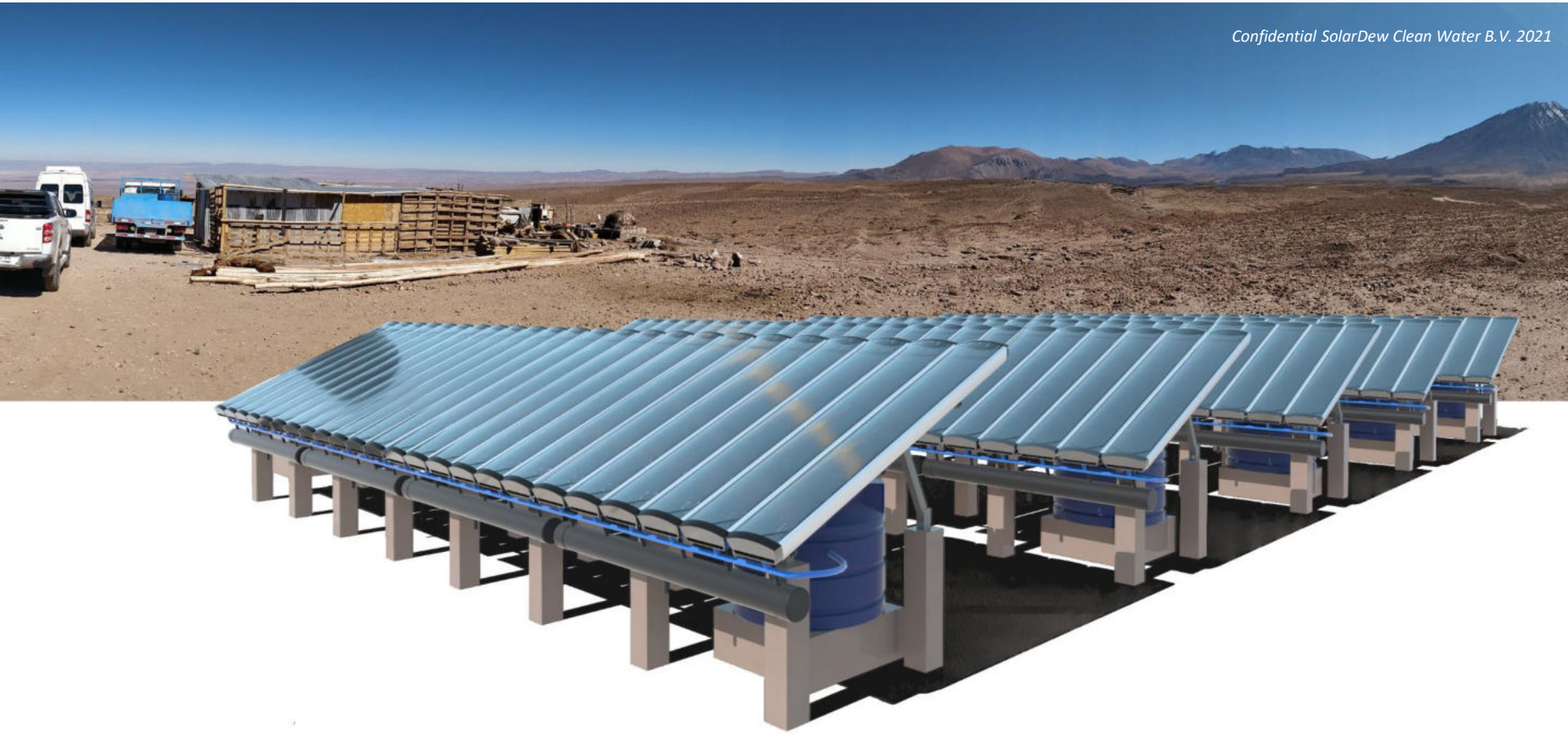

SOLARDEW

Providing clean drinking water to 1 million people by 2030

Presenetation ADB – 19 oct 2021

Alexander van der Kleij

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CLEAN WATER SOLUTIONS

For many a glass of water is just an afterthought ...

