



APEIRO ENERGY

Apeiro Energy is a DPIIT and Department of Science and Technology Supported startup formed in 2021 with a vision to solve Energy Inequality and achieving Energy Independence. We are the first company in India to build patent pending small wind vertical axis wind turbine technology. Started by passionate engineer with an intent to help community and have meaningful impact.



ENERGY INEQUALITY

Villages in India : 640,932 | 96% < 16 Hour Daily Electricity

GRID DEPENDENCY GRID INFRASTRUCTURE LIMITATION FOSSIL FUEL DEPENDENCY

THE SOLUTION: CLEAN ENERGY POWERED HYBRID MICROGRIDS AND MINIGRIDS



30 kW to 100 kW

Hybrid Micro and Mini-grids in Villages

Affordable Tariff Rate : Rs 4-6 per kWh

Localized Energy Generation

100% Grid Uptime

Local Economy Boost

iWind Hygrid

Wind-Solar Hybrid Micro and Mini Grids

- Grid Connected
- Islandic

Technology Fundamental

- Starts at 1.5 m/s
- 30% to 40% rated production at 5 – 6 m/s
- Rated production at 8-9 m/s
- 20 Years Operation Life
- LCoE, INR 3-5 kWh

Apeiro Energy Proprietary Tech Stack

- iWind Hybrid Control System
- iWind Low Cost Generator Unit
- iWind On-grid and Off-grid Integration Systems
- iWind Smart Monitoring System, IoT Remote Monitoring



Active Projects : 5, Total 50 kW iWind Hygrid

Scale this to 6000 villages in India by 2029

Impacting lives of 7.8 Million people



iWind Powered by CFD

4000+ hours of simulation runtime

450+ Simulation Studies

- 2-D Transient Analysis
- 3-D Transient Analysis

Design and Simulation Tools

ANSYS Fluent ANSYS CFX Altair Hypermesh

ANSYS Mechanical Xfoil NACA Database SolidWorks

Supported By



CLINTON GLOBAL INITIATIVE



Stanford|Seed
Stanford Institute for Innovation in Developing Economies



IRENA
International Renewable Energy Agency



TATA POWER



Department of Science & Technology

SOCIAL alpha

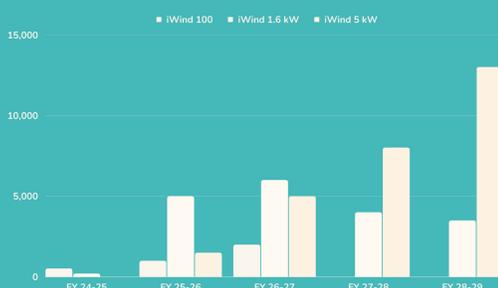


HDFC BANK
PARIVARTAN
A step towards progress

#startupindia



By 2025, Our 50,000 Turbines will save 785,000 Ton of CO2 emissions



Revenue of USD 130 Million by sales of iWind 100, iWind 1.6 kW and iWind 5 kW Hybrids

Apeiro Energy Pvt. Ltd.

www.apeiroenergy.com

Contact,
Kalpit Prajapati
Co-Founder and CEO
(+91)-999080821, kalpit@apeiroenergy.com



Developing Voluntary Carbon Credit Markets

Digital MRV (Monitoring, Reporting and Verification) for the African Carbon Credit Market

Authors

Peace Bello (CEO), Victor Olufemi (CTO), Grace Omojola (CIO)

Affiliations



CHEMOTRONIX



OBAFEMI AWOLOWO UNIVERSITY



UNIVERSITY OF EASTERN FINLAND

UNIVERSITY OF EASTERN FINLAND

INTRODUCTION

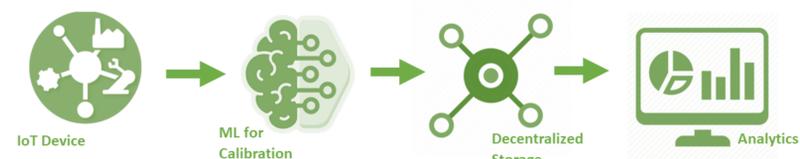
Chemotronix is an emerging climate technology startup dedicated to addressing the critical issue of climate change. Our primary mission is to reduce carbon emissions, foster sustainable energy solutions, and make a positive impact on the environment. We are implementing digital measuring, reporting and verification (dMRV) technologies to ensure the proper issue of carbon credits (in line with the African Carbon Market Initiative) and facilitating clean energy projects which allow communities to thrive in eco-friendly environments. The urgent need to combat climate change inspired the creation of Chemotronix, while Africa contributes fewer carbon emissions globally, it faces disproportionate vulnerability to climate impacts. This unique dynamic motivates us to harness Africa's potential as a carbon sink while simultaneously enhancing regional development. We aim to deploy renewable projects in 10 local communities and 5 urban communities, impacting at least 20,000 individuals yearly.

METHODOLOGY

Carbon Emissions Tracking:

Our carbon emissions tracking approach relies on a robust blend of IoT technology, machine learning, blockchain, and decentralized data storage.

Carbon Emissions Tracking

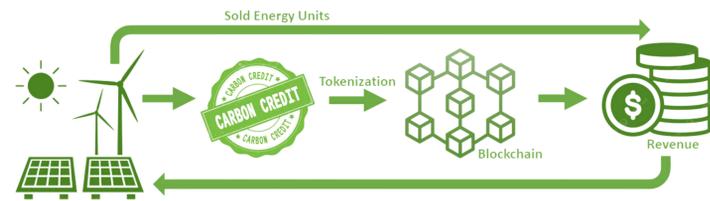


- IoT Device Deployment:** We strategically position low-cost IoT devices equipped with an array of sensors in various locations. These sensors include MG811, MQ9, MQ7, MQ135 for carbon dioxide (CO₂) and carbon monoxide (CO) detection, and BME280 for humidity and temperature monitoring. These devices continuously collect environmental data.
- Machine Learning Calibration:** To ensure the accuracy and reliability of our emissions data, we employ machine learning algorithms. These algorithms calibrate the sensors, we translate raw sensor data into precise measurements of CO₂ and CO levels. This process enhances the overall quality of our emission data and ensures its reliability for decision-making.
- Decentralized Data Storage:** To safeguard data integrity, we utilize the Interplanetary File System (IPFS), a decentralized and tamper-proof storage solution. All calibrated emissions data is securely stored in IPFS, guaranteeing its authenticity and preventing data manipulation.

Carbon Credit Generation:

In parallel with emissions tracking, we embark on renewable energy projects to generate carbon credits, contributing to emissions reduction and carbon neutrality.

Carbon Credit Generation

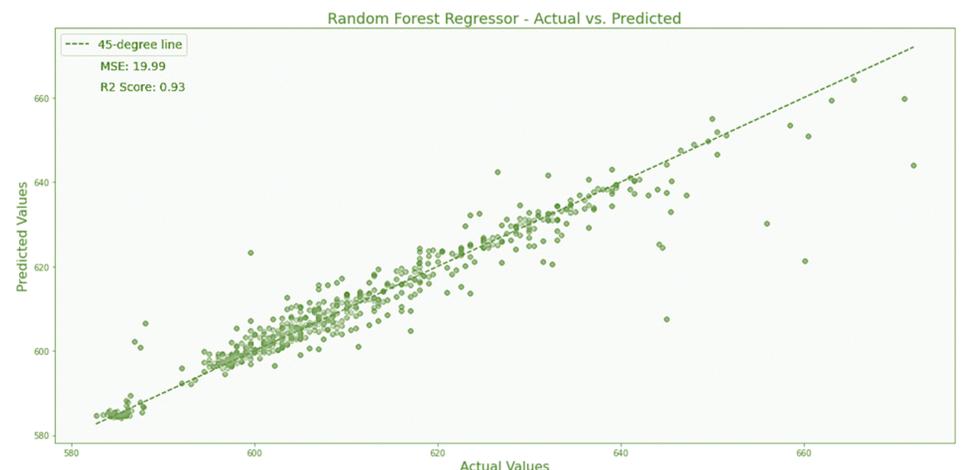


- Renewable Energy Projects:** We initiate renewable energy projects, such as solar farms, in rural and underserved communities. These projects generate clean energy, reducing carbon emissions associated with fossil fuels.
- Carbon Credit Tokenization:** The generated carbon credits undergo a meticulous verification process to ensure their validity. Once verified, these credits are tokenized on our blockchain platform, creating a transparent marketplace for carbon offset transactions. This blockchain-based approach guarantees the traceability, ease of sale, and authenticity of carbon credits.

RESULTS & INSIGHTS

Our journey is marked by significant achievements and invaluable insights:

- Technological Breakthrough:** Chemotronix has developed an IoT device that reduces monitoring costs by a remarkable 90%, democratizing emissions tracking and facilitating scalability. We also achieved a high R² Score of 93% for IoT device calibration with machine learning.



- Expansive Dataset:** Our ongoing efforts culminate in the compilation of a dynamic dataset, offering real-time insights into evolving carbon emissions trends.
- "Photizo" Project:** Our pilot project, "Photizo," aims to illuminate communities in Ibadan, Nigeria, with clean energy, setting a precedent for sustainable development.

