to improve the methodologies applied in the data collection and compilation of energy statistics, energy balances, energy prices and energy (efficiency) indicators.

One of the main activities of the ITS project is the development of Energy Statistics Action Plans (ESAP) and their adoption by the Partner Countries (PCs). ESAPs will be used as a guideline for implementing certain activities under the project, as well as for monitoring their success. The Energy Statistics Action Plans consist of the following main segments:

- evaluation of the current status of energy statistics and energy balances and creation of the Energy Statistics Country Profile;
- assessment of the required measures and activities needed to streamline the efforts towards the alignment of energy statistics with the rules and procedures applicable in the relevant international organisations (IEA) and in the EU (EUROSTAT);
- selection of the country specific measures and activities to be supported by the ITS project through the technical assistance aimed to increase transfer of know-how and skills and the creation and strengthening of the institutions involved in energy statistics system organisation. In addition to the above mentioned, the ITS project will implement several horizontal activities (workshops, conferences, study tours, networking) involving INOGATE countries which will complement the country specific activities and be synchronized with them.

The Energy Statistics Action Plans refer mostly to the ITS project period, but the ITS experts have also included suggestions for the period after the project closure.

The Energy Statistics Action Plans envisage an active participation of the PCs' relevant institutions in implementing the activities proposed by the ITS project, as well as in monitoring the success of the project.

## 2. CONCEPT AND METHODOLOGY

In order to develop the Energy Statistics Action Plan in each PC, the ITS experts responsible for the implementation of *Component D: Support to the statistical cooperation*, have developed and applied a uniform methodology based on the principles of equality of all the PCs and on the optimum usage of the resources needed for the implementation of specific activities. This means that the ITS experts have tried to shape the implementation of the activities in the following 2,5 years in such a manner that it provides maximum achievable results.

The methodology comprises the following steps and tasks:

- to assess of the institutional framework (legal regulation and institutional organisation) for energy statistics;
- to review reporting systems and the energy data collected from the sources that were made available by National Statistical Institutes (NSIs) and other responsible institutions in the PCs, as well as from other relevant available sources, such as the publications of the IEA, the UNSD, and from sources of official energy statistics; and to check and verify findings from other sources (including other departments of NSIs, ministries, agencies and/or other entities involved in monitoring and forecasting energy data);
- to evaluate uniform surveys prepared and submitted by the ITS experts to each PC, to identify gaps in data collection and in the applied procedures and methodologies compared to the IEA requirements, to develop benchmarks for specific segments of the energy statistics system and to identify specific groups and the level of development;
- to propose concepts and methodologies for the establishment of a reporting/surveying systems, compilation, aggregation and dissemination of the energy data in accordance with the assessment of each PC's actual capacity, in order to enable the synchronization and harmonisation of time schedules for specific activities in other PCs;
- to create Energy Statistics Action Plans proposals for each PC, referring to the period of the following 2,5 years of duration of the ITS project and based on a uniform list of specific tasks and applicable measures that are required to overcome an identified gap in all the PCs – both in advanced countries and in those lagging behind the process;
- to estimate the technical, financial and human resources needed to overcome gaps and missing statistics and to set priorities for further actions and activities supported by the ITS project.

The main areas of cooperation between ITS project and PCs will be the implementation of the specific activities, which fall into the scope of the following key actions:

- Legal and institutional framework strengthening,
- Development of a reporting system based on international (IEA /EUROSTAT) standards,
- Energy balances compilation and submission of the questionnaires to the IEA,
- Development of a reporting system for monthly/quarterly energy statistics,
- Development of a reporting system on energy prices,
- Development of a reporting system on energy and energy efficiency indicators.

This Energy Statistics Action Plan is based on the common efforts between the ITS expert team and the Azerbaijan representatives and its aim is to define the sequence of needed actions and to set the priority actions, which will provide the maximum and the most efficient contribution to the progress towards harmonisation of Azerbaijan's energy statistics with international standards.

The ITS expert team had developed the draft proposals for ESAPs, which had later been sent to the relevant institutions in the Partner Countries in order to receive their feedback and opinion on the proposed activities, as well as their suggestions for further ESAP improvements. Suggested comments from PCs were additionally discussed and integrated into the final Energy Statistics Action Plan.

## 3. ENERGY STATISTICS COUNTRY PROFILE

### 3.1. Legal and institutional framework

There is a strong legal basis in the Republic of Azerbaijan (RA) for the collection and compilation of energy statistics. The Global Assessment of the national statistics system of RA, which was carried out by EUROSTAT, EFTA and UNECE in 2010 as a part of its conclusion brings the following: "Professional independence of national statistics system, the principles of objectivity and fairness are reflected in the *Law on the Official Statistics*. The State Statistical Committee (SSC) of RA has a clear mandate to collect data, including data from administrative sources, legal and natural persons. The SSC plays a central role as the producer of official statistics and is coordinator of the national statistics system."<sup>1</sup>

The *Law of on Official Statistics* (No. 789, February 1994, additions and amendments) defines that the organisation of the official statistics system and provision of statistical

---

<sup>1</sup> Adapted Global Assessment Report of the National Statistical System of Azerbaijan

activities in the Republic of Azerbaijan is the task of the State Statistical Committee of Republic of Azerbaijan (SSC) and local statistical bodies.

This Law applies to:

- executive bodies of the Republic of Azerbaijan;
- legal entities regardless of the type of ownership and organizational (including representative and branch offices);
- legal entities established in the Republic of Azerbaijan which are located outside of the boundaries of the Republic of Azerbaijan (including representative and branch offices);
- representative and branch offices of foreign legal entities acting in the territory of the Republic of Azerbaijan;
- citizens and natural persons.

The aim of the official statistics is to increase the role of statistical data and to serve to the interest of legal entities and natural persons by respecting their rights and confidentiality of primary data.

According to the legislation described above, all legal entities in Azerbaijan and their representative and branch offices located on the territory of the Republic are obliged to:

- provide all necessary statistical information based on the official statistical methodology and using official reporting forms;
- deliver data to the state statistical bodies in e-document format for conducting the state (regional) observations;
- carry out sample observations besides general statistical observations.

Such legislation gives an opportunity to design advanced policy in the area of energy statistics, to organise statistical observation and include all responsible bodies in the processes of data collection and its dissemination, including administrative sanctions applied to units that do not provide data.

The SSC of Azerbaijan manages the statistical system by implementing the *Programme of statistical work*, adopted by Cabinet of Ministries. The regional statistical offices are responsible for data collection in the regions as well as for data analysis and dissemination to the central office.

In 2007, the SSC adopted *The State Program on improvement of the Official Statistics in the Republic of Azerbaijan 2008-2012*. It created a particular plan for energy statistics reform with the aim to improve energy statistics, the structure of national energy balance and the related methodologies for the collection, compilation and publication of the energy data.

These activities were recognised as necessary for the implementation of the new processes in the energy sector. These activities include: the development and adoption of the short- and long- term strategies, new commitments and priorities, new state policy on the management of the national energy resources and others.

In the segment of *The State Program* titled *Improvement of the statistical observations, statistical indicators and their methodology in the field of statistics* the activities, aims, expected results, responsible organisation and period of implementation for six activities in energy statistics are defined and are listed below:

- improvement of the methodology on energy statistics; elaboration of the concepts and definitions, sources of data and observation methods;

- improvement of the energy balance structure based on international standards;
- improvement of the official forms for energy reporting and related methodologies as well as updating of existing indicators;
- improvement of the main system for energy statistics indicators and their harmonisation with international standards;
- development of energy statistics on the renewable energies;
- systematisation of the result in the statistical publication Energy in Azerbaijan and its presentation to the government, international organisations and other users.

