

Energy and small and medium enterprises - challenges and options

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Abstract

Sustainable development of the SME sector in Kosovo can only be accomplished by ensuring the competitiveness of the products and services provided in the country. SOE energy expenses are high and continue to increase with ever higher energy prices. Energy intensity in Kosovo is quite high in comparison to other European countries. In such circumstances, it is necessary for all SMEs in Kosovo to introduce energy saving measures which will increase energy efficiency.

Successful implementation of efficiency measures in the SME sector requires further improvement of policies, adequate institutional development and compilation of relevant support programs by local institutions. Your support represents a key element in the process of improving energy efficiency (EE) in the SME sector. Foreign donors are inclined to assist in improving EE; therefore, this represents an opportunity to be seriously and actively utilized. In order to utilize such assistance, it is necessary for Kosovo to have its own supporting institutions, such as the EE Agency and EE Fund.

The purpose of this paper is to present the current situation as regards energy efficiency, as well as the possibilities for its improvement; the energy efficiency challenges faced by the SME sector; and to propose objectives of the necessary SME support and to provide concrete options for assisting in increasing energy efficiency among SMEs. A number of conclusions and recommendations are also presented at the end of this document.

Keywords: SME, Energy Efficiency, Energy Intensity, Competitiveness, Energy Efficiency Fund, Policy, Strategy, Programme, Foreign Aid, Opportunity, Challenge, Options.

1. Introduction

Small and medium enterprises (SMEs) are currently considered to be one of the engines of sustainable development and self-employment all over the world. Stimulating and supporting their development represents part of policies and programs of governments around the world, West and East, North and South, in developed countries and in countries in development. Similarly, the Government of Republic of Kosovo pays due attention to the SME development. In addition, foreign aid for SMEs, especially aid provided by the European Commission, has been present in Kosovo since 1999.

In free local and international markets, SMEs often face competition by larger enterprises. This challenge is immense if there are no adequate legal and regulatory frameworks that support and favor SMEs. This is valid around the world, thus, SMEs benefit from specific support anywhere in the world. Kosovo is no exception.

In addition to favoring provided through the legal and regulatory framework, support provided to SMEs takes various forms, including: financial support, through soft loans or loan guarantee schemes in commercial banks or SME funds; special purpose grants, such as innovation grants or grants for the application of new technologies; or other forms of technical assistance for the transfer of know-how and management advancement methods. Often, SMEs also benefit from subsidy schemes for set periods.

Constant increase of energy source prices in international markets is making energy one of the key cost elements for SMEs in providing their services or products, often harming the level of their competitiveness. Excessive use of energy and failure to implement energy saving measures results in increased costs and lower SME competitiveness.

This is one of the main reasons why many countries, including European Union member states, have set their approaches and policies to provide SMEs with favorable energy tariffs, under certain circumstances. Such

experiences should be reviewed, and when applicable, implemented for Kosovo's SMEs.

Another factor specific for Kosovo, in addition to considerable energy prices, is that the quality of energy supply, especially electricity supply is low; this because electricity supply is often interrupted and for longer periods. This also interrupts or damages production and service provision processes and increases the cost of production and service provision, as SMEs are forced to install and use alternative energy sources, such as electricity generators with internal combustion, which often buzz throughout Kosovo, especially in winter.

The purpose of this paper is to identify challenges, review best global practices and provide options for solutions and improvements, in order for energy not to become an unbearable burden for Kosovo's SMEs.

2. Inefficient use of energy

2.1 Energy intensity in Balkans

Inefficient use of energy, among other, decreases the competitiveness of products and services provided, especially those provided by SMEs. In this sense, the situation in Kosovo is not at a desirable state.

