



holaruz

The Rooftop Revolution

Holaruz company presentation



BUSINESS AMBITION FOR 1.5°C

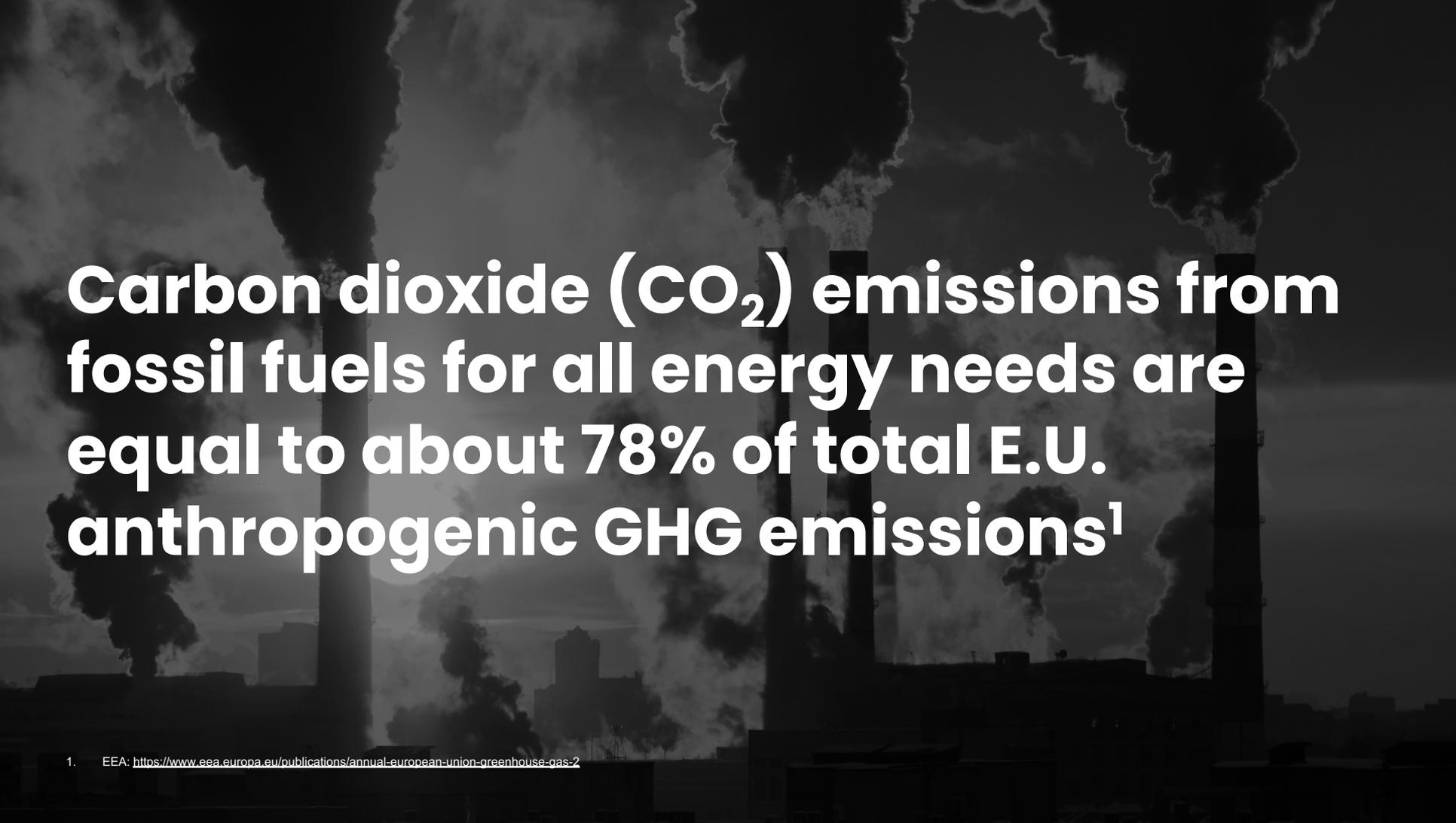


SCIENCE BASED TARGETS

An aerial photograph of a winding asphalt road that curves through a dense, green forest. The road leads towards a series of rolling mountains in the distance. The sky is filled with large, white, fluffy clouds, and the overall scene is bright and clear.