In addition, the Program included numerous activities, which are related to the adoption of the different classifications and codes aligned with international standards, such as the classification of economic activity. The latest versions of NACE and PRODCOM classifications are applied since 1<sup>st</sup> January 2010.

Between the years 2007 and 2011, the Chairman of the SSC signed more than thirty decrees on energy statistics and energy balances. Azerbaijan established working group for energy statistics consisting of different institutions and experts whose aim was to discuss and solve different issues on energy statistics.

Main purposes of the energy balance are: to improve the transparency and effectiveness in the energy sector by applying international statistics standards in the country, to determine the development trends in the energy sector, to monitor changes in the energy production and consumption by applying statistical analysis and to provide to Government essential statistical information for the planning of the energy sector development.

New State Program for the development of official statistics for the period 2013 – 2017 is being prepared.

Since January 1<sup>st</sup> 2012, energy statistics is the responsibility of the *Energy Statistics Division* which acts under the Department of Industry and Construction. The Division is responsible for energy statistics and energy balances and it cooperates closely with other departments: Department of Trade Statistics, Customs Duty and others. Energy Statistics Division cooperates closely with Energy Statistics Working Group.

The Main Computing Centre (MCC) is responsible for data processing and control, transfers from the regional offices to the central offices, publication of the statistical bulletins, software development and maintenance of the official web site.

The Scientific-Research and Design Technological Center of Statistical information is a legal organisation, which functions under the authority of the SSC of Azerbaijan. The Centre implements the SSC's orders related with statistical development, including sampling methodologies and others.

### **3.2. Capacities and capabilities in energy statistics systems**

During the development and preparation of the first fuel and energy balance for the year 2011, the main stakeholders in the Azerbaijan energy statistics system participated in numerous workshops, seminars and meetings. There are 4 people working on energy statistics and energy balances in the SSC. Experts from the SSC permanently participate in activities in international organisations like the UNSD, the IEA and other. SSC is a member of Oslo group and participate in discussions, seminars and workshops related with implementation of the UNSD's International Recommendations on Energy Statistics (IRES).

The data on energy are mostly collected by local statistical offices. After it is checked and controlled, the data is sent to the SSC. Surveys on energy consumption are financed from the state budget.

### **3.3. Energy profile of the Republic of Azerbaijan**

#### **PRODUCTION**

According to the energy balance for 2009 (IEA source) total primary energy production amounts 64,559 ktoe, 79 percent of total production belongs to crude oil, while 21 percent to natural gas. The State Oil Company of the Azerbaijan Republic (SOCAR) was founded in 1992 following the merger of two state oil companies: Azerneft and Azneftkimiya. It is responsible for all aspects of offshore and onshore exploration of oil and gas fields in the country.

#### **IMPORT AND EXPORT**

In 2009, Azerbaijan exported 51,910 ktoe of primary energy. Oil, natural gas and oil products are the main exported energy forms. Azerbaijan does not import significant quantities of primary energy. On the average, Azerbaijan imports under 10 percent of total consumption. Total primary energy supply (TPES) in Azerbaijan amounts 11,968 ktoe. The State Oil Company is responsible for pipeline system and oil and gas imports and exports.

#### **ENERGY TRANSFORMATION**

In 2009, total electricity production in Azerbaijan amounts 1,623 ktoe. Most of electricity is produced in gas and fuel oil fired thermal power plants (TPPs). The state company Azerenergy manages electricity generation in the country and operates eight TPPs, six HPPs and seven CHP plants. The State Oil Company is responsible for processing, refining and sale of natural gas and oil products.

#### **ENERGY CONSUMPTION**

Total final energy consumption (TFC) in Azerbaijan amounts 6,574 ktoe. The largest share in TFC is natural gas consumption (41 percent). It is followed by oil products and electricity consumption with shares of 39 and 16 percent respectively. Heat consumption is represented with 4 percent while other energy forms are not registered.

Consumption structure is as follows: industry sector uses 13 percent, transport sector 26 percent, while other sectors consume 61 percent of TFC. Share of the residential sector in other sectors category amounts 80 percent.



### 3.4. Review of available methodologies applied in the process of collecting, elaborating and processing of energy statistics data

Azerbaijan was the first country to apply the *International Recommendations for Energy Statistics* (IRES)<sup>2</sup>. The application of new classifications started in July 2011.

The new classification is characterised by comparability of data at international levels, as well as with established relations between different classifications applied at national level. For example, the national CPC (Central Product System) and HS (Harmonised System) codes are aligned with CPA and PRODCOM codes. Particularly important for Azerbaijan is the correspondence with the national versions of CPA and PRODCOM since they are used for the collection and compilation of production and consumption statistics. The national classification of energy products was developed on the basis of the Standard International Energy Product Classification (SIEC) contained in IRES. SIEC and its national adaptation provide the basis for integration of energy statistics with economic statistics: the main elements that have fostered this integration are a complete list of energy products; a clear structure of the classification; a detailed description of the categories (including the identification of exceptions); and a correspondence with other classifications.

Energy statistics indicators determine the frame of energy statistics in Azerbaijan. The SSC develops such a system, which main organisation includes two parts:

- the list of the indicators on energy statistics (full name, measurement unit, periodicity of the collection);
- the explanation of each indicator including data collection methods (surveys, census reports from enterprises and others), methodology for the calculation, level in official statistics, sources of data.

System of energy statistics indicators covers nearly 250 indicators. It covers the main energy products, including crude oil, natural gas, natural bitumen and natural asphalt, gasoline, oil and white, diesel and other petroleum products, etc. production, and the flow of resources, their export and import, etc. Preparation of indicators system is a good basis for the preparation of a corresponding questionnaire, creation of a metadata system, and explaining definitions and concepts to the respondents and it services for increasing data quality. The format of report forms is coordinated with the structure of energy balance in order to achieve reduction of respondent burden.

The main indicators, which characterise the quality of energy resources, are calorific values. The SSC cooperates closely with National Science Academy, which is responsible for determining the calorific values for 23 products.

---

<sup>2</sup> UNSD: *International Recommendations for Energy Statistics (IRES)*, New York, February 2011,

The data from the legal entities are collected online using an advanced system for electronic data collection. The SSC collects about 30 percent of data in electronic format and the rest in hard copies.

The SSC uses following forms for data collection from legal entities:

- Data on primary energy production are collected from all legal entities using electronically submitted forms to the energy producers.
- Data on energy transformations, input and output from transformation plants, are collected from refinery, chemical industry and gas plant on the quarterly base.
- Data on secondary energy production are collected using the form, which is submitted to the producers of oil products, electricity and heat. Data on secondary energy forms consumption is collected from the consumers as well.
- Data on energy products production are collected in the following manner: monthly from large enterprises, quarterly from small enterprises and yearly from natural persons.
- On the basis of the agreement with the State Customs Committee on electronic exchange of data on imports and exports, the SSC receives monthly reports and these data are stored in a separate database.
- Data on stocks are collected monthly from all users of energy products; this includes data on aviation and international bunkers.
- Data on energy distribution are collected on a monthly basis from the all enterprises that distribute energy.

In addition to the data collected via the specific forms submitted to the energy producers and suppliers, the SSC collects additional data from the business registers, enterprise surveys and other administrative data.

