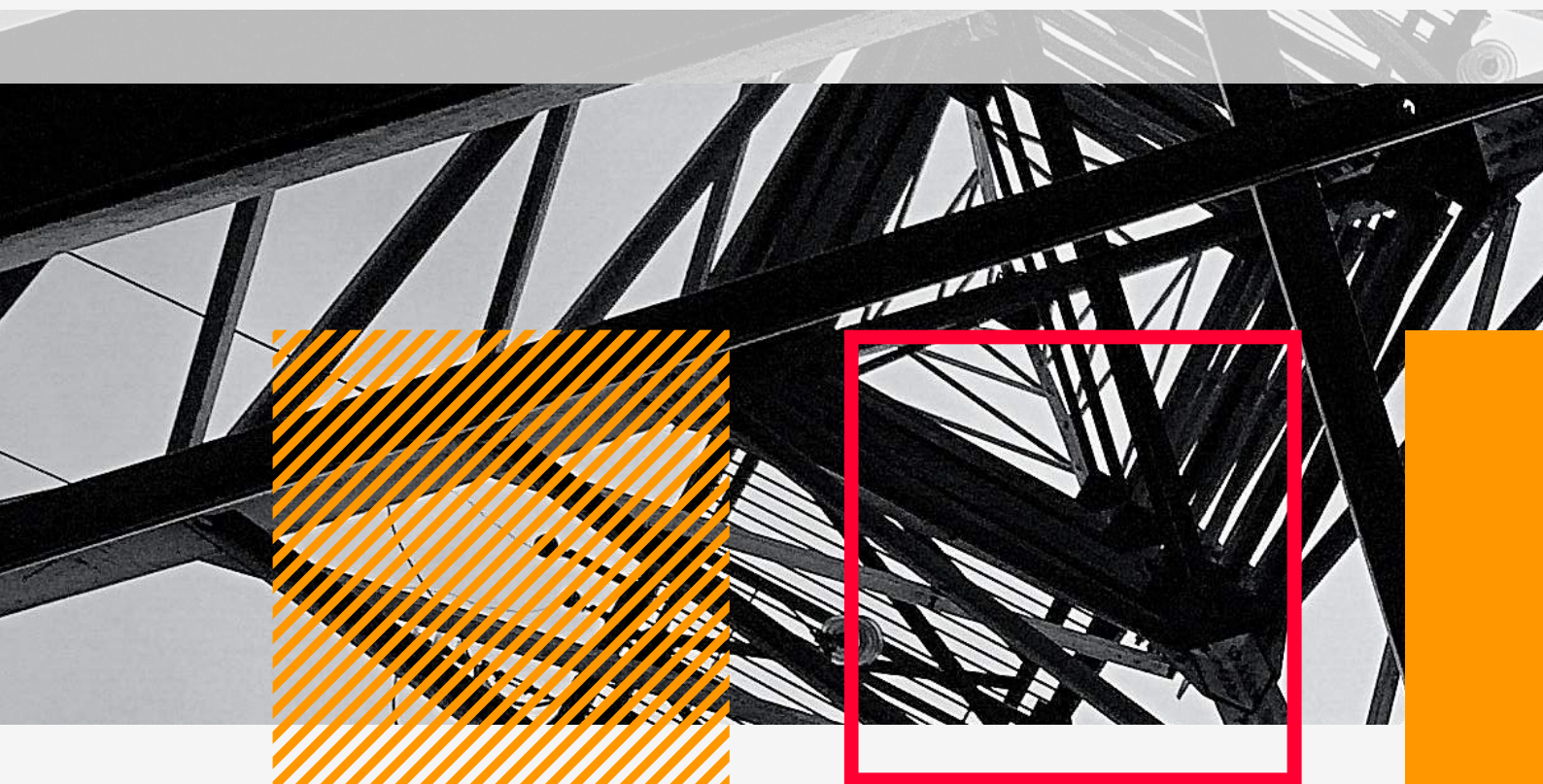


# Start Up Energy Transition

The Top 100 Start-ups of 2021



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## A Message from our Leadership



**Andreas Kuhlmann**  
Chief Executive,  
German Energy Agency (dena)

"2020 has definitely been an unprecedented year and made us face some difficult challenges. However, in these uncertain times, we have also seen the immense power that innovation and thinking outside-the-box has had. In these moments, I believe that innovation for the energy transition presents an incredible opportunity to build back better for a net-zero, sustainable future.

Going into our fifth edition of the Start Up Energy Transition (SET) Award, we are proud to have created a global platform which enables truly deep connections between innovative start-ups, investors, established corporate players, and the public sector. We once again received a significant number of impressive start-up applications, which deserve global attention and support to have the maximum impact on reversing climate change."



**Dr. Angela Wilkinson**  
Secretary General & CEO  
World Energy Council

"The global energy transition has entered a new era of accelerated and disruptive technological innovation within a new context of affordability and social justice. The World Energy Council is Humanising Energy by connecting energy transition start-ups, agile giants and investors, from within and beyond the energy sector.