Our commitment to fully decarbonize the world

We are building **the largest and most impactful green energy community in Europe**, unleashing the full potential of electrifying energy demand by scaling distributed Solar and Storage



Carbon dioxide (CO₂) emissions from fossil fuels for all energy needs are equal to about 78% of total E.U. anthropogenic GHG emissions¹

1. EEA: <https://www.eea.europa.eu/publications/annual-european-union-greenhouse-gas-2>

Distributed Generation solves the five major challenges around decarbonization

▶ Decarbonization Challenge

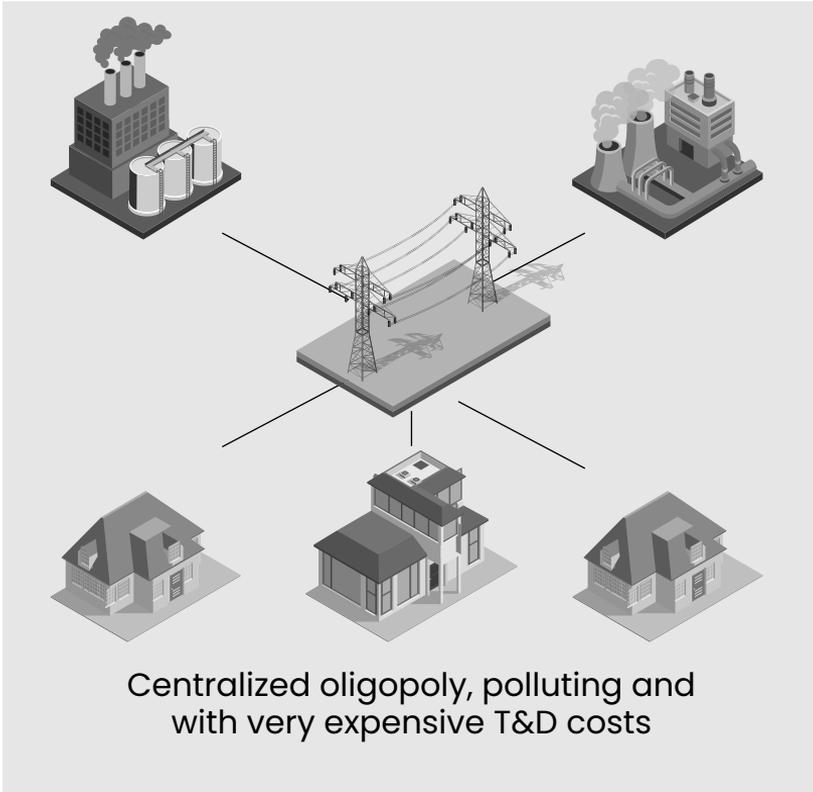
-  1 Decarbonization requires extensive **electrification** of all **energy consumption vectors**
-  2 Electricity generated for decarbonized electrification purposes needs to be of **renewable origin** and needs to be **deployed in an adequate time frame**
-  3 Substituting fossil fuel by renewable generation will require **large flexibility build-up** to manage demand fluctuations and absorb generation peaks. **Central flexibility build-up** (e.g. hydro pumping) typically requires **long planning and construction cycles**
-  4 Building large scale renewable generation assets will require **massive investments in T&D** and will continue increasing **system losses** due to **electricity transportation**
-  5 Deploying centralized renewable generation assets **dramatically reduces CO2 emissions**; however, they generate **environmental impacts** for the local communities and a relatively **low permanent job creation**

▶ Distributed Generation Opportunity

- ✓ Distributed Generation facilitates **electrification** of energy consumption for households as a **DG system combined with flexible assets** (EV car, heat pump, etc.) can **eliminate all electricity, gasoline and natural gas costs**, generating very **high savings for customers** and a dramatic **efficiency increase**
- ✓ Distributed Generation is a **proven, cost-competitive and 100% renewable electricity source** that can be **installed in 1-2 days**. There are **10 million rooftops in Spain** that could cover all Spanish **tertiary energy demand**
- ✓ Distributed Generation systems can be **coupled with a battery** (stationary or the one in the EV car) in the same installation day to **provide flexibility to the system** when coordinated in **Virtual Power Plant mechanisms**
- ✓ Distributed Generation **eliminates the needs for investments in T&D and additional renewable capacity** network as it **localizes generation and consumption**. In many European countries Distributed Generation customers are **exempt of paying T&D costs** in their **surplus electricity supplied to neighboring customers**
- ✓ Distributed Generation systems, as they are installed in **rooftops**, generate **no need for additional land resources**. Moreover, they create **permanent high value jobs** across the entire country and democratize the electricity sector

