

November 2017

EVN JOURNAL

Journal for the partners
and associates

THE ENERGY YOU NEED!



Ladies and Gentlemen,

In front of you is the second issue of EVN Journal, the newspaper that is an additional means of informing our partners and associates about current topics and events in the energy sector. After we presented our company objective - to provide reliable electricity supply and quality service - in the previous issue, in this issue we present the people who are part of the team in charge of responding to the specific needs of each of our customers.

The focus of this issue is on the production of electricity from unconventional, renewable sources. In order to promote and support the development of renewable energy sources, we present the benefits of using them, both for you, our customers, and the environment. Knowing the market conditions, we are talking about the energy efficiency of enterprises as an important factor in maintaining their competitiveness.

As an entertaining and interactive way to introduce the public to renewable energy sources and educate about the significance and history of electricity in Macedonia, we present you the project related to the EVN's hydropower plant near Skopje where EVN opened the Electricity Exhibition Center Matka, which is the first of its kind in our country.

Finally, you can take a look at the atmosphere of our employees' volunteer action, as they were preparing meals for socially disadvantaged people as part of the EVN Volunteers project.

We hope that the selected content will keep your attention and interest.

Respectfully,
Editorial team of EVN Journal



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Availability for all customers on the electricity market

The sales team of EVN Macedonia Electricity Supply, with its expertise and dedication, is available to all customers that are eligible electricity market

participants. The key account and business customer manager is responsible for each company, depending on its electricity consumption, the specifics

of the business and the region. The appointed manager analyzes the needs of companies and their profile of electricity consumption and accordingly prepares

offers that are tailored to their specifics. He or she provides adequate support and consultation, while implementing and managing all associated requirements.

KEY ACCOUNT MANAGERS



Apostol Dimitrovski

His main advantage is the vast experience he has gained working in many different industries - more than 9 years in EVN Group, 5 in ESM, 15 years in the mining industry and over 5 years in a private import-export oriented company for various products. His understanding of the current and the previous economic conditions, social circumstances, the business climate and strategies provides anticipation of the business needs of the customers.

The energy you need!

www.snabduvanje.mk



Pande Gacovski

The nine-year experience in EVN Group in various positions and the additional development in the field of energy management make him an expert in understanding the technical complexities in the industry. His expert knowledge allows systemic approach to customer requests, thereby helping them achieve a significant impact on their company's performance.

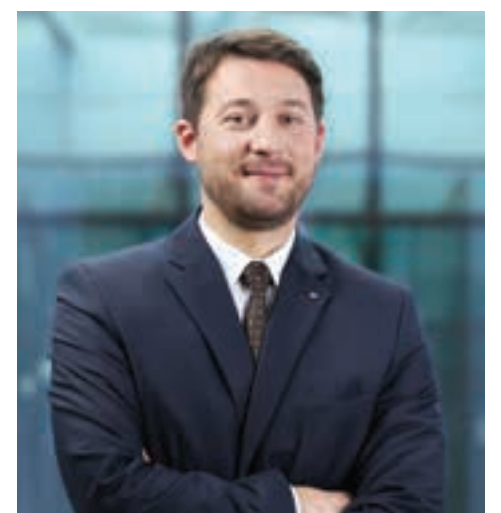
Berkant Shen

With his valuable experience of 10 years in EVN Group, he has a wide knowledge of the trends and movements in the electricity market, both regulated and liberalized. He is completely dedicated to the customers and is proud of the fact that he is constantly available to them in order to meet their needs.



Zoran Dimitriev

He has many years of experience in various industries - sales, energy efficiency, quality assurance, as well as more than 5 years of experience in EVN Group. As a result, he has developed a deep sense of recognizing and intercepting the needs of customers through a pragmatic approach.



Aleksandar Mijalkov

He has international experience in the telecommunications industry in Great Britain, 7 years in the same industry in Macedonia, and 2 years in EVN Group. With a positive approach to the customers and creative solutions to all issues, he always strives to establish long-lasting relationships with business partners.

Business customer managers Viktor Velkov and Mimoza Musliu have extensive experience in EVN Group in different positions, which provides them with an excellent knowledge of the specifics related to the liberalization of the electricity market. Their expertise provides a unique point of view and ability to recognize the needs and expectations of companies in the challenges they face by becoming eligible for the open market. They help customers reach the best solution tailored to their specific work processes and business objectives.



BUSINESS CUSTOMER MANAGERS

Renewable energy sources - challenges and potential



The electricity we use daily for lighting, heating, cooling, powering various devices, machines and production lines represents secondary energy source since it is produced by conversion of primary energy sources. Primary energy sources are fundamentally divided into conventional sources, such as coal, oil, natural gas and nuclear energy that are scarce and cannot be renewed within a short time, and unconventional or renewable energy sources (RES) such as solar energy, wind energy, hydropower, tidal energy, wave energy, geothermal energy and biomass energy.