With the purpose of obtaining information on fuel and energy consumption in households, during the year 2010, SSC organised and conducted statistical survey with a sample of 18,477 households. The sample covered all regions in Azerbaijan including Baku city.

The SSC has developed a specific methodology for surveying the household sector. The sample is selected from the population census and probability for the selection is equal for all households. All the territorial administrative units in Azerbaijan are classified into two groups: the urban and the rural area. Cluster analysis and selection of the random sample were performed using the SPSS tool. The response rate in the household sector is about 75 percent.

The SSC publishes reporting forms on the official web and it is possible to submit the surveys online.

### **3.5. Energy balances compilation and their submission to the IEA**

The SSC has adopted the framework for energy balances compilation, which is based on the IRES recommendations to the national statistics institutes. The concept of the SSC's methodology includes commodity balances for 23 energy products. The availability of detailed energy balances has fostered transparency of the energy sector. It provides to policy makers necessary statistical information for decision making and policy planning.

SSC compiles energy balances annually and publishes them in the annual publication “Energy balance of Azerbaijan,” which is available online at [www.azstat.org](http://www.azstat.org). This publication includes energy indicators, fuel and energy balances and energy efficiency indicators. All energy data is compiled at country level and at regional level as well.

The statistical yearbook “Energy Balance of Azerbaijan” includes indicators on energy sector, energy and commodity balances, and energy efficiency indicators. It is published annually and distributed free of charge. The yearbook is available in PDF format at the official website of the SSC and is accessible to all users ([www.stat.gov.az](http://www.stat.gov.az)).

Official website of the SSC of the Republic of Azerbaijan publishes following data on energy statistics and energy balances: consumptions (electricity, crude oil, natural gas and refining products), commodity balances (crude oil, LPG, motor gasoline, kerosene, diesel fuel, naphtha, petroleum coke, and others), exchange activities and others.

The energy balance and publication “Energy Balances of Azerbaijan 2011” based on the IRES standard was published six months after the adoption of the IRES standards. A lot of work has been done in Azerbaijan to strengthen the energy statistics and align it with international statistical standards.

The new national recommendations for energy statistics were prepared by the SSC and approved by the decrees of the SSC Board and decrees of State Committee on Standardization, Meteorology and Patent of the Republic of Azerbaijan in 2011. These approvals follow the recommendations from national agencies, which implement energy policy of the country. Application of the new classifications started in July 2011.

### **3.6. Reporting on monthly energy statistics**

The SSC produces monthly energy statistics reports and they are available on the official web. The SSC cooperates closely with IEA, JODI, UNSD, World oil, etc.

### **3.7. Reporting on energy prices**

In the submitted uniform questionnaire, the SSC reported that it publishes energy prices. The prices are published on the official web.

### **3.8. Energy and energy indicators reporting**

The SSC develops a system of indicators, which are used based on energy statistics. They are aligned with the standards of the IEA, UN and EU.

The SSC develops, compiles and publishes different types of energy indicators and related indicators in the energy sector:

- main economic indicators in the manufacturing industry,
- main economic indicators in the oil and gas industry,

- main economic indicators in the oil refining industry,
- main economic industry in the energy distribution sector (electricity, gas and heat),
- main indicators on energy consumption and energy intensity.

For example, when analyzing indicators on macro level, indicators on energy consumption and intensities include following energy consumption per inhabitant, energy intensity, electricity intensities, emissions from energy sectors and others.

The energy indicators are published on the official web:

[http://www.azstat.org/statinfo/balance\\_fuel/en/index.shtml#](http://www.azstat.org/statinfo/balance_fuel/en/index.shtml#)

#### 4. ENERGY STATISTICS ACTION PLAN 2012 - 2015

Azerbaijan recognised a strong need for the improvement of energy statistics and balances few years ago. The structure of previous formats used, a heritage from the former USSR, did not reflect recent developments in the energy sector. A number of shortcomings were identified: lack of detailed information on the transformation and consumption by different sectors, different codes, non-coverage of all energy products, etc. Subsequently, on the basis of the UNSD and Oslo group's *IRES recommendations*, Azerbaijan adopted new formats, which are harmonised with international standards and are implemented today.

The background for the activities mentioned above lies in the recognition of the importance of energy sector in the country and an enormous demand for comprehensive, reliable and timely official energy statistics that should follow changes in the global energy market. There is a strong political will to support and implement development of energy statistics in Azerbaijan. Thus, energy statistics was introduced in the *Program on Improvement of Official Statistics in the Republic of Azerbaijan 2008-2012* as one of the priority areas.

Assessment of the Azerbaijan energy statistics system for the purpose of ESAP development is based on main inputs gathered during the on-site mission and on officially available documentation about the success and progress of energy statistics realized in recent years. Assessment of the overall statistics system is presented in *The Global Assessment of the National System of Official Statistics of Republic of Azerbaijan (2011)*<sup>3</sup>, and energy statistics is assessed by UNSD in the paper: Country practice in energy statistics – country Azerbaijan

---

<sup>3</sup> European Commission (Eurostat), European Free Trade Association (EFTA), and United Nations Economic Commission for Europe (UNECE) *Adapted Global Assessment of the National Statistical System of Azerbaijan, Final version, 2011*, ([http://epp.eurostat.ec.europa.eu/portal/page/portal/european\\_neighbourhood\\_policy/documents/2011-01-13%20Final%20Assessment%20Report%20AGA%20Azerbaijan.pdf](http://epp.eurostat.ec.europa.eu/portal/page/portal/european_neighbourhood_policy/documents/2011-01-13%20Final%20Assessment%20Report%20AGA%20Azerbaijan.pdf))

(2012)<sup>4</sup>. The second document was used as major source for the completion of the ITS experts' data gathered during the inception mission in Azerbaijan.

The overall harmonisation process began in 2006 and lasted several years<sup>5</sup>. In the period 2006-2007, the NSS put efforts on learning the IEA/EUROSTAT methodologies and concepts on energy balance structure. In February 2007, it developed its first harmonised model and after that started discussions with IEA, participation in different seminars and establishment of the working group. In December 2007, the SSC created the *Agreement on the structure of the energy balance* together with all relevant governmental organisations. The Agreement was submitted to the Cabinet of Ministries for adoption. Since 2008, energy balance is harmonised with IEA/EUROSTAT standards and in 2011 is compiled based on IRES standards.

Although energy statistics and energy balance are harmonised with the international standards, extensive discussions during the inception meeting with the representatives from the SSC identified that some issues should also be addressed. For example, one of the issues is the low response rate from private enterprises, missing statistics on renewable energies and development of energy and energy efficiency indicators.