Not only Kosovo, but rather the entire region of Western Balkans (which includes Kosovo) is characterized by high energy intensity levels. These levels are up to 2.5 times higher than the average of European OECD countries (0.15 toe per 1,000 USD of GDP). This may be attributed to three main factors:

- (i) Low level of efficiency in use of energy by final consumers, including SMEs.
- (ii) Degraded energy infrastructure, and
- (iii) High level of energy losses in transformation, transmission and distribution.

The ratio of total energy consumed by final consumers and total primary energy supplied shows that the efficiency of energy systems in the region varies from 50% in Kosovo to 58% in Montenegro and 80% in Croatia¹.

In Kosovo, the energy intensity in general and the electricity intensity in specific, as GDP functions, are fivefold higher than the average of European OECD countries (33kWh per 1,000 USD of GDP). This is mostly applicable due to the fact that electricity represents the greatest part of energy consumed (and the fact that a considerable amount of energy is not paid), the high grid losses and low technological performance in many industrial enterprises and services sector, mostly SMEs.

In Balkans, energy necessary to produce 1.000 USD GDP (expressed in purchasing power parity - PPP) is in average 2.5 times higher than in Germany (0.16 toe/GDP 1,000 USD (PPP)). In Serbia, this value is 4.5 times higher than in Germany. Therefore, the introduction of relatively simple and standardized saving measures in SMEs and households may yield in great energy saving possibilities.

2.2 Energy intensity in the region and in Kosovo

Kosovo has one of the highest energy and electricity consumptions *per capita* in Western Balkans, with the annual energy consumption reaching 1.07 toe and the electricity consumption 1,455 kWh. Also, energy intensity in Kosovo remains relatively high. Electricity sector losses are high. It should also be mentioned that electricity generation efficiency is set at 31%, whereas modern lignite-powered thermal power plants in Europe operate at 42% efficiency. Losses in transmission and distribution amount at 37%, of which 22% are non-technical losses.

The assessments on energy saving possibilities show that they comprise between 25% and 35% of the national energy consumption. Most technical studies conducted to date confirm the low efficiency in the household² and SME sectors. The table below shows energy saving potential by economic sector in the countries of the Western Balkans³.

Sector	% Energy Savings Potential
Transport	10
Residential	10-35
Public	35-40
Service	10-30
Industrial	5-25

3. Challenges faced by Kosovo and the Balkans

The Balkans region is facing a number of challenges related to energy saving and efficient use of energy by industrial and services sectors, mostly by SMEs.

The main challenges identified to date are:

- (i) Insufficient knowledge on energy saving possibilities among SMEs, and
- (ii) Limited possibilities to finance measures for increased energy efficiency through mid-term and long-term loans.

It is necessary for the SME competitiveness in Balkans to increase, in order for them to be able to survive the ever growing competition from larger enterprises while accessing larger markets. Further, the implementation of energy efficiency measures, installation of new production and service provision technologies, appropriation of know-how on efficient energy management are now necessary for SMEs.

Specific for Kosovo is the fact that frequent interruptions in electricity supply force SMEs to use their small electricity generation appliances. This represents the most expensive electricity generation method, and places our SME sector in an unfavorable position, in comparison to SMEs in Macedonia, Montenegro or Albania.

It is necessary for Kosovo's governmental and other institutions to advance in preparing policies and concrete measures aimed at improving the SME competitiveness levels. Energy represents one of the most significant directions in which such policies should be focused, in

² It is assumed that the household energy consumption for heating purposes is 2-3 times higher than that of Western Europe. Heat supply for household heating purposes is provided with low efficiency. Heating stoves represent the most frequent heating appliance (used by 50% to 85% of households), and the efficiency level of 75% of all such appliances is around 20%.

³ Status of energy efficiency in Western Balkans, Stocktaking Report, 15 June 2010, World Bank

¹ Data obtained from the International Energy Agency, 2008

order for them to provide concrete options for improved energy efficiency among SMEs.

