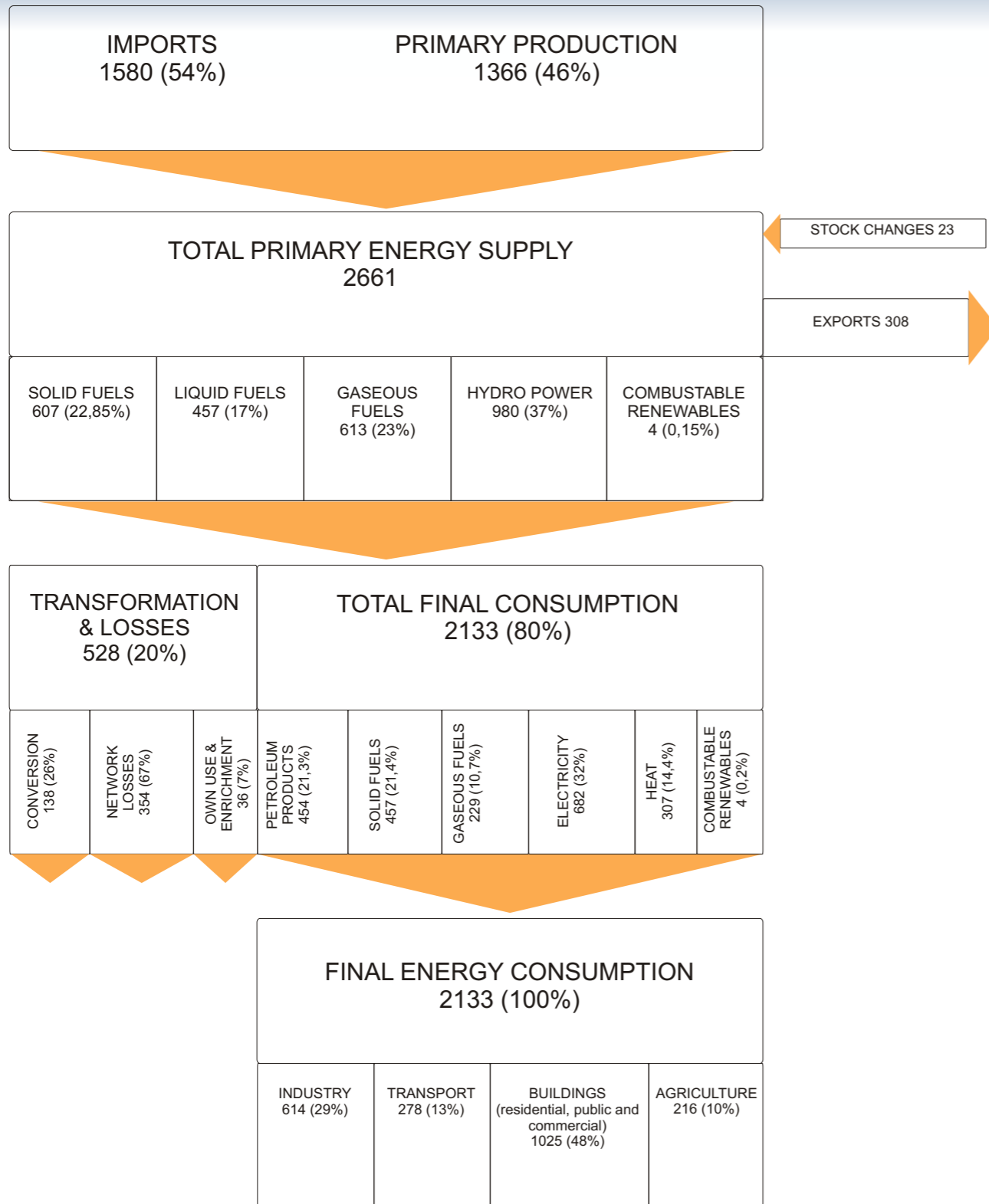


Energy flow of Kyrgyzstan for 2003, in ktOE
Prepared by Civic Environmental Foundation - UNISON



Civic Environmental
Foundation
«UNISON»



ACTIVITY REPORT (2002-2006)



UNITS

GJ Giga Joule
GW Giga Watt
GWh Giga Watt hour
kWh Kilo Watt hour
MJ Mega Joule
MW Mega Watt
MW_{el} Mega Watt (installed electric capacity)
MW_t Mega Watt (installed heat capacity)
PJ Peta Joule
TJ Terra Joule

Conversion table

	MJ	kWh	koe	Mcal
1 Mega Joule (MJ)	1	0.278	0.034	0.239
1 kilo watt hour (kWh)	3.6	1	0.123	0.86
1 k oil equivalent (koe)	41.91	11.63	1	10.01
1 Mega calorie (Mcal)	4.187	1.163	0.1	1

da	deca	10 ¹
h	hecto	10 ²
k	kilo	10 ³
M	mega	10 ⁶
G	giga	10 ⁹
T	tera	10 ¹²
P	peta	10 ¹⁵
E	exa	10 ¹⁸