#### **4.1. Key area 1: Legal and institutional framework strengthening**

The legal basis for the collection and compilation of energy statistics in Azerbaijan, as it is defined by the Law on Official Statistics of the Republic of Azerbaijan, is quite strong. *The Global Assessment of the National Statistical System* of the Republic of Azerbaijan noted in the part of its main conclusions the following attributes: the professional independence of national statistical system and principles of objectivity and fairness. Also, the Assessment pointed out that the SSC has a clear mandate to collect data, including data from individuals and administrative sources and that it plays a central role as a producer of official statistics and is the coordinator of the national statistical system, producing (in cooperation with regional bodies) about 80% of official statistics. Additionally, Assessment in its conclusions brings the following:

*“Energy statistics in Azerbaijan has undergone a significant development in recent years and new initiatives have been undertaken or are planned for the near future. Taking into account its importance in Azerbaijan, the continuous process of the increase of availability and quality of statistics is highly desirable. The improvements in data availability and timeliness of data are related to statistics presented on the website of the SSC, which concerns mainly energy balances”.*

---

<sup>4</sup> *United Nations Statistical Division (UNSD): Country practice in energy statistics – country Azerbaijan (2012)*<sup>4</sup>

<sup>5</sup> *Rauf Gurbanov: Experience of Azerbaijan on compilation of Energy Balance, International Workshop on Energy Statistics, Baku, Azerbaijan, 27-30 September 2011*

At the moment, the SSC of Azerbaijan has enough staff employed in the energy statistics and ITS experts evaluate that there is no need for the further enlargement. They are capable for performing additional improvements in the energy data collection, compilation and dissemination as well as in the energy balances compilation.

One of the major problems in data collection is low response rate from private companies and small enterprises, which do not regularly submit data. The SSC should find the proper mechanism to legally oblige such reporting units to submit reports on energy production and consumption.

ITS project can provide assistance to the SSC in the realisation of the new state program for the period 2013 – 2017 (**ITS TA 1.2**) with aim to introduce proper sequence of the activities, which will improve existing concepts of the data collection from statistical sources, administrative sources and from other relevant stakeholders.

#### **4.2. Key area 2: Development of a reporting system based on international (IEA /EUROSTAT) standards**

During the bilateral meeting with the SSC of Azerbaijan in the inception phase of the ITS project, it was recorded that the SSC is interested in further improvement of capacity building and is especially interested in the examples of the good practices and related study tours. In addition, the SSC has shown interest to improve energy statistics, especially in the field of energy balances and statistics on renewable energies (fuel wood). Therefore, it is suggested to the SSC of Azerbaijan to review firstly, the forms submitted to the reporting units and methodologies applied in the surveying procedures.

- **Improvement of the methodologies for the collection, compilation, quality control and dissemination of energy statistics**

The ITS experts propose the implementation of a **specific technical assistance** (ITS TA – 2.2) which would **aim to improve the methodologies and processes of collecting, compiling, controlling and disseminating data**. The task of this activity is to revise the existing concept of the energy statistics system. The ITS expert team will revise the methodologies and procedures applied for data collection (supply and final energy consumption) and where is necessary will propose suggestions for system improvement.

- **Assistance during the organisation and implementation of the surveys on final energy consumption**

As it was described in chapter 3.4 the SSC, the Republic of Azerbaijan implements an annual survey on energy consumption in enterprises.

In last few years, during the implementation of the surveys on energy consumption in the enterprises sector, the SSC was faced with the problem that the activities of private persons were not covered, Because of this reason the SSC considers that this group of consumers requires the development of a new, improved survey methodology.

The ITS team can support the SSC in the improvement of a survey on energy consumption in the private sector (privately owned companies). ITS expert team will provide the SSC with short on-site training when it will present the best practices in the surveying of such consumer groups and will additionally provide recommendations for the survey methodology and plan for the implementation according to the circumstances in Azerbaijan. This will include proposals for the definition of the sample size; selection of the sample, content of the questionnaires, IT support for data management, etc. Also, the ITS expert team can provide assistance and supervision during the implementation of survey and compilation of the final energy balance (**ITS TA 2.3**).

Beside the survey in the enterprises sector, which is conducted annually, in 2010 the SSU for the first time conducted a survey in the household sector. The SSC showed an interest for further improving of the methodological concept of this survey (including determining the frequency of the survey in the following years) and it showed an interest for a better usage of the collected data.

Within the framework of the technical assistance (**ITS TA 2.3**) the ITS expert team will review the concept and propose improvements in survey methodology for the household sector (special attention will be paid to the structure and content of the questions in the questionnaire). Also, the ITS expert team will assess whether the sample size of 18,500 households is too big for Azerbaijan circumstances.

When the frequency of the survey in household sector is concerned, it should be noted that these types of research are time-consuming and expensive. So, it is not expected that Azerbaijan will conduct such surveys every year. Within the framework of the same activity, the ITS expert team will suggest to the SSC how often it should repeat surveys and in what extension. If the SSC decides to repeat the survey in households in the year 2013 or 2014, the ITS expert team will assist in the organisation of the survey and elaboration of new data on energy consumption gathered from the improved questions, and in the final energy balance compilation.

Additionally, the ITS expert team will propose to SSC to expand existing questionnaires in the sector of enterprises and households with additional questions, which will be used later for the energy efficiency indicators development.

The main results of the activities listed above will be improved final energy consumption balance, which will, besides the data on conventional energy sources consumption, also include data on renewable energy consumption. During the development of the surveying procedure particular emphasis will be put on the concept of collecting fuel wood and other renewable energy data. Also, the ITS expert team will propose the development of new energy indicators, e.g. indicators related to renewable energies.

Within the framework of this activity, the ITS expert team will assist the SSC in the preparation of the metadata system applied for energy statistics.

- **Reconstruction of data from the energy surveys in the years after the reference year**

The ITS expert team plans to **implement special ITS TA – 2.5** activity which will include on-site training, the aim of which is to explain how to calibrate data from the survey in 2010 in

the following years with updated data collected from administrative and other sources. The ITS will also provide assistance in the calibration of data for 2012.

#### **4.3. Key area 3: Energy balances compilation and submission of the questionnaires to the IEA**

In the submitted questionnaire, the SSC of the Republic of Azerbaijan has expressed the need for improvement of the quality of commodity balances. The ITS expert team proposes to provide assistance through the implementation of the following activities:

- **Assistance in the energy balance compilation** (ITS TA – 3.1) based on the international and European standards

The aim of the ITS TA – 3.1 activity is to increase the capacity of Azerbaijan’s statisticians in the area of the energy balance compilation and to provide assistance in the improvement of the missing balances - energy balance for renewable energy sources.

The activity will include a training on the elaboration of data gathered from the improved and new forms and surveys on energy consumption (households, public and private sector) and assistance in the energy balance compilation based on the new data.

The implementation of the activities can start at the beginning of the 2013, and the result will be the energy balance for the year 2012, this time schedule depends on the availability of data on renewable energy (fuel wood).

The main outcomes of this activity will be the improved energy balance and improved IEA questionnaires in the area of the final energy consumption and renewable energy sources.

#### **4.4. Key area 4: Development of a reporting system for monthly energy statistics**

The State Statistical Committee of the Republic of Azerbaijan publishes regularly monthly and quarterly energy statistics. The data can be found on the official web site of the SSC.

#### **4.5. Key area 5: Development of a reporting system on energy prices**

The State Statistical Committee of the Republic of Azerbaijan publishes statistics on energy prices regularly.

As energy prices reporting is not the main priority of the ESAP of Azerbaijan, the ITS expert team intends to implement a more comprehensive analysis of the pricing conditions in 2013.



After that, it will propose a common concept for data prices compilation and dissemination for all PCs.

In Azerbaijan, the electricity sector is characterized by vertically integrated monopoly managed by Azerenergy. The same situation is with the gas sector.

Although the development of a reporting system on energy prices from INOGATE's side is envisaged in 2014, the SSC will be invited, in 2013 and 2014, to participate in common events (workshops/conferences) where invited NSIs and other stakeholders will have the possibility to learn more about energy prices reporting from other INOGATE partner countries. In addition, Azerbaijan stakeholders will have available other information from various INOGATE's communication activities

The Action Plan estimates that additional technical assistance in this area will be needed, however this assistance cannot be provided by the ITS project.

