



# GIAR Energy S.r.l. Benefit Company

Innovative Start-Up; Business Register Special Section REA No. MC-275955

Tax Code and VAT Number 02064820430; S.C. € 250.000,00 fully paid-up

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# What GIAR Energy is

- GIAR Energy Srl S.B. is an **Innovative Start-Up - Benefit Company** born with the purpose of providing innovative products and services with high technological value in the energy sector, whilst generating a positive impact on society and the biosphere.
- The company operates **responsibly, sustainably** and **with transparency** pursuing the following common benefit objectives:
  - Generation of energy from renewable sources, thus reducing greenhouse gas emission in the atmosphere and decreasing global warming
  - Foster energetic independence from fossil fuels
  - Protection of landscape and public peace
  - Promotion of environmental education in the community



# The future is renewable

*“We are leading the way for a clean economy.  
The principle is to develop a new growth strategy  
towards a decarbonised economy”*

*Ursula von der Leyen, President of the European Commission*

The introduction of innovative technologies aimed at the exploitation of renewable energy sources is a great opportunity to:

- Drastically reduce the environmental damage
- Reduce energy costs
- Support social sustainability

Renewable energy sources include **wave motion, sea and tidal currents, river currents, wind**, geothermal resources, biomass and the sun.

# Wave motion, currents and wind

- Water is the largest renewable energy source on the Planet.
- The exploitation of wave motion would make it possible to obtain a quantity of kWh well above the annual electrical energy needs of the whole world.
- The energy of river, sea and tidal currents – which is more predictable than solar and wind energy – has huge potential for exploitation.
- Wind represents the second renewable energy source on the Planet and its exploitation is constantly growing: wind power supplies about 5% of the world's electrical energy production, a figure that almost doubled in the last 10 years.

The GIAR Turbine is able to convert renewable energy – coming from wave motion, river, sea and tidal currents and wind – into electrical energy that can be used for the widest applications.



# GIAR: The Universal Turbine

The Innovative Start-Up GIAR Energy Srl S.B. is based on the exploitation of a Patent for Industrial Innovation for the generation of renewable energy valid in 23 European countries, with very high average mechanical Efficiency certified by Physics Department of Camerino University: 94%.

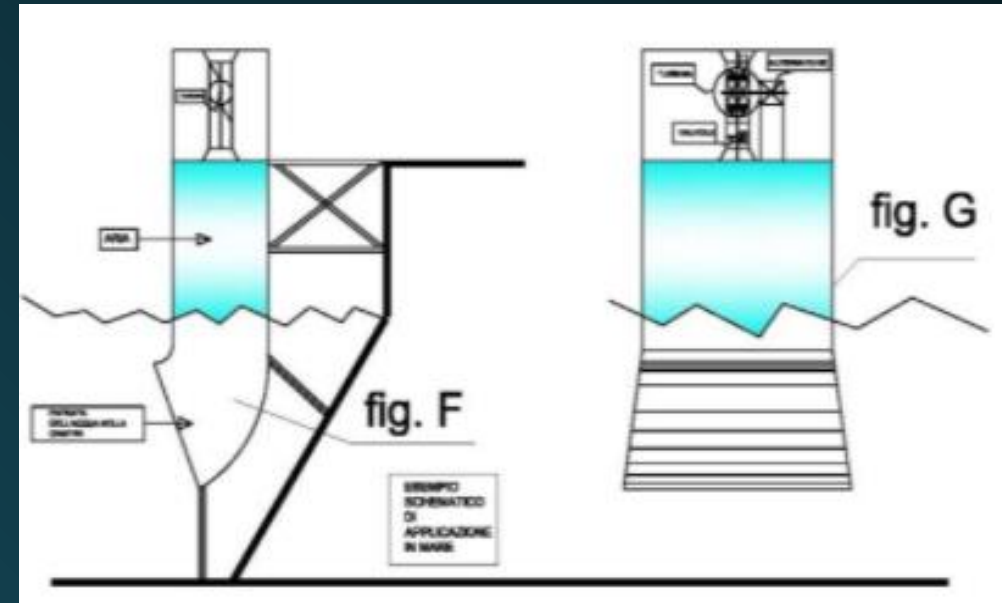
Born from Giuseppe D'Ambrosio's passion for industrial innovation, **GIAR is a revolutionary turbine**, that overcomes the drawbacks of the OWC devices in use and that can be implemented for generating electricity from any sort of water current and wind.