2021 mark the 5th edition of the Start Up Energy Transition (SET) Award. Despite a global pandemic we received an incredible number of applications – the quality of which continues to improve year after year. Partnering with dena, we collaborate to systematically identify and promote the most promising new energy systems transition ventures across the world. The SET Award presents a unique platform to highlight and promote the next generation of responsible business energy leaders."



## About SET

Start Up Energy Transition (SET) is a global innovation platform supporting innovation in the energy transition. The platform strives to establish deep, productive connections between established corporate players, the public sector, and the world of energy innovation. The goal? To rapidly scale the adoption of clean energy technologies while simultaneously increasing political will and public acceptance globally. The SET platform is powered by the German Energy Agency (dena), in cooperation with the World Energy Council (WEC).

Since its inception in 2016, SET continues to enable these connections through dena's and WEC's unique position at the crossroads of the private and public sector. At its core, the SET platform is built on three pillars: The SET Award, SET Tech Festival, and a growing global network, which makes SET an important and well-recognised international platform for innovation in the energy transition.

## Our Vision:

**"Innovation at the core of our net zero future"**

We see start-ups and innovation playing a crucial role in our net zero future. Through the SET platform, we want to give a voice to the innovators of tomorrow to ensure that decision makers place innovation in energy at the top of their agendas, while industry leaders employ innovation as the clear path to their decarbonisation goals. Only then can we reverse climate change, drive the energy transition forward and secure a sustainable future.

## Our Mission:

**"Strengthening the impact that energy innovators have in reaching climate neutrality"**

Through our activities, we support, promote, and create opportunities for start-ups in the energy sector to scale-up impact and accelerate the global energy transition in order to reverse climate change.

# The SET100 List

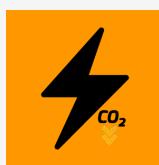
The SET100 is an annual compilation of the 100 best start-ups of the Start Up Energy Transition Award. It contains the most innovative and promising start-ups that make the energy transition a fundamental component of their innovation. SET100 was first launched in 2017 with the aim of offering young companies a platform to showcase their forward-looking solutions. The SET100 list offers a comprehensive collection of companies, represented both geographically and across all sectors of the clean energy field.

## What's the SET Award?

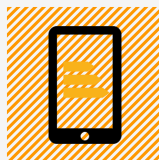
The Start Up Energy Transition Award is an international competition for start-ups and young companies worldwide working on impactful ideas affecting the global energy transition and climate change. In the last five years, the award has received more than 2300 applications from 102 countries.

## SET 2021

Going into its fifth year, SET is proud to present the top 100 international start-ups from the SET Award 2021 competition. 543 start-ups from 89 countries applied in 1 of 5 categories to showcase their solutions to climate change, the energy transition and the future of our very world.



Clean Energy  
Generation



Demand-side  
Innovation



Energy  
Distribution &  
Storage

## The #SET21 Categories



Quality Energy  
Access & SDG7



Smart Mobility &  
Transportation



# Methodology

SET designed this process to offer a fair and holistic representation of energy transition related start-ups determined by international and cross-sectional experts within the energy community. To accomplish this, the evaluation occurred in four phases:

## Phase #1: Criteria Check

The SET team processed all 543 applications to determine if they met the minimum eligibility criteria. To participate in the SET Award, start-ups must have met the following criteria:

- the company must not have been founded more than 10 years ago
- there must have been a functioning prototype
- the company must be registered or be in the process of becoming registered and the applicant must be able to present a proof of concept or a client, and/or an industrial/corporate/institutional partner

## Phase #2: Early Metrics Model

Start-ups that met the eligibility requirements were then evaluated by the SET-specific start-up model built by our partner Early Metrics. The model incorporated the SET Award categories and application information, and measured: growth, impact, adoption, scalability, market penetration, and of course – innovation.

## Phase #3: High-level Jury Evaluation

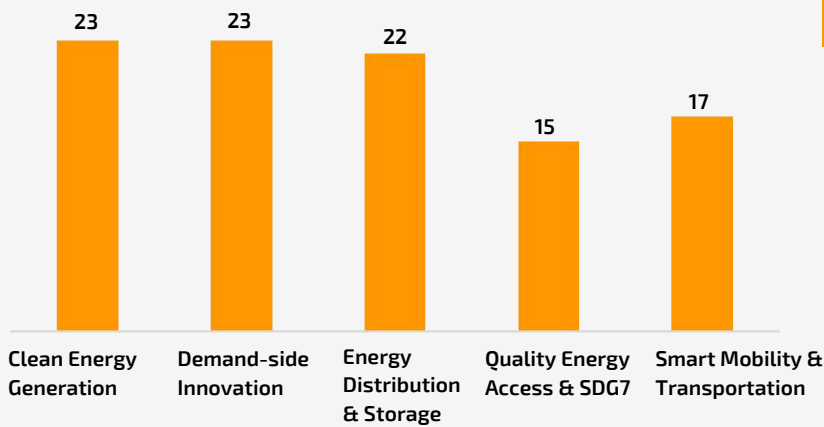
In accordance with the Early Metrics rating, the top third of start-ups with the highest scores were then evaluated by our high-level jury which was comprised of some of the most prominent and influential individuals in the energy sector. See the SET jury [here](#).

