



**Start Up
Energy Transition**
Global Innovation Platform

SET100 List

OF 2023

Compiling the 100 Most Promising
Global Energy Start-ups of 2023

#SET23

startup-energy-transition.com

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In cooperation with





About SET

In 2016, the German Energy Agency (dena), identified a strong need to support impactful innovation aimed at accelerating the energy transition worldwide. As such, dena, with the support of the German Federal Foreign Ministry for Economic Affairs and Energy (BMWK) and industry partners, created SET to establish deep, productive connections between 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.

In 2017, the World Energy Council joined dena as a cooperation partner to expand the reach and leverage of SET. SET continues to enable these connections with its 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 SET Newsroom.**

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 Award has increased our voice and the publicity connected us with global players and new customers."

Ecoligo, Winner of the SET Award 2021

The SET100 List

The SET100 list is a compilation of the top 100 SET Award applications. The initiative was first launched in 2017 in collaboration with the World Energy Council with the aim of offering young companies a platform to showcase their forward-thinking solutions.

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 seven years, the award has received more than 3,100 applications from over 100 countries.

"The energy markets are evolving towards sustainability, creating opportunities for innovation and start-ups. With technologies in renewable energy, energy storage, smart grids, and energy management systems, start-ups have the potential to provide disruptive and innovative solutions and play a key role in the global energy transformation."

Andreas Kuhlmann, German Energy Agency (dena)

"The global impact potential embodied by this year's SET100 finalists is amazing. Highlighting and helping them scale is an honour. We are building on seven years in partnership with dena to redesign energy for people and planet."

Dr. Angela Wilkinson, World Energy Council

SET Award 2023

Going into the seventh year, SET is proud to present the top 100 international start-ups from the SET Award 2023 competition. More than 400 start-ups from 63 countries applied in 1 of 5 categories to showcase their game-changing solutions.

The #SET23 Categories



Clean Energy
& Storage



Buildings &
Construction



Mobility &
Transportation



Quality Energy
Access & SDG-7



Industry

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 400+ 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, capacity to execute their strategies (finances, network, leadership, etc.) and diversity.

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.

Our Jury



Andreas Kuhlmann
Chief Executive,
German Energy Agency
(dena)



Dr. Angela Wilkinson
Secretary General and CEO,
World Energy
Council



Dr. Antje Danielson
Research Director,
MIT Energy Initiative
(MITEI)



Raamu Moneyam
Senior Associate,
BayWa r.e. Energy
Ventures



Hiran Horoufchin
Investment Manager,
Virgin Group



Victoria McIvor
Investor,
World Fund



Julia Padberg
Principal,
SET Ventures



Aneri Pradhan
COO Germany,
New Energy Nexus



Rushad Nanavatty
Managing Director Ur-
ban Transformation,
RMI



Sarah Röhm
Strategic VC,
DTCP Management GmbH



Dr. Christoph Wolff
Director Green
Hydrogen,
World Economic Forum



Jane Wu
Executive Director,
Venture Cup China



Our Jury



Alex Khripko
Acceleration Manager,
Third Derivative at RMI



Aziz Sulaiman Rahim
Principal,
Siemens Energy Ven-
tures



Felix Krause
Partner,
Vireo Venture GmbH



Marie-Line Vaiani
Secretary General,
French Comittee of the
World Energy Council



Max ter Horst
Managing Partner
Energy, Rockstart



Dr. Philipp Gebert
General Managing
Director,
UnternehmerTUM



Robina von Stein
Investor,
Contrarian Ventures



Taavi Madiberk
CEO & Co-Founder,
Skeleton Technologies



Tina Schirr
Executive Director,
Business NZ Energy
Council



Samuel Gerlach
Senior Innovation &
Venture Dev. Manager,
E.ON Innovation



Iris Olga Jensen
Investment Associate,
BayWa r.e. Energy
Ventures



Luis Sperr
Managing Partner,
Wi Venture



Our Jury



Mike Enskat
Head of Infrastructure,
GIZ



Moshiri Solmaz
Head of Commercial for
Digital Services,
SSE Energy Solutions

What trends do you see in the climate tech start-up world in general?

"Since 2016, we have been investing in early-stage start-ups that enable the transition to a net-zero world with affordable and secure energy through direct and indirect electrification. I can't remember a time with such an accumulation of high-quality start-ups, excellent founders, and sophisticated business plans as we see today. Overall, the whole clean-tech space has completely changed to a more professional and business-oriented mentality, with high-calibre founders who are now choosing to go into energy-tech and not any other space. This reflects my belief that the energy sector is one of the most attractive areas to invest in at the moment: It is large, growing fast, undergoing radical change and therefore offers investors an above-average 'return on climate and investment'."

Felix Krause, Vireo Ventures



What trends do you see in the SET Award applications compared to previous years?

"This year, I am amazed by the many problem-solving solutions coming through in the applications received. There is some stiff competition this year, with so many start-ups providing solutions for challenges the energy sector has grappled with for a long-time.

Many start-ups are providing not only game-changing solutions when it comes to large scale decarbonisation, but also simplifying the deployment of renewable energies across the globe. It's truly impressive!"

Tina Schirr, Business NZ Energy Council

Do you see any trends regarding in the teams you invest in?

"1. More climate tech start-ups have deeper collaboration with research institutes internationally.

2. Hydrogen is a very promising alternative fuel for crossing the world.

3. We see a growing number of start-ups in energy storage space tap into material sciences than data system. It's truly impressive!"

