ABSOLICON
SOLAR COLLECTORS

Concentrated solar collectors for industry, district heating and solar cooling / **Customer magazine 2019**

Interest in solar energy is large and growing –

NOW WE WIDEN SALES TO MORE MARKETS

Absolicon T160
Receive the Solar Keymark certification

T160 Production Line
One solar collector every six minutes

Absolicon makes it possible to leave
fossil fuels behind
and meet the needs for

ZERO CO_2 INDUSTRY

T160 Solar Thermal Collector

76% OPTICAL EFFICIENCY

Absolicon has a unique technology, based on 20 years of research, for extracting energy in different forms using concentrated solar collectors, or solar concentrators.
The concentrators help reduce the production costs, while simultaneously providing a high degree of energy efficiency in the form of thermal energy, solar cooling, solar heat and solar steam.

Fossil energy resources are limited. The sun will be shining for at least another 4 billion years.
So what are you waiting for?
Start the journey to a business that runs on solar energy today.

For more information visit
www.absolicon.com

We're Now Expanding Into More Markets

In 2019, the company has seen an exciting development. Two promising framework agreements have been signed with the plan to deliver production lines to South Africa and Kenya during 2020 and 2021. Exciting projects have also been launched regarding the tea industry in Rwanda and district heating in Eastern Europe.

We also achieved our largest ever sales initiative and have gained hundreds of contacts across industries worldwide. This resulted in several processes that we feel will lead to sales of production lines.

We are now mobilising further resources so that we do not rest on our laurels. Through new recruitments and more external consultants, we will continue to open markets by signing contracts with even more regional partners that are ready to invest in production lines.

Our materials initiatives have given us research results which ensure that Absolicon will continue to lead the development of parabolic solar collectors for many years to come. Our patent portfolio is expanding and will provide steady license revenues in the future.

On a personal level, I am affected by the young people who are now demonstrating on our streets about our inability to stop carbon dioxide emissions. To save the climate, those young people will be forced to try to remove the carbon dioxide that we are currently emitting into the atmosphere and put it back into the ground again. The children are right - politicians and companies must take the results of the researchers seriously.

Absolicon's role is to provide one of the technologists who can quickly reduce emissions. The strategies we set up at the IPO 36 months ago have proven to be sound and viable.

We feel strongly supported by our shareholders. There is no reason not to take advantage of our opportunities for faster expansion.

Joakim Byström
Founder and CEO

Absolicon Solar Collector AB

Absolicon will be the world's leading supplier of solar concentrators. By developing, manufacturing and selling solar energy systems that generate renewable energy in various forms, we are helping to solve the world's energy problem.

Absolicon is working in, and for, a market that is evolving rapidly as the customers demand, for this reason the sales team have identified specific tools, proposals and approaches in order to offer and adapt Absolicon business model, technology and product to specific requirement(s).

When you get in touch with Absolicon, Carlo Semeraro and his sales team will take care of you and follow up your request.

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Greenline Africa signs framework agreement for Absolicon's production line in South Africa

Following positive signals from industrial customers, Greenline Africa has signed a framework agreement with Absolicon on the acquisition of a production line to manufacture Absolicon's concentrating solar collector T160 in South Africa.

GREENLINE AFRICA
SUSTAINABLE ENERGY SOLUTIONS

Greenline Africa is a team of dedicated experts in sustainability who have worked with solar heat for many years before teaming up with Absolicon.

The energy market in South Africa is changing rapidly. Large industries often use coal or gas. Several of the large multinational companies have central policy decisions to reduce carbon dioxide emissions.

Many of the smaller industries, for historical reasons, use electricity for process heat. Electricity prices have, however, risen sharply in recent years, and in combination with week-long power outages, they are looking for companies offering other solutions. The total sales value covered by the agreement is estimated at approximately €4 million plus a monthly license fee of 4% and the sale of components.

The production line is expected to be operational in South Africa during the second half of 2020.

Big business call to action

The world's governments will decide the political climate, now the big multinationals can play a decisive role in trying to move ahead.

IKEA
Initiative: Stop burning oil and coal
IKEA, which has a turnover of €38 billion and has 149,000 employees worldwide, has adopted a 'call to action' to phase out all use of coal and oil-based fuels in its own operations by 2025 and of its suppliers at the latest by 2030, but also with a view of achieving 2025.
The company is to collaborate with technology suppliers and other companies in the fashion industry to succeed with this goal.

H&M
Initiative: Internal price on carbon dioxide
H&M is one of the founders of the 'Fashion Industry Charter for Climate Action', an agreement between the leading textile companies and the UN system to bring down carbon dioxide emissions by 30% by the year 2030.
H&M has its own more ambitious targets and will reduce emissions in its purchasing stages by 59% to 2030.
H&M has signed the UN Global Compact's 'Business Leadership Criteria on Carbon Pricing' and will put an internal price on CO_2 high enough to concretely influence it's investment decisions.

Solar++

Builds solar-powered processes

Absolicon owns 50% in Saravanos Solar++ AB which has received a strategically important order for an industrial evaporator.

Solar++ is an engineering company that develops solar-powered process equipment for industries. An initial installation of Absolicon's solar collectors was made in 2018 at Colgate-Palmolive in Greece.

Now the company has received its second order – an evaporator for industrial use that separates water from liquid waste or residues.

The order, for €450,000, is a pilot for a Greek company to be used to test their material in the evaporation process. If this testing goes well, a significantly larger facility may also be included.

An important trend in industry is 'Zero liquid disposal' i.e. no emissions of liquid waste. Here, solar powered evaporators can financially and effectively help these industries.

"A few years ago, we identified evaporators as one of the industrial processes that would be first in the world's industries to be run by solar, and have worked strategically to get across that technology," says Olle Olsson, research engineer at Absolicon Solar Collector AB.

The pilot is built so that it will be easy to connect to Absolicon's T160 and also to scale up at a much larger scale.

Ariya Finergy signs framework agreement for Absolicons production line in Kenya

Absolicon is pleased to sign a framework agreement with Ariya Finergy, the second framework agreement signed during 2019. Ariya Finergy has signed an agreement with Absolicon to acquire a production line for the solar collector T160 in Kenya.
Ariya Finergy is a leader in clean energy supply to commercial and industrial clients. Ariya also works with innovative financing solutions, which Absolicon sees as a key to rapid growth.