4. Objectives of the necessary SME support

The objectives of government policies and concrete programmes to support SMEs in improving energy efficiency, energy savings and utilization renewable energy sources should include:

- Provision of funding for investments in advancing energy efficiency (EE) and small projects in the renewable energy (RE) sector for SMEs;
- Improved awareness of SMEs on EE and small scale investments in RE;
- Expansion of financial services that support SME development requirements;
- Completion of an adequate regulatory framework for the attraction of private capital for EE and small RES investments for SMEs; and
- Coordination of relevant donor initiatives.

The accomplishment of such objectives requires cooperation between relevant institutions, such as the Ministry of Trade and Industry and Ministry of Economic Development. The institutional structures dedicated to supporting SME development and energy efficiency are to be established by these two government ministries.

Cooperation with donors, especially with the European Commission, could and should be advanced for the benefit of the SME sector. Kosovo should apply European approaches and practices for this sector.

5. Options of support for improved energy efficiency among SMEs

Kosovo Energy Strategy 2009-2018 envisages policies, measures and programs the implementation of which is required to support increased energy efficiency for Kosovo's economy, including the respective priority sectors, among which the SME sector. The time is right for this Strategy to be reviewed and updated, in order to include improved and advanced SME support measures.

The box below presents a summary of notes related to energy efficiency in Kosovo, from the World Bank's "Status of energy efficiency in the Western Balkans: a stocktaking report", 15 June 2010.

Institutional Framework in EE – Kosovo

Legal and regulatory framework. Administrative responsibilities are clearly defined; some EE policy goals have been set; and an energy law and strategy were passed. In 2007, Kosovo adopted an energy efficiency and renewable energy program. Draft laws on energy efficiency and renewables have yet to be approved. The EE action plan is awaiting approval, and supportive policy tools still need substantial development. Legislation facilitating the role of ESCOs is being prepared.

Supporting structures. Kosovo needs an energy institute to advise Government on energy policy and to provide statistical data to support policy formulation. Accurate statistical data are currently

not available and much work is still needed to establish an EE implementing agency, which could be the same entity as the energy institute.

Implementation. Kosovo has yet to implement concrete EE measures. Individual metering of heat consumption from district heating systems (limited to only 3% of the population) does not yet exist. Although EE hardware and software is available, Kosovo has insufficient trained experts to install the technologies and training is not yet available. The education system, policy makers, and energy industries need to cooperate to target priority needs to educate and train future energy sector workers. Kosovo adopted an energy auditing system that includes auditor training and development of standardized auditing methods.

Incentives. Most energy efficiency incentives are lacking. Kosovo needs to introduce financial incentives to promote EE; so far only one financial scheme exists for EE, financed by GTZ. The Assembly of Kosovo rejected creation of an EE fund on the grounds that public entities such as hospitals or schools are not permitted to benefit directly from energy savings—the classic owner-user-dilemma. The energy utility KEK is not yet promoting energy savings through demand-side management programs.

Public information. Public information capacity needs to be built to raise awareness among consumers about the benefits of energy efficiency. Household energy survey results show that most people are at this stage unable or unwilling to invest in longer-term energy savings, or perhaps unaware of potential benefits, and low-income households do not consider it a priority (energy poverty).

The Kosovo Assembly enacted the Law on energy efficiency in 2011. This law stipulates the creation of an Energy Efficiency Agency, a structure which could muster adequate and sufficient support to implement efficiency measures in the SME sector. However, the law does not envisage the creation of an Energy Efficiency Fund.

Kosovo has also adopted the National Energy Efficiency Plan 2009-2016, drafted by the former Ministry of Energy and Mining. This plan includes a special chapter on SMEs. The implementation of this plan and the accomplishment of energy efficiency targets remains a challenge, though.

The completion and improvement of the legal foundation and the establishment and development of special institutions dedicated to the stimulation and support of improved energy efficiency remains another significant challenge for Kosovo.

The experience of western countries and the experiences of other Balkans countries show that effective support of EE among SMEs can be achieved through the creation and functionalization of an Energy Efficiency Fund.

