

# **SOLPA AND CPP DEVICES THAT PURIFY DRINKING WATER AND PRODUCE ELECTRICITY AT THE SAME TIME**

2021.03.10



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# ❖ Company's Management Principles

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First, looking far ahead  
Future creation



Second, respecting  
and growing individuals  
Respect for humans



Third, giving comfort  
and faith Customer trust

# 1. Background & Objectives

## Increasing World Disasters



Victims

## Survival



The world is experiencing droughts, floods and unusual climate changes, which may have devastating impacts. The most important thing in that situation is water and electricity for survival.

# 1. Background & Objectives

## Relief supplies for refugees

- Since August 2017, refugees inflow increased by 700,000 people in certain place in Asia.
- The government does not provide electricity for refugees
  - NGOs can purchased emergency generators for supporting electricity.
- Due to lack of water purification facilities, sometimes waterborne diseases such as acute diarrhea etc. spread widely around the places.

- No minimum water supply for life support
- The minimum amount of water required for survival is 7 liters per day
- Waterborne disease exposure through contaminated water
- Typhoid fever, cholera and other diarrhea and dehydration symptoms
- Every year 1.8 million children under 5 years of age are infected with waterborne diseases. 1.8 million children under 5 years of age die from waterborne diseases
- The children carry a water bottle for several hours in order to get water



## 2. Products



### <MIJ water purifier / generator>



<primary external filter>

### Product Overview

- ▶ Renewable generator.
- ▶ Purifying ability : High contaminated water - 1.5liter/min,  
Low contaminated water – 3-5liter/min
- ▶ R/O Membrane Filter 1set(4ea), Cleaning Filter 2 pieces  
- can change depending on water condition
- ▶ Capable output : AC220V (1.8KW ~3.0KW)
- ▶ Dimension
  - Size : W 340 x H 560 x L 290mm
  - Weight : 15Kg
- ▶ The generated power is only for Purifying, Extra external batteries shall be required for other external loads .
- ▶ Product base configuration (Including Option, Accessories)
  - Body products output: AC(220V), DC(12V)/200W~1.8KgW
  - Option #1 : Rechargeable solar cell (100W x 1ea)
  - Option #2 : Battery 1.2KW(12V, 100AH)  
External battery
  - Accessories(Consumables) : LED Lamp, LED Cord, Solar Cord,  
AC Charging jack, Battery cable

