TPG SOLUTIONS

Building the future

An innovative, effective and sustainable solution for the unlimited production of potable water.

SOCIAL, ECONOMIC AND ENVIRONMENTAL IMPACT OF UNLIMITED POTABLE WATER PRODUCTION

The availability of drinking water positively impacts health, education, the economy and the environment. Unlimited production of potable water reduces dependence on traditional water sources and reduces the environmental impact of water extraction and treatment.

1

Health benefits

Access to safe drinking water reduces water-related diseases, especially in areas with poor sanitation.

2

Economic development

The production of drinking water creates employment opportunities and fosters economic activity in water-scarce areas.

3

Environmental sustainability

The production of drinking water reduces pressure on water resources, preserves ecosystems and promotes sustainable development.

4

Social equity

Unlimited production of drinking water guarantees equitable access to water for everyone, regardless of their location or socioeconomic position.

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WATER SUPPLY PROBLEM

Today, the supply of drinking water faces a crucial challenge. Population growth has increased the demand, while water resources remain limited. In addition, there is growing concern about water quality, which is increasingly affected by pollution.

PROBLEM	DESCRIPTION
Water scarcity	Water resources are limited to meet the needs of the population.
Water Pollution	Water quality is affected by the contamination of water sources.
Unequal access	Not everyone has access to safe and reliable drinking water.
High costs	The supply of drinking water is costly for households and businesses.

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ATMOSPHERIC WATER GENERATORS

Atmospheric water generators are devices that capture humidity from the air and convert it into drinking water. Their operation is simple and sustainable, as they do not require additional resources such as groundwater or polluting energy sources.

Components

Atmospheric water generators include a compressor, condenser and filter, which work together to capture moisture from the air and convert it into drinking water.

Advantages

Atmospheric water generators offer several advantages, including reduced energy consumption, reduced carbon footprint and elimination of the need for water transportation infrastructure.

Implementation

Atmospheric water generators are ideal for remote areas, rural communities, hospitals, schools and homes where access to drinking water is limited.

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CHARACTERISTICS OF THE GENERATORS

Production

Capacity to generate water even at temperatures up to 50°C and with a relative humidity of 15%. Produces between 500 and more than 20,000 liters per day, adapting to the specific needs of communities, institutions and industrial sectors.

Energies

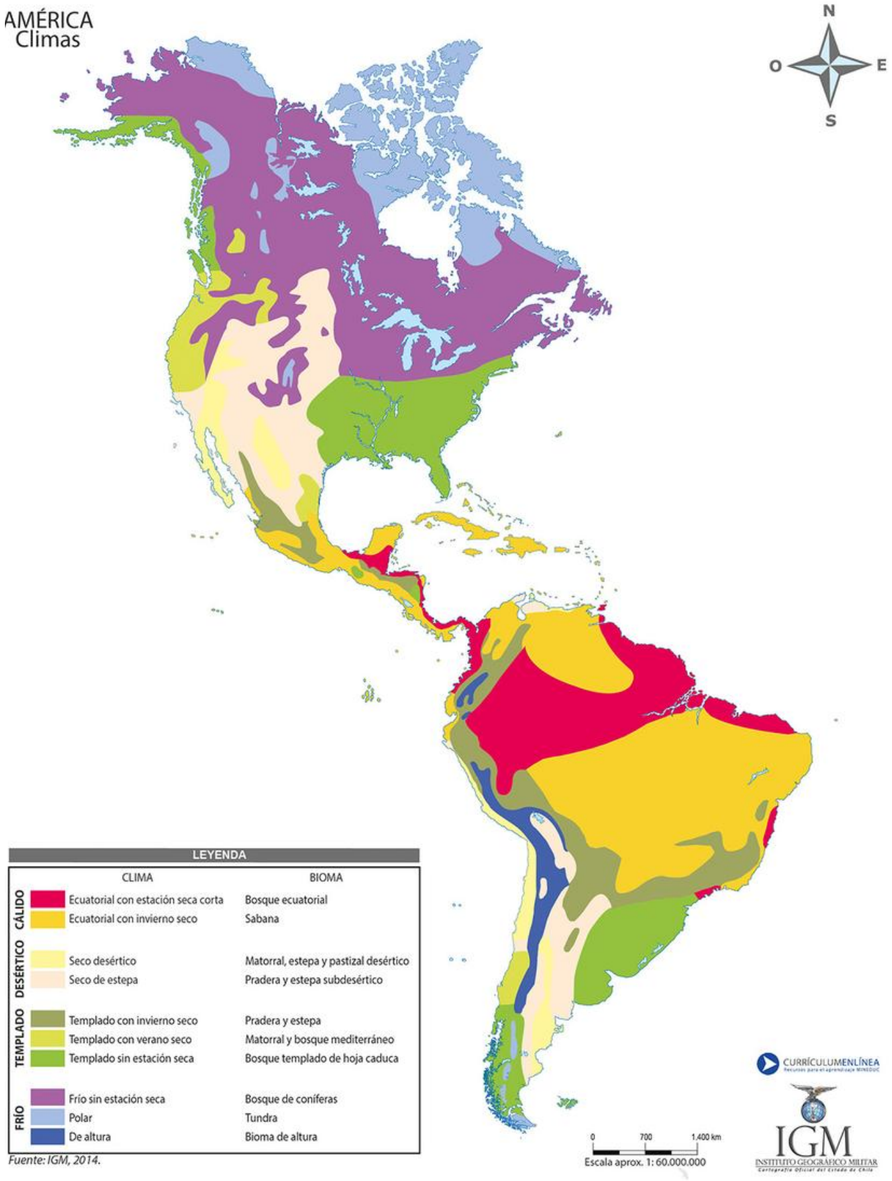
Ability to operate with solar energy or other clean sources, reducing operating costs and supporting sustainability.

