

Environment Protection and Energy Efficiency
Practices, opportunities, actions



INTERNATIONAL CONFERENCE
PRISHTINA, KOSOVO, 20 – 21 OCTOBER 2008

HIGHLIGHTS AND RESULTS



“Into a new Kosovo, with clean energy and a healthy environment”

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Introduction



Dear Readers,

This publication presents a summary of the Conference entitled "Environmental Protection and Energy Efficiency – practices, opportunities and actions" held in Prishtina from 20-21 October 2008. We are very pleased to share with you the presentations, results, recommendations and new projects which were identified.

The conference was organised by the Ministry of Environmental and Spatial Planning, and coordinated by the Kosovo Environmental Protection Agency in close co-operation with the Min-

istry of Energy and Mining, Ministry of Local Government Administration, National Institute of Public Health and Association of Kosovo Municipalities.

The organisation of the conference was supported by GTZ - German Federal Ministry for Economic Co-operation and Development and also other sponsors such as ProCredit Bank and Strabag who we sincerely appreciate and thank for their assistance. We also thank the participants of the Conference for their contribution and especially the international experts and leaders of the working group.

Mahir Yağcılar

Minister

Ministry for Environment and Spatial Planning



Conference steering committee

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Sessions and working groups' moderators

Thematic session A

(Skënder Nitaj & Gabriele Becker)

Legal framework

(Driton Vatovci & Samet Dalipi)

Institutional framework

(Lulëzim Korenica & Besim Kamberaj)

Financial and simulative measures

(Bajram Bujupi & Osman Sadikaj)

Thematic session B

(Nexhat Jashari & Liulin Radulov)

Projects on capacity building

(Burbuqe Nushi & Sabit Restelica)

Projects on awareness rising

(Zeqir Veselaj & Bajram Kadriu)

Concrete technical projects

(Maliq Pireci & Naim Ismajli)

Preamble

The conference aim

The conference aimed that through common actions, to identify practices opportunities and mechanisms for implementing the energy efficiency at local level, in order to contribute to the environment and public health protection

The conference addressed issues as :

- *Improvement of coordination and cooperation between relevant stakeholders and between the different levels of government;*
- *Involvement of civil society and the private sector into environmental activities;*
- *Environment and public health – the linkages between the two;*
- *The legal and institutional preconditions to successfully implement EE measures / activities on the local level;*
- *The functions (roles) and responsibilities of the different levels of government with regard to environmental activities;*
- *Improvement and functioning of the existing networks;*
- *The need for capacity building measures;*
- *Promote the activity coordination and collaboration among responsible institutions for energy efficiency at national and local level;*
- *The regional and international cooperation and experience exchange.*

As a result of thematic sessions and working groups the conference has identified:

- The needs for updating the legal and institutional framework, concerning to the implementation of energy efficiency at the local level.*
- The mechanisms for energy efficiency implementation at local level.*
- The needed projects on capacity building,*
- Projects on awareness raising and*
- Other technical projects for energy efficiency.*

Participants

The conference had over 200 participants from different government and non-government institutions of Kosovo, as well as experts from countries in the region and various EU countries including Albania, Macedonia, Montenegro, Austria, Germany, Switzerland, Bulgaria and Romania.

Conference motto “Into a new Kosovo – with clean energy and a healthy environment”



Environment Protection and Energy Efficiency

Why is KEPA involved in organizing a conference on Energy Efficiency ?

It is apparent that the energy sector directly and significantly affects the environment and public health. It is thus essential that this issue to jointly considered by all relevant stakeholders, and it should be properly addressed in order to mitigate the important inter-related environmental, energy and health problems.

What is the current energy trend in Kosovo ?

Energy and energy supply are considered as the most urgent priority needs for the citizens of Kosovo and the economy. As a country in transition with a relatively low GDP, high rate of unemployment and poverty, Kosovo in the past was not in a position to seek alternative energy resources. Its first priority and major option was a lignite-based energy sector. This also has the highest impact upon the environment. And it impacts the environment during all the operational stages including mining, transport, combustion and energy distribution. Hand in hand also go the environmental problems such as air and water pollution, land degradation, waste management, noise and radioactivity.

What are we seeking for ?

