

**A POLICY SOLUTION FOR
THE ENERGY SECTOR IN
KOSOVO**



KOSID

KOSOVO CIVIL SOCIETY CONSORTIUM FOR
SUSTAINABLE DEVELOPMENT

KONSORCIUMI KOSOVAR I SHOQËRISË CIVILE PËR
ZHVILLIM TË QËNDRUESHËM



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Introduction Summary

Over the coming years, Kosovo will face energy challenges, specifically its electricity sector. Current generation will not be able to meet the projected demands in the country. This gap between demand and supply is only exasperated by the inefficient use of electricity throughout the country, including large technical losses, using it for heat and the lack of meaningful energy efficiency improvements.

Currently, the vast majority of Kosovo's energy comes from two old, lignite burning coal plants. The government of Kosovo is attempting to resolve the energy crisis by building another coal-burning power plant while largely ignoring other elements that constitute this crisis. The coal policy, which is included in the revised Kosovo's Strategy for Energy, is expensive, unsustainable, inadequate and most importantly unnecessary.

In this paper, we present a policy solution for Kosovo's energy sector. This solution is based on extensive research and other activities conducted by the Kosovar Civil Society Consortium for Sustainable Development (KOSID) during the last four years. It is based on the principles of sustainable development and on principles deriving from European Union's Acquis.

The aim of this paper is to provide a policy solution that will secure a sustainable, affordable, environmentally friendly, and secure energy supply. This aim corresponds with the official aim of the Kosovo government. It is the overall direction and specific policy measures that differ from those of the government. This paper will elaborate briefly on these measures.

KOSID strongly believes that sustainability is the most important factor to be considered before any energy policy decisions are made. Therefore, we seek to guarantee energy security by diversifying generation capacities, exploring renewable energy sources, and further integrate into regional grids. We seek to provide affordable energy prices by eliminating energy losses and increasing energy efficiency measures, which can significantly decrease demand. Finally, we seek to secure a healthier society and a better environment, by carefully considering our natural resources.

Kosovo's base load power demands can be met using a retrofitted and updated Kosovo B plant. Kosovo A is due to be shut down by the end of 2017 and we continue to support this plan. Kosovo B must be refurbished in order to meet technical and environmental criteria outlined by the Energy Community and the EU. No further generation capacities from lignite are needed, as a mix of measures, involving loss reduction, energy efficiency as well as utilisation of renewable energy sources, will meet demand.

KOSID believes that the most important action in the sequencing of these policy initiatives. Therefore, this paper suggests an intensive and comprehensive energy efficiency program combined with aggressive measures to reduce technical grid losses as the first step. By

utilising financial means that were already pledged as aid, loans by the International Financial Institutions, and by more fundraising, the policy foresees creation of an energy efficiency fund that would run a nation-wide efficiency program. These measures, as outlined below, shall decrease the overall energy demand. They will be followed by further integration of Kosovo into regional electric grids, using loans and aid provided by international financial institutions. Follow-up measures such as alternative solutions for heating will decrease demand further, bringing it to a realistic figure.

The second step will involve changing policies to make Kosovo an attractive location for alternative energy companies. This will involve the government also exploring how much potential energy can be made from renewables in the country. The large potential use renewable energy will not only contribute to overall generation, but also addresses the issue of energy security. Furthermore, the renewable energy sector can be an important sector for job creation in Kosovo.

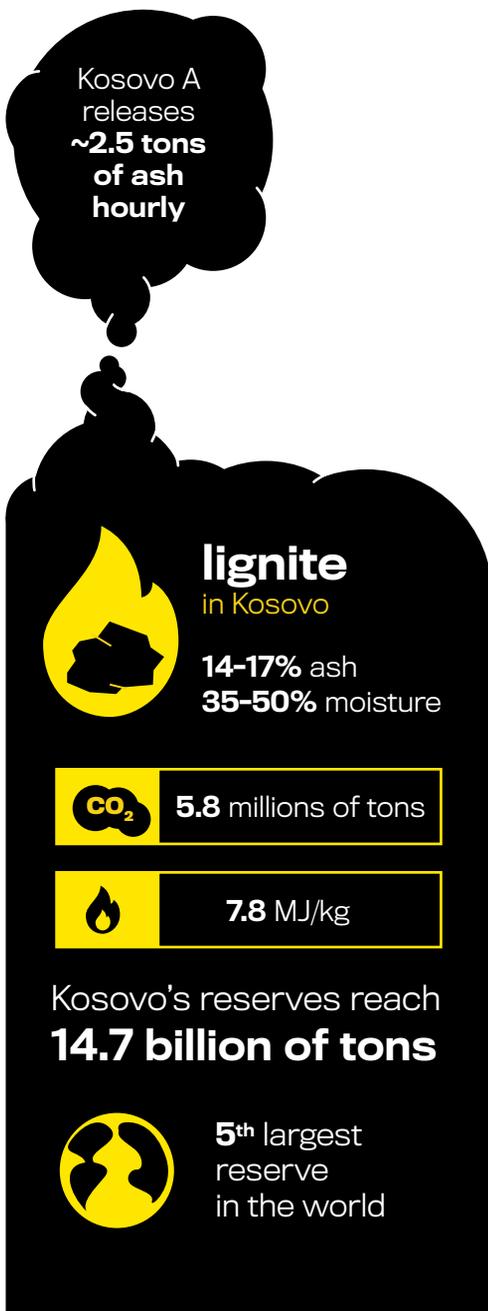
Sequencing these measures makes this policy approach both suitable and sustainable, enabling it to bring better results in a shorter amount of time with fewer investments. This approach will also allow energy prices to remain low, while meeting the country's demand for electricity. The best energy scenario for Kosovo is a policy switch from more generation to more efficiency and from more fossil fuels to more renewables, in this order. This will enable Kosovo to meet its energy demand at affordable prices. Without having to burn coal for next 40 years, this plan is also environmentally and social friendly.