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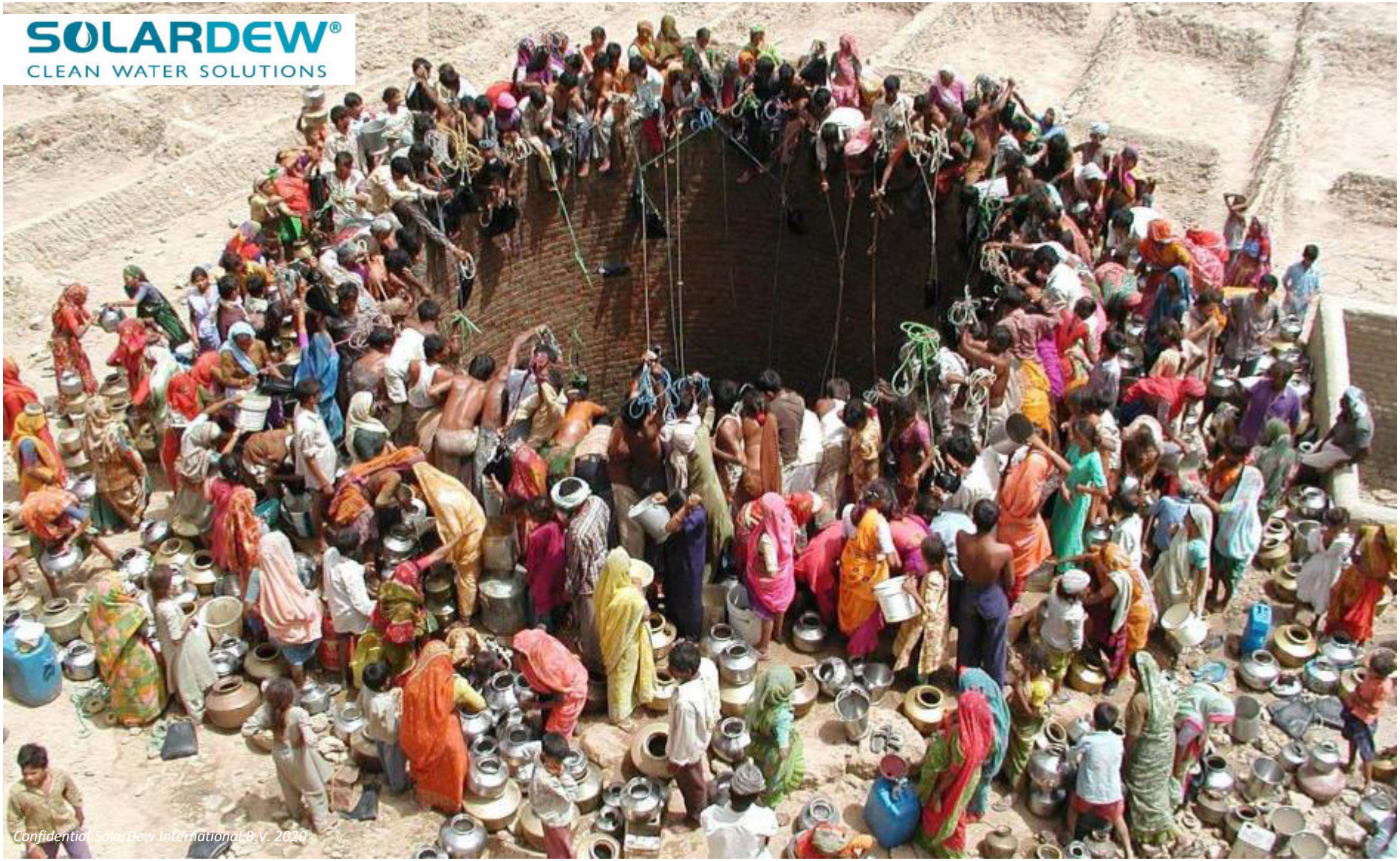
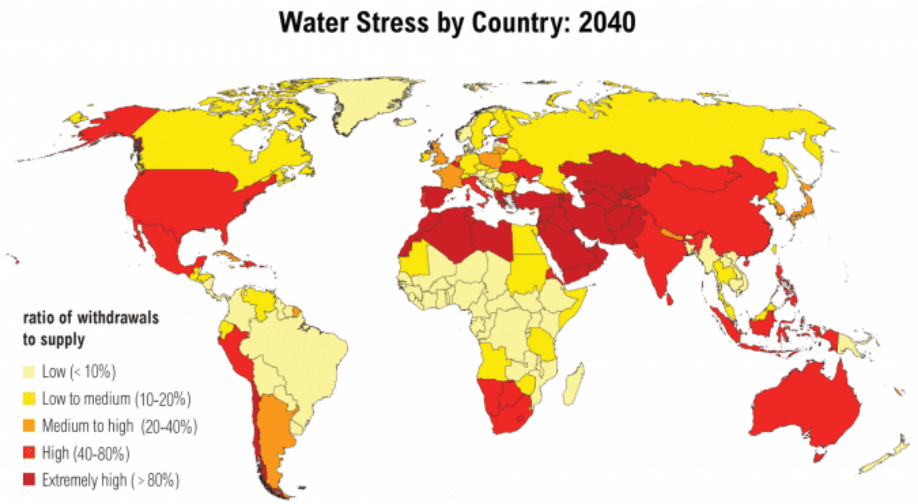


… but for them it is all they can think about!



