

# MACEDONIAN ENERGY FORUM 2019

## CONCLUSIONS OF THE FORUM



**Macedonian Energy Forum 2019**

**“World’s Energy Transition Through  
Renewable Energy Sources and Energy Efficiency”**

**Conference conclusions**

The second edition of the [Macedonian Energy Forum](#) took place on 15-17<sup>th</sup> May 2019 in Struga, North Macedonia and was organized by JSC Power Plants of North Macedonia (JSC ESM), United States Embassy in North Macedonia, ZIP Institute and the Government of the Republic of North Macedonia. The Energy forum’s mission was to contribute to a more versatile, inclusive and direct exchange of knowledge and ideas about the process of energy transition of the European, regional and Macedonian energy sectors. The Energy forum continued to be a diverse and high-level platform for stakeholders in the energy area to discuss energy challenges, policies and future collaboration. The Energy forum aimed at enabling improved policies and at building a lasting cooperation network. The Energy forum’s vision is becoming a prominent regional energy platform for discussion and exchange in the energy area.

## I. OPENING



**Prime Minister Zoran Zaev:** *“I believe firmly that the Macedonian Energy Forum is an excellent opportunity to discuss development perspectives of the energy sector in North Macedonia through fruitful, high-quality and broad debate about issues of relevance for the future.”*

Mr. Zoran Zaev, Prime Minister of the Government of the Republic of North Macedonia delivered the opening remarks. The goal of the Macedonian Government is to make use of the untapped energy potential of North Macedonia. The plan is to increase domestic production of electricity, to attract new investments in the energy sector, to diversify the energy supply, to increase the energy market competitiveness, to improve the security of energy supply, and protect the environment at the same time. The construction of gas pipelines is underway and municipalities are ready to build the secondary gas network. The connection to the Greek pipeline allows for access to gas from Azerbaijan and possibility to connect to LNG terminals in Greece. Solar energy is seen as the basic pillar for electricity production and households are encouraged to install photovoltaic on their roof. In line with abandoning fossil fuels and transition to clean technologies, the new Energy law from May 2018 incorporated the Third energy package and the Directive on renewables aiming at reduction of energy import dependency and sustainable development. The 2030 EU goals for energy and climate include CO<sub>2</sub> emissions reduction by 40% compared to 1990 levels, renewables share of 27%, improvement of energy efficiency by 27%.



Chargé d'Affaires of the US Embassy Micaela Schweitzer – Bluhm: *“Energy security must extend beyond our borders. The energy system is global and we must work together and innovate in order to secure global access to energy”.*

Ms. Micaela Schweitzer - Bluhm, Chargé d'Affaires, United States Embassy in North Macedonia has also delivered an opening speech. According to the World Economic Forum there is an innovation tsunami with potential to transform our energy system with the same shock the electricity, oil and internal combustion engine gave to the global systems over 100 year ago.

A stable, reliable and diversified energy system is important for North Macedonia's security and prosperity. The US Government is committed to support the energy sector of North Macedonia and has supported the new energy efficiency plan and the liberalization of the energy market. The Greece and US cooperation on LNG for this region is an opportunity for North Macedonia, but also Kosovo, Serbia and Albania to diversity gas supply. Through regional cooperation there is an opportunity for regional approach in innovating the regional energy system.

## II. FIRST PANEL

The first panel titled 'World's Energy Transition and Regional Challenges in Joining the Global Trend' was moderated by Mr. Dragan Minovski, Chairman of the Board and CEO, JSC ESM.



Director of the Energy Community Secretariat Janez Kopac:  
*“Decarbonization is needed if we want to survive otherwise climate change will kill us.”*

**Panelists at the first panel were:**

- Mr. Kocho Angjushev, Deputy Prime Minister for Economic Affairs, Government of the Republic of North Macedonia
- Mr. Janez Kopac, Director, Energy Community Secretariat
- Mr. Valdrin Lluca, Minister of Economic Development, Government of Republic Kosovo
- Mr. Marko Radulovic, Director General, Directorate for Energy Efficiency, Ministry of Economy, Montenegro

The decarbonization is a challenge for the region of South East Europe since it is dependent on coal and that is a question of security of supply. The debate is whether renewables can replace coal. Energy transition and the abandonment of coal is not only economic, but a political and social question too. The energy transition is also a question about how to produce energy in the future.

