



PRESS RELEASE

RENEWABLE ENERGIES

Climate-tech Sweetch Energy accelerates the deployment of osmotic energy in France by signing a joint venture with CNR

Rennes, Lyon, France - Jun 20, 2023 - Sweetch Energy, a renewable energy player specializing in osmotic energy, announces the creation of a joint venture with its industrial partner and shareholder CNR (Compagnie Nationale du Rhône), France's leading producer of 100% renewable electricity and concessionaire of the Rhône River. Committed since 2021 to an industrial and financial partnership, Sweetch Energy and CNR are taking their collaboration to a new level, and aim to structure a new industrial sector for osmotic energy in France.

A new step forward in Sweetch Energy's relationship with CNR

The creation of this joint venture is a major progress in the deployment of Sweetch Energy's INOD® technology. For the first time in the world, this technology enables industrial-scale production of electricity from osmotic energy, generated naturally by the difference in salinity between fresh river water and seawater when they meet. The commissioning, by early 2024, of an osmotic electricity production pilot station in the Rhône delta, on a site operated by CNR, will be a decisive step in testing the technology in real-life conditions before deploying it on a larger scale. At the mouth of the Rhône river, the production potential is estimated at around 4 TWh per year, or twice the annual electricity consumption of the city of Marseille.

For Nicolas Heuzé, co-founder and CEO of Sweetch Energy, "This joint venture marks a decisive step for Sweetch Energy. The commitment of a major French player such as CNR clearly demonstrates the commercial potential of our business: the production and distribution of clean, permanent and abundant electricity by harnessing new-generation renewable energy. Thanks to the modularity of our technology, osmotic energy can be implemented rapidly, and foster the development of a new industrial sector that is essential to the acceleration of the energy transition".

Laurence Borie-Bancel, President of CNR, commented: "The signing of this joint venture with Sweetch Energy reaffirms our mutual commitment to organize a new competitive industrial sector in France around osmotic energy. By combining Sweetch Energy's disruptive technology with CNR's longstanding industrial and hydraulic expertise, we will succeed in making this renewable energy a major asset in our power generation mix. I am proud of this partnership, which embodies CNR's policy of supporting technological innovation to meet the massive electrification needs of our economy and our uses over the next 30 years."

Osmotic energy is naturally generated by the difference in salinity between freshwater in rivers and seawater when they meet. It has the advantage of not being subject to weather conditions, and producing electricity that is decarbonated, 100% natural, renewable, and massively available worldwide on a non-intermittent basis. Every year, almost 30,000 TWh of natural osmotic energy - more than enough to meet the world's electricity demand - are released by deltas and estuaries around the globe. Eventually, osmotic energy could supply 15% of the world's electricity needs, avoiding the emission of 4 Gt of CO₂ every year.

Sweetch Energy's INOD® technology is based on a new generation of nanoscale membranes specially designed to harness osmotic energy. Combined with exclusive electrode systems, these membranes combine high ion selectivity and ion transport to achieve unrivalled performance. In addition, they are manufactured using environmentally-friendly bio-sourced materials. INOD® technology enables, for the first time anywhere in the world, the generation of electricity on an industrial scale using osmotic energy.

About Sweetch Energy

Founded in 2015 and based in Rennes with around 40 employees, Sweetch Energy is a renewable energy player specializing in osmotic energy, committed to a carbon-neutral world. Its INOD® technology enables the production of clean, competitive electricity from salt water, a permanent and abundant source of energy, untapped to date. Driven by a determination to push back the frontiers of renewable energy, its highly qualified, multicultural team combines scientific expertise with industrial vision. Sweetch Energy enjoys the support of multiple renowned European and French institutions. In particular, it is financially backed by industrial, deeptech and cleantech investors (EDF, CNR, Go Capital, Demeter Investment Managers, Future Positive Capital) as well as by BPI, Ademe and the European Innovation Council. It also works closely with French research institutions, in particular with Professor Lydéric Bocquet's teams (CNRS, ENS). Sweetch Energy received numerous awards in 2023, including the international Grand Prix of the Hello Tomorrow Global Challenge.

About CNR

CNR (Compagnie Nationale du Rhône) is France's leading producer of 100% renewable electricity, with an installed capacity of 4,000 MW. The company has been harnessing the power of the Rhône River, under concession since 1934, and harnessing the energy of the wind and sun with 115 wind and photovoltaic farms across France. This energy activity enables CNR to finance the development of its two other historic missions - navigation management and the development of river transport, and the irrigation of agricultural land - as well as its public interest missions (5Rhône Plans). CNR is the only public interest company in France. Its capital is predominantly public (183 local authorities and public establishments, Caisse des Dépôts), with ENGIE as the main industrial shareholder. The Rhône Development Act of February 28, 2022 extended CNR's concession until 2041.

PRESS CONTACTS

Sweetch Energy | Anne-Sophie Gentil, Kairos Consulting : presse@kairosconsulting.fr - + 33 6 32 92 24 94
CNR | Romain Jacquet, CNR : r.jacquet@cnr.tm.fr - 06 74 79 10 00