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CLEAN WATER SOLUTIONS

THERE WILL NOT BE ENOUGH DRINKING WATER FOR US ALL…

Clean drinking water and water scarcity is a global problem

- Today: 700 million people
- 2030: 4 billion people
- Increasing levels of salinity and contamination in our water sources

Front line communities have to

- Fetch water
- Buy transported water
- Buy bottled water

THIS IS TIME CONSUMING, EXPENSIVE, UNSUSTAINABLE & UNACCEPTABLE!

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Ex. Vonavona (Solomon Isl.)

- 6000 people
- Dispersed communities
- Reliant on rain water or boreholes
- Boreholes are brackish in dry season (May – Oct)
- Use basic filters or boil water
- Diarrhea and long term health issues

These communites are vulnerable:

- Storm surges and tsunamis
- Rainfall patterns are changing
- Sea level rise

They want a reliable source of high quality drinking water.

SolarDew offers the ***most effective point of use desalination solution*** *for those in urgent* ***need of clean water***

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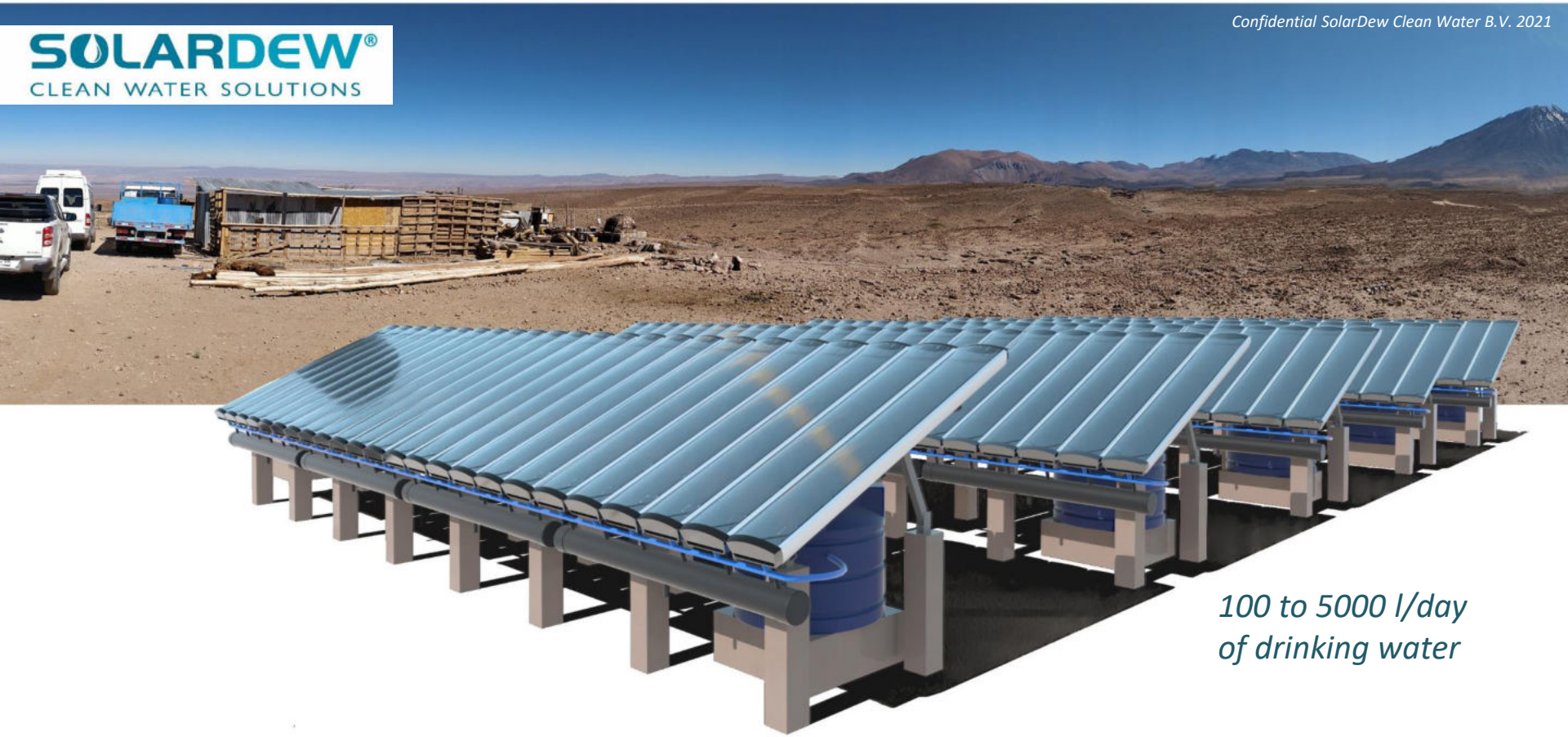
CLEAN WATER SOLUTIONS



