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# EBRD Policy Brief

April 2013

# Comments on the EBRD's draft strategy for Kosovo

For more information

**Ionut Apostol**
EBRD campaign co-ordinator
ionut@bankwatch.org

We appreciate the opportunity to provide input for the first Kosovo strategy. Given that we have been monitoring the EBRD's work in other south east European countries for many years we are keen to ensure that the bank's work in Kosovo gets off to a sustainable start and that some of the mistakes made in other countries in the region are not replicated here. In particular, we will focus on the energy sector challenges and opportunities in our comments.

The Kosovo energy sector presents a wide range of serious challenges and it is of particular concern that the draft strategy includes specifically the new Kosovo lignite power plant project among its possible interventions (while not specifying specific energy efficiency or renewable energy projects).

## 1. The consultation process

Assuming that the Board receives the draft Strategy and the Report on the Invitation to Comment at least 7- 10 working days before the approval date, this schedule allows insufficient time for bank staff to seriously take into account the input from the consultation process before submitting the draft Strategy to the Board, and appears to indicate that the bank has no intention of making serious changes to the document as a result of the public consultation, thus rather denying the point of the consultation.

Considering the particularly complex situation in Kosovo and the need for the bank to promote best practices in public participation in decision-making and transparency, it would be advisable to ensure that the views of Kosovar civil society are properly discussed and incorporated into the Strategy. This is all the more so given the following particular features regarding Kosovo that need to be seriously considered in determining the priority directions of the strategy, among them:

- poverty level[1]

1 In 2009, slightly more than one-third of the population (34 percent) lived below an absolute poverty line of €1.55 per adult equivalent per day, and 12 percent lived below the extreme poverty line of €1.02. - "Consumption Poverty in the Republic of Kosovo in

2009", Statistical Office of Kosovo, The World Bank Europe and Central Asia Region Poverty Reduction and Economic Management Unit May, 2011.

- unemployment level[2]
- corruption level[3]
- high air pollution levels[4]
- unreliable national energy strategy, lacking a proper analysis of alternatives to lignite[5]
- 98% of Kosovo's electricity generation is lignite-based
- unsatisfactory track record of meaningful consultation and public participation in decision-making in Kosovo
- failed privatization processes of socially-owned enterprises and public enterprises[6]

Given that the sector-level transition challenges have not yet been assessed and that there is not sufficient time to take CSO comments into account with the currently planned schedule, the Strategy in our opinion needs to be withdrawn from the Board schedule for 1st May, updated, subjected to a second stage of public consultation, and then approved once the inputs have been taken into account and appropriate changes made in the strategy and changes reported back to the CSOs that commented on it.

## 2. Kosovo's energy sector – current situation

The power sector of Kosovo is operated by the public owned electric enterprise Kosovo Energy Corporation (KEK) and the Kosovo Transmission System and Market Operator (KOSTT). Kosovo's energy generation capacity consists mainly of two lignite[7]-fired thermal power plants, Kosovo A (3 units, installed capacity 800 MW, completed in 1975) and Kosovo B (2 units, 678 MW, completed in 1984), with actual available capacity totalling approximately 910 MW[8]; hydro power plants add 43 MW of installed capacity. Just one 1.35 MW installed capacity wind project was built in Kosovo and it doesn't operate, apparently because of a disagreement on the applicable tariff. The level of losses in the distribution system is extremely high.

The Kosovo A power plant is planned to be taken out of service in 2017, with some refurbishment needed for it to run till then. The Kosovo B power plant is planned to be refurbished so as to continue to run till 2027-2030, including measures needed to meet emissions standards under the EU Directive on Large

2 Kosovo's unemployment rate is estimated at 46 percent in the 2009 Labor Force Survey (Statistical Office of Kosovo 2010) and 48 percent in the World Bank's Country Economic Memorandum (World Bank 2010). The employment rate is only 26 percent (World Bank 2010).

