

THE GAS DAY EVENT WAS HELD

Zagreb, 17 October 2023. The regular session of the Croatian Gas Association (CGA) was held, including the event Gas Day, which traditionally gathers numerous participants from the Croatian gas market, along with interest shown by the media. The CGA held its regular session of the General Assembly on the premises of INA – Industrija nafte d.d., Avenija Većeslava Holjevca 10 in Zagreb. INA d.d. was also the main sponsor of the event. The gathering was attended by professionals from the gas and energy industry, representatives from numerous institutions, institution directors, members of the boards of energy companies, university professors and media representatives. The current issues affecting the gas market were the main topic at the gathering. The General Assembly received the official 2022 CGA Financial Report, which was also approved. Also accepted were the 2024 CGA Working Plan and 2024 CGA Financial Plan.



At the opening of the session, the President of the CGA, **Assist Prof Dalibor Pudić**, pointed out the importance of the readiness of the gas system and gas sector in Croatia, given the great turbulent nature of the gas market and changes in it.

At the start of the talk, the State Secretary of the Ministry of Economy and Sustainable Development, **Ivo Milatić**, gave an overview of the challenging past year in the gas industry and said that the Ministry of Economy and Sustainable Development has adopted all the regulations important for the gas market. He also pointed out that many changes have happened in the gas supply routes in the EU, and consequently, he believes that the LNG terminal is an excellent project that has been achieved on time. The LNG terminal on the island of Krk should, from autumn 2025, have an increased capacity of 6.1 billion m³. **Ivo Milatić** also emphasized that the



Croatian Government was negotiating the REPowerEU program valued at 728 million euros for constructing and expanding the domestic gas infrastructure, in which the interconnections of Bosnia and Herzegovina were also included. This will give a whole new dimension because we have become a gas supply hub. Accordingly, the Zlobin-Bosiljevo gas pipeline will increase the transport capacity, for which funds have been ensured and works have practically

commenced. It seems important to note that the current understanding of gas and the gas business has dramatically changed. Gas pipelines should be commissioned for the future transport of hydrogen and be hydrogen-ready, with much importance placed on biomethane. Hydrogen will

very soon be implemented, and the CGA is expected to significantly contribute to developing a hydrogen system. A new niche market will also be created, such as LNG bunkering stations, and later hydrogen bunkering stations, as well as hydrogen electrolyzers, for which generous funding will be ensured. **Ivo Milatić** also commended good cooperation between the gas sector and the Ministry of Economy and Sustainable Development, which should be continued because numerous laws and by-laws will be introduced in the coming period. He also highlighted the need for maximum support for the IAP project due to future gas demands, especially in industries. CO₂ removal technologies will be closely tied to the use of gas in the future because, without its implementation, there is no future for gas due to decarbonization, including the creation of conditions for the production of hydrogen and other gases. The opinion is that a combination of hydrogen and electrical energy from RES is the future, for which there is a strong commitment.

The President of the CGA, **Assist Prof Dalibor Pudić**, extended his appreciation for the talk by the State Secretary, Ivo Milatić, and the reference to RES because members of the CGA have to know the future orientation of the energy industry. Particular members of the CGA are hydrogen producers, such as INA, and we also have CO₂ emission storage facilities. Certainly, a well-developed gas infrastructure is an incentive for transporting hydrogen to end users.

On the occasion of holding the Gas Day event, some interesting talks on current issues relating to the gas market were addressed. The first presentation, titled “Supply Readiness and Reliability of the Domestic Market Through Gas Production and Importing in the 2023/2024 Season,” was given by **Marko Živković** from the company INA-Industrija nafte d.d. At the start of the talk, he gave a brief overview of the structure of natural gas consumption in Croatia over the last five years. Household consumption remained constant in that period, nor are any changes expected in



2024. Industrial consumption varied, where there was growth by mid-2021, followed by a fall in 2022 due to high gas prices, and then due to a decrease in consumption and a complete standstill in operations at Petrokemija, resulting in an overall fall in gas consumption in our country by 17%. According to data from the first three quarters of this year, gas consumption should be at the level of 2022, whereas in 2024, consumption is expected to be similar

to 2023. He believes that consumption might significantly increase with the reactivation of Petrokemija Kutina. In 2025, a further increase in gas consumption is expected upon the completed modernization of the Rijeka Refinery, and once it begins fully operating. He also referred to gas production in the Adriatic Sea and on land, which has been otherwise experiencing a slow decreasing trend, while pointing out the significant endeavors of INA in meeting 25% of Croatia’s demand through production. **Marko Živković** concluded that the existing heating season, regarding gas supplies, is secure, and problems are not expected.

