Current situation

In September 2020, a total of 25 wind farms were connected to the transmission and distribution network, with a total approved connection capacity of 794.95 MW. In the period 2021-2023, as many as 545 MW of wind power plants are expected to be connected to the grid, so that at the end of the next three-year period, 1,274 MW of wind power plants could be connected to the transmission network. Among these power plants, the 120 MW Konavoska brda WPP and the 156 MW WPP Senj stand out with their power, which, according to the plan, will enter trial operation at the end of September this year. In the next three-year period, the construction and connection of one new power plant is planned – EL-TO Zagreb, block L, with a capacity of 150 MW, for the connection of which an appropriate connection contract has been concluded.

New hydropower plants

The process of revitalization of four units in HPP Zakučac is in progress, which would increase the total connection capacity of HPP Zakučac by 52 MW, to a total of 538 MW. In the activities that precede the conclusion of the Connection Agreement are HPP Varaždin (+16 MW) and GTE Zagocha (near Slatina) of 20 MW, which should be connected to the network in 2022 and GTE Legrad of 19.9 MW (connection is expected in 2025).), while the development of the EOTRP for HPP Kosinj of 33.7 MW and CHE Vinodol of 156 / -159 MW is underway – both should be on the network in 2024. Preliminary electricity approval was obtained for facilities with a capacity of 1,520 MW / -990 MW, these are RHE Vrdovo of 540 / -490 MW, RHE Korita of 600 / -500 MW and HPP Senj 2 with a capacity of 380 MW.

New wind farms

In recent years, HOPS has received a large number of requests for the connection of new wind farms, with a total capacity of more than 2554 MW. WPP projects in the Republic of Croatia have construction sizes between 18 MW and 425 MW, and due to the increasing power of projects, connections to the 220 and 400 kV network are being considered. In addition, two other wind power plants with a total of 30 MW have a connection agreement with HEP ODS.

In the medium term, an even larger influx is expected, as the development of EOTRP for as many as 1,372.9 MW of wind farms is underway, of which the largest WPP Lika Medved has a capacity of 425 MW, while many existing investors are increasing connected capacity in existing fields in another or in the third phase (WPP Vrataruša 2, WPP Visoka, WPP Zelovo, WPP Danilo 2, WPP Rudine 2, WPP Korita A …). In addition, a preliminary power approval was issued for 411 MW wind farms. By the end of the planned ten-year period, a total of

1,274 (built + concluded UOP) + 30 (concluded UOP with HEP ODS) + 1372.9 (EOTRP development) could be connected to the transmission network (provided that all listed WPP projects are realized) -a) + 411 (PEES), ie a total of 3087.9 MW of wind power plants, which is at the level of the peak load of the state electricity system, not counting all other generation facilities.

Solar power plants

HOPS lists 1,133 MW of projects for which the development of EOTRP is underway, which will be addressed by zonal connections because they combine technologies SE (352 MW) and WPP (744 MW), and among them stands out one battery energy storage, power 50 MW as part of the project UE Brda Umovi, with a capacity of 127.5 MW. HEP Proizvodnja plans to gain 61.7 MW by revitalizing hydropower plants (HPP Gojak, HPP Senj, HPP Rijeka and HPP Orlovac).

HOPS states that decommissioning of as many as 478 to 611.3 MW of HEP's thermal power plants is expected by 2030, namely TE-TO Sisak, Units A and B, TPP Plomin A, EL-TO Zagreb, Block A, while conditional decommissioning, depending on the need for tertiary reserve and heat consumption, is also planned for TPP Rijeka, KTE Jertovec, EL-TO Zagreb, blocks H and J and TPP Osijek, PTA A and B. There are also users who have expressed interest for connection to the transmission network, and such is 585 MW, among them INA's Rijeka Oil Refinery with 48 MW, Rimac cars with a plant of 15 MW and Našicecement and another 16 MW without a connection contract and documentation in various stages of development. Within the Croatian power system, peak loads of up to 3,200 MW are achieved, and the installed capacity of power plants is 5,210.2 MW. The highest loads were recorded most often in December and January, between 6 and 8 pm, while the maximum annual consumption was recorded in 2017 and 2019 in the summer, in July and August. In 2019, the power plants delivered 10,658 GW h to the grid, and 16,821 GW h were consumed.

Investment plan

HOPS's investment plan, which is very extensive, points out that the analyzes indicate that the existing 220 kV Konjsko – Brinje line after the construction of the 142 MW Karst Padjena, as well as other planned WPPs and SEs, is endangered by water outages 400 kV Melina – Velebit, if at the same time high production of HPPs and WPPs in Dalmatia. In order to enable the connection of a larger number of new production facilities in Dalmatia, it is necessary to increase the transmission capacity of the existing 220 kV line until the construction of a new 400 kV line from Konjski to Lika and Melina. Where there are zone

connections, the construction of new 400 (220) / 110 kV substations is planned, which will depend on the dynamics of construction of new production facilities. HOPS's own investments in the transmission network in 2019 amounted to 638.1 mil. HRK, and were realized with 77% (HRK 493 million), while connections were realized with 80.3%. In the period 2021-2030, the planned investments of HOPS amount to 5.75 billion. of which investor investments amount to HRK 156.2 million.
Source: energetika-net.com