The socio-economic, environmental and political risks arising from the utilization and depletion of conventional sources are the reason for the ever-increasing interest in utilizing the potential of RES. Increasing

the share of RES in the energy mix of a given country not only improves the environmental conditions and reduces the pollution, but it also contributes to greater diversity and therefore, reliability in the energy supply, energy self-sustainability and lower dependence of the country on imports of energy. Moreover, the utilization of RES provides local economic development in terms of job creation, while creating opportunities for small and medium-sized enterprises for long-term reduction of energy costs, thus increasing their market competitiveness.

To this end, and in order to promote and support the development of RES, the European Renewable Energy Directive has been issued. This Directive sets out the general principles for the production and

promotion of RES in the European Union, according to which by 2020 at least 20% (and at least 27% by 2030) of the total electricity consumption should be covered by RES. This should be accomplished by fulfilling predetermined national targets for each country separately, which take into account the current situation and potential of renewable sources in each country. In Macedonia, according to the action plan for renewable energy sources by 2025, which encompasses a vision until 2030, the expected share of renewable energy sources in the gross final electricity consumption by 2020 is about 21%, while by 2025 and by 2030 - 25% and 28% respectively.

Due to the greater investment costs for RES, which are mostly related to the development of infrastructure that would support the

introduction of RES in the energy system, the construction, management and maintenance of power plants, the costs for obtaining the necessary licenses, guarantees and permits etc., the energy produced by these sources is more expensive, making them less competitive in the electricity markets. Therefore, each country takes measures to support and stimulate the construction of new power plants that will utilize renewable sources.

Such measures include investment support and various tax incentives, compulsory purchase of electricity produced from renewable sources, obligatory sale of mixtures of fossil fuels and biofuels on the market, issuance of guarantees on the origin of the produced electricity by the Energy Agency of the Republic of

Macedonia, as well as feed-in tariffs for purchase of electricity produced from RES, which, in turn, are prescribed by the Energy Regulatory Commission.

By obtaining the status of feed-in producer, the producers of electricity from renewable sources become eligible to sell the produced electricity at a feed-in tariff. The feed-in tariff is a mechanism for supporting and stimulating the development and utilization of RES, which guarantees the sale and purchase of produced kilowatt-hours of electricity from feed-in producers in a time interval of 15 to 20 years, and thus a reliable return on the investment. The defined time interval and the rate of the feed-in tariff to be applied vary depending on the type of renewable technology the power plant would use. Additionally, limitations are imposed not only on the validity of the feed-in tariff, but also on the total installed capacity of each of the applied renewable energy sources in the system, as well as on the installed capacity of the individual power plants, i.e. their maximum size. These constraints have been introduced to ensure the stable development of the energy system, to encourage technological innovation and to keep up with the downward trend in investment costs associated with the construction of new power plants that utilize renewable energy sources.



Renewable technology	Feed-in tariff (€/MWh)	Period of fixed tariff
Small hydropower plants	From 45 €/MWh to 120 €/MWh	20 years
Windmills	89 €/MWh	20 years
Solar	From 120 €/MWh to 160 €/MWh	15 years
Biomass	150 €/MWh	15 years
Biogas	180 €/MWh	15 years

Considering that the increase in the share of renewable energy sources in electricity production is one of the main strategic goals in the energy sector in the Republic of Macedonia, EVN invests in renewable sources, especially in hydropower. To this end, EVN has so far invested in 11 hydropower plants, and taking into account the potential of renewable sources in Macedonia, it plans to further invest in renewable sources under efficient and economically cost-effective conditions.



The utilization of RES provides local economic development in terms of job creation, while creating opportunities for small and medium-sized enterprises for long-term reduction of energy costs, thus increasing their market competitiveness.

ANA PETROVSKA, NATIONAL HEAD OF THE PROJECT REC MACEDONIA

Macedonian industry in line with global trends of improved energy efficiency and better social responsibility

→ The industry in the Republic of Macedonia is the second largest energy consumer. How can the unproductive energy consumption in the industry be reduced, which in turn will increase energy efficiency?

The Regional Environmental Center Macedonia (REC MK) and the United Nations Industrial Development Organization (UNIDO) launched the project „Encouraging the Market Transformation for Energy Efficiency in the Industry and Accelerating Investments in Best Practices and Technologies in Macedonia“ in 2015 and it will be implemented by 2019. The project is jointly funded by the Global Environmental Facility, the Ministry of Environment and Physical Planning, the Ministry of Economy, the Energy Agency and the Macedonian Bank for Development Promotion. The project aims at implementing system-wide solutions to the problems faced by Macedonian industrial enterprises in improving energy efficiency. These solutions will be integrated in companies through the introduction of the international standard for energy management ISO 50001 in all aspects of their operation.