North Macedonia produces 70% of its energy from coal, and has limited coal reserves, and does not have gas or oil. Thus, the country cannot base its future on domestic coal. North Macedonia has renewable energy potential, but the price of electricity coming from renewables is more expensive and the question is who should pay for it, or rather how to increase the renewable share but not increase the electricity price for consumers. The solution of the Macedonian Government is the mechanism of premium. For the same support scheme, efforts are made to facilitate the work of investors for getting building permits and easier connection to the grid.

The state would offer free land for a certain period, will offer urbanized land and information about the cost of the connection which improves the security of investment. The change of the support policy for renewables from feed-in tariffs to premium enables less funds spent from the budget and greater renewable energy capacity. Hydro power plants will not be built in national parks, and the wind park will be expanded. The agricultural waste can be used a source for biogas plants. If all of these plans for renewables are realized, a renewables capacity of 350 MW will be built in the next 2 to 3 years, compared to the current renewable capacity of 17 MW. The new Energy law also tackles energy poverty and the idea is that the most vulnerable categories should be not affected by electricity price increase. The Energy law has also begun the electricity market liberalization for households. The upcoming energy strategy will have 3 scenarios and will open a

debate about choosing one. In the long term there is a need for regional approach to solve problems in the region, including exchange of electricity and regional approach in gas supply. Regional cooperation will play a key role for the development of the energy sector and it will enable the EU candidate countries getting funds for investments in renewables.

The price of renewable energy is getting cheaper, coal is too expensive due to the technology and that many countries imposed taxes on CO2 emissions. This makes coal production uncompetitive and it is a result of the will for decarbonization. The feed-in tariffs for financing renewables were too expensive, while auctions are a cheaper way. Carbon pricing is not obligatory but it is coming, and is a source for financing the energy transition in the region, it is money taken from carbon to be used for energy efficiency. The energy transition started with market opening /liberalization, and the second transition is decarbonization.

If a country does not catch the first transition, it is difficult to catch the second one. North Macedonia had the most progressive market opening and has chances to catch the second transition as well as Montenegro and Albania, the latter since it has no coal, but other countries in the region will face issues. The coal phase out can bring countries closer to EU integration. Decarbonization in the future will be a criterion to distinguish between developed and undeveloped countries.

The Energy Community will adopt this year the targets for 2030 which would be bit lower than those of the EU due to the socio-economic situation of the Energy Community members. For the next budget period 2020-2027

there will be no funds which in any way support fossil fuels use, not even improvement of old coal power plants or investments in gas. Kosovo has the 5<sup>th</sup> largest reserve of coal, but at the same time has 25% of renewable share plan by 2020. Montenegro has plans to be energy independent net exporter of energy, regional energy hub and energy producer in region. It has plans for investment in renewables but based on market prices. For the building sector Montenegro plans minimum energy standards, energy labelling and eco fund.

## III. SECOND PANEL

The second panel titled 'Women in Energy - Opportunities and Challenges for Gender Balance' was moderated by Ms. Hristina Spasevska, Professor, Faculty of Electrical Engineering and Information Technologies



Director General Deputy of EDCO **Reem Hamdan**: *“Family support is important to reduce the burden on female employees.”*

Country Director of FES Eva Ellereit: *“There is different kind of legislation which you can put in place that promote progress and allow a process of self-reflection in those companies that have not yet reached it.”*