The next presentation, titled “The Gas Market,” was given by **Zvonimir Šibalić**, from the company Prvo plinarsko društvo d.o.o., who provided an overview of the global gas market over the last ten years. The period was referred to by analysts as the “golden age of gas” due to the large increase in gas consumption, huge development of gas infrastructure and price stability (varying at most up to 30 euro/MWh). Since 2019, after the onset of the COVID-19 pandemic, gas consumption has been declining globally. The market as we know has been dramatically changing due to the arrival of speculators to the gas market. Speculators have been sowing fear, announcing potential gas shortages, and raising prices not seen before. Today, as the global gas market has somewhat stabilized, it continues to be volatile and sensitive to geopolitical perturbations due to an inherited “fear” and also local events that should not have affected the gas market (for instance, the workers' strike in the LNG industry in Australia). In particular, **Zvonimir Šibalić** mentioned the importance of Turkey and Greece becoming bases and nodes in the gas supply routes of Southeast Europe. Consequently, the opinion is that Croatia should become strategically linked via an IAP junction (Ionian Adriatic gas pipeline) with the Greek-Italian gas pipeline (Trans Adriatic Pipeline – TAP). Our country would then be able to ensure an additional supply from the mentioned land route, which would become more favorable in terms of price than LNG. Accordingly, he is encouraging the formation of a gas exchange in Croatia. The Gas Exchange should have a positive impact on gas prices for the domestic market as it would avoid paying contractual premiums on prices, which is the situation today. Croatia has an excellent geostrategic position, which should be utilized for it to be situated at the point of origin of gas supplies because countries in our hinterland do not have direct access to the sea.



Marko Blažević from HEP-Trgovina d.o.o. presented “Two Years of the Gas Crisis – What Have We Learned?” and gave an overview of the events that marked the gas market over the last two years. He pointed out that the gas sector in Croatia and Europe had learned much in this period, such as the necessity of political unity, coordinated action, expanding the diversification of supply routes, expanding the energy mix and readiness for energy transition and the development of renewable energy sources. A tendency has been noticed that administrative regulations are slowly becoming less restrictive and revitalizing market mechanisms. Gas supply routes, which we have previously known, have changed quantitatively in that in 2022, the proportion of gas coming from Russia by land from the previous 60% fell to 33%. In contrast, the proportion of gas coming from Norway increased from 34% to 50%. Russian gas has been mostly replaced with LNG from other sources, primarily the USA, followed by Qatar and Australia, which covered 43% of the demand for gas last year. Due to the different gas supply routes, massive construction of new and expansion of existing capacities and LNG



terminals were commenced. Based on the experience gained over the last two years and having implemented what was learned, **Marko Blažević** advocates reforming the gas market in Croatia, performing an analysis of consumption across distribution systems (due to the noticeable reduction occurring already some time) and revising the tariff system due to vulnerable business operations of gas distributors.

Ivan Fugaš from the company LNG Croatia LLC, in the introductory section of this presentation titled “The LNG Terminal on the Croatian Island of Krk – Present and Future,” referred to the large expansion of the transport fleet and LNG industry at the global level. Across the world, there are currently 734 LNG tankers. In Europe, there were 11 FSRU terminals for LNG in 2022. In 2023, another three were commissioned, giving a total potential storage capacity of 7.1 million



m³. Nationally, he pointed out the role of the LNG Terminal on the island of Krk, through which 72% of the gas was delivered to the Croatian gas transport system in 2022/2023 gas year, whereas interconnections contributed 10%, domestic production 15% and underground gas storage 3%. The LNG Terminal increased its capacity to 6.1 billion m³ upon completing the additional regasification module with a single regasification unit on the bow of the ship LNG Croatia, achieving a

maximum capacity of 250,000 m³/h. The Terminal and gas pipeline system should be commissioned by 1 October 2025. The company LNG Croatia LLC has placed particular focus on the transshipment of LNG into trucks (as a non-standard service), with plans for new projects to enable larger LNG consumption in transport, greater energy efficiency of the Terminal and CO₂ storage.



