**FINAL REPORT**

NATIONAL ENERGY STATISTICS ACTION PLAN FOR THE KYRGYZ REPUBLIC

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“INOGATE Technical Secretariat and Integrated Programme in support of the Baku Initiative and the Eastern Partnership Energy Objectives”
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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 (INOGATE 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 (ESAPs) 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 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 involving several INOGATE countries (workshops, conferences, study tours, networking, national meetings) which will complement the country specific activities and be synchronised 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 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 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 against 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 synchronisation 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 Kyrgyzstan 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 the Kyrgyzstan 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 the further ESAP improvements. Suggested comments from PCs were additionally discussed and were integrated into the final Energy Statistics Action Plan.

3. ENERGY STATISTICS COUNTRY PROFILE

3.1. Legal and institutional framework

The National Statistical Committee (NSC) of the Kyrgyz Republic is a governmental body nominated to implement the state statistical activities according to the principles of professional independence and autonomy, and to coordinate activities in the field of accounting and statistics on the entire territory of the Kyrgyz Republic.

According to the Law of the Kyrgyz Republic on State Statistics (Law on Statistics) adopted and signed by the President on 2nd February 2007, and the Regulation on the National Statistics Committee, approved by the President of the Kyrgyz Republic, the National Statistical Committee of the Kyrgyz Republic is accountable to the President of the Kyrgyz Republic.

Currently, the Law on Statistics is under revision in order to establish an institutional and organisational framework for official statistics, in full conformity with the fundamental principles of the UN and the European Statistics Code of Practice. Following that, other regulatory acts (laws on the population census, the housing stock census and the agriculture census) and secondary regulations (decrees of the President) shall be amended and aligned with the updated law.

The state policy on statistics, being an integral part of the socio-economic policy of the Kyrgyz Republic, aims to provide statistical information based on a unified and scientifically
grounded methodology. Such an approach ensures comparability with international statistics and meets the growing demands of government bodies, businesses, media and public for statistical data, in order to monitor the status and trends of the national economy, economic interrelations at all levels, structural changes, industrial efficiency, and all other indicators necessary for the implementation of economic, social, demographic and environmental policies.

The Article 16 of the Law on Statistics sets forth that the respondents are obliged to provide primary statistical data to state statistical bodies as prescribed and defined in the statistical reporting documentation, and that this data cannot be altered without the permission of the state statistical bodies. The composition, scope and methodology for the preparation of the reports, as well as the addresses and the deadline for submitting the required information, are indicated in statistical reporting documentation.

The Article 17 of the Law on State Statistics refers to the usage of and the access to the statistical information: i.e., public and local self-government authorities, legal entities and natural persons shall have free access to aggregated statistical information needed to perform their tasks and functions.

The system of the state statistical bodies of the Kyrgyz Republic consists of the following:

- the National Statistical Committee of the Kyrgyz Republic;
- local bureaus of state statistics, established by the NSC in provinces, cities and districts, subordinated to the NSC; and
- other state statistical bodies – enterprises, organisations and institutions, established by the NSC in accordance with the relevant legislation of the Kyrgyz Republic, in order to carry out specific functional tasks for the NSC.

The major tasks of the state statistical bodies are the following:

- implementing the state policy in the field of statistics;
- collecting, processing, analysing and disseminating statistical information on large-scale economic, social, demographic, and environmental events and processes taking place in the Kyrgyz Republic and its regions; providing quality and timeliness of statistical information; ensuring the availability and transparency of statistical information, of its sources and compilation methodologies;
- developing, improving and implementing a scientifically grounded statistical methodology;
- ensuring the development, improvement and implementation of a unified system of classification and encoding of technical, economic and social information used for conducting statistical surveys; creating and maintaining the Unified State Register of Statistical Units;
- coordinating the actions of public authorities, local self-government bodies and other legal entities pertaining to the organisation of the collection and usage of administrative data;
- ensuring the interaction between the state statistical information system and the information systems of public and local self-government authorities, as well as their
interaction with international organisations and other countries’ statistical services, in the purpose of a mutual exchange of information;

- introducing advanced information technologies for processing statistical information; providing a reliable protection and storage of statistical information.

The general Law on Statistics does not specify any topic related to the energy statistics. A specification of such activities can be found in the mid-term state programs for the statistics development or in yearly programs.

In the last State program for the development of the statistics 2010 – 2014, in the paragraph Statistics of energy sources and energy forms, on pg. 10, is defined that the Kyrgyz Republic needs additional methodology for the compilation of fuel and energy balances for its administrative regions. This is recognised to be important for assessing the changes and trends in the production and consumption of various energy forms, and for supporting the development of regional policies. This new foreseen activity is planned to be based on international rules and standards.

Additionally, activities planned for one year ahead are set in annual statistical programs. The Program of Statistical Works for 2012 envisages the completion of the fuel and energy balance and the electricity balance for 2011 at the end of 2012.

The main users of energy statistics and energy balances are the relevant departments of the Administration of the President and the Government Executive Office that supervise this sector of economy, the Ministry of Energy and Industry, as well as international organisations, scientific workers, and students. The Ministry of Energy and Industry uses statistical energy balances for the assessment of the future, planned balances.

3.2. Capacities and capabilities in energy statistics systems

Five persons in the SSC’s central office work with energy statistics. The central office receives additional assistance in data collection from the regional offices, related to their administrative territory.

3.3. Energy profile of the Kyrgyz Republic

PRODUCTION

Unlike its neighbours Kazakhstan and Uzbekistan, Kyrgyzstan has no significant exploited reserves of oil or natural gas, so that it is very dependent on foreign sources of energy. Most of the natural gas imports come from Uzbekistan. According to the IEA energy balance for 2009, Kyrgyzstan produces 1161 ktoe, and the largest share belongs to the hydro energy, 73 percent. Coal and peat are presented with the share of 19 percent, crude oil with 6.5 percent natural gas with 1.1 percent, while biofuels with less than 1 percent.