**Panelists at the second panel were:**

- Mr. Stefan Peter, MBA Chairman of the Management Board of EVN Macedonia
- Ms. Shannon Runyon, Political and Economic Affairs Section Chief, United States Embassy in North Macedonia
- Ms. Verica Uzunova, President of the Supervisory Board of JSC ESM
- **Ms. Reem Hamdan**, Director General Deputy, **Electricity Distribution Company EDCO, Jordan**
- Ms. Eva Ellereit, Country Director, Friedrich-Ebert-Stiftung, Skopje Office

Worldwide women study less at technical universities or do not want to have technical jobs. There are almost no women in top management positions in energy companies. Women are working more in renewables than in gas and oil. Less women are working in engineering and more have administrative jobs. Women face barriers to getting into a company and once in - for further career development. To be a woman with an engineer degree is a decision one must make alone, and it means playing a role of a minority in the professional environment.

In North Macedonia there are stereotypes about female professions. Even if both candidates have the same qualifications, women progress less because of their gender.

According to the World Economic Forum the gender gap in 2018 in the economic area is 42%, in political representation 77% and only 5% in education. Everyone has to take a role in raising awareness on gender balance. Legal measures have to be taken as well. There is also the need to fight discrimination and to make decisions inclusive. In eastern Germany and in post-socialistic countries women used to be more present in the workforce and some of the reasons where better systems for childcare and acceptance of women in the labor market.

There is need of having female role models because they give a sense of belonging. One way of using regulation for gender balance is to have the empty chair policy, which means that the post remains vacant until a women is found to fill in the post. But, setting up quotas can be difficult if one wants to also integrate other aspects of diversity, such as ethnicity or religion.

In North Macedonia there is an annual conference on women in energy and the insights are that energy companies understand the need for women's involvement. The business approach is more sustainable with women. With a female director ESM has achieved a profit of 29 Million EUR for the first time since existing. There is a need of diversity in teams in order one to think outside the box.

Women working in the energy sector should be persistent in following their goals, but also managers should make sure that gender quotas are filled in. Compared to men, women need to make more efforts to pursue their careers. Men are better at networking and that is what helps them in getting a senior position. EVN has an annual bring-your-child-at-work-day, flexible working time and a program for neutralizing CVs by the human resources department for prospective applicants. Men have more access to other leaders and are seen as more qualified. Mentoring programs are needed.

## IV. THIRD PANEL

The third panel titled 'Regional Challenges in the Supply of Natural Gas' was moderated by Mr. Mitko Andreevski, Energy Advisor to the Prime Minister of the Republic of North Macedonia.



Senior Advisor at Agora Jesse Scott: *"The energy transition is to be global in order to be effective."*

United States Department of Energy representative Dan Milstein: *"It is a societal question on how much to pay for diversified sources"*

**The panelists at the third panel were:**

- Ms. Jesse Scott, Senior Advisor International, Agora Energiewende, Berlin
- Mr. Rostyslav Palagusynets, First Secretary, Embassy of Ukraine in Republic of North Macedonia
- Mr. Dan Milstein, Director, European Regional Office, United States Department of Energy
- Mr. Branko Milicevic, Economic Affairs Officer, Group of Experts on Gas, UNECE
- Mr. Barnim Piechorowski, Head, Balkan Region, Uniper Technologies GmbH
- Mr. Sotirios Nikas, CEO Senior Advisor, DESFA, Greece of Business Development