Generation

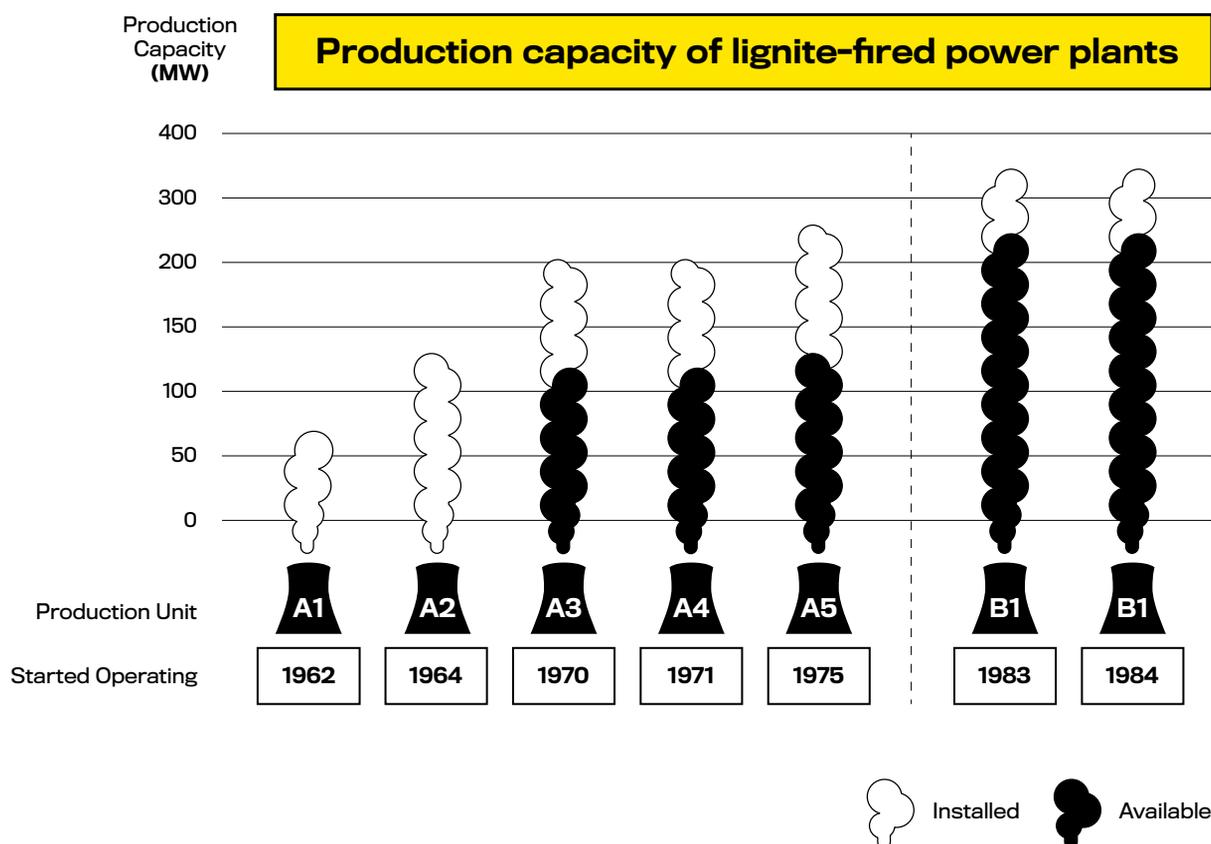
Kosovo's proven lignite reserves are proven to reach as much as 14.7 billion of tons, the fifth largest reserve in the world¹, most of which is located in the low depths of the Kosovo ground surface. Under the current rate of exploitation of lignite, there will be enough lignite to fuel activities even for the next 1,500 years. Considering these huge lignite reserves, it is not surprising why almost all of the electricity in Kosovo comes from lignite and why Kosovar and other international institutions leaders obsess over lignite.