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UNISON Director Statement



Dear friends,

I am pleased to introduce you the first report about our four years activity. . Since its establishment in 2002, UNISON has implemented several large scale international projects and has organized a number of community and public actions, seminars and meetings. As an active independent environmental non-profit professional organization, UNISON works in the main following issues:

- I. Climate Change including:
 - Energy Efficiency;
 - Energy Savings;
 - Renewable Energy Sources.
- II. Sustainable Development:
 - Environmental Awareness;
 - Eco-tourism;
 - Environmental Education.
 - Improvement the quality of water, soil and air;
 - Elimination of Persistent Organic Pollutants;

UNISON is one of the most active non governmental organizations of

Kyrgyzstan. The UNISON's success is due to several reasons.

First of all, projects implemented by UNISON are highly innovative and realized by mutual cooperation of the international and local experts. Environmental Protection and Energy Efficiency are crucial concerns of the region with social, political and economic sensitivity. Non efficient use of energy energy loses, environmental quality improvement and education awareness are the most actual problems of Kyrgyzstan. UNISON addresses these problems and contributes through its project activities. Experience exchange and knowledge transfer components of the projects are core point on efficient management of knowledge and its application taking into account local specifics.

UNISON is the team of dynamic young professionals. They are open, hard-working, committed and willingly to increase own professional level. We would be happy to cooperate with international and local institutions and private persons on the field of Climate Change and Sustainable Development. We believe that consolidation of affords of all stakeholders will increase the efficiency of our activities in these fields.

I wish all of us success to Save the Environment for Our Future!

1. Mission and objectives

Civic Foundation UNISON is an independent non-for profit environmental organization. UNISON mission is to improve environmental situation in the Kyrgyz Republic and restore the harmony between man and nature through conserving and restoring the integrity of natural ecosystems through practical activities, research and studies.

Due to its co-operative approach CEF UNISON have developed active co-operation with public institutions /Ministries, Universities, Research Institutions, municipal and regional authorities of Kyrgyz regions/, other NGOs and business actors interested on environment protection and sustainable development of Kyrgyzstan. That way Unison has significant background of local support and high quality of domestic environmental expertise.

We aim to:

- ⇒ Improve the overall environmental situation in Kyrgyzstan, particularly in remote areas;
- ⇒ Protect biological and cultural diversity;
- ⇒ Promote the efficient use of energy resources and development of

- alternative energy sources;
- ⇒ Support the principles of civil society and gender equality in all areas of public activities;
- ⇒ Assist to regional and local authorities in environmentally beneficiary policy development;

We will do this by:

- ⇒ Increasing the level of education;
- ⇒ Fostering environmental and cultural values;
- ⇒ Fostering energy efficiency and renewable energy;
- ⇒ Increasing environmental awareness among the public;
- ⇒ Supporting sustainable development of Kyrgyzstan in compatible with the state obligation in Agenda XXI;
- ⇒ Establishing contacts with international organization and institutions active in third sector;
- ⇒ Supporting technological transfer of innovative and developed environmentally technologies.

2. Activities (Beginning 2002-2004)

2.1. Experience exchange with EU partners

Project: The development of the well running Kyrgyz NGO UNISON through the Slovak-Kyrgyz partnership

Date: 2002.

Project partners: NGO «BROZ», Slovakia.

Support: Allavida Foundation (Great Britain)

The staff of UNISON had an opportunity to share experience with Slovak and other EU organizations in order to increase the effectiveness of performed activities. It became a strong stimulus and good basis for the realization of projects aimed at the improvement of ecological situation in Kyrgyzstan, and in particular in remote rural areas, as well as promotion of sustainable development according to the national targets on Agenda 21.



Following environmental institutions has been visited:

- Academia Istropolitana Nova www.ainova.sk
- The Ministry of Environment of Slovak Republic www.lifeenv.gov.sk
- NGO For Mother Earth (www.zmz.sk, www.infos.sk)
- Green Peace Slovakia www.greenpeace.sk
- Green Peace Austria www.greenpeace.at
- Energy Center of Bratislava www.ecb.sk
- Ecocenter Daphne Institute of Applied Ecology www.daphne.sk
- Youth and Environment of Europe www.ecn.cz/yee
- NGO Tereza www.terezango.cz
- Austrian Society for Environment and Technology www.oegut.at
- Changenet internet magazine and service for NGOs www.changent.sk
- Ecotoxicological Center www.ecotox.sk
- Ecovillage in Hostetin (Czech Republic)
- Society of friends of the Earth www.spz.sk
- Forest protection movement "Wolf" www.wolf.sk
- NGO Zivica, www.zivica.sk

2.2. Public environmental action "Together for clean city"

Project: Public Action "Together for clean city", dedicated for The World Environmental Day
Date: June 2003

Partners: Bishkek Humanitarian University, International University of Kyrgyzstan



UNISON has initiated celebration of the World Environmental Day with participation of more than 3000 young people in Bishkek. That action was combined with a local environmental community action under motto of "Together for a clean city". The action was presented in the local and national press and was broadcasted on the national channel of Kyrgyz National Television and local and regional TV channels KOORT and NBT.