Ariya has served industrial clients in Kenya for the past four years and has the capacity to design and finance installations with concentrating solar collectors.
The total sales value covered by the agreement is estimated at € 4 million plus a monthly license fee of 4% and sales of components.
The production line is expected to be operational in Kenya during the first half of 2021.

Malte Frisk elected chairman of the board

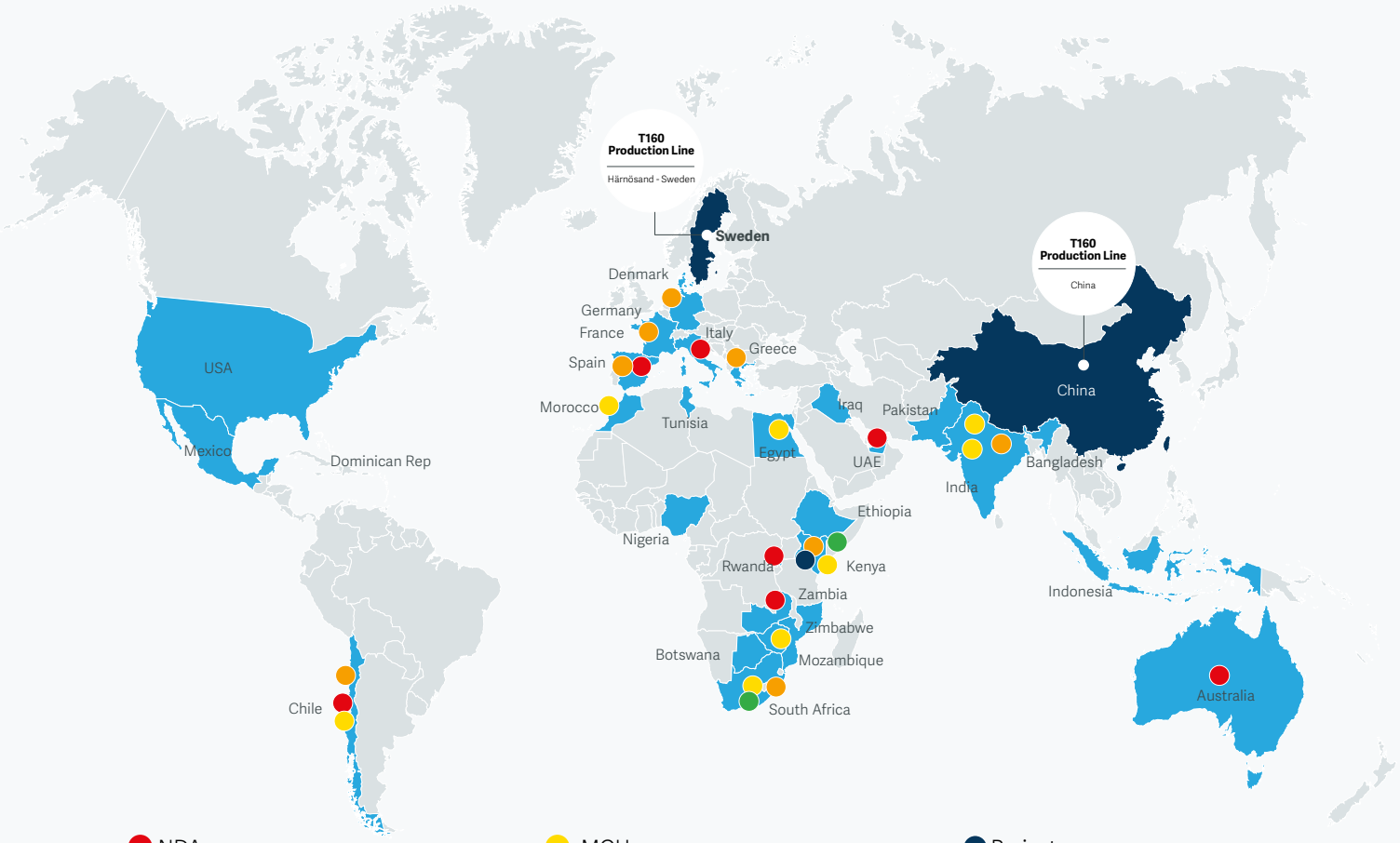
Absolicon's general meeting has chosen Malte Frisk to succeed Olle Olsson as Chairman of the board. Today Malte Frisk is the CEO of Logosol AB and Chairman of the board of Almi Invest Mitt, Chairman of the board of the High Coast Industrial Group and board member of Länsförsäkringar Västernorrland.
As Chairman of the board, Malte Frisk will assist in the work on sales of production lines and negotiations on legal rights. Former Chairman of the board, Olle Olsson, continues as a member.

Greenline flirting with Coca-Cola

Absolicon's partner in South Africa has a dozen projects in the planning stages, including a solar collector field at Coca-Cola.
"Coca-Cola wants to reduce its burning of coal by 40%," says Henning Brand from Greenline.
The price is not the most important thing, rather that they want to reduce their CO_2 emissions.
Although some major actors are burning cheap coal, in South Africa there are many industries that use expensive oil or even more expensive electricity in their processes. The power grid is also uncertain, with lengthy power failures that interfere with production.

Cooperation agreement between Sweco Energy AB and Absolicon

Together with Sweco Energi AB, Absolicon will conduct deeper technical evaluations of solar-powered district heating networks in eastern Europe and tea factories in Rwanda.
The aim is to create long-term cooperation that benefits both parties.



Absolicon widens sales to more markets

Interest is large and growing. Several actors are currently conducting work with the aim of acquiring Absolicon production lines. The processes are demanding and in order to have the capacity to work with those closest to the decision-making process, Absolicon has, over a specific period, strangled the inflow of new stakeholders from other markets. The sales capacity must now be expanded to relaunch the outreach marketing.

Absolicon plans to sell hundreds of production lines in the world and now has processes in several countries that the company believes will lead to sales. However, the current workforce limits the number of countries that can be processed.