It is the responsibility of every country to contribute to the energy transition. The thermo power plant in Bitola on lignite could be replaced by gas leading to reducing CO2 emissions by half. Gas infrastructure is needed and investments need to be made on a commercial basis. After Russia's occupation of Crimea, it was a challenge for Ukraine to reduce its gas consumption which in 2016 imported 44 Billion m3 gas from Russia and consuming a total of 69 Billion m3. In 4 years Ukraine managed to reduce its gas consumption by half which is now 32 Billion m3 in a response to the gas crisis with Russia. This has been done by reducing the gas consumption, utilizing more domestic gas, using gas from Slovakia, Poland, Hungary and investing in energy efficiency in household sector. Russia wants to circumvent Ukraine with the Turkish and North Stream and these projects are increasing the dependency of EU on Russian gas and enabling Russia's influence on Europe. North Stream 2 is a political project and more expensive than the existing gas infrastructure in Ukraine and it is to be paid by European consumers. Many raise the question about the region's gas demand, however the real question is the purpose of the gas use. Transforming the thermo power plant in Bitola to gas would be one way of increasing the gas demand. Gas could also replace the electricity for heating for households. The concept that the gas can be only supplied through pipeline is old. The concept that LNG can be a substitute for gas pipeline is wrong. The real question is what the energy needs in the Balkans are and whether LNG from containers can supply regions not connected to gas infrastructure. LNG can be transported anywhere by trucks and this can shorten the supply chains. There are 3 entry points for gas and one LNG terminal in Greece and 3 future entry points are planned, one which is to North Macedonia. The Macedonian side has secured the funding for this. An upcoming market test will study the demand. LNG can be transported from Greece to North Macedonia and LNG can be a valuable option for the Balkans too. Virtual gas pipelines are an option. The UN program for sustainable

development from 2015 has goals which address energy, such as goal 7 about access to energy and 13 on climate change. It is not possible to completely stop using fossil fuels, but to use them more efficiently and less. Gas is good if it replaces more carbon intensive fuels like lignite. It seems as a blessing in disguise for North Macedonia to be running out of lignite.



*Spanish Ambassador H.E. Mr. Emilio Lorenzo Serra: “A suggestion to North Macedonia is to strengthen the electricity interconnections. A gradual approach in energy transition is always important.”*

H.E. Mr. Emilio Lorenzo Serra, Ambassador, Embassy of the Kingdom of Spain delivered a keynote speech titled ‘Renewable Energy Sources and Energy Efficiency – The Case of Spain’. Energy efficiency and saving energy are expected to bring economic growth. The energy mix of Spain in 2006 included oil of 49%, gas 22%, coal 12%, nuclear 11%, biomass and waste 3%, hydro 2% and solar 1% with a GDP growth of 4.2%. 10 years later with a GDP growth of 3.2% right after the great recession, solar increased to 6% and fossil fuels were down to 72%. Coal, oil and gas are imported in Spain which explains the big efforts to boost participation of renewables in the energy mix. Spain is becoming more energy efficient. Spain also plans to boost energy saving and to increase the renewable share in the electricity mix, and at the same time expects a growth of GDP and creating new jobs.

## V. FOURTH PANEL

The fourth panel titled 'New Technologies` and Renewable Sources` Share in Total Electricity Production After 2030` was moderated by Mr. Sani Demiri, Board Member, ZIP Institute, Professor at "Mother Theresa University" Skopje.



OKTA's Director Risto Janevski: *"The first project was based on commercial basis. Photovoltaic can be equal with other sources without additional support."*

Minister of Economy of North Macedonia Kreshnik Bekteshi: *"Feed in tariff was paid by end- consumers and premium is paid by the budget with no impact on citizens."*

**The panelists that participated in this panel were:**

- Mr. Kreshnik Bekteshi, Minister of Economy, Government of Republic of North Macedonia
- Mr. Risto Janevski, Director for Strategic Planning and Development, OKTA AD, Skopje
- Mr. Sasho Saltirovski, Managing Director, Electricity Distribution LLC, EVN Group
- Mr. Marko Topic, Chairman at the European Technology and Innovation Platform Photovoltaics
- Ms. Lihie Iuclea, Environmental Engineer, Head of the Waste Water and Soil Field, DHVMED, Israel

The photovoltaic technology is cost-effective compared to other alternatives. It is the cheapest and most competitive clean technology. This has led to a photovoltaic deployment of 500 GW globally. The bankability

and economic potential is what brought to accelerated deployment of renewables. By 2030 Israel plans to have 70% renewables. This needs a large surface. Renewable energy has also local environmental impacts which needs to be considered, such as use of the surface and bird population.