The goal of the action was increasing of public awareness about environmental issues community involvement into environmental concerns and practical activities cleaning of Public Park and environmental promotion show concert. Under UNISON's supervision there have been involved several other organization including municipal authorities, other NGOs and Universities. That way there have been done a start up of establishment of co-operation with other institutions and organization, which can support environmental protection.



Outcomes:

- Practical input of environmental quality improvement;
- Cooperation with local NGOs, state and municipal authorities;
- Involvement of youth in nature conservation;
- Increasing public awareness

2.3. Public environmental action "Clean River"

Project: Public Action "Clean River", dedicated for World day of water resources

Date: March 2004.

Partners: International University of Kyrgyzstan, Bishkek Humanitarian University, National Juridical Academy



Public Action "Clean River" was held in 27th of March in Bishkek. The event was dedicated to The World Day of Water Resources. The problem of small rivers and streams pollution within the human settlements with garbage is a serious environmental concern.



The main goal of the action was to draw attention of the public to this problem and increase environmental public awareness. Most of people do not realize the importance of conserving our resources from pollution. Within the Public Action about 100 volunteers from participating universities have cleaned more than 1500 meters of the river "Ala-Archa", which is flowing through Bishkek city. We have taken out several tones of garbage from the river and its banks, such as plastic bottles, packing papers, glass, etc. The action was combined with a dedicated information campaign and an information flyer was spread out.

3. Activities (2004-2006)

3.1. Project: "Promotion development of Energy service companies in Kyrgyzstan" - ESCO-KYR.

Project: «Promotion development of Energy Service Companies (ESCO) in Kyrgyzstan» - ESCO-KYR.

Partner: Energy Consulting s.r.o. (Slovak Republic) and municipal organization "Narynteplokomenergo".

Project status: On-going (October 2004 July 2006).

Financial support: Slovak Official Development Assistance SlovakAID and Canadian International Development Assistance CIDA.



The project aims on introduction and promotion of Energy Performance Contracting (EPC) in Kyrgyz Republic and Naryn region in particular. The EPC and Third Party Financing (TPF) in general could be efficient tool to enhance sustainability of the municipal energy sector and that way to contribute to national energy strategy, environmental protection and development of the regional energy infrastructure. Kyrgyz regions suffer from difficulties with energy supply, especially during the winter peaks. Energy (heat and power) is

not used efficiently and high share of energy loses are indicated. The ESCOs could reduce energy consumption and benefit from savings achieved. Public facilities without intensive budget support can not invest and do not have capacities to identify key measures to reduce energy consumption. On the other hand clients like SMEs and public facilities will benefit too, since they will get equipment and professional advise as well and energy bills will get reduced after the Contract period.

The ESCO-KYR project has an institutional support from local authorities. Local professionals were trained and implement some of the project tasks.

Project ESCO-KYR is executed within five tasks, which outputs are sequent to each other.

Up to now there were conducted following activities:

- ⇒ Review of world experience on ESCO development and EPC;
- ⇒ Assessment of EPC market potential per sector and technology;
- ⇒ Adaptation of ESCO tools (model contract documents, economic assessment software of energy efficiency, ESCO administration scheme) to specifics of Kyrgyz legal and institutional background;
- ⇒ Training of local experts
- ⇒ Demonstration activities: sign of an EPC between a municipal facility in Naryn (Kindergarten "Altyn Balalyk") and an ESCO (Narynteplokomenergo);

- ⇒ Implementation of energy saving measures and monitoring of results achieved;
- ⇒ Promotion and dissemination activities including National seminar on EPC and ESCO development, Bishkek 15/03/2006, medial campaign, radio and TV broadcasted interviews, meetings with decision makers and key market actors;



The municipal Kindergarten "Altyn Balalyk" in Naryn city was selected as a site for demonstration activities. Following energy saving measures have been carried out on the selected demonstration site: installation of automatic regulation ballnase valve, installation of heat-meter, rehabilitation and sealing of windows and doors, rehabilitation and insulation of the main horizontal heating pipes with the high quality isolation material of AF Armaflex. Monitoring of the heating season after reported that energy savings of 67% have been achieved. That highly exceeds the level of 20% of energy savings guaranteed by the Contract. Anyway we assume that about 24 to 28 % are the real energy savings is a result by implementation of energy saving measures. That meet the level of guaranteed energy savings as stated in

the EPC Contract signed between the ESCO (Narynteplocmunenergo) and The Client (Kindergarten "Altyn Balalyk").