Negotiations are under way or declarations of intent have been signed with actors in Chile, Morocco, Spain, France, Germany, Denmark, Greece, Uganda, Kenya, Botswana, Zimbabwe, Egypt, Zambia and India. Following this, work with more actors in other countries has been temporarily stopped.

New sales tools are expected to provide a large inflow, both of industries that want to switch from fossil fuels to solar heating and of stakeholders for production lines.

"We are now making a smaller capital acquisition to broaden sales to more markets. We're now putting requests aside in order to focus on our key countries. It would be a waste if we didn't strike while the iron is hot," says Joakim Byström CEO of Absolicon.

The starting price for a production line is €4 million. If the purchaser is creditworthy, the line can be delivered on instalment with low interest. The line has already been repaid after only a 60 MW supplied solar collector.

"Absolicon will now focus on recruitment in order to take care of more of the customers who contact us and to actively seek out new customers" says Joakim Byström, CEO of Absolicon

During the African Dairy conference and exhibition in Nairobi in August 2019 Puneet Saini met various representatives from the dairy sector in Kenya. The aim was to understand the potential of solar thermal heating for dairy sector for possible carbon mitigation.

Market insights - Dairy sector, Kenya

Understanding customer demand for Dairy sector in Kenya for sustainable heating solutions

The event is a platform for various industries to exclusively launch the new products and demonstrations to key stakeholders across the entire dairy industry value chain. It also facilitates networking and face to face meeting with industry leaders from around the world. Absolicon participated in the event with its partner Ariya Finergey which is based in Nairobi. The event attracted around 100 exhibitors from more than 30 countries.

Based on customers interactions at Absolicon's booth I made the following general understanding:

1. Solar thermal is new for industries: It is realized that the industry in Kenya has very little solar thermal penetration and they are not familiar with concentrating solar thermal technologies. One objective is therefore to reduce this understanding gap with the support of local industrial bodies.

2. The expectation on payback: It is realized that the standard expected payback for customers is less than five years. This can be achieved with local production of solar collectors and by replacing other fuels like oil. More and more investors are considering the carbon footprint of their portfolio and the dairy industry is no exception. In this context, financing markets are keen to focus on renewables expecting an upwards trajectory in the future.

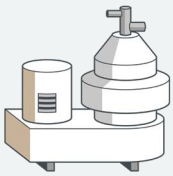
3. Governmental regulations: There are recent talks on renewable heat obligation (RHO) for Kenyan industry. By implementing this, industries have to meet a certain fraction of their heat demand with renewable means. This can be a very welcome step to decarbonize the industries.

4. Bad experience with technology: Customers have installed the sub-standard solar technologies to meet the heat demand and are unsatisfied with the performance which lowers the customer's confidence in the technology.

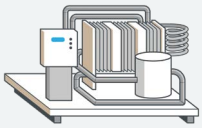
The processing units sector had a strong presence in the exhibition. The sector is characterized as a group of processing units for various dairy products (milk, cheese, butter and ice cream). The industry has strong heat requirements for processes such as pasteurization and cleaning in place (CIP) with great potential for thermal heating. Most of the processing industries are equipped with a central boiler system used for steam generation. The steam temperature varies from 120 to 160 °C. Another identified potential application is for solar thermal cooling for milk chilling. Considering the fact, the electricity prices are higher in Kenya, therefore cooling of milk using solar collectors coupled with vapor absorption machines can be of great interest for certain high solar irradiation regions.

The industry has strong heat requirements for processes such as pasteurization and cleaning in place with great potential for thermal heating

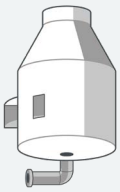
Separation
57 -70 °C



Pasteurization
72 -140 °C

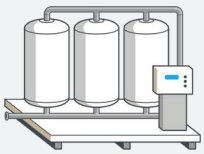


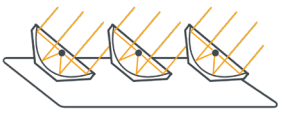
Evaporation
100 -120 °C



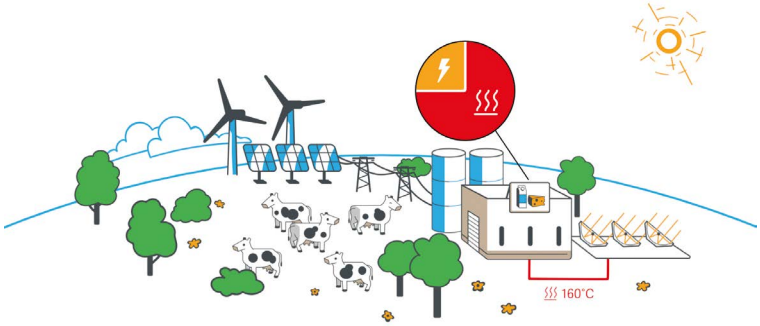
Drying
70 -180 °C

Cleaning in place
70 -95 °C





The T160 Solar Collector can provide heat and steam up to 160°C



Absolicon T160 Receives **The Solar Keymark Certification**

A solar collector system must last for 25 years whether it is in desert areas or polar regions, needing to withstand hail storms, hurricanes and extreme temperatures.
Absolicon's T160 is today the only concentrating solar collector in the world to meet these requirements.

The German certification body DIN CERTCO has granted Absolicon's T160 solar collector the only quality certification - Solar Keymark - for a concentrating solar collector.

T160 is the only concentrating solar collector in the world that has passed the test. T160 has previously obtained the highest measured optical efficiency ever for a small parabolic trough, at just over 76%.

The Solar Keymark certification is an entry barrier that takes time to achieve and requires both a well-built design and high quality in documentation and production.

