

In 2012, NIS, in accordance with the strategy of growing from an oil company into an energy holding company, began to expand its business in the field of electricity generation. Since 2013, the company has been implementing a cogeneration program and so far small power plants have been built at eight locations in Serbia, with a total maximum power of 14 MW. In these power plants, NIS now produces heat and electricity from gas which, due to its poor quality, was previously burned on a torch. More than 20 million euros have been invested in these mini gas power plants.

As an energy holding, NIS produces electricity not only in Serbia but also in Romania, using poor quality gas for wells, which was previously burned on torches, for mini cogeneration power plants on wells. NIS shows its orientation towards business according to environmental parameters by continuing to invest in projects of exploration, production, processing and trade of oil and oil derivatives, but also by the almost completed TPP Pancevo. While many oil companies are only now shifting their activities from exploration, production and refining of petroleum products and boast that they will operate on the green agenda in the future, NIS has been constantly harmonizing its operations with environmental protection over the last decade, in accordance with the principles of eliminating climate change.

In Romania, however, NIS has begun experimental production of electricity from gas in the Zombolj well. This is the first environmental project that NIS is implementing outside the borders of Serbia. With the production of electricity, NIS entered the business of electricity trade, first in Serbia, and it is also present on regional markets. The kilowatts produced at the Zombolj well plant are sold on the Romanian market. The largest and most important project of NIS in the field of electric power at the moment is the construction of TE-TO Pancevo, a power plant that it is building in cooperation with the Russian company Gazprom energo-holding. NIS's share in this project is 49%.

The value of the investment is around 180 million euros, and the installed capacity is up to 200 MW. Construction of this plant continued in 2020, and commissioning is expected this year. NIS points out that the new power plant will produce thermal energy for the needs of the Pancevo Oil Refinery, while the produced electricity will be directed to the energy system of Serbia. The project envisages the construction of a power plant for cogeneration based on steam-gas cycle technology with the simultaneous production of electricity and heat in the form of technological steam. This technology is currently the best in terms of energy efficiency and ecology, is the most economically viable technical solution for using natural gas as a fuel and also provides a high level of fuel energy use – low fuel consumption per unit of useful energy.

The amine plant purifies the gas

Also, in 2016, NIS put into operation the Amine plant near Elemir, in which more than 30 million euros were invested. The operation of this modern plant enables an increase in the quality of domestic natural gas, through the separation of carbon dioxide and other gaseous impurities, while at the same time contributing to an increase in the volume of gas production. In addition to the positive business effect, this project also has a significant environmental component, as the technology used in the Amine plant is one of the most environmentally safe. Namely, the method of processing in this plant is such that it completely prevents the release of carbon dioxide into the atmosphere and thus contributes to reducing the effect of the “greenhouse”. The technology used in the Amine plant is HiPACT (High Pressure Acidgas Capture Technology), one of the most efficient among the existing methods in the gas processing process.

At the end of last year, NIS completed the Deep Refining project, which improves the work of the Pancevo Oil Refinery (RNP) and its final products meet strict environmental criteria. The investment of more than 300 million euros enabled the Pancevo Oil Refinery to become one of the leading refineries in this part of Europe. This is a project that is important not only for NIS but also for the Serbian economy, which was confirmed by comments from neighboring Croatia, whose oil business analysts, comparing the start of Deep Processing with the delay of such a project in the Croatian oil company INA stated that NIS has gained a great advantage, not only in Serbia, but also the opportunity to place its fuel, of better quality than that produced in the refinery in Rijeka, on the Croatian market. Croatian analysts especially pointed out that INA is now losing its position in BiH and Republika Srpska, where it was considered that this company, that is, its majority owner, the Hungarian MOL, is the primary supplier of liquid fuels. To remind, NIS has increased the depth of crude oil refining by implementing this project – from 86% in 2017 to 99.2%, which enables higher production of light derivatives (diesel, liquefied petroleum gas and gasoline), which have the highest value on the market. In addition, the start of Deep Processing enabled the start of production of petroleum coke, a product that was previously imported to Serbia. At the same time, Deep Processing has brought numerous environmental benefits, such as the cessation of the production of fuel oil with a high sulfur content, as well as the reduction of emissions, SO₂ by 98.8%, powdered substances by over 50% and nitrogen compounds by 9.8%.

It is important to note that NIS continuously invests in the modernization program of the Pancevo refinery. Since 2009, when Gazpromneft became the majority owner of NIS, more

than 800 million euros have been invested in the Refinery. With the construction of the MHC / DHT complex, the first phase of RNP modernization was realized. The direct effects of the construction of this plant are reflected in significantly lower emissions of pollutants into the air (primarily SO₂), better quality of semi-finished products and products (gasoline and diesel with lower sulfur content – below 10 ppm). 396 mil. EUR. NIS points out that even with Deep Processing, the modernization of the refinery is not over, that investments in processing will remain one of the priorities for further development of NIS. In the coming period, NIS will work on the modernization of the catalytic cracking complex (FCC) for the production of diesel, gasoline and gases, as well as the construction of a plant for the production of high-octane gasoline component ETBE. It is a project worth 80 million dollars, whose finalization is expected in 2024. The realization of this investment will enable an increase in the production of propylene. Also, NIS will continue to work on the implementation of digital projects, which will enable more efficient and reliable operation of the Refinery. Specifically, one of the digital projects that is in the implementation phase is predictive system maintenance, and it is one of the most important tools within the strategy that involves the transition from corrective to proactive maintenance. Also, intensive work is being done on other projects, such as Mobile Operator, ECONS, Digital Trainings, which aim to improve the further efficiency and safety of work processes in the refinery. Environmental protection and significant investments in environmental projects will remain a priority in the work of NIS not only when it comes to the Pancevo Refinery, but also in other business segments.

Source: energijabalkana.net