Robert Bošnjak from the company Plinacro d.o.o. held a presentation titled “Readiness of the Transport System for the Heating Season.” In the introduction, he presented the technological structure of the Croatian transport system under the management of Plinacro d.o.o., totaling 2,548.66 meters of gas pipelines. To ensure the security and reliability of the transport system and preparations for the heating season, planned mechanical works were performed on the gas pipeline system,

including detailed recording of the condition of the cathode protection on the gas pipelines, as well as marking, cleaning and maintaining the operation of the route, regular yearly inspections of the Zlobin-Omišalj (DN 800/100) subsea pipeline. To improve the level of security, the company uses new technologies on complex and demanding soil types, including scanning the route and testing the gas pipeline for leaks using a drone. Regular inspections are conducted on the MRSs, including maintenance and the modernization of equipment. Yearly maintenance is conducted on the remote metering system for 65 facilities. Also, regular testing and inspections of metering equipment at interconnection facilities belonging to Omišalj Gas Node and U/I MS

Donji Miholjac were also performed. Also implemented were investment projects on the gas system relating to the following works: reconstruction of the Ivanja Reka measuring and regulation node and increasing the capacity to ML 75/50 bar; construction of the incoming station for the production field and linking to the transport system at UMS Stari Jakovci, trial roll-out of the Grubišno Polje Underground Gas Storage Facility, reconstructions of the gas pipeline DN 200 Bjelovar-Daruvar, MRS Gaj – construction of the new container station and its trial roll-out, as well as increasing the functionality and installing regulation at the Podrebar Gas Node.

Laslo Farkaš Višontai, from the company Podzemno skladište plina d.o.o., held a presentation titled “Readiness of the Gas Storage System for the Coming 2023-2024 Heating Season.” The filled capacity level at the Okoli storage facility as of 17 October 2023 was 96% of the operational volume, identical to the filled capacity level for the same time last year. All necessary works and



investment maintenance (servicing, repairs, overhauling) on the Okoli Underground Gas Storage Facility were performed during the gas year. Some specifics for 2022 and 2023 were the gas withdrawal and injection, which deviated from earlier years. He presented activities on preparations for the future Grubišno Polje Underground Gas Storage Facility, currently in trial exploitation (average production of 205,000 m³/h) and is waiting for the technical inspection by the end of the year. He mentioned that the composition of gas is 18% hydrogen. The gas

from Grubišno Polje containing 18% hydrogen is mixed with gas from the transport system at Grubišno Polje (Virovitica-Kutina gas pipeline), reducing the gross calorific value of gas by only about 4-5%. However, this reduction means that customers are not getting less because the billing of gas consumption is done based on energy, not the consumed volume of gas. Constructing the underground gas storage facility at Grubišno Polje, which has a relatively small operating volume, would achieve a significant increase in the total output capacity from our gas storage system along with improved flexibility of the entire storage and transport system, which will contribute to increasing the security of gas supplies in Croatia. The filled level of operating volume at the user and the filled level at the storage facility comply with the decisions of the Croatian Government, which stipulates the required filled capacity of storage facilities by a specific date. At the end of the presentation, he pointed out that the Okoli Underground Gas Storage Facility is ready for the winter and ready to meet all nominations by storage users, as has been the case up till now.



Following the professional presentations was a discussion on the topic of actual issues relating to the gas market. **Jakov Bakić** advocated that excess cooling energy from the LNG Terminal on the island of Krk be used commercially for the storage of goods, while **Nenad Švarc** supported the idea of strategically storing energy regardless of the type of energy to achieve Croatia’s energy stability.

Following the discussion, the next agenda item was addressed. The CGA Steering Committee submitted a recommendation to the CGA General Assembly to release the following dismissals and appointments:

The dismissal of Nikola Mišetić from the duty of Vice President of the CGA for gas exploration and production activities.

The dismissal of Marin Zovko from the duty of Vice President of the CGA for gas transport activities.

The dismissal of Hrvoje Krhen from duty as a member of the CGA Steering Committee for LNG business.

The appointment of Marin Zovko (INA d.d.) for the duty of Vice President of the CGA for gas exploration and production activities.

The appointment of Darija Krstičević (Plinacro d.o.o.) for the duty of Vice President of the CGA for gas transport activities.

The appointment of Ivan Fugaš (LNG Hrvatska d.o.o.) for duty as a member of the CGA Steering Committee for LNG business.

The respective dismissals and appointments were adopted unanimously by the General Assembly.



In the officially solemn part of the Gas Day event, recognitions from the CGA were awarded for 2023.

Recognition of managerial success in business and technological development, as well as exemplary management of the company or a company department involved in the gas industry, was awarded to **Mario Matković** from the company MET Croatia Energy Trade d.o.o.

Recognition for exemplary personal contribution to the development of the gas industry and especially good cooperation, assistance and support to the CGA in achieving the Association's work program was awarded to **Đuro Zatezalo**.