We are building the most impactful green energy community in Europe

Unleashing the full potential of electrifying energy demand by scaling distributed Solar and Storage



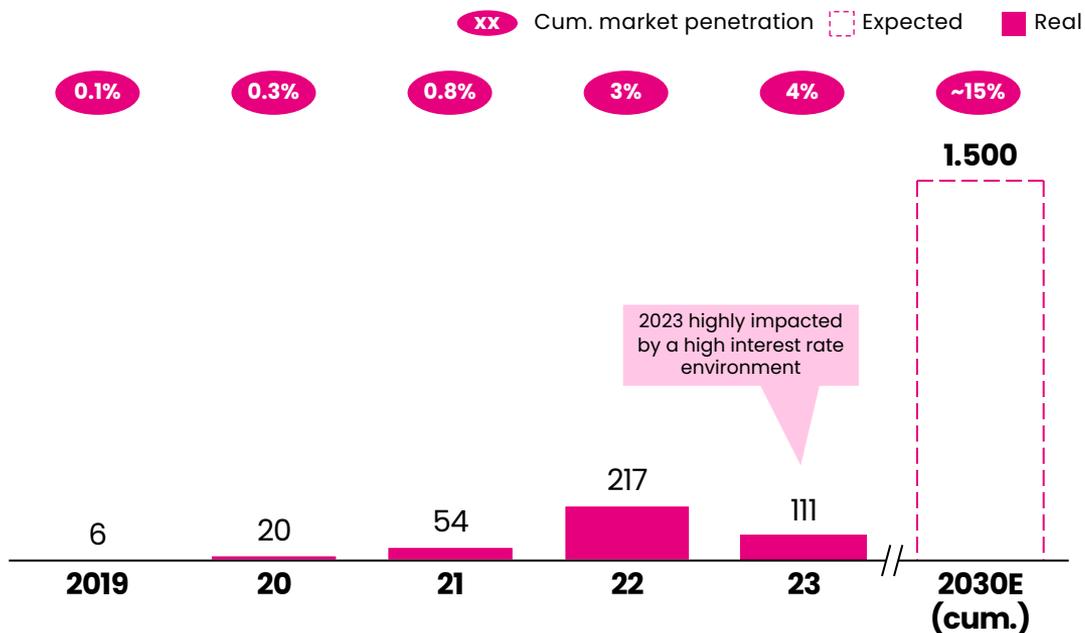
From
To



Solar installations in Spain on exponential growth trajectory while market remains vastly underpenetrated

Residential solar installations in Spain '19 – '23

Evolution of annual residential solar installations in Spain, # thousands installations¹



1. Source: Informe anual de autoconsumo fotovoltaico 2022 y 2023, APPA – Asociación de empresas de energías renovables and WoodMac Q1 2023 projections

2. Source: Internal calculations based on INE data (consulted on April 2023)

Key takeaways



- The residential solar DG market in Spain has gone through an **exponential growth curve over the last 4 years**
- The market has **grown by 3.5x per year on average** since 2019, **peaking in 2022 with a growth of 4.0x** over 2021
- The national government** has published the goal to achieve **19 GW of self-consumption installations** by 2030 (eq. to **4-5M installations**)
S&P Global Commodity Insights expects **self-consumption generation** to account for 23 TWh (18 GW) of Spain installed base
- Very significant potential** ahead given **10M installations market size²**
- Very strong tailwinds** for this market:
 - Electricity prices** are **twice as high** as in 2019
 - Currently **subsidized tax items** (VAT, IEEE) will **revert to normal levels**, boosting Solar economics
 - Subsidies for Solar** are still widely available

Holaluz ecosystem combining decentralized Solar PV and Energy Management enables our differentiated business model