→ How can industrial enterprises improve their energy efficiency and is it possible to include other companies in this project?

Within the framework of this project, REC MK in 2016 successfully implemented the energy management system in 12 Macedonian industrial companies in the field of energy, metal processing, construction, food and pharmaceutical industry. In December 2016, UNIDO and REC MK started cooperating with EVN and it became an important partner of the project that will introduce the energy management system in accordance with the ISO 50001



standard in several facilities. The experts of EVN, in addition to the engagement for implementation of the energy management system in their company, also participated in the activities of some of their clients, who received technical assistance to implement the energy management system. After the introduction of the energy management system within the company

and training its own employees - experts, EVN will be able to introduce energy management systems in other companies - customers, taking over the role of replicator of this project while striving to ensure its long-term sustainability.

→ Considering that the compliance of energy management in companies with global standards is often a huge financial cost, how is this project accepted by companies?

The introduction of the energy management standard under this project focuses on finding practical solutions that do not require large financial investments and on introducing simple technical measures that lead to optimization of processes, equipment and encourage a change in the philosophy of energy consumption by employees. Thus, the 12 Macedonian industrial companies that took part in the project in 2016 achieved energy savings in the monetary equivalent of half a million euros, without making capital investments.

Increasing energy efficiency in Macedonian industrial companies does not necessarily represent an expensive investment. By introducing small technical measures in the operations of companies, significant energy and financial savings can be achieved even without capital investments

→ Will the Macedonian industrial enterprises benefit from the implementation of the energy management system and how will this affect their competitiveness?

By improving energy efficiency in companies, energy and financial savings will be achieved, which will significantly contribute to meeting the national energy saving target of 14.5% by 2020 and the EU target of 20% by 2020. Additionally, by incorporating an energy management system, Macedonian companies will comply with global standards, which are increasingly becoming important factors for better market competitiveness. Also, this project will stimulate greater cooperation and establishment of partnerships between service companies, manufacturing industries and state institutions.

After the introduction of the energy management system within the company and training its own employees - experts, EVN will be able to introduce energy management systems in other companies - customers, taking over the role of replicator of this project while striving to ensure its long-term sustainability.

Electricity Exhibition Center



Located in the authentic and original area of the old hydroelectric plant Matka near Skopje, the Exhibition Center Matka tells the history of electricity in Macedonia, as well as the changes that the electrification brought about. The goal of EVN was to create a place where visitors, and especially future generations, can be educated and their knowledge updated. The interactive plasma panels and the plasma ball, as well as the Van de Graff generator, are only some of the exhibits at the Matka Exhibition Center that provide an innovative multimedia approach and a unique opportunity for education.

Just a few months after the official opening, more than 3,000 people visited the Exhibition Center, the first of its kind in the country. In addition to individual visitors, groups of visitors from the country and abroad also toured the center. With the start of the new school and academic year, new group visits that include practical training have been announced.

The entrance to the Exhibition Center is free. Everyone who is interested can visit the Matka Exhibition Center, individually or in groups, and the information on the conditions for visiting and the working hours can be found at:

- > www.matka.com.mk,
- > Facebook: [Матка - Изложбен центар / Matka - Exhibition Center](#),
- > Instagram: [matka.exhibition.center](#).



MATKA ПРВ ИЗЛОЖБЕН ЦЕНТАР ЗА ИСТОРИЈАТА НА ЕЛЕКТРИЧНАТА ЕНЕРГИЈА ВО МАКЕДОНИЈА

Позиваме го Изложбениот Центар Matka кој што се наоѓа во старата Хидроцентрала и отворен е за историската на електричната енергија во и в дрнос достапно во само едно "Матка".

Донајте лаводи и пронајте постоја на www.matka.com.mk

EVN

Volunteering activity of the team of EVN Electricity Supply



The volunteer team of EVN Electricity Supply, in cooperation with the organization Retvitni obrok, visited the premises of the Glasnost church in Skopje and actively participated in the preparation of meals for the socially disadvantaged. Mr. Marcus Brandstetter, manager of EVN Macedonia Electricity Supply DOOEL, also supported the activity.

This activity is part of the EVN Volunteers campaign in which EVN employees are encouraged to invest time and effort in activities for the benefit of the community.

The objective of such activities is raising the awareness of social responsibility among companies, institutions and individuals.

Over the past 10 years, corporate social responsibility has been set as one of the main and long-term goals of EVN, and the dedication and success in this area have been recognized by the community. The company has won many awards and recognitions related to community investment, market relations, ethical management, relations with employees and the environment.