Unfortunately, Kosovo lignite has very low energy containment, averaging 7.8 MJ per kilogram of lignite. Furthermore, the high level of moisture and ash, 35-50% and 14-17% respectively, further contribute to the limited use of lignite. The low energy value of lignite limits its use to mainly generating electricity in big generating plants, but at high environmental and health costs.

Currently, Kosovo releases approximately 5.8 million tons of CO₂ into the atmosphere annually². This pollution comes from two lignite-fired power plants Kosovo A and Kosovo B. Kosovo A was built during 1960s with Soviet technology, while Kosovo B was built during 1980s. Kosovo A consists of five blocks, two of which are out of use due to old age and terrible their environmental impact, while Kosovo B consists of only two. The installed capacity of Kosovo A is 800 MW, though only 350 MW are available today. On the other hand, Kosovo B has a total installed capacity of 678 MW, though only around 500 MW are available.



- 1 Independent Commission for Mines and Minerals, <http://www.kosovo-mining.org/kosovoweb/en/mining/minerals.html>
- 2 Sustainable Energy Options for Kosovo: An analysis of resource availability and cost, Daniel M. Kammen, Maryam Mozafari and Daniel Prull, 2012 <http://coolclimate.berkeley.edu/sites/all/files/Kosovo20May2012.pdf>



Kosovo A is considered to be among the worst polluters in Europe. This plant, that was built in the 1960s releases into the air roughly 2.5 tons of ash hourly. Furthermore, its technology has grown so old and depreciated, that when it comes to calculating the cost of its electricity depreciation of assets barely add any cost to the final price. This results in a very low efficiency rate and in a situation that little can be done to improve it. Considering these facts, Kosovo A should be closed by the end year 2017, as agreed by the signing of the Energy Community Treaty and as the Kosovo Government has committed to do, and its life should not be extended further regardless of any circumstance.

Burning lignite to generate electricity will remain Kosovo's main source. Base-load energy will continue to be supplied by the lignite-fired Kosovo B power plant. To raise the efficiency rate, minimize externalities, and bring the power plant to acceptable European Union standards, Kosovo B should be retrofitted by 2017. The retrofit will improve the heat conversion rate, increase its available generation capacity, and decrease the number unexpected breakdowns. The retrofit will result in a power-plant that meets the EU's standards and a power-plant that will provide the base-load energy for Kosovo.

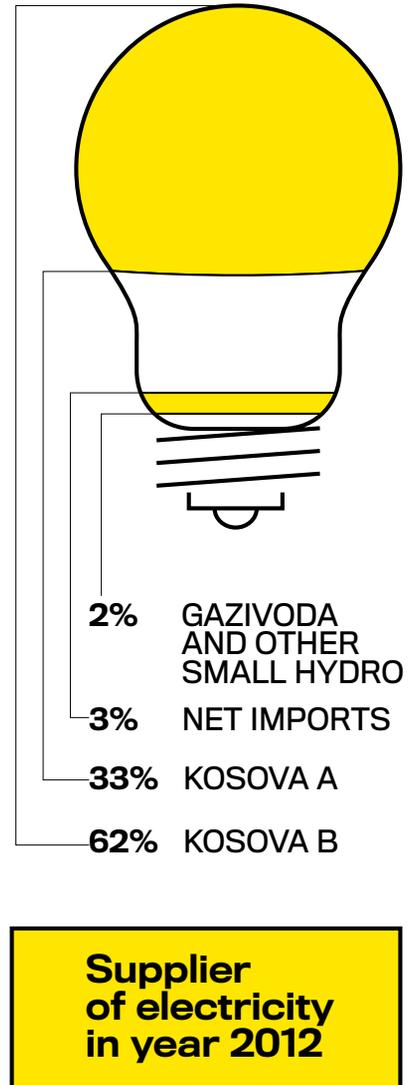
Having addressed the question of base-load energy with a lignite-fired power plant, Kosovo does not need further expand lignite burning capacities. The rest of the energy

should and can be supplied with proper investment in renewable energy and energy efficiency, as shown by Renewable and Appropriate Energy Laboratory of the University of Berkeley³. Hence, Kosovo should not build new lignite energy capacities.

