
AZELIO
SOLAR POWER WHEN YOU NEED IT

AZELIO

Renewable electricity from solar power
when and where it is needed, at a lower cost than
any other solution on the market today.

Energy access
- a prerequisite for development

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Today

7.6 billion people

1.2 billion lack access to electricity

9 million deaths annually linked to air pollution

2040

9 billion people

Added another China and India in energy demand

45 million new electricity consumers each year

CO_2 emission is increasing annually.
According to IPCC net zero CO_2 need to be reached by 2050 to stop global warming at 1,5° C.

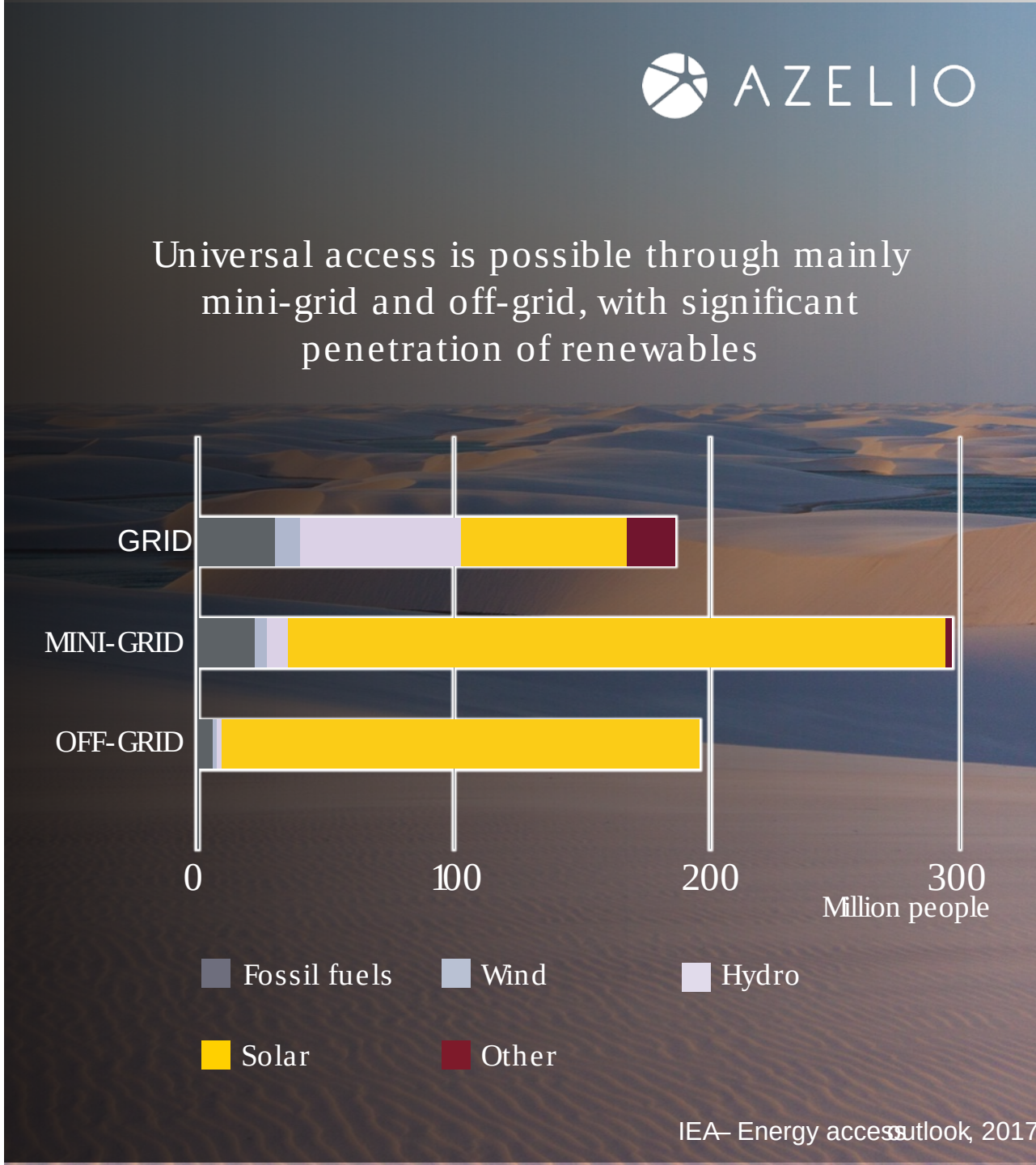
How do we secure a sustainable development with access to electricity, enabling development of societies?

Providing electricity to all in 2030

With current policies and national targets 44 million gain electricity access annually instead of the 92 million required for universal access in 2030.