On a 10-point scale system per question, each application was evaluated according to their relevance, business model, innovation level, market awareness and potential, and capacity to execute their strategies (finances, network, leadership, etc.).

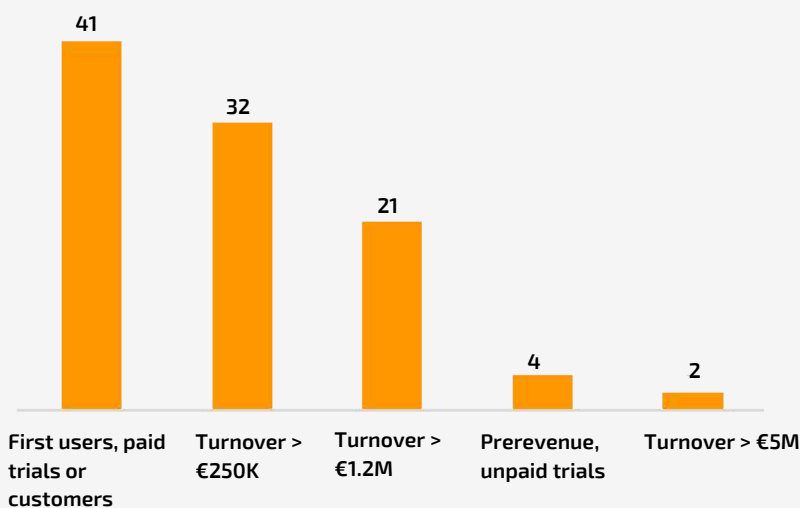
## Phase #4: Quantitative & Qualitative Score Weighting

The scores from both the Early Metrics SET-specific start-up model and those scores provided by the high-level jury were then compared, analysed, weighted and combined to produce the SET100.

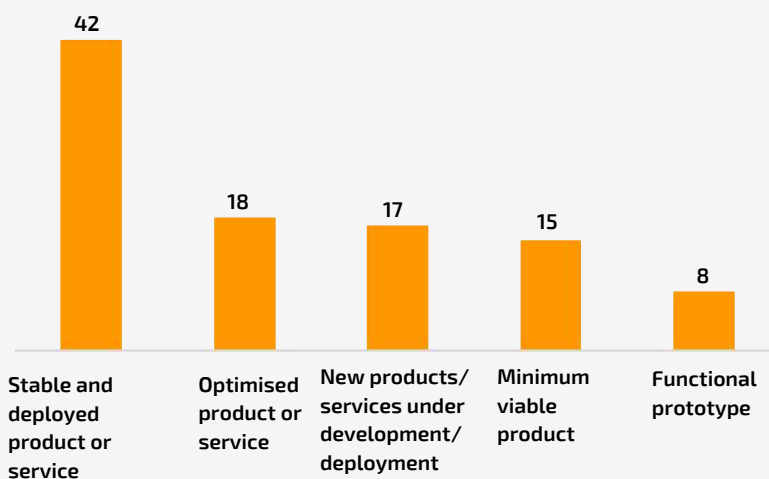
# SET100 Distribution



## SET100 By Category



## Commercial Maturity



## Technical Maturity/ Product Stage



## Category:

# CLEAN ENERGY GENERATION



### Aerones Llc | Latvia

Aerones has developed innovative robotic winch systems for wind turbine blade maintenance. With a combination of a lifting system and multiple robotic arms, they provide safe, high-voltage testing methods and other optimisation methods without exposing personnel to risks.



### BeFC | France

BeFC produces paper-based biofuel cells to replace conventional miniature batteries found in portable or wearable electronic devices, in order to reduce environmental impact. The metal- and plastic-free technology is based on paper and enzymes which creates a lightweight, thin, and flexible product.



### BiomeRenewables Inc. | Canada

BiomeRenewables Inc.'s core technology is the PowerCone, which is a wind turbine retrofit that unlocks wind power's true potential by acting as a second smaller rotor improving the aerodynamics of the turbine. By co-rotating with the main blades, the PowerCone increases the annual power outcome up to 13%.



### Cemvita Factory Inc. | United States

Cemvita's mission is to decarbonize the chemical industry by using CO2 as feedstock for the biomanufacturing of valuable chemicals. By engineering microorganisms, they develop methods to run CO2 into Bioethylene or other chemicals.



Distributed Energy

### Distributed Energy | Singapore

Distributed Energy is a development and aggregation platform that connects renewable projects with funders. After thorough assessment, energy customers will have their fundable projects listed on their marketplace and investors can explore and express interest in one or more of these projects with just a click of a button.

Finalist



### ecoligo GmbH | Germany

ecoligo enables businesses in emerging markets to use clean energy. With a fully financed solar-as-a-service solution, ecoligo makes it easy for businesses to go green and lower their energy costs. Projects are funded through crowdfunding, enabling impact-driven individuals to fight the climate crisis with their investments.