A

Connect people to green energy

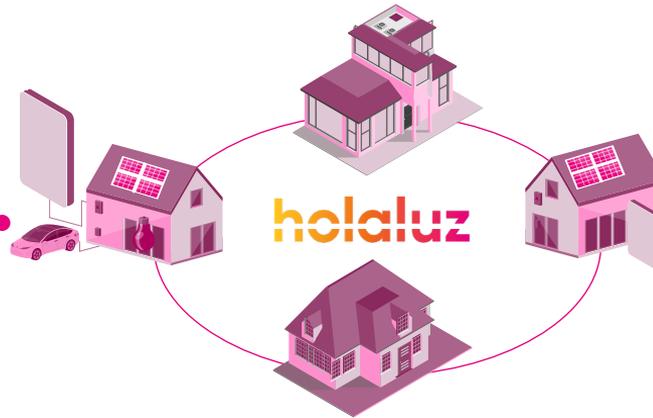
Energy Management business

Holaluz sells electricity to its Supply customers without solar installations ...

C

Holaluz technological ecosystem

... and then **centrally manages its portfolio of Solar customers** through the development of a **technological platform** aimed at optimizing **customer's production/ consumption patterns** through communication to smart assets (PV inverters, batteries, EV chargers)



**A flywheel powered by trust
And enabled by Technology**

Optimize economic value of entire portfolio

Transform every sqm of rooftop into green electricity production and storage

B

Solar business
... **buys that electricity from the surplus production generated by its Solar customers** with PV installations, whose rooftop potential is completely leveraged ...

We are sophisticating the market with our unique value proposition combining the best of Solar and Energy Management

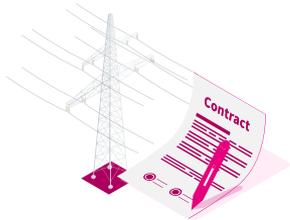
What the average player can do



Solar self-consumption installations



Flexible assets (Battery, EV chargers, heat pumps) installations with a **very limited interaction with the end user**



Basic energy management offering a **fixed price for surplus electricity**



What Holaluz can do

Distributed Generation installations **maximizing rooftop potential** to share electricity with neighbouring customers leveraging proximity network and preparing for **demand electrification**

Home Energy System operator integrating PV, batteries, EV chargers and heat pumps in our **platform** to **optimize client's electricity consumption** and **surplus sharing**

Virtual Power Plant operator leveraging our installed fleet of batteries to **participate in balancing, wholesale and capacity markets**

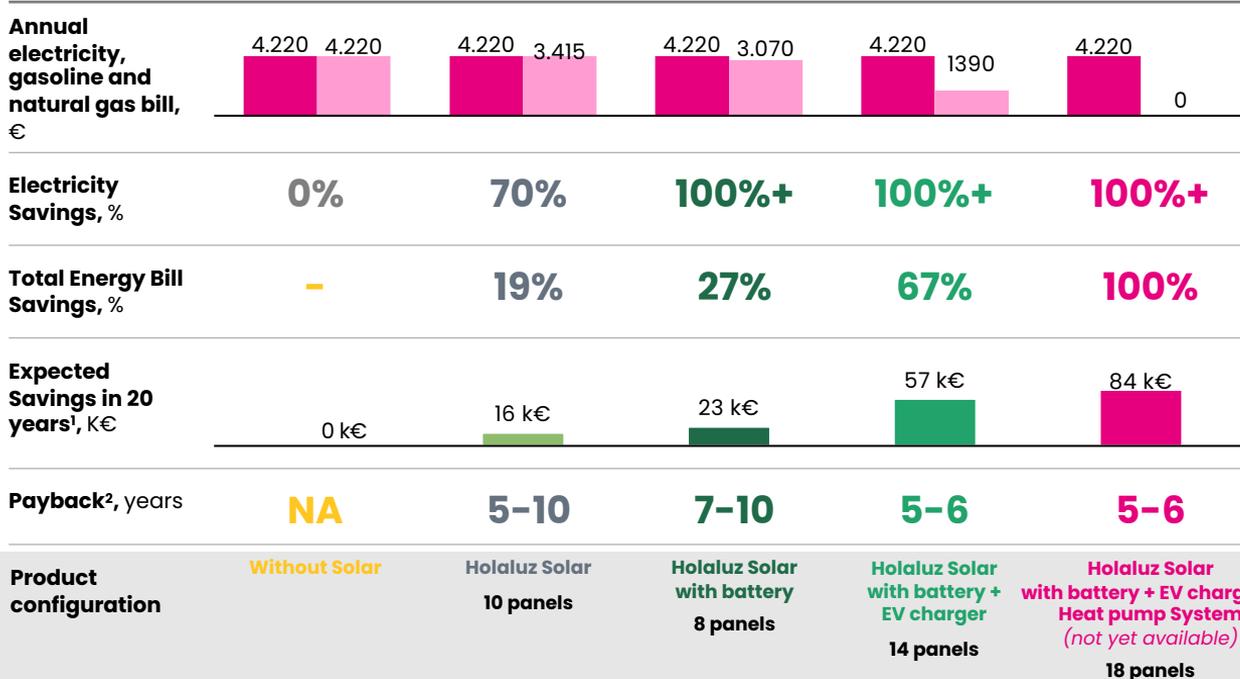
Most competitive **subscription-based energy management** product ("Tarifa Justa") leveraging the **ecosystem** of **decentralized producers-consumers** benefitting from **proximity network regulation** to skip **T&D costs**