100 to 5000 l/day of drinking water

Solar Dew WaterStations *for communities*

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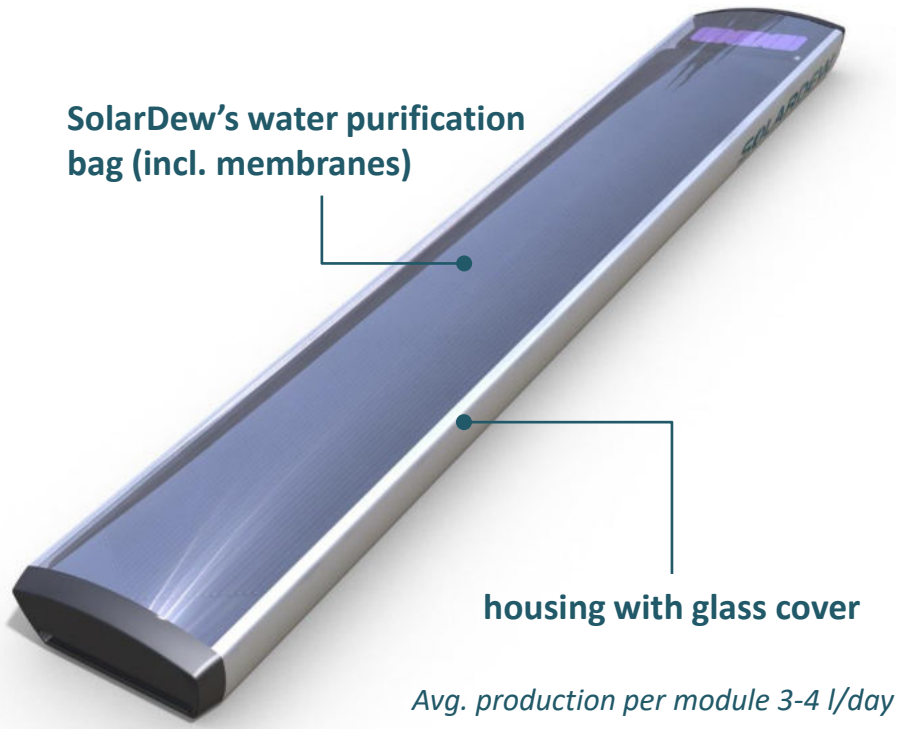
CLEAN WATER SOLUTIONS



Avg. production per module 3-4 l/day

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CUSTOMIZED TO THEIR NEEDS

SolarDew products

- It's not a solar panel (No Electricity)
- Membrane distillation
- Unique water purification bag
- Proprietary membrane.

The unique selling points are

- High quality drinking water from saline and/or contaminated water
- Low Water Price (<€0.02/L)
- Easy to use and service
- Robust operation which significantly reduces downtime (no high pressure, no electrical parts)

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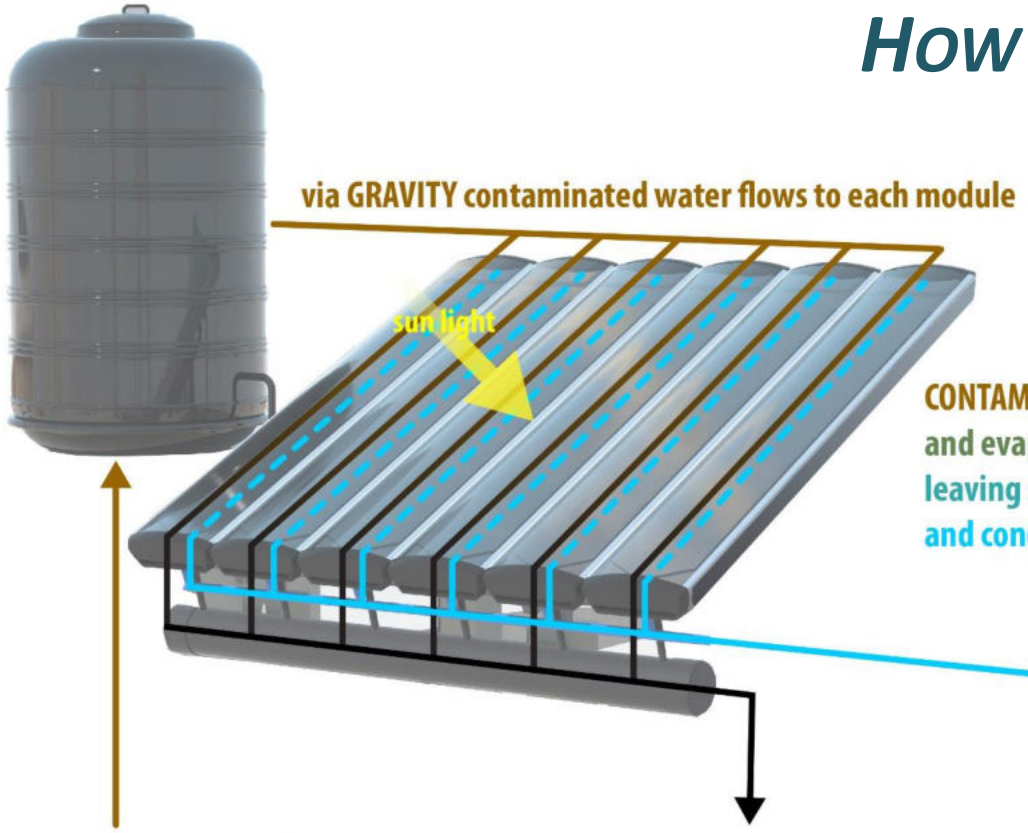
HOW DOES THE IT WORK?