IMPORTS AND EXPORTS

In 2009, the total primary energy supply (TPES) amounted to 3011 ktoe. In the same year net imports in Kyrgyzstan amount 1850 ktoe. Net imports of oil products amount 1123 ktoe,
natural gas amounts 537 ktoe while coal amounts 217 ktoe. Because of its rich supply of hydroelectric power, Kyrgyzstan exports electricity to Kazakhstan and Uzbekistan in return for fossil fuels. Coal is imported mainly from Kazakhstan in a barter arrangement for electrical power.

**ENERGY TRANSFORMATION**

Hydroelectric plants generate some 92.5 percent of domestically consumed electricity, and only three commercial thermoelectric plants are in operation. The fuels used in the thermal power plants are coal, natural gas and fuel oil. The energy transformation in oil refineries is shown in the IEA balances.

**ENERGY CONSUMPTION**

The total final energy consumption (TFC) in Kyrgyzstan amounts to 2780 ktoe. In the TFC, the largest share belongs to the oil products, followed by electricity, coal and peat, heat and natural gas. Manufacturing industry consumes 30 percent of TFC, transport sector 32 percent, while other sectors 38 percent of TFC.

Per capita energy consumption is high considering the average income2.

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

The Department for statistics of industry and innovations of National Statistics Committee deals with energy statistics and is responsible for the annual electricity balance compilation. Electricity data covers production, transmission and distribution of hydroelectric and thermoelectric energy. The reporting units are all entities that produce, transmit and distribute electricity.

Annually, the Department of statistics of foreign economic activity (international trade) of the NSC compiles a fuel and energy balance, which is issued at the end of September.

The fuel and energy balance provides information about the production, availability, distribution and consumption of fuel and other forms of energy.

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2 [http://www.reegle.info/countries/kyrgyzstan-energy-profile/KG](http://www.reegle.info/countries/kyrgyzstan-energy-profile/KG)
The data for the fuel and energy balance compilation is collected according to the approved methodological principles. These are based on the submission of the filled official statistical forms used for reporting on energy production, transmission and distribution. All business entities, regardless of the type of the enterprise ownership, that produce or consume fuel or the following energy forms: oil, petrol, diesel oil, heavy fuel oil, natural gas, coal, electricity and heat, are obliged to provide regular reports, according to the Law.

The NSC collects energy data on monthly, quarterly and yearly basis. Monthly data is collected for electricity, natural gas and heat energy. Reports must be submitted to regional statistics bodies on the 1st day following the reporting period.

Monthly electricity statistics is collected by means of the Form No 1 P - electricity on generation, transmission and distribution of electricity. This form is filled and submitted by the enterprises which are authorized for the production and distribution of electricity and their branches.

On a yearly basis, electricity data is collected by means of Form No 24 - electricity on electricity production, distribution and consumption, as well as on the power generation equipment configuration. All joint stock companies, enterprises and their branches whose main and secondary activity is related to “Electrical energy production and distribution” and “Manufacturing industry” consuming electricity must submit reports using Form No 24 on a yearly basis.

In Kyrgyzstan, there are only 4 electricity distributors, therefore the procedure for these companies’ provision of energy data observed by the NSI is not complicated. All electricity consumers have meters for measuring real consumption. In addition, these companies fill an annual questionnaire on electricity flows in the Kyrgyzstan system. Losses in the power system are included in the reports and their total amounts to approximately 12%.

The collection of the data on natural gas is based on the submission of the filled Form No 1 P – gas by enterprises that transport and distribute gaseous fuels.

Similar to the collection of natural gas data, the NSC collects data on the production and distribution of heat using Form No 1 P – heat.

The data for the compilation of the fuel and energy balances is collected using Form No 1 – FEB, and this form must be filled by business entities of all types of ownership and submitted to the regional statistical bodies on 25th January after the reporting period.

The NSC uses a special form for the collection of data on fuel reserves, Form No 4- SN (reserves). The data on fuel reserves is collected on a quarterly basis.

As indicated in the Energy profile of Kyrgyzstan, natural gas production is not intensive and most of the demand is met through import. Kyrgyzgas is the company responsible for the transport and distribution of natural gas. The company is composed of regional distribution companies, which submit data to the central Kyrgyzgas office. Kyrgyzgas reports on the quantities of natural gas stored underground, but does not report on the remaining quantity of natural gas in storage at the end of the year.
Kyrgyzstan produces very small quantities of oil. On the territory of the country, there is one small oil refinery. The NSC receives reports on oil and oil products on a monthly basis.

It is interesting that the NSC collects and compiles detailed data on the transport sector, and that it can disseminate the results related to different sub-sectors of transport (road, aviation, rail) and to different forms of energy: oil, gas, diesel, gasoline. In addition, the NSC recognises the consumption of motor fuels in the agriculture sector.

The NSC does not collect data on fuel wood consumption and does not compile any balance on fuel wood. This is because there is no company in Kyrgyzstan that would supply fuel wood to consumers, so households provide the wood by themselves. Other renewable energy forms (except hydropower), like solar energy, are not observed either, although the NSC has information that renewable energy technologies are already used. The NSC considers their share in the total final energy consumption negligible.