Water quality

Guarantee of constant production of drinking water, with high quality for different uses, without generating waste.

IDEAL CONDITIONS FOR THE PRODUCTION OF POTABLE WATER WITH AWG

The ideal conditions for producing potable water with AWG are high relative humidity (60%-90%), temperatures between 15°C and 40°C, clean air and renewable energy for a more efficient and sustainable process.



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TECHNOLOGY OF ATMOSPHERIC WATER GENERATORS

Atmospheric water generators work by using a condensation and filtration process to extract humidity from the air. The air is compressed, which reduces its temperature and allows the humidity to condense into water. The resulting water is filtered to remove any contaminants.

1. **Humidity capture**
   The generators use a fan to draw in the air and extract the humidity.

2. **Condensation**
   The air cools and the humidity condenses into liquid water.

3. **Filtration**
   The water is filtered to remove contaminants and bacteria.

4. **Potable water**
   The filtered water is safe to drink and is stored in a tank.

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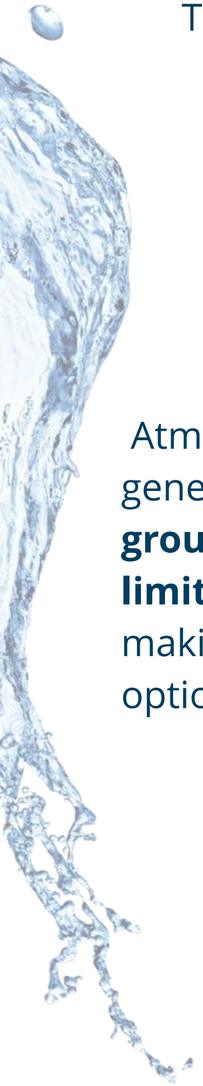
BENEFITS OF ATMOSPHERIC WATER GENERATORS

Atmospheric water generators **offer a sustainable and economical solution** for the production of drinking water. They are a reliable alternative to traditional methods of water extraction and treatment.



Sustainability

Atmospheric water generators **do not rely on groundwater sources or limited water resources**, making them a sustainable option.

Versatility

Atmospheric water generators **can be installed in different locations, from urban to rural areas,** adapting to different needs.

Efficiency

Atmospheric water generators **are energy efficient, reducing carbon footprint and operating costs.**

Accessibility

Atmospheric water generators provide a **reliable source of drinking water for communities** without proper water supply systems.

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SUCCESS STORIES OF ATMOSPHERIC WATER GENERATORS

AWG can offer numerous benefits in schools, hospitals, rural communities and homes, especially in areas with limited access to potable water. Some of the positive impacts they can generate are explained below:

SCHOOLS

AWG improve health in schools by reducing illnesses caused by contaminated water, reducing absenteeism. They ensure constant access to clean water, facilitating learning and promoting good hygiene practices, especially in rural areas.

HOSPITALS

AWG in hospitals ensure a constant supply of clean water for disinfection and medical procedures, improving healthcare by reducing infections. They also lower operating costs by eliminating the need to transport or purchase water in remote areas.

HOMES

AWG provide families with continuous access to drinking water, even in arid areas, covering essential needs. They also reduce costs by avoiding the purchase and transport of water. In emergencies, they provide a reliable and independent source of water.