CONTAMINATED water is heated by the SUN
and evaporated through a MEMBRANE
leaving salts, heavy metals, bacteria and viruses behind
and condensates to produce DISTILLED water

CONTAMINATED water is pumped
from a water source (sea, borehole, etc.)
to the feed storage tank

concentrated BRINE is
removed from the system

distilled water flows to drinking water tank
where it is REMINERALIZED,
stored without the risk of recontamination
and READY FOR USE*

** clean drinking water can be buffered to ensure year round availability even when the sun does not shine.*

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EXTENSIVELY TESTED

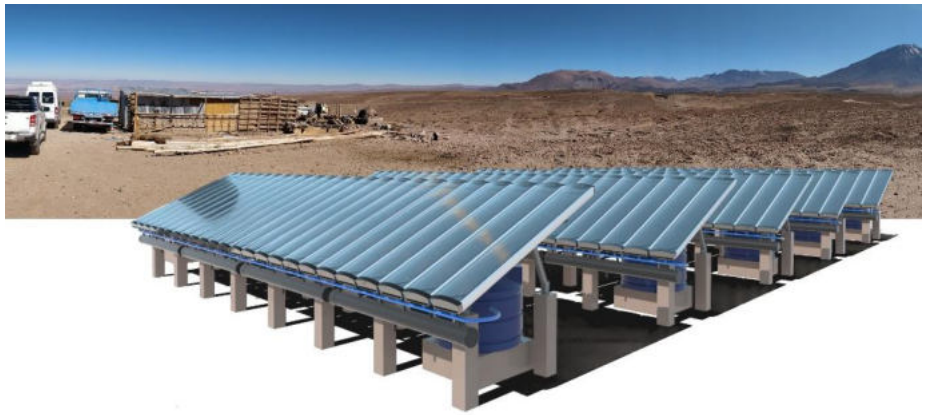
SolarDew's pre-production prototypes have been successfully tested:

- In the lab
- In the field
- With launching customers

The main results are:

- 99,98% salts removed
- >99,92% Arsenic removed
- >99,95% Bacteria elimination
- Production - 7.7 l/m2/day (Equivalent)
- >365 days of operation

This is much higher compared to Ro



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Reliable and Robust

- **No diesel or PV** - solar thermal powered
- **Plug and play** - simple and robust
- **Low maintenance** - no chemicals for cleaning required, only brine removal every 1-2 weeks.
- **Easy to service** – remineralization cartridge (1x year) and water purification bag (every 3 years) are easily replaced.
- **Modular -** Interconnected modules allows users to customize water production to their daily needs
- **Rainwater –** system can also be used to harvest rainwater more efficiently

SolarDew's technology offers a **sustainable** solution to adapt **frontline communities** to become more **client resilient**.

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Ex. Vonavona (Solomon Isl.)

End user benefits

- Guaranteed water quality
- Independent of 3rd parties
- Improved health
- Less water stress and uncertainty

Paying Customer benefits (Government)

- ROI in 4 years
- Responsibilities fulfilled
- No organizational headaches
- Improved community health
- Sustainable

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Application Areas

SolarDew provides solutions for

- Islands (ex. Solomon Islands
- Coastal areas dealing with sea water intrusion (ex. Vietnam)
- Inland areas dealing with brackish water (ex. Pakista)n
- Arsenic removal (ex. Bangladesh)

Other applications incl.

- Small scale agriculture projects (Ex. Boron in Chile)
- Decentralized industrial applications (Ex. Seed processing Australia)

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ADDITIONAL MARKET PROPOSITIONS

Validation of alternative market proposition together with local commercial partners has resulted in LOIs:

- Hydroponics project (1000 l/day) for female led cooperative (Chile) producing vegetables that are containing high levels of boron
- Wastewater project (1000 l/day) for a company (Australia) to concentrate and potentially recycle wastewater resulting from sesame seed production