3 Based on the Corruption Perceptions Index 2012, Kosovo remains among the countries with the highest level of corruption. Kosovo is ranked number 105, in the same place as Algeria, Armenia, Bolivia, Gambia, Mali, Mexico and Philippines. http://www.transparency.org/news/pressrelease/20121205_corruption_is_still_hindering_the_prospect_of_kosovo

The European Court of Auditors found that the almost €700 million in EU funds spent in Kosovo between 2007 and 2011 to improve the rule of law and rein in corruption have produced dismal results. http://euobserver.com/foreign/118071

European Union prosecutors have indicted eight judges in Kosovo, including the former head of the city court in the capital, Pristina, and, in a separate case, the former head of Kosovo's anti-corruption taskforce. http://www.europeanvoice.com/article/2012/august/kosovo-s-former-anti-corruption-chief-indicted/74961.aspx

4 According to a 2012 World Bank report, these cause annually 835 early deaths; 310 new cases of chronic bronchitis; 22,900 new cases of respiratory diseases among children (most often asthma); 11,600 emergency visits to country's hospitals; Over 100 million euro in direct costs connected to this problem, all of which have been paid from the pockets of the already impoverished Kosovar public. http://siteresources.worldbank.org/INTKOSOVO/Resources/KosovoCEA.pdf

5 The University of California Berkeley has looked into Kosovo's Sustainable Energy Options and has concluded that depending solely on lignite for the country's energy needs is not sustainable and needs to be addressed immediately: http://coolclimate.berkeley.edu/sites/all/files/Kosovo20May2012.pdf

6 Kosovo's Institute for Advanced Studies looked into one of the largest privatization processes carried out in Kosovo and provides an overview on the issues related with the process: http://www.kosid.org/wp-content/uploads/2012/09/KEDS.pdf

7 Lignite is exploited in two open-cast mines, Bardh and Mirash; it is estimated that Kosovo's total coal reserves are around 11.5-14 billions tones.

8 Two of its units of Kosovo A are out of operation while 2 other units, overhauled during 2006-2008, operate below their installed capacity. Kosovo B plant has mechanical and electrical problems that result in frequent forced outages of both of its units. These units also have been derated due to damage to the turbine rotors and deterioration of the operating condition of other critical components.

Combustion Plants.

Most consumers use electricity as the primary energy source for heating and cooking. District heating systems exist only in Prishtina, Mitrovica, Gjakova and Zvecan; they provide about 5% of the heat demand in Kosovo[9].

Electricity consumption and peak demand in Kosovo grew more than 90% between 2000 and 2010. Electricity consumption grew at an average annual rate of 6.7%, and peak demand at an average annual rate of nearly 6%[10]; investments to replace the aging generation capacity are lagging, to say the least.

The residential sector is the largest primary energy consumer, followed by industry, transport, services and agriculture. The energy use in the residential sector consists mainly of biomass and electricity, with minor use of coal and petroleum products and very limited solar energy and district heating.

## 3. Looking forward – official forecasts and plans

Electricity consumption is forecasted to increase at rates of 4.6 percent per year during the 2010–2025 time period and peak demand grows at an average of 4.2 percent during the same period[11], though the forecasts don't appear to account for the need to massively reduce energy losses and increase efficiency throughout the country. The main plan for new generation capacity includes a 305 MW hydro power plant (Zhur), which has been in some planning stages for years, along with the 600 MW "New Kosovo" thermal power plant. The Kosovo B plant is planned to be privatized; the electricity distribution company has already been privatised.

Kosovo has committed to achieve 25% renewables in final energy consumption by 2020 as part of the its obligations under the Energy Community Treaty[12]. A feed–in tariff for some renewable energy sources has been established, to trigger the deployment of around 140 MW of wind capacity, 128 MW of hydro and 0.5 MW of biomass by 2016; priority dispatch of renewable electricity and grid connection regulations are set by the energy law[13]. Other documents identify 18–20 sites for small hydro plants, with a combined capacity of about 64 MW[14]. Various estimates exist for wind, solar and biomass potential.

A new 400 kV transmission line to Albania is expected to be commissioned by the end of 2013, boosting transfer capacity in each direction by roughly 500 MW. A new 400 kV connection to Macedonia is also planned, which would boost transfer capacity in each direction by an additional 500 MW.

In order to meet EU requirements, Kosovo B units will have to be equipped with emission reduction equipment, repair of the existing electrostatic precipitators, and a means of reducing fugitive dust from the lignite and ash handling systems. The rehabilitation of the turbine generation and other technical improvements are expected to result in an increase in unit net capacity up to 309 MW each or 618 MW for the entire power plant.