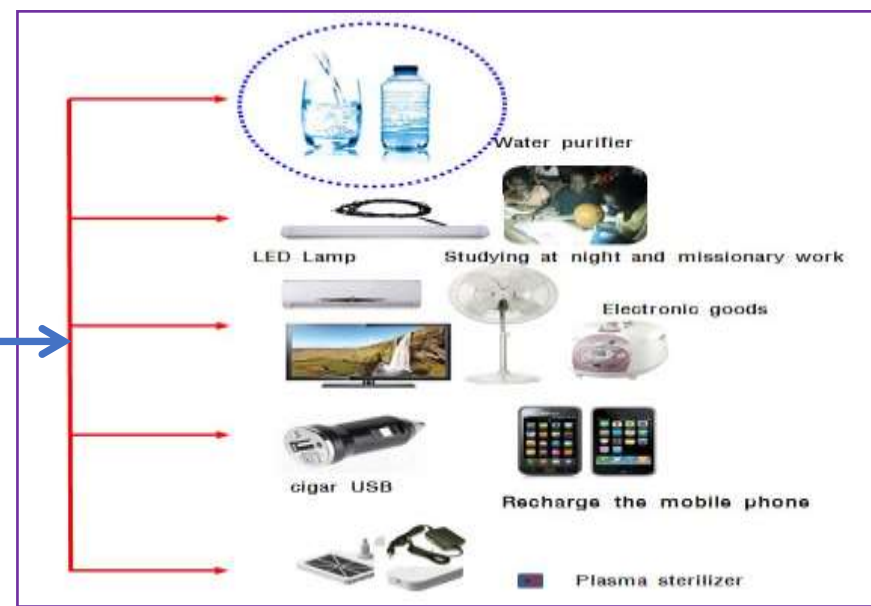


# 2. Products

## Solar Generator



Item	Function	Specification	QTY (pcs)
OUTPUT	AC Voltage	Pure Sine Wave Power	1
		AC230V / 60Hz	
	Rated Power	2,000W	1
	DC	12VDC / 20A	1
INPUT	SMPS	AC176~264V / 60Hz	1
		15VDC / 250W	
Battery	Voltage	12VDC	1~
	Capacity	30AH	
	Battery Type	Deep Cycle, Sealed Gel, Lead acid	
Solar Panel	Peak Power	100W	1~5
	Max Power Voltage	17.3V	
	Max Power Current	5.78A	



# 2. Products

## Water Purifier



Item	Function	Specification	QTY (pcs)
Pump	Max Pressure	120psi	1
	Power	DC12V / 3.7A	
Filter	T-Sediment	Pore size : 10 micron	1
	T-Post Carbon	Pore size : 5 micron	1
	T-HF Membrane	Pore size : 0.1 micron	1
Performance	Flow rate	1.2liter/min (1700liter/day)	
	Quality of produced water	99.9% virus and bacteria free	



<primary external filter>



### 3. Products

#### Inside & Outside of Product



## 2. Products

### Water Purifier Generator

## ❖ SOLPA 2K(2019 Model)

### ❖ Features

- Water purification : 3-4Step
- Output : DC : 5V / 12V  
AC : 110~220V  
(multi socket/battery indicator)
- Connectivity : 3G/4G Router wireless network
- Speaker : Bluetooth connection available
- Radio : FM
- Remote log in available

### ❖ Package contents

- Water purification : 3-4Step filter
- Power : Solar panel parts
- CPP Bag  
: Ceramic micro filter(1EA) / plastic water bag(1EA)
- English manual

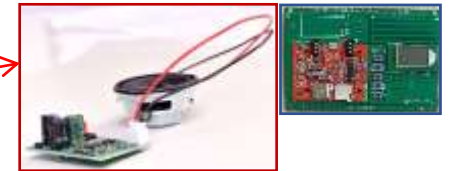


Main Board

FM Radio



Bluetooth Speaker



CPP Bag

# 2. Products

## ❖ PACKAGE CONTENTS

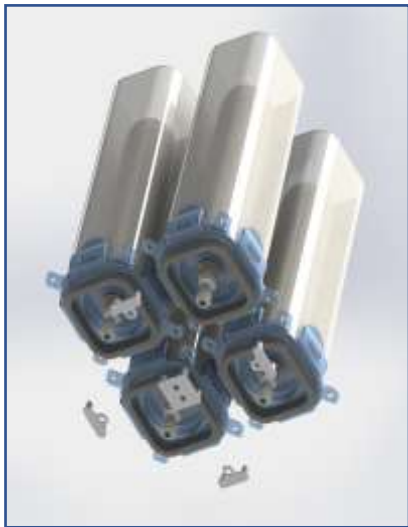


## ❖ SPECIFICATION

Low cost	\$30/3year
Capacity	80~100L/day
Weight	370g
Product material	Porous ceramic structure pore size: 0.2micron
Package contents	Filter Housing& Lid set, Ceramic Filter, Hose & Fittings, G5 Liquid Carrying Bag 5pcs
Filter replacement cycle	1~3 Years (Depends on water quality and usage)