The table below summarizes current institutional arrangements in the sphere of energy efficiency in a number of countries of the region, including Kosovo.

Country	Energy or Efficiency Agency	Public Efficiency Fund	Donor Efficiency Fund
Albania	Y	Y	Y
Macedonia	Y	-	Y
Montenegro	- *	- *	Y
Kosovo	-	-	Y
Croatia	Y	Y	Y
Slovenia	Y	Y	-
Romania	Y	Y	Y
Bulgaria	Y	Y	Y

* The Montenegro Strategy on Energy Efficiency, adopted on 13 October 2005, envisages the creation of an EE Fund and Central Unit.

The establishment of an Energy Efficiency Fund in the mid-term represents a rather promising option, which could ensure a solid and concrete support for energy efficiency advancements in the SME sector.

6. Foreign aid on EE and Kosovo

The donor community placed energy efficiency at the center of its attention. The box below presents a summary of the main projects and programs in this sphere.

Foreign aid on EE in Kosovo

Some of the main Kosovo EE projects funded by donors:

EC gave an € 2.0 million grant to Government for public sector energy efficiency improvements. The program comprises three components: EE improvements in five public buildings for €1.2 million; Energy Auditor Training for €0.5 million; and a Public Awareness Campaign for €0.3 million.

GTZ and the Association of Municipalities of Kosovo are co-financing a program of about €1.5 million for EE modernization of municipal service buildings such as schools and hospitals.

KfW is implementing a €30 million lending program in Kosovo, 'Energy efficiency measures for small enterprises and households to promote climate and environmental protection'. The credit line is offered in partnership with ProCredit Bank and Raiffeisen Bank; both are receiving technical assistance in the form of staff training to administer these loans to SMEs and households.

In addition, Kosovo SMEs can also benefit from regional EE programs. Most significant such programs are summarized in the box below.

Foreign aid on EE at the regional level

Regional EE program, from which Kosovo SMEs may benefit:

EBRD has established the Western Balkans Sustainable Energy Direct Financing Facility of €63 million, comprising up to €50 million in loan funds plus up to €13 million for technical assistance and incentive payments. The Facility will use debt financing for sustainable energy projects such as industrial energy efficiency and small renewable energy projects for local enterprises. Individual loans will range from €1.0 to 6.0 million, and countries included are Albania, Bosnia Herzegovina, Croatia, and FYR Macedonia, Montenegro and Serbia. EBRD also established recently a Western Balkans Sustainable Energy Credit Line Facility, a €60 million credit line to finance smaller energy efficiency and renewable energy projects for SMEs via participating banks.

GTZ is implementing an Open Regional Fund for Energy Efficiency, a €3.0 million grant for EE improvements.

KfW/EIB/EC plus private donors are each contributing €20 million to establish a new €80 million Energy Efficiency Fund using mezzanine financing and equity investing. Market research and evaluation are underway to determine Fund structure and design, which could be credit lines to banks or to ESCOs, and/or equity investments. South Eastern European countries and sectors to be covered are being selected.

UNECE is implementing the "Financing Energy Efficiency Investments for Climate Change Mitigation" project, under which a PPP investment fund called "Eastern Europe Energy Efficiency Fund" will be established. Fund capital commitments will be about €250 million. This Euro-denominated fund offers mezzanine and equity financing for EE/RE projects or companies developing, manufacturing, distributing or installing EE/RE equipment or services in target countries. The minimum investment is €10 million and the Fund will operate in twelve SEE, CEE, and EE countries, including Albania, B&H, FYR Macedonia

and Serbia. An estimated is €30 million may be available for these Western Balkan countries.