### EH Group Engineering | Switzerland

EH Group core product is a high performance PEM fuel cell stack technology with market leading power density. Due to its compactness, it is suitable for mobile and automotive applications as well as stationary applications like commercial buildings, data centres and more.



### HeatVentors Hőenergiatároló Kft. | Hungary

HeatVentors developed a thermal storage solution called HeatTANK. The product is able to decrease energy costs up to 50% through the innovative process which profits from phase changing material and therefore works more efficiently than traditional water-based heat storages.



### LexaTexer (AvailabilityPlus GmbH) | Germany

LexaTexer provides software and IoT devices to retrofit legacy hydropower infrastructure and to build enterprise AI-IoT driven applications. The company provides analytics and automation to control system maximum efficiency and to extend the remaining life of hydro assets.





### Nispera AG | Switzerland

Nispera developed a SaaS solution that monitors the performance of renewable energy assets of organisations. Their product provides advice on enhancement potential together with technical intervention options, accurate energy generation, and consumption forecasting.

**Finalist**



### PowerUP Fuel Cells OÜ | Estonia

PowerUP Fuel Cells OÜ produces innovative hydrogen fuel cell based portable generators that are emission neutral and have diverse use cases in industries such as marine, telecommunication, military, construction, hospitals, off-grid homes, and rescue forces.



### Qlayers | Netherlands

Qlayers helps energy-intensive industries to become more sustainable by changing the way coatings are applied. Their BL8 paint robot turns the coating of wind turbine blades into fully automated processes that are efficient, high quality, sustainable and safe.



### Roofit Solar Energy OÜ | Estonia

Roofit.solar's mission is to boost distributed renewable energy generation by making solar energy architecturally acceptable and financially affordable. Their Building Integrated Solar roofs combine a traditional metal roof and innovative solar technology into one product (2in1).



### Singularity Computing | Algeria

Singularity Computing provides various simulation software (SIMULICA®, ParticleXpert®, and SystemXpert®) which allow customers to discover better designs and model/simulate multiphysics events for a variety of industries like renewable energy, energy efficiency and smart cities.



### **SmartHelio Sarl | Switzerland**

SmartHelio Sarl developed a solution to optimize solar panel usage and improve their efficiency and lifetime. They combine proprietary edge computing-based IoT hardware and deep diagnostic technology to better monitor the performance of solar systems and ensure rapid maintenance.



### **Solar Earth Technologies | Canada**

Solar Earth Technologies develops critical materials, modules, and process know-how for solar roads – an emerging industry sector that paves driveways, walkways, parkways, bike paths, and highways with power generating photovoltaic systems.



### **SolCold - Cooling by Sunlight | Israel**

SolCold is developing an innovative, patented nanotechnological material that cools everything under the sun. The material can be used as a coating for cooling cars, buildings, containers, apparels, airplanes, etc., and is expected to bring tremendous savings in cooling and air-conditioning expenses.



### **Solpod Pty Ltd | Australia**

Solpod develops a re-deployable commercial rooftop solar system that enables fast installation and can be purchased or rented on cheap and flexible terms. This way Solpod attracts customers that are unlikely to commit to a 15-25 year standard solar system.



### **SunRoof Technology Sp. z o.o. | Poland**

SunRoof offers custom-engineered solar roofs with high energy output and unique design. With integrated photovoltaic technology the sunroofs are generating electricity and at the same time they protect, insulate and ventilate the house.





### Triple Solar | Netherlands

Triple Solar developed a system that provides electricity, heat, and hot water for households. It combines photovoltaic solar panels and a geothermal heat pump to deliver electricity to households without depending on fossil fuel.



### WeGaw SA | Switzerland

WeGaw helps companies transition to clean energy through the power of satellite data. The start-up monitors the availability of renewable energy sources around the world on daily basis and through machine learning processes creates a base for energy generation optimization, trading models, and energy price evolution predictions.

**Finalist**



### WinJi AG | Switzerland

WinJi develops a SaaS platform that is focused on strategic asset management for owners and operators of commercial wind and solar assets (B2B) to boost profitability. The AI-based software platform gathers and analyzes data to improve the performance of individual renewable assets and entire portfolios.



### Zeigo Ltd | United Kingdom

Zeigo offers a clean-tech service platform that connects corporates with renewable energy projects globally through PPA's, green energy contracts and renewable energy certificates. Companies can access information on the latest renewable energy projects & trends in the market and connect with project developers & suppliers.



## Category:

# DEMAND-SIDE INNOVATION

**Finalist**

### Allume Energy | Australia

Allume has developed a unique distribution technology, called 'SolShare', that shares solar electricity behind-the-meter to apartments within the same building. SolShare dynamically distributes power to where it's needed, maximising consumption and savings whilst minimising export.



### Bluefield Technologies, Inc. | United States

Bluefield developed a proprietary algorithm which uses AI and ML techniques to process and fuse data from a range of sources, and provide it as actionable, independent ESG analytics and alerts. The data they provide drives effective action to reduce emissions and environmental impact of companies.