#### **4.6. Key area 6: Development of a reporting system on energy and energy efficiency indicators**

The main energy indicators are related to data other than energy statistics, as, for example, national accounts (gross domestic product, value added, population, employed persons, etc.), trade and other statistics. The reliability and accuracy of these indicators depend on the quality and consistency of all input data. The energy indicators statistics system of Azerbaijan covers almost 250 indicators divided in the 22 groups.

However, the energy efficiency indicators, besides being dependent on energy consumption, also rely on a number of other factors, and require the collection of additional data, which is not available in the main statistics. Energy efficiency indicators are based mostly on the data gathered from extensive surveys on the characteristics of energy consumption, the technology used, building characteristics and other factors in different consumption sectors (industry, transport, households, and services). Besides statistical analysis, the energy efficiency indicators require specific professional skills, like energy modelling and similar analytical skills related to the identification of end use energy consumption.

- **Review of data available for energy indicators compilation and development of the new indicators**

The special activity **ITS TA 5.1 can be applied in the evaluation of the possibilities for the development of energy indicators**. During the year 2013, the SSC of the Republic of Azerbaijan with ITS expert assistance will initially explore the availability of all data needed for the calculation of the main energy indicators, and will develop additional indicators according to international methodologies.

- **Development of the methodology for energy efficiency indicators development, monitoring and evaluation**

ITS expert team estimates that the SSC of Azerbaijan has enough prerequisites to develop energy efficiency indicators. So, the ITS project can offer implementation of the following

activities: **ITS TA-5.2, -5.3**. The aim of these activities is to provide a transparent methodology for monitoring and verification of energy savings and an easy to use and cost-effective tool for calculating energy efficiency indicators. The ITS expert team will provide the SSC of Azerbaijan with a training on the principles of the methodology used on the application of the software tool for the monitoring of the energy efficiency indicators.

Besides the ITS technical assistance, the ITS project offers other ways to increase the capacities in the field of the energy efficiency indicators development to the Partner Countries.

In 2014, following the joint INOGATE and IEA Energy Statistics and Indicators Training in Tbilisi, Georgia (5 – 9 November 2012), the ITS project plans to implement additional regional activities related with this topic such as a study tour and regional workshops (RA 5).

A study tour will include, in addition to a visit to an advanced NSI in energy statistics and energy balances, a provision of a short training/workshop on energy and energy efficiency indicators (RA 5).

Also, in 2013 and 2014, during the international conference: *Achievement of the Energy Statistics Action Plans* and workshop: *Achievement of Energy statistics action plan and other activities* (RA 6), the NSI of Azerbaijan will be able to observe the progress and improvement of energy efficiency indicators in some Partner Countries. It is expected that until the date of the international conference and workshop, the State Statistics Committee of the Republic of Azerbaijan will achieve valuable results in the field of energy efficiency indicators and will serve as good example to other countries.

The ITS project will disseminate project results on the official INOGATE website during the implementation phase together with various other communication activities planned in the framework of the ITS project.

## 5. NEEDED RESOURCES FOR THE ACTION PLAN IMPLEMENTATION AND SUPPORT FROM THE ITS PROJECT

In order to achieve target goals described in the previous chapter, the SSC of the Republic of Azerbaijan and the other main stakeholders in energy statistics should have certain resources at their disposal to implement the proposed activities.

In this Action Plan, resources are expressed in terms of:

- total needed expert **Technical assistance (TA)** for overall activities envisaged under this Action Plan (man/days),
- **ITS Technical assistance** at country level - **ITS TA** (man/days) and **ITS Regional assistance -ITS RA**, as support to the implementation of the selected activities;

- the engagement of the **local experts (ITS - LE)** for the implementation of the specific tasks within particular activities (man/days),
- needed availability of the existing **human capacities (HC)** within energy statistics system in the Partner Country (Azerbaijan), which will have to actively participate in the implementation of the Action Plan (man/days),
- estimation of the needs for **new additional staff (NS)** in Partner Country in the field of energy statistics (man/year), in case where such staff does not exist or where existing capacities are not sufficient to implement targeted actions.

The estimation of all resources needed for the implementation of Azerbaijan's Action Plan is presented in the Table 5-1.

Total **Technical assistance (TA)** is based on the estimates of the needed professional consultation services, expressed in man/day units. These services include on-site trainings, small workshops, personal education, etc. **Technical assistance from ITS project (ITS TA)** is assistance to the selected activities, which maximally contribute to the energy statistics progress.

Engagement of **local experts** within ITS project (**ITS LE**) is envisaged mostly in cases where implementation of surveys on energy consumption is planned. The implementation of energy surveys strongly depends on the existence of certain prerequisites such as supporting Programs in NSIs, available human resources, and others. If the Partner Country can ensure budget for the conduct of surveys, the ITS project will provide technical assistance for methodologies development and implementation.. At the moment, the Action Plan foresees the improvement of surveys for the private companies. ITS project will provide assistance only in methodology development.

In order to ensure the implementation of the activities defined in the Action Plan, the PCs need to ensure the availability of appropriate staff or **human capacities (HC)**, which will actively participate in the implementation of the activities. In cases where the necessary capacity does not exist, the Action Plan estimates the needs for the employment of **new staff (NS)**, which are expressed in man units. In the case of Azerbaijan, the ITS project estimates that the employment of new personnel is not needed.

**The total technical assistance in Azerbaijan is estimated to 46 man/days, and the ITS project support can provide 41 man/days of the assistance needed.** Azerbaijan is requested to put at the disposal of the ITS expert team, a total amount of 64 man/days of its own expert in energy statistics. There is no need for additional employment in SSC for energy statistics activities.

The breakdown of the resources by key areas is presented in table 5-2, while more detailed presentation of the implementation schedule of certain activities (horizontal and vertical activities), including breakdown of resources, is shown in table 5-3.

**Table 5-1:** Resources for Azerbaijan’s Energy Statistics Action Plan 2012 – 2015 implementation

Years	2012			2013				2014			
	total	3	4	1	2	3	4	1	2	3	4
<b>Technical assistance (TA):</b>											
Total technical assistance, man/days	46	0	0	18	4	7	7	0	5	0	5
ITS TA, man/day	41	0	0	18	4	7	7	0	0	0	5
ITS LE, man/day	0	0	0	0	0	0	0	0	0	0	0
<b>Human capacities (HC) in Project country</b>											
Total, man/day	69	0	0	21	7	12	14	0	5	0	10
<b>Additional employment</b>											
Total, man/year											

**Table 5-2: Specification of the resources for the Azerbaijan's Energy Statistics Action Plan 2012 – 2015 implementation**

