

## The Energy Transition Strategy of Port of Aveiro

All the European ports aim to achieve the goals defined by the European Green Deal<sup>1</sup>, with regard to reducing greenhouse gas emissions over time until reaching neutrality in 2050, the economic growth based on circular economy principles rather than the depletion of natural resources, as well as the green transition based on a fair and sustainable society and competitive economy.

In order to achieve the 2050 net zero port, the Port of Aveiro will deploy innovative actions and processes building on best practices, as well as ongoing projects, with a clear ambition to gradually scaling-up the best solutions in order to really bring the port transition goals to the agenda of their Port Community and Stakeholders, establishing goals to reduce greenhouse gases emissions up to 55% in 2030, 75% in 2040 and 100% in 2050.

In this sense, in 2030 the Port of Aveiro will carry out an assessment to verify its progress on the energy transition strategy, in view of the possible need for and reorganization of its investment priorities.

It is clear that for the success of this strategy, it is not enough the commitment of the Port Authority, the whole port community, including nearby municipalities, must come together to tackle the current issues in order to achieve an effective greening of the entire waterborne transports value-chain.

### Vision

The Port of Aveiro will be a sustainable port based on renewable energy self-production and storage, within the scope of a Port community micro-grid, as well as promoting the locally produced advanced biofuels to supply, altogether, both port activities and the road/sea journeys, including port services, port equipment and operations, ships, vessels and road vehicles. The Port services will be provided in an efficient and digital way to promote energy efficiency and savings, the seamless flow of goods in an interconnected modal shift and the Port of Aveiro economic growth, social development and environment quality improvement, thus meeting the UN Sustainable Development Goals (SDG)<sup>2</sup>.

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<sup>1</sup> The European Green Deal COM/2019/640 final ([Link](#))

<sup>2</sup> United Nations Sustainable Development Goals ([Link](#))

## Action Plan

To achieve the goals towards the accomplishment of its vision, Port of Aveiro will deploy the following actions:

- **Roadmap and Business Plan**

The port community will be brought together in order to articulate a single vision to achieve GHG reduction. This process will be based in a Green Port audit to identify core needs and gaps in capabilities and then combining them with multiple best practices available to determine a roadmap for the Port of Aveiro transition and a business plan, including investment priorities, to define the path to achieve the 2030, 2040 and 2050 targets.

- **Port Renewable Energy Sources**

The Port of Aveiro will increase its energy autonomy in order to become a self-sufficient renewable energy port. For this end, the port authority will make multiple investments in renewable energy sources such as wind and solar power, among other technologies that are yet not fully developed and studied, such as, hydrogen and tidal power. Up to 2030, the Port of Aveiro will produce locally 7 GWh per year of renewable energy (wind and solar) and hopes that the Port Community will also enforce this capacity with self-production investment to contribute to the energy microgrid.

The Port of Aveiro will invest in high voltage and medium voltage infrastructure in order to support the new electric port services, including a high voltage network, an electric substation, a storage facility and a medium voltage network, managed by Port of Aveiro in a microgrid digital tool that will be created.

- **Port Energy Services**

For the new power supply services, the Port of Aveiro will deploy a mobile Onshore Power Equipment (OPS), to 50/60 Hz, to supply ships at berths, as well as on other facilities to supply electric cranes, and re-charging stations to electric port equipment and road vehicles. This way the Port of Aveiro will enhance the shift from fossil fuel consumption to electric consumption, which will be generated from renewable energy sources locally produced.

- **Port Advanced Biofuels**

The Port of Aveiro will provide new advanced biofuels, with low or zero emissions, locally produced from several types of waste, in order to bunkering ships, port vessels and other local boats as well, as to re-fuel port equipment and trucks.

The Port of Aveiro will help to promote these new advanced biofuels, from local based solutions, in order to support the circular economy and help the decarbonization of the port as well as maritime and road journeys.

- **Energy efficiency on buildings, services and port activities**

The Port of Aveiro will continue to promote energy efficiency measures in buildings, terminal and street lighting, and in port services and operations, inviting the whole port community to also enforce these measures in their buildings, logistics and port activities, that will be identified through regular audit.

- **Green Land Use Concept**

The new logistics and industrial area, named ZALI, will be classified in the Port Development Master Plan with a Green Port Area Label and therefore designed as a green port area in which new rules for its use and operation will be defined according to this green concept.

- **Efficiency of Logistics Chains**

The Port of Aveiro will continue to promote the efficiency of the port activities and operations by reinforcing on-going projects such as the Single Window (JUL) and the Digital gate, which along with the implementation of new digital tools will optimize the seamless flow of goods and modal shift, reduce inefficiencies and promote the growth of Port of Aveiro.

- **Digitalisation**

The Port of Aveiro will continue expanding digitalization across its multiple areas, mainly related to the environment, energy, mobility and logistics. This process will be based on sensing, internet of things (IoT) and machine learning technologies, which will generate real-time information to provide a comprehensive tool to support decision making and enhance the port efficiency to an effective transition into a Smart Port.

- **Port Community Network**

The Port of Aveiro will take advantage of its leadership role as a port authority to strengthen the port community network involving business, academia and industry, including SMES, to enhance an effective transition into a Green Port. The ambition is co-creating and cooperating with the goal of finding solutions that benefit everyone and could enhance the development human capital and social innovation, namely promoting jobs and employability by encouraging interaction between companies and academia, promoting lifelong training at work, encouraging co-creation with spaces of interaction between stakeholders and the port community and developing new competences, both technical and interactive related with the new solutions.

- **Smart Port Cities**

The Port of Aveiro will strengthen the cooperation with the municipalities in order to promote decarbonization and the green and smart mobility to improve air quality and health in the neighbouring cities. APA expects to be a role-model in the region by sharing the success stories in the implementation of best practices.

- **Business, Investment and Funding Opportunities**

The Port of Aveiro is already financially committed regarding the energy transition, having set aside the necessary means for its implementation. Despite this, whenever possible national and international business, investments and funding opportunities will be pursued in order to accelerate this transition towards a Green and Smart Port, that otherwise will be carried out in a slow manner.

**Date:** 11<sup>th</sup> February 2021.

**Signature:**

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