### CarbonSpace Tech | United States

CarbonSpaceTech offers an online platform which provides data on carbon emissions powered by AI and satellite images. Combining a near real-time carbon emission map, carbon profiles for specific assets and analytical dashboards, the platform reduces monetary costs for the the carbon footprint verification of their clients.



### Comgy GmbH | Germany

Comgy develops hardware and software to automate the end-2-end sub-metering process — from meter procurement, installation, maintenance, communication infrastructure, data transport & analytics to final side / heat cost allocation bills.





### **DABBEL – Automation Intelligence GmbH | Germany**

DABBEL AI is an add-on software that replaces the manual control of the existing Building Automation System in commercial buildings with Artificial Intelligence. The AI-based solution can adapt to individually changing conditions and consequently reduce energy consumption. The software can be implemented remotely without any hardware.

**Finalist**


### **Ekkono Solutions AB | Sweden**

Ekkono is an Edge Machine Learning software start-up. By enabling individual learning per device, product OEMs can automate their domain expertise to help optimally operate every unit, which reduces wear, extends product life, and ensures energy-efficient use based on super-local conditions like climate, load, purpose and preferences.



### **Energency | France**

Energency develops advanced artificial intelligence analytics in order to detect and visualize new energy savings opportunities for manufacturing. They provide data science analysis and a powerful application directly plugged to the customers' smart meters.



### **GreenYellow | Colombia**

GreenYellow's solutions aim to reduce the energy costs and carbon footprint for different industry sectors and services companies by installing in the lighting, refrigeration and air conditioning system the most efficient products of the market with their associated line light electric control.

**Finalist**


### **Flair | USA**

Flair provides a Smart Air Delivery platform that turns common HVAC systems smart and improves energy efficiency in buildings. Their solution eliminates any balance problems connected to inefficiency and through demand response optimizes energy consumption.



### **Fusebox | Estonia**

Fusebox is developing a global marketplace for electrical flexibility. Doing so they are implementing a Virtual Power Plant which operates on a cloud-based environment where decentralized flexible loads and power generation are united in order to supply their customers with energy.



### **ICwhatUC Inc. | Canada**

ICwhatUC is a browser-based video calling platform for the mobile workforce. Their technology leverages augmented reality and mobile cloud technology to instantly connect technicians with any customer and enables them to resolve issues virtually and reduce their carbon footprint.



### **interpanel GmbH | Germany**

interpanel manufactures multifunctional and prefabricated wall and ceiling modules that integrate workspace lighting, acoustics, heating and a unique radiant cooling technology to ensure a healthy room climate in an easy to apply and high-quality manner. The start-up is a system provider for integrated next generation room climate systems.



### **LED City AG | Switzerland**

LED City is developing an autonomous plug-and-play lighting system to reduce the energy consumption of lighting by 90%. The integrated control unit and sensors allow the lighting to be regulated autonomously and according to demand.



### **NeuronSW SE | Czech Republic**

Neuron Soundware offers an end-to-end system that enables machine diagnostics and predictive maintenance to reduce costs & downtime. It is comprised of sound sensors, microphones, IoT devices, and a cloud platform and includes 24/7 monitoring of assets, hardware rental, and continuous improvement of the detection algorithm.





### **Ormera AG | Switzerland**

Ormera offers a simple billing platform for sustainable smart buildings. The goal is to optimize customers' energy consumption by transparently monitoring data. To do so the platform combines any IoT device with highly secure blockchain technology.



PassiveLogic

### **PassiveLogic | United States**

PassiveLogic is the first fully autonomous platform for buildings, going beyond smart or automated. Their Hive platform is built on a physics-based engine that uses deep digital twin analogs of the building, its occupants, and its equipment to control interconnected systems with a physics-based view of the future.



### **Reengen Enerji Teknolojileri Anonim Sirketi | Turkey**

Reagen provides an IoT Platform as a cloud-based data analytics solution for buildings, industrial facilities and renewable energy plants. The software collects and analyses data and employs machine learning algorithms to provide operational efficiency, energy procurement optimization and predictive maintenance for customers.



### **Versius / Domey | Czech Republic**

Versius/Domey developed an intelligent IoT platform, FlowBox, that optimizes energy costs and assets' utilization for medium-sized manufacturing companies by providing cloud aggregation of process control systems into a single smart-control function.



### **Vutility, Inc. | United States**

Vutility is a provider of real-time, high-resolution, wireless, energy monitoring solutions, that allow businesses to optimize their energy usage and improve operational efficiencies. Its proprietary HotDrop™ technology, an advanced wireless current transformer, can be used in various industries to gain relevant insights into energy consumption.



### **Wattnow SA | Tunisia**

Wattnow is an IoT Energy Management Solution that combines proprietary hardware, and a cloud-based Dashboard with a mobile app powered by an AI engine for energy analytics. It measures real-time energy usage to help businesses and homeowners optimize their energy consumption and reduce their costs.



### **WLE Innovation Hub GmbH | Germany**

WLE aims for a transparent and interactive energy transition for the consumer's benefit. By implementing the WE LOVE ENERGY (WLE) B2B2C platform they provide information about energy utilities and offer options to choose green energy suppliers to encourage consumers to go greener.