RURAL COMMUNITIES

AWG provide water autonomy to rural communities by obtaining drinking water from the air, without relying on rain or rivers. They improve quality of life by saving time, improving hygiene and supporting economic development, as well as preserving natural resources.

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INDUSTRIAL

For responsible business

- Green hydrogen
- Construction
- Mining
- Manufacturing
- Agriculture

COMERCIAL

Decentralized access

- Hotels
- Schools
- Universities
- Offices
- Supermarkets
- Restaurants
- Events

EMERGENCY

Security

- Civil and military camps
- Rural villages
- Natural disasters
- Desertification barriers
- Field hospitals

RESIDENTIAL

Self-employed

- Country Villas
- Farms
- Houses in remote locations
- Small offices

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OUR GENERATORS

Small

Cottidianae

300 L / Day

Pluviae

500 L / Day

Medium

Vitae

1.000 L / Day

Vitae Plus

1.500 L / Day

Big

Abundantia

5.000 L / Day

Abundantia Plus

9.000 - 20.000 L / Day

AD HOC

+ 20.000 L / Day

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Technical Data

Cottidianae 500

Daily production	**25ºC ; 60% HR**		**500**
Dimensions	Length (mm)		1000
	Width (mm)		2000
	Height (mm)		1666
	Weight		600 Kg
Operability	Temperature (Min-Max)		4ºC - 45ºC
	Humidity (%) (Min-Max)		20% - 100%
Energy requirement	Energy consumption		Nominal: 4,9 Kw
			Peak up to: 9 Kw
	Voltage		III - 230/380V
	Frequency		50/60HZ
Acoustic power level	Decibels		≤ 52 dB
Water purification	Ultraviolet light		Yes
Installed capacity	Compressor		4 Kw
	Total installed capacity		6,3 Kw
Energy efficiency	25ºC ; 60% HR	Water production	509L/day
		Consumption	235 Kwh/m3
Refrigerant Gas	Compressor gas		R455A R-134a or similar
Internal tank	Capacity		300L

Aquaer Generator reserves the right to change elements to adapt the equipment to optimize performance.

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Technical Data

Vitae 1000

Daily production	**30ºC ; 60% HR**		**1000**
Dimensions	Length (mm)		260 cm
	Width (mm)		170 cm
	Height (mm)		190 cm
	Weight		1500 Kg
Operability	Temperature (Min-Max)		4ºC - 50ºC
	Humidity (%) (Min-Max)		15% - 100%
Energy requirement	Voltage		III - 380/400V
	Frequency		50HZ
Water purification	Ultraviolet light		Yes
Installed capacity	Compressor		9 Kw
	Total installed capacity		12 Kw
Energy efficiency	25ºC ; 60% HR	Water production	1017L/day
		Consumption	0,167 Kwh/liter
Refrigerant Gas	Compressor gas		R449A or similar
Internal tank	Capacity		500L

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Technical Data

Abundantia 5000

Daily production	**25ºC ; 60% HR**		**5000 L**
Dimensions	Length (mm)		6100
	Width (mm)		2440
	Height (mm)		2590
	Weight		7000 Kg
Operability	Temperature (Min-Max)		4ºC - 50ºC
	Humidity (%) (Min-Max)		15% - 100%
Energy requirement	Energy consumption		Nominal: 44,8 Kw
			Peak up to: 90 Kw
	Voltage		III - 380/400V
	Frequency		50/60HZ
Acoustic power level	Decibels		≤ 70 dB
Water purification	Ultraviolet light		Si
Installed capacity	Compressor		30,7 Kw
	Total installed capacity		70 Kw
Energy efficiency	25ºC ; 60% HR	Water production	5090L/day
		Consumption	172,8 Kwh/m3
Refrigerant Gas	Compressor gas		R455A (or similar) o NH3
Internal tank	Capacity		600L

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STEPS TO FOLLOW TO IMPLEMENT ATMOSPHERIC WATER GENERATORS

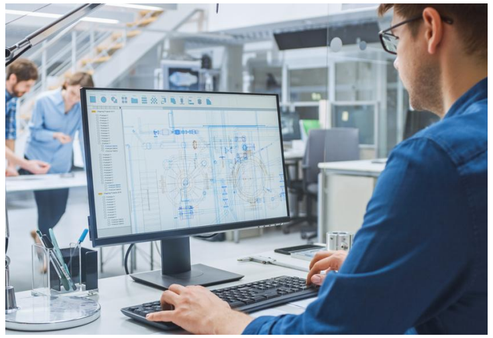
The implementation of atmospheric water generators **requires careful planning and efficient execution**. It is important to define the objectives, identify the needs and find the necessary resources.