Our great challenge is to achieve a balance between energy demand, energy production and environmental protection. The alternative options for energy supply need to be considered which include the pro-

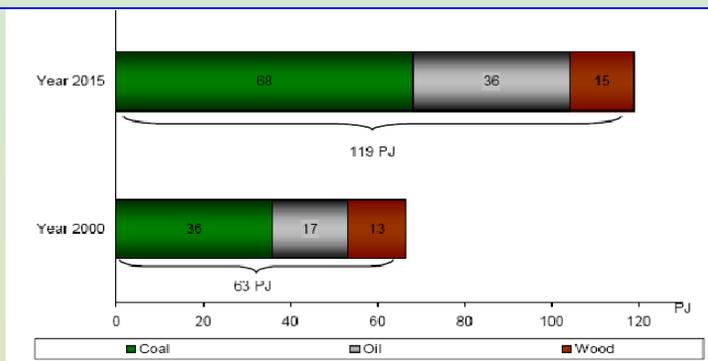
motion of 'best available technologies', the adoption of energy efficiency measures, targeted subsidies, appropriate policies, labelling, standards and awareness raising! All these are needed to reduce the environmental impact in a practical and sustainable manner.

Other important issues

The use of alternative resources is not, by itself, a guarantee of environmental acceptability. For example, the construction of a hydro-power plant may affect groundwater flow, micro-climate, surface water resources and the surrounding ecosystem.

Therefore, amongst others, the conference emphasised the following issues:

- Promotion of renewable energy resources
- Promotion and strengthening of energy efficiency
- Reducing energy loss in transmission systems
- Meeting environmental standards and criteria in the construction of new energy capacities
- Promoting pollution prevention programme
- Implementing the 'the best available technology' principle
- Identifying and inspecting environmental problems in existing electricity generating installations
- Establishing and/or improving the monitoring systems for emissions from existing energy installations



Primary Energy Consumption in Kosovo (Peta Joule)

LOCAL GOVERNMENTS SHOULD BE PREPARED – ACTIONS AT LOCAL LEVEL ARE NEEDED

In Kosovo as well as at regional and even global level, recent innovations and developments in environmental protection have, and will continue to, influence the approach of municipalities within the energy sector. Taking into consideration that the municipalities manage a large number of public buildings such as schools, family health centers, administrative institutions and public lighting, they have more and more favourable conditions for involving citizens and stakeholders in key decision-making as civil society associations.

In addition, through primary and secondary educational institutions, the municipalities may successfully contribute to changing the behaviour of its citizens, by playing an active role in awareness raising concerning the environment and energy efficiency. Also these institutions can help through offering options on urban planning, individual and public transport, telecommunication, waste management, water supply, as well as for the way we consume energy.

Finally, the medium and long-term planning process in municipalities should be in line with their responsibilities in meeting their climate change obligations.

Environment Protection and Energy Efficiency

Among the priorities to be considered at local level is to promote centralised heating systems. In order to comply with energy efficiency principles, electrical energy should not be used for heating and instead a common or central heating system approach should be installed. In this way we would contribute to the sustainable use of natural resources and include environmental as well as health protection.

Another important aspect is to introduce energy efficient solutions to urban and local development plans. A good model also includes the implementation of energy efficiency measures in urban transport systems and local construction projects.

The Conference identified that the local community plays an important role. Organising voluntary programmes for reducing energy consumption would include turning off the lights, lowering the room temperature and replacing classic light bulbs with energy efficient ones. But the best way to sustainably increase energy efficiency, reduce greenhouse gases and promote health protection is through changing our personal habits, attitude and behaviour towards energy.

The conference discussions were oriented based on following local, national and global policies:

- The Kosovo Environment Strategy, which, among other priorities indicates: *The implementation of energy efficiency in all energy sectors;*
- The National Environmental Action Plan, which describes the implementation of energy efficiency projects;
- The Kosovo Energy Strategy;
- The program for Kosovo Energy Strategy Implementation 2006 - 2008;
- The Kosovo Program for Energy efficiency and Alternative Energy resources 2007 - 2009;
- The Municipality Action Plan, for Implementing the Kosovo Program for Energy efficiency 2008 - 2010;
- Energy Community Treaty .



