Constanta Shipyard goes green

In response to the pressing challenges of climate change and the rising costs of energy and raw materials, Constanta Shipyard in Romania has made a strategic decision to reduce operational expenses and align its activities with EU and national environmental regulations and sustainability goals.

The first major step toward a greener future was taken some years ago with the acquisition of state-of-the-art ultra-high-pressure (UHP) and high-pressure (HP) hydro-jetting equipment, investing over €3.5 million. This includes:

- 15 UHP pumps with pressures up to 3,000 bar
- 4 HP pumps up to 2,000 bar
- Approximately 15 specialised units, including lift worker beams, multi workers, line workers, lift jets and surface robots.

These systems provide high-quality water-jetted surfaces for ship hulls, main decks, cargo holds and more – without the use of abrasive grit – thus eliminating waste and reducing environmental impact.

The equipment has proved its effectiveness over the years, with increasing customer satisfaction and growing demand for this environmentally-friendly alternative to traditional surface preparation. The ability to work continuously, combined with reduced waste and a favourable cost-performance ratio, confirms that Constanta Shipyard has taken the right first step on its sustainability journey.

Investing in renewable energy

Building on this progress, the next major milestone in the shipyard's green transformation is the development of renewable energy generation capabilities.

Located on the sunny coast of Constanta, the shipyard has invested over €1.8 million in a 3.2 MWp photovoltaic power plant. The project is co-financed through Romania's National Recovery and Resilience Plan, managed by the Ministry of Energy, with 70% of the investment covered by the shipyard's own funds.

Key project details include:

- **Installation site:** 45,000 sqm rooftop of the Hull Workshop
- **Solar modules:** 5,472 photovoltaic panels, each with a nominal power of 585 Wp
- **Inverters:** Units with capacities of 125 kW and 100 kW
- **Transformer station:** Newly built, 2 x 1,600 kVA, 0.4/6kV
- **Connection:** Integrated into the existing 6 kV grid via new transformer infrastructure
- **Operation mode:** Self-consumption.

The photovoltaic plant became operational at the end of spring 2025 and is projected to cover approximately 35% of the shipyard's annual energy consumption, significantly reducing dependency on conventional power sources.

Constanta Shipyard's photovoltaic plant became operational at the end of spring 2025

Constanta Shipyard remains committed to reducing its environmental footprint and embracing sustainable innovation in both operations and infrastructure. These initiatives mark only the beginning of a long-term transformation aligned with global and national efforts toward a greener maritime industry.

Source: https://drydockmagazine.com/spotlight-on-the-mediterranean-and-black-sea/