CONCLUSION

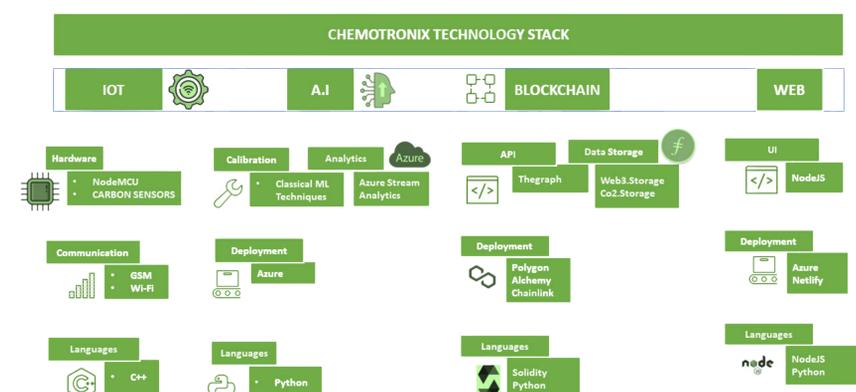
Chemotronix offers a multifaceted approach to addressing climate change, combining emissions tracking and carbon credit generation. This not only presents a lucrative revenue source for Africa but also empowers underserved communities with access to clean energy.

FUTURE DIRECTIONS

Our future endeavours involve expanding renewable energy projects and exploring the potential of hydrogen fuel. Furthermore, our adaptable IoT technology can be deployed worldwide, benefiting regions seeking to monitor and reduce carbon emissions.

REFERENCES

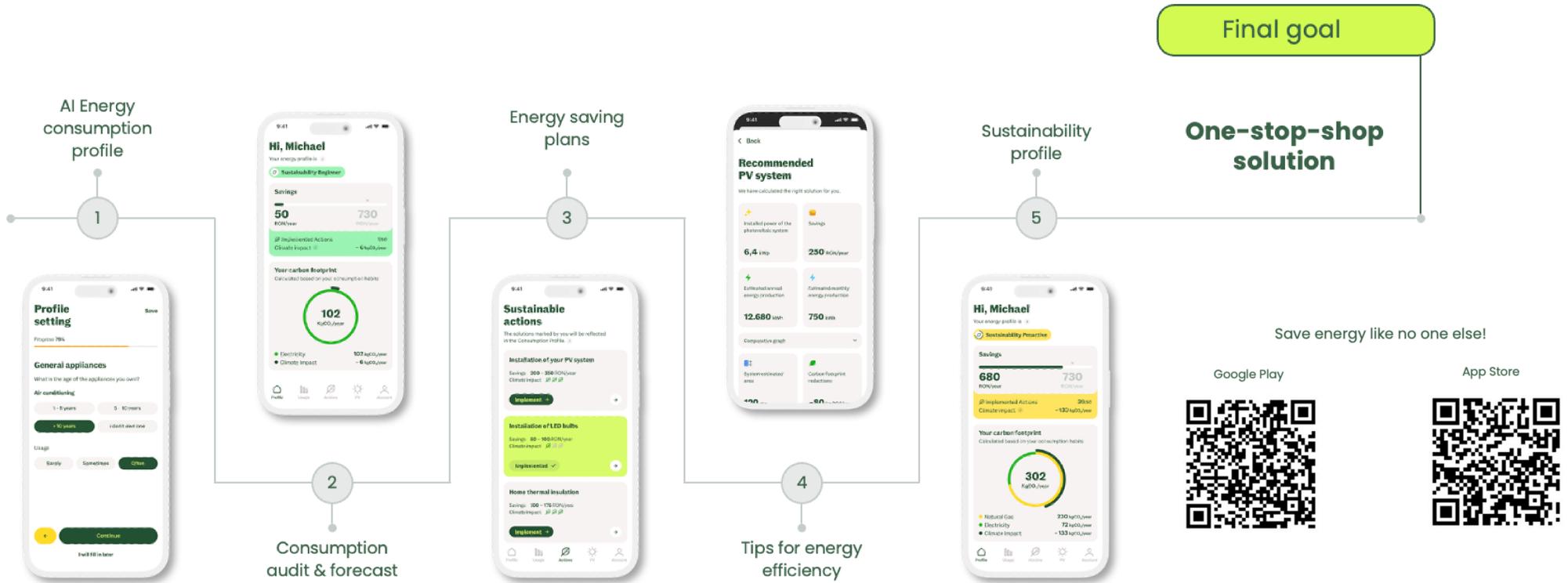
- ACMI Report,
- WEF White Paper April 2023 (Blockchain for Scaling Climate Action),
- WEF Guidelines for Improving Blockchain's Environmental, Social and Economic Impact- Insight Report, April 2023



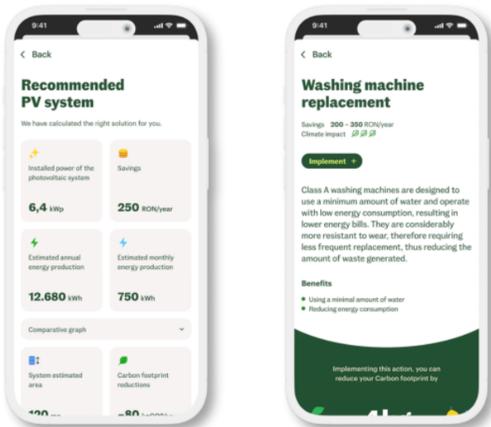
Renergia

The first app that gives you the power to cut off your energy bill and save money.

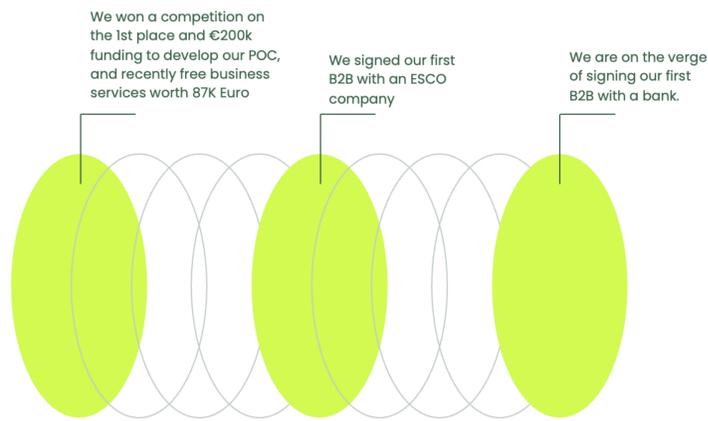
How it works?



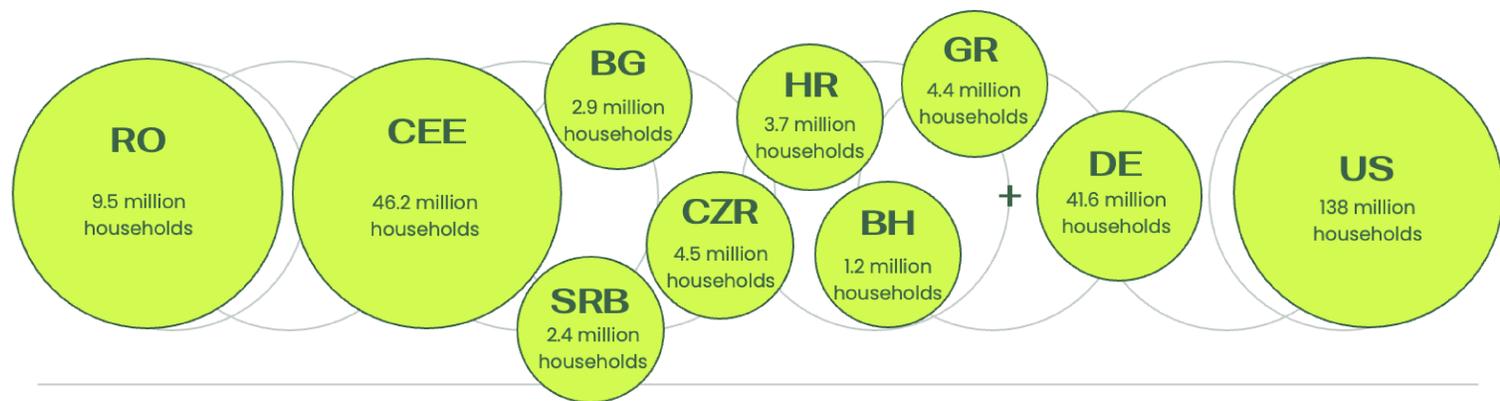
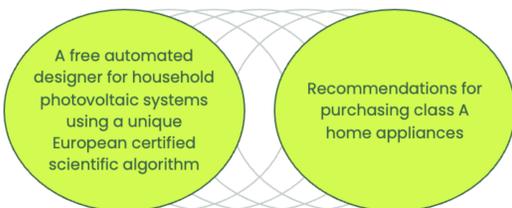
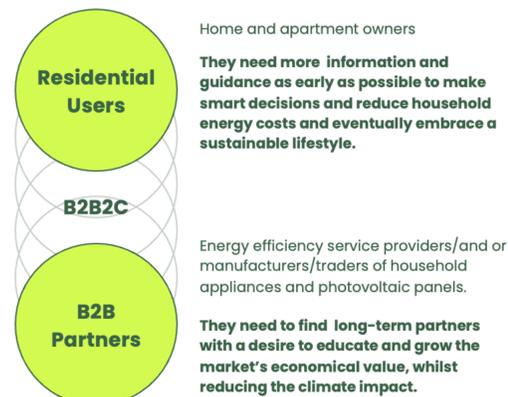
Our hero products