Jane Wu, Venture Cup China



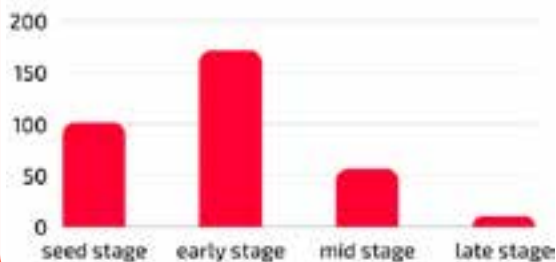
SET100 Distribution



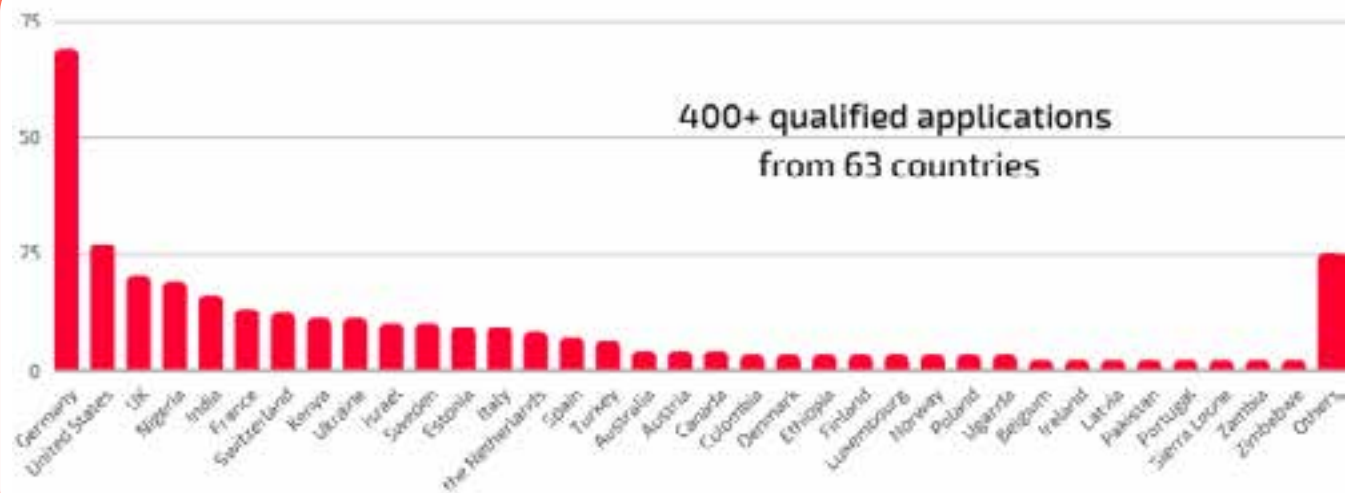
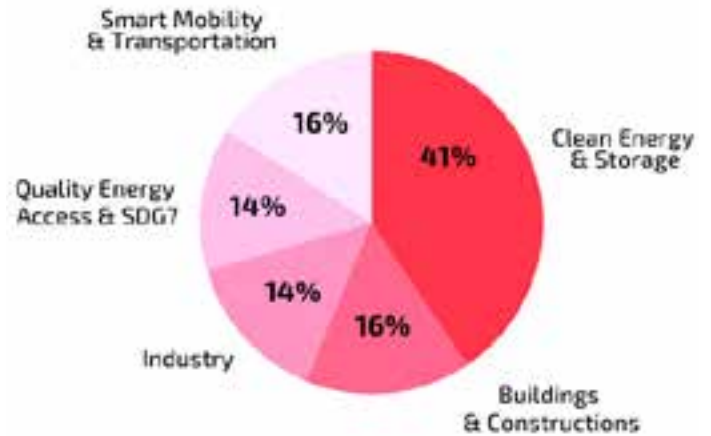
400+ Applications in Total
% of Qualified Applications

2019	2020	2021	2022	2023
77%	69%	80%	80%	83%

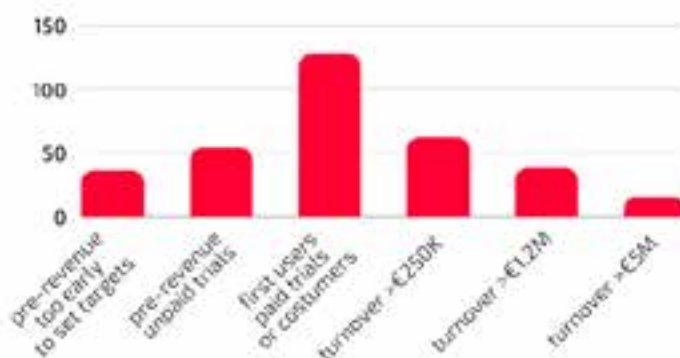
Qualified Applications Per Stage



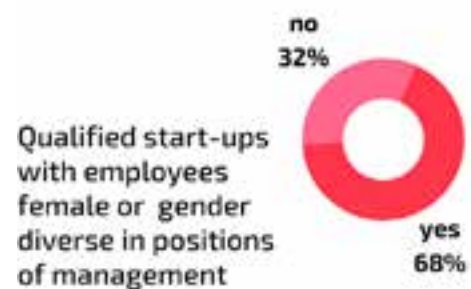
Qualified Applications Per Category



Commercial Maturity (qualified)



Diversity in Management





Category: Clean Energy & Storage

The generation, storage and distribution of renewable energy is the backbone of the energy transition. In this category, we are looking for start-ups developing solutions to decarbonise our most energy-intensive sectors, as well as those accelerating the adoption of new solutions through capacity building.



