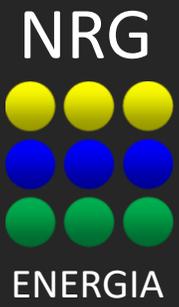




# NRG ISLAND *Advantages*



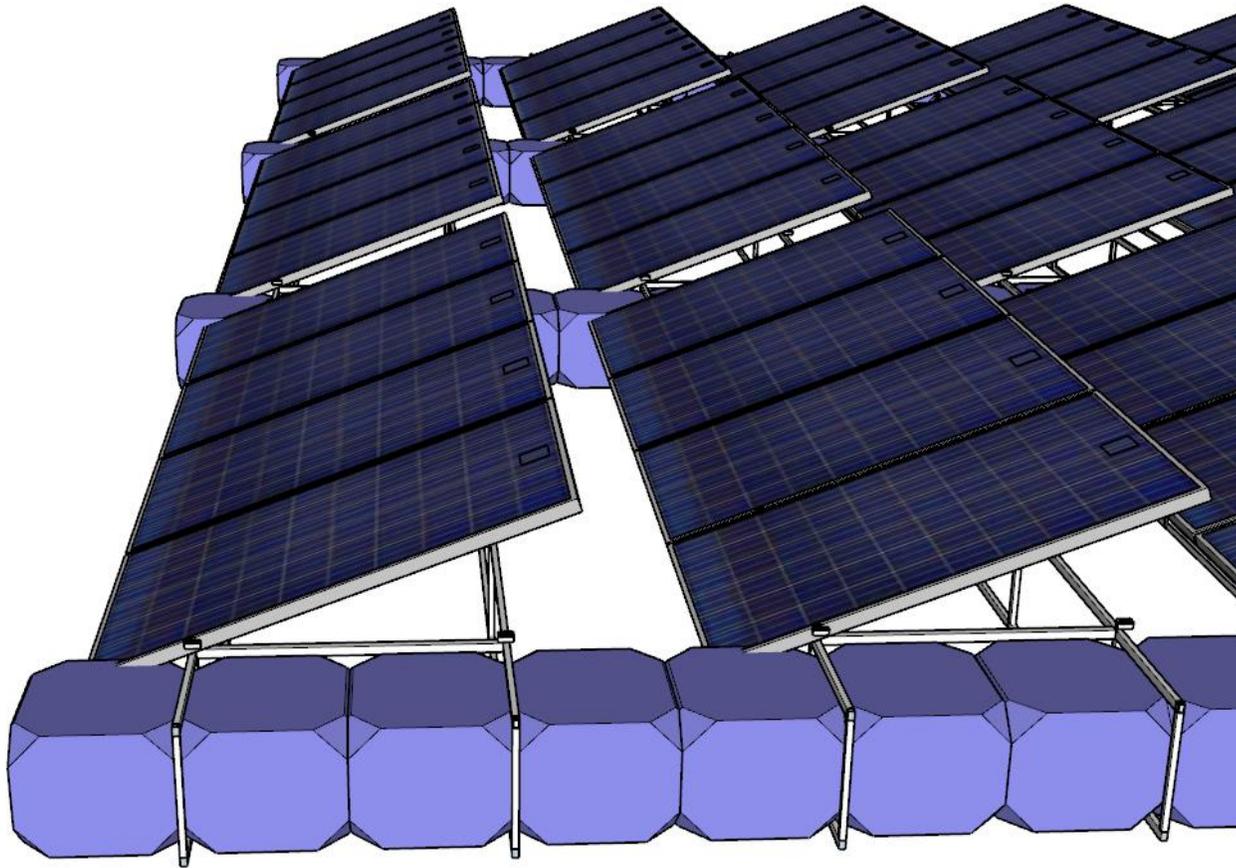


NRG Island offers remarkable advantages in comparison to the other Floating PhotoVoltaic options on the market:

***The unique design of the floats:***

*The unique design of our cube-shaped floats enables you to connect them in a quick and easy manner, allowing for a significantly shorter installation time. The connections are made directly on site, through the use of special connecting elements made in HDPE, which you can screw and unscrew from the top. In case of replacement or addition of one or more floats of an already installed floating island, this feature allows the maintenance operator to never have to perform from below the island (employing underwater gear), but simply unscrewing the pin while remaining on the island. The floats can also be merged into platforms of whichever shape and size, and they provide you with an unmatched floatability (**350 kg/sqm**).*





## ***The structural design of NRG ISLAND:***

*The floats are placed on the sides of an aluminium frame, upon which the panels are laid.*

- This geometry, in addition to shielding the water from the sunbeams reducing the evaporation rate up to **80%**, allows us to have free space beneath the panels, enhancing air circulation under the modules, and preserving an adequate oxygenation of the water.*
- The air flow and the mitigating effect of the water protect the panels from high temperatures, ensuring, especially in the summer, an increased efficiency of the system.*
- Bifacial panels can be installed to get an increase in the production of energy. Our system enables the light that is reflected on the surface of the water to be captured by the photovoltaic cells on the rear of the panels.*



### **Flexibility:**

*NRG ISLAND is tailored to fit the needs of the customer:*

- *The PV modules are not directly positioned on the floats, they are placed on the frame instead. This feature enable the installation of **panels with any tilt** thanks to the possibility of adapting the frame during manufacturing.*
- *It is possible to install **every kind of solar panel**, of any brand, power or size.*
- *The floats can be assembled to form a platform for the laying of cables, or a wharf, or a walkway that links the photovoltaic island to the shore. It is also possible to create floating walkways that surround the photovoltaic island, and to install handrails in PE for better safety of the staff (lights can be added to the handrails if requested).*



### ***Stability and Resistance:***

*The flat surface of the floats creates a very stable platform. It's easy to move on the walkways, which consist of continuous rows of floats. There are no gaps between the floats, which results in an easy and safe maintenance, allowing also to carry on the island wheelbarrow and maintenance equipment.*

*In addition to the high quality of the materials, the compactness of the structure boosts the overall resistance of the island at the occurrence of significant meteorological events, providing the island with high wind resistance. This elevated stability is ensured by the anchoring and mooring system, which is properly designed for every specific situation.*

## Safety and reliability:

The material utilized for the floats is HDPE (High-Density PolyEthylene) which is a tested and installation-safe material, even on bodies of drinkable water.

In the factory we test our floats to make sure that they comply with the international norms and, if installed following the guidelines, they have a useful life of 25 years.

### Ecotoxicity effects

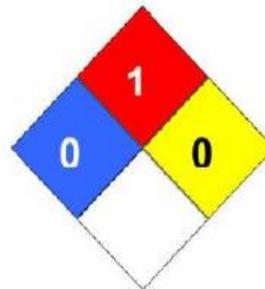
Elimination information (persistence and degradability)

Bioaccumulation : Does not bioaccumulate.

Mobility : The product is insoluble and floats on water.

Biodegradability : This material is not expected to be readily biodegradable.

**NFPA Classification** : Health Hazard: 0  
Fire Hazard: 1  
Reactivity Hazard: 0



## ***Experience:***

*The NRG Team can rely on a vast experience in the field of floating photovoltaic. We have been successfully installing our patented NRG Island System since 2010, building plants not just in Italy but also in many foreign countries. NRG ISLAND stands for quality and reliability.*