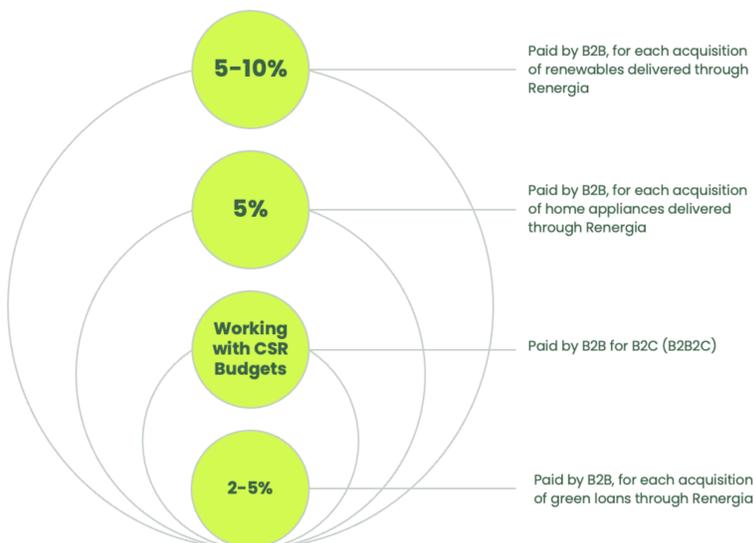
Concept Validation



Target Market



Revenue Streams



The Team



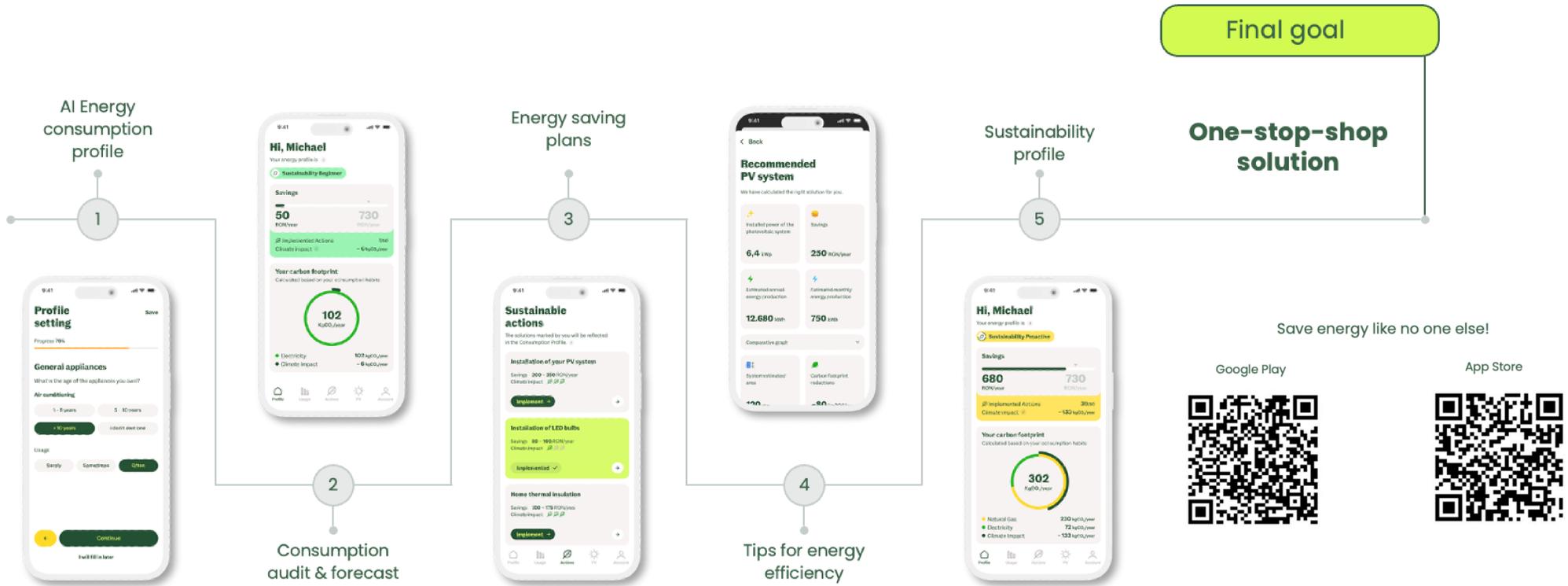
Dacian I. Jurj (Dr. Eng.) Co-Founder / COO Former Head of Business at AlphaBlock Technologies Inc. AI Specialist with more than 10 years in the start-up industry.	Alexandru Mureșan (Dr. Eng.) Co-Founder / CEO Sustainability Engineer and Researcher/Energy Specialist, Urban Energy Manager, Research Assistant at TUCN.	Elena Hurjui CMO 20y marketing experience in leading brand comm for over 40 international tech companies (including unicorns & Series A+ startups) and global consumer brands.	Dan D. Micu (Dr. Eng. Mat. Prof.) Research Director Double Fulbright Fellow, lectured at more than 50 Universities all over the world, Project Manager at 8 Horizon2020 Projects.	Andrei Ceclan (Lect. Dr. Eng.) Strategic Partner Lecturer at TUCN. President of the Romanian Society of Energy Auditors and Managers. Board Member in the Romanian Fund for Energy Efficiency. Urban Energy Manager.	Tudor Vesa CTO Multi-disciplinary leader with 15+ years of experience in software dev, software architecture. Leading high-performing teams to drive development of world-class platforms.
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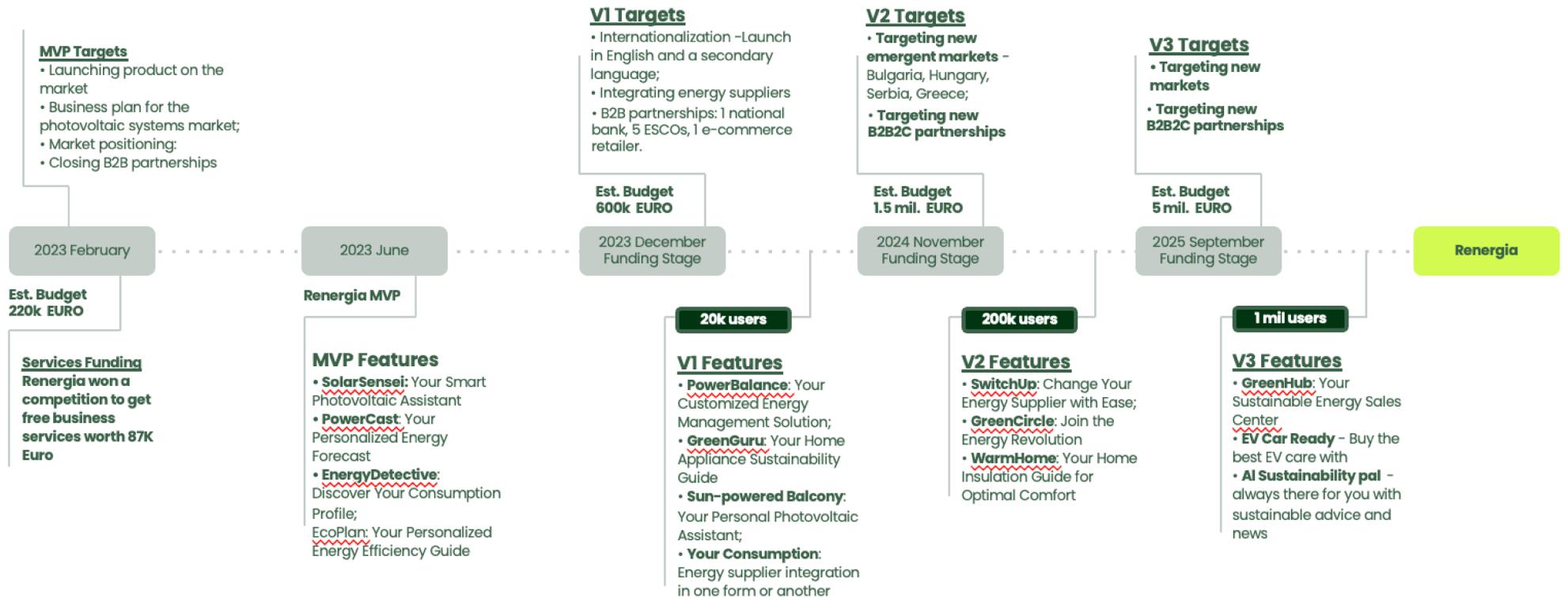
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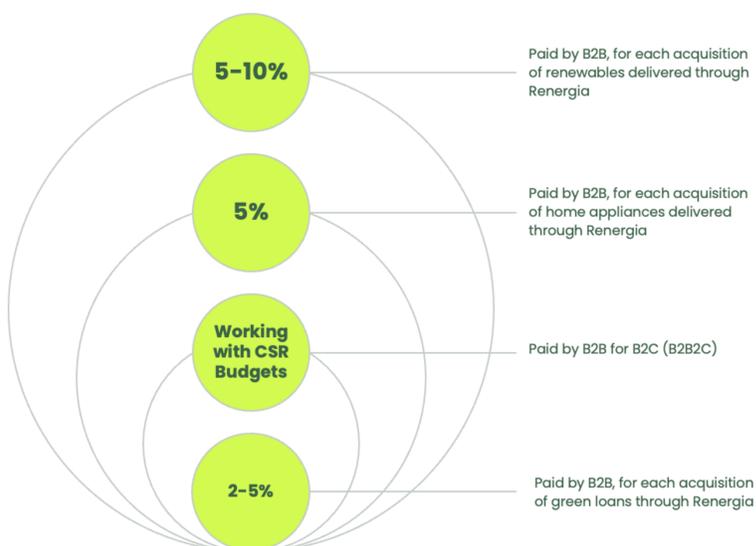
How it works?