Every year, the NSC collects in total about 8000 reports in Form No 1 – FEB from all legal persons involved in the tax system, both from big and small enterprises, ranged based on their energy consumption. These surveys do not provide enough data for the compilation of a reliable energy balance. Therefore, the NSC conducts an additional selective survey every five years, encompassing approximately 2700 small consumers and small farms. The sample for this survey includes consumers who perform some economic activities, but who are not legal persons and do not have a legal obligation to pay taxes. Such consumers are small bakeries, small farms and others.

In its questionnaires, the NSC applies international standards for the classification of economic activities (NACE), but the standards are not fully harmonised in all segments and sectors. In energy statistics, the NSC can recognise sub-categories of the activities related to the production and provision of different services, but, in the industry sector for example, it cannot recognise the chemical industry. This type of industry is aggregated with other branches.

Additionally, the NSC collects data on technical and economic indicators on the TPPs, HPPs and boiler houses operation, using Form No 6 - TP. This data must be submitted on a yearly basis by all enterprises and their branches whose main and secondary activity is “Generation and distribution of electricity” and “Supply of steam and hot water”.

Besides the data collected using the official statistical forms, the NSC receives additional data from other departments and bodies. For example, the NSC uses a regular annual Survey on household expenditures (budgets) and a Labour survey in order to complement the data on the final energy consumption in the household sector. Some Ministries have a formal obligation to prepare and submit energy data to the NSC.

The data on energy statistics is disseminated in the publications on industrial statistics (monthly publications, express information and annual publications). All statistical data is disseminated in accordance with the Special Data Dissemination Standard (SDDS), which was adopted by the National Statistical Committee in February 2001, making it the 57th member state to apply this standard.
The development, publication and dissemination of official statistical data are carried out in full conformity with the fundamental principles of the UN official statistics and the European Statistics Code of Practice (adopted by the EU in 2005).

The NSC of the Kyrgyz Republic publishes methodologies and forms for the collection of energy data on its official website. It has recently improved the system for the collection of the statistical reports by developing the possibility to submit reports electronically.

Monthly and quarterly statistics are published.

3.5. Energy balances compilation and their submission to the IEA

Annual Fuel and Energy balance is in Kyrgyzstan compiled on the basis of the rules set in the *The methodology for the compilation of Fuel and Energy balance*, defined by the Resolution of the NSC (No.3, 21 December 2011). The main purpose of the balance, as defined in the resolution, is developing energy indicators, monitoring energy supply, establishing of new production facilities and others.

The energy balance of the Kyrgyz Republic, developed by National Statistics Committee, partially complies with the EU and international standards. It consists of 12 tables. One table presents the aggregated fuel and energy balance, while others present commodity balances: coal, oil, natural gas, diesel fuel, motor gasoline, residual fuel, electricity and heat balance. There is no energy balance on fuel wood and other renewables. Additionally, the NSC compiles energy balances for specific activities: state administration, education, health care and municipal social and personal services, as well as aggregated regional energy balances.

The main structure of an energy balance consists of data on resources (extraction, imports, remaining quantity at the beginning of the year), distribution (transformation, feedstock, final consumption: processing industry, construction, transport, agriculture, others), losses, exports.

The 8th paragraph of the *Methodology* explains that Kyrgyzstan’s fuel and energy balance can be easily converted to the international questionnaires or energy balances.

Kyrgyzstan does not officially submit energy balances to the IEA. According to the IEA publications “Energy Statistics of Non-OECD Countries” and “Energy Balances of Non-OECD Countries” 2011 Edition, the IEA used the following sources to prepare Kyrgyzstan’s energy statistics and balances for the period 2007-2009: Interstate Statistical Committee of the Commonwealth of Independent States, Moscow; UN Energy Statistics Database; CIS and East European Energy Databook; Natural Gas Vehicles Statistics and other sources.

3.6. Reporting on monthly / quarterly energy statistics

The NSC publishes monthly/quarterly energy statistics. The energy data collected by the NSC on a monthly basis is used for the compilation and monitoring of the industrial production index.
3.7. Reporting on energy prices

In the submitted questionnaire, the NSC reported that it monitors energy prices on a monthly and sectoral basis. The Department for prices receives tariffs from the Ministry of Energy.

3.8. Energy and energy indicators reporting

The NSC reports the following indicators: energy consumption per capita (electricity, heat, natural gas, coal, wood for fuel, gasoline), total annual energy consumption per capita, energy intensity of industrial production, import of energy resources, import to internal energy consumption ratio, etc.

The Department of the system of national accounts publishes data on energy indicators. The structure and content of the energy indicators reporting need to be additionally analysed with NSC.

4. ENERGY STATISTICS ACTION PLAN 2012 - 2015

The Energy Statistics Action Plan for the Kyrgyz Republic is presented in the following paragraphs as a sequence of integrated horizontal and vertical activities planned for the period 2012 – 2015. All proposed vertical activities are specified in such a manner that they reflect the Kyrgyz Republic’s demands for timely and reliable energy statistics data. The activities that are suggested and planned to be supported by the ITS project, through the particular Technical assistances (ITS TA), are specially highlighted. A list and a short explanation of all applicable ITS Technical assistances can be found in Annex 2.

In addition to the vertical activities mentioned above, the main stakeholders in energy statistics will be invited to actively participate in other ITS project activities common for all the Partner Countries (PCs), such as workshops, conferences, study tours, networking and others (horizontal activities), that complement the ITS technical assistances.

It is important to mention that the Kyrgyz Republic and its responsible stakeholders are expected to ensure the availability of appropriate staff, to support their active participation in the implementation of this Action Plan, and thereby ensure the sustainability of the initiated processes.

The main goal of all these activities is to increase capacity building in the PCs and to establish a reliable and timely energy statistics system available to the growing number of energy statistics users.