The rest of 43 to 40 % is a reduction of energy consumption due to insufficiencies of existing methodology for heat energy consumption used by the Kyrgyz heat providers (different correction factors) and insufficiencies of Kyrgyz standards on building energy performance.

In November, 2005 a four year energy performance contract (EPC) between the Client (Municipal Kindergarten "Altyn Balalyk", Naryn) and ESCO (Municipal entity "Narynteplocmunenergo") was signed. A budget agreement between Client, ESCO and municipality of Naryn city up to 2019 was also signed. According to this agreement, Naryn city authorities are obliged to provide the same budget to the Kindergarten "Altyn Balalyk", as before the energy saving measures have been done. Reduction of energy bills will allow Kindergarten to invest into energy saving measures and retrofitting utilities. ESCO is required to continue the service of the equipment installed on behalf of the Client.



- Last phase of the project is devoted to as wide as possible dissemination of project results and raise of awareness among stakeholders on Energy Service Companies and Energy Performance Contracting. There were published articles in electronic and printing press media. On March 15, 2006 there was conducted a National ESCO seminar that introduced ESCO-KYR results, as well as methodology of preparation and execution of Energy Performance Contracts.



3.2. Project: "Energy certification of buildings in Kyrgyz Republic" BUILD CER

Project: "Energy Certification of Building in Kyrgyz Republic" BUILD CER.

Partners: Kyrgyz State University of Construction Transportation and Architecture (KSUCTA), VVUPS NOVA s.r.o. - Research and Development Institute for Building construction, Slovak Republic.

Project status: On-going (March 2005 Nov. 2006)

Financial support: Slovak Official Development Assistance SlovakAID CIDA.

Main objective of the project BUILD CER is to introduce energy certification of buildings in Kyrgyz Republic as effective tool to strengthen building sustainability and that way to contribute to national energy strategy, environmental protection and development of the energy infrastructure.

Almost all the Kyrgyz housing stock has been constructed during Soviet period

some 35-60 years ago without any regard to energy efficiency. These buildings are now in obsolete condition with high share of 60-70% of heat losses and do not provide hygienic and comfort living conditions. Energy use per square meter is almost 3-5 times as those in EU and according to findings of BUILD CER project varies from 320 to 690 kWh/m² per year. .

A survey performed indicates a rather low level of indoor thermal comfort in winter season.





More than 80% of respondents have been not satisfied with the indoor temperatures, which do not meet standard requirements. Poor quality and reliability of heat supply and temperature drops encourage "poor reputation" of district and central heat and many peoples avoid paying the full price of energy services and therefore it is difficult to apply penalties. Energy became one of the most socially and politically sensitive issues in Kyrgyzstan with significant impact on country economy. The buildings energy consumption is estimated to be 48% of the total domestic final energy consumption. That is why CEF UNISON has aimed to address energy efficiency in buildings by introduction of energy certification of buildings.

The issue of energy certificates will help to assess the opportunities for energy savings in buildings and will enhance competence of stakeholders.

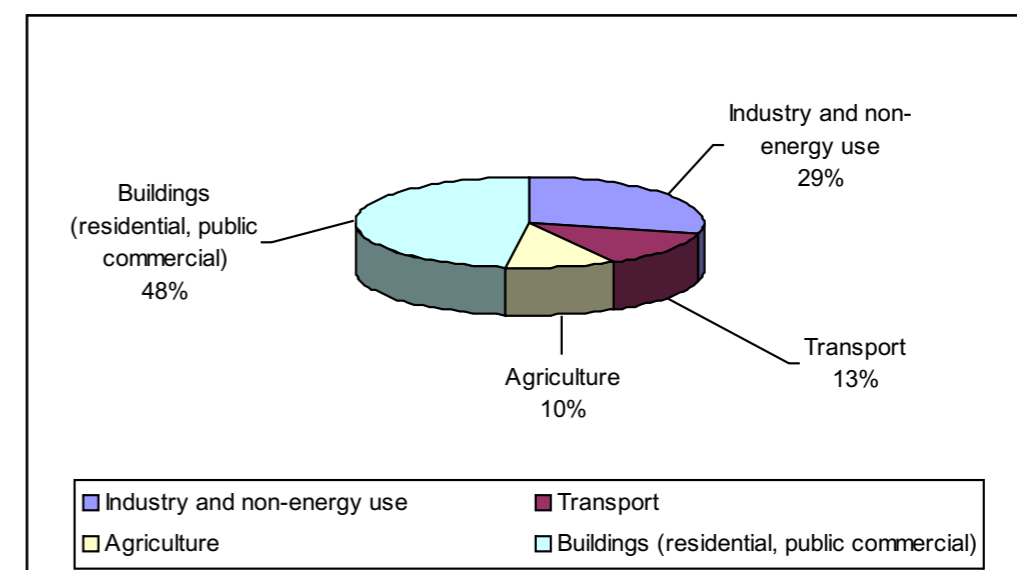
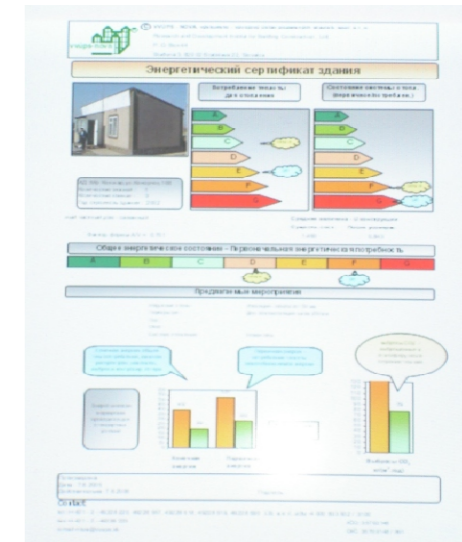
Activities realized in the frames of the project:
 → Development of methodology of