Roadmap

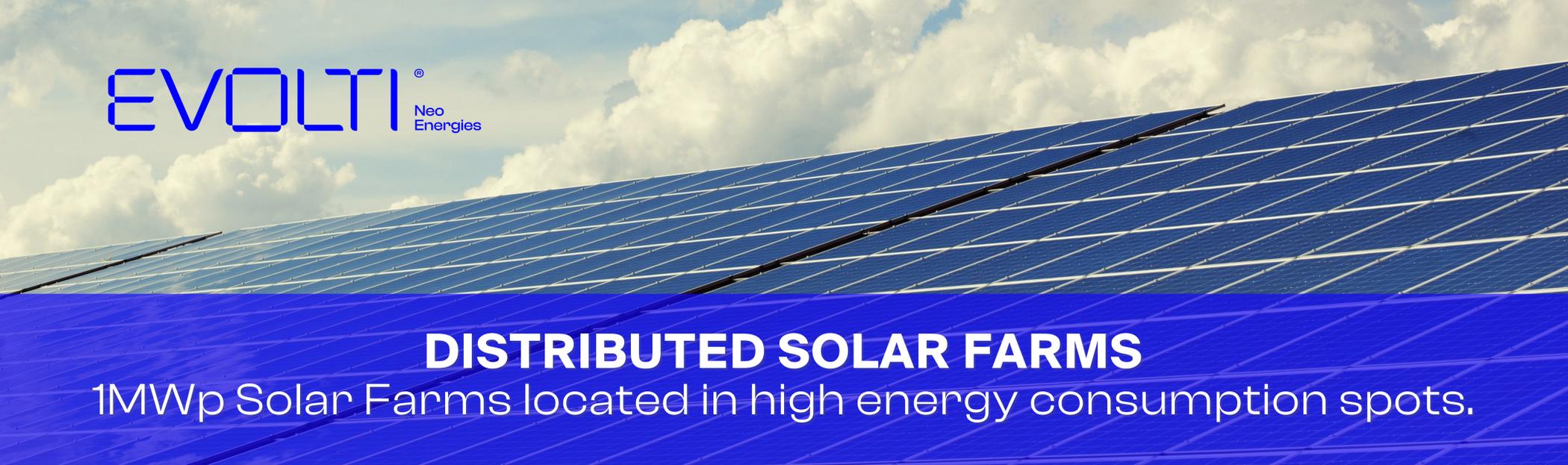


Revenue Streams



The Team

					
Dacian I. Jurj (Dr. Eng.) Co-Founder / COO	Alexandru Mureşan (Dr. Eng.) Co-Founder / CEO	Elena Hurjui CMO	Dan D. Micu (Dr. Eng. Mat. Prof.) Research Director	Andrei Ceclan (Lect. Dr. Eng.) Strategic Partner	Tudor Vesa CTO
Former Head of Business at AlphaBlock Technologies Inc. AI Specialist with more than 10 years in the start-up industry.	Sustainability Engineer and Researcher/Energy Specialist, Urban Energy Manager, Research Assistant at TUCN.	20y marketing experience in leading brand comm for over 40 international tech companies (including unicorns & Series A+ startups) and global consumer brands.	Double Fulbright Fellow, lectured at more than 50 Universities all over the world, Project Manager at 8 Horizon2020 Projects.	Lecturer at TUCN. President of the Romanian Society of Energy Auditors and Managers. Board Member in the Romanian Fund for Energy Efficiency. Urban Energy Manager.	Multi-disciplinary leader with 15+ years of experience in software dev, software architecture. Leading high-performing teams to drive development of world-class platforms.



DISTRIBUTED SOLAR FARMS

1MWp Solar Farms located in high energy consumption spots.

ENERGY SECTOR CONTEXT IN COLOMBIA



84% Colombia's energy comes from Hydroelectric Power Plants



High vulnerability to climatic phenomena such as El Niño



New installed capacity is not being added fast enough to meet demand



Accelerated increases in energy prices (up to **149%** this year)

COMMON SOLUTIONS

Distributed self - generation



- High costs of investment
- Unused area needed (roofs)
- High electrical and legal requirements

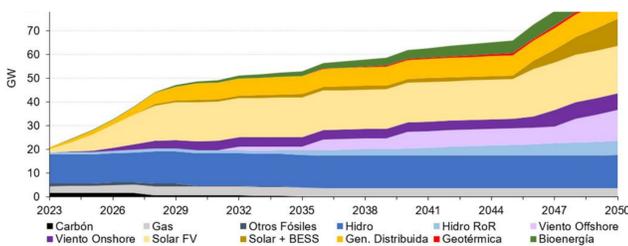
Utility-scale solar farms



- Socio-environmental impacts
- + 4 years development time
- High investment

65% Renewable projects delayed | Saturated electrical grid | Increased demand

OUR SOLUTION: POWER GENERATION WITH QUICK START-UP SOLAR MINI FARMS



Market of more than 70GW in distributed generation by 2050

(MME, 2023)



- Smaller area - Less impacts
- Less grid saturation
- 1 year construction time
- Regulatory benefits

We seek to develop 500 mini-farms by 2035

Current portfolio of 8 mini farms



610.403 homes supplied



579.600 ton CO2 eq / year



+ 20 Local jobs per project

ABOUT US

+30 Consolidated team

+40 Solar projects constructed

USD \$1M

Secured for PV Systems

CO - FOUNDERS

[Juan España \(CEO\)](#)

[Hermann Souza \(CGO\)](#)

[Daniel Medina \(CBO\)](#)



Contact us



www.evolti.co



GILSUN TECHNOLOGIES

“Healthy and safe cooking technology for the environment”

Introduction

Due to an increase of air pollution, land degradation, deforestation, Healthy issues and accidents caused by the wrong cooking methods to family and house holds, at ,Gilsun Technologies we came up with solution of building biogas systems that produces gas from manure (cow dung, Human fesses and food remaining) that is used as source of clean cooking through clean gas..

01

Method

We are creating / building a biogas system that is used to produce 100% clean energy that is used as source of energy for cooking and power. By the use of blocks, Digester Tank, Inlet System, Mixing and Stirring Equipment, Gas Holder or Storage, Outlet System, Piping and Valves, Monitoring and Control System and more depending on the system we are building

02

our mission

90% of Tanzanian households currently are use charcoal or firewood for cooking and that's why our main mission is to help solve the challenges they are facing with the fact that about 1.16M Hectares of forest land has been lost between 2015-2020 with too much effect on climate. We are on mission to solve the issue by serving a min of 50% of the population based in North and central part of Tanzania who are mostly livestock keepers

03

why choose us?

Gilsun Technologies is a renewable energy private company registered in Tanzania specializing in the construction of biogas systems. We consult, design, construct and install renewable systems to provide clean, environmentally friendly and affordable energy solution to improve people's livelihoods

04

Leading Team



Eng. Suzan Munuo
Founder and CEO of Gilsun Technologies with 6 years Experience in renewable energies business and activities.



Faraji H. Emily
Projects Coordinator with 10+ Years Experience in Business development and Innovations.



Sesilia Temu
Environmental officer with an experience of more than 5 years working with government and other stakeholders in Environment issues

GREEN POWER PLUS

THE FIRST EXPERT NETWORK IN CLEAN ENERGY AND FINANCE LEVERAGING GENDER EQUALITY FOR PLANET, PEOPLE, AND PROFIT THROUGH AI FOR GOOD

Dr. Esmeralda Colombo, Esq., Co-Founder and CEO, GP+
Natalie Sperber, Co-Founder and COO, GP+

INTRODUCTION

CLEAN ENERGY

There could be 300 million green collar jobs by 2050. 100 million jobs are in clean energy (IRENA and ILO, 2022).

SUSTAINABLE FINANCE

The annual cost of sustainable finance is projected to increase to between USD 315 billion and USD 565 billion by 2050 (Europarl, 2023).

Although women's skills are key to our net-zero future, women are underrepresented in two key sectors in just transition scenarios: clean energy and sustainable finance. There are 76% fewer women than men working in the energy sector (IEA 2022). Finance features only 10.3% women among its thought leaders (Adams and Xu, 2022).

Green Power Plus (GP+) is the first expert network dedicated to elevating women in the green energy and finance spaces. GP+ is a community with a double hat. **First**, it offers governance-based programs to integrate sustainability and gender equality in organizational culture. **Second**, it simplifies the connection between women talent and industry needs by finding a match when corporate and institutional actors are looking for a new hire, harnessing AI for Good. Headquartered in Milan, it caters to corporate and institutional actors while providing a supporting community for workers to shape a net-zero future.

OUR RESULTS ARE TWO KEY SERVICES



RISE TO A SEA OF POSSIBILITIES GP+ tackles the social side of the Green Deal

Meet the people leaving their carbon-intensive roles behind, as well as the hyper-qualified women in green energy and finance that traditional HR channels are failing to empower.

Viewing the Sustainable Development Goals (SDGs) as the world's matrix toward which societies, companies, and governments are striving toward by 2030, GP+ has a direct impact on SDG5 (gender equality), SDG7 (clean energy), SDG8 (decent work and economic growth), SDG9 (industry, innovation and infrastructure), SDG10 (reducing inequality), and SDG13 (climate action).

Our network has indirect impacts on SDG3 (health and well-being), SDG12 (responsible consumption and production) and SDG16 (inclusive institutions).

Considering the interlinkages among SDGs, our network leverages SDGs 5, 9, 10 and 16 to accelerate SDGs 7 and 9, and contribute to advances in SDGs 3 and 23. All at scale and speed.

NET-ZERO INDUSTRY ACADEMY

Our NZIA offers governance-based programs to integrate sustainability and gender equality in organizational culture, all at once.

CONCLUSION

Limitations, Milestones and Way Forward

Our two-year action plan includes three partnerships in place with key corporate and institutional actors (Dec 2023), the launch of our AI-based talent platform Robin in a beta and build version (Jul 2024), the platform launch in English and Italian (Jan 2025), Spanish and Norwegian (May 2025), Hebrew and French (Sept 2025).