Source: Status of Energy Efficiency in Western Balkans, Stocktaking report, 15 June 2010, World Bank

Southeast Europe Energy Efficiency Fund and SMEs

For Kosovo SMEs, it is interesting to present in detail the "Southeast Europe Energy Efficiency Fund for SMEs", established in 2009 by the European Commission, European Investment Bank and German KfW. The Southeast Europe Energy Efficiency Fund is designed to address challenges faced in the promotion of energy efficiency measures, by providing financial support through the local banking sector, as well as direct funding accompanied by technical assistance.

The appended Annex contained detailed information on the structure and functions of this fund, aimed at supporting the interested SMEs.

7. Conclusions and Recommendations

The main conclusions are:

1. The high intensity of energy use in Kosovo's economy represents one of the most significant obstacles for the enhancement of its market competitiveness. Energy saving and efficient use of energy by its SMEs represents one of the main means to decrease operational costs and increase their competitiveness, and through them of the entire Kosovo economy.

2. Increased energy efficiency in the SME sector requires the completion of the legal framework and the development of an adequate regulatory framework, as well as the development of relevant supporting institutions, in compliance with the European approach and the best European and regional experiences.

3. Inter-institutional coordination among relevant local institutions and their coordination with international donors remains insufficient. Better coordination between them will enable a prompt and better implementation of efficiency measures, which are currently available.

Recommendations:

1. It is necessary to conduct period updates of mid-term policies, strategies and programs for the improvement of EE in general, namely for the country's economy in total. This process should be better coordinated among relevant local institutions and with foreign aid institutions.

2. It is necessary to further develop and complete the legal, regulatory and institutional frameworks of the EE sphere, all in full compliance with the EU *Acquis*. The functionalization of the Energy Efficiency Agency represents a priority for local institutions. The establishment of an Energy Efficiency Fund in the mid-term will represent the most suitable means for supporting the implementation of efficiency measures in as many SMEs as possible.

3. Kosovo's SMEs should utilize the opportunities granted by the regional EE programs, such as the Southeast

Europe Energy Efficiency Fund. Relevant institutions should present and promote such opportunities for SMEs. Moreover, it would be quite positive to raise the capacities of SMEs, in order for the latter to apply for favorable EE loans and other similar programs.

Annex: "Southeast Europe Energy Efficiency Fund and SMEs¹" (Loan Objectives, Beneficiaries, Structure and Procedures)

1. SEEEEF objectives are to:

- Provide additional development financing for EE and small RE projects to broaden the financial base for these kind of investments in the Southeast European Region;
- Address specific needs of underserved market segments
- Increase awareness of EE / small RE investments among companies and private households
- Contribute to broadening and deepening the financial sector serving those development needs;
- Harmonize and coordinate donor initiatives
- Attract additional private capital for investments in EE /small RE in the region and offer investors an attractive financial return in line with market expectations.

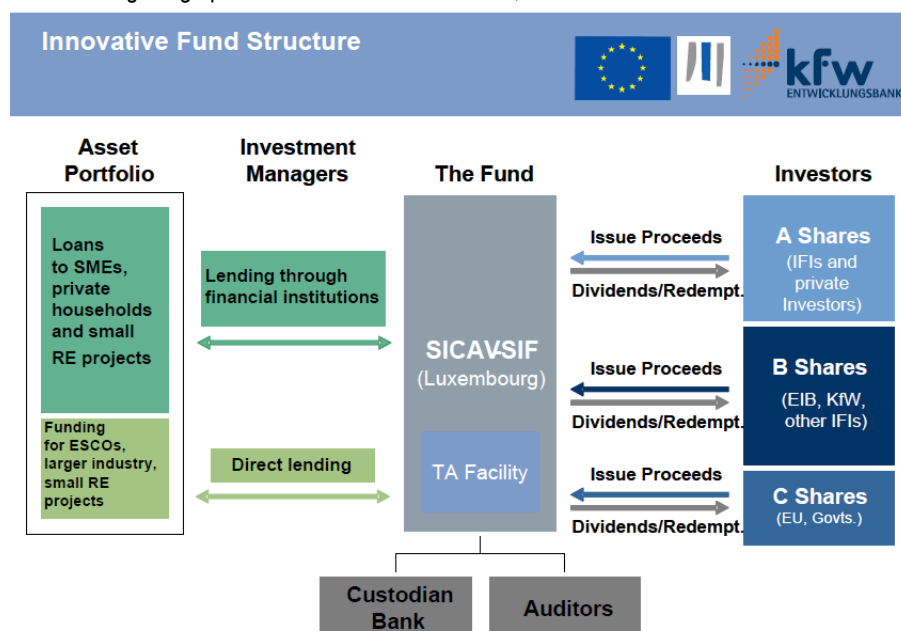
2. SEEEEF partner/beneficiary institutions:

- Financial Institutions (e.g. commercial banks, leasing companies) committed to finance EE demand side investments of SMEs and private households (incl. home owner associations), small scale RE; and
- ESCOs, renewable energy companies and projects, small scale RE and EE services and supply companies, industrial companies;

¹ As presented by Constanze Kreiß (KfW), Dirk Roos (EIB), Vienna, September 17th, 2009

3. Structure

The following image presents the SEEFF structure, stakeholders and beneficiaries.



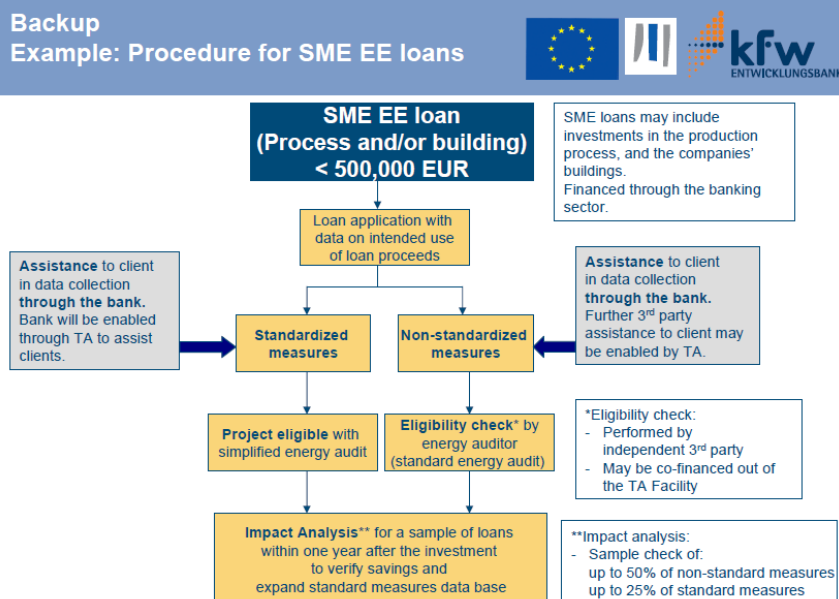
The image below presents the types of auditing and verification required to apply for the utilization of SEEFF funds.

Types of Audits and Verifications

Audit Type:	Simplified	Standard	Comprehensive
Applicable Segment:	Residential Household	Residential HOA	Industrial
	SME standard	SME non-standard	
Project Type:	Building / Process	Building / Process	Building / Process
Audit Detail:	Self-audit questionnaire Only defined EE measures are acceptable	Energy audit conducted by 3rd party	Detailed energy audit / feasibility study by 3rd party, incl. economic and technical, historical and forecast analysis
Verification / Impact Analysis:	Check up to 25% of customers to ensure that invoices support initial questionnaire responses. Selected number of post-energy audits	Check up to 50% of customers to ensure that invoices support initial audit recommendations. Selected number of post-energy audits	Complete EEFF verification – post audit, acceptance certificate, savings indicators etc.

Further, the image below presents a summary of the procedure to be applied for EE loans in small and medium enterprises (SMEs) by the SEEFF Fund.

4. EE loan procedure for SMEs



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