The energy sector in Kosovo will require significant investment, both financial, and in terms of capacity support, irrespective of what energy plan is pursued. A critical component of any sustainable development strategy for Kosovo is the continued transparent dialog between donors and the national government, particularly because international resources will be needed under any pro-growth, pro-environment agenda in Kosovo and the region.

One power plant aside, the rest of the energy gap in Kosovo can easily be met from renewable energy sources, as their potential is substantial. Unfortunately, the policy-making has been in a mindset of lignite coal only and it has been falsely stated that Kosovo does not have renewable energy potential. However, by 2013 when National Renewable Energy Action Plan (NREAP) was adopted, it turned out that Kosovo had great deal more renewables' potential than previously thought. Yet, even NREAP has left much of the renewable utilization capacity out and this must be addressed.

Kosovo does not have a wind atlas even to this date. Its wind potential remains unexplored to the fullest. Though, by November 2013 there have been 5 companies that have applied for a license of utilization of total 164.5 MW of potential. Furthermore, ERO has already licensed a small farm of 900 kW capacity. The capacity waiting for licensing already surpasses the wind capacity of 150 MW that NREAP foresees to be installed by 2025. On the other hand, though it is not yet published, a study by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) concludes that



³ Sustainable Energy Options for Kosovo: An analysis of resource availability and cost, Daniel M. Kammen, Maryam Mozafari and Daniel Prull, 2012 <http://coolclimate.berkeley.edu/sites/all/files/Kosovo20May2012.pdf>

Kosovo has wind potential of as much as 300 MW⁴.

A similar story follows Kosovo's hydro capacities as well. By 2006, other than the large hydro power plant of Zhur (300 MW), there was no other capacity in sight. However, soon the then-Ministry for Energy conducted a study and found that there is strong potential for 18 small hydro power plants, totaling to roughly 63 MW. However, by 2013 the Kosovo Government already plans to install around 240 MW of small hydro. As for the Zhur hydro power plant little has been done. Though a feasibility study for the project exists from the 1970s and another feasibility study was conducted by 2009, the project has stalled for a long time. This leads to a questioning of the government's commitment to other energy projects that do not include lignite. Zhur should be built as fast as possible, as it presents a great opportunity for covering, at least in part, of the peak demand, which is what Kosovo desperately needs.

As for the other sources of renewable energy, little studies on their capacities have been conducted. It is such a situation that allows for claims that Kosovo has little renewable energy capacity to flourish. For example, geothermal capacities have been completely neglected, though there is a considerable capacity to be utilized, as judged by old-Yugoslav geothermal maps and geothermal utilization capacity of neighboring countries. A proper study on exploration of geothermal capacities needs to be conducted. Similarly, biomass has also been neglected. NREAP foresees only 10 MW of biomass capacity to be installed by 2025. However, other studies have suggested utilization of 164 MW⁵ by 2025 and 150 MW⁶ by 2030.

Lastly, solar energy capacities have been the most controversial among energy sources. The estimated utilization capacity for Kosovo has varied from 1 MW by 2025, to 75 MW by 2025, to 200 MW by 2030. However, much of solar energy utilization is not determined by the amount of sun, as that does not seem to be a significant problem for Kosovo, but rather the price of solar electricity and solar technology. The key to determining that, the feed-in tariff, is lacking in Kosovo. Although it was promised by

4 Estimates for renewable energy potential hereon are taken from various studies done on the field. Please see these studies for more information:

Sustainable Energy Options for Kosovo: An analysis of resource availability and cost, Daniel M. Kammen, Maryam Mozafari and Daniel Prull, 2012 <http://coolclimate.berkeley.edu/sites/all/files/Kosovo20May2012.pdf>
Study about Security of Electricity Supply in Kosovo, KOSTT, 2013. http://www.kostt.com/website/images/stories/dokumente/publikime/Report_REV15_i_publikuar_ne_web.pdf

National Renewable Energy Action Plan (Nreap) 2011 – 2020, Republic of Kosova, 2013 <http://www.energy-community.org/pls/portal/docs/2570177.PDF>

Background Paper: Development and Evaluation of Power Supply Options for Kosovo, World Bank, 2011. http://siteresources.worldbank.org/INTENERGY2/Resources/Kosovo_generation_options_report_12312011.pdf

European Commission Liaison Office to Kosovo - Kosovo Ministry of Energy and Mining, June 2008

Review Of Hpp Zhur Feasibility Study Including Preparation Of Preliminary Environmental Impact Assessment And Preliminary Social Assessment, Republic of Kosovo, 2009 http://mzhe.rks-gov.net/repository/docs/Revized_Final_Report_Zhur_en.pdf

Renewable energy as an Opportunity for Economic Development in Kosovo, GIZ, 2012.