OKTA is shifting from a petrol to an energy company by investing in renewables. It had its first photovoltaic installation for a commercial client. For the upcoming premium auction for renewables in North Macedonia, several locations are offered with both state and private land and every company can participate. North Macedonia produces more CO<sub>2</sub> emissions than they are compensated by renewables. There is a need for action plan for implementing the Energy law and subsidies for households. The cooperation between academia and companies is not simple since companies are interested in profit and short-term goals, while academia does not look for profit and aims at achieving long-term goals. Companies usually do not take risks and both sides need to be proactive to cooperate with each other. The human capital is important. Innovations and new technologies bring novelties.

## VI. FIFTH PANEL

The last panel titled 'Energy Efficiency – Main Factor for Reduction of Energy Consumption After 2030' was supported by ProCredit Bank and moderated by Mr. Metodija Minoski, Environmental Coordinator, ProCredit Bank.



Eko-svest's Director Ana Colovic Lesoska: *“The Energy Efficiency Fond should be established. The Government needs to synchronize different programs and to integrate energy efficiency.”*

Central European University's representative Ana Stojilovska: *“The Government should take a leading role in addressing energy poverty.”*

**The panelists at the fifth panel were:**

- Ms. Violeta Kogalniceanu, Head of Infrastructure and Energy Efficiency Unit, Energy Community Secretariat
- Ms. Ana Stojilovska, Representative of Central European University, Budapest
- Mr. Gonzalo Barrios, Senior Expert Green Finance, IPCGmbH, Germany
- Mr. Ivica Jakimovski, General Manager and President of the Construction Chamber of Macedonia, Golden Art, construction company, Skopje
- Ms. Ana Colovic Lesoska, Executive Director at Eko-svest

Achieving both energy security and sustainable energy is a challenge. 60% of the regional market is integrated and in North Macedonia is 50%. The adoption of the Energy law from 2018 is a big step. Important is opening up the retail market.

There is a big focus on the supply side and energy efficiency and energy services market need to get more attention. Energy efficiency is a horizontal question to be aligned with social, environmental, economic matters and energy supply. Little over half of the households in North Macedonia believe they can have an impact on the environment. Over 70% are ready to invest in energy efficiency with partial or full support. Nothing massive is happening yet since people generally want to see the effects right now which is not the case with energy efficiency. All actors have to raise awareness about energy efficiency. It is relevant to invest in efficient buildings which also means investment in good construction materials. When buying real estate in North Macedonia there is no difference in price between efficient and energy inefficient dwellings. It is also relevant to reduce the energy intensity of the industry sector. When decisions are made inclusive with the civil society, also the results are better implemented. There is also need for monitoring and evaluation.

Energy efficiency might have an increasing impact on the electricity price, but it has a positive impact on the energy bill overall since the bill is based on consumption times price. Energy efficiency is a good business for the public sector since it has clear positive return of investment. Households are an important actor in the energy transition. Energy poverty is the inability to satisfy energy needs at home. It is illustrated as cold rooms, heating of one room, reducing the quality and quantity of food, and issues with paying the energy bills.

The drivers of energy poverty include low incomes, inefficient houses with big heating needs, and lack of infrastructure leading to fuelwood or electricity choices. The consequences of energy poverty are health impacts, such as air pollution due to extensive use of fuelwood and mental illness due to stress with dealing with energy bills. Energy efficiency can be used to prevent energy poverty. Households in energy poverty cannot afford full renovation and often go for partial one which does not give the expected positive results. This can lead to increasing the gap between households which can afford energy efficiency and can live in good homes and those that cannot. It is important connecting the measures against air pollution to those with alleviating energy poverty since vulnerable groups would most likely use polluting fuels, such as fuelwood or even garbage for heating. When creating measures for increasing renewables, it is important not to increase the electricity price. Energy poverty can be a barrier to building heat infrastructure.

**The organizing committee thanks you for your contribution and we hope to see you in the next forum.**