Years	2012			2013			2014				
Quarters	total	3	4	1	2	3	4	1	2	3	4
<b>TA 1. Development/improvement of Legal and Institutional Framework including:</b>											
TA, man/day	2	0	0	2	0	0	0	0	0	0	0
ITS TA, man/day	2	0	0	2	0	0	0	0	0	0	0
ITS LE, man/day	0	0	0	0	0	0	0	0	0	0	0
HC, man/day	4	0	0	4	0	0	0	0	0	0	0
<b>TA 2. Improvement of the data collection, compilation, management and analyzing in line with EU and international standards</b>											
TA, man/day	18	0	0	15	1	2	0	0	0	0	0
ITS TA, man/day	18	0	0	15	1	2	0	0	0	0	0
ITS LE, man/day	0	0	0	0	0	0	0	0	0	0	0
HC, man/day	18	0	0	15	1	2	0	0	0	0	0
Surveys on energy consumption, thous. €											
<i>Industry - 0 units</i>	0										
<i>Transport - 0 units</i>	0										
<i>Households - 0 units</i>	0										
<i>Service - 0 units</i>	0										
<i>Others (agriculture, construction...) - 0 units</i>	0										
<b>TA 3. Energy and commodity balance compilation in line with EUROSTAT/IEA methodologies</b>											
TA, man/day	12	0	0	0	0	0	7	0	0	0	5
ITS TA, man/day	12	0	0	0	0	0	7	0	0	0	5
ITS LE, man/day	0	0	0	0	0	0	0	0	0	0	0
HC, man/day	24	0	0	0	0	0	14	0	0	0	10
<b>TA 4. Development of the reporting system on energy prices</b>											
TA, man/day	5	0	0	0	0	0	0	0	5	0	0
ITS TA, man/day	0	0	0	0	0	0	0	0	0	0	0
ITS LE, man/day	0	0	0	0	0	0	0	0	0	0	0
HC, man/day	0	0	0	0	0	0	0	0	0	0	0
<b>TA 5. Development of the energy and energy efficiency indicators</b>											
TA, man/day	9	0	0	3	3	3	0	0	0	0	0
ITS TA, man/day	9	0	0	3	3	3	0	0	0	0	0
LE, man/day	0	0	0	0	0	0	0	0	0	0	0
HC, man/day	18	0	0	6	6	6	0	0	0	0	0
<b>TOTAL</b>											
TA, man/day	46	0	0	18	4	7	7	0	5	0	5
ITS TA, man/day	41	0	0	18	4	7	7	0	0	0	5
LE, man/day	0	0	0	0	0	0	0	0	0	0	0
HC, man/day	69	0	0	21	7	12	14	0	5	0	10

**Table 5-3: Energy Statistics Action Plan 2012 – 2014 for Azerbaijan: Technical assistance (TA) and Regional activities (RA)**

A) Technical assistance (TA)

	Main stakehold.	Needed TA, man/days	ITS support, (ITS TA)	2012		2013		2014	
				3	4	1	2	3	4
				1	2	3	4		
<b>TA 1. Development/improvement of Legal and Institutional Framework including:</b>									
1.1 Proposals for the appropriate legal framework									
1.2 Energy statistics strategies and programs (short/long-term)	SSC	2	yes						
1.3 Institutional relationship between main stakeholders									
1.4 Capacity building on institutional organisation									
1.5 Capacity building on the integration of the energy statistics and energy planning									
<b>TA 2. Improvement of the data collection, compilation, management and analyzing in line with EU and international standards</b>									
<b>2.1.Capacity building on EU and International Energy Statistics Standards</b>									
Introduction of the EU standards into energy statistics system									
<b>2.2. Development/improvement of the reporting system</b>									
Energy supply data (production, imports, exports, international marine bunker, stock )	SSC	2	yes						
Energy transformations (electricity and heat, petroleum products, coal derived fuels, LNG, CNG, ...)	SSC	2	yes						
Final consumption (industry, transport, non-energy, other sectors: residential, services, agriculture, .....)	SSC	2	yes						
Dissemination of the improved forms, data collection and elaboration from energy reporting units	SSC	4	yes						
Monthly statistics (M-3), (M-1)									
<b>2.3. Development/improvement of the surveys for the final energy consumption data collection:</b>									
Industry	SSC	2	yes						
Transport	SSC	1	yes						
Households	SSC	1	yes						
Service	SSC	1	yes						
Others (agriculture, construction...)	SSC	1	yes						

2.4. Adaptation of the existing surveys to the research on energy consumption

2.5 Reconstruction of the data from energy surveys in the years after the reference year

SSC 2 yes



**TA 3. Energy and commodity balance compilation in line with EUROSTAT/IEA methodologies**

3.1. Compilation of the commodity balances (2011, 2012, 2013):

Electricity and heat

SSC 2 yes



Natural gas

SSC 2 yes



Oil

SSC 2 yes



Solid fossil fuels and manufactured gas

SSC 2 yes



Renewable and waste

SSC 2 yes



3.2. Application of the simple tool for the energy balance compilation:

Application and adoption of the user friendly tool for the energy balance compilation

Energy supply balance compilation

Energy transformation balance compilation

Balance on final energy consumption

3.3. Dissemination of annual energy questionnaires to IEA:

Electricity and heat, Natural Gas, Oil, Solid fossil fuels and manufactured gas, Renewable and waste

SSC 2 yes



3.4. Monthly energy statistics reporting

Dissemination of monthly energy balances (M-3), (M-1)

**TA 4. Development of the reporting system on energy prices**

4.1. Development of the methodology for:

a) electricity and gas prices reporting for industrial customers and households (EUROSTAT)

SSC 2



b) energy prices reporting (IEA)

SSC 2



4.2. Dissemination of the reports on gas and electricity prices

SSC 2



**TA 5. Development of the energy and energy efficiency indicators**

5.1 Review of the data available for energy indicators compilation, assessment of the needed data

SSC 3 yes



5.2 Development of the methodology for energy indicators monitoring and verification

SSC 3 yes



5.3 Adaptation, training and application of the user friendly tool for the energy indicators calculation

SSC 3 yes



B) and Regional activities (RA)

REGIONAL ACTIVITIES	Duration in days	2012		2013				2014			
		3	4	1	2	3	4	1	2	3	4
<b>RA 1: Development/improvement of the Legal and Institutional Framework</b>											
1st workshop: Energy Statistics Network meeting: Development of ESAP and establishment of ESN, 25-26 September 2012	2	■									
International Conference on Raising Awareness on the Importance of Energy Statistics for National Policies, April 2013	2			■							
Support to the national meeting on the importance of energy statistics for national policies	1			■							
Support to the national meeting on the division of the labour and data sharing among stakeholders	1			■							
<b>RA 2: Improvement of the data collection, compilation, management and analysing in line with EU and international standards</b>											
Study tour on energy statistics and balances with special emphasis on surveys on final energy consumption	5			■							
International conference on the quality of energy data	2					■					
<b>RA 3. Energy and commodity balance compilation in line with EUROSTAT/IEA methodologies</b>											
Study tour on energy statistics and balances with special emphasis on the development of the 5 energy IEA/EUROSTAT questionnaires	5					■					
<b>RA 4. Development of the reporting system on energy prices</b>											
This activity will be combined with RA 5. activity at a later stage of the project.											
<b>RA 5. Development of the reporting system on energy and energy efficiency indicators</b>											
Study tour on energy statistics and balances with special emphasis on energy efficiency indicators	5								■		
Study tour on energy statistics and balances with special emphasis on energy indicators and planning for the energy strategies									■		
<b>RA 6. Evaluation of the achieved results</b>											
International conference on the achievements in the Energy Statistics Action Plans	2									■	
Workshop on the Achievement of Energy Statistics Action Plans & other activities	2							■			



## **ANNEX 1 – LIST OF THE MEETINGS DURING THE INCEPTION MISSION**

### **Meeting with the delegation of the European Union to the Republic of Azerbaijan: EU Twinning Project with the SSC**

Participants:

