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PRESS RELEASE

GEN-I and Energija projekt's wind farm at Senj is a systems solution to the issue of electricity network stability

In September 2024, Senj wind farm, the largest wind farm in Croatia, which has a power of 156 MW and is projected to generate 530 GWh of electricity a year, obtained a licence allowing it to move from test to regular operation. At the end of that month, the wind farm also joined the GEN-I Group's virtual power plant, which has now become one of the largest aggregators in Croatia.

Ljubljana, 4 October – Owing to its dependence on weather conditions, the generation of large amounts of green wind energy can be an unpredictable business and one that often struggles to meet the needs of energy users. These challenges are being overcome by the GEN-I Group through its unique and innovative virtual power plant. With the signing of a flexibility purchase agreement with the wind farm's owner, Energija projekt d.d., Senj has become part of the GEN-I virtual power plant.

The plant is an advanced electricity management system that brings the network of dispersed energy sources, users and energy storage systems into a common platform. This smart system adapts to the situation in the electricity distribution system at any one time, bringing added value to owners of production sources and the electricity system as a whole. By optimising the purchase and sale of energy on the organised energy and systems services markets, the virtual power plant facilitates the creation of additional income for owners of energy installations. Members of the virtual 'community' also enjoy lower market access costs. GEN-I offers the same benefits to other parties interested in connecting to the plant.

The GEN-I Group's virtual power plant has been in operation since 2015. New production sources and users are regularly being incorporated into it. With the addition of Senj wind farm, it now manages more than 100 dispersed generating units and consumers in five countries.

The signing of an agreement between GEN-I Hrvatska and HOPS d.d. (Hrvatski operator prijenosnog sustava), has enabled the GEN-I Group to act as an aggregator providing systems services. This makes the GEN-I Group one of the largest aggregators in Croatia, mainly thanks to the power generated by Senj wind farm. The GEN-I virtual power plant is making a major contribution to maintaining the stability of the electricity network through systems solutions for HOPS d.d., providing a negative tertiary reserve. This energy management method increases network stability and reliability, as the system is able to react quickly to fluctuations in the network, reduce outages and thereby ensure reliable energy supply. The virtual power plant plays an important role in the management of peak energy demand and the strategic distribution of stored energy; it also enables local flexibility services to be provided through voltage regulation.

As it has gained experience on the market over the years, GEN-I has continually upgraded its virtual power plant with new rapid-response software tools and stable links between all stakeholders. Special algorithms ensure that the mass of dispersed installations operate throughout as a harmonious whole, without the need for manual intervention by operators.



The GEN-I Group and Energija projekt have also signed a PPA for Senj wind farm. It provides the farm with access to the market for its electricity, as well as all the necessary trading infrastructure for selling its electricity, including by ensuring pre-set prices for certain periods, and balancing surpluses and shortfalls. This provides Senj wind farm a stable and predictable source of income, which reduces the financial risks associated with energy price fluctuations. This new, innovative product, developed by the GEN-I Group, is the first time PPA purchases and systems service provision have been combined.

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