# 2. Products

## ❖ IN

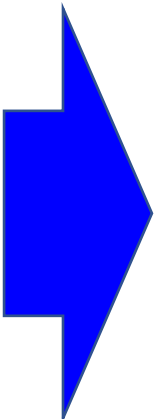


## ❖ OUT





# 2. Products : Raw Water Primary Treatment



<purified water>

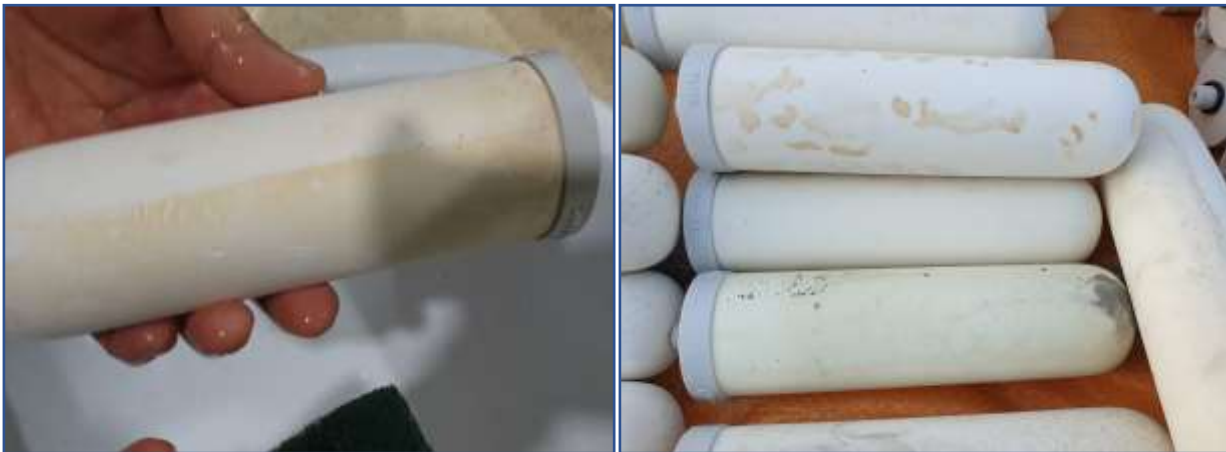




## 2. Products : How to Clean a Used Filter



**contaminated micro ceramic filter**



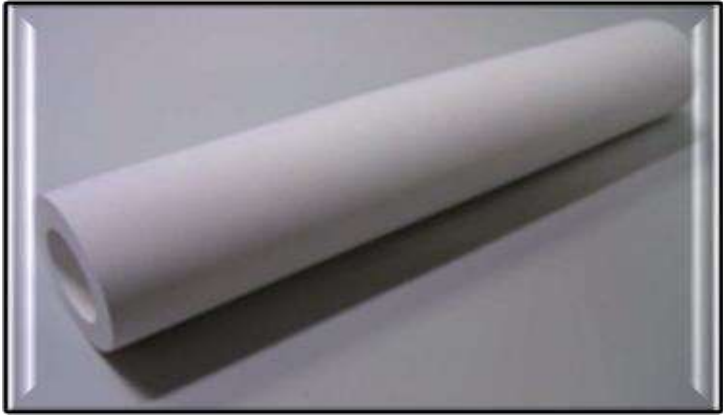
The removal of contaminants is done by ceramic washing filters with clean running water. Wipe the outer surface easily and simply with a brush.

**Washed filter**



## 2. Products : What is Micro Ceramic Filter?

Simple and safe for clean, potable water  
The most effective, high quality filter for eliminating bacteria



- ✓ 99.9% sterilization
- ✓ Safe
- ✓ Non toxic
- ✓ Low cost
- ✓ Re-usable filter
- ✓ No running cost