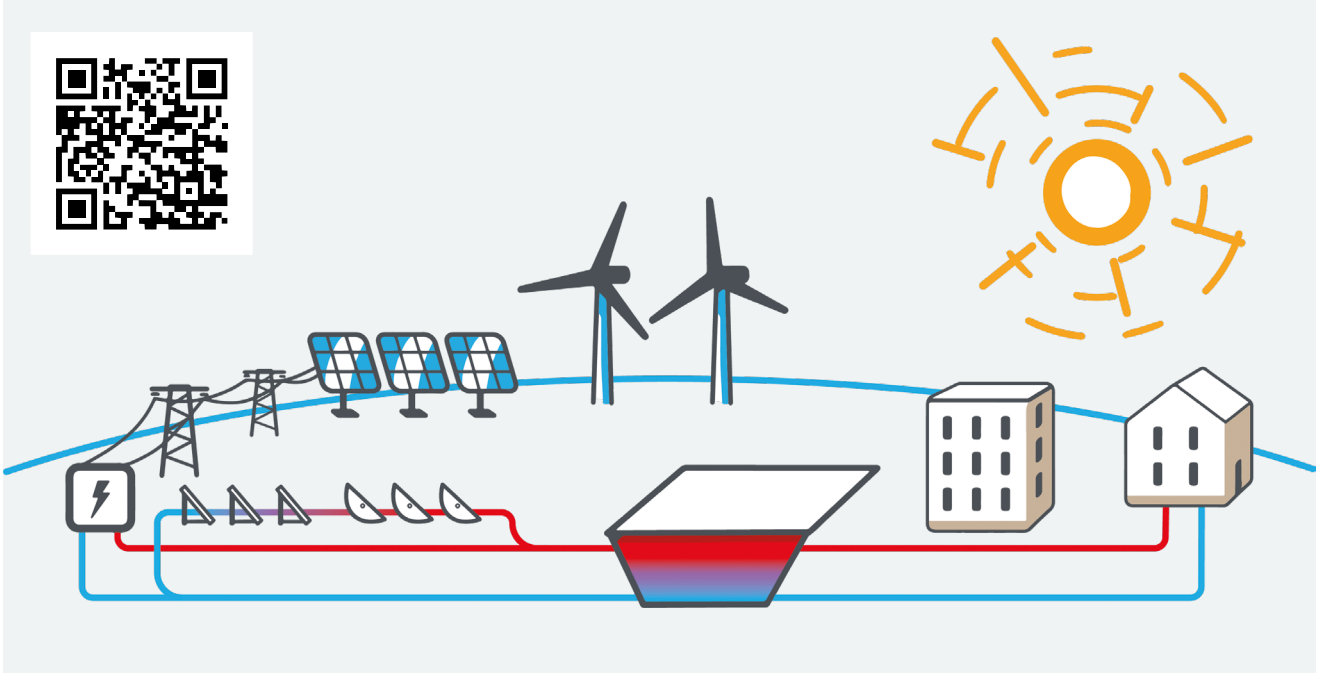
One result of the certification is that Absolicon's T160 is approved for solar thermal support in all European countries which have it, such as for solar-powered district heating.

A suitable application for district heating is to combine flat solar collectors - e.g. from Arcon-Sunmark or SavoSolar - with the T160, to increase the efficiency of higher temperatures and raise the maximum temperatures that solar capture fields can produce.

Solar Keymark is a voluntary third party certification for solar thermal products that shows that the solar collector complies with ISO9806 standard and meets certain quality requirements.

The certification aims to reduce trade barriers and promote the use of high-quality solar thermal products on the European market and beyond. It is used in Europe and is increasingly recognised worldwide.

TEST RESULTS		
	Hail storm	No damage after testing with 25 mm hailstones
	Pressure and tensile loads	No damage after testing with 100 kg/m^2
	Cold water overflushing	No damage after water spraying
	Storm protection	The oil catcher passed the test; the protection is activated at 32 m/s
	Overheat protection	The solar collector passed the test; the protection is activated at 160°C
	Protection against power failures	The solar collector passed the test, UPS activated in the event of power failure



The Future of
District Heating

Our biomass, which is currently burnt in district heating networks, is needed instead as biofuels for vehicles, environmentally friendly fabrics and as replacement materials for plastics.

Absolicon has started a project unique to Sweden to show what the future of district heating could look like.

District heating is the most common form of heating in Sweden and accounts for about half of all heating. 10 million tonnes of wood fuels and 300,000 tonnes of coal were burned in 2017 to provide heat in our properties.
There is a rapid technological development in the field of heat storage. Large seasonal hot water storage capacity allows solar heat to be stored from summer to winter. The technology has been developed in Denmark and enables large-scale conversion from combustion of fuels to district heating networks powered by solar thermal, waste heat from industries and renewable electricity.

Coal boilers to be retired

The same situation is seen throughout Europe, where the old coal boilers are at the end of their technical lifespan and need to be replaced. Solar heating with seasonal storage is now being considered in many places, which would open up a huge market for solar collectors.
Absolicon has therefore started its project 'The future of district heating', a feasibility study funded by actors in the region that brings together the district heating companies, the major energy customers, technology suppliers and politicians. In October 2019, Absolicon is organising a conference in Sweden with solar thermal experts and researchers from all over the world.

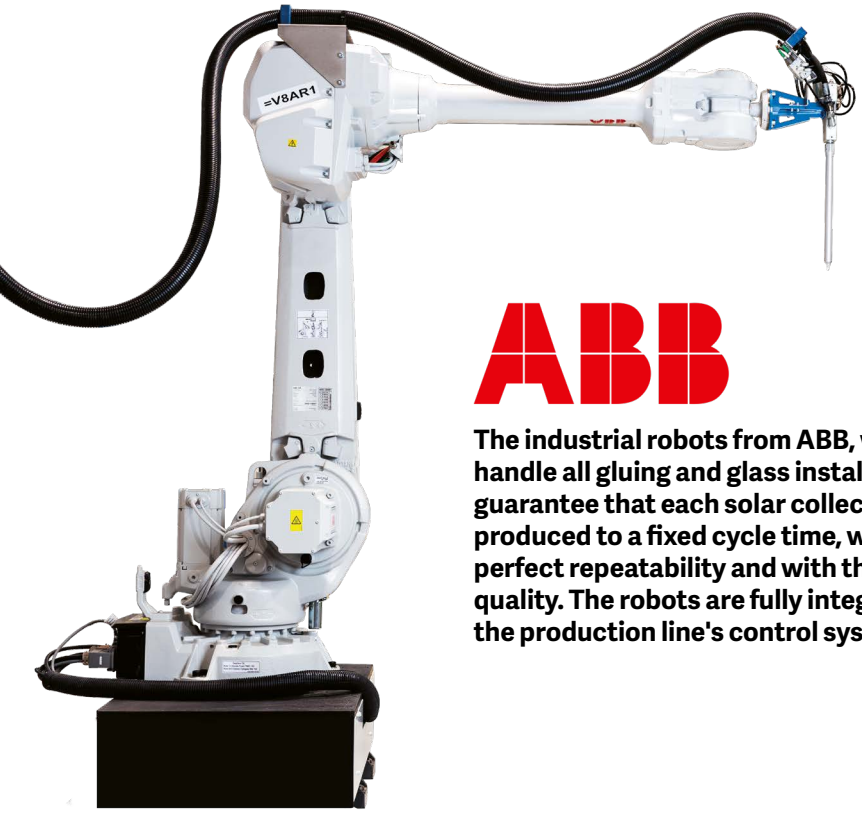
ABSOLICON SOLAR COLLECTORS Region Västernorrland SHC