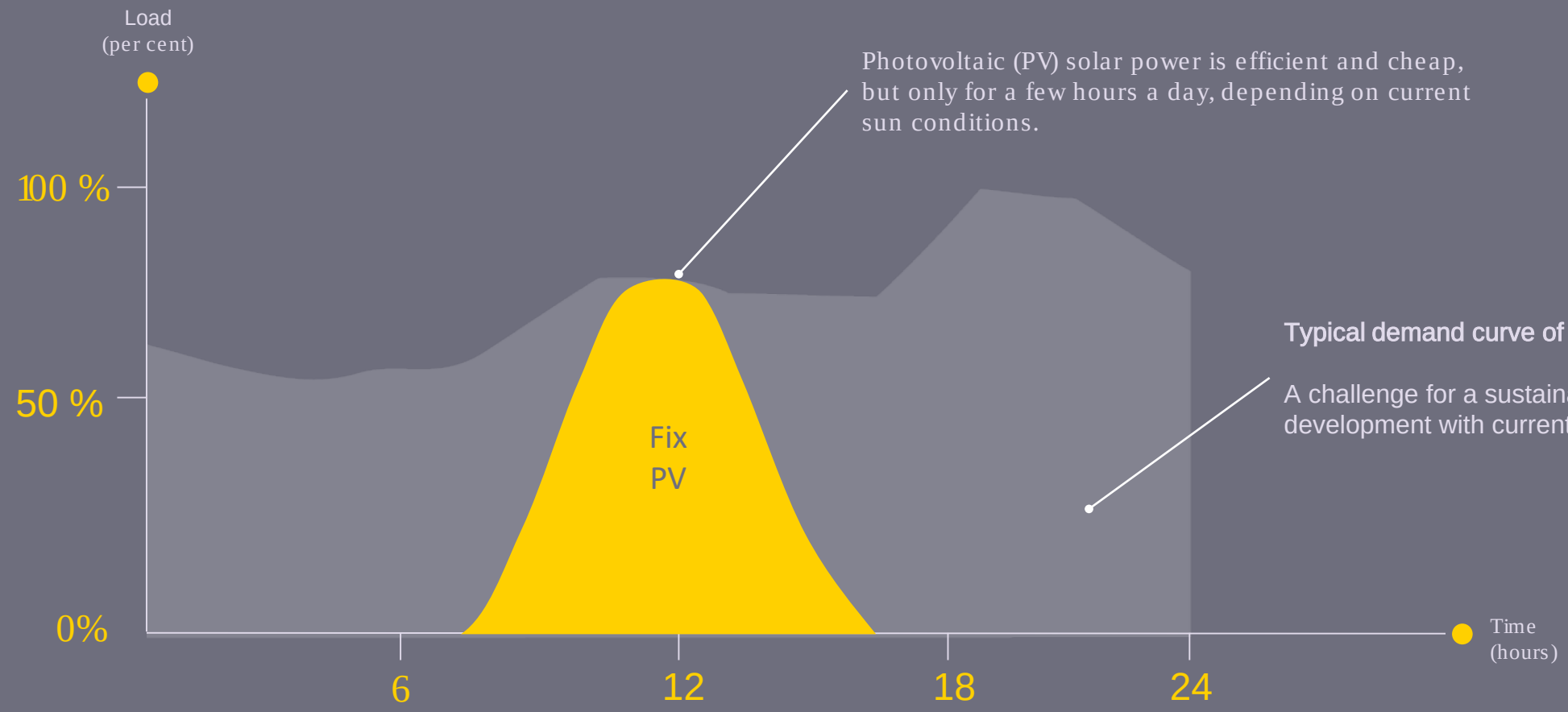
This leaves over 600 million without electricity access in 2030 with 90 % living in rural areas.

However, universal access is possible.



Obvious limitations with the currently fastest growing renewable technology

- Intermittent
- Poor match with consumption pattern



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The opportunity

The sun provides the earth with the world ´s annual primary energy consumption in little more than one hour.

The challenge

To make solar energy a real alternative to traditional fossil fuels, it needs to be combined with long term and cost efficient storage.

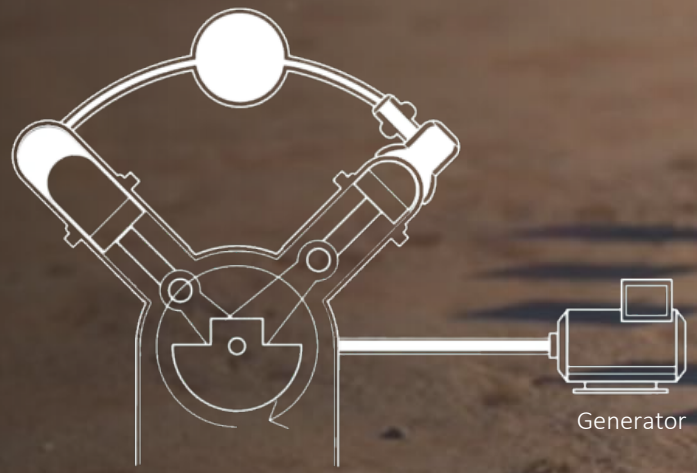
Azelio- The game changer

A **modular** and **distributed** , zero-emission CSP solution with energy storage, allowing for **dispatchable** renewable electricity 24h at a **lower cost** than any other solution on the market today.