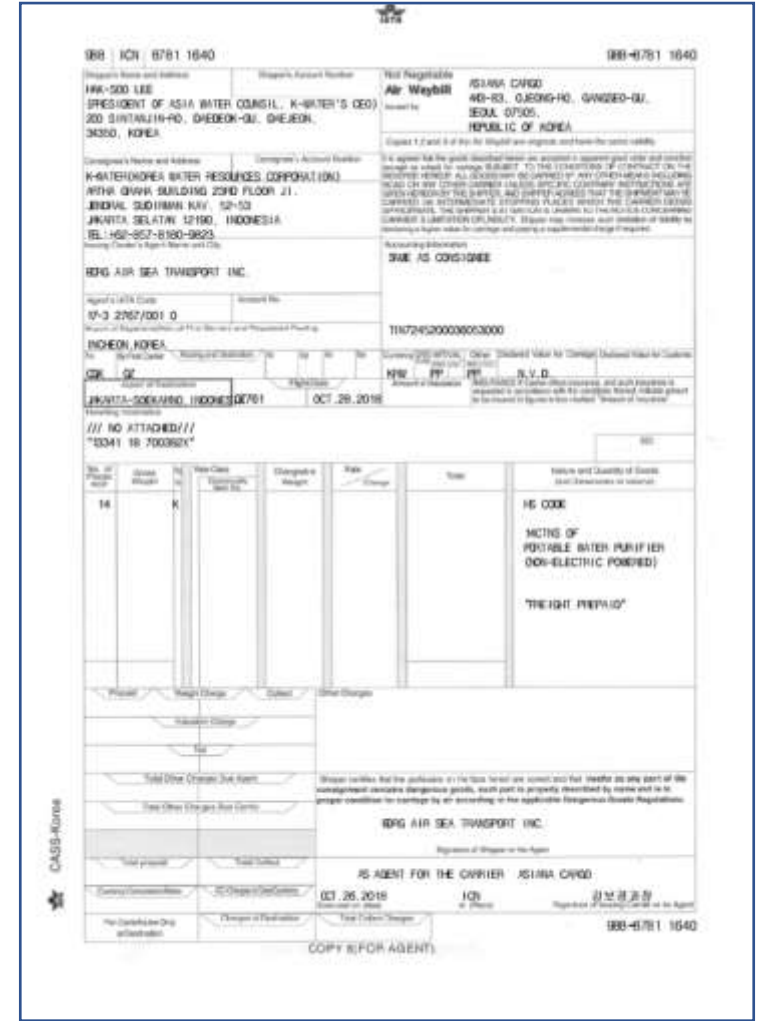
# 2. Products : NSF Certificate and Test Report



NSF42 Certificate



Korea Chemical Testing Institute's Test Report



Indonesian earthquake Relief (Export Proof)



## 3. Applications

- ▶ For drinking water Purifying with stream, reservoir, river water in up-countries.
- ▶ Purifying water at disaster area, military operations.
- ▶ Power for TV, electric fan, laptop computer, lamp, heating mat at camping, outdoor party.
- ▶ Power for street vendor.
- ▶ Backup(Sub) power for The hinterland, country house.
- ▶ Emergency light and backup power system for for students at the time of unexpected power failures.
- ▶ Powering device for dark working space.
- ▶ Main power for An island country, A floating home.



Actual use in a Floating house





ie



**STEP 1**



**STEP 2**



**STEP 3**

ter is simple to use anytime and anywhere easily. Just hang it on the supporting wall or cable packed water filters with capacity TPU water storage bag can filter 80liter to 100 liter often cost much, this contaminated micro ceramic filter can be removed easily and clear wipe the outer space or can use rough brush to wash it. Use it again and again.

Full Package: Package contents filter housing and lid set, ceramic filter, hose, and fittings, G5 Liquid carrying bag 5 piece which weight 370g. This filter contains 1 set of R/O filter and two pieces of cleaning filters, but can be changed the filter type, it depends on the water condition.







### G5 Micro Ceramic Filter Water Filtration System

- Low Cost - \$30 / 3Year
- Capacity - 80~100L / Day
- Weight - 370g
- Product Material - Porous Ceramic Structure  
Pore Size : 0.2 micron
- Filter Replacement Cycle - 1~3 Year  
(Depends On Water Quality And Usage)

CPPG5 is a portable ceramic filter protected with the plastic case can be use for resolving the lack of water in far back country settlement, prevent waterborne diseases, easy to purify the surface (lakes, reservoirs, streams, and rivers) in rural areas around the countryside.