energy certification in Kyrgyz Republic; adaptation of available certification software to specifics of Kyrgyzstan.
 → Training of Kyrgyz experts to perform energy certification. Preparation of draft building typology. Exchange of experience on energy certification with European Partners.
 → Development of the best strategy for energy certification promotion in Kyrgyz Republic. For these purposes there was established an Advisory Committee on dissemination of energy certification in Kyrgyz Republic. Representatives of various governmental and state organizations (Office of the Prime Minister of Kyrgyz Republic, State Center of Standartization, Certification, and Licensing, State Committee on Architecture and Construction, Bishkekglavarchitektura, State Energy Agency) participate in the Advisory Committee. Members of Advisory Committee have developed policy and institutional recommendations on promotion of Energy Certification in Kyrgyzstan.



→ Demonstration of energy certification by issue of 25 certificates (15 in Bishkek and 10 in Naryn province), December 2005. For demonstration activities there were selected buildings in urban (Bishkek and Naryn) as well rural areas (village Emgektala in Naryn province and Kok Dzar near Bishkek). Buildings selected corresponded to building typology (monolith, panel and masonry apartment buildings, clay and brick family houses) and dwellings of various ownership (private, municipal, and state). In December 2005 all the tenants and home owners received the certificates.

→ Dissemination campaign in order to promote energy certification of buildings was performed by publication of articles in the press for public and professionals, and organization of the national workshop on energy certification of buildings.



3.3. Project: "Preparation of Model Solution for Energy Utilization of Biomass" - S-SBK BIOMASS.

Project: "Preparation of Model Solution for Energy Utilization of Biomass" - S-SBK BIOMASS.

Project partners: Energy Center of Bratislava (Slovak Republic).

Project status: On-going (March 2005 July 2006)

Financial support: British Embassy in Slovak Republic.

The main goal is to foster market development by introduction of model solution of energy utilization of biomass. Kyrgyz Republic is on 60% dependant on energy imports and imports almost all fossil fuels. On the other hand significant potential of domestic and environmentally friendly sources of renewable energy are not used. Biomass, could be important source of energy and heat especially in rural areas which suffer now from bad energy infrastructure and low access to energy supplies. Results of this project may improve energy sector of Kyrgyz Republic. It is expected to find opportunities for the penetration of biomass fuel in the existing energy market and identification of potential sectors, with individual users interested in the diversification of fuel.



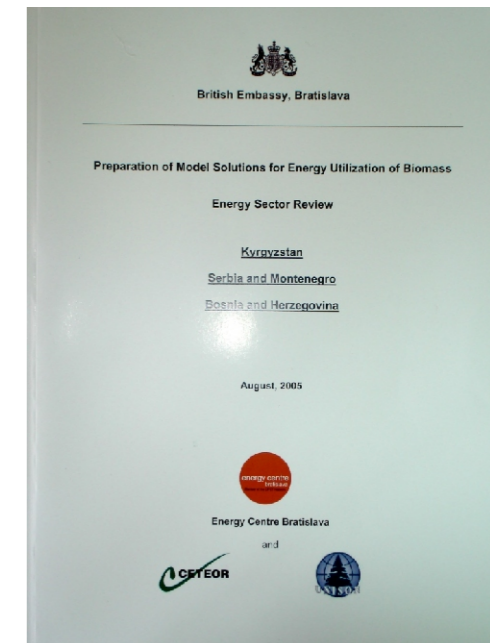
In frame of the project has been prepared and published "**Energy Sector Review**" for Kyrgyzstan, Serbia and Montenegro, and Bosnia and Herzegovina. Publication includes information about energy industry, energy demand and consumption, energy tariffs, availability of biomass resources and recommendations for enhancement use of biomass energy in three countries mentioned above.