Needs assessment

Identify the areas with the greatest need for access to potable water.

Planning

Develop a strategic plan for the implementation of atmospheric water generators.



Design and engineering

Select and install atmospheric water generators according to local needs.

Training and maintenance

Train local personnel to operate and maintain atmospheric water generators.

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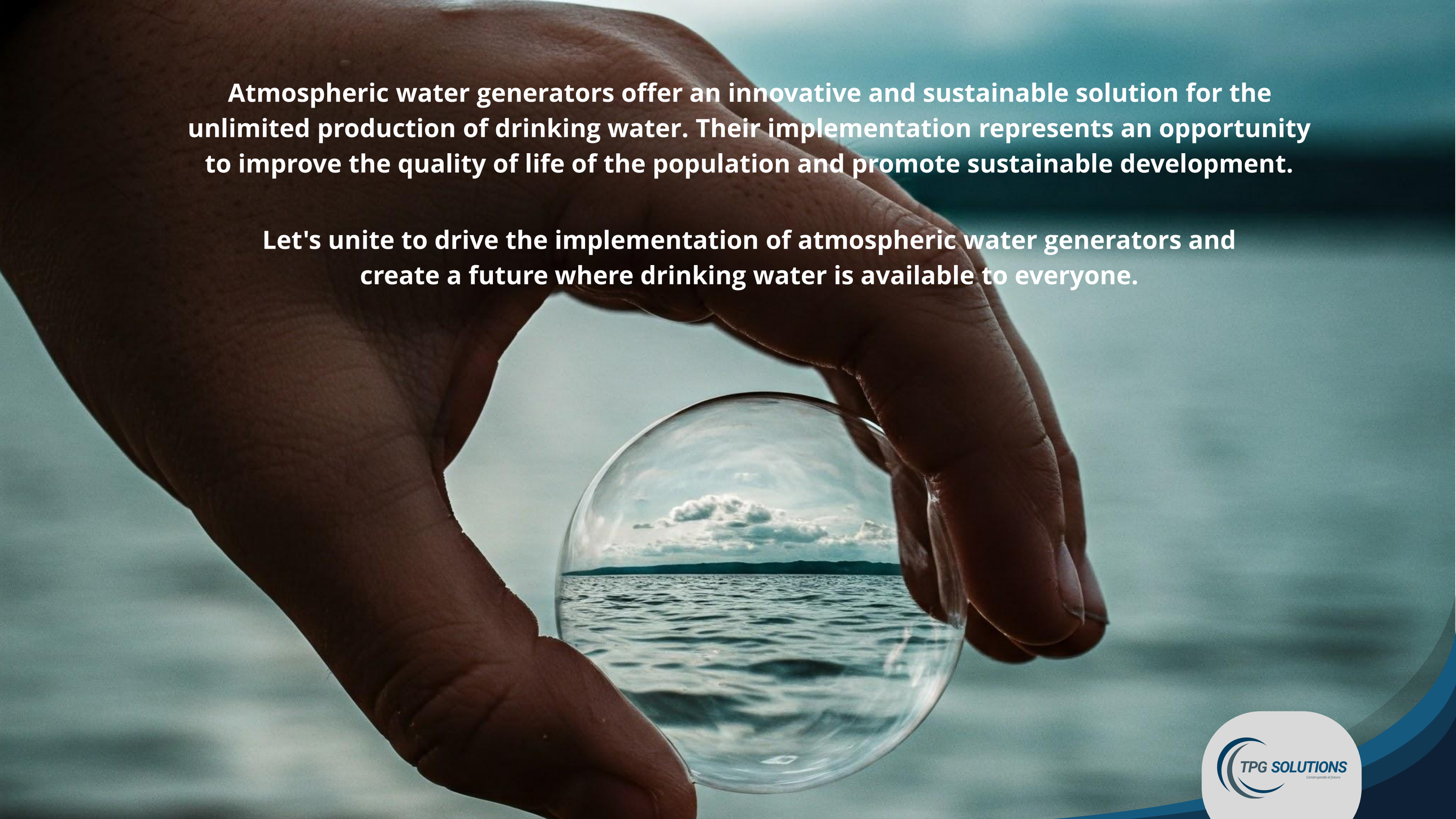

Atmospheric water generators offer an innovative and sustainable solution for the unlimited production of drinking water. Their implementation represents an opportunity to improve the quality of life of the population and promote sustainable development.

Let's unite to drive the implementation of atmospheric water generators and create a future where drinking water is available to everyone.

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