The National Energy Strategy, which the Kosovo Assembly adopted in 2010 focuses mainly on boosting power generation capacity by increasing the mining of lignite, failing to sufficiently consider the issues of energy efficiency and savings or alternative sources of energy production. The strategy is not based on a full study of alternative energy and has

9 "Analysis of renewable energy and its impact on rural development in Kosovo", November 2009, AgriPolicy, Enlargement Network for Agripolicy Analysis

10 "Background Paper: Development and Evaluation of Power Supply Options for Kosovo", DHInfrastructure and reviewed by World Bank staff, December 2011

11 "Background Paper: Development and Evaluation of Power Supply Options for Kosovo", DHInfrastructure and reviewed by World Bank staff, December 2011

12 http://www.energy-community.org/portal/page/portal/ENC_HOME/NEWS/News_Details?p_new_id=6342

13 Law No. 2004/8 on Energy Article 11

14 "Background Paper: Development and Evaluation of Power Supply Options for Kosovo", DHInfrastructure and reviewed by World Bank staff, December 2011

few prospects for projects focused on developing cleaner energies. Furthermore, Kosovo has not developed a market model that provides healthy competition in the field. Additionally, full data on costs and benefits of the implementation of the projects in question are missing. By not providing complete and accurate data on the benefits and costs for the development of projects foreseen in its Energy Strategy, Kosovo risks developing projects that could be damaging to the country and that will, among other things, result in dangerous pollution of the environment, high health care costs, an inefficient energy system, lack of clean energy, and failure to achieve European objectives in the field of energy production[15].

# 4. Current energy challenges

## a) Meeting energy demand

The domestic generation hasn't been able to meet energy demand since 1999[16]. Net imports have ranged between 5 and 17 percent of total annual consumption since 2001 (an average of 10% of consumption for 2000–2010[17]). The volume of imports is constrained by availability of surplus generation in exporting countries, interconnection capacity, and cost. The interconnection with Serbia cannot be relied on, and the availability of electricity from Albania for trading or exchange depends on hydrological conditions[18].

While the electricity imports are not negligible, as volume and neither as costs, this problem is coupled with a transmission limitation, which means that even though imports take place there are still regular blackouts.

15 "Energy projects in Kosovo", KIPRED, FIQ, GAP, 2011

16 Renewable Energy Policy and Market Developments in Kosovo", N. Avdiu, A. Hamiti, Energy Regulatory Office of Kosovo, 2011

17 Statement of Security of Supply for Kosovo (Electricity, Natural Gas and Oil)", Energy Regulatory Office, July 2011

18 "Background Paper: Development and Evaluation of Power Supply Options for Kosovo", DHInfrastructure and reviewed by World Bank staff, December 2011

## b) Blackouts

Kosovo faces energy blackouts on a regular basis. These power outages, an everyday occurrence in Kosovo since 1999, are one of the main obstacles to the country's economic development. Due to the lack of a reliable energy supply, many planned investments in Kosovo never materialize, and the existing industry is at risk[19]. Frequent load shedding has constrained peak demand and muted the seasonal (winter) and daily peaks. The transmission system operator, KOSTT has estimated that, during 2001–2007, annual electricity demand would have been 300–700 GWh higher in the absence of load shedding. KOSTT shed an estimated 200–400 GWh between 2009 and 2010[20].

## c) Load shape

Peak electricity demand during winter is approximately 1100 MW. This should be compared to the base load figures and the base load – peak load difference should be analysed to check for gap reduction potentials. Also this needs to be linked to the losses and load shedding problems. Apparently the commercial losses are difficult to tackle, with its social implications, while addressing the technical losses is deemed expensive. In any case, the figures would seem strange at first glace (see Table 1).

As gross energy production includes internal consumption of the power plants, it is not a proper comparison, but still the gross energy production is higher than consumption and there are substantial imports in winter, but there are still blackouts, which only underlines the issue of losses.

## d) Health impact of the energy sector

According to a 2012 World Bank report[21], high air pollution levels cause annually 835 early deaths; 310

19 "Energy projects in Kosovo", KIPRED, FIQ, GAP, 2011

20 "Background Paper: Development and Evaluation of Power Supply Options for Kosovo", DHInfrastructure and reviewed by World Bank staff, December 2011

21 http://siteresources.worldbank.org/INTKOSOVO/Resources/KosovoCEA.pdf

new cases of chronic bronchitis; 22,900 new cases of respiratory diseases among children (most often asthma); 11,600 emergency visits to country's hospitals; and over 100 million euro in direct costs are connected to this problem, all of which have been paid from the pockets of the already impoverished Kosovar public.

