

Pays de la Loire, 22 September 2020

## Sea-GRID Call for Expression of Interest –

### Five innovative projects selected to advance offshore energy production on the SEM-REV site

[www.emr-paysdelaloire.fr/actualites/ami-sea-grid/](http://www.emr-paysdelaloire.fr/actualites/ami-sea-grid/)

The partners of the Sea-GRID Call for Expression of Interest unveiled today the five winning projects! Enthusiastic responses were received across the board to this call, which aims to develop concrete and innovative solutions for the smart management of electricity produced offshore on the Centrale Nantes test site, SEM-REV. The selected projects focus on new energy storage solutions, multi-use offshore platforms, onshore uses and the development of an underwater hub...

Sea-GRID was launched by Centrale Nantes, RTE and Enedis, with support from Solutions&Co, last February. It relies on the facilities and skills of the three organisers: Centrale Nantes, via its SEM-REV offshore test site, which already supplies electricity to the grid, and RTE and Enedis, who are responsible respectively for the transmission and distribution of electricity across the grid.



These individual or collaborative projects, led by companies based in Pays de la Loire (for at least one of each project's partners), represent tremendous catalysts for companies in the region, and an opportunity to develop new markets.

The Sea-GRID projects selected will benefit from the technological expertise of Centrale Nantes, ENEDIS and RTE to confirm the feasibility of their project. In the longer term the aim is to deploy a demonstrator at the SEM-REV site. They will also have development and funding support from Sea-GRID partners: Pôle Mer Bretagne Atlantique, Pôle S2E2, SMILE, WEAMEC and Solutions&co, the Pays de la Loire Development Agency.

## The projects selected in the Sea-GRID call:

- **T2P, led by Geps Techno**, involves extending their WAVEGEM hybrid platform, already installed on the SEM-REV site, into a multi-technology test platform, with a strong electrical and energy management focus (hosting sensors, electrical machines and offshore storage solutions).
- **SEAMAC, led by SEGULA Technologies**, aims to demonstrate, in real conditions, the REMORA solution - a high-volume compressed air offshore energy storage system. Patented by SEGULA, this environmentally-friendly solution offers high yield potential (recovering up to 70% of stored electricity). The SEAMAC project should lead to the installation of the demonstrator on the SEM-REV offshore site in 2023.
- **SEA-LHYFE, led by Lhyfe**, comprises players from the Pays de la Loire specialising in MRE and offshore structures. Together, they will develop and operate offshore platforms for the production of green hydrogen, using renewable resources only. The project aims to validate their concept of offshore green hydrogen production on the SEM-REV site, before moving to full-scale rollout in 2024.
- **Octopus, led by SuperGrid Institute**, aims to develop and demonstrate an innovative technology to reduce the cost of electricity produced by marine renewable energies. Naval Energies (France), Nexans (Belgium), and SuperGrid Institute (France) will join forces in this project to demonstrate an underwater active hub solution, designed for future floating wind farms.
- **Croisic-GRID, led by EDF**, is based on a strong local presence. Its objective is to install a battery demonstrator powered, in particular, by offshore technologies (FLOATGEN wind turbine and WAVEGEM platform) near the SEM-REV onshore research centre in Le Croisic, a space that could also become an information centre for MREs.



The five teams will present their projects on 5 October 2020 – 2 to 4 pm – during a webinar organised as part of the “Printemps de l’innovation”.

[Register for the webinar](#)

Sea-GRID est un appel à manifestation d’intérêt proposé par :



Avec le soutien de :



- **Centrale Nantes**



Founded in 1919, Centrale Nantes is a French engineering school and member of the Ecoles Centrale Group. Its undergraduate, Master and PhD programmes are based on the latest scientific and technological developments and the best management practices. At Centrale Nantes, research and training are organised into three key areas for growth and innovation: manufacturing, energy transition and healthcare. With research platforms ranging from digital simulation to prototyping using full scale models and an incubator with 20 years of experience in supporting start-up projects, the school has two major tools for innovation and creation, working hand in hand with industry. Centrale Nantes promotes its teaching and research capabilities at international level through around 100 partnerships with prestigious universities and schools worldwide.