Acklio | France

Expert in communication protocols and data compression, Acklio enables smart meter deployment on the latest affordable IoT networks. Its innovations are now globally adopted standards with pilots launched all over the world to support the energy transition, from the most advanced national networks to the most remote microgrids.



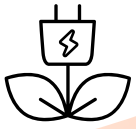
ANNEA.ai GmbH | Germany

ANNEA is a German greentech company providing a predictive maintenance and asset optimisation platform. The start-up helps green energy producers cut their operational costs by up to 50%, while also increasing energy production by up to 15%.



autarq GmbH | Germany

Autarq is a climate tech pioneer for solar roof tiles. The miniaturized PV module includes a proprietary wiring harness and enables a plug-and-play installable BIPV system that operates safely in parallel through extra-low voltage. The system is safe, flexible, easy to install, and designed with aesthetic considerations.

**Beem Energy | France**

Beem Energy's mission is to enable people to take control of their energy at home and to participate in the energy transition. The Beem Kit is the first connected plug-and-play solar kit for the market and enables production, consumption and storage of energy for the average household.

**BeFC | France**

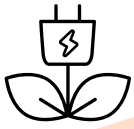
BeFC produces paper-based biofuel cells that are environmentally friendly and compostable. Lightweight, thin and flexible, they can be used to power simple microcontrollers, a range of MEMS sensors, data storage and read-outs (display, wireless protocol, etc.).

**Efficient Energy Technologie GmbH | Austria**

SolMate by EET is a photovoltaic and storage system that can be installed by anyone by simply plugging it into a wall socket. Thanks to its intelligent power injection based on a patented measurement technology, SolMate provides renewable electricity to households only when it's needed, storing the rest for later, whether on or off the grid!

**EH Group Engineering AG | Austria**

EH Group Engineering provides an innovative hydrogen fuel cell technology that is compact, lightweight and low-cost. Designed for high-power applications, EH Group's innovative & patented fuel cell technology used in its fuel cell stacks and systems is perfect for mobile/automotive applications such as buses, trucks, forklifts, boats, and even drones.

**Emrgy Inc. | United States**

Emrgy radically reimagines the existing global water infrastructure into sources of distributed renewable energy. It allows infrastructure owners to seamlessly generate water power within existing operations thereby reducing grid consumption, costs, as well as carbon emissions.

**encoord Inc. | United States**

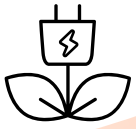
encoord provides software tools, data and advisory services to help energy stakeholders plan for the energy transition. encoord's core technology is the Scenario Analysis Interface for Energy Systems (SAInt), a software platform to model and plan energy networks and markets.

**Energy Dome S.p.A. | Italy**

Unlocking utility-scale, long-duration energy storage: Energy Dome's CO2 battery enables dispatchable renewable electricity to make the net zero energy transition possible. The battery is based on a thermodynamic process that uses CO2 to store electricity cost-effectively.

Finalist**EnergyElephant | Ireland**

EnergyElephant helps organisations around the world improve sustainability, save time and reduce costs with its all-in-one energy and sustainability management platform. Using a four-stage process, customers can get data, insights, take action and achieve results effortlessly.

**enspired GmbH | Austria**

enspired is a fully digital power trading-as-a-service company, enabling clients to bring flexible assets to short-term power markets. enspired augments trading strategies with state-of-the-art AI technology so asset owners are supported in developing stable and scalable business models for innovative use cases.

**everyone energy UG | Germany**

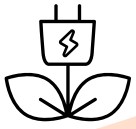
everyone energy's white-label software empowers B2B clients to scale their sustainable businesses. Designed for end customers, the digital consulting service offers automated building checks, plant simulations and evaluations against regulatory operating models.

**Fusebox OÜ | Estonia**

Fusebox offers a scalable software solution that can be easily integrated into any smart automation system. Buildings using its tech can act like a battery that can charge and discharge according to market needs. This allows electricity consumers to optimize electricity usage, earn revenue and reduce their CO₂ emissions.

**GML Enline Transmission Solutions | France**

Enline provides SaaS solutions in power systems using AI and ML. The technology creates sensorless Digital Twin systems that are able to digitize any distribution or transmission asset. Grid operators then have predictive assessments of electrical, mechanical and thermal asset behaviors which serve as a forecasting risk management tool.

The logo for Granular, featuring the word "GRANULAR" in a bold, sans-serif font. The letters are white with a thin black outline, and the "A" is stylized with a small gap.

Granular SAS | France

The electricity market is moving towards a new model of renewable electricity certification based on hourly certificates, known as 24/7 carbon free energy. Granular Energy provides software tools that enable utilities to effortlessly manage their clean electricity in a 24/7 carbon free electricity market.

The logo for Greenjoules, featuring a stylized green leaf icon above the word "GREENJOULES" in a bold, sans-serif font. The letters are green with a thin black outline.

Greenjoules Pvt. Ltd. | India

Greenjoules makes fossil diesel-equivalent renewable fuel from agro wastes. Greenjoules's solution has the potential to reduce the carbon footprint of diesel-powered machines by an incredible 95%.

The logo for Gridwiz, featuring the word "Gridwiz" in a bold, sans-serif font. The letters are green with a thin black outline, and the "i" is stylized with a small dot.