Summary of presentations

RIZAH HAJDARI – Kosovo Environmental Protection Agency “Energy efficiency as the preventing measure for environment protection”

- Depending upon our approach, energy efficiency can be understood as an environmental, economic, planning and/or political concept
- Energy efficiency does not simply mean saving energy and money, but beyond that, it means environmental and health protection.
- Issues for the Conference included making policies on energy efficiency, providing stimulating prices; creating an appropriate institutional framework, promoting public private partnership, making timely, well-planned and effective laws and regulations
- Promoting energy efficiency policies, which consider potential areas for energy saving are: the application of energy efficiency standards for all new buildings, evaluating and monitoring their effect through verifiable indicators, co-ordinating at local, national and regional level an integrated approach to energy efficiency.
- Co-ordinating institutions include: a better public investment approach, strengthening the electrical energy transmission network, implementing collective and central heating systems, energy savings in public buildings, more orientation towards renewable energy resources

GABRIELE BECKER- GTZ “Changing our mindset !”

- To have a clear direction for implementing energy efficiency at local level, initially we have to try to answer some questions: how can we respond to our obvious challenges that are happening in nature? How can we start to envision our desired future? How can such long term strategic processes be organised? Who needs to be ‘on-board’ in order to make the process a success? How do we want to live in 2030? What development is foreseeable? Where are we going? How to get started?
- To answer these questions, we need to ensure the right orientation in our municipal energy strategy, to implement criteria for decision-making and for energy policies and activities in municipalities which will encourage and mobilise its citizens.



SAMET DALIPI—Ministry of Local Government Administration “Environment and Energy at local level”

- A questionnaire on energy efficiency and environmental protection was delivered to the municipalities. The results show that in Kosovo municipalities: there are only a few initiatives and debates, there is a lack of legislation on energy efficiency and environmental protection, there is lack of action plans.
- The results also show that the municipalities are confronted by a lack of experts and expertise as well as few projects and limited finance. However, they are supported by different organisations and donors and several projects are implemented in this field.
- It is suggested that municipalities should: hire experts for energy efficiency and environmental protection and promote projects to be co-financed by the government or donors.
- The Kosovo Government, through their respective ministries, are in the process of supporting the municipalities in capacity building for energy efficiency and environmental protection.

Summary of presentations

SKENDER NITAJ– Ministry of Energy and Mining “Legal and programme framework on Energy Efficiency in Kosovo”

- **The Law Nr.2004/8 for Energy, (Article 3)** regulates energy efficiency issues, renewable resources of energy and co-production.
- **The Kosovo Energy Strategy 2005-2015** is the framework of measures and policies for achieving strategic goals and it anticipates: drafting and approval of Law for Energy Efficiency, drafting Kosovo Programme for Energy Efficiency and Renewable Resources, Establishment of the Fund for Energy Efficiency and Establishment of a Kosovo Energy Efficiency Agency.
- Within the implementation programme for the Kosovo Energy Strategy **2006-2008**, there is the sub-programme: Energy Efficiency and Renewable Resources.
- **The Kosovo programme for Energy Efficiency and Renewable resources 2007-2009**, includes some projects concerning the public services sector, urbanism, industry, transport and agriculture. Besides implementing technical projects, this programme also includes educational campaigns, training and producing various publications.
- Some of the realised and planned projects in Kosovo that need mentioning are: research on hydro-energy potential in the different regions, pre-feasibility studies for identification of water resources for small hydro-units, elementary courses for carrying out energy audits, evaluation of renewable energy resources and some public awareness campaigns.
- Kosovo is part of the **Energy Community Treaty** and regularly participates in the **Task Force for Energy Efficiency**.



NASER RAMADANI—National Institute For Public Health of Kosovo “The contribute of Energy Efficiency implementation in public health”

- The State of the Environment Report (SoE) reflects the important public health issues in Kosovo. The use of fossil resources for energy production not only directly impacts upon the environment but also public health. Because of the lack of electrical energy, besides causing untold stress and trauma, there are also other impacts such as increases in (a) cases that require medical help, (b) the number of accidents, (c) neural and diarrhoeal illnesses (reduced capacity to carry out simple hygiene practices), (d) the social problems related to public health.
- Many diseases are linked with water quality and quantity, and it is well known that the drinking water supply systems are directly linked to the energy resources available.
- According to the data from the National Institute for Public Health, only 44% of the Kosovo population has access to the public drinking water system; only 28% has access to the sanitation system; about 64% use drinking water from wells. It is also estimated that about 74-90% of water from wells is contaminated with effluent; 56% of all epidemic diseases belong to the diarrhoea syndrome where the limitations water, food, sanitation and personal hygiene are the main factors.
- In recent years, the number of cancer cases has increased. The problems of public health are directly connected with environmental protection and the way we produce the energy. Therefore, by implementing energy efficiency standards we contribute to the protection of public health and a better quality of life as well as environmental protection.