GP+ turns the dial on gender equality in sustainability sectors as a cross between a women's talent scout and a credible innovation specialist involving the entire workforce.

It creates a supportive community of practice through a specialized AI-based talent platform and a net zero industry academy.

Reach your highest potential and be in touch!

LinkedIn

www.linkedin.com/company/gpplusspace

Twitter

@gpplusspace

Instagram

@gpplusspace

THANKS

We would like to thank the IRENA for selecting and showcasing our business

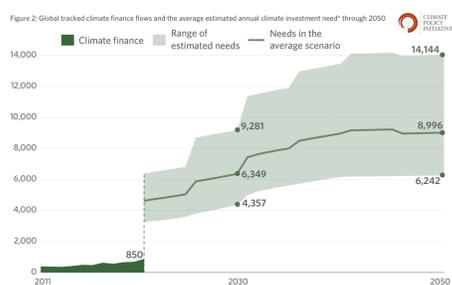
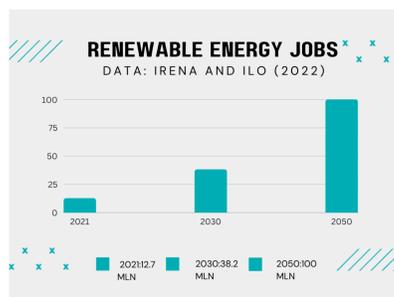
First graph: GP+

Second graph: Climate Policy Initiative

First picture: sam-moghadam-khamseh, Unsplash

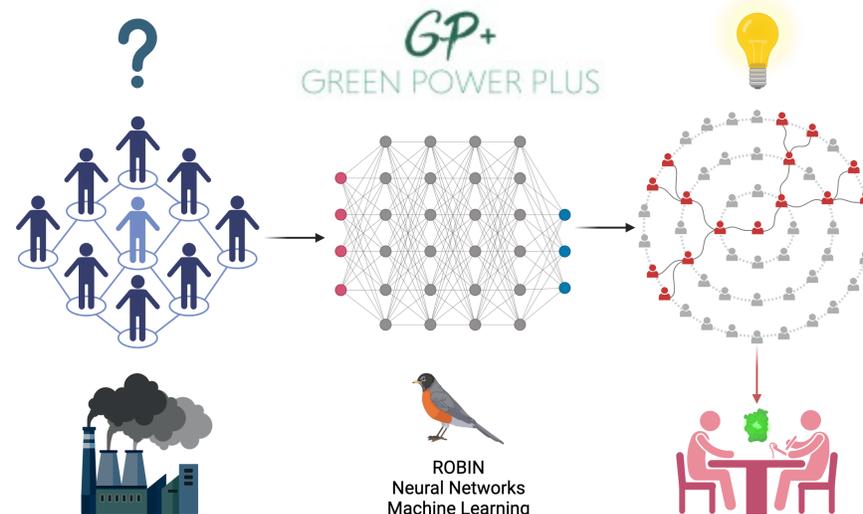
Second picture (clockwise): sherman-yang, Unsplash

Third picture (bottom): E. Colombo, BioRender



METHODS

- KPIs for team self-growth
- Coaching
- Network
- Post-classes chats
- Capability approach
- Organizational culture and deviance
- AI for good
- TEDx talk-style



ARTIFICIAL INTELLIGENCE

Through our matching platform, Robin, we seamlessly connect female green talents to net-zero industry needs.



GREENFLUIDICS

INTELLIGENT SOLAR BIOPANEL

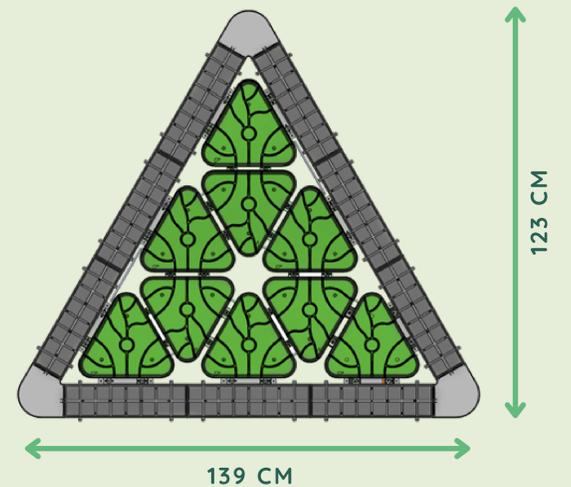
Founders: Adan R.S., Richard U., Miguel M.R.
 Email: adan.ramirez@greenfluidics.com

Our living façades merge biotechnology and solar energy to create a vanguard design that generates energy and mitigates carbon footprint.

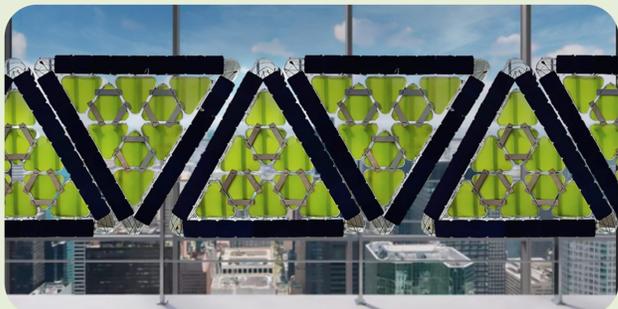
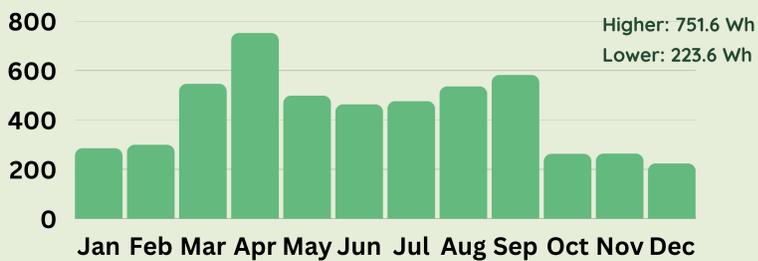
We aim to revitalize buildings in sustainable cities with this circular economy based on microalgae and solar cells.

INTELLIGENT SOLAR BIOPANEL

Our patented living facade system combines biotechnology and photovoltaic energy to provide energy savings, carbon footprint mitigation, environmental data analysis, and biomass byproducts.



AVERAGE DAILY ENERGY PRODUCTION (WH) PER BIOPANEL, VERTICAL ANGLE IN GERMANY



A 8700 BIOPANEL SYSTEM IN A 24-STORY BUILDING

Energy Savings 1,850 MWh/year	Equivalence with reforested trees A forest of 100,000 trees	Microalgae biomass 20 Tons/year
Mitigated carbon footprint 1,000 Tons/year	 	People impacted 5,000

NEXT STEPS

2023

Q3

- Opening P-Seed Round
- Planning with Fraunhofer Inst.

Q4

- Manufacture Biop in Mexico
- Kick-off Fraunhofer
- Branch in Germany

2024

Q1

- Pilot test in Mexico
- Fraunhofer prototype, Germany
- European funds

Q2

- Soft-landing Germany
- German Partners Test
- Real Env. Prototype

Q3

- Opening Seed Round
- Pilot in Germany
- Dealing Foster + P

INVESTMENT PROPOSAL

P-Seed Round:
400,000 EUR
 Minimum
 Entry Ticket:
40,000 EUR

EXECUTIVE TEAM



Richard Unwin
NEC



Adan Ramirez
CEO



Miguel Mayorga
CDO



Melisa Monrroy
CTO



Axel Mendez
CFO



David Samra
CMO



+ 9
experts in
different
areas

HD PHOTOVOLTAICS

ABOUT US

We developed a groundbreaking **BIPV** (Building Integrated Photovoltaics) solution consisting of a multipurpose **polycarbonate sheet** integrated with **solar cells**. This sheet can replace traditional **roofing materials** and automatically connects without the need for cables to extract collected **energy** through the final unit.



WHAT WE AIM TO ACCOMPLISH

-  02. Zero Hunger
-  07. Affordable & Clean Energy
-  03. Health & Wellness
-  09. Industry & Innovation
-  06. Clean Water
-  11. Sustainable Cities

OUR EDGE

Our Solar Sheet stands out for its **versatility**, thanks to its **ultra-lightweight**, **durability**, and **anti-dust** properties. This makes it ideal for a wide range of applications, including **rural housing**, **greenhouses**, and **various projects**.

We offer an innovative BIPV solution that combines energy efficiency with ease of installation, **reducing costs and construction time**.

KEY BENEFITS

- Light-Weight
- Antidust
- Semi-Transparent
- Low Maintenance
- No Infrastructure required
- Does not damage the soil
- Sustainable life cycle
- Ideal for rural/agro areas



ELECTRICAL DATA

Maximum nominal power. (Pmax) 115 W
 Operating voltage opt. (Vmp) 0.582 V
 Operating current opt. (Imp) 9.79 A
 Open circuit voltage (Voc) 0.689 V
 Module efficiency 22.60 %
 Operating temperature -40°C ~ +85°C
 Max. system voltage 1500V (IEC/UL)
 Module fire performance Type 1 (UL 1703) o
 Clase C (IEC 61730)
 Application classification class A
 Power tolerance 0 ~ + 10 W

MECHANICAL DATA

Cell type Polycrystalline
 Cell layout 20 (5 X 4) x mt.
 Standard length 1.00 – 2.00 – 4.00 MTS.
 Standard width 1.100mm
 Weight 3.5 kg x sq m
 Cover: 0.8 mm a 1.2 mm
 J-Box IP68, 3 bypass diodes
 Cable 4.0 mm² (IEC), 12 AWG (UL)
 Cable length vertical : 400 mm (15.7 in)
 Per pallet 30 pieces
 Per container (40' HQ) 840 pieces

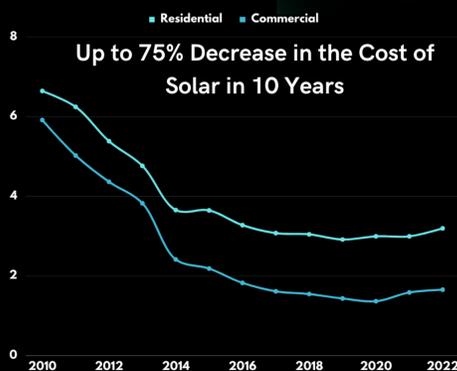
* Under standard test conditions (STC) of irradiance of 1000 W / m², AM 1.5 spectrum and cell temperature of 25 ° C.