The technology foundation
- Azelio's Stirling engine

100 % heat powered, zero emissions

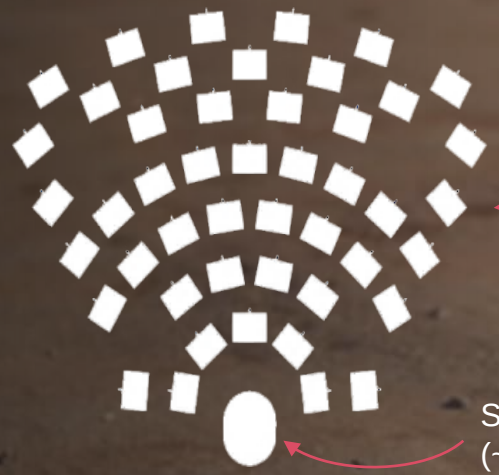
- Efficient and reliable
- Developed and perfected over 25 years
- Experience drawn from 2,000,000 accumulated operating hours



Concentrated Solar Power (CSP)

High system efficiency requring less installed mirror area

- Mirrors in a heliostat field, a mature technology
- Easy installation, maintenance and service
- Easy to expand and adjust size based on needs

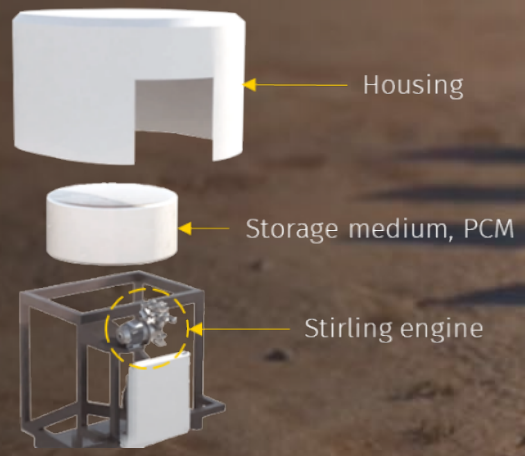


Ground-breaking innovation

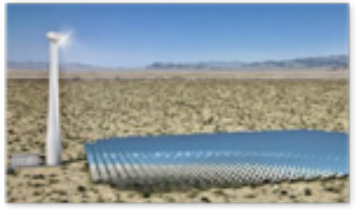
- Azelio's Thermal Energy Storage (TES) solution

Renewable electricity at a low cost, all hours of the day

- Phase Change Material (PCM) of an aluminum alloy
- Most cost efficient system with storage
- Storage capacity of 13 h production at nominal power
- No degradation or loss of storage medium (PCM)



Azelio's Competitors

DIRECT COMPETITORS	AZELIO	VAST SOLAR	247SOLAR	
Technology type	 CSP tower Stirling	 CSP tower Steam turbine	 CSP tower Compressed air turbine	 CSP dish hybrid Stirling
Storage	TES Aluminium alloy	TES Salt	TES Ceramic brick	Thermochemical ES Metal alloy hybrid
Module size (Rated electricity capacity)	13 kW	333 kW	300–1,200 kW	33 kW
System demonstration	✓ Full scale Stirling CSP installed. Small scale TES demonstrated.	✓ Full scale CSP tower installed. Small scale TES installed.	✗ No demonstration results available.	✗ No demonstration results available.
Commercialization (Announced projects)	– 3 Stirling CSP pilot installations totaling 231 kW deployed – 3 Stirling CSP research installations totaling 30 kW deployed – Full scale TES demo complete (10 kW)	– 1.1 MW CSP plant with 3 hour storage deployed – 30 MW CSP plant with 4 hour storage under development – 50 MW PV plant under development	– 300 kW CSP pilot under development	✗ No commercial projects.

The benefits of Azelio's solution

Combining established technology with new thinking and a ground breaking innovation

- Distributed and dispatchable solar electricity all hours of the day
- Modular and cost competitive already from small installations
- Zero emission and no need for process water
- Superior system efficiency and sustainability compared to distributed and dispatchable alternatives