| Period | Gross energy production in power plants | Consumption | Energy imports | Energy exports |
|---|---|---|---|---|
| Q1–2011 | 1,688.2 | 1,010.7 | 224.7 | 27 |
| Q2 –2011 | 1,285.8 | 848.4 | 137.9 | 137.8 |
| Q3–2011 | 1,365.2 | 857.7 | 79.7 | 199.8 |
| Q4–2011 | 1,357.1 | 968.1 | 373.9 | 6.6 |

**Table 1: Electricity production and consumption in Kosovo, by quarter, in 2011, all figures in Gwh**

*(Source: Source of data: "Energy Balance in Kosovo", Statistical Agency of Kosovo, 2012)*

## e) People use electricity for heating

To add to the inefficiency of energy use, as there is no gas infrastructure and little use of district heating, people use electricity for heating.

## f) District heating

District heating systems, operating in the municipalities of Pristina, Gjakova, Mitrovica and Zvecan, run on imported heavy fuel oil as their prime fuel and meet 5% of total heating demand. Heat consumption is mostly unmetered and the billing is based on assessed heating areas. A programme for recovery and expansion of district heating systems is not seen as realistic, as it would require a long period of time capital[22].

## g) Energy efficiency

The vast majority of houses in Kosovo, including old and new buildings, are not efficient. Furthermore, a large part of the houses and apartments in Kosovo use electrical energy for heating, causing energy efficiency to be at an alarmingly low level[23].A law on energy efficiency was adopted, a national energy efficiency plan for the period 2010–18 has been prepared, but the progress consists mainly of having an unambitious energy efficiency target (9% by 2018) set and the introduction of technical regulations on building energy performance that don't seem to be making a difference in practice. Energy efficiency measures in Kosovo translate into initiatives such as an excise tax on inefficient light bulbs of EUR 0.3, which for some reason is expected to increase the demand for efficient light bulbs, while it isn't necessarily clear whether people can afford the more expensive bulbs and whether the effectiveness of this tax goes beyond increasing governmental revenue.

### Where is the potential for energy savings greater?

Household consumption versus total consumption billed in 2010 is 69.9%. Commercial customers make up 21.3% of total consumption in distribution, industrial consumers connected to distribution make up 8.5% and public lighting makes up 0.4%[24].

In Kosovo, even though this is not specified by law, incentive measures are applied for consumers that save energy, even though in a very basic form. Every invoice issued by KEK explains the different

22 "A practical assessment of RES and DSM potentials of Kosovo", http://www.kek-energy.com/en/doc/Appendix%20-%20APARES-Eng.pdf

23 "Energy Efficiency in Kosovo, An analysis of the legal framework and its implementation", Institute for Development Policy, 2012

24 Statement of Security of Supply for Kosovo (Electricity, Natural Gas and Oil)", Energy Regulatory Office, July 2011

categories of rates, which indicates that the higher the consumption the higher the rate[25]. It isn't clear though how many households are not metered. In any case, it is apparent that the energy savings potential lies primarily in the residential sector.

## h) Losses

Kosovo faces the major challenges of electricity theft and high technical and commercial losses in the distribution system[26]. Additionally, KEK cannot collect all billed electricity; not all electricity consumption is metered[27]. According to the Energy Strategy 2009–2018, out of the gross consumption in 2007 of 4,582 GWh, only 2,425 GWh (53%) was billed; out of this billed amount, only 1,843 GWh (76%) was collected. In 2007 the commercial losses were 1,333 GWh, equivalent to the entire production of Kosova A, all production from the hydro power plants and part of Kosova B production.

In 2010 total losses were 1.879 GWh (41.22%), while in 2009 such losses were 1.895 GWh (42.80%). Technical losses in 2010 were 748 GWh (17.20%) and commercial losses were 1.095 GWh (24.2%)[28].

In 2011 overall losses were 1.786 GWh or 38.15% of the energy that was produced, whereas commercial losses were 1,000 GWh or 21.37% of consumption[29].

Energy forecasts assume that technical and non-technical losses will be reduced over time. More specifically, technical losses are assumed to decline from 16.6 percent of gross energy supplied in 2010 to 8.0 percent in 2025. Non-technical losses are assumed to be reduced from 24 percent to 5 percent at a uniform rate over the 5 years from 2013 to 2018 (the privatisation of distribution is planned to play a role). It is also assumed that the reduction in non-technical losses will reduce demand[30].