*This specs are subject to change due to continues improvement



We Turn Every Building Into a Power Plant

The Problem



- We need **cheap, clean energy** but the grid is unfit for purpose
- Upcoming EPC regulation is stranding assets and millions more by 2025
- Solar energy has never been cheaper and is the best local source of sustainable energy but installing solar is complex and costly for property owners

Our Solution



Remote Site Selection

Property Owners upload their property portfolio. Metris' software remotely assesses properties, forecasts economics and selects the best properties to install.



Financing

We plug into capital providers on the back end to match funders to opportunities, forecast returns and give property owners easy and transparent choice.



Onboard & Install

Our platform streamlines onboarding, where customers invite collaborators and track progress. Once completed we work with 3rd party installers for the final installation piece.



Operations on Autopilot

Project owners use MetrisOS for project monitoring, billing, payments and collections. MetrisOS also delivers a billing, energy and emissions insights portal to tenants.

Why Choose Metris



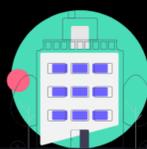
End-to-End Solution

We manage quote, design, installation and ongoing operations - no need for project consultants and in-house expertise.



Sustainability Made Easy

Landlords improve the ESG credentials of their building and the EPC rating, a whole EPC band on average.



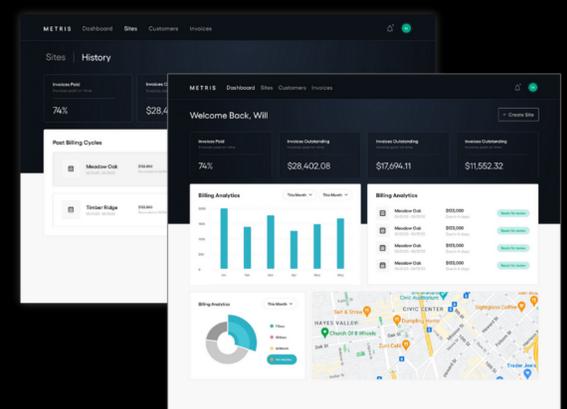
Increased Profit & Value

Property valuation increases with the green premium and owners generate extra revenue or save on energy bills.



Attract & Retain Tenants

Landlords deliver extra value to tenants through reduced energy rates, lower emissions and an energy insight platform.



Our Team

- Serial CTO and Founder, scaling up to \$6M ARR
- CTO for Enterprise SaaS Platforms (Chezie, Athena)
- Tech lead for Carbon Monitoring (Treeconomy)
- Hardware Optimisation Expert (Lambda Function)



William Whatley
Founder, CTO



Natasha Jones
Founder, CEO

- Fintech & Climate Investor at Octopus Ventures
- Sales Trader at Credit-Suisse Algo Trading
- Solar Panel Distribution Researcher

Unlock the full potential of your pro-climate business:
carbon credits made easy.

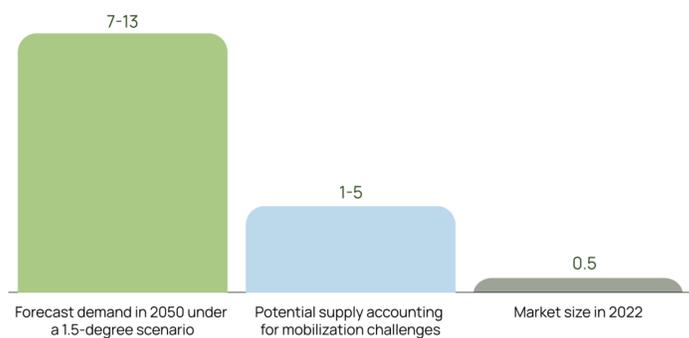
WHO ARE WE?

NetaCarbon is a carbon credit issuance platform that digitizes and streamlines the process of how carbon projects are created and managed, reducing time and cost for project developers to go through the carbon credit registration and verification process.

PROBLEM

\$45B supply gap in carbon credits...

Demand vs. supply of carbon credits
GIGATON PER YEAR



Supply gap of **3-11 gigatons per year**, translating to **\$45B shortage by 2050***

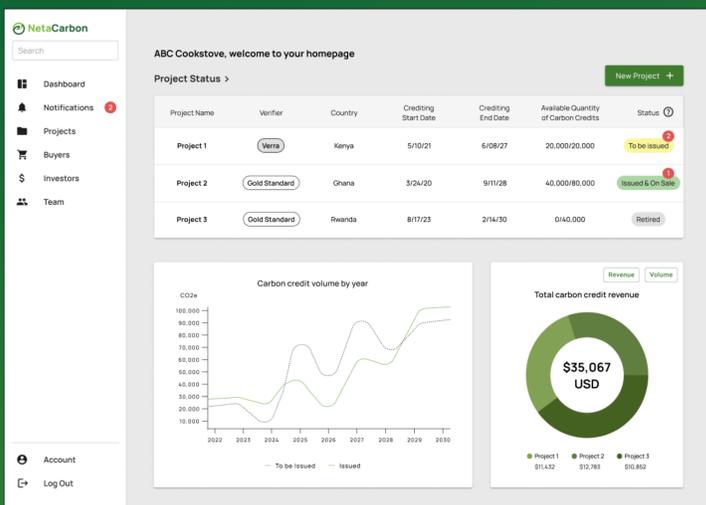
...Due to high barrier of entry



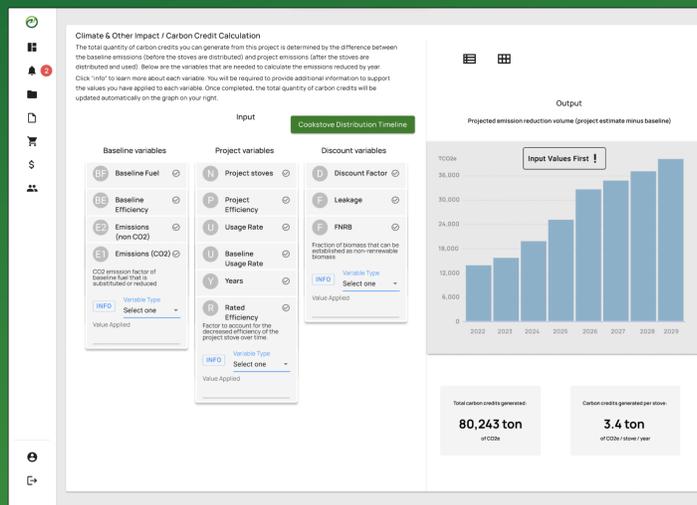
*Based on an average price of \$15/ton for high-quality carbon credits.
Source: "A blueprint for scaling voluntary carbon markets to meet the climate challenge, McKinsey & Company."

OUR PLATFORM

Homepage dashboard



Carbon credit calculation tool



We are now launching our first pilots with project developers in Latin America & Africa!



FOUNDERS



Mar Velasco

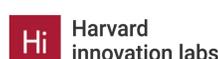
- MIT Sloan MBA
- Komaza (forestry startup in Kenya)
- Grupo Bimbo



Grace Lam

- Harvard MBA/MPP
- KawiSafi VC (pan-African climate VC)
- McKinsey & Company

SUPPORTED BY



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BAMBOO IS THE NEXT DISRUPTIVE SOLUTION FOR GLOBAL WARMING

“Global Bamboo Market Size | USD 66.20 billion in 2022”

There are more than **1600 species of Bamboo** worldwide

Oxygenate Bamboo is developed from "Bambusa Balcooa through Tissue Culture Plants supply"

Oxygenate: Our Company Offerings

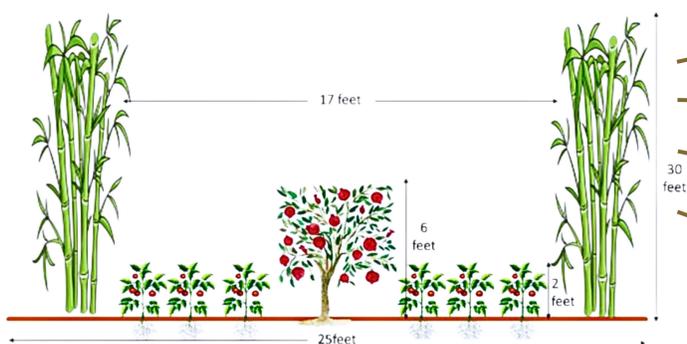
1. Bio engineered Tissue Culture Bamboo Trees
2. Precision & High Carbon Farming Techniques



Specifications:

- **High carbon capture (450 kg CO2 per tree / pa)**
- High oxygen generation (300 kg O2 per tree / pa)
- **1.5 ft - 3 ft growth rate PER DAY**
- **Regenerative, replanted only once in 70 - 100 years**
- **Reduction of minimum 5 - 7 °C temperature**
- **Excellent renewable energy crop** for generating bio ethanol, bio coal, green electricity
- Bamboo tree consumes 15L of sewage / waste water per tree, per day
- **Permanent replacement to plastic**
- 100% biodegradable
- **No immediate competition globally**
- Stronger than STEEL. Tensile Strength:
- Steel : 23,000 pounds / sq inch | Bamboo : 28,000 pounds