In October Absolicon hosted the 7th IEA SHC Task 55 meeting. Experts from around the world visited Sweden to discuss the future of district heating. Following the meeting Absolicon hosted a workshop with the experts and representatives from swedish district heating to explore the future of district heating network integrated with solar energy.

T160 Production Line

One Solar Collector Every **Six Minutes**

Absolicon's production line has high production capacity and enables rapid upscaling from pilot installations to mass production of concentrated solar collectors, which can change the energy supply for a region. Each line produces 50 MW solar collectors (100,000 m^2) per year.



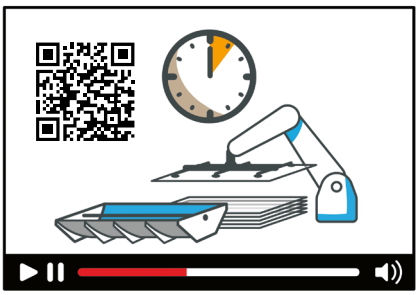
The industrial robots from ABB, which handle all gluing and glass installation, guarantee that each solar collector is produced to a fixed cycle time, with perfect repeatability and with the highest quality. The robots are fully integrated into the production line's control system.

Absolicon's production line, which is controlled by a Siemens control system and consists of two robotic cells equipped with six-axle ABB robots, can now produce a solar collector every six minutes.

The production process

The production of solar collectors takes place in flexible assembly wagons. The first step is that the rear bulkheads and gables which maintain the shape are laid down in the wagon.

The first robot then coats the frame with glue and the reflector plate is lifted in. The receiver tube is mounted in the centre of the solar collector and locked in position.



Video of the the idea behind the production line

Video of the production line in action (3 min)

The second robot then glues the covering glass and seals the solar collector.
The completed solar collector is rolled into an oven where the glue is hardened. Before delivery, a final test for optical performance is performed.

Upscaling to gigawatts
To change industrial and district heating from fossil fuels to solar thermal requires numerous of GW of solar heating, corresponding to hundreds of millions of square meters of solar collectors.
Absolicon's business plan involves selling hundreds of production lines to regions around the world to produce these solar collectors locally.

SIEMENS

Siemens Automation PLC systems, Human Machine Interfaces & Controllers Siemens automation systems are used to control all aspect of the production line operation

Henning Brand
Technology Director
www.greenline-africa.com

It was impressive to see the production line and get the demonstration tour of how step by step the T160 collector comes together to this amazing product.

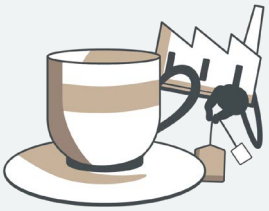
Every station had been designed with careful thought, in particular the robots that place the glue was intriguing and great to see, the glue was placed with great precision and speed. Also the testing station, which scans each collector for potential defects was good to see and gave me confidence that every collector that will be produced in South Africa will have the right quality.

It gave me hope for the future to know that each of the collectors that I saw in the factory will soon be going out in the world to be installed at some factory and immediately start saving CO_2 for many years to come. As Greenline Africa we are excited to be part of this future and be a positive contribution in the work against climate change.

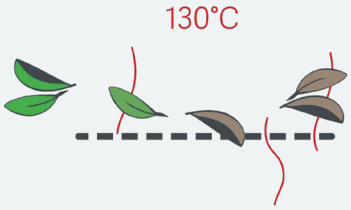
I also got the opportunity to meet many of the people in Absolicon team. Each a specialist in their field. We dived deep into the technical solutions of how to implement the collectors at different types of costumers. Myself having worked in the Solar Thermal industry for over 5 years, I quickly got an understanding that the Absolicon engineers are a few levels up from many others.

Besides bringing the technology to Southern Africa, we also look forward to bring this knowledge to and up-skill local professional and train people for new opportunities to work in a future oriented career.

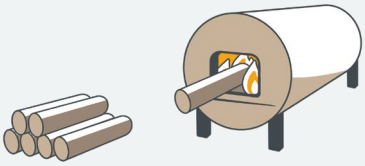
SOLAR HEAT...
Reduce carbon impact of tea industry



Tea production is using large volumes of heat

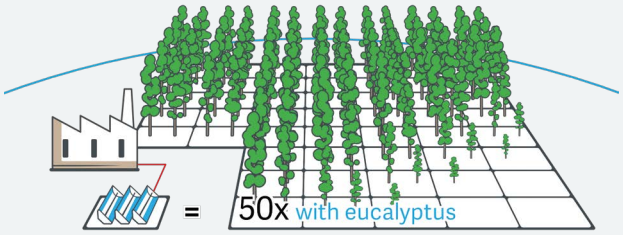


Drying of the tea leaves in hot air require 130 °C



Each tea factory uses large boilers to make hot steam for the drying process

For every ton of tea produced, 5 tons of fire wood are burnt



1 hectare of solar concentrators would replace 50 hectares of monoculture eucalyptus plantation

Use of solar thermal energy can be a sustainable industrial revolution for the tea sector.
One Absolicon collector T160 can reduce approximately 1 ton of CO_2 per year.