We offer a superior product that delivers maximum savings to our customers



Highlights

Key KPIs per product type



- Current typical client consumption profile
 - Consumption: 4 MWh/y
 - Electricity Bill: 1.440 €/y
 - Gasoline: 1.680 €/y
 - Natural gas: 1.100 €/y
 - Total: 4.220 €/y
- The **value proposition for Solar customers** is greatest with larger installations: **total savings** over installation lifetime **improve substantially**.
- When adding **storage**, total savings improve significantly as **we are the only player who can provide 100% savings on energy consumption**.
- When combined with the **EV car** savings are maximized as the **installation can provide enough electricity to power the electric car** and save the equivalent cost in gasoline. Idem when adding **heat pump** systems to replace natural gas
- As **electrification increases**, energy consumption and thus **savings from Solar increase**.
- Any **change in electricity prices** of +/- 10 €/MWh **only changes pay-back by ~0.4 years**, making Solar resilient to changes in electricity prices

1. Includes electricity and gas savings
 2. Number of years to compensate initial investment

We have the greatest value proposition

Customer value proposition includes 70%+ savings and an end-to-end customer relationship where we install within 45 days and manage electricity with a #1 ESG 100% guaranteed renewable energy subscription-based product

Savings

We provide the **maximum savings** (70%+ savings for 75%+ of our customers) to our customer through **rooftop maximization and energy management of flexible assets**



End-to-end customer relationship

We manage the **end-to-end installation journey**, delivering our solar systems in less than **45 days** for most customers

Solar systems are constantly monitored thanks to our **technological platform** and our **maintenance product** to ensure maximization of **customer lifetime value**



Subscription-based

We are the only player to **guarantee the savings delivered to our clients** after solar installation through a **monthly fixed subscription-based invoice** (Tarifa Justa), leveraging our **heavy use on technology and data**. We are working on launching a **“solar as a service”** product without upfront cost to further increase Solar affordability



Sustainability

We guarantee all our **electricity is sourced from 100% renewable origin**, both from neighbouring decentralized customers and centralized PPA plants

We are the **#1 ESG player worldwide** in our category. Sustainability is ingrained in our DNA and is at the **core of all business decisions**



+13 years of Holaluz as a GreenTech leader

To ~Flexible assets
~Electrification
of energy demand and
sector coupling
beyond 2024

holaluz

Holaluz

Opiniones 4889 • Muy bueno



EMPRESA VERIFICADA

2022
Delivering the most impactful green energy **community** in Europe

2020
#1 in ESG worldwide by Sustainalytics

2011
Green Natives

2016
Values and customer centric

2017
Self-consumption

2021
The Rooftop Revolution

2019
IPO

2018
Sun tax elimination
1st shared selfconsumption Bcorp

2023
Focus on **unit economics** to lay foundations for **scaling up**
Strategic partnerships with Tesla and Santander

#1

ESG ranking



Pacto Mundial
Red Española



SUSTAINALYTICS

First utility in the EU energy company to obtain **B Corp certification in 2018**.

EcoVadis Gold Medal for its performance in sustainability, obtaining a score of 73/100.