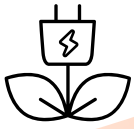
Gridwiz Inc. | Republic of Korea

Gridwiz is a clean energy start-up that provides intelligent platform solutions integrating GW-scaled distributed energy resources. Its clean and sustainable energy solutions are at the core of delivering benefits to over a thousand customers, at the same time providing flexibility to the grid and healing the Earth.

The logo for H2Pro, featuring the text "H2PRO" in a bold, sans-serif font. The "H2" is blue and the "PRO" is green, with a small circular icon to the right.

H2Pro | Israel

H2Pro is accelerating the transition to net zero by enabling affordable green hydrogen this decade. H2Pro has developed E-TAC - a revolutionary method for producing green hydrogen by splitting water. The method is 95% efficient, safe, and cost-effective.

**H2U Technologies Inc. | United States**

H2U Technologies is an electrolyzer company that leverages expertise in catalyst discovery to develop low-capital-cost, iridium-free proton exchange membrane electrolyzers for hydrogen production. The technology in H2U's Catalyst Discovery Engine™ (CDE) stems from a decade of research at Caltech, funded by the U.S. Department of Energy.

**Heliac A/S | Denmark**

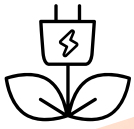
Heliac creates solar-generated heat for industrial processes and district heating at temperatures of up to 200°C. Heliac's solution suits the food and beverage, paper and pulp, as well as many other industries when heating, drying, boiling, cleaning, and more. Heliac also offers a high-temperature thermal energy storage that allows 24/7 CO2-free heat.

**Installion GmbH | Germany**

As an industry service provider, Installion is helping drive the energy transition. The Installion Profi Suite is an online marketplace and project management tool for installation orders in the photovoltaic industry, ensuring greater efficiency through the entire process for both clients and contractors – from match-making to installation.

**Kraftblock GmbH | Germany**

Kraftblock develops and builds systems to decarbonize heat in industries, district heating and the energy sector. The core technology is a multi-purpose, high-temperature energy storage that stores heat up to 1,300°C (2,400°F) in upcycled material. The systems either recycle waste heat or generate green heat via green power.

**NyQuest Innovation Labs | India**

NyQuest Innovation Labs' latest product, iCON, is a smart solar converter for uninterrupted power supply systems, seamlessly connecting any system to photovoltaic panels. With a growing customer base in India and SSA, iCON is expanding through interoperability: from Japan's 90V to US 120V, and Europe's 240V.

Plexigrid S.L. | Spain

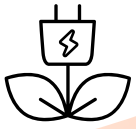
Plexigrid provides a grid-centric flexibility management system that enables DSOs to distribute more energy within current network capacity. The solution connects grid planners and operations with flexibility pools, including low voltage behind-the-meter assets, to reduce grid costs, speed up grid connections and increase grid stability.

Finalist**Roofit.Solar Energy OÜ | Estonia**

Roofit.Solar produces award-winning solar roofs combining Nordic design with cutting-edge solar technology. Roofit.Solar's fully integrated roofs are sturdy enough to withstand extreme weather and offer reduced total cost-of-build thanks to a simple and quick 2-in-1 installation.

**Sentrisense GmbH | Germany**

Sentrisense helps power transmission and power distribution companies to benchmark the health of the conductors and detect complex problems such as corrosion, ageing, ice deposits, fallen trees, and other phenomena. With a strong focus on easy to use and simple scalability, Sentrisense can also be used for grid optimization by knowing the ampacity in real time.

**SmartGrid | The Netherlands**

SmartGrid develops, engineers and produces mobile energy storage hard- and software systems that easily integrate into micro and smart-grid solutions. In combination with safe energy storage, SmartGrid sees software as the key to the perfect smart-grid solution.

SmartHelio Sarl | Switzerland

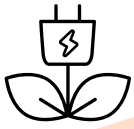
SmartHelio has developed an analytics platform that creates clean energy assets with a diagnose, predict and prescribe usage of predictive maintenance software. Its solution fully and easily integrates with client systems, and is developed from over 10 years of R&D in Switzerland.

Solaires Entreprises Inc. | Canada

Solaires captures outdoor and artificial indoor light to recharge sensors, IoT devices, and more with its proprietary PEROVSKITE technology. Perovskite cells are light, transparent thin-film solar panels with higher efficiency than conventional silicon and with greater flexibility for an even wider range of innovative applications.

Spottitt Ltd. | United Kingdom

Spottitt helps utilities increase the reliability and performance of their underground or overhead networks by providing satellite-based, geospatial analytics that helps track a variety of external risks – all in real-time and at scale.

**Supercritical Solutions Ltd. | United Kingdom**

Supercritical is on a mission to eliminate the hardest 20% of global emissions. By developing the world's first high pressure, ultra-efficient electrolyser, Supercritical aims to use technology to slash the cost of green hydrogen required for the world's biggest emitters in this decade.

**Voltaware Services Ltd. | United Kingdom**

Voltaware provides appliance-level energy insights directly to customers to help them face ever increasing bills and optimise their energy use - in real-time. Working with energy utilities, banks and telecoms, it offers a white-labeled platform to help customers navigate energy crises and the energy transition.

**WeDoSolar GmbH | Germany**

We Do Solar is a smart solar sight protection for your balcony. The system is lightweight, self-installable and works from a normal power plug which makes it easy to handle for non tech-savvy users. There is a companion app that shows the production of the power as well as how much CO₂ each customer has saved.