Sustainable

Dispatchable

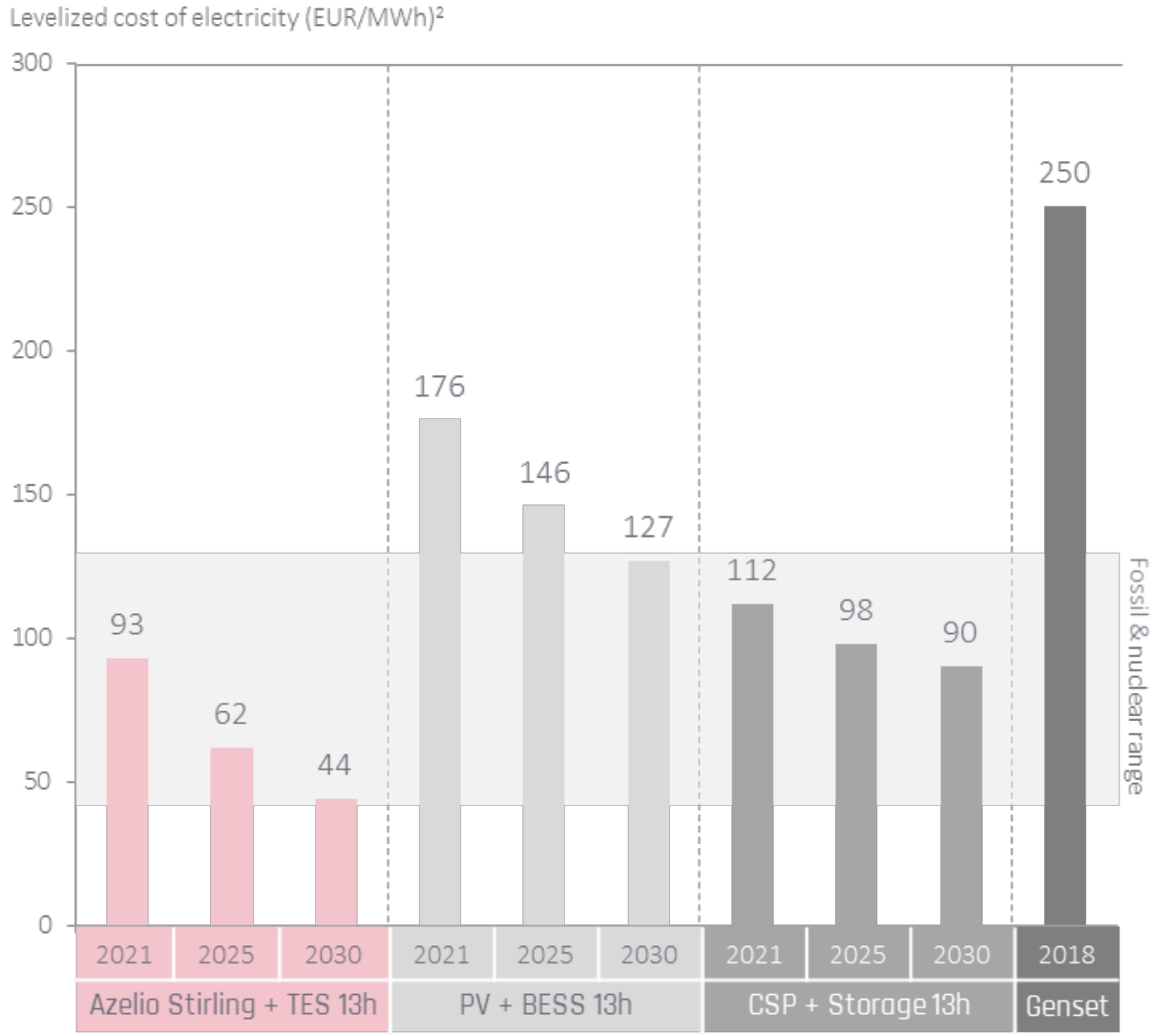
Distributed

Low cost

Lower LCOE compared to competing technologies

LEVELIZED COST OF ELECTRICITY (LCOE)

Azelio's system offers a competitive LCOE thanks to Azelio's efficient Stirling engine, the overall low material cost, and cheap storage technology.



Note: (2) Assumed 5% discount rate, 30 year life time, 8 hours of sunlight per day, CSP tower 100 MW, PV commercial grade size.
Source: (2) Company calculations based on data collected from NREL ATB.

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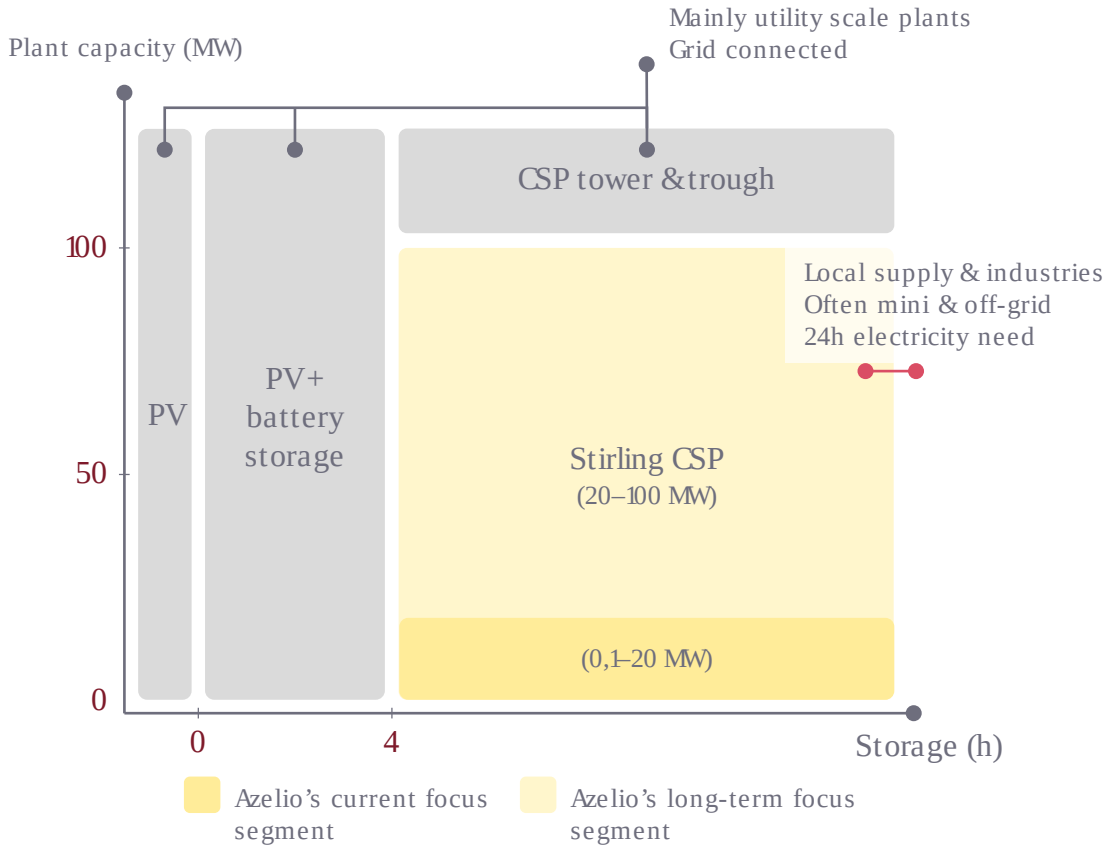
OUR MARKET STRATEGY