PLEDGE TO PLANT “BAMBOO OXYGEN FORESTS”



- **Global Warming & Climate Change**
(Carbon Sequestration & Humidity)
- **Bamboo Biomass Renewable Energy**
(Ethanol ,Bio fuels, Compressed Natural Gas)
- **Waste Water Management**
(bamboo Cultivation with rejected waters)
- **Agroforestry with Bamaboo**
(Food Security & Sustainable Practices)
- **Biotechnology & Botany Education**
(High Carbon Farming, Pecision Farming)

Area	1 acre (4000 sq mtr)	10 acres (40,000 sq mtr)
Oxygenate Bamboo Trees	900	9000
Co2 absorbed (tons)	80	800
Oxygen generated (tons)	60	600
Sewage water per day (litres) "Bio Remediation" Sewage water clearance	40,000	400,000



DR. ARSHI AYUB MOHAMED ZAVERI
CEO & FOUNDER

“LEADING THE VSION OF OXYGENATE GLOBAL”

SUSTAINABILITY | INNOVATION | COMMUNITY | CLIMATE | ECONOMY

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Empowering Tomorrow: Sustain the World's Green Revolution

Sustain the World's Results

- > **2500** Green job opportunities
- > **20** Youth-led startups & social enterprises
- > **90+** Cities in Lebanon

Winner of UN Global Climate Action Award at COP26

Top 6

finalist at the
World Bank Youth
Summit in DC
in 2023

Top 50

initiatives for
Young Global
Changemakers
in 2023

**TOGETHER, WE ARE EMPOWERING
YOUTH AND WOMEN AS CATALYSTS
OF CHANGE, SHAPING A SUSTAINABLE
AND EMPOWERED FUTURE.**

Sustain The World/RISE2030 is dedicated to advancing green energy technologies, enhancing livelihoods in rural areas, and catalyzing change by mobilizing youth and women as catalysts for change through green entrepreneurship and job creation programs.

Sustain the World's Method



Circular Economy Models

Fostering links between water, energy, waste, and food sectors to achieve sustainable social, economic, and environmental objectives.



Empowering women, youth, and refugees

Creating equitable opportunities for marginalized communities through education, skills development, and support.



Climate Action

Mitigating the effects of climate change and promoting environmental sustainability through awareness, policies, and initiatives.



Sustainable education, employment, & entrepreneurship

Fostering long-term economic growth and social development through education and job opportunities that prioritize environmental sustainability.



Rural development

Empowering and uplifting rural communities through green, sustainable practices and initiatives.

Embraces a Zero Carbon Future: RE100, SBTi, and Topcon Driving Green Transformation



Introduction

Jinko Solar Co., Ltd. (the "Company", or "Jinko Solar") is a globally renowned and highly innovative solar energy technology enterprise. Adhering to the mission of "Optimize the energy portfolio and take responsibility for enabling a sustainable future", the Company strategically lays out the core links of the photovoltaic industry chain.

Method

RE100: Achieves Green Transformation in Internal Operations

Jinko Solar joined the RE100 initiative in 2019 and released the RE100 roadmap in 2020, with plans to achieve 100% renewable energy use in all plants and global operations by 2028. The energy consumption and carbon emissions in Jinko Solar's business process mainly source from production and operation. The types of energy involved chiefly include purchased electricity, natural gas, etc. To better promote energy conservation and emission reduction, the Company adopts methods such as optimizing energy structure, exploring energy conservation potential, strengthening technological transformation, and conducting energy conservation and emission reduction training. Jinko Solar thus continuously increases the proportion of clean energy and further improve energy utilization efficiency. As of the end of 2022, solar photovoltaic power generation systems of a total of 102.07MW have been built on the roofs of Jinko Solar' plant buildings. In 2022, the rooftop power generation reached 45,401.45MWh, which was consumed internally. In 2022, Jinko Solar has saved approximately 57.54 million kWh of electricity through 95 technological transformation projects such as the introduction of waste heat recovery system and the conversion of air compressor cooling system. It is equivalent to reducing carbon dioxide emissions by approximately 32,800 tons.

SBTi: Assists Supply Chains in Achieving Green Transformation

The Science Based Targets initiative (SBTi) plays a vital role in driving green transformation throughout our supply chain, complementing the internal efforts demonstrated by RE100. Our SBTi journey, initiated in late 2021 with the establishment of ambitious emission reduction targets. We are currently on track and anticipate official verification by SBTi by the conclusion of 2023. These targets, aligned with the long-term objectives of the Paris Agreement, specifically aim to limit the temperature increase to 1.5 ° C above pre-industrial levels. By closely adhering to scientific recommendations, Jinko Solar not only leads but advocates for sustainability throughout our supply chain. Furthermore, our commitment to achieving "net-zero emissions" across the entire value chain by 2050 underscores our unwavering determination to make a substantial contribution to a sustainable future. Emission reduction is gradually integrated into the supplier management system. Jinko Solar focuses on supplier empowerment. The Company builds a supplier capability development system from the dimensions of professional training and experience sharing, promoting supplier environmental self-assessment, and supply chain emission reduction action plans, to work and grow together with suppliers.

In 2022, the Company launched the "Supply Chain Carbon Emission Management Empowerment Plan" to empower partners to promote energy conservation and emission reduction. This plan allows over 200 suppliers to participate in empowerment learning and 55 suppliers to conduct carbon inventory. This is conducive to promoting green and low-carbon transformation of the supply chain and further reducing the carbon footprint of the industrial chain.



Topcon Technology: Facilitates Customer, Community, and Planetary Green Transformation

Jinko Solar is committed to providing clean, safe, affordable, and intelligent photovoltaic power globally through innovating TOPCon photovoltaic technology and reliable photovoltaic products, in order to address global climate change with economic, green, and feasible solutions.

The Company's terminal product is solar photovoltaic modules, and intermediate products in the production process include silicon rods / ingots, silicon wafers, and solar cells. While developing intermediate and terminal products, the Company continues to expand the diversified scale application scenarios of photovoltaic technology. Active layout has been made in BIPV, photovoltaic hydrogen production, energy storage, etc., thereby providing carbon reduction solutions for various industries.

Results & Data Analysis

Jinko Solar joined the RE100 initiative in 2019 and released the RE100 roadmap in 2020, with plans to achieve 100% renewable energy use in all plants and global operations by 2028. Jinko Solar joined SBTi in November 2021, committed to achieving "net zero emissions" of GHG among the value chain by 2050. So far, Jinko Solar has completed the internal planning of emission reduction targets in accordance with the 1.5°C emission reduction path and the requirements of the SBTi Corporate Manual. The relevant data has been submitted to SBTi.

The targets submitted to SBTi are :

Jinko Solar Co., Ltd. commits to reduce absolute Scope 1 and 2 GHG emissions 50.4% by 2032 from a 2022 base year. Jinko Solar Co., Ltd. commits to reduce Scope 3 GHG emissions from purchased silicon, glass, frame, cell, solar EVA, back-sheet, solder strip 58.2% per MW of solar modules, solar cells and silicon wafers produced by 2032 from a 2022 base year. In addition, Jinko Solar is active in participating in various mainstream industry exhibitions and forums, to showcase product strength while boosting industry technology exchange. In 2022, Jinko Solar mainly participated in industry activities such as the 27th United Nations Climate Change conference (COP27), the Group of Twenty Finance Ministries and Central Bank Governors (G20), and the G20 Finance Minister and Central Bank Governor Climate Transformation and Sustainable Financing Seminar (as the only representative of the photovoltaic industry). Together with domestic and foreign practitioners, the Company probed in cooperation and development strategies for the photovoltaic industry.

Data visualisation



Jinko Solar's Participation in Industry Organizations (Examples)	
Organization	Jinko Solar's Role
the Executive Committee of the Asian Photovoltaic Industry Association	Executive Director
the China Photovoltaic Industry Association	Vice Chairman
the China New Energy Chamber of Commerce(CNECC)	Executive Director
the Chinese Renewable Energy Industries Association (CREIA) of the China Association of Circular Economy	Member
the International Chamber of Commerce	Director
the Global Solar Council	Member
the Solar Power EU	Member
the Clean Energy Council	Member

Conclusion

In conclusion, JinkoSolar, as a global leader in innovative solar energy technology, stands at the forefront of sustainable energy solutions. With a steadfast commitment to optimizing energy portfolios and championing a sustainable future, the company has strategically positioned itself in the core segments of the photovoltaic industry chain.