### **YAYZY Ltd. | United Kingdom**

YAYZY helps consumers and businesses to understand the impact of their spendings on the planet. Their app automatically calculates the carbon footprint using payment data. By offering plug-and-play APIs to businesses, they can help their customers track and offset their individual carbon footprints.



### **ZunRoof Tech | India**

ZunRoof is solving electricity issues of Indian households through rooftop solar and monitoring electrical appliances in homes. The company has developed an end-to-end smart energy solution that handles the energy harnessing, storage, maintenance, and consumption of electricity.





## Category: ENERGY DISTRIBUTION & STORAGE

Finalist



### ACCURE Battery Intelligence GmbH | Germany

Accure analyses battery data to increase battery lifetime and enable the full capacity of the batteries. Through cloud-computing, they give full access to data on battery performance which improves safety, reliability and sustainable usage.



### Adaptricity AG | Switzerland

Adaptricity offers a fully cloud-based grid analytics platform for the analysis, planning and optimization of distribution grids. By providing and analysing the high value data, Adaptricity unlocks the potential of the grid capacity.

Finalist



### Ampacimon | Belgium

AMPACIMON developed a Dynamic Line rating system which monitors latent capacity in existing powerlines and additionally considers environmental influential conditions. Their smart management method enables an increase in the capacity of existing grids.



### AquaBattery B.V. | Netherlands

AquaBattery has developed flow-type batteries, which require only water and table salt to store electricity and therefore offers environment-friendly and inexpensive storage solutions. AquaBattery's products can store electricity from solar and wind for a long period of time, while adding extra capacity.



### **Blink Energy, Inc. | United States**

Blink Energy Inc. supports grid functionality with sensors by providing data on weather hazards to the headquarters in order to secure power distribution. Moreover, they have developed a device, 'Plectron', which vibrates the powerline periodically to prevent ice occurrences and lowers maintenance costs.



### **Camus Energy, Inc | United States**

Camus developed a grid management platform that involves real-time data analytics of the grid performance, an optimization engine and a market platform providing distribution-level energy balancing markets with prices adapting to the real-time local energy ecosystem.



### **Dexter Energy Services B.V. | Netherlands**

Dexter offers AI-based forecasting-as-a-service to reduce imbalances on the electricity grid. Their software uses state-of-the-art digital technologies such as advanced machine learning, big data management and scalable cloud solutions to optimise the portfolio of energy retailers and advise energy utilities.



### **enmacc GmbH | Germany**

enmacc makes energy procurement and sales trading a seamless process, replacing email, messenger, phone and Excel. Enmacc organises liquidity where established brokers and exchanges fail. Thereby, enmaccs provides the critical market infrastructure for investments in renewable energy production.



### **enspired GmbH | Austria**

Enspired GmbH offers trading-as-a-service on the short-term energy markets. With their AI-based software, they support companies with or without intraday market access to commercially optimize their power portfolio's flexibility and provide them with direct market access combined with the most progressive power trading services.





### Evergen | Australia

Evergen is a software start-up that enables smarter energy by optimising energy storage systems and orchestrates large fleets of batteries to enable Virtual Power Plants. This ensures a resilient and decentralised energy system for the future and drives benefits for consumers, businesses, network operators and other utilities.



### Foresight Energy LTD | Israel

Foresight Energy developed a distributed energy management platform, powered by artificial intelligence. Their core technology, ENERGY AI, was specifically designed for distributed grids. The cutting edge technology enables the increased accuracy of forecasts and decreases power usage.



### Future Grid | Australia

Future Grid develops a software that turns smart meter data into improved grid reliability, asset management, and customer safety. The software establishes a feedback loop from the grid edge by analyzing smart meter data in real-time and integrating results back into key business systems for real operational outcomes.



### Geyser Batteries Oy | Finland

Geyser Batteries offers water-based energy storage solutions with a capacity of over one million fast charge-discharge cycles at competitive pricing. The batteries are suitable for heavy-duty industrial machinery, electric vehicles, ancillary power sources across the different industries and stationary energy storage.



### greenventory GmbH | Germany

greenventory offers a SaaS solution for the automated, digital mapping and analysis of energy systems. The results are evaluated and a digital twin of the energy system on the building level is established, containing relevant building parameters, potentials for renewables and more.



### **gridX GmbH | Germany**

GridX provides companies with flexible and scalable energy IoT solutions to digitize energy infrastructure. Their digital platform, XENON, provides an interface to all energy appliances including managing EV charging, building microgrids, or monitoring energy flows.



### **LeydenJar Technologies B.V. | Netherlands**

LeydenJar Technology develops silicon anodes for Li-ion battery cells. By replacing the traditional graphite-based anode the technology enables the highest energy density for Li-ion batteries in the world - up to 70% higher than the current state-of-the-art products.



### **re.alto-energy srl | Belgium**

re.alto develops a platform that brings value to all sides of the energy economy through easy-to-use, standardized energy APIs. By connecting and facilitating the exchange of energy data and services, re.alto makes it easier for companies to create value and accelerate the transition to smarter grids.