Azelio's positioning

- A large untapped potential

A gap in the market for modular small scale installations with storage capacity exceeding 4 hours. Characterized by low competition and high technological barriers of entry.

The target region is the sun belts where conditions are favorable and the need is high.



A strong partner network

masen
Morocco & Northern Africa

In Azelio's Board of Directors. A key strategic partner for R&D and commercialization. A Joint pilot installation in Morocco, in operation since 2016.

First Stirling CSP with TES is expected to be installed during 2019

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dewa
Dubai, UAE

Ongoing R&D cooperation. A pilot installation was installed in Dubai 2015 (originally 110 kW) but is not currently in operation.

Discussions are ongoing for another pilot installation including TES unit.

Masdar
A MUBADALA COMPANY
Abu Dabi, UAE

Ongoing R&D cooperation since January 2018 with the Masdar Institute to develop the TES.

The current scope of the cooperation is expected to continue.

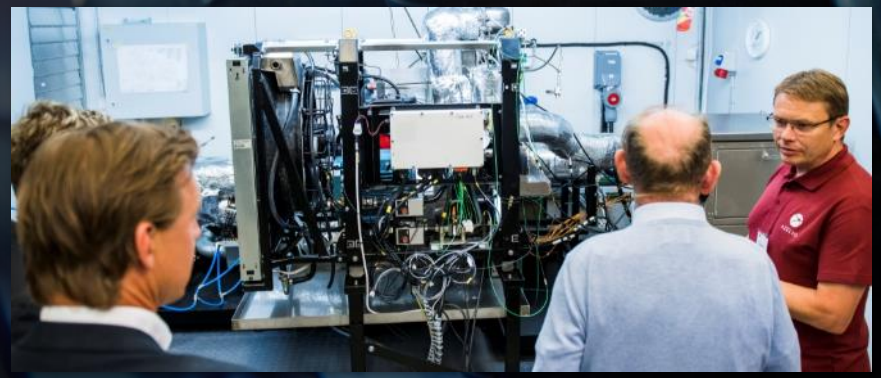
大唐国投 DATANG HOLDINGS
China & other countries along the *One Belt One Road*

Cooperation framework agreement signed in 2017, including manufacturing, installation and development. Planning for a 200 MW project is ongoing.

KTH
CHALMERS UNIVERSITY OF TECHNOLOGY
KHALIFA UNIVERSITY

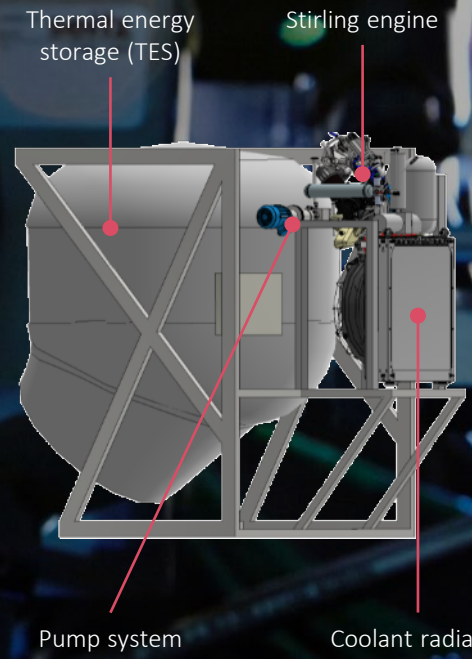
Storage solution demonstrated in June 2018

With this successful demonstration, all subsystems in Azelio's Stirling CSP solution has now been demonstrated.



The heart of the Stirling CSP solution

THE POWER UNIT



Industrialization progressing according to plan

June 2018

Technology demonstration

Presented in Azelio's development center in Åmål, Sweden

2019

Design verification

masen

Expected verification by Q4 2019.