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MORE RELIABLE AND AFFORDABLE THAN CURRENT SOLUTIONS

bottled water

high quality but expensive

>500x more polluting

supply not guaranteed

unaffordable for many

€0.20 to €2.00 per liter

transported water

water quality not guaranteed

unreliable delivery

unsustainable use of fuel

short term solution

€0.02 to €0.04 per liter

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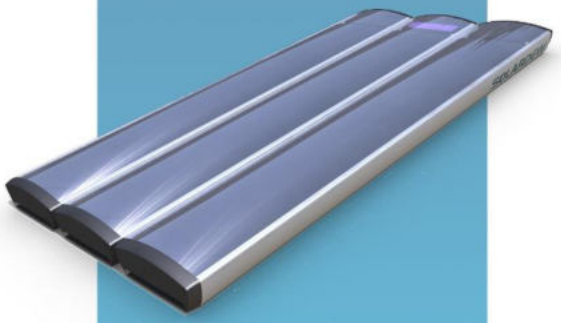
CLEAN WATER SOLUTIONS



pure drinking water

autonomous

sustainable

low water price

€0.01 to €0.02 per liter

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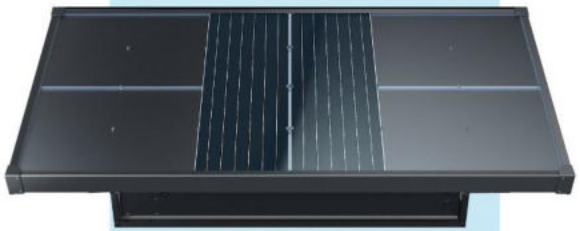
NO AFFORDABLE SOLUTIONS FOR POINT OF USE DESALINATION

Air to Water



sales price - €2500 per panel

prod. max. 6l/day/panel

large footprint - 6 m2/panel

high complexity

low performance in arid regions

€0.10 to €0.30 per liter

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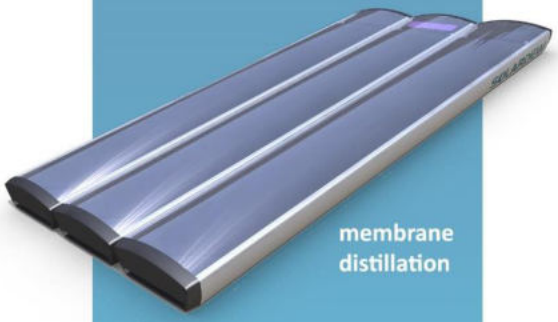


sales price - €125/module

prod. 3-4 l/day/module

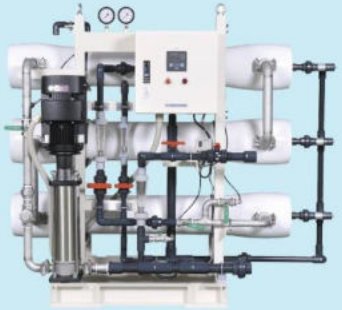
small footprint - 0.5 m2/mod.

removes all contaminants in a single step

easy to use and maintain due to high fouling resistance

€0.01 to €0.02 per liter

reverse osmosis



not suitable below 5 m3/day

membrane scaling issues

complex and difficult to operate/maintain offgrid

long downtime

lower selectivity for arsenic, boron, etc.

€0.003 to €0.02 per liter (@scale)