Tea, the oldest and most consumed beverage in the World, has a carbon footprint of about 20g CO_2 per cup. How to reduce this carbon impact?

Well, one alternative is the use of sustainable heating technologies such as solar energy for tea manufacturing process. Processing of the tea starts with the plucking of leaves from tea fields, followed by several steps such as withering, cutting, fermentation and drying.

The processes of "withering" and "drying" in the manufacturing of tea require heat input usually supplied by fossil fuels and biomass for heating, which is a major source of GHG emissions.

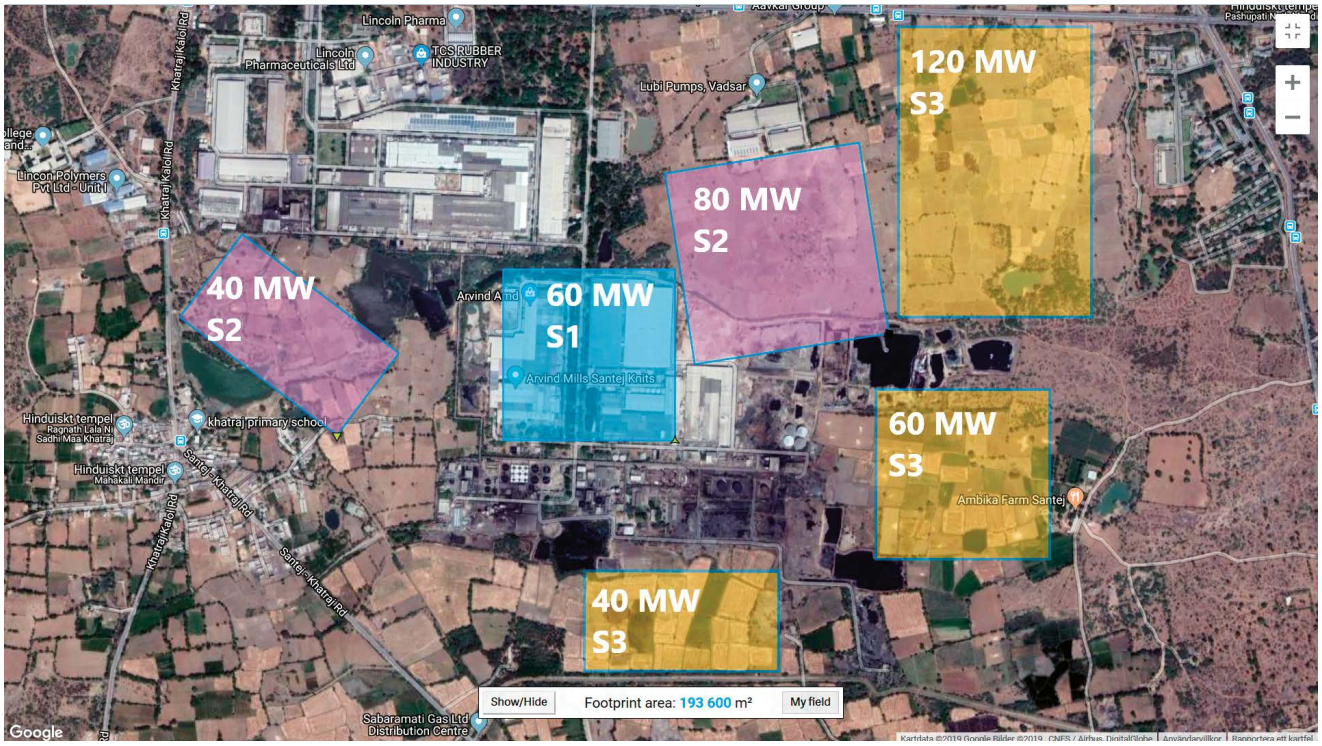
The temperature requirement for these process ranges from 35-160 °C, which can easily be achieved by Absolicon T160 collector.
One Absolicon collector can reduce approximately 1 ton of CO_2 per year. Use of solar thermal energy can be the solution, paving the way for a truly sustainable industrial revolution for tea sector.

Absolicon, together with Glofin, visited tea producers in Kenya.

Absolicon has been granted approximately € 500,000 to introduce solar heating in the Kenyan tea industry and will develop a plan for establishing a production line in Kenya.

The project started when Absolicon, together with the consultancy firm Glofin, visited tea producers in Kenya, including Unilever with its brand Lipton and the cooperative owned company Kenya Tea Development Agency (KTDA), with 66 tea factories and over 500,000 tea growers.

From 100,000 tonnes of carbon emissions to **ZERO**



Map of Arvind's factories and proposed location of solar collectors in three steps with the fields S1, S2 and S3 as proposed by Absolicon to reach 'zero CO_2'.

Not many people know the huge amounts of hot water used in the textile industry to produce our clothes. Absolicon has visited the textile manufacturer Arvind in India, which is a supplier to H&M among others.

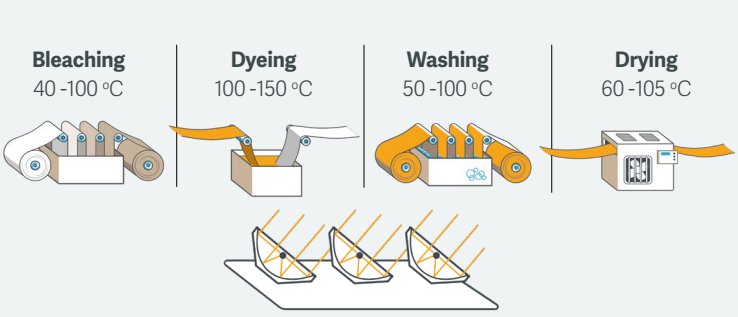
The leading multinational companies are committed to reducing their emissions by 30% by 2030, but this is inadequate to cope with a 1.5 degree increase (see page 15).

Arvind's sustainability report shows that the factory burns 100,000 tonnes of coal every year. Manufacturing a single pair of jeans burns a total of 1.5 kg of coal.

Absolicon has proposed a plan where Arvind can reduce its CO_2 to zero in three steps.