First commercial installation

2020

Production verification

Volume ramp-up

2021

Volume production

In Azelio's factory in Uddevalla, Sweden

AZELIO

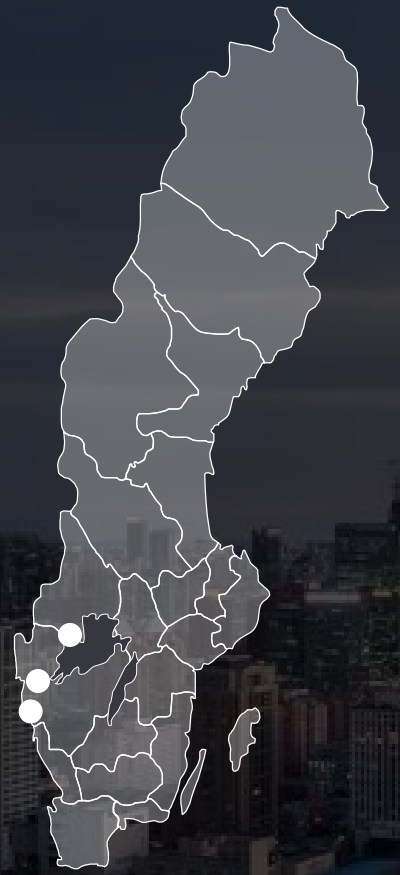
THE COMPANY

Developed in Sweden, deployed worldwide

Geographic footprint
OFFICE LOCATIONS

95
Employees

- **Gothenburg**
  HQ, R&D
- **Åmål**
  R&D, testing
- **Uddevalla**
  Manufacturing
- **Beijing, China**
  Sales & project management
- **Morocco**
  Project management
  Opened in 2018



Commercial footprint
Installed solar demonstration projects

273 kW
Aggregated deployed capacity

172
Stirling engines deployed

110 kW: Inner Mongolia, China
2012, in cooperation with an industrial partner[1]

110 kW: Dubai, UAE
2015, in cooperation with Dubai Energy and Water Authority – DEWA[1]

13 kW: Ouarzazate, Morocco
2016, In cooperation with Moroccan Authority for Sustainable Energy – Masen[1]

30 kW: Research installations
In Sweden (2013–2017), Spain (2013)[1] and Portugal (2017)[1,2]

10 kW: Pilot installation (TES)
2018, in Åmål, Sweden[1]

Note: (1) Not currently in operation; (2) Hybrid prototype.

Anew company with a strong industrial heritage

How come a company from Sweden can find a solution to one of the world's greatest energy challenges?

The people

BEST IN CLASS TEAM

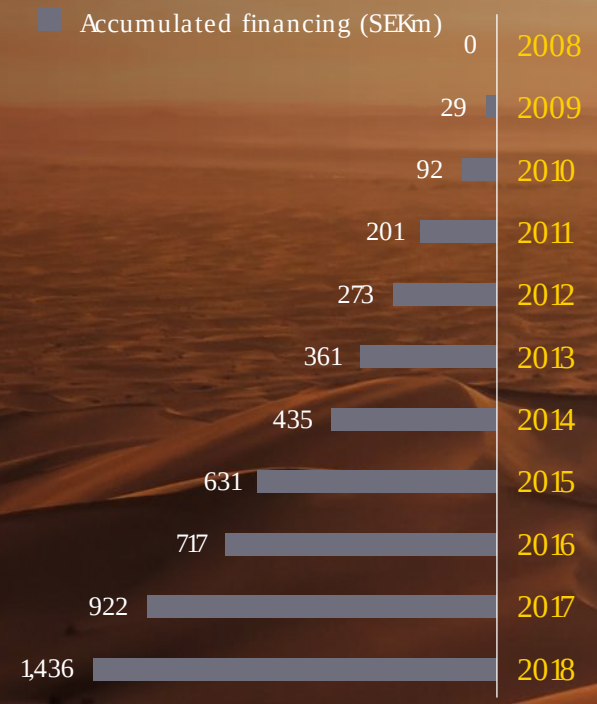
We have recruited our core competences from the Nordic automotive and aerospace clusters as well as from the international research community.

BLUE-CHIP PARTNERS

A global network of partners collaborating on R&D, manufacturing, installation, industrialization, verification and business development.

Rich heritage & undeniable persistence

KNOWLEDGE BUILDS VALUE



CONTACT: TORBJORN.LINDQUIST@AZELIO.COM

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BACKUP

Management

CEO
Jonas Eklind

Shares 3,000; Options: 523,250

Currently

Jonas holds a BSc in physics from Uppsala University. Chairman of the Board at Shapeline.

Previously

CEO at Innovativ Vision, Nilar, Shapeline, Morphic Technologies, Kitron Sweden and TiFiC. Project Manager at Sustainable Innovation, Vice President at Kitron Group and Director of Sales at Helax, Nolato and Carl Zeiss. Chairman of the Board at Morphic Systems, Exergy Fuel Cells, Dynawind, Finshyttan Hydropower, AccaGen, Dynamis, Cell Impact, Scanwind, Hellbio, Kitron Flen, Kitron Development and Aerodyn. Member of the Board at Innovativ Vision, Nordic New Energy and Kitron Microelectronics.

Development
Jan Svensson

Shares 1,040; Options: 200,000

Currently

Jan holds a MSc in mechanical engineering from Linköping Institute of Technology.

Previously

Manager Product Development at Cleanergy, Chief Engineer at GKN Aerospace Engine Systems, Project Manager Space Turbines, Director Strategic Project Portfolio Management and Engineer at Volvo Aero Corporation.

CFO
Kennet Lundberg

Shares 0; Options: 0

Currently

Kennet holds a MSc in Business Administration from Gothenburg University.