The brochure of **Successful Biomass Development Case Studies** has been published, which included several success stories from different countries. The main idea of this publication is to inform interested stakeholders about successful application of Biomass in other countries and increase local interest on Biomass market development.

The project team has prepared the **Action Plan on Biomass Market Development in Kyrgyzstan**. The main objective of the document is to develop a list of instruments and propose new mechanisms for fostering biomass market. These support mechanisms created by taking into the account real situation in Kyrgyzstan with expected future development on market transformation.

On this base there were evaluated support tools and mechanisms used in European Union states and their possibility to be implemented in Kyrgyz legal and economic environment. Instruments developed were discussed with the key local stakeholders on the national seminar on Biomass. Based on feed-back there have been up-graded suggested instruments, set-up institutions, which could take responsibility for implementation and suggested time schedule for implementation. That schedule is indicative only and should be implemented under condition of active government support.

The Action Plan shall be presented to the general public and state authorities in the conference in Belgrade on June 2006 as well on The Central Asian European Climate Change Conference "CAEFOCC" in Bishkek, on 25-27 May 2006.



3.4. Project "Slovak Kyrgyz partnership on fostering market penetration of renewable energy sources" - FoRES

Project: "Slovak-Kyrgyz Partnership on Fostering Market Penetration of Renewable Energy Sources" - FoRES.

Project status: On-going (Oct. 2005 January 2007)

Project partner: private consulting company NAWITAS AAE s.r.o. (Slovakia).

Support: Slovak Official Development Assistance SlovakAID.

Main objective of the project FoRES is to foster market penetration of renewable energy sources (RES) by capacity building of decision makers, networking and lobbying of private business, facilitating and encouraging technology transfer from EU and Slovakia in particular and by increasing public awareness on RES in Kyrgyz Republic. Kyrgyz Republic is relatively isolated in Central Asia and limited information on what could be done there is available to European developers and investors. On the other hand local stakeholders do not have contacts and knowledge how to present investment opportunities and what indicators are obviously used by foreign investors.



Current policy traditionally focused on energy supply and on large hydropower does not pay sufficient attention and does not specify support instruments for development of renewable energy. The FoRES project addresses that gap and aims to assist both

state authorities and private business on use of available RES potential of Kyrgyz Republic.

To understand why renewable energy sources are important in the context of national development it is necessary to note that energy is one of the most socially and politically sensitive issues in Kyrgyzstan with significant impact on country economy. The country depends on foreign suppliers (Russia and other Central Asian countries) for about 60 % of its primary energy demand. Thus the question of security of energy supply and energy independence has resolute political and economic priority. Nevertheless there is significant overproduction of electricity; there are problems of electricity supply due to overloading and obsolete condition of distribution lines. Communities in rural areas have significant difficulties with heat supply. Electricity can not be used for heating due to low capacity of electrical distribution lines. On the other hand there is not sufficient knowledge and experience how to use and manage existing local renewable heat sources. Project activities will generate ideas and support SMEs in the household sector as well will improve public awareness of renewable energy sources and facilitate acceptance of market transformation.

FoRES will keep all three levels of policy, business and energy consumers to address one and the same problem of sustainable energy and link them together on searching for best appropriate solution in terms of state energy policy.

There have been identified key stakeholders on renewable energy to be invited in the two Working Groups on Solar&Biomass and Small Hydropower&Wind. There have been included the most active institutions and individuals from renewable energy business, state energy authorities, research & development as well consultants, engineers and environmental NGOs in order to guarantee successful realization of it.



Within the project it has been prepared the following project outputs:

- **"Energy Sector Review. Potentials of RES in Kyrgyz Republic"**, presenting review on the Kyrgyz energy sector, energy supply and demand side, key energy indicators, and structure of energy consumption by sector and by energy carrier. Assessment of technical, technical available, economic and market potential per renewable energy source /Biomass, Solar, Wind, Geothermal, Small Hydro Power/ is provided.
- **"List of Barriers for Market Penetration of Renewable Energy Sources (RES) and Recommendations to Address Barriers"**, including list of barriers for the market penetration of RES, policy, regulatory & legal framework recommendations, institutional framework recommendations, fiscal, taxation and pricing recommendations, direct support recommendations, specific recommendations for development of RES, information and awareness recommendations and environment related issues;
- **"Review on External Impacts of Renewable Energy in Kyrgyz Republic"**, presenting macro-economic,

social and environmental positive impacts of renewable energy in Kyrgyz Republic, in English.

- Within the project activities there was prepared a standard project identification form, with basic project data, brief assessment of investment needs and financial viability, in a format understandable for foreign (European) investors and developers. The project team currently works on completing the form by data from projects identified. By performance of this stage of the project both Kyrgyz and Slovak project team will have a list of viable and interesting projects on renewable energy in Kyrgyzstan in internationally acceptable format and will present that list to European and Kyrgyz investors and developers. The list will contain the key information on project identification and its financial viability and investments needed.