## i) Affordability

Setting electricity prices at levels that ensure cost recovery and promote efficiency, strengthening the collection of payments, and enforcing accountability for performance seem to be on the Kosovo government's agenda. In practice, increasing tariffs for people of whom many cannot afford to pay, without offering improved service and without implementing efficiency measures, seems a doomed exercise.

Current tariffs charged to customers are not cost reflective: for the most part, household consumers are subsidized by non-household users. Household tariffs as a whole are estimated to be roughly 20–30 percent (this figure most certainly does not include a series of externalities) below the suppliers' total financial costs, whereas some industrial tariffs significantly exceed the cost reflective level[31].

As the average income in Kosovo is not high, KEK considers that the cost-benefit analysis of investing in energy efficient technologies is not favourable for energy efficient technologies[32]. This is a very predictable statement coming from a coal electricity producer, but still the government needs to address the affordability of cost-reflectiveness of tariffs through energy savings.

# Recommendations

Having looked at the energy sector challenges, we believe a central item of EBRD's intervention in Kosovo should be addressing energy efficiency in the residential sector, to ensure an improvement in

25 "Energy Efficiency in Kosovo, An analysis of the legal framework and its implementation", Institute for Development Policy, 2012

26 Transmission losses are relatively low, 4.35% in 2008, 3.31% in 2009, 2.38%, according to the Energy Regulatory Office.

27 Unmetered residential customers pay a fixed monthly fee based on their estimated monthly consumption.

28 "Statement of Security of Supply for Kosovo (Electricity, Natural Gas and Oil)", Energy Regulatory Office, July 2011

29 "What after Kosovo's membership to EBRD?", GAP Policy Brief, January 2013

30 Background Paper: Development and Evaluation of Power Supply Options for Kosovo", DHInfrastructure and reviewed by World Bank staff, December 2011

31 Ibid.

32 "A practical assessment of RES and DSM potentials of Kosovo", http://www.kek-energy.com/en/doc/Appendix%20-%20APARES-Eng.pdf

quality of life while bringing energy savings, reduce new generation capacity needs and get closer to cost-reflectiveness of tariffs.

We recommend that the EBRD support the Kosovo government to:

- assess the realistic demand for energy and what additional energy capacity is required, including interconnections
- reduce distribution losses
- analyse which are the most cost-effective efficiency measures (start metering, insulate buildings), including the best load gap measures
- address the barriers for investors in renewable energy and energy efficiency
- support private investors to develop renewable energy projects
- explore the options to reduce the use of electricity for heating
- improve the country's energy strategy and conduct its strategic environmental assessment

Investing in new lignite-fired capacities would channel the limited financial resources away from energy efficiency. Given the need to send a very strong message to the Kosovo government about the importance of energy saving and energy efficiency, the EBRD needs to concentrate on this area and avoid giving any signals that may detract from this. The bank therefore needs to avoid indicating interest in new lignite capacity as it is clear that this will quickly dominate the agenda, diverting attention and resources away from the huge energy efficiency needs.

As Kosovo aspires to join the EU, it needs to urgently diversify its energy resources and this calls for investments in its renewable energy sector. An alternatives analysis carried out by the Renewable & Appropriate Energy Laboratory Energy & Resources Group University of California, Berkeley, shows that in the period until 2025, Kosovo can meet its energy needs through energy efficiency improvements, wind and hydro energy, as well as biomass and geo-thermal. This scenario would also result in three times more jobs created for the country, and address environmental problems as well[33].

On the other hand, the plan adopted by the Kosovar Government and potentially supported by the EBRD and World Bank would isolate Kosovo into coal dependency for the next 40 years. Burning coal to produce electricity is already costing the country over 100 million euros annually only in health related issues, with people dying prematurely and children suffering respiratory diseases[34]. While it is often claimed that new coal plants are cleaner than old ones, this does not mean that they do not have their own serious health impacts. Hence, moving away from such a situation is a matter of human rights as well, besides being a good economic, social and environmental move.

We are asking the EBRD to consider Kosovo's vast opportunities in the renewable energy sector and energy efficiency instead. The EUR 12 million for the "Kosovo Sustainable Energy Projects" scheduled for Board approval in May this year is a small but good start. A lignite power plant would severely undermine the effects of this work.

33 A World Bank study shows that Kosovo annually pays over €220m for the cost of pollution: http://siteresources.worldbank.org/INTKOSOVO/Resources/KosovoCEA.pdf

34 http://sierraclub.typepad.com/compass/2013/02/new-ads-highlight-world-banks-deadly-coal-plans-for-kosovo.html