Previously

Interim CFO at Real Holding I Sverige AB, Interim CFO and COO at Hasselblad SE AB, CFO and Vice President at Xellia Group, CFO at FlexLink Group, Group Accounts Manager and Group Chief Accountant at SKF Group, Accounting Manager and Finance manager, Shipping division at Stena.

Projects
Jonas Karlsson

Shares 5,000; Options: 200,000

Currently

Hold a MSc in mechanical engineering from Chalmers Institute of Technology.

Previously

Program Manager at Cleanergy, Senior Project Manager at Cleanergy, Technical Leader Powertrain Control at Volvo Car Group, Master Black Belt at Volvo Cars Corporation, Black Belt at Volvo Car Corporation, System designer at Volvo Car Corporation.

CTO
Torbjörn Lindqvist

Shares 0; Options: 200,000

Currently

Torbjörn holds a PhD from Lund University.

Previously

Design Manager Thermal Energy Storage, Senior Engineer at Cleanergy, Senior project leader- Thermal energy storage at Cleanergy, Engineering associate fellow at Rolls-Royce plc, Marine Engineering Manager at Rolls-Royce plc, Marine Research and Technology Manager at Rolls-Royce plc, Staff Technologist, Strategic Research Centre at Rolls-Royce plc.

Partners & Collaborations
Jonas Wallmander

Shares 617; Options: 200,000

Currently

Jonas holds a MSc in mechanical engineering from Linköping Institute of Technology.

Previously

COO at Cleanergy, VP Projects at Cleanergy, Process and Technology Manager at REC Solar, Production Manager at REC Solar, Process Specialist at REC Solar.

Head of Sales
Ralf Wiesenberg

Shares 0; Options: 200,000

Currently

Dr. Wiesenberg holds a Diploma in Energy and Process Engineering by Technical University of Berlin, where he also obtained his PhD. in Energy System Engineering. He has 17 years of experience and knowledge of Hydro, Geothermal, Biofuels, Biomass, Wind, CSP and PV technology. He is a member of IEA PVPS TASK 16.

Previously

Head of Renewable Energy Spain at ÅF Aries Energía, Managing and Project Director at Sun to Market, Business Development Manager at ACS Industria, Senior Manager as PwC, Project Manager at Arthur D. Little, Electricity Trading and Business Development at SWB AG. Leading workgroup on "Potential of cost reduction for solar thermal power plants", European Solar Thermal Electricity Association, Brussels, 2014–2015.

Note: Number of options represent the number of common shares that can be acquired for the options at redemption.

Board of directors

Chairman
Bo Dankis

Shares 234,638; Options: 102,078

Currently

Board assignments: IV Produkt.

Previously

Gadelius Group, board member Gunnebo AB, Chairman Swedish Trade and Invest Council, Chairman Perstorp Group, Board member ASSA ABLOY AB (plc), President and CEO Perstorp Group, President and CEO ASSA ABLOY Group, Country Manager ABB Japan.

Director
Bertil Villard

Shares 382,214; Options: 81,900

Currently

Board assignments: Strax AB (Chairman), Rabbalshede Kraft AB (Chairman), Landsort Care AB 2-4 (Chairman), ECODC AB, Polaris A/S, Prior & Nilsson Kapitalförvaltning.

Previously

Partner at Vinge lawfirm.

Director
Pär Nuder

Shares 294,879; Options: 33,200

Currently

Senior Counselor Albright Stonebridge Group. Chairman of AP3, Skistar AB, AMF Pension AB, Hemsö AB and Öbergs färghus AB. Board member Fabege AB and Beijerinvest AB.

Previously

Minister of Finance, Minister of Policy Coordination, Chief of Staff and State Secretary to the Prime Minister, Sweden.

Director
Mattias Bergman

Shares 0; Options: 60,000

Currently

President for BIL Sweden (Swedish Automotive Association).

Previously

Senior Advisor at NEVS after 5 years as being the President of the Company, M&A manager for the acquisition of Saab Automobile, helped the owner New Modern Energy Holding, Vice president of Springtime, different leading roles in the Swedish Trade Council, Electrolux, Board member in different industries.

Director
Hicham Bouzekri

Shares 0; Options: 30,000

Currently

Hicham holds a PhD in electrical engineering from Texas A&M University. Director R&D and Industrial Integration - establishing innovation and knowledge economy ecosystems: MASEN, Morocco and United Nations - ESCWA.

Previously

Microelectronics industrial process engineer, SGS-Thomson, Casablanca, Founder of STMicroelectronics' Rabat Integrated Circuit Design center. Management positions within STM and ST-Ericsson, Faculty member at Al Akhawayn University. Senior member, IEEE. Co-founder of the Morocco Microelectronics Cluster (later CE3M). CEO, Mascir, Morocco.

Director
Kent Janér

Shares 10,362,491; Options: 224,551

Currently

Kent holds a MSc in business administration from the Stockholm School of Economics. Owner of Blue Marlin AB, the largest owner of Azelio AB, Partner and Director at Brummer & Partners, Director of Nektar and Eastfort, member of the Nobel Foundation's Investment Committee, member of the Supervisory Board of SNS.