One problem is that the textile industries have short contracts with their customers, so they do not dare to invest. It is also expensive to borrow money for investments. H&M and other chains must help their suppliers to stop burning fossil fuels if we are to cope with the changing climate.

Brown coal is equivalent to 2 times the weight of the fabric



Preparing the cloth is a very heat intense process. For making e.g. a pair of jeans, 85% of the energy needed is heat and 15% is electricity.

Nations push to upscale action by 2020 and achieve net zero CO_2 emissions by 2050

CLIMATE ACTION SUMMIT 2019

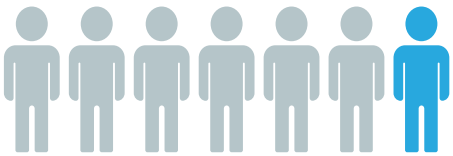
A RACE WE CAN WIN

At the 2019 Climate Action Summit, the President of Chile, Sebastián Piñera, reported on the outcomes and achievements of the Mitigation Strategy Coalition. Chile has led the work of this Coalition since the beginning of 2019, at the request of the Secretary General Antonio Guterres and with the support of UN Climate Change and the UN Development Programme.

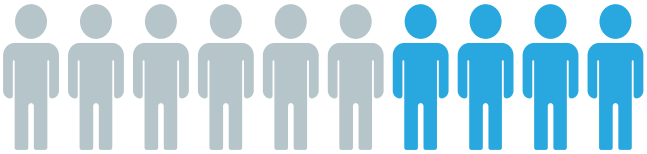
In that context, President Piñera announced that 59 nations have signaled their intention to submit an enhanced climate action plan, and he acknowledged those eleven nations who have started an internal process to boost ambition and have this reflected in their national plans by 2020, as established in the Paris Agreement.

He also stated that 66 Parties to the UNFCCC, 10 regions, 102 cities, 93 businesses and 12 investors are working towards achieving net-zero CO_2 emissions by 2050.
This demonstrates clearly that both State and non-State actors recognize the urgent need to take ambitious action to address the climate change emergency.

Countries that have started internal processes in their national plans and policies to boost ambition by 2020:
Denmark, Finland, France, Germany, Iceland, United Kingdom, Luxembourg, Netherlands, Portugal, Spain, Sweden.



Today
7,4 billion people / 1 billion middle class



Year 2050
10 billion people / 4 billion middle class

From **1 Billion** to **4 Billion** middle-class consumers

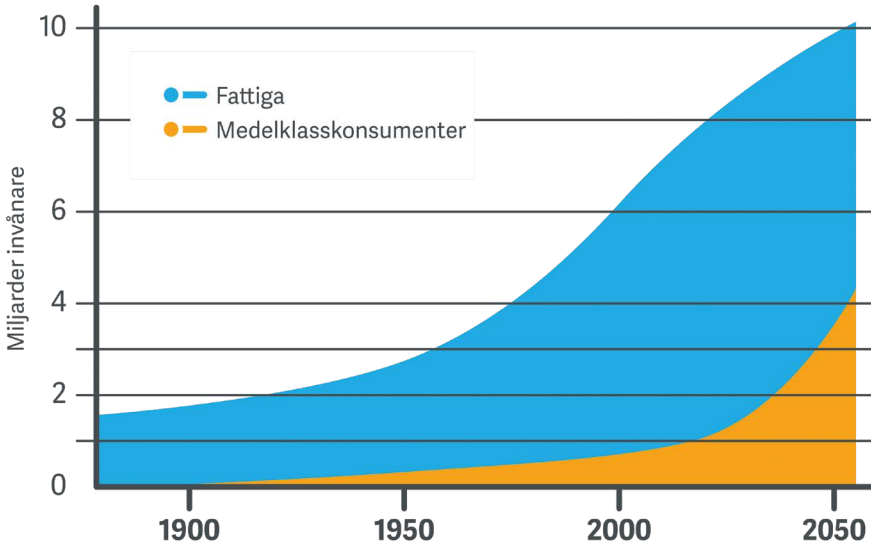
The climate challenge must be managed at the same time as there are more and more people on earth and the economic growth is continuing. Growth lifts billions of people out of poverty, but we need to find environmentally friendly ways to produce energy and to consume.

While carbon dioxide has to be brought down to zero, the world's population will grow from 7.4 billion people to 10 billion over 30 years, and then stop.

The number of people living a middle-class life with refrigerators, cars and pets will be quadrupled from one billion to four billion people in 2050, as poverty decreases.

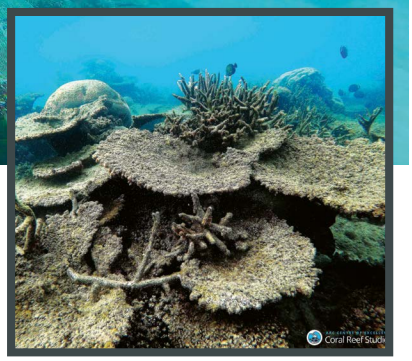
The big challenge is that energy can no longer come from oil and coal – the whole energy system must be reset if we are to meet the commitments of the Paris agreement.

Huge capital flows must be redirected – the oil industry now has a turnover of €1,800 billion per year. Renewable sources of energy must take over.



The world's population is increasing at the same time as we have to reset the energy system from fossil fuels to renewable energy.

Researcher Grace Frank from James Cook University of Australia takes stock of how corals are affected by coral bleaching during the latest heat shock in 2016. Photo: Tory Chase, ARC Centre of Excellence for Coral Reef Studies



Corals in the Great Barrier Reef in Australia killed by high sea temperatures through coral bleaching. Photo: Greg Torda, ARC Centre of Excellence for Coral Reef Studies.

1.5 or 2°C

A question of survival for coral reefs

The world's coral reefs are among the earth's richest ecosystems, and 1/4 of all fish species depend on coral reefs. But unfortunately the coral reefs are also among the ecosystems that are most susceptible to high carbon dioxide levels in the atmosphere. Higher sea temperatures and acidification of the seas risk destroying all of the earth's coral reefs.

Many people are shocked that the coral reefs may disappear with only a 2°C rise. The coral reefs have formed in particular places and adapted to the oceans normally having a very even temperature.