5 Study about Security of Electricity Supply in Kosovo, KOSTT, 2013. http://www.kostt.com/website/images/stories/dokumente/publikime/Report_REV15_i_publikuar_ne_web.pdf

6 Sustainable Energy Options for Kosovo: An analysis of resource availability and cost, Daniel M. Kammen, Maryam Mozafari and Daniel Prull, 2012 <http://coolclimate.berkeley.edu/sites/all/files/Kosovo20May2012.pdf>

the responsible institutions that the feed-in tariff would be in place by late 2013, to date it is still lacking. The lack of a feed-in tariff poses a huge obstacle to the development of solar energy market in Kosovo.

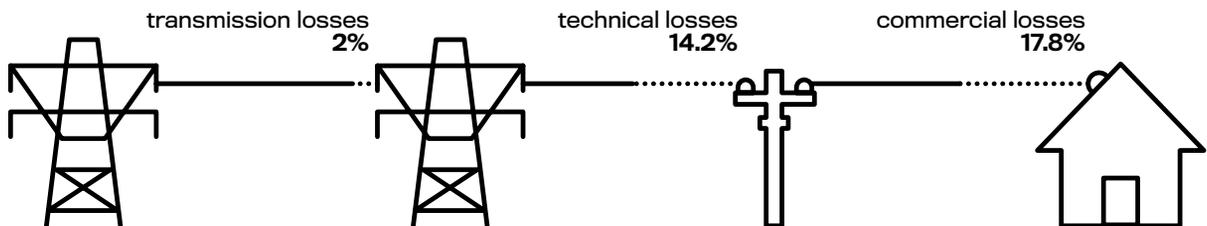
The cost of renewables since 2010 has declined significantly with marked reductions in solar PV and wind generation prices due to evolving global capacity expansion. With reductions in the price of PV as low as \$0.72/W in 2013 and continued learning in manufacturing and material improvements for the global photovoltaic industry, the cost to generate solar power in Kosovo is much more competitive than previous models have indicated to replace the Kosovo B coal-fired power plant⁷. Furthermore, the complementary nature of wind turbines, solar power, and efficiency measures could assemble an energy portfolio with fewer capital, social, and health costs than 600 MW of coal generation. The cost of wind generation is expected to reduce LCOEs by 20-30% by 2030; therefore planning for future electricity mixes would also incorporate a significantly larger share of wind power than currently installed⁸. These changes lead clearly to the need for a low-carbon energy scenario that meets Kosovo's current and future energy needs, provides energy and health security.

7 Zheng, Cheng, and Daniel M. Kammen. 2014. An innovation-focused roadmap for a sustainable global photovoltaic industry. *Energy Policy* 67: 159-169.

8 Lantz, E., Wisser, R., Hand, M., 2012. IEA Wind Task 26: The Past and Future Cost of Wind Energy. National Renewable Energy Laboratory.

Energy Efficiency

Efficiency is the weak link in Kosovo's energy sector, but also the low hanging fruit. Therefore, it is a top priority of KOSID. The priority of the energy policy in Kosovo shall be to decrease demand for energy in order to lower the electricity bills, make energy affordable for the poor population and avoid the need for a new coal power plant. The potential to utilise efficiency measures is tremendous in at least the following fields:



**Total losses
in year 2012**

Development and maintenance of an adequate electricity grid is vital for securing the energy supply at lowest cost. Kosovo's distribution grid inefficiencies contribute to a large energy loss in the country.

Losses in the grid in 2012 reached to 36.69% of the total energy fed into distribution, while in 2011 it was 38.15%.⁹ Some 20% are thought to be commercial losses or electricity theft. Energy losses remain a serious problem, thus, any energy policy should prioritise their management, although there was a slight reduction of losses throughout the years. Current targets for technical loss reduction are at 1% a year. This needs to change in order for Kosovo to reduce losses to an acceptable 7% quota by 2015, when the energy market is expected to be liberalised. This can be achieved by utilising promised investments, be that from the commercial Kosovo Energy Distribution and Supply (KEDS) company that is to invest 300 million euro for this purpose and additional investments from other sources.

The very first mechanisms that would assist such a target would be installation of smart meters for all power consumers in the country. The measure will help in reducing both commercial and technical losses of the power system.

The first measure to prioritise efficiency in Kosovo should cover the public sector where the largest energy savings can happen in the shortest span of time. Such measures can be taken at the National or Municipal level and may consist of legislative initiatives, voluntary agreements, energy management systems, establishing and implementing of energy efficiency criteria in relation to procurement of goods and services, recourse to ESCOs, energy performance contracts, or other schemes with an equivalent effect. The first step towards such a mechanism is for the government to conduct a comprehensive efficiency audit for all public buildings.