Implementation plan and timelines presented in table 5-2, Chapter 5, provides schedule of the activities to be accomplished until 2015.
The ITS expert team developed a set of indicators for monitoring of the implementation of ESAPs during the period 2012 – 2015. The identifiers are listed in table in Annex 3 and will be completed at the beginning of the implementation phase and at the end of each project year (2013, 2014). NSC and ITS expert team will complete the table jointly.

4.1. Key area 1: Legal and institutional framework strengthening

The legal framework for energy statistics in the Kyrgyz Republic defines in detail the responsibilities and tasks of the main state statistical stakeholders and bodies. What is missing in the organisational structure is a firmer institutional organisation, especially the coordination of the statistics-related activities with other governmental bodies, e.g. the responsible Ministries that submit part of the energy statistics to the NSC. This has a multipurpose importance: to avoid the duplication of reports that the reporting units are obliged to submit, and to reduce the costs of data collection.

- **Improvement of the institutional relationship and capacity building on the institutional organisation for energy statistics**

  The ITS project foresees the implementation of two specific regional activities in Kyrgyzstan that will also be implemented in the other PCs:

  The first activity will support **organisation of a national meeting**, which aims to coordinate the distribution of tasks and capacities within the energy statistics system. This activity will support the establishment of coordination mechanisms within the energy statistics system in Kyrgyzstan to avoid duplication of tasks and responsibilities among main stakeholders and to ensure that work is based on minimum costs and efficient use of resources. This activity also involves the facilitation of the development of a **Memorandum of Understanding** (MOU) for cooperation on energy statistics agreed between the National Statistics Committee of Kyrgyz Republic (NSC) and other bodies involved in the energy statistics system.

  The second activity will include support to a national **meeting, which aims to raise awareness among decision makers, relevant authorities, energy data suppliers and users on the importance of available, reliable, timely and transparent energy statistics for national policies**.

  The duration and time plan for the regional activities listed above is presented in Table 5.3.a – **Regional activities (RA1– Development/improvement of the Legal and Institutional Framework)**.

  In addition to the activities mentioned above, the NSC in Kyrgyzstan and other responsible statistical bodies have a possibility to additionally implement particular activities with the support of the ITS Technical assistance in order to improve the institutional relationship and increase the capacity building of institutional organisation for energy statistics in the Kyrgyz Republic (ITS TA-1.3., ITS TA-1.4):

  The activity ITS TA-1.3 will include a brief **revision of the institutional organisation** and the roles of the stakeholders involved in the energy data system. The activity will result in a
proposal for the improvement of the institutional organisation (coordination plan, activity plan, involvement of the new stakeholders in the system and others).

The second ITS TA-1.4 will be implemented through organising a common meeting with all the stakeholders involved in energy statistics system (the NSC of the Republic of Kyrgyzstan, administrative units responsible for submission of particular energy data and other main reporting units) with an aim to educate them about their roles and obligations in the energy statistics institutional organisation. This should in turn result with the establishment of permanent communication and discussion about energy data, relationships between relevant stakeholders involved in the collection, compilation, security and dissemination of energy data.

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

During the bilateral meeting with the NSC of the Kyrgyz Republic in the inception phase of the project, it was recorded that the NSC wishes to learn and understand whether energy statistics in Kyrgyzstan are harmonised with the European and international standards or not. Therefore, it was suggested to the NSI of the Kyrgyz Republic, that, if it wants to solve this question, which is crucial for all further activities, it should start from “the bottom”: analysis of the forms submitted to the reporting units.

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

The ITS experts foresee the implementation of a specific technical assistance (ITS TA – 2.2) which would aim at improving the methodology of collecting, compiling, controlling and disseminating energy data. The task of this activity is to revise the existing concept of the energy statistics system and to propose and support the implementation of improved reports. A favourable circumstance, noted in the submitted uniform questionnaire, is the fact that the NSC recognises that one single standard form, which is submitted to all respondents (producers, suppliers, distributors, and consumers) in order to collect data for a yearly energy balance, cannot provide enough information of the required quality. Thus, this ITS TA activity (ITS TA – 2.2.) will result in an improved methodological concept for data collection and in forms adjusted to different types of reporting units (production, transformation, transmission and transportation, supply, distribution, consumption). A particular emphasis will be put on developing the concept of collecting fuel wood and other renewable data. Also, strong emphasis will be put on the improvement of the reporting concept from the refineries and industry sector; and on the analysis and improvement of the methodologies and processes for the collection of data on final energy consumption as IEA energy balance shows that 27 percent of TFC is not countable.

- Adoption of the existing surveys to the research on energy consumption

A very interesting and rare observation in the Partner Countries is the utilisation of the existing surveys for the purpose of energy data collection. The NSC in the Kyrgyz Republic
utilises the regular annual Household budget survey and the Labour survey for the collection of energy data in the household sector. An ITS TA activity (ITS TA - 2.4.) is proposed for analysing the questions added to the regular surveys in the household sector and for proposing their improvement and harmonisation with international standards, if needed.

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

In the submitted questionnaire, the NSC of the Kyrgyz Republic has expressed the need for assistance in the energy balance compilation.

In order to improve the quality of energy balances in Kyrgyzstan, the ITS project 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

- **Assistance for the adoption and application of a user-friendly, simple software tool for energy balance compilation** (ITS TA-3.2),

- **Assistance for the submission of the 5 questionnaires to the IEA and the EUROSTAT** (ITS TA 3.3)

The ITS TA activities listed above have the aim to increase the capacity of Kyrgyzstan’s statisticians in the area of the energy balance compilation and to provide assistance in the conversion of the actual energy data to the international standards.