### **Solytic | Germany**

Solytic is the first interconnected platform for PV plants, providing a digital advisor for all topics around your PV plant. By directly connecting via monitoring to any installed hardware device, Solytic can identify issues and potentials using AI analytics and provide offers from merchants to solve real customer problems.



### **STABL Energy | Germany**

STABL Energy's core product is a modular multilevel power converter for industrial and utility-scale battery storage systems. The implemented software-based system makes battery storage safer, more reliable, affordable and also enables economic re-use of discarded batteries from electric vehicles.



**Titan Advanced Energy Solutions, Inc | United States**

TITAN develops ultrasound-based technology and advanced algorithms that measure and evaluate the health and charge of Li-ion batteries in real-time. Their patented technology provides higher accuracy over the life of the battery and increases charge capacity by at least 20% and battery life by 125%.

**Urbio AG | Switzerland**

Urbio offers a SaaS platform for planning and designing sustainable energy technologies in cities. Relying on generative design and AI, it combines computers and human expertise to achieve results in 90% less planning time and can provide 15% efficiency gains in urban infrastructure projects.

**Zaphiro Technologies SA | Switzerland**

Zaphiro operates in the smart grid domain and supports power utilities to efficiently integrate renewable power sources. Their solution is a combination of hardware and software which enables grid monitoring and automation system. It provides full grid visibility, simple installations and reduces blackouts.



## Category:

# SMART MOBILITY & TRANSPORTATION



### AgeVolt | Slovakia

AgeVolt offers a unique charging system for electric vehicles that optimizes charging based on the actual available capacity of the building, without overloading the grid and eliminating the need to have extra connections. They also develop a blockchain-powered digital platform to connect EV charger owners and users.



### Bluedot Technologies, Inc. | United States

Bluedot provides charging station owners with state-of-the-art tools to manage their assets. They engage EV drivers to build their own ecosystem, reduce downtime through having access to multiple charging stations, and earn revenue from their charging station fleet.



### BluWave-ai | Canada

BluWave-ai offers a SaaS software to help operators of electrified fleets connect to distribution utilities to predict, optimize, and control how energy is used in the fleets and in conjunction with overall depot operations. Their software helps fleet operators reduce the cost of energy and the carbon footprint of operations.



### Chargetrip BV | Netherlands

Chargetrip offers smart EV routing as an API-based SaaS platform that points out the optimal route, including charging stations and accurate calculations of the real-time range of any electric vehicle. This solution can be integrated across brand-owned applications, websites, in-car systems, telematics solutions and phone applications.





### ChargeX GmbH | Germany

ChargeX develops modular charging solutions for electric cars called 'Aqueduct' which enables an easy set-up and flexible scale-up of large-scale charging infrastructure. Aqueduct reduces the cost of hardware and installation by 50% compared to existing solutions whilst also reducing complexity for the customer.



### DUCKT OU | Estonia

DUCKT OU develops and produces internationally patented infrastructure solutions for micromobility. A single and unified solution to dock, lock and charge any micromobility vehicle that is either shared, public or private in one spot. It is the building brick of future e-hub concepts across the globe.



### Fuelsave Consultoria S.A | Portugal

Fuelsave introduced Meight's Driver Assistant which solves driving efficiency, route planning and improves safety. The software interacts with drivers through real-time suggestions based on current driving behavior and past experiences from other drivers, benefiting from a collective learning environment and constant feedback.



### GLEAM technologies GmbH | Germany

The GLEAM Multi-Use Bike is a three-wheel vehicle, built to transport cargo behind the driver. The bike is equipped with a strong electric engine to facilitate the transportation of heavy loads. The Dynamic Tilting Technology and the FLEX System ensure comfortable rides.



### Invisible Urban Charging Ltd. | New Zealand

Invisible Urban Charging develops a space-saving retractable EV charging bollard, which complements a full set of EV charging solutions. Our EV charging infrastructure product set is designed for parking operators around the world, in parking buildings and public areas.



### **kraftwerk TUBES GmbH | Germany**

kraftwerk TUBES develops advanced solid oxide fuel cells (aSOFCs) that can convert the chemical energy of hydrogen or all common e-fuels directly into electrical energy. This technology can be used in the automotive industry, aviation, new fields like unmanned aerial vehicles (UAV) and surveillance, or the Internet of Things (IoT).



### **Mellowcabs | South Africa**

Mellowcabs develops and manufactures light electric cargo vehicles, called MellowVans that provide low-cost, efficient and emission-free delivery services in cities.



### **Milênio Bus | Brazil**

Milênio Bus provides real-time passenger ridership analytics for efficient public transport operations. Their solution based on IoT and AI is installed inside the vehicles and terminals, so companies can manage their fleets according to the passenger demand.



### **Monta | Denmark**

Monta is a platform for EV owners to charge seamlessly both at home and when away. Monta GreenCharge forecasts the availability of renewable energy and manages your charging to reduce CO2 emissions.



