



## PRESS RELEASE

### **EDF Hydro commits to working with Sweetch Energy to roll out osmotic energy\* on a large scale in France and abroad**

**Rennes and Paris, 16 June 2022 -**

Sweetch Energy, the renewable energy company specialising in osmotic energy, and EDF Hydro, the hydraulic division of EDF – the leader in hydropower in France – announce today that they have signed a partnership that aims to roll out osmotic energy\* at a large scale in France and around the world.

Their collaboration consists of a €2 million financing package (via Une Rivière Un Territoire Financement, a subsidiary wholly owned by EDF) which is convertible over time into an equity stake in Sweetch Energy. It also comes with a joint strategy for developing major industrial projects in France and around the world.

The two players' complementary expertise in the field of decarbonised energy will accelerate the creation of a global industrial sector for osmotic energy:

- Sweetch Energy will contribute its disruptive INOD<sup>®</sup> technology<sup>1</sup>, which converts osmotic energy into 100% renewable, permanently available and competitively priced electricity.
- EDF Hydro, the leader in hydropower in the European Union with 20 GW of installed capacity, and the operator of one of the largest portfolios of hydroelectric plants in Europe, will contribute its technical know-how and its ability to design, build and manage large-scale projects throughout the world while respecting environmental concerns.

**Nicolas Heuzé, CEO of Sweetch Energy, says:** *"EDF Hydro's commitment to working with us will enable to take the rollout of osmotic energy to the next level. We are pleased to be able to rely on EDF Hydro's extensive expertise in large-scale project and infrastructure management. By bringing together the key strengths of an innovative hydropower ecosystem, one that includes our investors and industrial partners, we are accelerating the creation of an osmotic industry that can face the challenges of the fight against climate change."*

**For Emmanuelle Verger-Chabot, Director of EDF Hydro,** *"This innovative partnership fully aligns with the development of hydraulic energy, the leading source of renewable energy. By taking a position at a very early stage in the creation of an osmotic energy sector in France, EDF Hydro intends to put all of its engineering expertise to use in order to roll out this innovative, low-carbon and environmentally friendly production technology."*

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<sup>1</sup> Ionic Nano Osmotic Diffusion

### **\* About osmotic energy, a permanent, renewable and still-untapped source of electricity**

Osmotic energy is generated by the difference in salinity that occurs when fresh river water meets saline sea water. It has the advantage of being unaffected by the weather and produces decarbonised, 100% natural and renewable electricity. It is flexible, does not generate heat or CO<sub>2</sub> emissions, and is massively available throughout the world. Each year, nearly 30,000 TWh of osmotic energy – more than the world's total demand for electricity – is released in deltas and estuaries worldwide.<sup>2</sup> While the most optimistic projections predict that the proportion of currently-available renewables will not exceed 50% of global electricity generation by 2050,<sup>3</sup> osmotic energy could increase this share to over 65%.<sup>4</sup>

### **About Sweetch Energy**

*Founded in 2015 and based in Rennes with around 20 employees, Sweetch Energy is a renewable energy player specialising in osmotic energy, committed to a carbon neutral world. Its INOD® technology enables the production of clean and competitive electricity from salt water, a permanent and abundant source of energy that has not been exploited to date. Driven by a desire to push back the frontiers of renewable energy, its highly qualified, multicultural team combines scientific expertise with industrial vision. Sweetch Energy benefits from the support of many renowned European and French institutions. It is financially supported by deeptech and cleantech investors (Go Capital, Demeter Investment Managers, Future Positive Capital) as well as by the BPI and Ademe, and cooperates closely with French research institutions, in particular with the teams of Professor Lydéric Bocquet (CNRS, ENS). Sweetch Energy has won the Mondial Innovation, I-Nov and I-Lab competitions and participated in the European Nanophlow consortium founded by H2020 in the framework of the FET-Open program.*

### **About EDF Hydro**

*Hydropower is the leading source of renewable energy in France and worldwide. EDF Hydro, EDF's hydraulic division, operates 427 hydropower plants and more than 600 dams in France, representing 10% of EDF's total electricity production in 2021. The flexibility and the reactivity of hydropower are essential in the French energy mix, as a base for electricity production or as a means of adjustment during electricity consumption peaks. EDF's hydropower activity is a significant asset for the economic development of the territories, with 476 million euros invested in 2021 for the maintenance and development of the hydropower fleet, producing storable and low-carbon energy for the energy transition.*

*Know more: [www.edf.fr/hydro](http://www.edf.fr/hydro)*

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<sup>2</sup> Estimate by Sweetch Energy based on their research paper *Osmotic power plants: Potential analysis and site criteria* (P. Stenzel and H.-J. Wagner, 2010)

<sup>3</sup> Sources: Statista, IEA

<sup>4</sup> Sweetch Energy