- Christophe Casillas, Project Manager, European Union , Delegation of the European Union to the Republic of Azerbaijan , 90A Nizami Street, Landmark III, 11th Floor, Baku, AZ 1010, Azerbaijan, Tel. +994 12 497 20 63 ext. 37 , Fax: +994 12 497 20 69 . E-mail: Santiago.CASILLAS-VACHER@eeas.europa.eu
- Gloria Aguinaldo, KE, ITS

### **Meeting with the State Statistical Committee of Azerbaijan**

Participants:

- Rauf Qurbanov, Head, Energy Statistics Section, Baku, 136 Inchaatchilar Avenue, E-mail: raufg@azstat.org
- Nargiz Babayeva, Statistician, Energy Statistics Section, E-mail: natalyam@azstat.org, Tel. no.: +994 12 538 7691
- Natalya Sivkova, Statistician, Energy Statistics Section, E-mail: natalyam@azstat.org, Tel. no.: +994 12 538 7691
- Gloria Aguinaldo, KE, ITS
- Damir Pešut, STE, ITS

### **Meeting with the Economic Research Centre (ERC)**

Participants:

- Gubad Bayramov Ibadoglu, Chairman, Economic Research Centre, LifeLifeCenter Bld III, 2nd Floor, Ahmad Rajabli str. 5a, room 82, Baku, Azerbaijan Az1052, Phone: (+99412) 465 1841, Fax: (+99412) 465 18 47, E-mail: gubad.ibadoglu@gmail.com
- Gloria Aguinaldo, KE, ITS

## ANNEX 2 – AREAS FOR TECHNICAL ASSISTANCES UNDER THE ITS PROJECT

### 5.1. List of the activities

Key area	Indicative Technical Assistance under the ITS
<p><b>TA-1</b></p> <p><b>Development/improvement of the Legal and Institutional Framework</b></p>	<p><b>TA-1.1.</b> Development of the appropriate legal framework for energy statistics (laws, sub laws, strategies, plans)</p> <p><b>TA -1.2.</b> Development of long-term energy statistics strategies and programs for data collection and compilation</p> <p><b>TA-1.3.</b> Improvement of institutional relationship on energy statistics</p> <p><b>TA-1.4.</b> Capacity building on the institutional organisation for energy statistics</p> <p><b>TA-1.5.</b> Capacity building on the integration of energy statistics and energy planning procedures</p>
<p><b>TA-2</b></p> <p><b>Improvement of the data collection, compilation, management and analysing in line with EU and international standards</b></p>	<p><b>TA-2.1.</b> Capacity building on the EU and International Energy Statistics Standards</p> <p><b>TA- 2.2.</b> Improvement of the methodologies for the collection, compilation, control and dissemination of energy statistics</p> <p><b>TA - 2.3.</b> Assistance/capacity building during the organisation and implementation of the surveys on final energy consumption, provision of a user-friendly tool for the management and compilation of energy data gathered from the surveys</p> <p><b>TA – 2.4</b> Adaptation of the existing (household) sector surveys to the research on energy consumption</p> <p><b>TA – 2.5.</b> Reconstruction of data from the energy surveys in the years after the reference year</p>
<p><b>TA-3</b></p> <p><b>Assistance in the compilation of energy and commodity balances</b></p>	<p><b>TA – 3.1.</b> Assistance in the completion of the national energy balance for (2011, 2012 or 2013) and harmonization with EUROSTAT/IEA/UNECE methodologies and standards;</p> <p><b>TA – 3.2.</b> Adaptation and training in the application of a user friendly software tool for energy balance compilation;</p> <p><b>TA – 3.3.</b> Compilation of annual energy data in defined questionnaires and submission to the EUROSTAT/IEA.</p> <p><b>TA – 3.4.</b> Development of monthly energy data reports compliant with EUROSTAT/IEA standards (M-1, M-3)</p>
<p><b>TA-4</b></p> <p><b>Development of a reporting</b></p>	<p><b>TA – 4.1.</b> Development of a methodology for gas prices reporting</p>

---

<b>system on energy prices</b>	<b>TA – 4.1.</b> Development of a methodology for electricity prices reporting <b>TA – 4.2.</b> Reporting on gas and electricity prices
<b>TA--5</b>	<b>Development of a reporting system on energy (efficiency) indicators</b>
	<b>TA – 5.1.</b> Review of data available for energy indicators compilation, assessment of the needed data <b>TA – 5.2.</b> Development of a methodology for energy (efficiency) indicators monitoring and verification <b>TA – 5.3.</b> Adaptation, training and application of a user friendly tool for calculating energy (efficiency) indicators

---

## 5.2. Brief description of the indicative Technical assistances (TA) under the ITS project

### TA- 1. Development/improvement of the Institutional and Legal Framework

#### TA -1.1. Proposals for the appropriate legal framework for energy statistics

This activity aims to identify gaps in the existing legal framework for the collection, compilation, maintenance, dissemination and confidentiality of energy data, and to propose the content of new laws.

#### TA -1.2. Assistance in the development of long-term energy statistics strategies and programs for a timely and reliable data collection and compilation

This activity includes proposals for the development of the following programs:

- collection and compilation of data from energy suppliers, energy industries, energy consumers (final energy consumption surveys);
- elaboration of the procedures for the collection of data from intermediate sources, analysis of the overlapping with other requests;
- development of a list of required activities and identification of the stakeholders involved in their implementation.

#### TA -1.3. Development of the institutional organisation

The establishment of an appropriate institutional organisation among relevant stakeholders involved in the collection, compilation, standardization and dissemination of energy statistics is crucial for the “energy statistics system effectiveness” and will result in the following:

- a data collection system based on “minimum cost” and on the avoidance of the duplication of the stakeholders’ work,
- coordination mechanisms for monitoring the performance of the national energy statistics system,
- additional motivation of relevant stakeholders to actively participate in the system.

#### TA -1.4. Capacity building on the institutional organisation for energy statistics

This activity will be implemented by organising common meetings with relevant stakeholders in order to provide capacity building in the NSI and of other staff involved in the NSS:

- educating statisticians/experts in the NSIs, the responsible ministries, energy suppliers and industries, energy agencies/committees, energy planning and policy commissions about their roles and obligations in the institutional organisation,

- initiating common discussions and a dialogue about the national statistics legislation or relevant administrative regulation and institutional organisation, in order to establish a solid foundation for a good quality and timely energy statistics,
- increasing the awareness of the importance of timely and reliable energy data.

#### TA -1.5. Capacity building on the integration of energy statistics and energy planning procedures

The aim of this activity is to additionally educate experts and statisticians from the NSIs, responsible ministries, energy suppliers and industries, energy agencies/committees, energy planning and policy commissions about the importance of the integration of methodologies applied to short and long term energy planning and of an accurate, reliable and timely reporting of the official energy statistics and balances.

### **TA -2. Improvement of the energy data collection, compilation, maintenance and dissemination in line with EU and international standards**

#### TA -2.1. Capacity building on the EU and International Energy Statistics Standards

This activity will provide trainings in the standards applied to energy measurement units and conversion equivalents, energy commodity flows relevant in energy statistics: production, external trade, international marine bunkers, stocks, fuel transformation and final consumption.