Summary of presentations

Dr. ZDRAVKO GENCEV - EnEffect

“Local and national energy policy to improve energy efficiency in buildings”

- For the fulfillment of institutional and legislation framework for Energy Efficiency, Kosovo can use Bulgarian experiences as adjusted model.
- Success implementation of Energy Efficiency beget the necessity for application of reforms on local authorities in energy policy, effective policy instrument, local capacity building-municipal energy planning.
- Realization and demonstration of projects in municipalities, is necessary to advance implementation of Energy Efficiency issues.
- Demonstration for mobilizing political and networking on the international level- Southeast European Cooperation is one of the important factors for successful implementation of Energy Efficiency.
- Development and application of different programs is necessary for successful implementation of Energy Efficiency.



FAHRI BLAKAJ—Ministry of Energy and Mining

“Building and empowering the institutional sector of Energy Efficiency in Kosovo”

- The institutional structure of the energy efficiency sector is within the Ministry of Energy and Mining and organised at divisional level, whereas energy efficiency is also a co-sector within the Renewable Energy Resources and Environment as a part of the Energy Department.
- The legislative and regulatory framework for energy efficiency is regulated by **the Law Nr. 2004/8 for Energy**, secondary legislation and the Kosovo Strategy for Energy. There is a 3 year programme for implementing the Kosovo Strategy for Energy and also for Energy Efficiency and Renewable Energy Resources.
- The Programme for Energy Efficiency is based on the Programme for Energy Strategy Implementation (2006-2008) and includes 18 projects. Some of these projects have been implemented and some of them are in the process of being implemented.
- In order to enforce the existing secondary legislation, the following activities are being undertaken: elementary training for carrying out energy audits, capacity building for energy management at local level, promoting the use of solar energy and study for potential renewable energy sources.

All conference materials as conference programme, agenda and presentations including this brochure are available at : www.ks-gov.net/akmm

Summary of presentations

Dr. FRANK RIESBECK – Humboldt University, Berlin

“Practices of environment protection through energy efficiency, implementation trends“

- The way we produce the energy, the way we use the natural resources, and the way we use the energy need to be changed.
- Environmental protection, reduction of air and water pollution through implementation of Energy Efficiency and the use of renewable energy resources is only one of solutions.
- Practical examples for alternative energy technologies are: waste as recourse for energy; using of solar, wind, geothermic and water energy.
- Mechanical-Biological treatment for household waste, organic waste treatment, the treatment of biogas in combination with agricultural products, recycling of plastic waste and/or diesel production might be some of pilot projects to be implemented in Kosovo municipalities.

LIULIN RADULOV – Bulgarian Energy Efficiency fund

“Bulgarian Energy efficiency fund, financing of energy efficiency, investment project and pre financing for EU operational programmes”

- For successful implementation of Energy Efficiency the financial means are needed. One of the ways to get financial support is to establish the Energy Efficiency Fund.
- Bulgarian experiences on establishing this fund might be a good model.
- Right definition of fund’s objectives, key operation principles, market position, financial conditions, eligibility of projects, types of projects are some of the preconditions for establishing Energy Efficiency fund.
- Expansion of the fund in municipalities, implementation of EU operated programs, demonstration of projects for the renovation of municipality buildings, portfolio Guarantees- key points, application with commercial banks, ESCO application and implementing project are essential for Energy Efficiency implementation.

MALIQ PIRECI - AKEREE

“Kosovo opportunities on Energy Efficiency implementation”

- Energy saving and efficiency contribute to lower use, more regular supplies to consumers, cost reduction, improved local services, improved energy balance, improved national energy security as well as environmental protection.
 - ⇒ Install a central system for public lighting and establish a timetable/intensity of lighting for certain streets
 - ⇒ Adjust the height and distance between light efficient poles
 - ⇒ Ensure new buildings are well insulated, use thermo-insulated windows/doors and have a central heating system installed
- Experience shows that possibilities to save energy through its efficient use are realistic and easy to be carried out in practiced.
 - ⇒ Use efficient stoves for district heating
 - ⇒ Apply collective heating for buildings
 - ⇒ Use energy efficient electrical equipment
- It is recommended to implement the following measures:
 - ⇒ Use renewable energy resources for sanitary water heating
 - ⇒ Apply the Building Energy Code (BEC).