Learn more: [www.ec-nantes.fr](http://www.ec-nantes.fr)

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- **RTE**



RTE, (*Réseau de Transport d'Électricité*), is the French transmission system operator. Its role is to ensure that all customers have access to an economical, safe and clean power supply. RTE connects its customers via transmission infrastructure and provides them with all the tools and services they need to take advantage of it to meet their needs, with a view to economic efficiency, respect for the environment and security of energy supply. To this end, RTE operates, maintains and develops the high and extra-high voltage network, ensuring the smooth operation and safety of the power system. RTE conveys electricity between (French and European) electricity suppliers and consumers, whether they be electricity distributors or industrial companies directly connected to the transmission system. 105,000 km of lines between 63,000 and 400,000 volts and 50 cross-border lines connect the French grid to 33 European countries, offering opportunities for electricity exchange that are essential for the economic optimization of the power system. RTE employs 8,500 people. Connecting marine renewable energies is a natural extension of RTE's know-how on land. The French state has therefore entrusted RTE with project management and financing for the connection of marine renewable energies in France.

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- **Enedis**



Enedis, a new-generation public service company, supporting French regions in their energy transition

Enedis manages the public electricity distribution network for 95% of continental France. Every day, its 36 000 employees oversee the operation, maintenance and development of a network serving 36 million customers including 2.2 million in the Pays de la Loire. The company develops, operates, modernises and maintains 1.4 million kilometres of low and medium voltage (380 and 20,000 volts) electricity network and manages the associated data. Enedis connects customers and carries out 24/7 troubleshooting, meter reading and all technical interventions. It is responsible for the continuity and quality of electricity distribution as well as non-discriminatory access to the network. As a local public player in the French system and through the provision of energy data, Enedis also supports local authorities in their regional projects: new districts, development of renewable energies, self-consumption, storage, flexibility and the growth of electric mobility. The company is preparing for the technological shift in the energy sector, anticipating changes in the French energy mix and the role of digital technology in electricity consumption. Enedis is positioned at the heart of energy transition by working to modernise the network and investing in numerous French and European smart grid projects, such as Smile (Smart Ideas to Link Energies).

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## About Solutions&co



Solutions&co is the economic development agency of the Pays de la Loire Region. Its role is to contribute to the development of established companies, to help new companies set up in the region and to develop the region's attractiveness in order to increase international visibility. Learn more on [www.solutions-developpement-paysdelaloire.fr](http://www.solutions-developpement-paysdelaloire.fr).

Solutions&co is coordinating the SMILE project on behalf of the Pays de la Loire Region, and is acting as operational support (SMILE and MRE) within the framework of the Sea-GRID Call for Expression of Interest.

## About the Pôle Mer Bretagne Atlantique



Economic development cluster active across the entire maritime economy (Defence / Safety / Security; Marine energy and mining resources; Marine biological resources; Environment and coastal development; Maritime ports, logistics and transport).

<https://www.pole-mer-bretagne-atlantique.com/fr/>

## About the Pôle S2E2



Competitiveness cluster specialised in renewable energies, power grids and energy (support for companies in the design, development and marketing of their innovative products and services - assistance in securing project support and financing)

<https://www.s2e2.fr/>

## About WEAMEC



WEAMEC (West Atlantic Marine Energy Community) brings together the MRE eco-system in the Pays de la Loire region within the fields of research, innovation and training. The WEAMEC brings together around thirty institutions and research laboratories (such as Centrale Nantes, Nantes University, "Jules Verne Research Institute", EMC2 cluster...) and around sixty companies at the regional level. More than 60 companies at the French and international level collaborate with the academic and industrial stakeholders of WEAMEC.

<https://www.weamec.fr/>

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