Category: Mobility & Transportation

So long as we have space, we will need to move about in it. Transportation and mobility continues to be one of the most essential but energy-intensive sectors we monitor. This category rewards creative solutions and lateral thinking in a sector that can span the large and the physical to the virtual and the digital.



Ampersand USA Inc. | United States

Petrol motorcycles make up half of Africa's road traffic. Ampersand developed and manufactures an electric motorcycle and battery pack, along with a portfolio of 'battery-as-a-service' supporting swap stations. Ampersand's growing fleet of 800 motorbikes cost 35% less to buy and operate, have more horsepower, and currently serve 20 million km of road.



Drone Defence Services Ltd. | United Kingdom

Drone Defence Services is a hardware and software development company, offering a vertically integrated approach to the growing drone industry. Its solar sentinel rapid deployment system offers a solar-powered, off-grid and fully mobile drone detection and CCTV platform that helps keep the skies and ground infrastructure safe.



ECOFACOR CHARGE | Ukraine

EcoFactor is a Ukrainian company that designs and produces charging stations, designs and manages charging infrastructure and billing services, and designs and produces electric motor vehicles. It is the leader of the Ukrainian market both in production and in the charging station network.

**BEAST****Electric Beast Global OÜ | Estonia**

Beast enables people to rent a Tesla in under five minutes with a contactless, 24/7 rental service that's awesome, convenient and environmentally conscious. Beast delivers excellent UX and is scaling rapidly through a marketplace approach.

Finalist**ELONROAD®****Elonroad AB | Sweden**

Whether driving or parked, Elonroad charges electric vehicles with a safe and energy efficient alternative. The built-in software enables even small batteries to have unlimited range and thus converts highways into a smart road infrastructure.

FTEX**FTEX | Canada**

FTEX provides light EV manufacturers with a full plug-and-play hardware solution with a complete end-to-end operating system. With FTEX, traditional OEMs can quickly leapfrog their competitors and offer modern vehicles while reducing R&D cost and development time, helping them get their products to market faster.

h hergele**Hergele Teknoloji Anonim Sirketi | Turkey**

Hergele Mobility offers all-inclusive mobility solutions, from various turnkey fleet management use cases, to shared mobility and warehouse mobility solutions with the wamo vehicles. Hergele solves the most complex logistical problems with the leanest of approaches.

**HeyCharge GmbH | Germany**

Smart EV charging – without the internet! HeyCharge lowers cost and turbocharges the user experience for smart, multi-user EV charging systems. Products include a turnkey solution for apartment buildings as well as an embeddable, white-label platform allowing partners to embed the tech in their own apps and wall boxes.

Finalist**Navalt Solar & Electric Boats Pvt. Ltd. | India**

Navalt is an ecological marine tech company that specialises in the manufacturing of solar electric vessels. The start-up is already an industry leader in the global solar market. With its innovation, the young company is helping to accelerate the complete electrification of shipping.

**Paragon Mobility SAS | France**

Paragon Mobility disrupts the execution, deployment and delivery of the energy and charging infrastructure with the Pod: a fully-integrated, rapidly deployable, modular charging station. The Pod provides rapid charging even in grid-constrained sites thanks to its efficient battery storage and embedded power management systems.

**q-bility GmbH | Germany**

q-bility offers a state-of-the-art way to trade saved emissions through its digital marketplace. By offering a transparent, rapid, and cost-effective trading platform, q-bility helps reduce emissions digitally to help achieve net-zero climate goals.

**RABOT CHARGE GmbH | Germany**

rabot.charge gives customers the ability to smartly manage their own energy consumption while protecting the environment and resources. The rabot.charge algorithm allows users to manage car charging intelligently, economically and sustainably.

RideTandem | United Kingdom

RideTandem turns local transport providers into smart shuttles for work, education and more, creating a cleaner and greener commute for communities whose choice is too often expensive car ownership or not travelling at all.

Finalist**Spark e-Fuels GmbH | Germany**

Spark e-Fuels fights the significant environmental impact of aviation: they develop and operate production facilities for sustainable aviation fuel (SAF). The start-up has found a solution to the limited availability and high cost of SAF. For the first time, it is developing an e-fuel SAF production system with direct access to renewable electricity.

WATTPARK | France

WATTPARK is the "Airbnb of EV charging": the first reservable, shareable and monetizable EV charging ecosystem in the world. Installation by qualified professionals, with integrated access and monetization management from the start, WATTPARK users in France also benefit from 300€ tax credit and ADVENIR aid.



BEAST

Wego | Italy

Volvero is an app for vehicle sharing. With Volvero, private owners and businesses can recover their costs through a seamless, smart and safe drive-sharing experience that connects owners to customers quickly and easily.



Category: Industry

Industry accounts for a staggering one-third of global greenhouse emissions and is one of the most challenging sectors for decarbonisation. Nevertheless, innovation here represents one of the biggest, most important, and most profitable ways for companies to decarbonise. A new category for 2023!



AC Biode | Luxembourg

AC Biode upcycles ash or sludge, which pollutes the planet, into CircuLite, which cleans the planet. CircuLite can be used in carbon capture, self-cooling concrete, soil improvement, water and air purification, face masks, and cleaning up oil spills. This allows power plants to lower their carbon footprint, and costs and create a circular economy.