The activity will include a three-day training on the international standards and forms applied on the energy balances compilation, application of the simple model for the energy balance compilation based on international standards and derivation of the 5 energy questionnaires and their submission to the IEA.

The simple software tool will be used to test NSC’s application for the conversion of the Kyrgyzstan’s fuel and energy balance to standardized energy balance. The ITS expert team will prepare a simple excel based model which will contain spreadsheets with templates for the compilation of IEA and EUROSTAT energy balances and will provide a set of the instructions about the compilation of the particular segment of the energy balances. The model will be adaptable to the changes regarding to the structure and sources of energy data.

The follow up activities will include communication between the ITS expert team and the NSC statisticians through email and conference calls providing further clarification and answers on the questions from NSC.

Two-day working meeting is envisaged seven months after the training on the energy balance compilation with the aim to elaborate the improved energy data gathered as a
result of the activities implemented under the Key area 2 and to include them in the new energy balance.

The implementation of the first two activities can be realised at the beginning of the 2013, and the result will be the energy balance for the year 2011. This will comply with the Program of statistical activities, which foresees the energy balance compilation for 2011. If the availability and reliability of the data will not be satisfactory at the beginning of 2013, this activity will be postponed for the end of 2013, resulting in a compiled energy balance for 2012. The compilation of the five energy questionnaires and their submission to the IEA/EUROSTAT for 2012 is expected by the end of 2013.

The main outcomes of this activity will be:

- increased capacity of the NSC to compile the energy balances based on the international standards,
- energy balance based on the international standards accessible and available for dissemination free of charge,
- energy questionnaires compiled and submitted to the IEA after the IEA sends a formal request to the NSC for the submission of the 5 energy questionnaires.

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

The National Statistics Committee of the Kyrgyz Republic has reported in the questionnaire that it collects and publishes monthly data on energy statistics and quarterly data on resources. It is suggested to conduct the initial analysis of the structure of the published energy data and their compliance with the IEA methodology. The development of the appropriate methodology for monthly energy statistics is not a complicated procedure, especially where a system for the collection of such data exists. It is suggested to the NSC of the Kyrgyz Republic to follow and participate in the common (horizontal) activities (workshops, study tours) where this topic will be discussed and where it will be possible to learn from the examples of good practice. This activity could be implemented during the year 2014 but it is not suggested to start with the monthly reporting prior to the implementation of the previously listed 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.

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

The NSC of the Kyrgyz Republic has reported that it monitors energy prices per products and per sectors on a monthly basis. It is necessary to revise the existing methodology and to compare it with methodologies and approaches applied in the IEA and EUROSTAT.
As energy prices reporting is not the main priority of the Kyrgyzstan’s ESAP, the ITS expert team intends to implement a more comprehensive analysis of the pricing conditions in 2013. After that, it will propose the common concept for data prices compilation and dissemination for all PCs.

At present, the Kyrgyz Republic’s electricity sector structurally consists of six state-owned OJSCs, including one generating company (Electric Plants OJSC), one electric-grid transmission company (NEGC OJSC), and four regional electric-grid distribution companies. In addition, the Kyrgyz Republic has several private power producers and private distribution companies. However, thus far, the restructuring of the energy sector has not resulted in creation of a competitive wholesale market. The entire volume of electricity (about 98%) is produced and sold by one generating company (Electric Plants OJSC).

Gas import, transportation, distribution and sales is managed by the Kyrgyzgaz state-owned monopoly.

INOGATE Country profile for Kyrgyzstan reports that the current Law of the Kyrgyz Republic on Electricity provides access to third party to the generation, transmission and supply activities in the electricity sector, but due to the absence of relevant secondary legislation there are no third parties operating at present. In the case of the gas sector, third party access to the network is not allowed.

The Action Plan estimates that additional technical assistance in this area will be needed; however, the ITS expert team does not foresee provision of assistance to this activity presently, because of other priorities. At the end of 2013, the ITS expert team will analyse again the possibility for ITS assistance in the development of energy prices reporting system in Kyrgyzstan. adoption of possible concept for data prices compilation and dissemination.

In the meantime, the NSC or any other stakeholder responsible for this type of reporting will have the possibility to learn about energy prices reporting from countries, which can serve as examples of good practice during common workshops, meetings and from various communication activities. It is suggested to the NSC to start on establishment of energy prices reporting system in the 2014. 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, like 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.

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

It is suggested to the NSC of the Kyrgyz Republic to initially explore, during 2013, the availability of all the data needed for the calculation of the main energy indicators, and to develop indicators according to the international methodologies.

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).

The study tour will include, in addition to a visit to an advanced NSI in energy statistics and energy balances, a provision of the 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 (RA 6) the NSI of the Kyrgyz Republic will be able to observe the progress and improvement of the energy efficiency indicators in some Partner Countries, which are more advanced in such analyses.

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

If, at the end of 2013, the NSC of the Kyrgyz Republic estimates that it can conduct specific surveys on energy consumption on its own, then in 2014 the Action Plan for that year will be updated with the estimation of the resources needed to provide only technical assistance for this activity. The ITS project estimates that an engagement of external technical assistance for this activity will be needed, however this technical assistance cannot be provided by 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 NSC of the Kyrgyz Republic 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 (Kyrgyzstan), 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 exists or where existing capacities are not sufficient to implement targeted actions.

The estimation of all resources needed for the implementation of the Kyrgyz’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 the **local experts** within ITS project (ITS LE) is envisaged mostly in cases where implementation of the 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 conduction of the surveys, ITS project will provide technical assistance for the methodologies development and implementation of the surveys. At the moment, the Action Plan does not foresee the conduction of such surveys in the Kyrgyz Republic.