Results of the working groups

Thematic session A- Actions and implementing mechanisms

Group I- Legal framework

- Re-proceeding the draft law on Energy Efficiency;
- Completion of the secondary legislation on Energy efficiency and Renewable Energy Resources;
- Municipalities to issue Regulation according to their competencies in order to implement the National Legislation on Energy Efficiency and Environmental Protection;
- Decentralization of the competencies on the local level for Energy Efficiency and Environmental Protection;
- The municipality officials to be involved since the earliest stages in the legislative drafting process related to Energy Efficiency and Environmental Protection;

Group II- Institutional framework

- Establishment of the Kosovo Agency for Energy Efficiency;
- Establishment of Municipal Offices for Energy;
- Establishment, strengthening the energy auditors and do their licensing;
- Creation of the GEO data base for Energy Efficiency and Renewable Energy Resources;
- To coordinate activities on Energy Efficiency among national Institutions: Ministry of Energy and Mining, Ministry of Environment and Spatial Planning, Kosovo Environmental Protection Agency, Ministry of Local Government Administration, local institutions (Municipalities) and NGOs;

Group III- Financial and stimulation measures

- Establishment of the Energy Efficiency and Renewable Energy Resources Fund;
- Facilitation measures for businesses –investors on Energy efficiency and Renewable Energy Resources at the national and local level;
- The Municipalities to prioritize co-financed Energy Efficiency projects;
- To provide soft loans for Energy Efficiency projects;
- Financial decentralization for the capital projects (investments) on the local level;



Results of the working groups

Thematic session B- Practices and opportunities

Group I: Projects on Capacity Building

- Establishment of the National Network for Energy Efficiency as an independent institution (NGO);
- Projects on professional capacity building in municipalities
- Training of trainers for Energy Efficiency;
- Energy Efficiency Training for the municipality officials
- To establish a training center on Environment and Energy Efficiency;
- Regional cooperation for the exchange of experiences on Energy Efficiency and Environmental Protection;
- Study tour visits for the municipalities, MESP, MEM officials, NGO-s and others.



Group II: Projects on Awareness Rising

- Finalization of the green pack and its implementation in the public education institutions;
- Education and environmental awareness for Energy Efficiency outside public system;
- Strengthening the ministerial sector in charge of awareness;
- Publication of the Environmental & Energy Efficiency brochures;
- Organization of public debates with citizens involving NGOs;
- Increased involvement of Media;
- Inclusion of the Energy Efficiency in universities and school curricula.

Group III: Concrete Technical Projects

- Studies, researches for alternative resources for energy production (Water, Wind, Biomass, Solar, Solid waste & Geothermal) In order to establish a database for the potentials of alternative energy resources;
- Promotion of the decrease of the reactive energy in industry and distribution;
- Biomechanical treatment of the waste based on the Public-Private-Partnership model;
- Utilization of the thermo-graphic camera for the public buildings (pilot project);
- Improvement of the Environmental Monitoring System;
- Organization of a conference on Energy Efficiency technology;
- Draft-plan on the implementation of Energy Efficiency measures in transport, agriculture and industry;
- Extension of the district heating of Prishtina city from thermal power plants;
- Installation of the central heating systems with solar and geothermal technology;
- Public street lighting with Photo Voltaic panels in the municipality of Shtime (pilot project);
- Implementation of the Energy Efficiency lighting;
- Utilization of solar panels for heating the sanitary water in public buildings (such as: hospitals, kinder gardens, army buildings, student dormitories, sport halls, social housing);



Organizer, partners and sponsors:



*Ministry of Environment and Spatial Planning
Ministry of Energy and Mining
Ministry of Local Government Administration
Ministry of Health*



Kosovo Environmental Protection Agency



National Institute of Public Health of Kosovo



Association of Kosovo Municipalities



**Partner for the Future
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Project: Modernization of municipal services



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