Algbio | Turkey

Algbio treats sewage and wastewater, capturing trapped CO₂ using microalgae to produce biofuels, bioplastics, and biomaterials as well as generating carbon credits. Algbio treats wastes by using phycoremediation, which helps protect oceanic biodiversity, as well as fueling the transition from a fossil-based economy to a more sustainable manufacturing base.

Finalist

BeChained Artificial Intelligence Technologies S.L. | Spain

BeChained helps consumers save costs and CO₂ emissions through a digital twin and dispatch control system for distributed resources. Through a ledger-based information system, BeChained cuts unnecessary consumption in production processes and feeds that freed capacity back into the market by selling CO₂ credits through the EU's Emissions Trading System.

**Buyo India Pvt. Ltd. | India**

Buyofuel is India's number one online marketplace for all types of biofuels and wastes. Buyofuel helps consumers easily switch to biofuels and also helps biofuel manufacturers easily access waste through a single online platform. Buyofuel's technology platform ensures complete transparency and quality assurance for all transactions.

**Carbominer LLC | Ukraine**

Carbominer develops new modular Direct Air Capture technology to capture CO₂ from the air locally, near its place of origin. The combination of dry and wet capture approaches allows consumers to capture and then use the only over-produced part of renewable energy: CO₂.

**Carbon Re Ltd. | United Kingdom**

Carbon Re applies breakthrough artificial intelligence research to the decarbonization of cement and other foundation materials, developing commercial solutions that reduce emissions today and pave the way towards the zero carbon materials of the future.

**Climax Community | United Kingdom**

Climate Essentials is the first carbon data collection and analysis platform to aggregate and share carbon data between the public and private sector, providing a tool to make a net-zero future a reality across all industries. We are redefining carbon management by bringing stakeholders together to enact meaningful change.

**etalytics GmbH | Germany**

Etalytics is a software provider for energy intelligence solutions to increase energy efficiency and flexibility through data-driven and energy engineering processes. The etaONE platform from etalytics enables customers to structure, visualize, analyze and optimize their energy systems to reduce CO₂ emissions and energy costs.

**goodcarbon GmbH | Germany**

goodcarbon provides companies with easy and convenient access to nature through a Nature-as-a-Service platform. With the platform, companies can invest in high-impact nature-based solution projects and build up a global, diversified portfolio. In return, companies get access to carbon credits from the projects over the next 10 to 30 years.

**guane enterprises | Colombia**

Guane supports the global energy transition by building AI optimization-based solutions for the energy value chain: from generation to transmission, distribution and demand. We digitally transform and automate corporate processes with 4.0 technologies using secure, flexible and robust software cloud platforms.

Finalist**Heatrix GmbH | Germany**

Heatrix's wants to competitively replace fossil fuels in energy-intensive industries by converting renewable electricity into storable, high-temperature process heat. No carbon-neutral, cost-competitive and easy-to-integrate solution currently exists. Heatrix's solution has the potential to decarbonize the majority of high-emission industries.

**HumanLearning | United Kingdom**

As the industry accelerates the rollout of infrastructure, there is an opportunity to digitally transform legacy paper/digital checklist driven processes that use poor collaboration tools with limited innovation and achieve more with fewer resources. HumanLearning addresses this need by taking a people-first and a data-driven approach.

**KoalaLifter | Spain**

KoalaLifter is a disruptive self-climbing crane system designed with a unique method: using friction collars. The various models are all designed to maintain and erect onshore and offshore wind turbines through a universally applicable solution that drives efficiency in the wind turbine industry.

**KWOTA OÜ | Estonia**

Carbon credits marketplace KWOTA disrupts the circular economy value chain by adding up to 20% additional income into the equation. Switching from virgin to recycled resources reduces CO₂ emissions by an average of 40% in paper production alone. KWOTA helps to certify and trade these savings returning 80% to the material producers.

**Naco Technologies | Latvia**

Naco Technologies empowers the creation and adoption of green hydrogen systems by creating specialized, future-proof nano-coatings and new materials. Naco Technologies improve hydrogen systems' performance, reduces hydrogen system costs, and provides unique material recipes and coating solutions that last.

**Ndustrail.io Inc. | United States**

Ndustrail delivers an open platform for companies across multiple industries to digitally transform their business. Through two platforms – a real-time industrial platform and code data engine and a data integration and intelligent insight platform – Ndustrail has helped companies save over \$100 million in energy spend and increase sustainable industrial operations.

Finalist**Rondo Energy | United States**

Rondo Energy makes industrial decarbonisation possible – and profitable – today. The Rondo Heat Battery captures renewable electricity to deliver low-cost, zero-carbon and continuous high-temperature heat for industry. In essence, it's a toaster heating bricks to help decarbonize heavy industries like steel, cement, aluminium and biofuels.



Category: Buildings & Construction

Our built environments consume lots of energy, whether through their construction, the materials used, or the significant chunk that is wasted in keeping them warm or cold. This category rewards those creating the comfortable, cost-effective, energy-efficient buildings of the future.



AMPEERS ENERGY GmbH | Germany

AMPEERS ENERGY (AE) is a SaaS company that enables the real estate industry to implement a climate-neutral energy supply for their buildings. With its software solutions and the integration of service partners, AE reduces CO₂ emissions of buildings by over 90% while at the same time yielding a significant ROI for real estate owners.

Finalist

ClimateView | Sweden

ClimateView is a Swedish climate tech company providing game-changing SaaS insights to accelerate cities' transition to net zero. ClimateView's ClimateOS platform connects emissions to economics, helping city planners to manage, budget and mitigate their emissions to reach net zero.