In order to ensure the implementation of the activities defined in the Action Plan, the PCs need to ensure the appropriate staff or **human capacities (HC)**, which will actively participate in the implementation of the activities. In cases where such staff 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 Kyrgyzstan, the ITS project estimates that the employment of new personnel is not needed.

**The total technical assistance in Kyrgyzstan is estimated to 64.5 man/days, and the ITS project support can provide 36.5 man/days or 55 percent of the total assistance needed.** Kyrgyz Republic is requested to put at the disposal its experts in energy statistics in total amount of about 153.5 man/days. There is no need for additional employment in NSC for the energy statistics activities.

The breakdown of the resources by key areas is presented in the 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 the Kyrgyz Republic’s Energy Statistics Action Plan 2012 – 2015 implementation

<table>
<thead>
<tr>
<th>Years Quarters</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>total</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>Technical assistance (TA):</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total technical assistance, man/days</td>
<td>64,5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ITS TA, man/day</td>
<td>36,5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ITS LE, man/day</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Human capacities (HC) in Partner country</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total, man/day</td>
<td>153,5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Additional employment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total, man/year</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Years</th>
<th>Quarters</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>total</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>HC, man/day</td>
<td></td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TA 1. Development/improvement of Legal and Institutional Framework including:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TA, man/day</td>
<td></td>
<td>16</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ITS TA, man/day</td>
<td></td>
<td>10</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ITS LE, man/day</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>HC, man/day</td>
<td></td>
<td>48</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Surveys on energy consumption, thous. €</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry - 0 units</td>
<td></td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport - 0 units</td>
<td></td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Households - 0 units</td>
<td></td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service - 0 units</td>
<td></td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others (agriculture, construction...) - 0 units</td>
<td></td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TA 2. Improvement of the data collection, compilation, management and analysing in line with EU and international standards</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TA, man/day</td>
<td></td>
<td>26.5</td>
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</tr>
<tr>
<td>ITS TA, man/day</td>
<td></td>
<td>22.5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ITS LE, man/day</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>HC, man/day</td>
<td></td>
<td>79.5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TA 3. Energy and commodity balance compilation in line with EUROSTAT/IEA/UNECE methodologies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TA, man/day</td>
<td></td>
<td>9</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ITS TA, man/day</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ITS LE, man/day</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>HC, man/day</td>
<td></td>
<td>9</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TA 4. Development of the reporting system on energy prices</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TA, man/day</td>
<td></td>
<td>9</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ITS TA, man/day</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ITS LE, man/day</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>HC, man/day</td>
<td></td>
<td>9</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TA 5. Development of the energy and energy efficiency indicators</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TA, man/day</td>
<td></td>
<td>9</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ITS TA, man/day</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LE, man/day</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>HC, man/day</td>
<td></td>
<td>9</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>64.5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ITS TA, man/day</td>
<td></td>
<td>36.5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LE, man/day</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>HC, man/day</td>
<td></td>
<td>153.5</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
### Table 5-3: Energy Statistics Action Plan 2012 – 2015 for the Kyrgyz Republic: Technical assistance (TA) and Regional activities (RA)

<table>
<thead>
<tr>
<th>TECHNICAL ASSISTANCE</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Main stakeholder.</td>
<td>Needed TA, man/days</td>
<td>ITS support, (ITS TA)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

#### TA 1. Development/improvement of Legal and Institutional Framework including:

1.1 Proposals for the appropriate legal framework

1.2 Energy statistics strategies and programs (short/long-term)

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

#### TA 2. Improvement of the data collection, compilation, management and analysing in line with EU and international standards

2.1. Capacity building on EU and International Energy Statistics Standards

2.2. Development/improvement of the reporting system

2.3. Development/improvement of the surveys for the final energy consumption data collection:

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

---

**Component D: Support to Statistical Cooperation**

*Energy Statistics Action Plan for the Kyrgyz Republic*
### TA 3. Energy and commodity balance compilation in line with EUROSTAT/IEA methodologies


<table>
<thead>
<tr>
<th>Commodity</th>
<th>NSC</th>
<th>2011, 2012, 2013</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity and heat</td>
<td>NSC</td>
<td>2,5</td>
<td>yes</td>
</tr>
<tr>
<td>Natural gas</td>
<td>NSC</td>
<td>2</td>
<td>yes</td>
</tr>
<tr>
<td>Oil</td>
<td>NSC</td>
<td>2,5</td>
<td>yes</td>
</tr>
<tr>
<td>Solid fossil fuels and manufactured gas</td>
<td>NSC</td>
<td>2</td>
<td>yes</td>
</tr>
<tr>
<td>Renewable and waste</td>
<td>NSC</td>
<td>2,5</td>
<td>yes</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Activity</th>
<th>NSC</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application and adoption of the user friendly tool for the energy balance compilation</td>
<td>NSC</td>
<td>2</td>
</tr>
<tr>
<td>Energy supply balance compilation</td>
<td>NSC</td>
<td>2</td>
</tr>
<tr>
<td>Energy transformation balance compilation</td>
<td>NSC</td>
<td>3</td>
</tr>
<tr>
<td>Balance on final energy consumption</td>
<td>NSC</td>
<td>4</td>
</tr>
</tbody>
</table>

#### 3.3. Dissemination of annual energy questionnaires to IEA:

<table>
<thead>
<tr>
<th>Commodity</th>
<th>NSC</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity and heat, Natural Gas, Oil, Solid fossil fuels and manufactured gas, Renewable and waste</td>
<td>NSC</td>
<td>2</td>
</tr>
</tbody>
</table>

#### 3.4. Monthly energy statistics reporting

<table>
<thead>
<tr>
<th>Activity</th>
<th>NSC</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissemination of monthly energy balances (M-3), (M-1)</td>
<td>NSC</td>
<td>2</td>
</tr>
</tbody>
</table>

