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ENEL, INNOVATION MEETS SUSTAINABILITY AT VENAUS

• In the Italian Region of Piedmont, a basin desedimentation project is integrated with the first floating photovoltaic system ever built by Enel worldwide

Turin, September 19th, **2025** – Cleaner basins, increasingly agile management of sediment removal and, above all, greater and more sustainable energy availability, can now be achieved through the Enel Group's cutting-edge technology: floating solar panels that also preserve water resources. Enel inaugurated today an innovative desedimentation project integrated with the Venaus floating photovoltaic system in the Italian Region of Piedmont, the first floating solar system ever built by the Group, which in addition to producing clean energy, reduces water evaporation in the basin, improving its performance.

The event was attended by the **Hon. Luca Squeri**, Secretary of the Tenth Commission for Productive Activities of Italy's Chamber of Deputies; **Andrea Tronzano**, Councilor for Productive Activities, Piedmont Region; **Sonia Cambursano**, Councilor of the Metropolitan City of Turin for Economic Development; **Avernino Di Croce**, Mayor of Venaus; **Carlo Pignoloni**, Head of Enel Green Power Italia; **Nicola Rossi**, Head of Innovation at Enel; **Marina Lombardi**, Head of Innovation at Enel Green Power and Thermal Generation, Enel; **Paolo Arrigoni**, President of GSE; **Alessia Berlusconi**, Managing Partner of NRG Island; **Alessandro Minori**, CEO of Pipein and **Giovanna Cavazzini**, Associate Professor at the Department of Industrial Engineering of the University of Padua.

The new desedimentation system consists of a series of propellers that move the sediment deposited on the floor. A suction pump then moves inside the Venaus basin to optimize the removal of sediment, which is therefore managed in an environmentally friendly way, since it is released in controlled concentration during normal plant operation with no need to empty the basin. The entire system is powered by floating solar panels, ensuring self-sufficient and sustainable operation. The company NRG Island, the University of Padua and the Italian startup Pipein collaborated on the project.

"Today we are inaugurating a new technologically advanced system integrated with the hydro plant," said **Nicola Rossi**, Head of Innovation at Enel. "Thanks to plant hybridization, we have already achieved greater energy availability with better use of water resources, in order to protect the territory and local communities. With the innovative desedimentation plant presented today, Venaus becomes even more efficient and sustainable."

"The desedimentation project integrated with the floating photovoltaic system in Venaus, which was inaugurated today, showcases Italy's cutting-edge capacity for innovation in the energy and environmental fields, also thanks to Enel and the other major players which participated in this project," commented the Hon. Luca Squeri. "The project confirms the commitment put forward by Italy and, as we see today, by the Piedmont Region, to the ongoing transition and to protecting water resources as well as our basins. Projects like this generate new opportunities for economic development and sustainability that benefit the territory."



"The Piedmont Region supports the energy transition in a responsible way, leveraging on solutions that combine innovation and protection of the territory. Venaus' experience shows that it is possible to produce new renewable energy without land consumption, preserving the environment and agriculture," said Councilor **Andrea Tronzano**. "The Susa Valley needs projects like this, free from soil consumption, to produce clean energy," said Councilor **Sonia Cambursano**.

Alongside the inauguration, Enel has promoted some interesting initiatives for students from local schools. A lecture given by Enel staff brought the young people closer to the issues of energy transition, with an overview of renewable energy and electric mobility. At the end of the intervention, an amateur bicycle ride was dedicated to the children and young people of the schools involved, and the guests had the opportunity to visit the Venaus hydro plant.

The Venaus hydro plant was "solarized", namely hybridized with photovoltaic energy, in 2023, through an innovative floating system in its basin. The panels are bifacial, i.e. equipped with solar cells capable of absorbing light on both sides, and ensure a production of about 1,200 MWh each year. The hybridization of hydro and solar energy offers advantages for both technologies: compared to a photovoltaic system on land, in fact, there is no land consumption and the performance of solar panels improves thanks to the relatively lower temperatures. The presence of the floating cover also reduces evaporation and therefore water losses from the tank. This protects a precious resource for the hydro plant, but also for other civil uses in the area. Venaus' integrated floating photovoltaic and desedimentation system is therefore changing the face of hydropower, paving the way for a new energy management model, more dynamic, efficient and ready to support the energy transition with margins of scalability in other plants.