3.5. Project "Analysis and evaluation of POPs in Kochkor province of Kyrgyz Republic"

Project: "Analysis and assesment of POPs in Kochkor province of Kyrgyz Republic".

Project status: On-going (February June 2006)

Support: International POPs Elimination Project (IPEP).

On February 2006, in the frame of the "Environmental Health Improvement" division of UNISON, the new project on POPs situation assessment in Kochkor district of Naryn region has started. Main objective of the project is to decrease the threat from dangerous chemical organic pollutants by enhancing the quality and capacity of available information. That will focus attention of regional authorities and local people on chemicals threats in their usual life and search how to address problems in agriculture and farming.

Persistent Organic Pollutants (POPs) are the great concern of the worldwide community, due to their sustainability on the environment POPs are spreading out in entire planet. There is a little understanding of real threats coming from the most dangerous chemicals, what is a serious concern for the human health and environment not only locally but also globally. The risk of POPs in the Kyrgyz Republic is related to the danger coming from non-appropriate storage, smuggling and producing of organic pollutants. Especially, the POPs risks are high in remote agricultural regions. Due to its remote location from the capital of the Republic and only mountain automobile road connection there is missing any environmental information on appropriate use of agricultural chemicals. Kochkor region has the typical characteristics of Kyrgyz

rural areas. The level of environmental control is limited and local officials miss appropriate information on POPs.

Anticipated project results are:

- The POPs Analyses based on available official data. Assessment of the capacity of POPs information.
- Assessment of public awareness of main regional stakeholders and identification of the local Hot Spot areas. Round table discussion will foster public awareness on chemicals, which are commonly used by local peoples.
- Improving of the quality and capacity of available information from Hot Spots;
- Assessment of local people understanding of POPs issues;
- Providing of reliable data on the current state of POPs sources;
- Increasing of public awareness on POPs threats;
- Call of attention for the regional decision makers' on POPs threats.



3.6. Education for Sustainable Development and Climate Change

Project: "Education for Sustainable Development and Climate Change".

Project status: On-going (April 2006 March 2008)

Partners: Field Study Council (Great Britain), Omsk Education Committee, ETC (Engineering Technical Center), ETIS (Heating Company)

Support: DEFRA

The overall purpose is to reduce CO² emissions by schools in Russia through the development of new systems that allow and promote energy saving.

The more specific objectives are to -

- Work in partnership with business and the local education administration to **create** a widely applicable system to allow investment in energy saving technologies in schools
- To pilot these systems in one school in Omsk and then **disseminate** them more widely in the city and in Russia
- To enhance the **understanding** that young people learn through the built environment they learn in
- Enhance the **capacity** of teachers to effectively integrate energy and climate change into the curriculum
- Enhancing teachers and young peoples' meaningful **understanding** of climate change and energy issues as a key sustainable development challenge. These will be achieved through undertaking a detailed audit of a schools' energy budget producing an energy saving plan and then based on this implementing the plan in a pilot school with energy saving and sustainable energy technologies using innovative financial mechanisms for the purchase of the technologies through the provision of soft loans by the Education

Committee and Energy Businesses.



This project is needed for three reasons. Firstly, because schools are **huge consumers of energy** both electricity and heating. Almost all the school buildings have been constructed during Soviet period when energy use was not a priority. Schools have low quality of thermal protection, obsolete condition of building services and lack of any modern energy control systems. The average *electricity* bill for a schools is 150 000 rubles (5500 US dollars per year) which is around 100 000 thousand kilowatt hours or approximately 110 tons of CO². The average heating bill for a school is 500 000 rubles per year. Obviously urban school buildings are supplied by district heat firing heating oil while rural school by individual boiler plant on coal or heavy heating oil. Obviously saving energy will make significant reductions in CO². The motivation for reducing energy consumption for a local administration comes from the fact that there are **opportunities to save money**. The total energy bill for the 150 plus schools in Omsk City is 38 million rubles and even a 10% saving will make a huge difference. Our project will help contribute towards a reduction in CO² emissions in Russia.

Secondly, there is a need for education departments to have **new systems for efficient use of energy** in buildings and implementing energy conservation. This project is timely because of the changes that are taking place in the energy supply market in Russia. For example, in Omsk, as in many other cities, all schools are being fitted with energy meters and will soon become more responsible for the payment of their own electricity and heating bills. This will mean that schools will be looking for new ways of using energy more efficiently and staff will need training in the management of energy in school. There will also be a need to tackle one of the key issues related to energy efficiency measures - who will pay for them. Schools themselves do not have the money to invest in any energy saving technologies. Our project will help meet this need through the development of new systems both for management and

financing.