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

#### 4.1. Development of the methodology for:

<table>
<thead>
<tr>
<th>Activity</th>
<th>NSC</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) electricity and gas prices reporting for industrial customers and households (EUROSTAT)</td>
<td>NSC</td>
<td>3</td>
</tr>
<tr>
<td>b) energy prices reporting (IEA)</td>
<td>NSC</td>
<td>3</td>
</tr>
</tbody>
</table>

#### 4.2. Dissemination of the reports energy prices

<table>
<thead>
<tr>
<th>Activity</th>
<th>NSC</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissemination of the reports energy prices</td>
<td>NSC</td>
<td>3</td>
</tr>
</tbody>
</table>

### 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

<table>
<thead>
<tr>
<th>Activity</th>
<th>NSC</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1 Review of the data available for energy indicators compilation, assessment of the needed data</td>
<td>NSC</td>
<td>3</td>
</tr>
</tbody>
</table>

#### 5.2 Development of the methodology for energy indicators monitoring and verification

<table>
<thead>
<tr>
<th>Activity</th>
<th>NSC</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.2 Development of the methodology for energy indicators monitoring and verification</td>
<td>NSC</td>
<td>3</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Activity</th>
<th>NSC</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.3 Adaptation, training and application of the user friendly tool for the energy indicators calculation</td>
<td>NSC</td>
<td>3</td>
</tr>
<tr>
<td>REGIONAL ACTIVITIES</td>
<td>Duration in days</td>
<td>2012</td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------------</td>
<td>------</td>
</tr>
<tr>
<td>RA 1: Development/improvement of the Legal and Institutional Framework</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1st workshop: Energy Statistics Network meeting: Development of ESAP and establishment of ESN, 25-26 September 2012</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Support to national meeting on the importance of energy statistics for national policies</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Support to national meeting on division of labour and data sharing among stakeholders</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>RA 2: Improvement of the data collection, compilation, management and analysing in line with EU and international standards</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Study tour on energy statistics and balances with special emphasis on surveys on final energy consumption</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>International conference on the quality of energy data</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>RA 3. Energy and commodity balance compilation in line with EUROSTAT/IEA/UNECE methodologies</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Study tour on energy statistics and balances with special emphasis on the development of the 5 energy IEA/EUROSTAT questionnaires</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>RA 4. Development of the reporting system on energy prices</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>This activity will be combined with RA 5. activity at a later stage of the project.</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>RA 5. Development of the reporting system on energy and energy efficiency indicators</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Study tour on energy statistics and balances with special emphasis on energy efficiency indicators</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Study tour on energy statistics and balances with special emphasis on energy indicators and planning for the energy strategies</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>RA 6. Evaluation of the achieved results</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Workshop on the Achievement of Energy Statistics Action Plans &amp; other activities</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>
ANNEX 1 – LIST OF THE MEETINGS DURING THE INCEPTION MISSION

Meeting with State Inspectorate for Energy and Gas under the Ministry of Energy and Industry of Kyrgyzstan (SIEG), June 12, 2012, 15:00 PM

Participants:
• Mr. Corobiy Tokeevich Akunov, Director, SIEG, Tel.: +996 312 561 040, E-mail: akunov_ch@mail.ru
• Mrs. Irina Akimovna Zakharova, Head of Technical Department, SIEG, Tel.: +996 312 561 036, E-mail: energetik-00@mail.ru
• Mrs. Turdukan Dzhumabekova, Main Specialist, Head of Department for International Cooperation, Tel.: +996 778 404 334, E-mail: denjumabekova@mail.ru
• ITS Team: Gloria Aguinaldo, Anna Petrus

Meeting with FESTI (Fuel and Energy Sector Transparency Initiative), Ministry of Energy and Industry of Kyrgyz Republic, June 13, 2012, 10:30 AM

Participants:
• Mr. Nikolai Kravtsov, Member of the Supervisory Board, Tel.: 0312 51 17 00, E-mail: nick_47@mail.ru, Website: www.energoforum.kg
• ITS team: Gloria Aguinaldo, Anna Petrus


Participants:
• Mr. Marat Cholponkupov, Head of Department, Tel.: +996 312 561 228, E-mail: me-marat@yandex.ru
• ITS Team: Gloria Aguinaldo, Anna Petrus


Participants:
• Mr. Tulegen Diusheevich Sadabaev, Head of Department, Tel.: +996 312 560 998, E-mail: otrb.min@mail.ru
• Mrs. Vera Nikolaevna Mandycheva, Leading Specialist, Coal, Tel.: +996 312 561 154, Mrs. Cholpan Dukesova, Specialist, Oil, Tel.: +996 312 561 125
• ITS Team: Gloria Aguinaldo, Anna Petrus

Technical level meeting with National Statistics Committee of the Kyrgyz Republic (NSC), June 14, 2012, 10 AM

Participants:
Meeting with Department of International Co-operation, National Statistics Committee of Kyrgyzstan (NSC), June 14, 2012, 13:30 PM

Participants:

- Mr. Nurbek Mukashevich Tumgabylov, Deputy Chairman, Tel.: +996 312 625 788, E-mail: nsc_mail@stat.kg, Mrs. Luksina Tekeeva, Deputy Chairman, NSC, Tel.: +996 312 324 723, E-mail: nsc_mail@stat.kg
- Mrs. Chinarkul Abdrahmanova, Head of Unit, Department for Industrial, Construction and Investment Statistics, Tel: +996 312 664 044, Mob.: +996 777 499 327, E-mail: a2003c@yandex.ru
- Mrs. Gulayym Rahmetovna Shayakhmetova, Leading Specialist, Department of Foreign Trade, Tel.: +996 312 324 637, E-mail: s.gulsara@rambler.ru
- ITS Team: Gloria Aguinaldo, Damir Pesut, Anna Petrus