⁹ Energy Regulatory Office, Annual Report 2012.

A bylaw ordering replacement of all light bulbs in public buildings as well as city lights shall be issued in accordance with this policy paper. Furthermore, the government shall continue to incentivise private households in changing their light bulbs. A rough comparative study conducted at the University of Pristina has shown that Kosovo could close one of the generators of “Kosova A” thermo-plant by simply replacing light bulbs with efficient ones. Further measures shall be installation of solar panels for sanitary purposes for all public buildings, thermo-insulation of walls and roofs as well as finding sustainable options for space heating, for which most of the energy during the winter is used. The building sector, which consists of the household and services (public and private) sectors accounts for 48% of energy consumption and represents the largest share of Kosovo’s final energy consumption.¹⁰ Public buildings at present provide the best opportunities for achieving real energy savings because in many cases they already meet the required comfort levels.

In order to ensure that Kosovo’s ambitious targets for 2020 are met, the EU decided that a ‘Third Package’ of more demanding measures was required. In October 2012, EU adopted a new Energy Efficiency Directive 2012/27/EU that replaces the current Directive 2006/32/EC which has to be reflected in an amended Law of Energy Efficiency in Kosovo, which is scheduled to happen this year. Current Law on Energy Efficiency only regulates the public sector and leaves aside the private one.

Another law that has an impact in energy efficiency in the Law on Construction, which is adopted on 31 May 2012. This law determines the application of energy efficiency measures in the construction of buildings. The law foresees that efficiency measures are one of the objectives of the ‘The Unified Construction Code’ of Kosovo.¹¹ Building development based on efficiency is required by the Law on Construction, where each user of the developed buildings is obliged to obtain an utilization certificate, which is conditioned by energy efficiency measures.¹² However, the implementation of the law has not been proper.

Transposition of the legal framework of the Energy Community in the field of energy efficiency is quite a complex process and asks to draft new laws as well. Kosovo has to have its laws in line with EU Directives since it is a signatory of the Energy Community Treaty, thus the following energy directives became obligatory to Kosovo too: Directive 2006/32/EC on energy end-use efficiency and energy services; Directive 2010/30/EU on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products; Directive 2010/31/EU on the energy performance of buildings, supported by a set of implementing directives.

For the purpose of efficiency measures, the Kosovo Assembly shall appoint a special task force to monitor the implementation of the entire legal framework that regulates efficiency. This should be put as a top priority of the Assembly.

10 Eptisa, National Building Energy Efficiency Study for Kosovo, April 2013.

11 Law No. 04/L-110 on Construction. Kosovo. Article 6

12 Law No. 04/L-110 on Construction. Kosovo. Article 27.

Households continue to consume more than 78% of the total energy in Kosovo. Thus, efficiency measures for private households will make a significant change in the energy demand. Measures that the public policy can provide and incentivise for this sector are numerous. The first measure is to provide alternatives for space heating and incentivise these alternatives whilst sanctioning the usage of electricity for this purpose. The second measure is incentivising households to insulate their homes, especially having in mind the data that shows 70% of households live in inefficient spaces.¹³ The incentives are to be enabled largely through utilisation of funds committed by IFIs for energy efficiency.

Energy Efficiency related projects carried out so far in Kosovo by international financial institutions and bi-lateral donors shows that the funds donated or lent for this purpose have been extremely limited. Furthermore, most of these projects have only targeted public buildings. The exception is the EBRD's EUR 12 million credit line through commercial banks, which concentrates on residential sector and private SMEs and KfW's credit lines through Raiffeisen and ProCredit which have had similar goals and each disbursed around 10 million euro. For the latter, the loans made are estimated to have reached only one percent of the potentially available market.¹⁴ Financial support for residential EE therefore presents a massive untapped potential if it is affordable to a wide range of the population.

There is a total of around 61.2 million¹⁵ euro pledged to Kosovo for energy efficiency measures and projects. So far they haven't been properly utilised, with their reach not being maximised, mainly due to lack of project ideas and policies.

For the purpose of putting efficiency as a top priority, Kosovo should establish an Energy Efficiency Fund. This fund shall be managed jointly by the Kosovo Government, civil society, as well as all the IFIs that will contribute to it financially. The fund shall serve as a pool for all investments, foreign aid and loans that are dedicated to energy efficiency. The fund shall be used to finance small and large scale efficiency projects. A good portion of this fund shall be used to provide small grants and low-interest loans to households, to be used for efficiency measures only. Only households living below poverty line shall be eligible to apply for efficiency grants.

