

Crossing the time and border,
We are now starting a new adventure
to save the Earth with **KWaterCraft**.

WaterStation

**All-In-one Box
Energy
Independent
Green
Hydrogen
Generation
System**



Only 7ℓ of water and 83m² of solar energy
supplies unlimited power at home
(as household standards)





Carbon Net-zero

3,650 ton/year of CO₂ reduction

- | Zero carbon footprint
- | 100% renewable energy sources
- | Energy recycling system



11.4M_{USD}



PV+ESS

5.9M_{USD}



PV+WS

Cost-Effectively Large System

47.6% cost-saving

- | Long duration energy storage |
(LDES)
- | Hydrogen ESS, Safe energy |
Storage



Highly Efficient System

70.4% (WaterStation)

- | High efficiency electrode technologies
- | A-IoT based energy control





Process



1. Water purification system

- Water quality secure through advanced purification treatment
- Supply drinkable water if wanted

2. Hydrogen production and storage

- Alkaline water electrolysis system driving power supply through solar cells
- Hydrogen storage through purification

3. Energy production and utilization

- Energy production through PEMFC fuel cell
- Energy produced is stored in a battery and used for power generation

4. Utilization of heat water and oxygen

- 60°C water production through PEMFC fuel cell (over 10kW)
- Oxygen production through water electrolysis system

A-IoT based remote control, efficient energy management and securing safety

Integrated energy management platform



Renewable Energy



Alkaline Water Electrolysis



Energy Storage System



Fuel Cell



10kW WaterStation Specification

Power
10 kW

Max. H₂ production
7.6 kg/day

Max. Required H₂O
76 L/day

Durability
20 years

Max. Power capacity
Max. 224 kWh/day

Required renewable energy
75 kW

Max. CO₂ reduction
37.6 Ton CO₂/year

* High-capacity power generation of up to 1MW is possible through modular build-up.