Comgy GmbH | Germany

Comgy's central energy data operating system for buildings provides comprehensive, reliable and continuous data for asset managers. In turn, this helps to monitor, manage and optimize building stock and increase energy efficiency across the board.

**ETA PLUS GmbH | Germany**

ETA+ (i.e ETA PLUS) has developed a building and infrastructure platform to manage and meter energy consumption, emissions and user behavior. Based on a holistic 360° view and data structure, ETA+ is already serving over 4,000 properties.

**Exergenics Trading Pty. Ltd. | Australia**

Exergenics is the world's first remote software for continuous chilled water plant optimisation, leveraging powerful machine learning to optimise the performance and maximise the efficiency of cooling systems without impacting building operations.

**haus.me Inc. | United States**

Microhaus is a sustainable portable living space with a comfort level of a luxury house. Developed by a team from the aerospace industry, the Microhaus incorporates energy efficient PassivHaus Standards, self-sustainability and 4.0 scalable manufacturing principles.

**Hyperion Robotics Oy | Finland**

Hyperion Robotics designs, engineers and manufactures sustainable concrete structures, helping clients save time, money and embodied carbon. By bringing together 3D printing technology, automation and circular economy principles, Hyperion enables material usage savings of 75 % and cuts construction's carbon footprint by up to 90 %.

Finalist

**LANCEY ENERGY STORAGE | France**

LANCEY is the French company behind the LANCEY Capella, the first intelligent electric radiator with an embedded storage battery. It belongs to a complete heating and energy managing solution for buildings built on predictive computing modeling.

Finalist**Lumoview Building Analytics GmbH | Germany**

Lumoview's building analytics offers the fastest way to digitize buildings and reduce CO₂ footprint. Through AI, the device scans rooms in just two seconds, producing dependable 3D CAD designs that empower owners to efficiently manage their buildings and reduce CO₂ through targeted, deep renovations.

**Mixergy Ltd. | France**

Mixergy's mission is to move water heating away from fossil fuels to zero and low carbon. With Mixergy's smart and connected hot water tanks that utilizes unique top-down heating technology, customers save money and reduce their environmental impact. Connect to any heat source, save up to 40% on hot water energy usage and only heat what is needed.

**Myrspoven AB | Sweden**

Combining AI and extensive industry knowledge, Myrspoven's proprietary solution, myCoreAI, guarantees the best indoor climate at the lowest possible energy use, helping consumers save up to 25%. Myrspoven also offers electricity spot price and power tariff optimization, enhancing savings and helping the energy system handle demand peaks.

**PassiveLogic****PassiveLogic Inc. | United States**

PassiveLogic is the world's first fully autonomous platform for buildings. Powered by Quantum, the digital twin standard for autonomous systems, buildings can experience a 30% increase in energy efficiency through controls at the edge, thus reducing the world's carbon footprint and paving the way for smart cities.

**Soletair Power Oy | Finland**

Soletair Power has developed a modular direct air capture device that can be retrofitted with buildings' HVAC systems to capture CO₂ from the air. Captured CO₂ is then permanently stored inside concrete blocks, transforming buildings into carbon sinks, offsetting their emissions and helping supply cleaner air overall.

**Urban Sympheny AG | Switzerland**

Sympheny offers cloud-based software to support the planning of renewables-based energy systems for buildings, hubs, districts, and cities. Using a data-driven approach and sophisticated algorithms, Sympheny's platform designs cost-efficient and sustainable energy systems while incorporating the latest in energy technology.

**vilisto GmbH | Germany**

vilisto saves companies and municipalities up to 32% in heating energy. By a holistic approach that digitizes the entire heat management process through fully automated and self-learning technology, vilisto ensures customers only consume as much heat as needed, save on their energy and bills, and help protect the environment.

**ZENTUR.IO****Zentur.io GmbH | Germany**

Zentur.io is the enabler for digital and green district heating grids. It provides SaaS for utilities, enabling them to provide more transparency to consumers, operate the network more efficiently while saving natural energy resources. In addition, Zentur.io helps transform the district heating supply to renewable energy with its simulation solution.

**Zurich Soft Robotics GmbH | Switzerland**

Solskin is a world-first moving lightweight photovoltaic facade system that combines shading and electricity generation, providing optimal energy management to buildings. Through its AI algorithms, Solskin learns from occupants' comfort needs and ensures thermal and light comfort in different weather conditions, throughout the year.



Category: Quality Energy Access & SDG-7

In this category, we reward start-ups who are looking to the future and working with and empowering the communities that are most impacted by climate change. We're looking for innovations that will make energy services for all a reality.



Africa GreenTec AG | Germany

Africa GreenTec is a German social enterprise focused on renewable energy solutions that support people in sub-Saharan Africa. With a goal to provide sustainable energy infrastructure to 3 million people by 2030, Africa GreenTec's suite of advanced, high-quality technologies empowers people to use resources respectfully.



Agrotech Plus | Kenya

Agrotech Plus provides energy-efficient, solar-powered walk-in cold storage rooms to fill Kenya's cold supply chain gaps. Agrotech Plus means 24/7 off-grid storage, preservation of perishable foods and, with its flexible pay-as-you-store subscription model, a viable solution to counter farmers' post-harvest losses.



Amped Innovation PBC | United States

Amped Innovation is a product design company focused on solar innovations for emerging markets. Amped designed a ZERO EMISSION alternative to fossil fuel generators. It's Africa-tough and fully repairable with components that are less than \$15 (minimizing e-waste). Amped's Solar HUB powers businesses without trashing the planet.