Energy audits need to be carried out in an independent manner and made available to all energy intensive sectors and consumers, including smaller domestic, commercial and small and medium-sized industrial customers.

Kosovo shall ensure the availability of efficient, high-quality energy audit schemes designed to check compliance of industrial operation and installation of private or public services, with relevant national legislation implementing the EU acquis on energy efficiency. In the design of such schemes, the government shall take into account relevant

13 Electricity Score, Kosovo Civil Society Consortium for Sustainable Development, August 2013.

14 Eptisa, National Building Energy Efficiency Study for Kosovo, April 2013.

15 IFI's grants and projects.

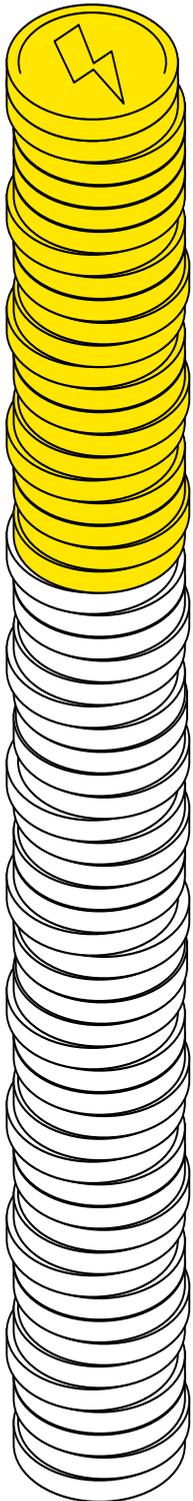
legislation developed by the government with reference to the certification of the energy performance of buildings.

It is important that all the energy related products available on the market fulfil conditions and requirements prescribed by specific regulation on eco-design. Labelling of products should include information on energy efficiency.

In order for this intensive efficiency program to be effective, the Kosovo government must use the proper sticks and carrots. On the one hand, households should be given the opportunity to invest in efficiency, be that by provision of small grants for the poor households, or opportunities for low-interest loans, with a decent grace period, for those above the poverty line. This system of incentives that shall be enabled through creation of the Energy Efficiency Fund represents a solid carrot for the efficiency policy.

A solid stick must accompany this carrot. The property tax system of Kosovo is a convenient platform to be used for this purpose. Once the auditing of all public buildings and private households is conducted, Kosovo municipalities shall use the auditing data to re-categorise every building, taking into account their efficiency performances. In this way, buildings with higher efficiency shall pay less tax than those with lower or no efficiency.

Kosovars pay **52% more** for electricity compared to citizens of EU



Affordable Electricity

Retail electricity tariffs have been one of the most debatable issues within the Kosovo energy sector in the past years, mainly due to continuous increases by the Energy Regulatory Office (ERO), which caused a string of protests by citizens in early 2013. As KOSID is continuously pushing for sustainable development options in the energy sector, the affordability of retail electricity tariffs is a crucial element that needs to be addressed due to its direct impact on citizens' welfare.

Compared to other countries in the region, Kosovo pays more per kWh than Serbia and Macedonia, whereas it pays less than Albania, Bosnia & Herzegovina, and Montenegro. The EU27 member countries pay an average price of 14.16 cents per kWh¹⁶, or 3 times more than Kosovo. However, besides the fact that Kosovars pay a relatively lower price compared to the region, if we include the standard of living and the principle of purchasing power into the equation¹⁷, it becomes evident that Kosovars pay on average 52% more for electricity compared to the citizens of any other countries in the region or the EU.¹⁸

Based on the seventh Electricity Tariff Review - ETR7 (2013-2017)¹⁹ by ERO, the current retail electricity prices applicable in Kosovo are only valid until March 31st 2014. Explicitly, ERO is already reviewing the current tariffs, which are expected to increase this year. Additionally, in the most recent Consultation Paper on Tariff Structure²⁰ released in February 2014, they have also analyzed the possibilities of completely revamping the tariff structure by introducing a flat tariff and provided scenarios for different options such as: removing tariff blocks, removing high/low tariffs, and removing seasonality. Despite the complexity of the current electricity tariff system in Kosovo, KOSID considers the current tariff system is best suited to the socio-economic situation.

16 Electricity - domestic consumers - bi-annual prices - new methodology from 2007 onwards

<http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>

17 Calculated based on the relation between the price of retail electricity towards GDP per Capita in terms of PPP (Gross Domestic Product per Capita in terms of Purchasing Power Parity: International \$)

18 Price of Electricity: trends and economic impact (GAP & FIQ), March 2013

19 http://ero-ks.org/Tarifat/2013/Proceset%20e%20Shqyrtimit/eng/Evaluation_Overview_27_March_2013.pdf

20 http://ero-ks.org/Tarifat/2014/Raporti_konsultativ_per_strukture_tarifore.pdf

Prices of energy in Kosovo went up several times during the past decade. In 2012 alone, electricity bills of Kosovo citizens went up for 8.9%. The trend of electricity becoming more expensive does not match the trend of economic growth of the country. According to preliminary indications, electricity prices will continue to rise during the coming years as well, making the situation even more difficult for Kosovo citizens to afford their electricity bills.