(주)엠아이제이 MIJ  
Hearing is Life, Life is ETEREO

CPPG5

#### Packing List

- Filter Housing & Lid Set
- Ceramic Filter
- Hose & Fittings
- G5 Liquid Carrying Bag 5pcs

## Multifunctional

- It is portable and can be supplied anywhere in the purified water
- Always provide constant purified drinking water
- Resolving the lack of water for far back country settlement, prevention of waterborne diseases
- Get drinking water by purifying the Surface water (lakes, reservoirs, streams, and rivers) in rural areas around the country





# 4. References(Yen son School Langson Vietnam 1.)





# 4. References(Yen son School Langson Vietnam 2.)





# 4. References(JogJakarta/Jakarta, Indonesia)









# 4. References(Nepal)



Installed at the Library



Installed at School

## 4. References(Indonesia)

1,000 CPP Bags were exported & donated to Indonesian earthquake area in Oct. 2018.



### ADB Water Forum





# 4. Referenc es (Video)



경수발전기동영상(원본)

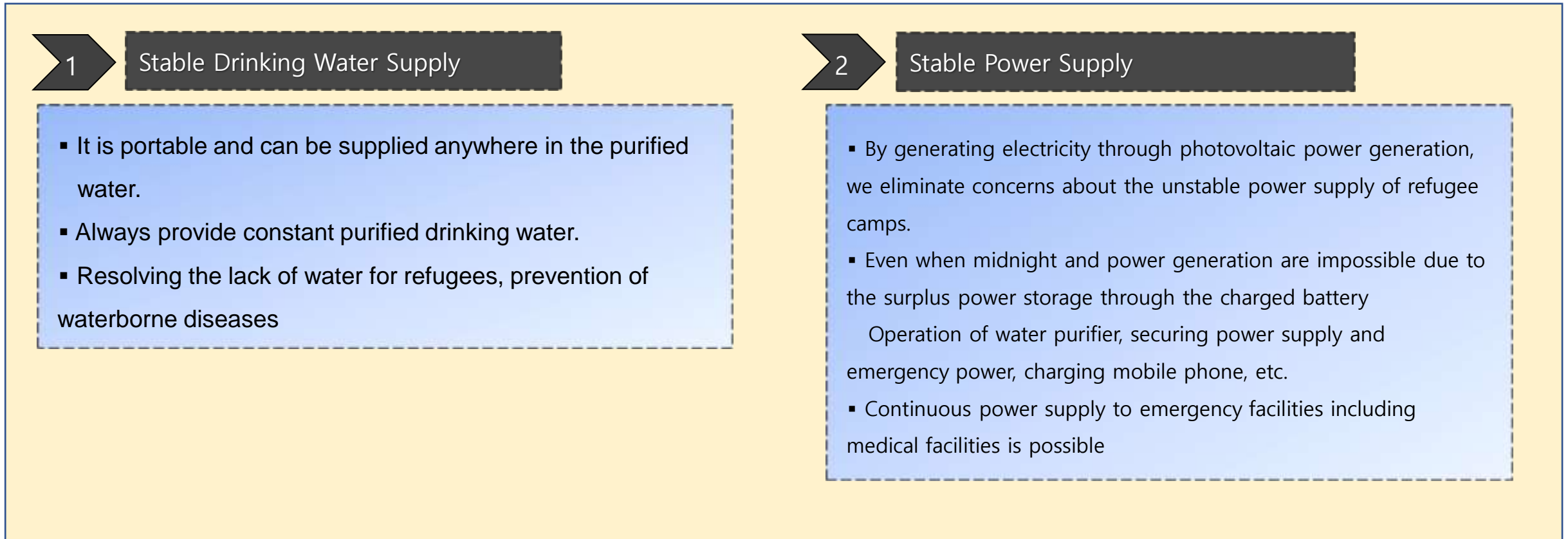


Demonstrative Video  
How To Assemble G5 Ceramic Filter





## 5. Result



**Improve the quality of life for safe and healthy life**

**Thank you!!**

ευχαριστώ!!