**BasiGo Ltd. | Kenya**

BasiGo is creating the future of clean, electric bus transportation in Africa. BasiGo's technology-driven battery financing model enables it to sell an E-Bus for the same upfront cost as a diesel one, while also enabling a 20% savings on OPEX. Since over 70% of the region's electricity is renewable, a single E-Bus mitigates 50T of CO₂ per annum.

**D-Olivette Enterprise | Nigeria**

D-Olivette produces domestic and user-friendly digestion technology that processes organic and biodegradable waste to reuse in the home. The easy-to-use device uses anaerobic digestion to produce clean cooking gas, clean electricity, organic fertilizer and clean reusable water – all from just one device!

**Green Scene Energy PLC | Ethiopia**

Green Scene Energy is an Ethiopian-based solar energy services company that provides affordable and reliable solar solutions to low-income households in rural villages through a smart Pay-As-You-Go (PAYG) model using mobile money.

**Koolboks SAS | France**

Koolboks is revolutionizing sustainable refrigeration by making it affordable and accessible to everyone through our Pay-As-You-Go technology. The company's innovative Kool Technology combines the natural forces of the sun and water to create eco-friendly, solar refrigeration products for domestic, commercial, and healthcare use.



Kyuka Ventures Innovation Hub | Uganda

Kyuka Ventures Innovation Hub makes affordable, clean energy accessible among low-income households. By repurposing and recycling plastic waste, Kyuka has generated a new fuel source that's suitable, scalable and fully adaptable for low-income households in marginal communities.



Manamuz Electric Ltd. | Nigeria

Coldbox Store is an off-grid cold storage solution for aggregation and bulk cooling of fresh agricultural produce. It provides productive use of clean energy in off-grid electrification systems and is used to prevent post-harvest losses in the fresh produce value chain.

Finalist

Mega Gas Alternative Energy Enterprise Ltd. | Kenya

Mega Gas Alternative Energy is a cleantech start-up whose mission is to provide low-income families with clean and affordable cooking gas through the recycling of plastic waste. Mega Gas Alternative Energy's patented process is the first of its kind in the SSA region.

Finalist

Oorja Development Solutions India Ltd. | India

Oorja is pioneering a community-based, inclusive Pay-Per-Use model that finances, delivers and installs solar farming services to small-holder farmers. Oorja helps the families, communities and industry adapt and transition away from fossil fuels in a managed and durable way.

**PAM AFRICA | Nigeria**

PAM Africa is focused on improving the lives of people by providing quality access to energy. Through its new programme, net-zero village (NZV), it has created innovative and climate-friendly technologies such as solar grids and solar cooling systems (So Cool). It has also provided solutions for e-mobility and battery swapping stations.

**Solaris GreenTech Hub | Nigeria**

Solaris is a renewable energy start-up that is committed to combating energy poverty and driving clean energy inclusion by building and deploying micro-solar products to rural and peri-urban communities.

**Solaristique Nigeria Ltd. | Nigeria**

Solaristique is a recycling company that is tackling Nigeria's food waste problem by turning old freezers into a range of low-cost, hyper-efficient, solar-powered cold storage units for off-grid use.

Finalist**Solarworx GmbH | Germany**

Solarworx provides a smart, unique and modular decentralized DC microgrid for rural African communities. Based on state-of-the-art IoT and power-electronic control technology, Solarworx wants to create the next generation of solar home systems and connect the 1.2 billion people around the world living without access to electricity.



#SET100 #SET23

Quality Energy Access & SDG-7



Standard Microgrid Initiatives Ltd. | Zambia

Standard Microgrid Zambia revolutionizes African energy delivery with smart grid technology tailored for rural communities. Our smart meters and backend services prioritize efficiency, delivering optimal value for customers with small-scale power systems.



Trends Wrap Up

The climate tech is witnessing a surge of innovations and solutions aimed at addressing the urgent need for sustainable and clean technologies. A trend that could be driven by multiple (intertwined) factors such as a growing awareness of the urgency of the climate crisis, an increase in investments from both private and public sources, as well as a rising recognition of the economic opportunities presented by the transition to a low-carbon economy.

The rise of impact investing, where investors seek out start-ups that not only provide financial returns but also have a positive impact on the environment and society, has greatly shaped the evolution of the climate tech industry. Indeed, investments in early-stage start-ups has increased, providing them with the much-needed capital to scale and bring their innovative solutions to market.

In the **clean energy and storage** category, start-ups are developing breakthrough technologies and approaches like renewable energy storage, green hydrogen production, and 'flexibilisation'.

The **mobility and transportation** sector is indicating an unprecedented shift towards electric and low-carbon vehicles, as well as innovative solutions like autonomous and shared mobility services, and new charging technologies.

The **industry** sector is focusing on decarbonizing energy-intensive industries through circular economy solutions, carbon capture, and innovative process improvements.

Meanwhile, in the **buildings and construction** sector, start-ups are developing smart energy management systems, green building materials, and retrofit solutions to reduce carbon emissions.

Finally, in the **SDG-7** category, entrepreneurs and their solutions are working to address energy poverty, promote clean energy access in underserved communities, and develop innovative financing models for clean energy deployment.

From renewable energy and energy storage, to carbon capture and climate-smart agriculture, climate tech is at the forefront of shaping a more sustainable and resilient future for all.



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