#### TA -2.2. Improvement of the methodologies for the collection, compilation, quality control and dissemination of energy statistics

The following list of activities comprises actions, which will be provided through on-site training and expert assistance for:

- detailed identification of energy flows in the production, supply, transformation and consumption sectors,
- development/improvement of forms for administrative energy data reporting (annual, quarterly, monthly),
- development/improvement of information collecting from statistical data sources (census, surveys),
- development of data compilation methods: data validation and editing, calculation of missing data, estimation of population characteristics,
- development of a database for the organisation and management of energy data,
- development of a dissemination policy (reference period and data dissemination timetable, dissemination formats, metadata and quality reports).

#### TA -2.3. Assistance during the organisation and implementation of the surveys on final energy consumption

The following list of activities comprises actions that can be provided through on-site training and direct expert assistance for the following:

- definition of the sample size and the selection of a sample, the design of the questionnaire, training and education of interviewers, development of a database for the organisation of data, analysis procedure, final energy balance compilation,
- adoption of a model for the validation, editing, calculation of missing data and estimation of the final energy consumption balance,
- target sectors: industry, households, services, transport, construction, agriculture,
- identification of actual consumers, e.g. in the household sector.

#### TA -2.4. Adaptation of the existing surveys in the household sector to the research on energy consumption

In cases where the NSI conducts a regular, periodical (annual) survey in households on living standards, consumption etc., and where surveys on energy consumption are not envisaged in the Action Plan, a proposal for adding specific questions to the questionnaires applied in these surveys will be developed, as well as a methodology of elaborating the data gathered and the results achieved.

#### TA -2.5. Reconstruction of data from energy surveys in the years after the reference year

In cases where the energy consumption surveys will be implemented, in the years after the reference year, a calibration of data on energy consumption from the surveys and of updated data collected from administrative and other sources will be performed through on-site training and assistance.

### **TA- 3. Energy balance compilation**

#### TA -3.1. Assistance in the completion of the national energy balance, harmonisation with IEA EUROSTAT methodologies and standards

This includes on-site training and assistance in the development of the framework for the compilation and harmonisation of data on fuel and energy products during the reference period.

#### TA -3.2. Adaptation and training in the application of a user-friendly model (software tool) for the energy balance compilation

This includes the development of a user-friendly tool for energy balance compilation, as well as the training of the staff in the NSC and providing instructions on its use. The tool will work as an open

source model, which enables the presentation of energy data in a table format (columns – energy products, rows – energy flows).

#### TA -3.3. Compilation of annual energy data in defined questionnaires and submission to the EUROSTAT/IEA

This activity envisages capacity building and assistance in the completion of the five joint Eurostat/IEA/UNECE annual energy questionnaires for the years 2012/2013.

#### TA -3.4. Development of monthly energy data reports compliant with EUROSTAT/IEA standards (M-1, M-3)

This activity will result in the development of appropriate methodologies for the reporting of monthly energy data, in line with the Regulation 1099/2008 on energy statistics, and of their reporting to the IEA.

### TA – 4. Development of a reporting system on energy prices

#### TA -4.1. Development of a methodology for gas prices reporting

This includes the development of appropriate methodologies for the collection and compilation of gas energy prices, according to the Directive 2008/92/EC on the transparency of gas and electricity prices charged to households and industrial end-users.

#### TA -4.2. Development of a methodology for electricity prices reporting

This includes the development of appropriate methodologies for the collection and compilation of electricity prices, according to the Directive 2008/92/EC on the transparency of gas and electricity prices charged to households and industrial end-users.

### TA – 5. Energy (efficiency) indicators compilation and monitoring

#### TA -5.1. Review of data available for energy indicators compilation

This activity intends to review all available data in the NSI, energy agencies and other institutions, in order to evaluate the possibility for the development of energy indicators. This will include possibilities for the compilation of energy efficiency indicators, basic indicators on the security of supply, environmental issues etc.

#### TA -5.2. Provision of methodology for energy (efficiency) indicators monitoring

On the basis of available data and of a plan for gathering new data, a clear and transparent methodology for monitoring and verifying energy savings and improving energy efficiency will be developed.

#### TA -5.3. Development of a user-friendly tool for calculating energy (efficiency) indicators including the training on the use of the methodology and software

The PCs will be provided with an easy-to-use and cost-effective tool for calculating energy (efficiency) indicators. This activity will result in providing the representatives of the institutions competent for monitoring and verification of energy savings with training in using this methodology and software for the energy efficiency indicators compilation.



## ANNEX 3 – INDICATORS FOR MONITORING THE PROJECT IMPLEMENTATION AND SUCCESS

ACTIVITY	status 10/2012	status 09/2013
<b>Development / improvement of Legal and Institutional framework</b>		
Number of needed new or improved legal documents (primary and secondary) related to energy statistics	0	
Available methodology for the energy statistics and energy balances compilation harmonised with IEA/EUROSTAT/UNECE standards (yes/no)	yes	
Number of needed short/long-term development plans for energy statistics	0	
Number of experts and statisticians employed in energy statistics in the NSS and the NSI (central and regional offices)	?	
Number of experts and statisticians educated during the workshops/seminars organised by the IEA/EUROSTAT/UNECE or other relevant institutions during the last five years	?	
Number of common meetings among the key energy statistics stakeholders (data collectors and providers) held during the last five years in order to discuss energy statistics issues/energy efficiency issues.	?/?	
<b>Improvement of the data collection, compilation, management and analyses in line with EU and international standards</b>		
Applied International standards on economic activities and International standards on products and services in energy statistics (yes/no)	yes	
Number of forms officially applied in the collection of energy data/number of forms to be improved/number of new forms needed	7/3/4	
Developed and implemented methodology of the surveys on energy consumption during last 5 years in (yes/no):		
- household sector	no	
- industry sectors	no	
- services	no	
- agriculture/construction	no	
<b>Assistance in energy and commodity balance compilation</b>		
Compilation of energy and commodity balances harmonised with EUROSTAT/IEA/UNECE standards	no	
Needed application of a simple software tool for energy balance compilation (yes/no)	yes	
Submission of the energy questionnaires in defined formats to the IEA (0-5)	0	
Number of improved energy questionnaires submitted to the IEA	0	
Short-term (monthly) energy statistics compiled in line with the EC Regulation 1099/08	no	
<b>Development of a reporting system for energy prices</b>		
Reporting on electricity and gas prices (yes/no)	no	
<b>Development of energy (efficiency) indicators</b>		
Available special methodology and a simple software tool for the compilation of the disaggregated energy efficiency indicators	no	
Number of energy efficiency indicators defined in the current methodologies/number of energy efficiency indicators needed	1/35	

## ANNEX 4 – CONTACT DETAILS

Contact details of the person(s) who reviewed Draft /Proposal:

**Institution:** The State Statistical Committee of the Republic of Azerbaijan  
**Address:** Baku-AZ1136, Inshaatcilar Avenue

**Name and Surname:** Abbasaliyev Azad  
**Department:** Department of Statistics of Industry and Construction  
**Position:** Head of the Department  
**Date:** 23/01/2013

**Institution:**  
**Address:**  
**Name and Surname:**  
**Department:**  
**Position:**  
**Date:**

## ANNEX 5 – PROPOSED MANNER OF ADOPTION OF ESAP

Please choose any of the following:

- Memorandum of understanding (MoU)** - a formal alternative to a gentlemen’s agreement between the National Statistical Institute (NSI), Ministry responsible for policy making in the energy sector and the INOGATE Technical Secretariat on the implementation of the Energy Statistics Action Plan.
- Document of approval to be signed by responsible authorities in the NSI and Ministry will be enclosed with the final ESAP.
- Other manner of adoption, please suggest:  
\_\_\_\_\_