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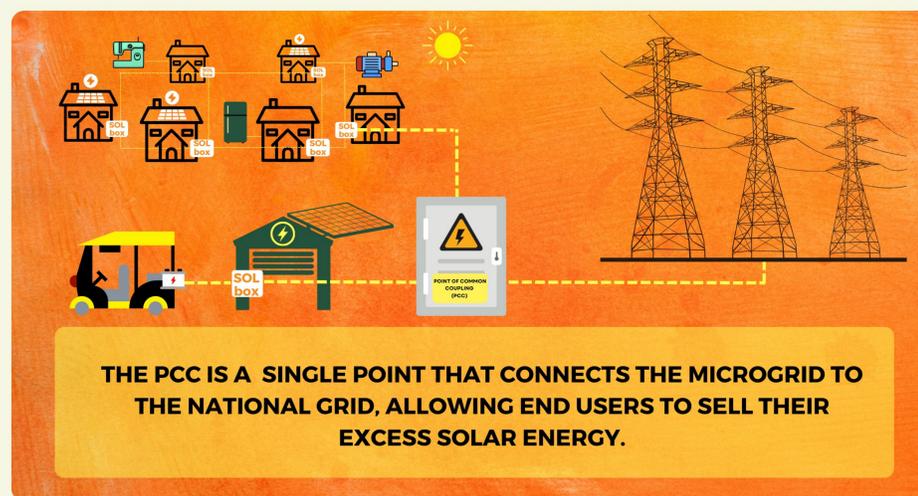
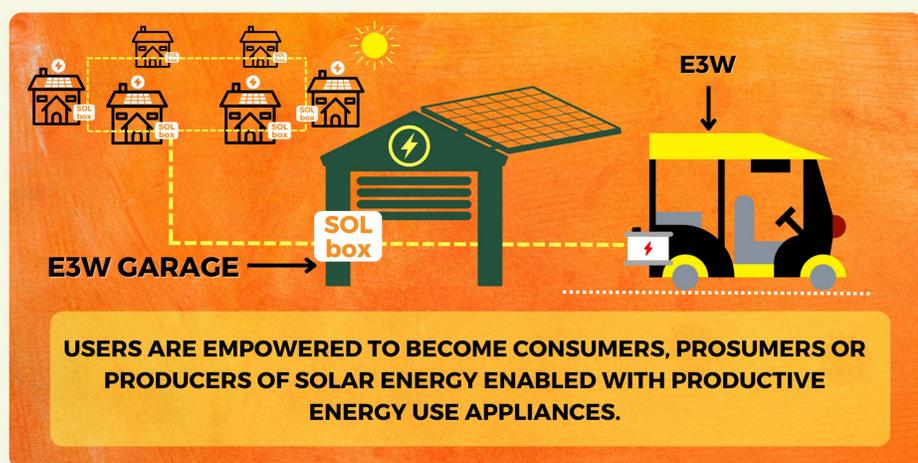
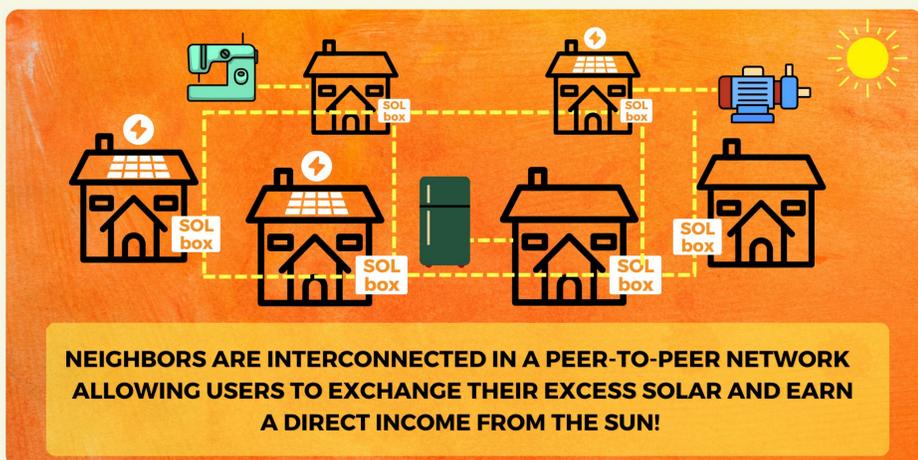
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CREATE A NETWORK. SHARE ELECTRICITY. BRIGHTEN THE FUTURE

SOLGRID

PEER-TO-PEER SOLAR MICROGRIDS → POINT OF COMMON COUPLING (PCC)



118
MICROGRIDS

3,500
HOUSEHOLDS &
MICROBUSINESSES

22K+
BENEFICIARIES

4

SOLGRIDS

100

HOUSEHOLDS

600

BENEFICIARIES

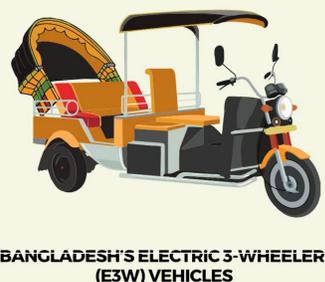
1.2M

REFUGEES AT
TIER ZERO

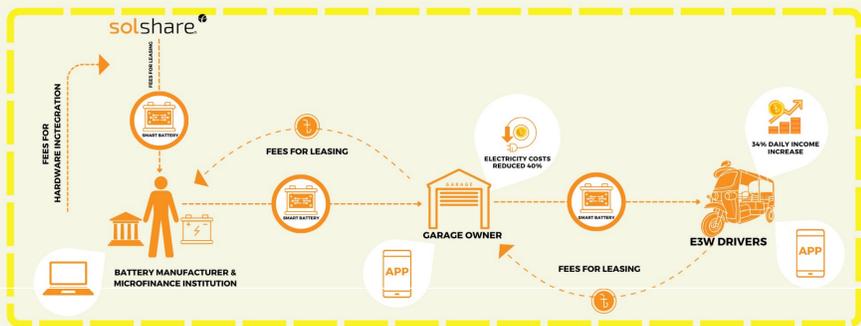
SOLGRIDS IN THE ROHINGYA REFUGEE CAMPS

SOLMOBILITY

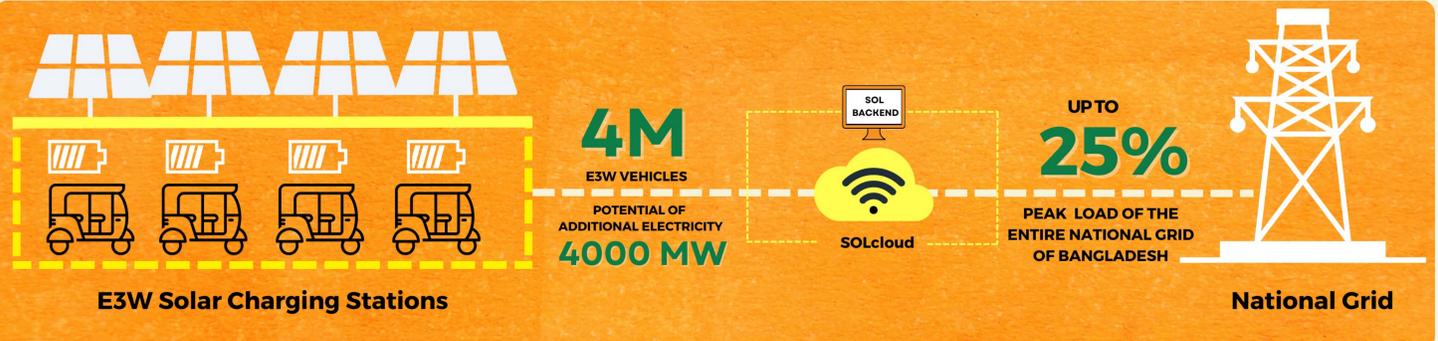
SMART STORAGE TECH FOR E3WS → VIRTUAL POWER PLANTS (VPP)



- REMOTE CONTROL BATTERY FOR ASSET-BACKED FINANCING MODELS
- FLEXIBLE STORAGE TECHNOLOGY FOR A VIRTUAL POWER PLANT
- TRADITIONAL TOXIC LEAD ACID BATTERIES SWAPPED WITH SMART, PAYG LITHIUM ION BATTERIES



350K+
KMS DRIVEN USING
SOLMOBILITY



40%
REDUCTION IN
ENERGY CONSUMPTION

100K+
KGS OF CO₂ EMISSION
REDUCED

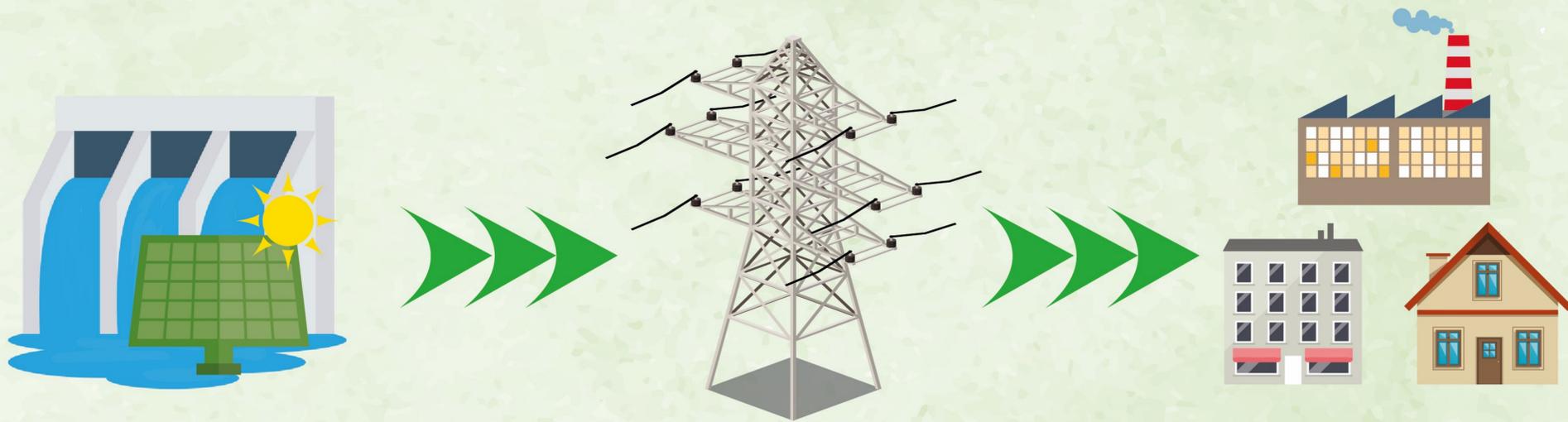


Malaysia aspiration to achieve net-zero greenhouse gas (GHG) emissions as early as 2050

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