### **Nanosun Ltd. | United Kingdom**

NanoSUN developed the Pioneer refueling station which incorporates NanoSUN's novel cascade refueling technology and integrates storage, transport, and dispensing in an integrated mobile hydrogen refueling station. Pioneer stations are factories built into a standard shipping container.



**RUNWITHIT Synthetics Inc. | Canada**

The start-up developed Single Synthetic Mobility Environment, live, geospatial, interconnected modeling environments, that are hyper-localized through a process of combining publicly available data, research, and expertise. These models help to educate stakeholders on future cities' mobility choices and changing technology.

**TRANSITION-ONE | France**

Transition-One converts thermal cars into modern cars: electric, connected and affordable. Transition-One has developed retrofitting technology that consists in extracting all the elements specific to the petrol or diesel thermal engine to replace it with a 100% electric engine block and batteries.

**Wego srl | Italy**

Wego has developed the car-sharing app Volero, which connects vehicle owners with consumers. The start-up uses AI and advanced technologies to improve the quality of rides and offer full insurance coverage. All data and contracts are stored in a distributed ledger (blockchain) allowing transparency, reliability, and maximum security.



## Category: QUALITY ENERGY ACCESS & SDG7



### AMMP Technologies B.V. | Netherlands

The AMMP SaaS platform is a vendor-agnostic solution for the remote monitoring and management of portfolios of off-grid renewable energy systems. It enables data-driven operational excellence, leading to higher system uptimes and significant OPEX savings.



### ARESS | Benin

ARESS sells, supplies and maintains solar off-grid solutions in Bénin, Togo and Burkina Faso. The core of their business model is to unlock electricity access to rural areas and households in order to tackle social inequalities and economic barriers.



### Atec Australia-international Pty. Ltd | Australia

Atec developed an eCooking product which comes as the world's first PAYGO-enabled electro-magnetic induction cooking stove. The alternative cooking solution operates safely, energy-efficiently and at a very low cost, and this way Atec unlocks access to modern cooking solutions for low-income households around the world.

**Finalist**



### Boreal Light GmbH | Germany

Boreal Light GmbH designs and manufactures affordable solar water desalination systems for off-grid communities around the globe. Systems manufactured by Boreal Light are capable of delivering high quality hygiene drinking, irrigation, fish farm and sanitation water from any kind of high saline and polluted water resources.





### Ferntech GmbH | Germany

Ferntech offers a remote monitoring and control technology that revolutionizes centralized energy systems. By combining a physical controller that connects to local devices and a cloud-based platform, the powerful API integrations make it possible for customers to connect with their power systems from anywhere.



### Komodo Water | Indonesia

Komodo Water offers integrated Water Management Solutions for remote-coastal areas which consists of a hydrology survey, data analysis, EPC, OM and derivative products. These integrated services apply sustainable and eco-friendly concepts including renewable energy usage.



### Litro Solar SAS | Colombia

Litro Solar provides access to electricity and wifi in remote areas. The company has developed an intelligent solar streetlight that can deploy a wireless WiFi network and is built from affordable elements.



### MPower Ventures AG | Switzerland

Via a scalable B2B2C approach, MPower partners with local entrepreneurs and SMEs in emerging markets to finance and distribute affordable clean energy products to households and SMEs living in urban and rural areas in emerging markets.

**Finalist**



### Nitho Holdings, Inc. | United States

Nithio is a venture-backed energy finance platform that provides services to businesses, capital providers, governments, and other stakeholders in the distributed solar sector in Africa. The company is addressing the need for modern energy access on the continent by providing a sustainable infrastructure for capital delivery.





### Pollinate Group Ltd | Australia

Pollinate Group empowers women as leaders of change to distribute products that improve health, save time and save money for the world's most neglected communities.



### Powerstove Energy | Nigeria

Powerstove Energy designed an ultra-efficient, smokeless cookstove with lights and electricity output intended for usage in emerging markets. The business model is based on pay-as-you-go that enables affordable finance options



### Reeddi, Inc. | Canada

Reeddi innovatively provides clean, reliable, and affordable electricity to individuals and businesses in the energy-poor regions of the world. Through their hardware-as-a-service business model, households and businesses in African communities have affordable access to clean and reliable electricity anywhere, everywhere.

**Finalist**



### Science For Society Techno Services Pvt Ltd | India

Science For Society develops the Solar Conduction Dryer (SCD), an electricity-free solar-powered food dehydrator that reduces the moisture content of the agricultural products so they can be preserved for up to 1 year without using any chemicals. They also install SCDs at farms, buy back the dried products and sell them to food companies.



### Standard Microgrid | Zambia

Standard Microgrid develops a solar microgrid system combined with a mobile app and billing platform, that enables unskilled people to purchase and resell energy credit to households, small businesses, and clinics in remote areas. The technology provides energy access to customers when they need it at a substantially lower price.





### **SUNami AS | Norway**

SUNami AS offers Pay-As-You-Go large capacity solar home systems and job creation packages to households and businesses in rural off-grid areas in East Africa. The Solar products also include capacity building and entrepreneurship training to enable their customers to utilize the electricity for income generating purposes.





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