Previously

Responsible for Fixed Income Trading at JP Bank, Manager Citibank, Board member JP Bank, Board member Ålandsbanken.

Director
Chris Beaufait

Shares 115,000; Options: 30,000

Currently

Chief Commercial Officer and General Manager, Exoskeleton and Humanoid Systems at Sarcos Robotics. Board member for Heartland Water Technology, Advisory Board member for Securrency.

Previously

Chris led the Asia Pacific & China business as a Group SVP and President for Vestas. President of China Commercial Aircraft Programs, President and General Manager for General Electric Company's global avionics business, Leader of Business Development for GE Aviation, GE Transportation and GE Corporate China.

Director
Lars Thunell

Shares 200,000; Options: 330,000

Currently **(Expected to be elected prior to the IPO)**

Lars holds a PhD in political science from Stockholm University. Assistant Professor at Harvard University. Chairman of Björnberget Fastighetsförvaltning AB, Jaktfågeln Holding AB, Flexenclosure AB (publ), among others. Board member of Björnberget Residens AB and Björnberget Produktion i Åre AB, among others.

Previously

CEO of International Finance Corporation, a member of the World Bank Group. Leading positions in Swedish and international businesses, among them at ABB, American Express and SEB.

Employee rep.
Teo Jörlén

Shares 0; Options: 10,000

Currently

Team Leader Software Development, Employee Representative appointed by Unionen.

Prevously

Lead software developer Stirling engine control software at Azelio, Software developer in defence industry at Combitech AB, Developer for sensor fusion algorithm for inertial navigation at Prevas AB, M.Sc Electrical Engineering Karlstads University, B.Sc Electrical Engineering Örebro Universty.

Note: Number of options represent the number of common shares that can be acquired for the options at redemption; (1) 50,000 buy options issued by the Principal Owner in the Company; (2) 330,000 buy options issued by the Principal Owner in the Company.

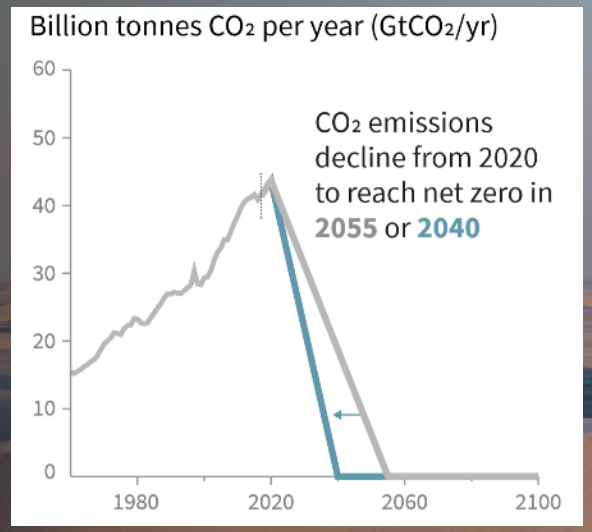
Unprecedented change needed
-what's the alternative?

"by 2050, use of coal as an electricity source would have to drop from 40 % to between 1 to 7 %. Renewables should increase from today's 20 % to 67 %.

The estimated $54 trillion in damage from 1,5°C degrees warming would grow to $69 trillion if the world continues to warm by 2°C and beyond."

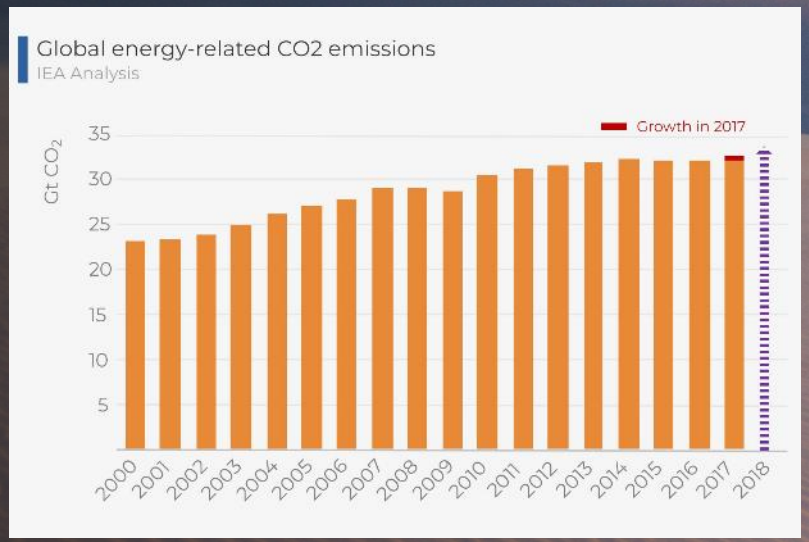
- IPCC, 2018

Required reductionfor 1,5°C limit



IPPC, 2018

Current increasein CO2 emission



IEA, 2018

To make solar energy the obvious choice of energy source within the earths solar belts through-on demand delivery of electricity at the lowest cost

Technology and cost leadership globally through.

- Competent, focused and motivated employees
- Our unique CSP Stirling system competence
- Carefully selected, strategic cooperation/partners
- Economy of volume and the right suppliers

Clean, affordable energy for more people with reduced global climate impact