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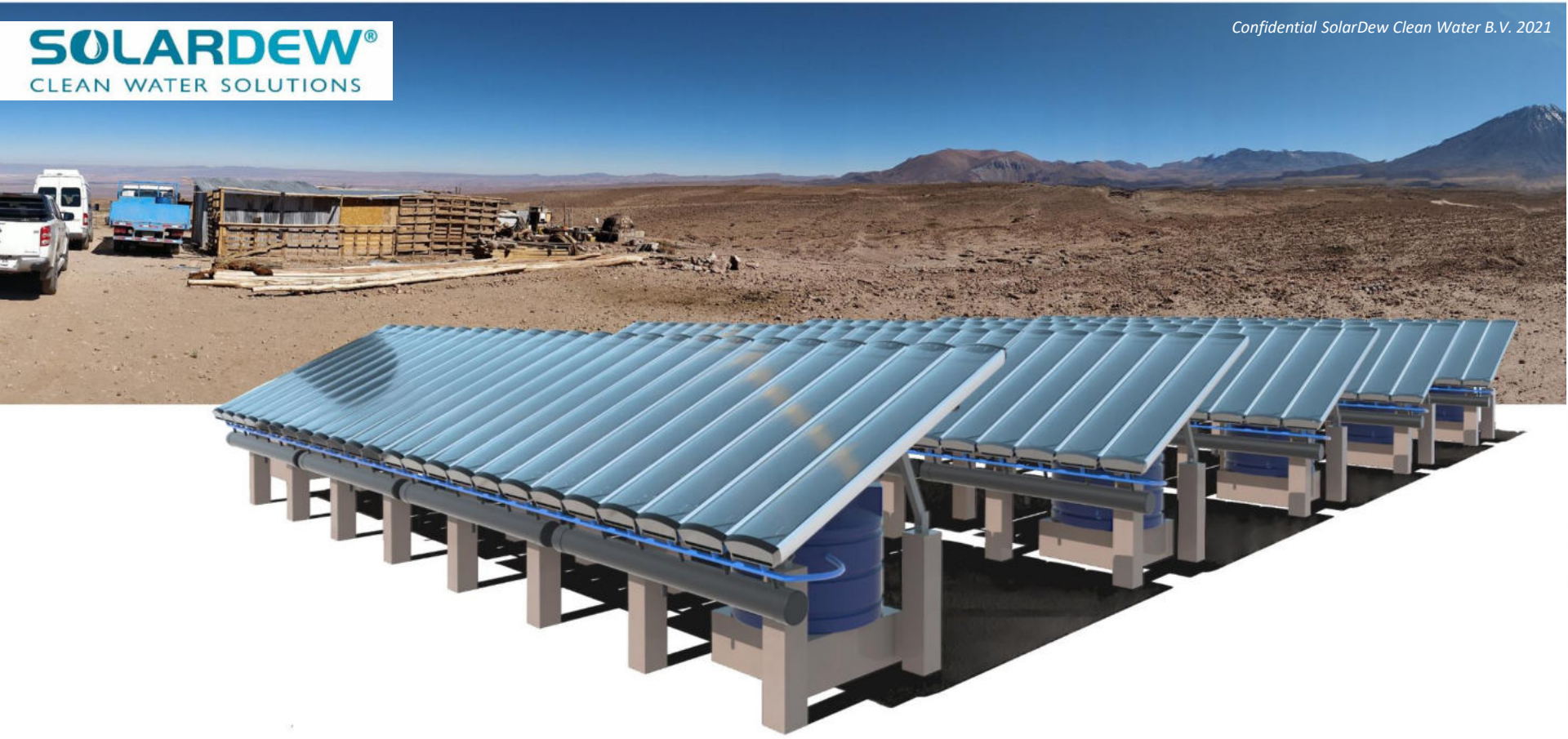
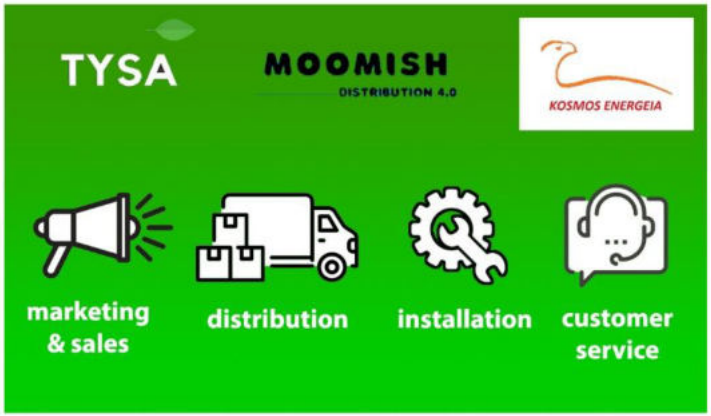


Organization



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CREATING SUSTAINABLE BUSINESS

SolarDew will generate revenue by selling their products to their local partners:

- **SolarDew** will be responsible for manufacturing, supply chain management, international marketing & sales and future product development
- **SolarDew's commercial partners,** Tysa (Chile), Moomish (Australia) and Kosmos Energeia (Greece) will be responsible for marketing, sales, distribution and after sales support in their regions
- Together we will create drinking water businesses for **local entrepreneurs**

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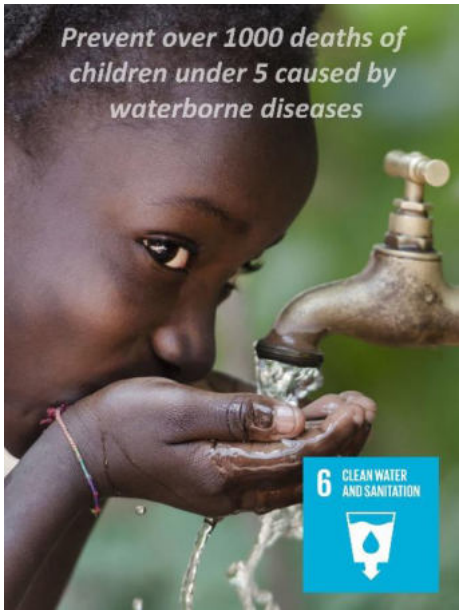
CLEAN WATER SOLUTIONS

SolarDew's Team

The team has experience in technology, product and business development:

1. **A. van der Kleij MSc:** CEO/Founder (Industrial Design, Sustainability)
2. **Drs. F.A. Croon MA:** Founder (Invest in Future, Scale Up Lab, various startups)
3. **Ir. F.W. Croon MSc:** Founder (Euro-Consult, 30 years developing countries)
4. **Prof. D. Sikkema:** Membrane Technology (TU/e, Teijin, MX Polymers)
5. **Dr. J. van Berkel:** Solar Technology (startup Solesta, TU/e, Entry Technology)
6. **T. Bleeker BSc:** Engineer (Design)
7. **T. Ntiniouris BSc:** Engineer (Laboratory)
8. **M. Potter MSc MBA:** Patents (Akzo Nobel, United Nations) - not pictured
9. **S. Lameijer:** Financial Administration (Mollie, FastNed)



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CREATING AN IMPACT

Our goal is to provide 1 million people with clean drinking water by 2030

Our vision is that:

"The growing water crisis is not only a global problem to be solved, but in doing so, it is also an opportunity for creating new and sustainable businesses and inspire local entrepreneurship"

www.solardew.com

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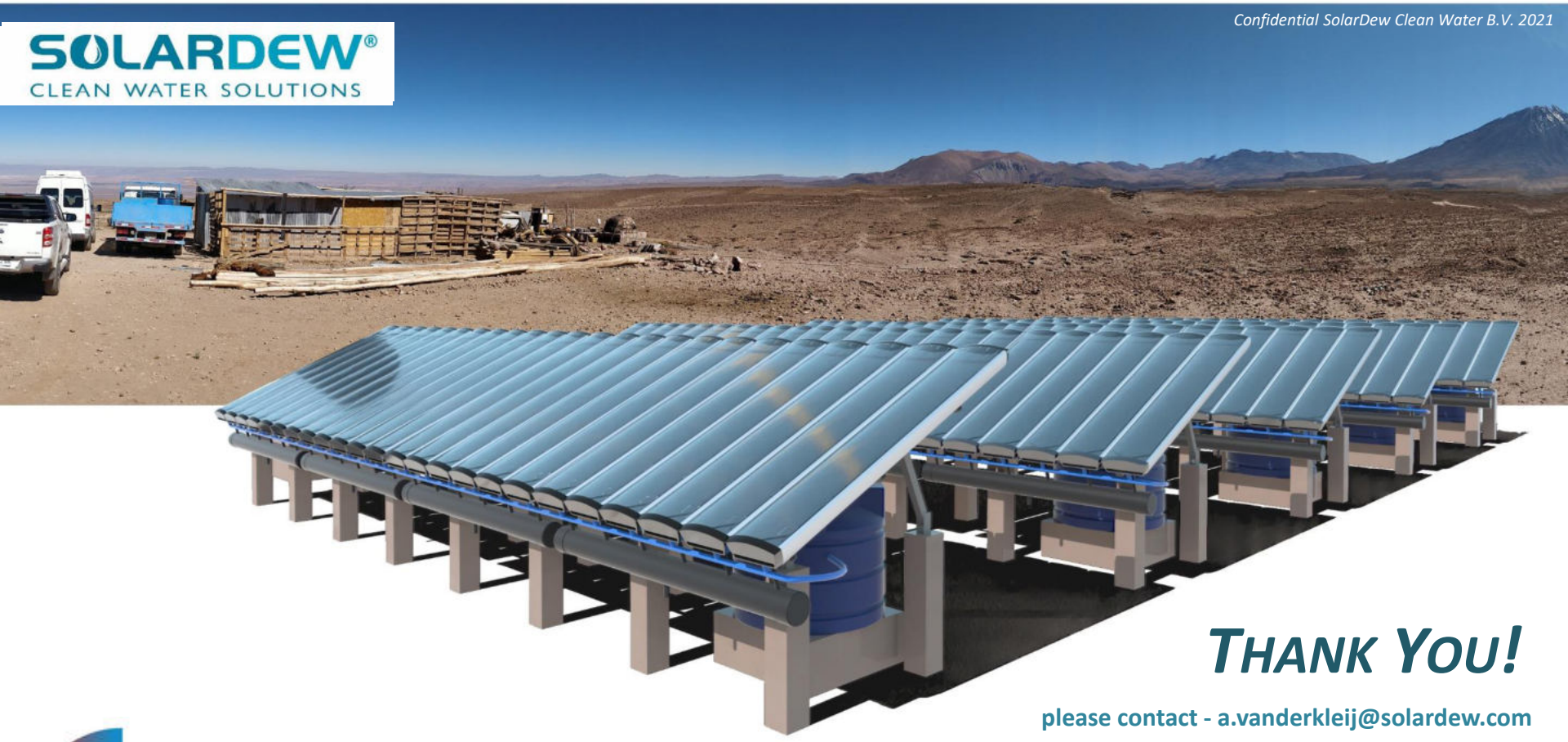

THANK YOU!

please contact - a.vanderkleij@solardew.com

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