Thirdly, there is also an **educational need**. It is increasingly realised that much of our energy education is ineffective largely because the message is not matched by the practice in the buildings that the young people learn in. Teaching about energy saving in the classroom does not have much impact in a school which makes no effort to save energy and certainly does not bring about behaviour change. In addition, young people are usually not taught the whole picture about energy. The focus is often on individuals saving energy through switching off lights, turning down radiators (if they can) and so on with very little focus on some of the systemic energy supply issues such as the pricing and supply of energy.

The Conference will address following main topics:

- Energy policy and market transformation
- Energy Certification of Buildings
- Renewable energy sources: presentation of successful projects
- New opportunities for project financing. Greenhouse gas emissions trading and other instruments
- Presentation of energy efficiency success stories
- Efficient technologies and products
- Site visit tour of renewable energy projects in Kyrgyz Republic



3.7. Central Asian European International Forum on Climate Change CAEFOCC

Project: "Central Asian European International Forum on Climate Change CAEFOCC".

Date: 25-27 May, 2007

Project partner: The Energy Center Bratislava, Slovakia, Building Research and Development Institute VVUPS-NOVA, Slovakia, GRUNDFOS-Kyrgyzstan, Kyrgyz State University on Construction, Transport and Architecture
Medial partners: "Zelena Energetika", Ukraine, "Sustainable Energy News", Denmark, "Industrial Kazakhstan", Kazakhstan.

Support: European Commission-INTAS Programme and The VELUX Stiftung Foundation.

Forum is held under auspices of the Ministry of Industry, trade and tourism of Kyrgyz Republic.

The main goal of CAEFOCC is to foster the knowledge transfer and cooperation between The Post-Soviet Central Asian countries and Europe, to network diverse market interest groups, policy makers and to facilitate the share of experience and information.

The CAEFOCC will focus on practical and sound solutions of the most important legal, financial, organizational and process barriers recently existing in the market environment. Participants and speakers will be provided with opportunity to inform and to get informed about current status of energy efficiency and renewable energy in Central Asia and European countries, as well actions planned and future perspectives.

4. Services

Civic Environmental Foundation UNISON gathered a substantial experience in preparation of project proposals (Slovak AID, TACIS, IBPP, INTAS, GEF, PHARE) and realization of projects with international partners. CEF UNISON may provide following types of expert services:

1. Monitoring and analysis of the project proposals with the implementation of the experience of countries of European Union in areas of:

- ✓ ecological education, ecological tourism, biodiversity conservation, struggle with the deforestation, environmental protection;
- ✓ climate change, energy-water

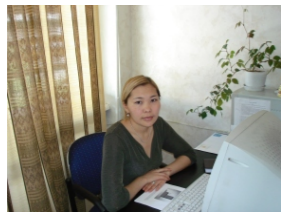
conservation, energy efficiency, energy planning for municipalities and regions, sustainable development policy, renewable energy sources (sun, wind, biomass), Clean Development Mechanisms (According to Kyoto Protocol).
 ✓ search for partners and writing of joint projects, development of project ideas (problem tree, logic frame, project thinking, project management, budget).

2. Monitoring and Assessment
 Monitoring of realization and assessment of the results of projects and programs using qualitative and quantitative parameters.

5. Staff



Nurzat Abdyrasulova, MSc, Director and Founder of Civic Environmental Foundation UNISON. Ms. Abdurasulova has environmental education background and is responsible for overall management and co-ordination of CEF UNISON. Her responsibilities include fundraising, acquisition and public relation.



Nazgul Esenbol kyzy, MSc is a **Project Manager**. Ms. Esenbol has judicial education background. She is responsible for project management and medial activities. Ms Esenbol actively contributes to legal assistancy performed by CEF UNISON in field of energy efficiency and renewable energy sources as well environmental protection.



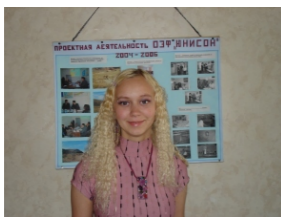
Bakyt Askarbekov, MSc is the **Financial Manager** of CEF UNISON. Mr. Askarbekov currently work on economy doctoral (PhD) degree. He is responsible for the overall financial management, office management and accountancy of CEF UNISON.



Robert Mambetkaziev, MSc is the **IT Manager** and **Environmental Expert**. He is a graduated environmentalist and currently study on judicial degree. Mr. Mambetkaziev is responsible for the IT, web design and environmental analyses.



Aibek Askarbekov, MSc as a graduated energy engineer is the main **energy expert** of CEF UNISON. Mr. Askarbekov provide energy advisory, energy audits, energy certification of buildings in compliance with European Directive on Energy Performance of Buildings. Mr. Askarbekov has experience on Energy Performance Contracting procedures.



Larisa Bondarenko is a **Project Assistant**. Ms. Bondarenko currently study on psychology degree. She is responsible for general project and office assistance. With a bright smile and kind word she drive out the hard working UNISON's staff.

6. Contact information

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Volunteers, wishing to help and assist at anytime and on any staff.