Meeting with Deputy Chairman, National Statistics Committee of Kyrgyzstan (NSC), June 14, 2012 at 14:30

Participants:

- Mrs. Luksina Tekeeva, Deputy Chairman, NSC, Tel.: +996 312 324 723, E-mail: nsc_mail@stat.kg
- Mrs. Chinarkul Abdrahmanova, Head of Unit, Department for Industrial, Construction and Investment Statistics, Tel: +996 312 664 044, Mob.: +996 777 499 327, E-mail: a2003c@yandex.ru
- Mrs. Gulsara Nazarbekovna Suleymanov, Acting Head, Department of Foreign Trade, Tel.: +996 312 324 726, E-mail: s.gulsara@rambler.ru
- Mrs. Gulayym Rahmetovna Shayakhmetova, Leading Specialist, Department of Foreign Trade, Tel.: +996 312 324 637, E-mail: s.gulsara@rambler.ru
- ITS Team: Gloria Aguinaldo, Damir Pesut, Anna Petrus

Meeting with UNDP – GEF project “Improving Energy Efficiency in Buildings”, June 14, 2012, 16:00 PM

Participants

- Mrs. Elena Rodina, Project Manager, Office # 411, 28 Manasa str. (Gosstroy), Bishkek 720001, Kyrgyz Republic, Tel.: +996 312 431 382 or 424 573, E-mail: e.rodina@up.elcat.kg, Website: www.undp.kg, www.caresd.net
- ITS Team: Gloria Aguinaldo, Dmitry Strokon, Anna Petrus
# ANNEX 2 – AREAS FOR TECHNICAL ASSISTANCES UNDER THE ITS PROJECT

## 16.1. List of the activities

<table>
<thead>
<tr>
<th>Key area</th>
<th>Indicative Technical Assistance under the ITS</th>
</tr>
</thead>
</table>
| **TA-1. Development/improvement of the Legal and Institutional Framework** | **TA-1.1.** Development of the appropriate legal framework for energy statistics (laws, sub laws, strategies, plans)  
**TA -1.2.** Development of long-term energy statistics strategies and programs for data collection and compilation  
**TA-1.3.** Improvement of institutional relationship on energy statistics  
**TA-1.4.** Capacity building on the institutional organisation for energy statistics  
**TA-1.5.** Capacity building on the integration of energy statistics and energy planning procedures |
| **TA-2. Improvement of the data collection, compilation, management and analysing in line with EU and international standards** | **TA-2.1.** Capacity building on the EU and International Energy Statistics Standards  
**TA- 2.2.** Improvement of the methodologies for the collection, compilation, control and dissemination of energy statistics  
**TA - 2.3.** 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  
**TA – 2.4 Adaptation of the existing (household) sector surveys to the research on energy consumption**  
**TA – 2.5. Reconstruction of data from the energy surveys in the years after the reference year**  
**TA – 2.6. Support to the Covenant of Mayor initiatives** |
| **TA-3. Assistance in the compilation of energy and commodity balances** | **TA – 3.1.** Assistance in the completion of the national energy balance for (2011, 2012 or 2013) and harmonisation with EUROSTAT/IEA methodologies and standards;  
**TA – 3.2.** Adaptation and training in the application of a user friendly software tool for energy balance compilation;  
**TA – 3.3.** Compilation of annual energy data in defined questionnaires and submission to the EUROSTAT/IEA.  
**TA – 3.4. Development of monthly energy data reports compliant with EUROSTAT/IEA standards (M-1, M-3)** |
<table>
<thead>
<tr>
<th>TA-4</th>
<th>Development of a reporting system on energy prices</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA-4.1</td>
<td>Development of a methodology for gas prices reporting</td>
</tr>
<tr>
<td>TA-4.1</td>
<td>Development of a methodology for electricity prices reporting</td>
</tr>
<tr>
<td>TA-4.2</td>
<td>Reporting on gas and electricity prices</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TA-5</th>
<th>Development of a reporting system on energy (efficiency) indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA-5.1</td>
<td>Review of data available for energy indicators compilation, assessment of the needed data</td>
</tr>
<tr>
<td>TA-5.2</td>
<td>Development of a methodology for energy (efficiency) indicators monitoring and verification</td>
</tr>
<tr>
<td>TA-5.3</td>
<td>Adaptation, training and application of a user friendly tool for calculating energy (efficiency) indicators</td>
</tr>
</tbody>
</table>
16.2. 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**


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 EUROSTAT/IEA 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

The PCs will be provided with an easy-to-use and cost-effective tool for calculating energy (efficiency) indicators.

TA -5.4. Training in the use of the methodology and software for the energy (efficiency) indicators compilation

This activity will result in providing the training to the representatives of the institutions who are competent for the monitoring and the verification of energy savings.
## ANNEX 3 – INDICATORS FOR MONITORING THE ESAP IMPLEMENTATION AND SUCCESS

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

**Institution:** NSC (National Statistical Committee)  
**Address:** Bishkek, Frunze Str. 374

**Name and Surname:** Adrachmanova Chinarkul Sadyrbekova  
**Department:** Industrial statistics, construction and investments  
**Position:** Head of the Department  
**Date:** 7/12/2012

**Institution:** XXXXX  
**Address:** XXXX

**Name and Surname:** XXXXX  
**Department:** XXXXX  
**Position:** XXXXX  
**Date:** DD/MM/YYYY
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:

☐