The existing turbines (OWC) using pneumatic-type processes, besides showing unsatisfactory levels of Efficiency, present numerous critical issues including strong visual impact and high noise.



# Versatile and innovative

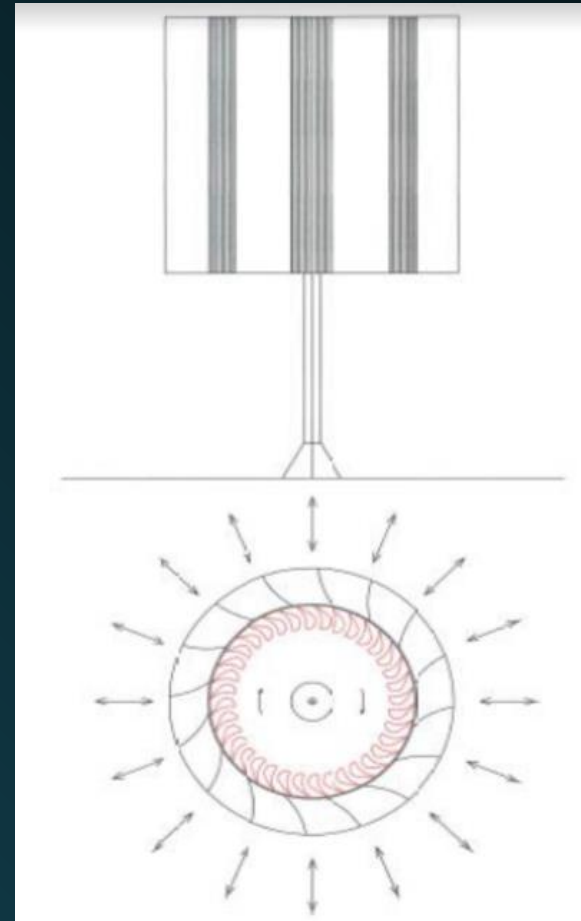
- In **OWC applications** for wave motion, the GIAR Turbine shows the highest Efficiency with any wave height, including low waves: it can operate at a wave height of 20 cm, while competing turbines struggle to even get activated.
- GIAR technology generates the same advantages in **applications for river, sea and tidal currents**.
- The GIAR Turbine is:
  - Highly efficient
  - A Reaction Turbine
  - Symmetrical
  - Compact in size
  - Noiseless...and much more!



# Versatile and innovative

The GIAR Turbine can be used in a wide range of sizes and installed capacities in **wind applications** as well, thanks to the following advantages:

- It is suitable for both wind farms and isolated locations
- It has minimal environmental, visual and sound impact
- It requires minimal maintenance
- It is independent of the wind flow direction, so it needs no orientation (contrary to the traditional wind blades)



# Versatile and innovative

The table below shows in a schematic and intuitive way the differences between the GIAR Turbine and the main technologies currently on the market.

TECHNOLOGY	FEATURES						
	Reaction Turbine	Active also with reverse flow	Variable Displacement	NACA type blades	Low noise	Active also at very low pressures	Suitable also with variable pressures and flow rates
<b>GIAR</b>	<b>YES</b>	<b>YES</b>	<b>YES</b>	<b>YES</b>	<b>YES</b>	<b>YES</b>	<b>YES</b>
Wells	YES	YES	NO	NO	NO	NO	NO
Francis	YES	NO	NO	NO	NO	NO	NO
Kaplan	YES	NO	NO	NO	NO	NO	NO
Banki	NO	NO	NO	NO	NO	NO	NO
Pelton	NO	NO	NO	NO	NO	NO	NO





# GIAR Energy sustainable

**GIAR** is an innovative and patented technology

**GIAR** lends itself to several applications, even in sites not easily reachable by current technologies

**GIAR** allows the efficient exploitation of multiple renewable energy sources

**GIAR** contributes concretely to the ecological transition from fossil fuels to **Green Energy**

# Who GIAR Energy is

The shareholder structure of GIAR Energy Srl S.B. is the **synergy** of professionalism, experience and skills:

- **Giuseppe D'Ambrosio**  
Inventor, Mechanical Designer
- **Simone D'Ambrosio**  
Energy Manager
- **Daniel Antonelli**  
Energy Manager
- **Luigi Gagliardi**  
Chartered Accountant, Statutory Auditor
- **Oliviero Carducci**  
Entrepreneur