Aligned with **SDG agenda 2030**, with great contribution on 9 SDG

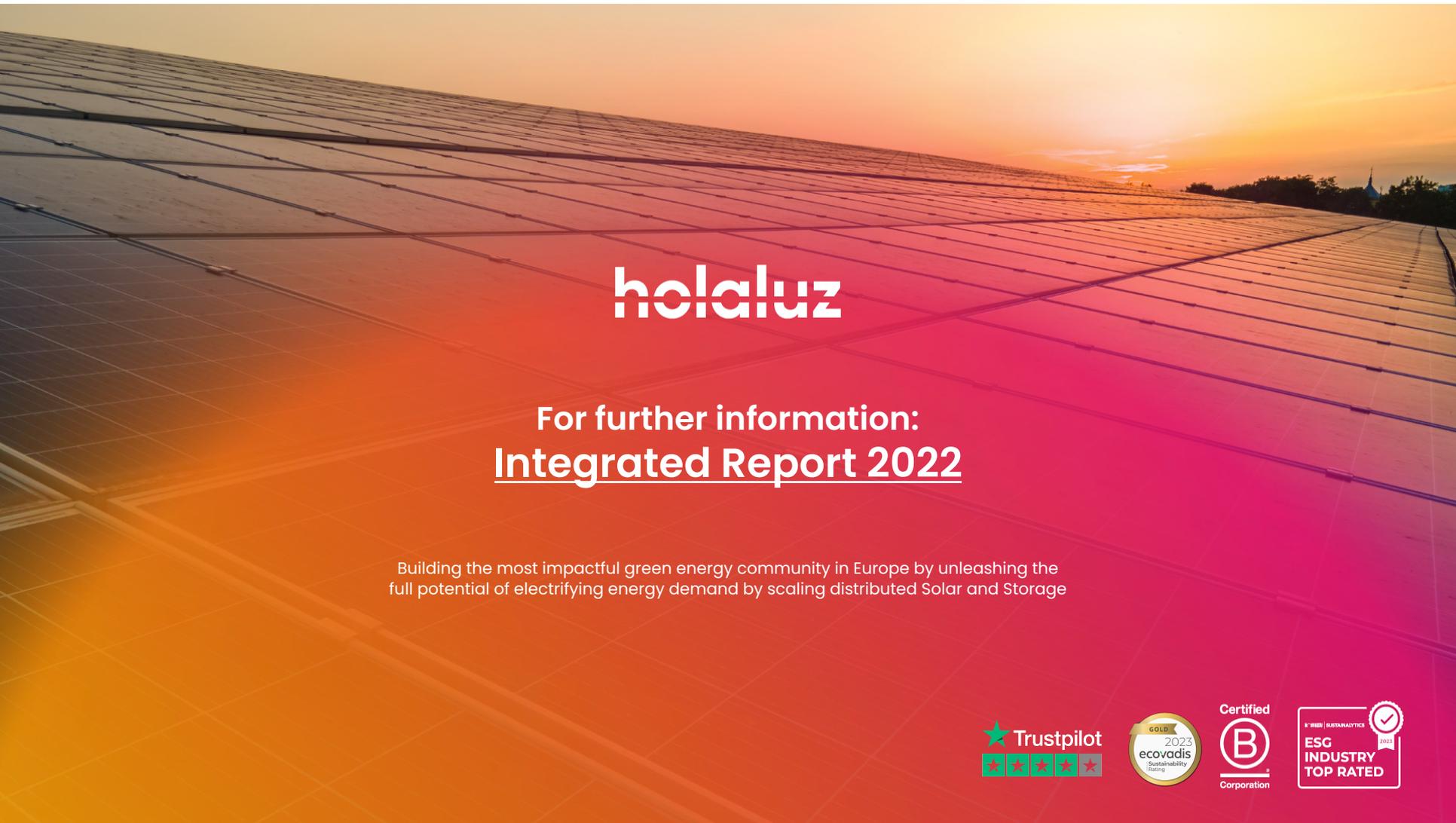
Signatory Member of **UN Global Compact**

Future participation in **Conscious Capitalism Conference**

Business case published by Harvard Business School in 2021 and IESE Business School

“One of the 100 most creative businesses”

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For further information: Integrated Report 2022

Building the most impactful green energy community in Europe by unleashing the full potential of electrifying energy demand by scaling distributed Solar and Storage