Now that the carbon dioxide levels have suddenly doubled due to our combustion of fossil fuels, the conditions are changing drastically.

The corals are very sensitive to changes in sea temperature. When the sea becomes warmer, the corals lose their colour and die in a phenomenon called coral bleaching.

Between 2014-2016 the weather phenomenon El Niño temporarily raised the sea temperature and killed half of the corals in the northern part of the Great Barrier Reef outside of Australia (see image above).

After El Niño, it takes tens of years at a lower temperature before the reefs recover, but with global warming, the oceans are becoming warmer and warmer.

The researchers' models show that if we can limit the temperature rise to 1.5 degrees, 30% of the world's coral reefs can survive.

If the rise reaches 2 degrees, 99% of all coral reefs will step by step be broken down in a process that can be likened to forest fires, where the entire existing ecosystem is destroyed. Some temperature-resistant corals may have time to adapt, but the multitude of lives we have become accustomed to will be gone for hundreds of years.

IPCC 8 October

The UN's international climate panel (IPPC) has reported the huge gains of a 1.5 degree temperature increase instead of 2 degrees.
However, the oil-producing countries, with the United States, Russia and Saudi Arabia at the forefront, are working to detract from the significance of the climate panel's conclusions.
'The Special Report on Global Warming of 1.5ºC' has been assembled by 91 scientists from 40 countries, including the United States, China and India, and has summarised 6,000 scientific reports to explain to our politicians about the difference between 1.5°C and 2°C.
The groundbreaking report, presented on 8 October 2018, shows that oceans and coral reefs are severely affected with a 2°C temperature rise; more than 99% of the coral reefs are then calculated with a very high probability to disappear.

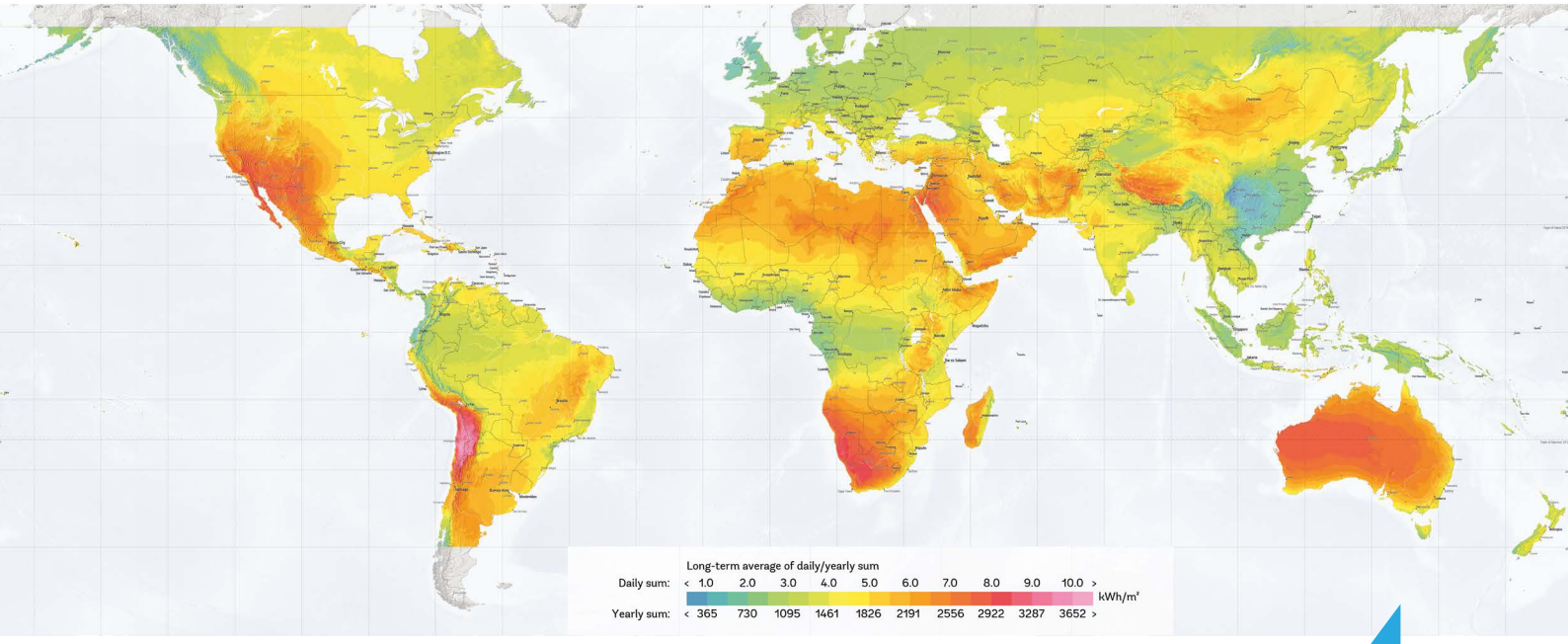
SOLAR RESOURCE MAP

DIRECT NORMAL IRRADIATION

WORLD BANK GROUP
THE WORLD BANK IFC

ESMAP

SOLARGIS



Concentrating solar collectors efficiently produce high temperatures, providing heat and steam to replace fossil fuel.

Satellite data shows areas with clear sky (orange and red) compared to more cloudy areas (green).
An orange area (e.g. Spain) has double direct normal irradiation and produces double the amount of thermal heat at 160 °C compared to a green area (e.g. Denmark).

Steam 8 bar

Industries currently use enormous amounts of fossil fuel to produce steam for their processes. Solar energy can instead be used to reduce both CO_2 emissions and fuel costs.

Heat 160 °C

District heating and industry processes use large amounts of thermal energy often powered by fossil fuel. Solar energy can instead be used to reduce both CO_2 emissions and fuel costs.

Absolicon makes it possible to leave fossil fuels behind and meet the needs for

ZERO CO_2 INDUSTRY

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FIELD SIMULATOR FOR YOUR INDUSTRY

With Absolicon's Field Simulator, you can calculate how many concentrated solar collectors are needed to run a variety of industries.

3 easy steps

1. Locate your factory using google maps.
2. Insert the wanted operating temperature.
3. Insert your current energy source.

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