Accounting for the facts and data presented above, KOSID calls upon the Kosovo Government to take immediate action in terms of developing and introducing the necessary policies and mechanism to address the affordability of retail electricity tariffs for its citizen. Decreasing or removing the VAT on electrical energy, decreasing the royalty fees on lignite used in Kosovo, and increasing the efficiency factor, are only a few elements that would have a direct impact in the affordability of retail electricity prices in Kosovo.

Market and integration

KOSID supports the adaptation of Kosovo's legislation with the Third Package of EU Single Electricity Directive, as a means to gradually liberalize the market and make Kosovo's energy system penetrate into the regional energy market. Regarding the market structure, KOSID supports a gradual deregulation of the supply level of the market, with the intention of making that level of the market both competitive but also socially responsible. As to the institutional developments, KOSID strongly opposes politicisation of the Energy Regulatory Office, as the only way for it to play its neutral role in the energy market. In addition, KOSID stands for empowering ERO with additional consumer-protection tools and mechanisms to fight abusive positions of energy operators in the market.

Development and maintenance of an adequate electricity grid is vital for securing the energy supply at lowest cost. Kosovo's power grid is not so well connected with neighbouring countries. A better capacity of its cross border grid connections would make the country an important regional power transmission centre.

Currently (data 2010) Kosovo has the following connections with neighbouring countries:

| | |
|---------------------|--------|
| Kosovo - Serbia | 730 KV |
| Kosovo - Macedonia | 400 kV |
| Kosovo - Montenegro | 400 kV |
| Kosovo - Albania | 220 kV |

An additional 400kV line connecting Kosova B - Kashar (Tirana) is under development. KOSID supports another 400kV line connecting Kosovo and Macedonia, as a means to fully connect Kosovo with the regional market in order to be able to penetrate in post-2015 regional energy market under the Energy Community Treaty. It is important that future development of domestic and cross-border power transmission network take full account of both the renewable energy generation capacity of Kosovo and the renewable power transmission in the region. For this reason, better connection lines are mandatory.

We call for a new study on the impact of renewable generation and energy efficiency plans in the region on the power transmission and distribution system of Kosovo, followed by a wide public and expert discussion and consequent amendment of the Transmission Development Plan for the Kosovo (2010-2019) which should fully reflect the high renewables potential and development of South East Europe.

Health and Environment

Industry and energy production/consumption are counted major environmental pollutants in Kosovo²¹. Additional environmental pollutants represent transport, agriculture and waste disposal activities. Outdoor air pollution due to industry/energy production is indicated to have worsted negative impact on health of the population with an estimated damage up to 163 million Euro annually²² due to cardiorespiratory diseases, and lung cancer. Outdoor air pollution in addition to contributing to increased morbidity contributes also to increased mortality with at least 852 premature deaths per year.

Overall situation in health sector in Kosovo (high neonatal, perinatal and maternal mortality rates) implies that population of Kosovo is increasingly vulnerable to environmental pollution. This will contribute to already worse health indicators and all those negative impacts on health will mean people will need more care – once limited resources of public sector are exhausted population will need to spend more on care, and this will mean more poverty^{23, 24}.

Considering health in all policies as concept for preserving/improving health and wellbeing of the population through development of platforms based on common agendas with whole-institutional approach across sectors and stakeholders, we are convinced that strategy for Energy must be developed on such foundation, as any public policy that is compiled and implemented without taking into account the health of population aren't sustainable and are counterproductive to their vision. Kosovar society can no longer afford to ignore implications of public policies in the health of Kosovar population, including loss of lives. All the instruments presented in this policy paper represent the optimal solutions having considered a thorough health and environmental impact assessment.

21 WHO Regional Office for Europe (2012) Environmental Health Mission, Report, Draft version for consultation with stakeholders

22 World Bank (2013) Kosovo Country Environmental Analysis

23 Bredenkamp et al (2011) Catastrophic and impoverishing effects of health expenditures: a new evidence from the Western Balkans, Health Policy and Planning 26: 349-356

24 Garg et Karan (2009) Reducing out-of-pocket expenditures to reduce poverty: a disaggregated analysis at rural-urban and state level in India, Health Policy and Planning 24:116-128

2014

